Yonge subway extension: Steeles station options

- Stacked terminal
- Surface underground
- Underground 1
- Underground 2
- Split terminal
Preliminary construction methodology

While significant lengths of the subway extension will be tunnelled, the construction of subway stations and track cross-over areas are done using the cut and cover method.

How a subway is built

Tunnelling

Cut and cover

Utility location and piling

Installation of decking

Excavation and soil removal

Construction of subway structure

Removal of fencing/cover installation
The study needs your input...

Notice of study commencement

2008

October

Toronto PCC

2009

November

December

PCC 3

January

Febuary

March

April

Project approval: In time for consideration with provincial budget

Public Review

Prepare project report

Toronto report to Commission/Council

MOE review

Submit project report

Design and Construction

be involved

Next public consultation centre: November 26
Yonge subway extension: station planning

Stations:
- Finch
- Sheppard
- Clerk
- Royal Orchard
- Longbridge/Langstaff
- Richmond Hill Centre

Construction methods:
- Existing
- Cut & Cover
- Tunnel or Cut & Cover
- Cut & Cover
- Tunnel
- Bridge
- Cut & Cover
- Tunnel
- Cut & Cover
- Tunnel
- Cut & Cover

Surface facilities/connections:
- 13-bay TTC bus terminal (existing)
- 12-bay Regional bus terminal (existing)
- 4-bay after subway extension
- Finch West URT
- PPUDD
- 32/14 parks/wards (existing)
- Substation

Screening criteria:

<table>
<thead>
<tr>
<th>Existing densities</th>
<th>80</th>
<th>85</th>
<th>110</th>
<th>80</th>
<th>30</th>
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<tr>
<td>Planned densities</td>
<td>110-120</td>
<td>180-290</td>
<td>170-225</td>
<td>100-130</td>
<td>95-170</td>
<td>240-580</td>
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<tr>
<td>Transportation connection</td>
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<tr>
<td>Natural environment</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Cultural environment</td>
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<tr>
<td>Technical</td>
<td>X</td>
<td>Cut &amp; Cover</td>
<td>✓</td>
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*Values per hectare

Not to scale
Yonge subway extension: Steeles station options

- Stacked terminal
- Surface underground
- Underground 1
- Underground 2
- Split terminal
Longbridge / Langstaff station

Design features that address community concerns:

➢ Noise buffers
➢ Maintaining a green corridor connection
➢ Bio swales
➢ Sustainable treatments for the parking area
Proposed inter-regional connectivity

Viva Rapid Transit
Toronto Transit City Light Rail Plan
GO Transit
Brampton Transit

to Peel Region

to Pearson Airport

to Mississauga

to Durham Region

to Pickering Airport

Scarborough Malvern

Waterfront West

Union Station

Unionville Station

Don Mills Station

Shippard East Station

Shippard West Station

Dominion Square Station

Transit City

TTC Yonge Line

Transit City

Highway 7

Highway 407

Highway 401

MacTier Subdivision

Havelock Subdivision

What are the major phases of planning and building a subway?

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<td>Complete Functional Design</td>
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<td>[6 months duration] October 2008 – April 2009</td>
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<td>Project Notice To Proceed</td>
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<td>May 2009</td>
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<td>Governance</td>
<td>AFP Set-up</td>
<td>1 year, mid 2010</td>
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<td>2010-2013</td>
<td>[multiple projects starts and completion]</td>
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<td>2011-2016</td>
<td>[multiple projects starts and completion]</td>
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<td>Subway System Commissioning</td>
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**Key targets**

- Project begins: 2009
- Design / Engineering: 2009
- Construction: 2011
- Open: 2016
What’s old is new again

Prior to 1877 – Horse-drawn stagecoach service ran north on Yonge Street to Richmond Hill

1890 – Streetcar service on Yonge Street from just north of Bloor Street to Eglinton Avenue electrified

1892 – Electric streetcar service extended north on Yonge Street to southern brow of Hogg’s Hollow

1897 – Electric streetcar service extended north on Yonge Street to Richmond Hill

1899 – Electric streetcar service extended north on Yonge Street to Newmarket

1948 – Electric streetcar service discontinued north on Yonge Street from Glen Echo Road and replaced by bus service
How is a subway built?
What comes with a subway?

- Passenger pick up and drop off
- Pedestrian entrance
- Bus terminal
- Parking facility
- Substations
What are we studying?

This study will identify the options for the future Yonge Street Subway extension, including:

► Numbers and locations of stations
► How the subway will cross the East Don River
► The location of the terminus of the subway at Highway 7, its features and how it works
Yonge subway extension ~ a key priority
Emergency exit building example
Preliminary construction methodology

While significant lengths of the subway extension will be tunnelled, the construction of subway stations and special track work structure is done using the cut and cover method.
East Don River crossing
Heritage bridge styles

Heritage bridge elements
Summary of capacity improvements

- New subway cars have increased capacity
- Closer spacing between trains
- 7th car added to train
- Transfer to Spadina Subway
- New parking spaces on Spadina Subway extension