
YONGE SUBWAY EXTENSION TSF EPR ADDENDUM
APPENDIX J – MEETING NOTES



MINUTES OF MEETING

PROJECT: Yonge Subway Extension TPAP Addendum
MEETING NO: TAC Meeting #1
FILE NO.: 1077670
DATE: March 18, 2013 **TIME:** 1:30 to 3:30
PLACE: 3601 Hwy 7, Town of Markham Boardroom
PRESENT:

| | |
|----------------------|--|
| Paul Millett | Toronto Transit Commission |
| Stephen Hollinger | York Region Rapid Transit Corporation (YRRTC) |
| Dale Albers | YRRTC |
| Paul May | YRRTC |
| Sarah Harris | YRRTC |
| Mary-Frances Turner | YRRTC |
| Kathryn Webber | YRRTC |
| Danielle Hutson | YRRTC |
| David Clark | YRRTC |
| Suzanne Bevan | Toronto and Region Conservation Authority (TRCA) |
| Scott Bowers | McCormick Rankin (MRC) |
| Sarah Sheridan | McCormick Rankin |
| Scott Hubbard | McCormick Rankin |
| Via. Teleconference: | |
| Loy Cheah | Regional Municipality of York |
| Dan Minkin | Ministry of Tourism, Culture & Sport |

PURPOSE: Yonge Subway Extension – Train Storage Facility TPAP:
Technical Advisory Committee Meeting

PROCEEDINGS:

ACTION BY:

1. Introductions and Project Background

- 1.1. S. Hollinger provided an overview of the proposed agenda and introduced the project team.
- 1.2. S. Bowers summarized the project background and introduced the Transit Project Assessment Process (TPAP) Addendum Process which will be followed. The presentation slides have been appended to the minutes.

2. Discussion

2.1. TPAP Process

M-F. Turner requested to confirm the official terminology in the TPAP guide for use of the word ‘significant’ when referring to design changes. The purpose of the EPR Addendum should be clearly identified at the upcoming public consultation sessions. The EPR Addendum is for scoped changes and does not open other elements of the approved EPR for debate.

*Post Meeting Note: The following is taken from Ontario's TPAP Guide, Section 2.6: "If the proponent is of the opinion that the proposed change to the transit project is **significant**, the proponent must publish a Notice of Environmental Project Report Addendum..."*

It also states: "If a proponent is of the opinion that the proposed change is not significant, the proponent must document the reasoning behind this opinion..."

2.2. Technically Preferred Location for Train Storage Facility

- Wording of 'technically preferred' versus 'preliminary preferred' debated. YRRTC to provide direction for Public Consultation Centre (PCC) panels. YRRTC
- Other locations for Train Facility considered (see slide 10) had greater impacts to the natural environment or were operationally deficient and were screened out. MRC
- Of the three other options considered (Bi, Cii and Gi as shown in slides 13 and 15), the technically preferred option is Bi (see slide 24).

2.3. Impacts to CN/GO Rail & Surrounding Neighbourhood

Preferred location for train storage facility will require shoring/hoarding that will temporarily reduce a residential street (Coburg Crescent) to one lane of traffic and encroach into CN/GO right-of-way during construction.

- Concerns were expressed regarding property impacts and if easements or acquisitions would be required. P. Millet stated that current TTC construction at Pape subway station is a similar distance from residential homes, and the construction impacts at this location can be mitigated.
- L. Cheah expressed concerns that encroachment into the CN/GO railway ROW will impact future expansion plans. Project will need to ensure a minimal disruption to CN and GO Transit operations. Future expansion plans for two-way all-day service involve the staged addition of two new tracks (2 for CN, 2 for GO) in the future (identified as 2031 in GO Rail Electrification Study). MRC will coordinate with GO/CN to ensure construction of the Train Storage Facility does not interfere with the timing of their staged expansion plans. MRC confirmed that the encroachment is only temporary and will not restrict future railway expansion plan.
- CN Rail were invited to the meeting, but were not able to attend. MRC to discuss property and potential settlement of preferred alternative with CN Rail. MRC

2.4. Constructability

- M-F. Turner expressed concerns over the open excavation required for the train storage facility in relation to the required tunnel launch shaft for the Yonge Subway south of the proposed Richmond Hill Centre Station. S. Bowers stated that the construction contract will need to be separated at Bantry Rd. which allows for concurrent construction.

2.5. Impacts to Extension beyond Richmond Hill Centre

- M-F. Turner expressed concern that selection of a preferred train storage facility limits the alignment alternatives for the future extension to 16th Avenue (blue and pink alignments shown in slide 12 figure).
- Property requirements for future extension need to be secured and a mechanism to protect/secure future extension identified. As existing/proposed developments south of 16th Ave. are being captured through the planning process, the only un-secured property is the Town of Richmond Hill land north of Richmond Hill Centre running parallel to the CN rail line and the plaza on the north-east corner of 16th Ave. and Yonge Street.
- As the TPAP process cannot protect the land north of the TPAP limits, YRRTC will need to identify what specific properties should be protected through a land use planning process (official plan amendment) to ensure the viability of a future extension.

2.6. Bantry Road Closure

- The estimated duration for the closure of Bantry Road for rail construction is 2.5 years.
- Concern was expressed regarding the traffic impacts of the closure. Future plans for the extension of Garden Avenue over the rail tracks should not be relied on to relieve the expected congestion.
- MRC to complete a traffic analysis for the proposed closure with and without Garden Avenue extension completed.

MRC

2.7. Consultation

- As no representatives from the Town of Richmond Hill were in attendance, a special meeting/teleconference will be arranged to review information prior to the Committee of the Whole meeting scheduled for April 15, 2013.
- At the first PCC (May 1, 2013), the focus should be restricted to the specified study area to avoid discussion of already approved elements of the Yonge Subway Extension which are not part of the TPAP addendum. Preferred alternative should demonstrate that it results in the least 'pain and suffering' for residents.
- M-F. Turner expressed concern of showing a preferred option without having completed the required impact assessment analysis. S. Hollinger noted the first PCC is intended to provide a study update and introduce the preferred option for comment. Impact assessment will be presented at the second PCC.
- The current proposed date for the second public consultation meeting is tentatively June 2013. It was requested that a date be booked ASAP, so that it can be communicated at the first public meeting.
- S. Hollinger confirmed that preferred alternative is consistent with information shown to developers to secure lands through the planning process for the alignment to 16th Ave.
- As part of the TPAP requirements, First Nation contacts are to receive notifications as per the York Region First Nation Communications protocol.

YRRTC

YRRTC

YRRTC

2.8. Supporting Studies

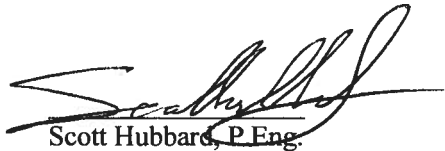
- Stage 1 Archaeological Assessment has been completed that identifies the study area as 'disturbed' and further analysis (stage 2) will not be required. The report will be sent to MTCS for archaeological concurrence.
- It was confirmed that the geotechnical analysis will address both construction and permanent conditions. TRCA requested discharge locations to be identified. MRC identified that the main concern will be the volume of water and if a Permit-To-Take-Water will be required.

MRC/ Ecoplans

The foregoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned within 48 hours of receiving these minutes at 905-823-8500.

Minutes prepared by,

McCormick Rankin



Scott Hubbard, P.Eng.

| | | |
|-----|----------------|---|
| cc: | Patrick Lee | Town of Richmond Hill |
| | Alan Brown | Town of Markham |
| | Andrew Pearce | City of Vaughan |
| | Morgan Bot | Metrolinx |
| | Daryl Barnett | GO Transit |
| | Richard Leary | Regional Municipality of York |
| | Loy Cheah | Regional Municipality of York |
| | Dave Reynolds | CN Rail |
| | Stefan Linder | CN Rail |
| | Julius Arscott | Ministry of Natural Resources |
| | Andrew Posluns | Ministry of Transportation |
| | Lorna Zappone | Ministry of Environment |
| | Susan Bevan | Toronto and Region Conservation Authority |

York Region Rapid Transit Corporation



Yonge Subway Extension – Train Storage Facility
Transit Project Assessment Process (TPAP) Addendum
Technical Advisory Committee Meeting
March 18, 2013

Introductions

Background

- Approved Yonge Subway Extension
- TTC Subway Rail Yard Needs Study
- Conceptual Design Study

Train Storage Addendum

- Addendum Process
- Train Storage Alignment Options
- Preliminary Evaluation
- Select Preliminary Preferred Alignment

Next Steps

- Stakeholder Consultation
- Assess Environmental Impact and Mitigation
- Documentation & Reporting



Project Team



TTC:

**Paul Millett, Chief Project Manager
Yonge Subway Extension**

paul.millett@ttc.ca

416-397-8738

MRC:

Scott Bowers, Project Manager

sbowers@mrc.ca

905-823-8500

YRRTC:

**Stephen Hollinger, Senior Project Manager
Subways**

stephen.hollinger@york.ca

905-830-4444 x1032

Technical Support:

Golder – Geotechnical

Ecoplans – Natural Environment

Novus – Air, Noise, Vibration

New Directions Archaeology – Archaeology

Unterman – Heritage

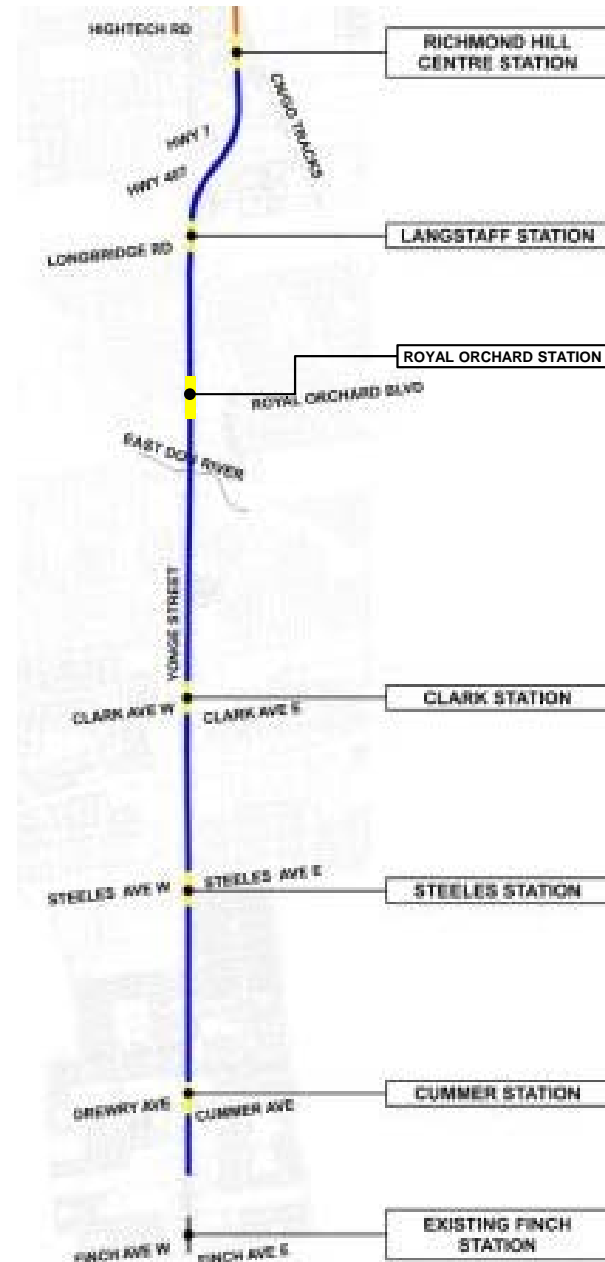
- **June 2007 – MoveOntario 2020**
 - Yonge Subway Extension was one of 52 rapid transit projects
- **October 2008 – Yonge Subway Extension TPAP**
 - The TTC and the City of Toronto became co-proponents
- **November 2008 – Metrolinx Regional Transportation Plan**
 - Yonge Subway Extension was one of the Top 15 Priorities
- **April 2009 – Transit Project Assessment Approved by the MOE**
 - Approval granted with no conditions



Background

TPAP Approved Project Includes:

- Six stations
- Two intermodal terminals
 - Steeles & Yonge
 - Richmond Hill Centre
- Bridge over East Don River
- Park-and-Ride facility for 2,000 cars at Langstaff/Longbridge
- Tail Track Structure at Richmond Hill Station



Since TPAP Approval, a number of studies affecting the Yonge Subway Extension have progressed:

TTC Subway Rail Yard Needs Study

Conceptual Design Study Completed

Train Storage TPAP Amendment

TTC Subway Rail Yard Needs Study

Purpose:

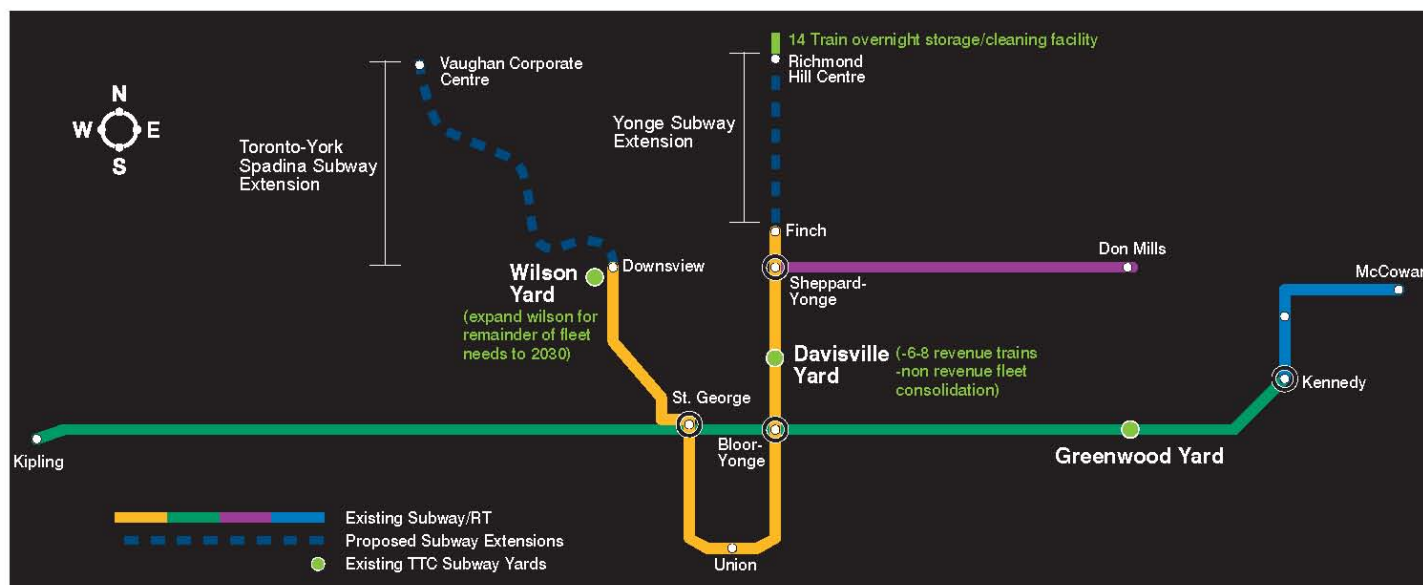
- Determine TTC subway rail yard needs for YUS line to 2030

Description:

- Subway car fleet to grow from 62 trains to 88 trains
- Study to address best strategic location for increased yard capacity

Results:

- Identified the need for a train storage facility in the vicinity of Richmond Hill Centre
- TTC Commission endorsed in November 2009
- YRRTC Board endorsed in May 2010



Purpose

- Build upon the work completed by the TPAP
- Further develop station concepts, property needs, cost estimate
- Assess options to accommodate TTC train storage requirements

Analysis

- Relocate YRT routes to Clark Station
- Reduce the number of bays at Steeles Station
- Eliminate the Yonge Street bus portal at Steeles Station
- Remove Royal Orchard Station
 - *station remains TPAP approved, not included in project scope*
- Develop Train Storage options

Results

- Selected a preliminary preferred location for a train storage facility
 - TPAP Addendum is required to include the facility in the project

- Amending the 2009 TPAP is necessary to incorporate the TTC Subway Rail Yards needs in the vicinity of Richmond Hill Station
- Completion of the Train Storage TPAP Addendum will ensure the Yonge Subway Extension project continues to be in a state of readiness
- Conceptual Design study completed a preliminary evaluation of train storage options



Process:

- Develop a range of options to be considered
 - Options were developed during the Conceptual Design Study
- Evaluate options based on:
 - Capital and operating costs
 - Constructability
 - Property and building impacts
 - Future 16th Avenue station location
 - Operational issues
- Select a preliminary preferred location
- Assess and Mitigate impacts
- File TPAP Addendum



Train Storage Options

Train Storage options considered but screened out:



Highway 7/407 Option

Options did not meet the design criteria and/or moved the RHC Station northerly



Hydro Corridor Option



Yonge Street Option

Remaining options are located north of Richmond Hill Station

- Study Area Defined:
 - Richmond Hill Station north to 16th Avenue
 - From east of CN/GO Rail line to west of Yonge Street



- 2009 Yonge Subway TPAP included future alignments to 16th Avenue:



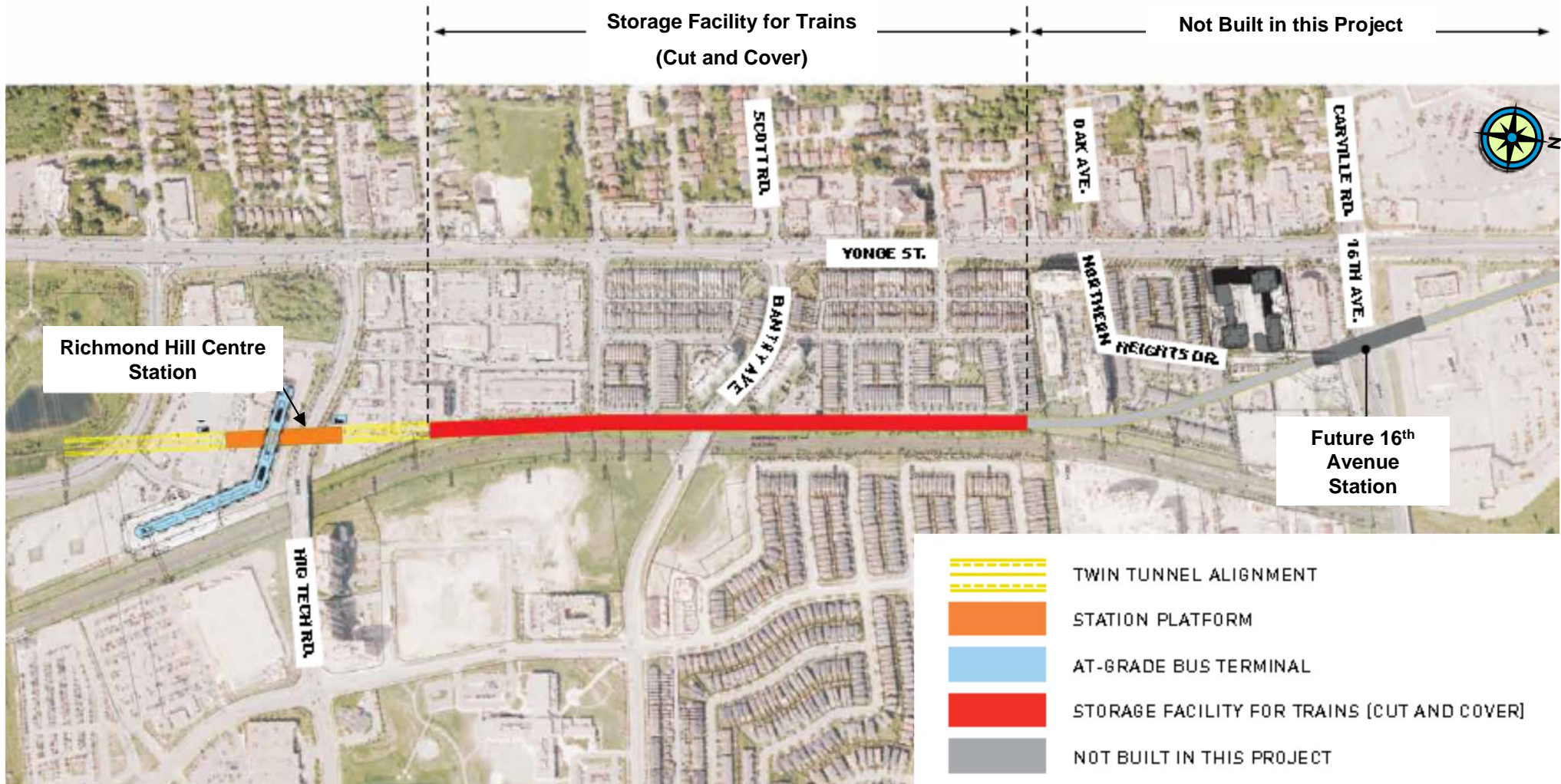
- Alignments to 16th Avenue were screened and two options have been carried forward

Subway Train Storage Facility – Option 1



(Represents Alternatives Bi and Gi)

- Alternative Bi is 3-tracks wide and 820m long
- Alternative Gi is 4-tracks wide and 630m long



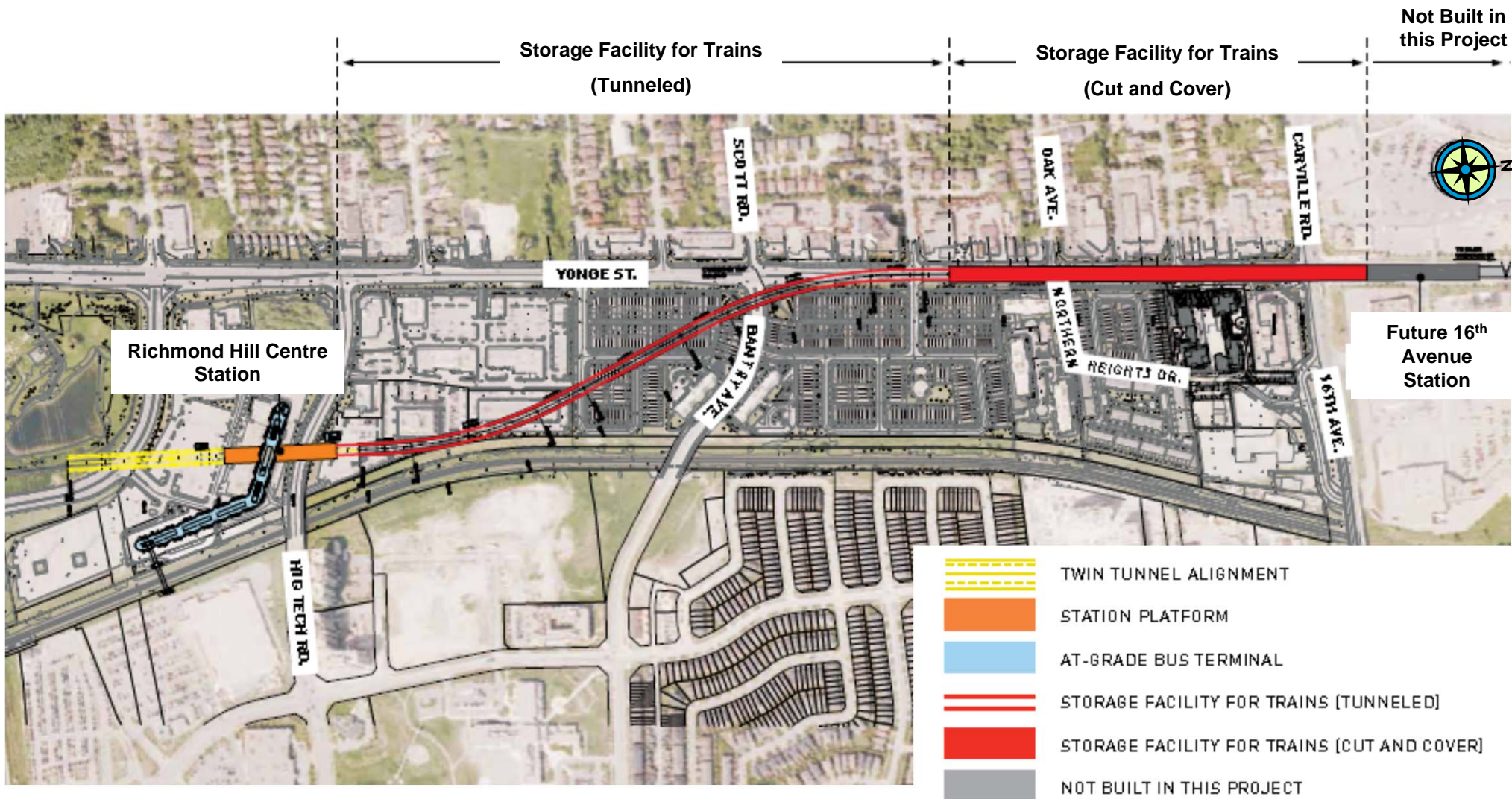
Option 1 – Key Points



- Option 1 represents two alternatives:
 - Alternative Bi is 3-tracks wide and 820m long
 - Alternative Gi is 4-tracks wide and 630m long
- Requires Bantry bridge to be rebuilt
- Minimizes impacts to existing property
- Minimizes impacts to transit/traffic on Yonge Street during construction
- Lower capital cost
- Approximately 200-400 m shorter than Option 2
- More efficient operation for storage facility
- Associated TTC surface facilities located off of Yonge Street
- Future 16th Avenue station platform located approximate 150 m east of Yonge Street
- Potential impacts on future development

Subway Train Storage Facility – Option 2

(Represents Alternative Cii)



Option 2 – Key Points



- More impact on transit and traffic on Yonge Street during construction
- Longer than Option 1 – more expensive
- Impacts a number of existing residential properties that would need to be expropriated
- Pushes future 16th Avenue station north of 16th Avenue
- Less efficient storage operation – trains stored in tunnels
- Associated TTC surface facilities located close to Yonge Street
- No impact to the Bantry Bridge

- Preliminary technical evaluation has been completed by the study team and is presented in the following tables
- These options were evaluated based on the following criteria:
 - Future station location
 - Subway operations
 - Future northerly extension
 - Property and building impacts
 - Noise and vibration
 - Constructability (traffic, property, tunneling versus open cut)
 - Cost (initial and future)
- **Option 1 (alternatives Bi and Gi) is preferred**

Evaluation Table



EVALUATION OF SUBWAY TRAIN STORAGE FACILITY ALIGNMENT ALTERNATIVES

| Measure | Note | Alternative Bi | Alternative Cii | Alternative Gi |
|---|---|---|---|---|
| | | (OPTION 1) | (OPTION 2) | (OPTION 1) |
| Description | | Construction of a 3-track storage structure extending north from the Richmond Hill station adjacent to the existing CN Rail corridor. | Construction of a 2-track storage tunnel extending north from the Richmond Hill station and curving westerly to run under the Yonge Street road alignment | Construction of a 4-track storage structure extending north from the Richmond Hill station adjacent to the existing CN Rail corridor. |
| 1.0 Train Storage Facility | | | | |
| 1.1 Land use types adjacent to storage facility | General description | Mostly residential to the west. CN rail corridor to the east. | Residential and commercial on both sides | Mostly residential to the west. CN rail corridor to the east. |
| | | ● | ● | ● |
| 1.2 Construction method required | General description | Cut-and-cover between CN rail corridor and residential properties | Tunneling under residential properties from Beresford Drive to 60m north of Oak Avenue/Northern Heights Drive . | Cut-and-cover between CN rail corridor and residential properties (wider construction area than Alternative Bi) |
| | | ● | ● | ● |
| 1.3 Traffic impacts as a result of cut-and-cover construction | Preliminary assessment | Low - requires partial lane closure on Coburg Crescent and Beresford Drive. Access to residential properties can be maintained. | Low to Medium - requires lane closures on Yonge Street around Oak Avenue | Low - requires partial lane closure on Coburg Crescent and Beresford Drive. Access to residential properties can be maintained. |
| | | ● | ● | ● |
| 1.4 Number of buildings and structures within the tunnel easement | tunnel easement defined as a 30 to 32m swath centred on tunnel reference line | | | |
| | Commercial - Office | 1 (50 High Tech) | 1 (50 High Tech) | 1 (50 High Tech) |
| | Commercial - Retail | 0 | 1 | 0 |
| | Residential - Townhouse Units | 0 | 53 | 0 |
| | Overpass | 1 (Bantry Avenue) | 0 | 1 (Bantry Avenue) |
| | | ● | ● | ● |

Evaluation Table

EVALUATION OF SUBWAY TRAIN STORAGE FACILITY ALIGNMENT ALTERNATIVES

| Measure | Note | Alternative Bi (OPTION 1) | Alternative Cii (OPTION 2) | Alternative Gi (OPTION 1) |
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| Description | | Construction of a 3-track storage structure extending north from the Richmond Hill station adjacent to the existing CN Rail corridor. | Construction of a 2-track storage tunnel extending north from the Richmond Hill station and curving westerly to run under the Yonge Street road alignment | Construction of a 4-track storage structure extending north from the Richmond Hill station adjacent to the existing CN Rail corridor. |
| 1.4 | Number of buildings and structures within the tunnel easement tunnel easement defined as a 30 to 32m swath centred on tunnel reference line | | | |
| | Commercial - Office | 1 (50 High Tech) | 1 (50 High Tech) | 1 (50 High Tech) |
| | Commercial - Retail | 0 | 1 | 0 |
| | Residential - Townhouse Units | 0 | 53 | 0 |
| | Overpass | 1 (Bantry Avenue) | 0 | 1 (Bantry Avenue) |
| | | ● | ● | ● |
| 1.5 | Number of potential noise and vibration sensitive receptors within 100m of the storage facility Preliminary - to be confirmed by future studies | 210 townhouse units 4 apartment buildings | 179 townhouse units 4 apartment buildings | 121 townhouse units 2 apartment buildings |
| | | ● | ● | ● |
| 1.6 | Horizontal and vertical alignments - compliance with TTC Design Standards | Complies with technical design standards | Complies with technical design standards | Complies with technical design standards |
| | | ● | ● | ● |
| 1.7 | Approx. length of storage facility | 820 metres | 1049 metres | 630 metres |
| | | ● | ● | ● |
| 1.8 | Encroachment on CN rail corridor | No | No | Yes |
| | | ● | ● | ● |

Evaluation Table

EVALUATION OF SUBWAY TRAIN STORAGE FACILITY ALIGNMENT ALTERNATIVES

| Measure | | Note | Alternative Bi (OPTION 1) | Alternative Cii (OPTION 2) | Alternative Gi (OPTION 1) |
|--------------------|---|--|---|---|---|
| Description | | | Construction of a 3-track storage structure extending north from the Richmond Hill station adjacent to the existing CN Rail corridor. | Construction of a 2-track storage tunnel extending north from the Richmond Hill station and curving westerly to run under the Yonge Street road alignment | Construction of a 4-track storage structure extending north from the Richmond Hill station adjacent to the existing CN Rail corridor. |
| 1.9 | Location of ancillary facilities (e.g. staff parking, office, ventilation shafts, EEBs, etc.) | | Can be accommodated within the train storage facility easement between the adjacent townhouses and the CN rail corridor. | Will need to be accommodated off Yonge Street on existing commercial/retail properties on the west side of Yonge Street - commercial/business impact. | Can be accommodated within the train storage facility easement between the adjacent townhouses and the CN rail corridor. |
| 1.10 | Construction Cost | | Initial review would indicate similar capital costs for all 3 alternatives. | | |
| 1.11 | Residential Property Acquisition Cost | Based on the number of units affected (See 1.4) multiplied by average neighbourhood sales price between April 2010 and April 2011. Intended for qualitative comparison only - does not represent actual property acquisition cost. | No residential property acquisition anticipated | \$22,655,000 | No residential property acquisition anticipated |

Evaluation Table



EVALUATION OF SUBWAY TRAIN STORAGE FACILITY ALIGNMENT ALTERNATIVES

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| 2.0 Future Subway Extension to 16th Avenue | | | | |
| 2.1 | Centroid of the station platform relative to centre of the intersection | 120 metres east of the intersection | At the intersection | 120 metres east of the intersection |
| | Location of the future 16th Avenue Station relative to the intersection of Yonge Street and 16th Avenue | Option Cii situated at equal distance between Hillcrest Mall and South Hill Plaza - station box could straddle the intersection or positioned further north to connect with any preferred entrance location. | | |
| 2.2 | Number of redevelopment sites bisected or crossed by tunnel easement | 2 (Great Lands, Haulover) | 0 | 2 (Great Lands, Haulover) |
| | Despite the subway tunnels crossing the development sites, consultation with land owners indicated that impact on site plan and built-form will be minimal. | | | |
| 2.3 | Number of buildings and structures within the tunnel easement | tunnel easement defined as a 30 to 32m swath centred on tunnel reference line | | |
| | Residential - Townhouse Units | 37 | 0 | 37 |
| | Residential - Condominium Units | 198 | 0 | 198 |
| | | | | |
| 2.4 | Horizontal and vertical alignments - compliance with TTC Design Standards | Complies with technical design standards | Complies with technical design standards | Complies with technical design standards |
| | | | | |

Evaluation Table



EVALUATION OF SUBWAY TRAIN STORAGE FACILITY ALIGNMENT ALTERNATIVES

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| 2.5 | Construction method required | General description | Tunneling under residential properties from the north end of the storage facility to the station box at 16th Avenue. Cut-and-cover for station box. | Tunneling under residential properties from the north end of the storage facility to the station box at 16th Avenue. Cut-and-cover for station box. |
| | | | ● | ● |
| 2.6 | Future subway construction allowances (ie future TBM exit shaft or future ventilation shafts) | | Yes | Yes (extraction shaft within Yonge Street ROW) |
| | | | ● | ● |
| 2.7 | Impact of future extension to 16th Avenue on the train storage facility | | Storage facility must be relocated in the future | Storage facility must be relocated in the future |
| 2.8 | Impact on subway turnback operation at Richmond Hill Centre Station | | Permits provision of double-ended pocket tracks north of the station platform. Two turnback options. Can accommodate train headways that are less than 3 minutes and 30 seconds. | Excludes the ability to provide double-ended pocket tracks north of the station platform. One turnback option. Limits the ability to operate trains at headways less than 3 minutes and 30 seconds. |
| | | | ● | ● |
| 2.9 | Additional Tunnelling Cost to Extend to Future 16th Avenue Station (2011\$) | Excludes station at 16th Avenue. Based on length of tunnels multiplied by unit cost for twin tunnelling (\$50,000 per metre). Includes tunnel boring, tunnel liners, and finishes only. Does not include contingencies or mark-ups. | \$22 Million (430 metres) | \$13 Million (250 metres) |
| | | | | \$31 Million (620 metres) |

Evaluation Table



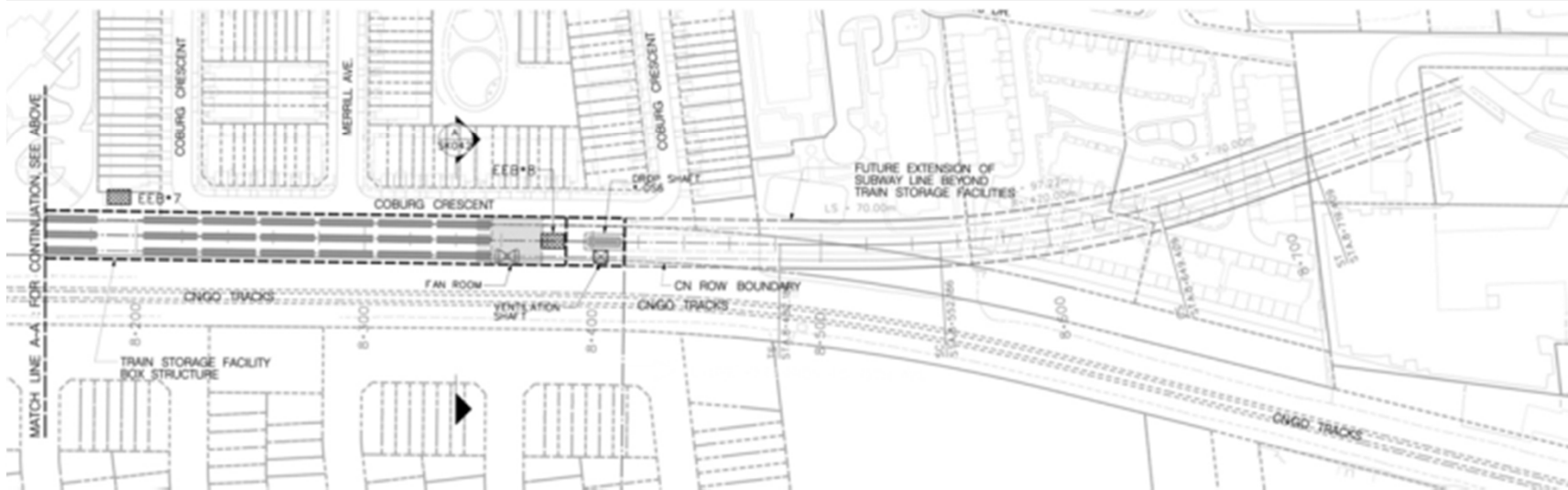
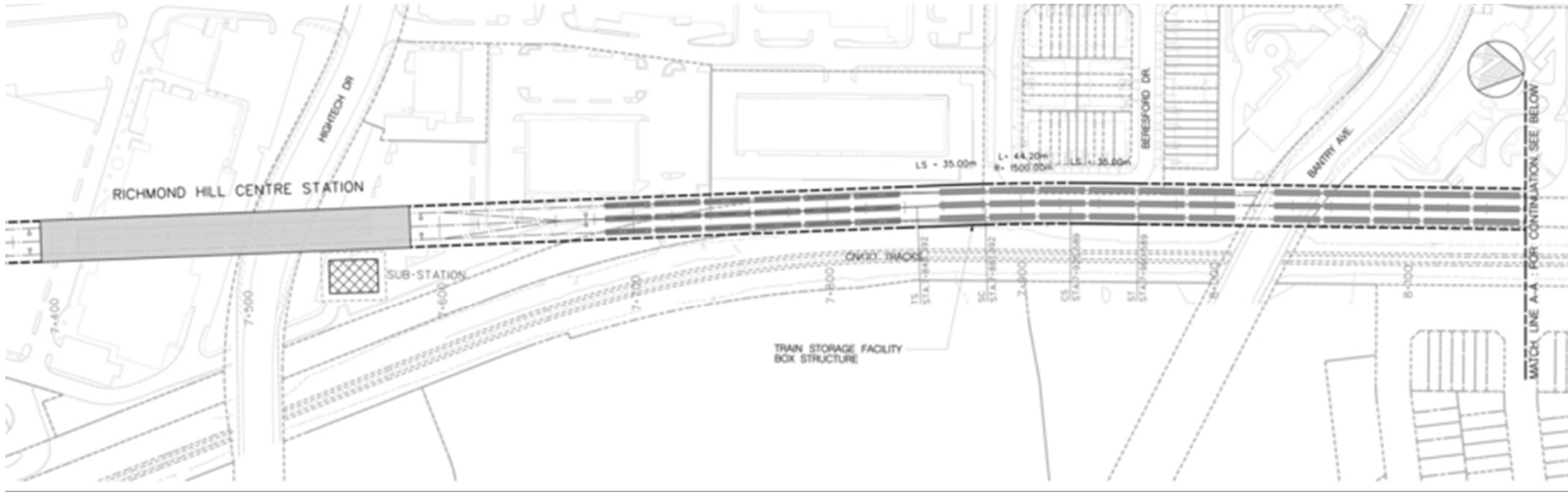
EVALUATION OF SUBWAY TRAIN STORAGE FACILITY ALIGNMENT ALTERNATIVES

| Measure | | Note | Alternative Bi (OPTION 1) | Alternative Cii (OPTION 2) | Alternative Gi (OPTION 1) |
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| 2.10 | Residential Property Acquisition Cost (2011\$) | Based on the number of townhouse units affected (See 2.3) multiplied by average neighbourhood sales price between April 2010 and April 2011. Intended for qualitative comparison only - does not represent actual property acquisition cost. Includes a \$5 Million placeholder for monitoring/remedial work on condo at 29 Northern Heights Drive. | \$17,848,000 | No residential property acquisition anticipated | \$17,848,000 |

SUMMARY

- Alternative Bi is preferred over Gi:
 - Bi does not require property from CN
 - Gi impacts residential roadway
 - Bi involves a standard 3-track arrangement

Preliminary Preferred Option (Alternative Bi)



Environmental Impact Assessment and Mitigation:

- As part of the Transit Project Assessment Process (TPAP) Addendum, the project team will:
 - Document the assessment and evaluation of the impacts of the project on the environment;
 - Explore and incorporate measures to mitigate negative impacts of the project; and,
 - Develop means to monitor or verify the effectiveness of mitigation measures.
- The project team includes natural, socio-economic and cultural environment specialists such as:
 - air quality
 - archaeological
 - economic
 - geotechnical
 - natural environment
 - noise and vibration
 - safety
 - traffic
 - heritage
- The results of the impact assessment will be documented and reviewed by various government agencies and members of the public.

Environmental Factor Areas:

NATURAL ENVIRONMENT

Fisheries and aquatic habitat
Terrestrial habitat and species
Specially designated features and species
Groundwater
Contamination properties

CULTURAL ENVIRONMENT

- Cultural heritage features
- Archaeological resources
- Constitutionally protected aboriginal or treaty right

SOCIO-ECONOMIC ENVIRONMENT

Direct impacts on residents and businesses including things such as:

- Displacement of residences
- Displacement of businesses
- Displacement of community features

Indirect impacts on residents and businesses including things such as:

- Changes to noise levels – comparing future 'do nothing' to future with the project
- Changes in local and regional air quality and the implications on human health
- Changes to aesthetic environment
- Changes to access, travel patterns and traffic

- Stakeholder Consultation – Begins Now
 - TAC Meeting – March 18, 2013
 - Richmond Hill Committee of the Whole – April 15, 2013 (TBD)
 - Public Consultation Centre – May 1, 2013 (YRT - 50 High Tech Road)
- Technical Evaluation – April/May/June
 - Complete assessment of impacts of the preferred alignment
 - Identify mitigation of the impacts
 - Present final plan to public and Stakeholders
 - A second round of stakeholder consultation will occur in June
- Reporting – Summer/Fall
 - Complete TPAP Addendum draft report
 - Circulate draft report for comments
 - Submit final report to MOE for review and public comments

Thank you..

VIVAnext



Questions?





DRAFT MINUTES OF MEETING

PROJECT: Yonge Subway Extension TPAP Addendum

MEETING NO: TAC Meeting #2

FILE NO.: 1077670

DATE: May 29, 2013 **TIME:** 2:30 to 3:30

PLACE: 3601 Hwy 7, YRRTC Discovery Boardroom

PRESENT:

| | |
|----------------------|--|
| Paul Millett | Toronto Transit Commission |
| Stephen Hollinger | York Region Rapid Transit Corporation (YRRTC) |
| Dale Albers | YRRTC |
| Paul May | YRRTC |
| Kathryn Webber | YRRTC |
| Danielle Hutson | YRRTC |
| Nicole Lewis | YRRTC |
| Tamas Hertel | YRRTC |
| David Clark | YRRTC |
| Steve Mota | York Region – TCP |
| Ahsun Lee | Richmond Hill |
| Scott Bowers | McCormick Rankin (MRC) |
| Scott Hubbard | McCormick Rankin |
| Kent Barber | McCormick Rankin |
| Sarah Sheridan | Ecoplans |
| Via. Teleconference: | |
| Dan Minkin | Ministry of Tourism, Culture & Sport |
| Suzanne Bevan | Toronto and Region Conservation Authority (TRCA) |
| Stefan Linder | CN |
| Rick Takagi | Regional Municipality of York |

PURPOSE: Yonge Subway Extension – Train Storage Facility TPAP:
Technical Advisory Committee Meeting #2

PROCEEDINGS:

ACTION BY:

1. Introductions and Presentation

- 1.1. S. Hollinger provided an overview of the proposed agenda and attendees introduced themselves.
- 1.2. S. Hollinger presented the project background and results from the first round of public consultation. S. Bowers reviewed the modifications made to the preferred option in response to the public’s concerns and impacts identified during the TPAP process. S. Hollinger provided an update on the schedule for proceeding with the project. The presentation slides have been appended to the minutes.

2. Discussion

2.1. Property

Concerns were raised that the property to the north of Coburg Crescent (owned by the Town of Richmond Hill) may have been allocated for another use that would restrict the placement of the above-ground building.

A. Lee from the Town of Richmond Hill to review internally to address concern.

Richmond Hill

2.2. Proposed Parking Lot and Access Road

- It was confirmed that the parking lot area increased from that shown at the previous public consultation. Although the same number of parking spaces are shown, the larger area was required to allow for the two-way access road that will extend to Beresford Drive

YRRTC

- The proposed retaining wall shown along the east side of Coburg Crescent is required to construct the access road and parking lot at an elevation approximately 1.5 to 2.0m lower than Coburg Crescent to mitigate impacts to the local residents. Where possible, the access road will be graded back to existing and landscaped to eliminate the need for a retaining wall.

- Chain link fence requirements will be reviewed by MRC to separate the community from the access road and the CN right-of way.

MRC

2.3. Bantry Avenue Closure

- Concern was raised over the wording regarding the required closure of Bantry Ave.

- For the upcoming public open house, more detail should be shown to identify the potential detour routes associated with the closure of Bantry Ave. Consultation panels should also communicate that the Region has a plan to manage and support all traffic related to construction at Bantry Ave, Beresford Drive, Coburg Crescent and any other area.

MRC

- Pedestrians and students crossing Bantry Ave. to reach the school at Red Maple Road is another issue that should be assessed. MRC to provide further detail regarding traffic impacts associated with construction.

MRC

- It was noted that issues listed on slide 17 will have a display panel at the upcoming public open house to address the potential impact and the proposed mitigation.

2.4. Noise and Vibration

- Public concerns were raised regarding vibrations associated with TTC train operations. Although no specific operational studies are being conducted for the underground storage and maintenance facility at this time, similar studies from the Yonge Subway and Toronto-York Spadina Subway extensions confirm that the slow moving vehicles in the maintenance and storage facility will not cause significant vibrations to residences. MRC/Ecoplans to confirm if additional vibration work is required.

MRC/Ecoplans

- Noise and Vibration studies are currently being completed regarding construction impacts. Further study of noise and vibration during

operations will be completed during detail design to fulfil permits and approval requirements. The Environmental Project Report (EPR) will state that the proponent will follow-up with all required authorities regarding operational noise and vibration issues.

- Concerns from residents regarding noise and vibration from existing CN railway corridor will not be addressed as a part of this TPAP study. Richmond Hill and CN will investigate internally for any noise/vibration studies completed prior to construction of adjacent developments and what commitments were made for mitigation. CN to provide a response addressing the public's concern for inclusion in the upcoming public meeting on June 12, 2013.

CN/Richmond Hill

Post Meeting Note: A. Lee provided YRRTC with a copy of the subdivision agreement, and corresponding noise and vibration reports for the Coburg Crescent development.

- Future Metrolinx environmental assessments for the expansion of the GO Transit corridor will address additional noise and vibration associated with increased operations within the CN corridor. The proposed train storage facility design will not preclude the installation of noise walls by others.

2.5. Pedestrian and Cycling Facilities

- The opportunity to build a pedestrian/cycling pathway from Coburg Crescent to Richmond Hill Centre Station was raised during the process of adding the access road from Beresford Drive. Although this project will not include the construction of a pathway, analysis will be completed to confirm that the proposed works will not preclude the inclusion of a pathway in the future.
- Richmond Hill to review their future cycling and pathway plan to confirm the proposed building and parking lot do not restrict future implementation.

MRC

Richmond Hill

Post Meeting Note: A. Lee confirmed that the Richmond Hill Pedestrian and Cycling Master Plan does not show walkway connections through the area or north of Bantry.

2.6. Yonge Subway Extension Depth

A. Lee requested the depth of the subway and underground storage and maintenance facility be reviewed to shorten the vertical pedestrian connections at Richmond Hill Centre and 16th Ave. Stations. It was explained that due to constraints from major utilities and a storm water management pond, the profile grade at Richmond Hill Centre was set as high as possible. Due to operational restrictions, the maintenance and storage facility profile must remain flat (0.3%) and so only marginal increases in height are possible over its length. During detail design, efforts will be made to improve the profile; however, a significant alteration to the current design will not be possible. MRC will review the resulting depth of subway at 16th Ave. Station assuming the profile will rise at a maximum grade of 3% from the end of the maintenance and storage facility.

MRC

Minutes of TAC Meeting #2

Date: May 29, 2013

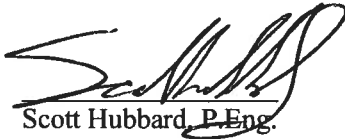
2.7. Alternative Locations for Building

Suggestions received during public consultation were to move the maintenance and storage at-grade building south to 50 High Tech Road or north to an industrial area on 16th Avenue. TTC discussed safety hazards for workers having to backtrack along the railway to access the end of the underground facility; however, there may be means to address the safety concerns. In order to move the building to the north, tunneling under the adjacent community would be required to extend the end of the underground facility. This would be very costly and effect the future 16th Ave. station location.

The foregoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned within 48 hours of receiving these minutes at 905-823-8500.

Minutes prepared by,

McCormick Rankin



Scott Hubbard, P.Eng.

| | | |
|-----|---------------------|-------------------------------|
| cc: | Patrick Lee | Town of Richmond Hill |
| | Alan Brown | Town of Markham |
| | Andrew Pearce | City of Vaughan |
| | Morgan Bot | Metrolinx |
| | Daryl Barnett | GO Transit |
| | Loy Cheah | Regional Municipality of York |
| | Dave Reynolds | CN Rail |
| | Julius Arscott | Ministry of Natural Resources |
| | Andrew Posluns | Ministry of Transportation |
| | Lorna Zappone | Ministry of Environment |
| | Mary-Frances Turner | YRRTC |

York Region Rapid Transit Corporation



Yonge Subway Extension – Train Storage Facility
Transit Project Assessment Process (TPAP) Addendum
Technical Advisory Committee Meeting #2
May 29, 2013

Agenda

- Introductions
- Background
- Train Storage Addendum Process
- Options Considered
- Feedback Received
- Preferred Solution
 - Modifications
 - Impacts
 - Mitigation
- Next Steps
 - Public Consultation
 - Addendum Report



Project Team



TTC:

Paul Millett, Chief Project Manager
Yonge Subway Extension

paul.millett@ttc.ca

416-397-8738

MRC:

Scott Bowers, Project Manager

sbowers@mrc.ca

905-823-8500

YRRTC:

Stephen Hollinger, Senior Project Manager
Subways

stephen.hollinger@york.ca

905-830-4444 x1032

Technical Support:

Golder – Geotechnical

Ecoplans – Natural Environment

Novus – Air, Noise, Vibration

New Directions Archaeology – Archaeology

Unterman – Heritage

- **June 2007 – MoveOntario 2020**
 - Yonge Subway Extension was one of 52 rapid transit projects
- **October 2008 – Yonge Subway Extension TPAP**
 - The TTC and the City of Toronto became co-proponents
- **November 2008 – Metrolinx Regional Transportation Plan**
 - Yonge Subway Extension was one of the Top 15 Priorities
- **April 2009 – Transit Project Assessment Approved by the MOE**
 - Approval granted with no conditions



- Amending the 2009 TPAP is necessary to incorporate the TTC Subway Rail Yards needs in the vicinity of Richmond Hill Station
- Completion of the Train Storage TPAP Addendum will ensure the Yonge Subway Extension project continues to be in a state of readiness
- Conceptual Design study completed a preliminary evaluation and design of train storage options



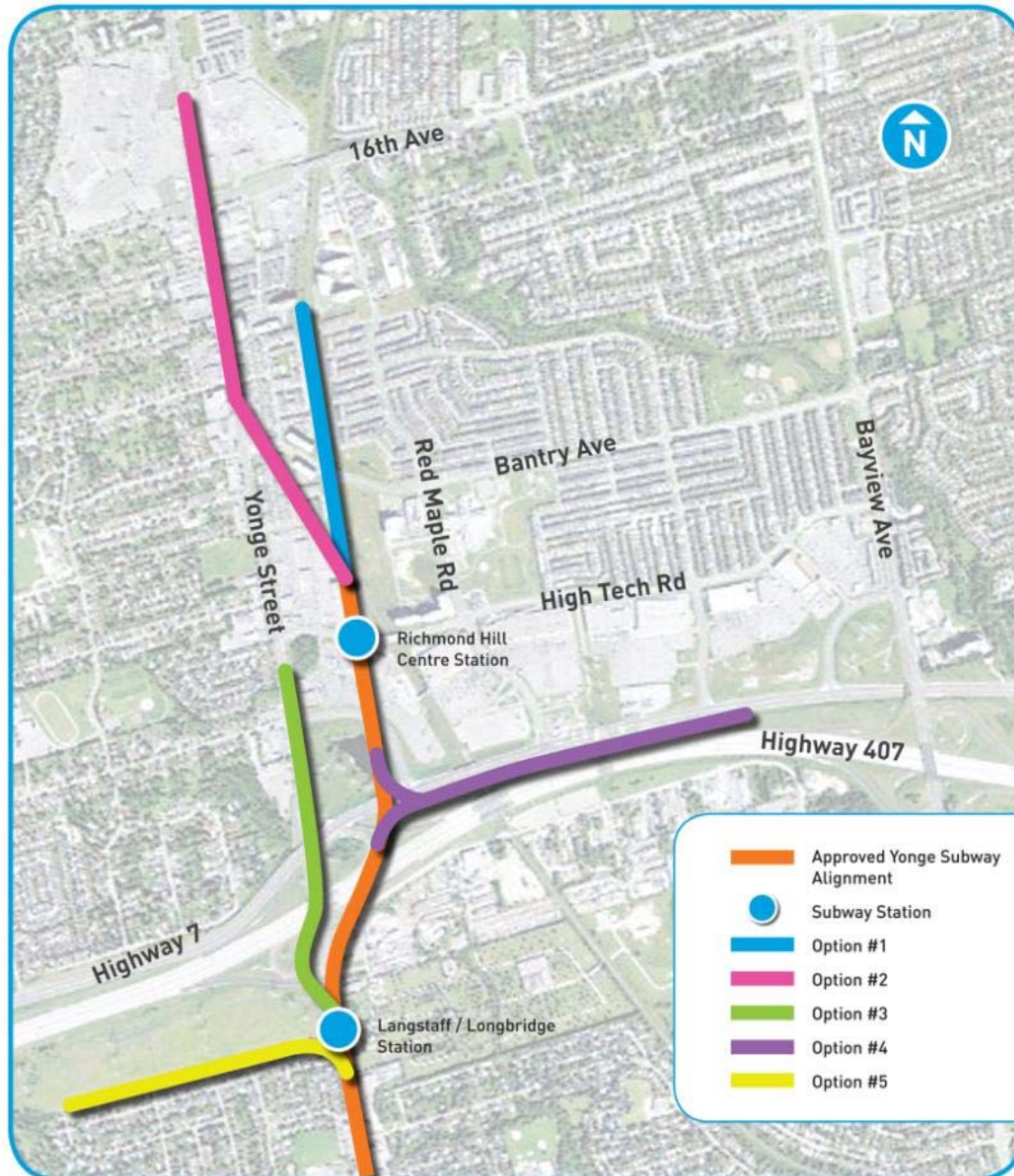
Process:

- Develop a range of options to be considered
 - Options were developed during the Conceptual Design Study
- Evaluate options based on:
 - Capital and operating costs
 - Constructability
 - Property and building impacts
 - Future 16th Avenue station location
 - Operational issues
- Select a preliminary preferred location
- Assess and Mitigate impacts
- File TPAP Addendum



TODAY

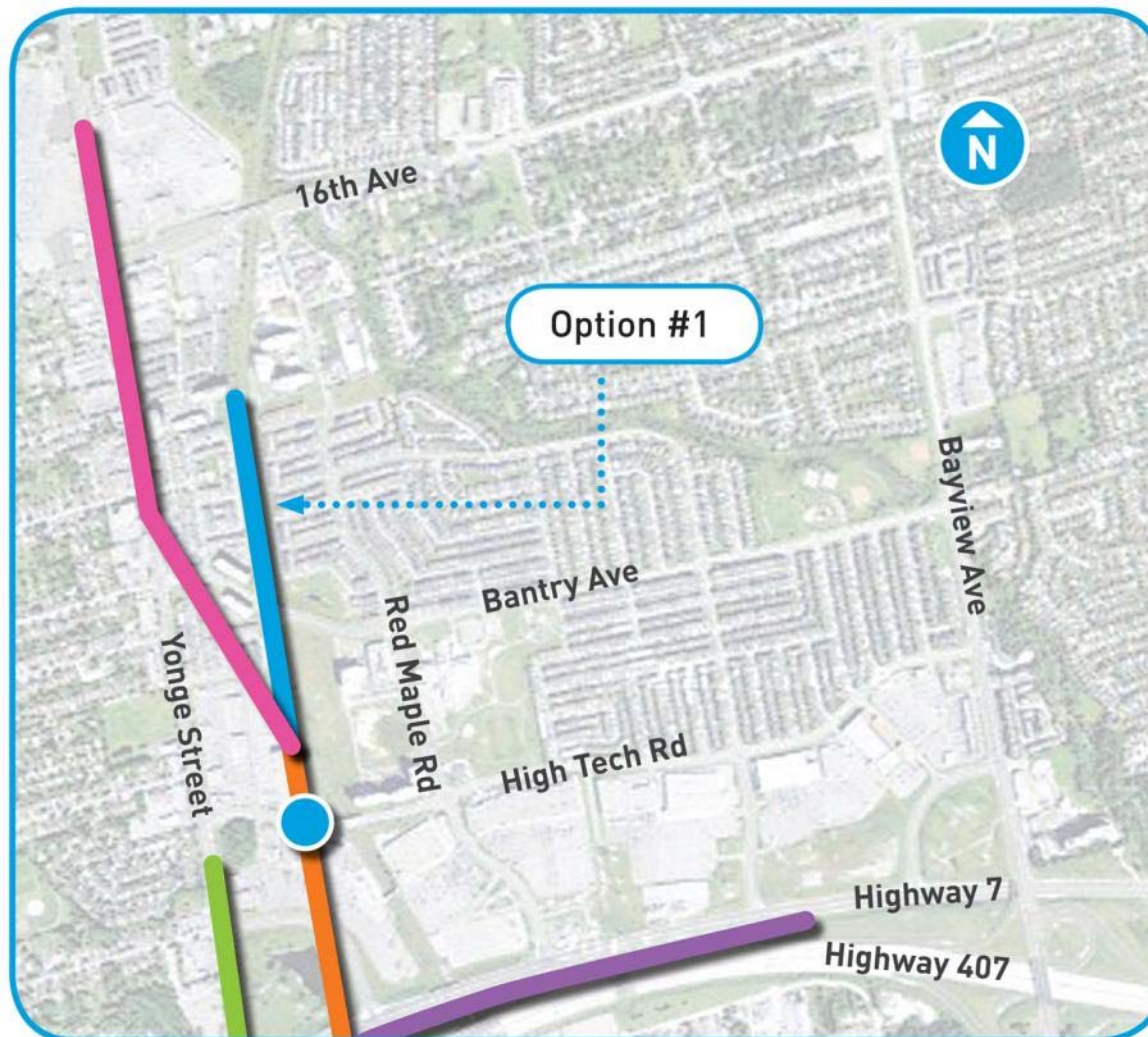
Train Storage Options Considered



- *Option 2 was eliminated due to the impacts to Yonge Street, tunneling requirement and higher capital cost*
- *Options 3 and 4 were screened out as they do not satisfy TTC operational requirements*
- *Option 5 was screened out due to significant impacts on the natural environment*

Preliminary Preferred Option 1

- Option 1 (3-track wide scenario) is the preliminary preferred alignment
- Alignment runs adjacent to the CN Rail corridor using primarily Town of Richmond Hill lands



Preliminary Preferred Option 1



- 3-track underground structure
- Alignment follows Town of Richmond Hill property adjacent to CN rail corridor
- Includes associated TTC surface facilities located adjacent to Coburg Crescent
- Emergency Exit Building (EEB) south of Coburg Crescent



Location:

- Agreement that Option 1 is the best alignment

Transportation:

- Minimize any disruptions to traffic on Yonge Street and access onto Yonge Street
- Closure of Bantry Bridge will disrupt travel patterns and make it more difficult to cross the rail corridor

Local Community Impacts:

- Concerns from the proposed location of the above ground building:
 - Increase in localized traffic
 - Noise and disturbance late at night and early in the morning
 - Lights from parking lot illumination and headlights
 - Disturb the view to the green space
 - Property values in the surrounding community

Natural Environment:

- Development is causing a loss of wildlife habitat and increasing pollution, raising health concerns for residents

Construction Impacts:

- Dirt and dust as a result of construction will cause health issues for the residents in close proximity
- Construction vehicle access to the work area

Operation of the Facility:

- Noise and vibration from train operations

In summary

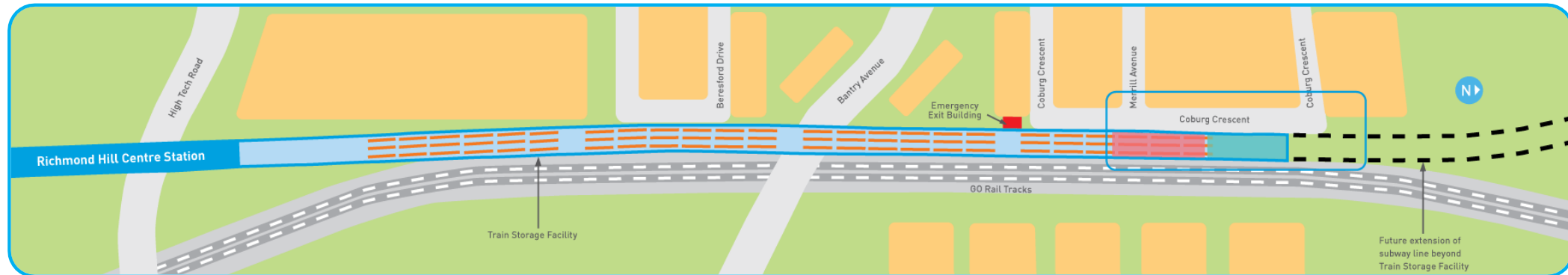
- Confirmation of Option 1 as the preferred alignment
- Need to address local community impacts associated with the above-ground buildings and access
- Identify scale of impact and mitigation strategies for construction and operational impacts of the train storage facility



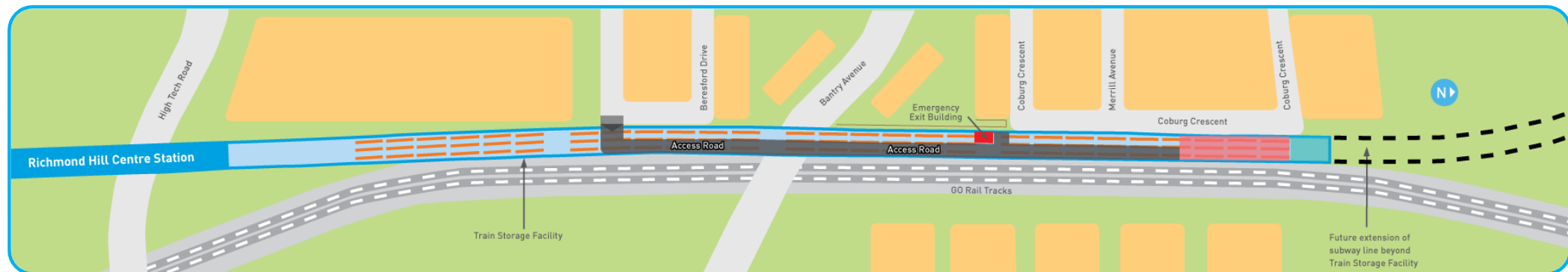
Resulting changes to the building and parking lot

- Shift the location of the building north to minimize visibility of the building for local residents
- Provide a driveway connection from Beresford Drive for access to the train storage facility instead of via Coburg Crescent
- Locate EEB #7 within the Town of Richmond Hill lands
- Modify the above-grade building to be half below-grade and half above-grade to minimize the building footprint
- Lower the elevation of the building and parking lot by 1-2 metres to further minimize the view of the facility

Resulting Modifications to Option 1

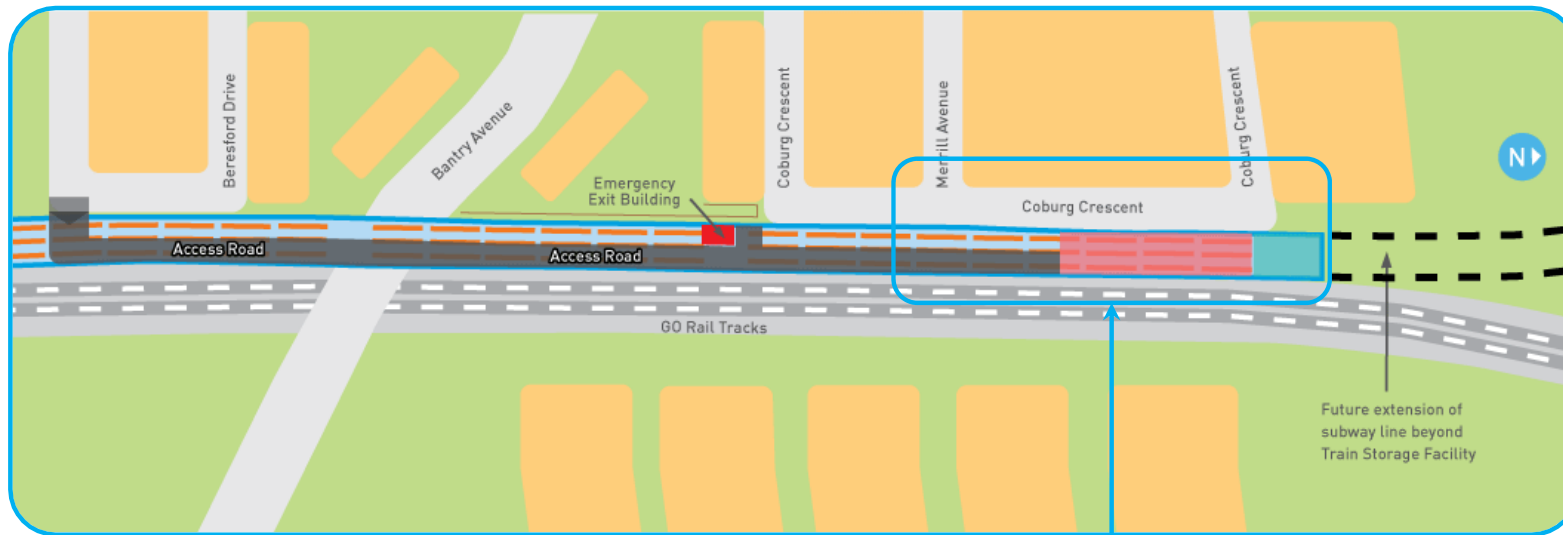


Original Layout

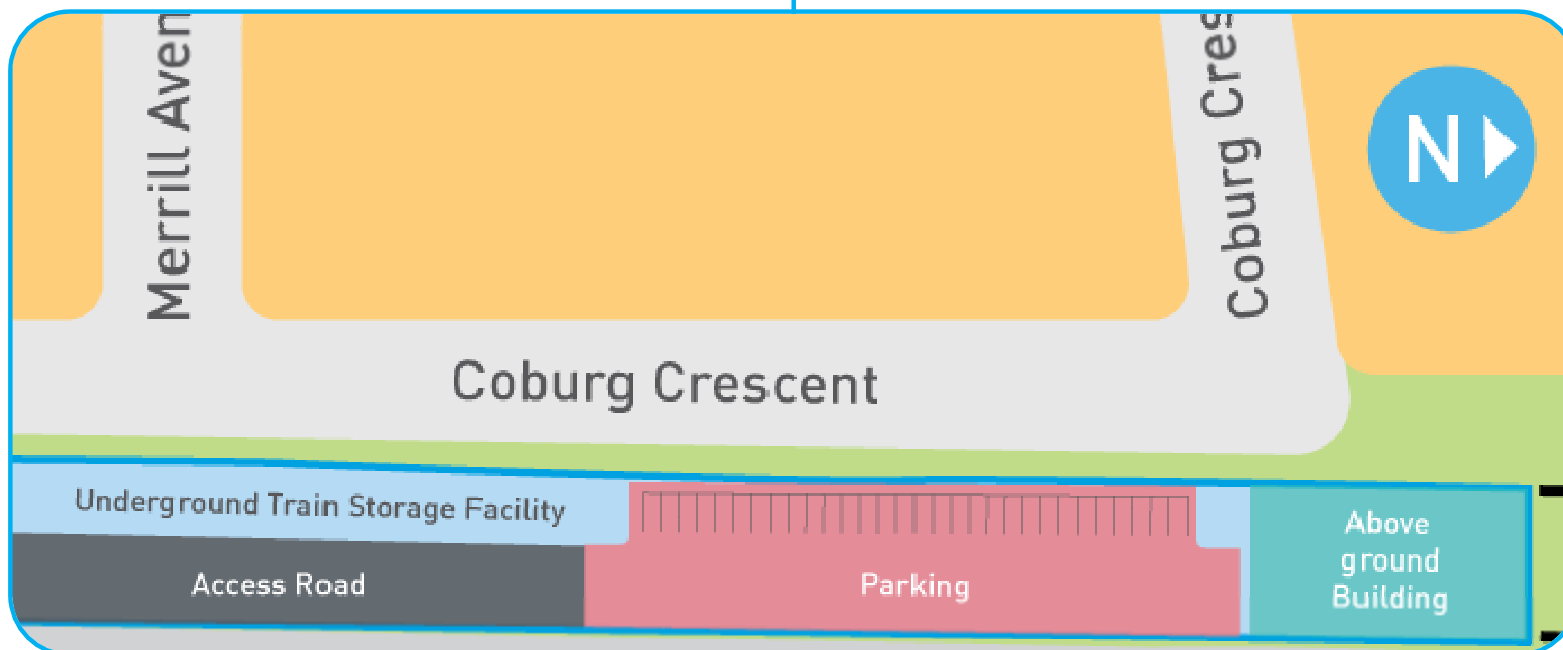


Revised Layout

Revised Option 1



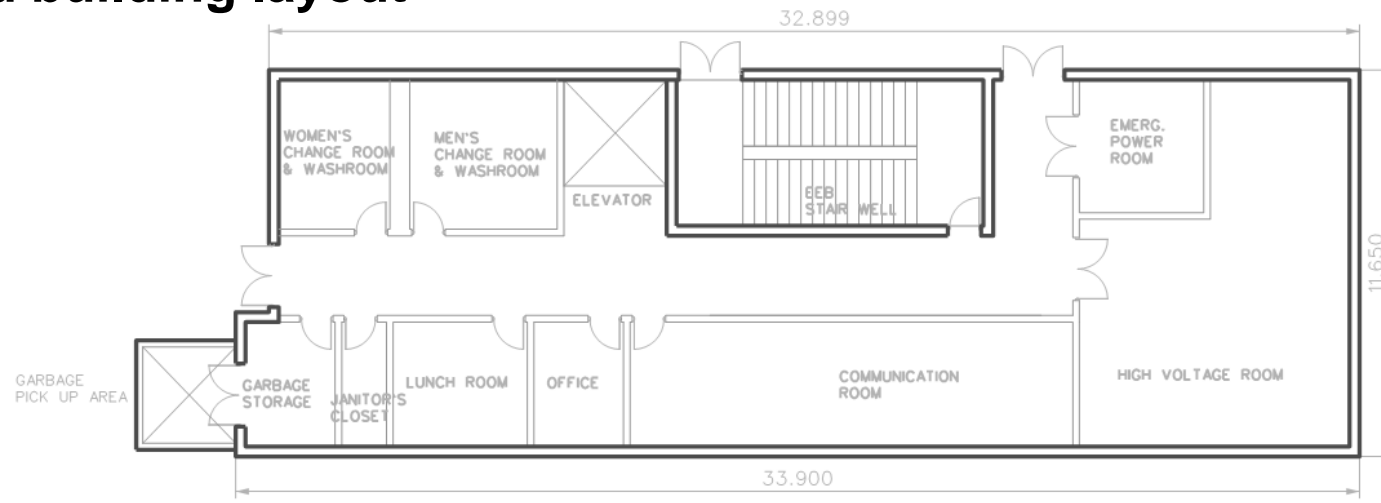
- Driveway access via Beresford Drive
- Building and parking shifted north
- EEB on Town of Richmond Hill Land



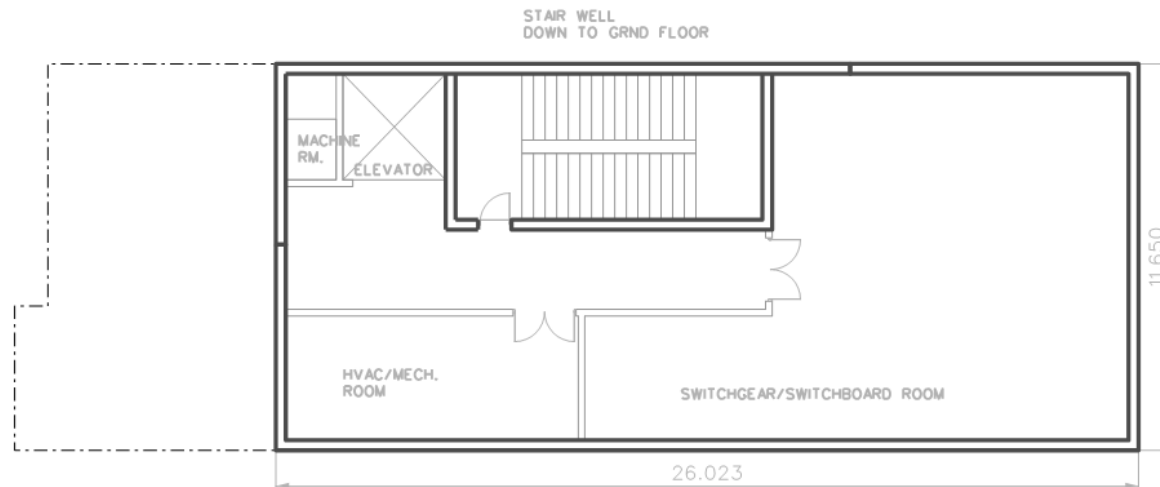
- Building and Parking elevation lowered by 1-2m
- Building revised to be two floors, one floor will be below grade

Revised Option 1

Revised building layout



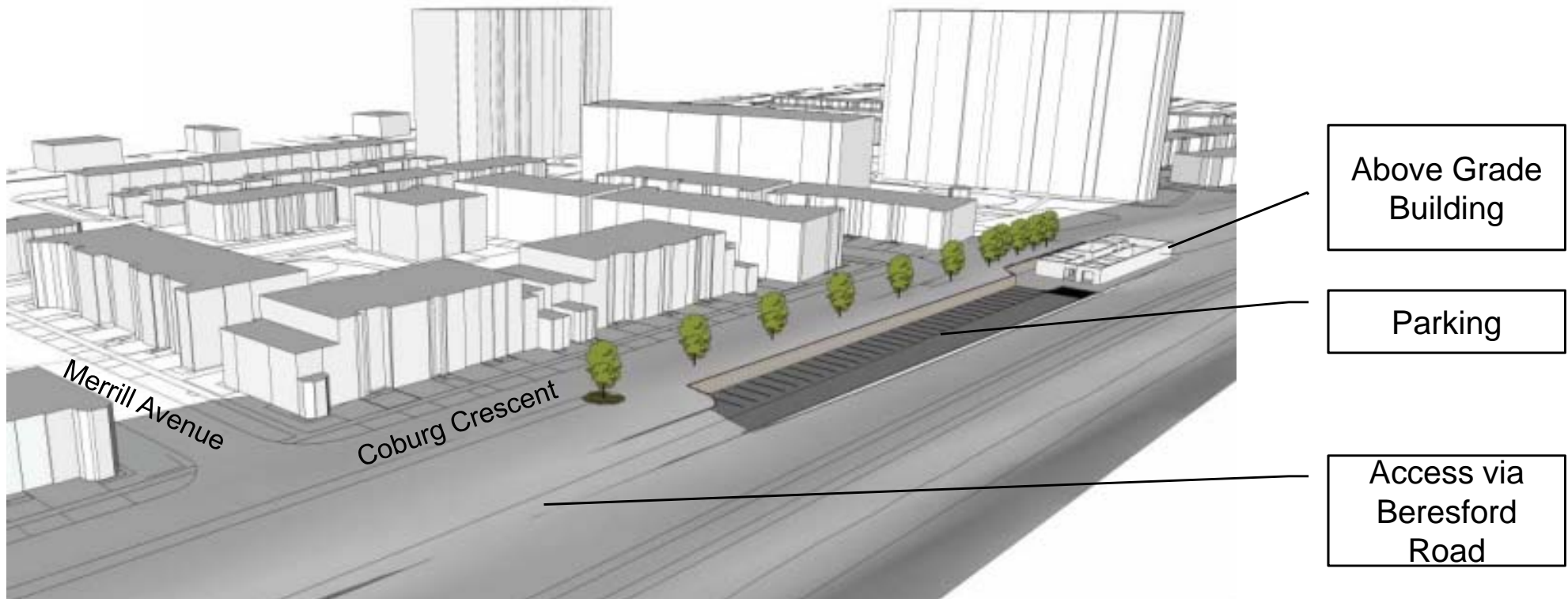
Ground Floor



Basement (below-grade)

Revised Option 1

Revised building, access road, and parking lot



Looking Northwest

Option 1 Construction & Operations



Construction and operations of the train storage facility

| Potential Impact | Proposed Mitigation |
|--|---|
| Construction related noise and air quality impacts | Construct the facility in accordance with local noise bylaw and follow construction best practices for dust suppression |
| Traffic during construction | Sufficient road capacity exists to accommodate Bantry Road closure |
| Noise impact resulting from emergency fan operations | Vent will be located a sufficient distance from residential properties and will be screened to reduce noise |
| Loss of vegetation due to subway construction | Prepare landscape restoration plan |
| Impact to groundwater during construction | Prepare groundwater management plan and permit applications |

Environmental impact assessment and mitigation:

- As part of the Transit Project Assessment Process (TPAP) Addendum, the project team will:
 - Document the assessment and evaluation of the impacts of the project on the environment;
 - Explore and incorporate measures to mitigate negative impacts of the project; and,
 - Develop means to monitor or verify the effectiveness of mitigation measures.
- The project team includes natural, socio-economic and cultural environment specialists such as:
 - air quality
 - archaeological
 - economic
 - geotechnical
 - natural environment
 - noise and vibration
 - safety
 - traffic
 - heritage

Environmental factor areas:

Natural Environment

- Fisheries and aquatic habitat
- Terrestrial habitat and species
- Specially designated features and species
- Groundwater
- Contamination properties

Cultural Environment

- Cultural heritage features
- Archaeological resources
- Constitutionally protected aboriginal or treaty right

Socio-Economical Environment

- Direct impacts on residents and businesses including things such as:
 - Displacement of residences, businesses, community features
- Indirect impacts on residents and businesses including things such as:
 - Changes to noise levels – comparing future 'do nothing' to future with the project
 - Changes in local and regional air quality and the implications on human health
 - Changes to aesthetic environment
 - Changes to access, travel patterns and traffic

- **April/May - Confirmation of the Preferred Alignment**
 - Confirm the preferred alignment – completed
 - Analyze impacts and propose mitigation – well underway
 - Technical Advisory Committee meeting – May 29th
- **June 12 - Stakeholder Consultation - Round 2**
 - Public Open House: June 12, 4-8 p.m.
 - Sheraton Parkway Toronto North, 600 Highway 7 East, Richmond Hill
- **Summer 2013 – Finalize Mitigation and Documentation**
 - Finalize list of impacts identified
 - Incorporate measures to mitigate impacts
 - Develop means to monitor/verify the effectiveness of mitigation measures
 - Document the results in an addendum report for submission to MOE in the fall of 2013
- **Fall 2013 – Submission of Addendum Report to MOE**

Thank you..

VIVAnext



Questions?





MINUTES OF MEETING

PROJECT: Yonge Subway Extension TPAP Addendum
MEETING NO: CN Rail Meeting
FILE NO.: 1077670
DATE: September 25, 2013 **TIME:** 9:00 to 9:45 a.m.
PLACE: CN Engineering Office
 4 Welding Way (off Administration Road), Vaughan, ON
PRESENT: Stefan Linder CN
 Paul Millett Toronto Transit Commission (TTC)
 Stephen Hollinger York Region Rapid Transit Corporation (YRRTC)
 Kent Barber McCormick Rankin (MRC)
PURPOSE: Yonge Subway Extension – Train Storage Facility TPAP:
 Discuss proposed design and impacts to CN Right-of-Way

PROCEEDINGS:

ACTION BY:

1. Introductions and Project Overview

- 1.1. S. Hollinger provided a brief overview of the overall project and introduced the meeting attendees.
- 1.2. P. Millet identified the currently proposed alignment for the underground maintenance and storage facility and highlighted some of the issues related to the alternative alignments that were considered during the study.
- 1.3. A copy of the Conceptual Design Report (CDR) and slides from the most recent Public Information Centre was provided to S. Linder.
- 1.4. K. Barber highlighted the key changes from the CDR including the modified layout of the parking area and buildings between Cobourg Crescent and CN’s corridor. S. Hollinger noted that access to/from the proposed facility would be via Beresford Drive (south of Bantry Avenue).

2. Discussion

2.1. Plans for the CN Corridor

S. Linder indicated that GO is likely to be installing the third track in the CN right-of-way within the next few years. Currently plans for the fourth track are not envisioned within the immediate future.

2.2. *Property and Setback Issues*

It was identified that the proposed box structure would encroach onto CN lands (as illustrated in Figure 13-2 of the CDR). Given the depth and proximity to CN's tracks, construction would likely require the use of a shoring system and tie backs within CN lands.

S. Linder indicated that the encroachment issue would need to be reviewed by CN's property staff however this should not be an issue.

CN

S. Linder noted that 'typically' the setback to unprotected buildings is 30 m from the tracks. CN has an adjacent developments document that will be provided to assist with understanding setback and encroachment items.

S. Linder noted that CN restricts adjacent construction/excavation within the zone of influence of their tracks. This zone can generally be described as '*starting 1 foot from the end of the nearest rail and down at a slope of 1.5:1*'. The proposed location of the box structure is within the zone of influence and this requirement can be mitigated by supporting the rail lines by way of piles or similar construction methods that would be detailed during the design process.

S. Linder will provide information related to CN's required setback and protection measures for permanent buildings and other temporary construction/excavation activities.

CN

2.3. *Access and Fencing*

It was agreed that 6' chain link fencing would be installed along CN's right-of-way to restrict public access and public/TTC staff access via the TTC facilities and access road to the CN right-of-way.

K. Barber noted that chain link fencing will also be installed to separate the community from the access road and the TTC facilities.

2.4. *Geotechnical Data*

P. Millet noted that Golder Associates had been retained as part of this project to carry out a geotechnical assessment including several boreholes along the proposed alignment. The results of the assessment will be used to evaluate constructability issues related to excavation, shoring design and the control of ground water.

S. Linder indicated that Golder has worked extensively with CN on past projects and may have additional information in this area. Golder is trained and permitted to work in CN right-of-ways should geotechnical testing within CN land be required by the project. Access and testing would be subject to obtaining the required permits from CN. MRC will

MRC

follow up with Golder.

S. Linder will also follow up with their geotechnical group to see if any additional information is available. CN

2.5. Next Steps

S. Linder will provide the materials noted above and issue a letter indicating CN's position on this project with respect to encroachment, protection of the CN corridor and any other issues pertaining to the proposed design of the train storage facility. CN

It was agreed that a subsequent meeting may be required to discuss any outstanding issues prior to CN issuing a formal letter.

Meeting adjourned at 9:45 a.m.

The foregoing represents the writer's understanding of the major items of discussion and the decisions reached and/or future actions required. If the above does not accurately represent the understanding of all parties attending, please notify the undersigned within 48 hours of receiving these minutes at 905-823-8500.

Minutes prepared by,

McCormick Rankin



Kent Barbert, P.Eng.

cc: Scott Bowers MRC