



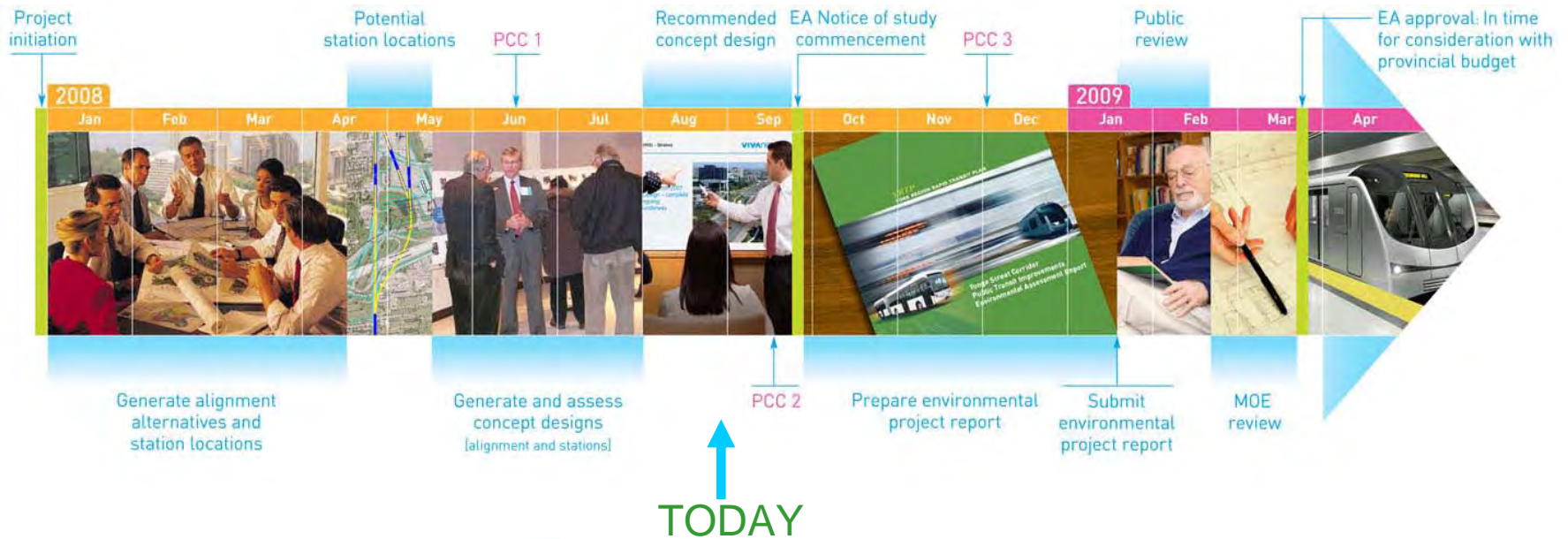
# Yonge Subway Extension

## Preliminary Planning for Transit Project Assessment



Public Workshop – August 26, 2008

# yonge subway study



## be involved

- > public consultation centre 2: september 25
- > public consultation centre 3: late november



# Recap of July 31 Public Workshop



- Provided an overview of the Study
- Summarized results from the Subway Team's technical analysis
  - Potential station locations (6 stations with 2 options in Heritage Area)
  - East Don River crossing options (under and over the river)
  - Richmond Hill Centre alignment alternatives (3 options)

# recap of July 31 Technical Workshop

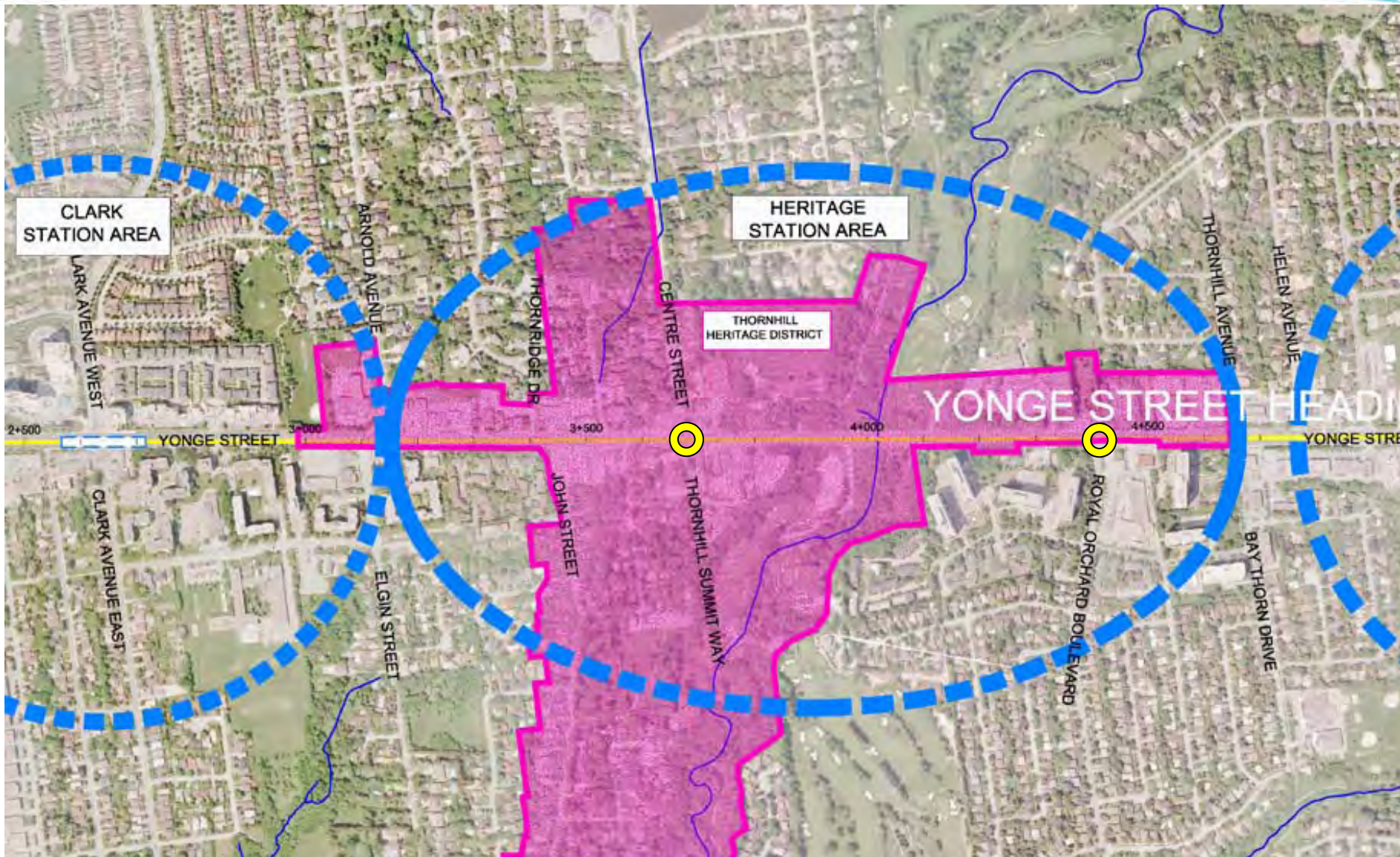
## stations - finch to clark





# recap of July 31 Technical Workshop

## stations - heritage district





# recap of July 31 Technical Workshop

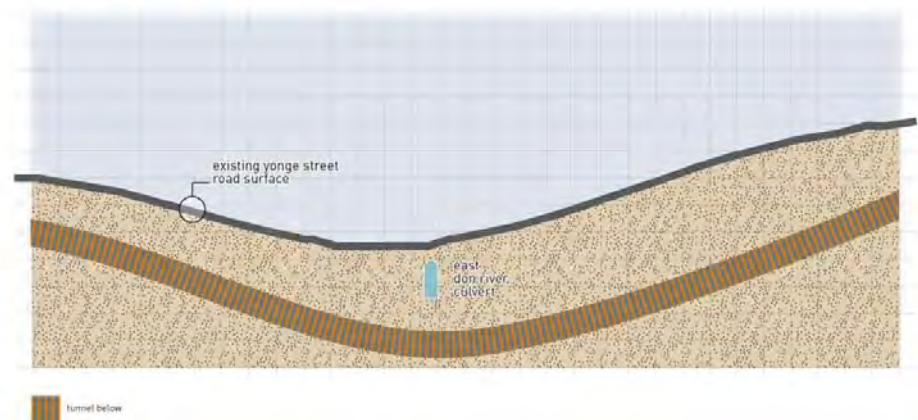
## east don river crossing options



### option 1 | bridge



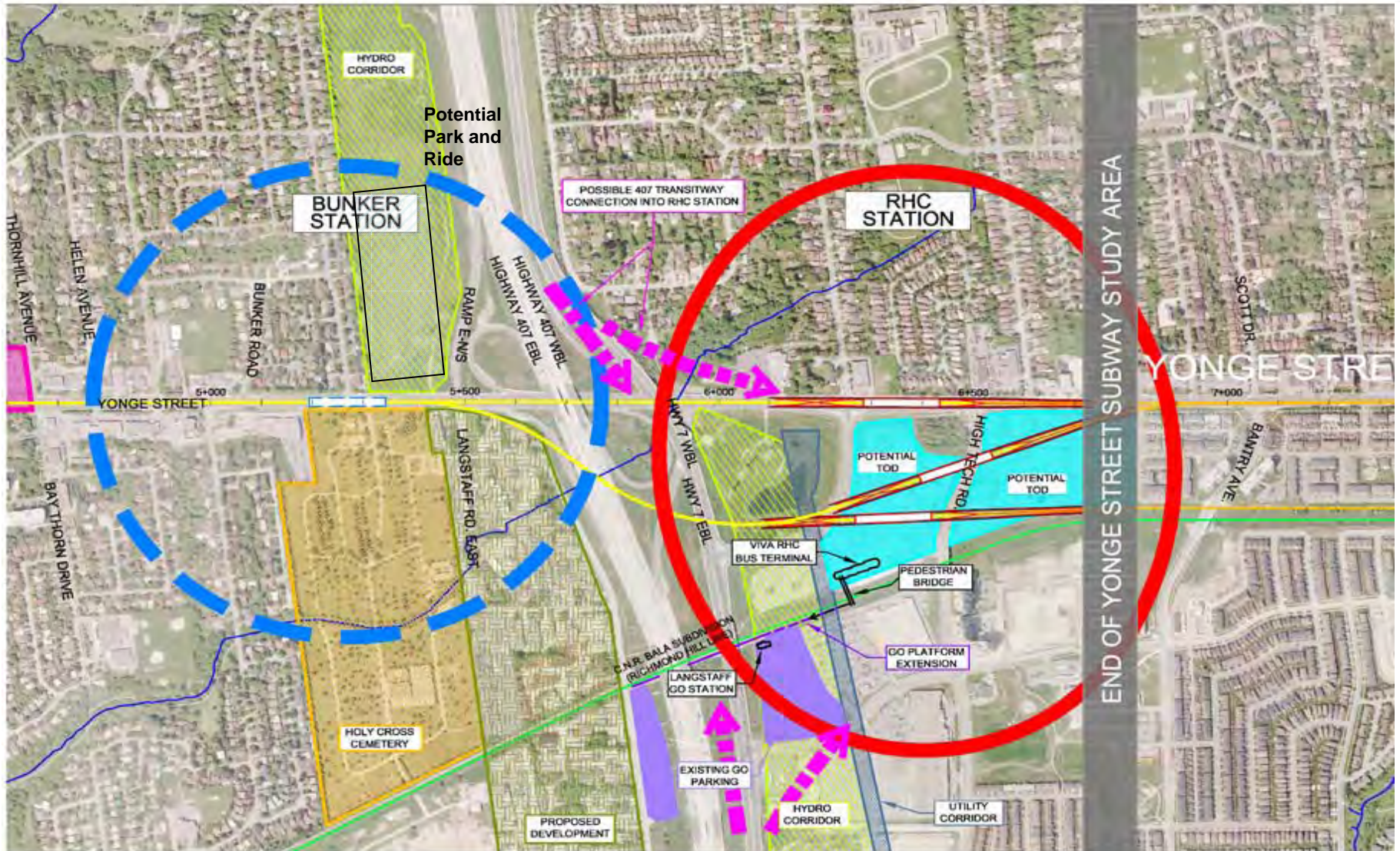
### option 3 | under the river





# recap of July 31 Technical Workshop alignment richmond hill centre alignments

VIVAnext





- Approx. 40 people attended the session
- What we heard from attendees:
  - Favoured 6 stations (Cummer/Drewry, Steeles, Clark, Royal Orchard, Bunker, Richmond Hill Centre)
  - Preferred subway crossing over the East Don River via a heritage-style bridge
  - A preference for alignments east of Yonge Street with a concern expressed regarding the future station location at 16<sup>th</sup>.
- Over 500 surveys received over the summer



# Recommended Yonge Subway Extension



- Cummer/Drewry, Clark, Royal Orchard, and Bunker/Longbridge are preferred in addition to Steeles and Richmond Hill Centre:
  - **Cummer/Drewry** – today's density close to 100 people/hectare; good intensification potential around station in the future
  - **Clark** – today's density meets 100 people/hectare threshold; good intensification potential in Markham and Vaughan
  - **Royal Orchard** – today's density close to 100 people/hectare; has good intensification potential particularly in Markham
  - **Bunker/Longbridge** – key location to provide commuter parking, a PPUDO facility and significant intensification potential

# what comes with a subway station?



Station	Pedestrian Entrances	PPUDO	Bus Terminal	Park'n Ride	Substation	SUMMARY
Cummer / Drewry	●					Line station with minimal surface requirements
Steeles	●	●	●		●	Transit hub
Clark	●					Line station with minimal surface requirements
Royal Orchard	●				●	Line station with minimal surface requirements
Bunker / Longbridge	●	●		●		Commuter hub
Richmond Hill Centre	●	●	●		●	Transit hub





# Steeles Station



- Large volume of TTC and YRT buses from the north, east, and west
- Special traffic signals for buses to accommodate bus movements in/out of bus terminal
- Protection for a 50m buffer to Yonge Street and potentially Steeles Avenue to preserve developable frontage
- Property impacts
- Walking distances between the subway and the bus
- Relationship with future redevelopment in the area
- Location of bus terminal access roads/driveways



# development of station layout concepts

## - key considerations @ steeles station



### NW Quadrant:

- Bus Terminal
- PPUDO

### NE Quadrant:

- Entrance Building
- PPUDO
- Substation
- Bus Terminal (if underground)

### SW Quadrant:

- Bus Terminal
- Entrance Building

### SE Quadrant:

- Entrance Building
- Substation
- Bus Terminal (if underground)









## Legend



## Underground Bus Terminal

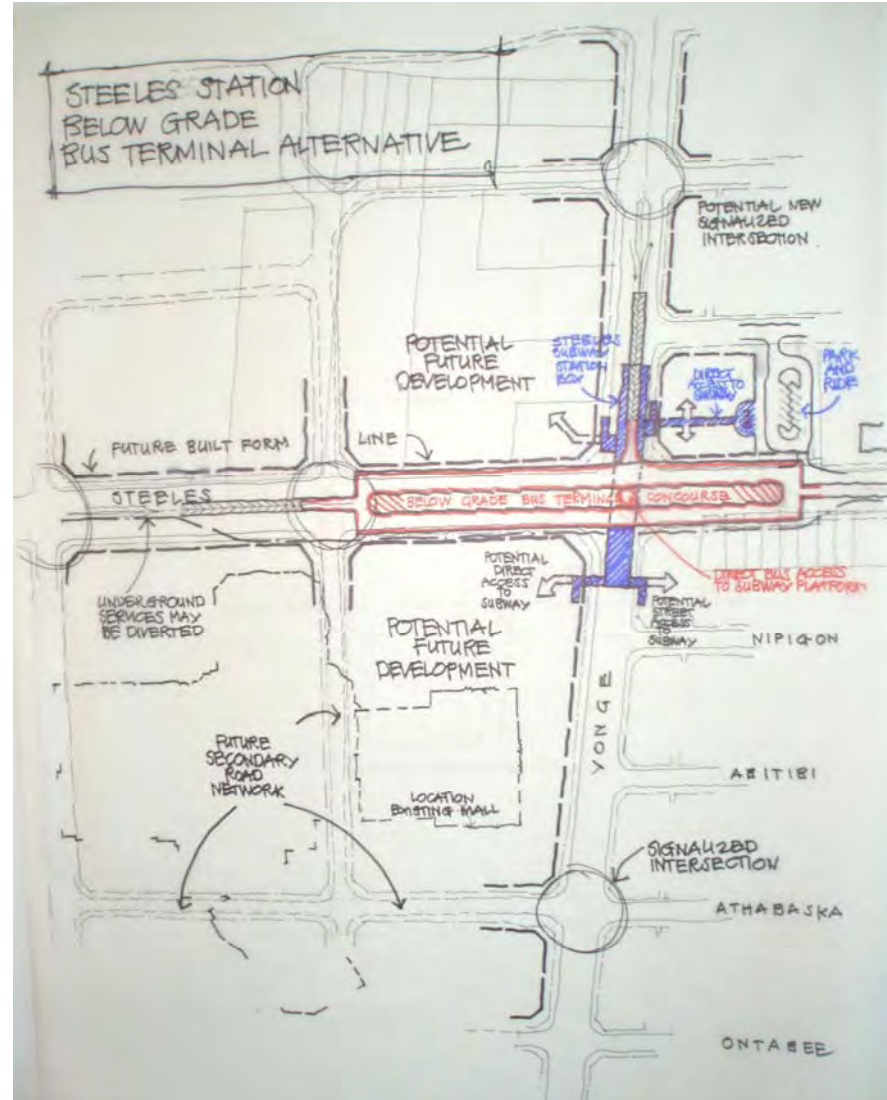
What about a station under the road?

- Minimizes impacts to developable lands
- Despite the terminal being underground, there are impacts at the surface such as street widening / property impacts and entrance impacts. All entrances within the impacted zone become right-in/right-out.
- Issues
  - Impacts access / entrances
  - Higher capital cost
  - Higher operating and maintenance cost
  - Air quality
  - Natural light
  - Disruption during construction
  - Future flexibility





### Underground Bus Terminal





# East Don River Crossing

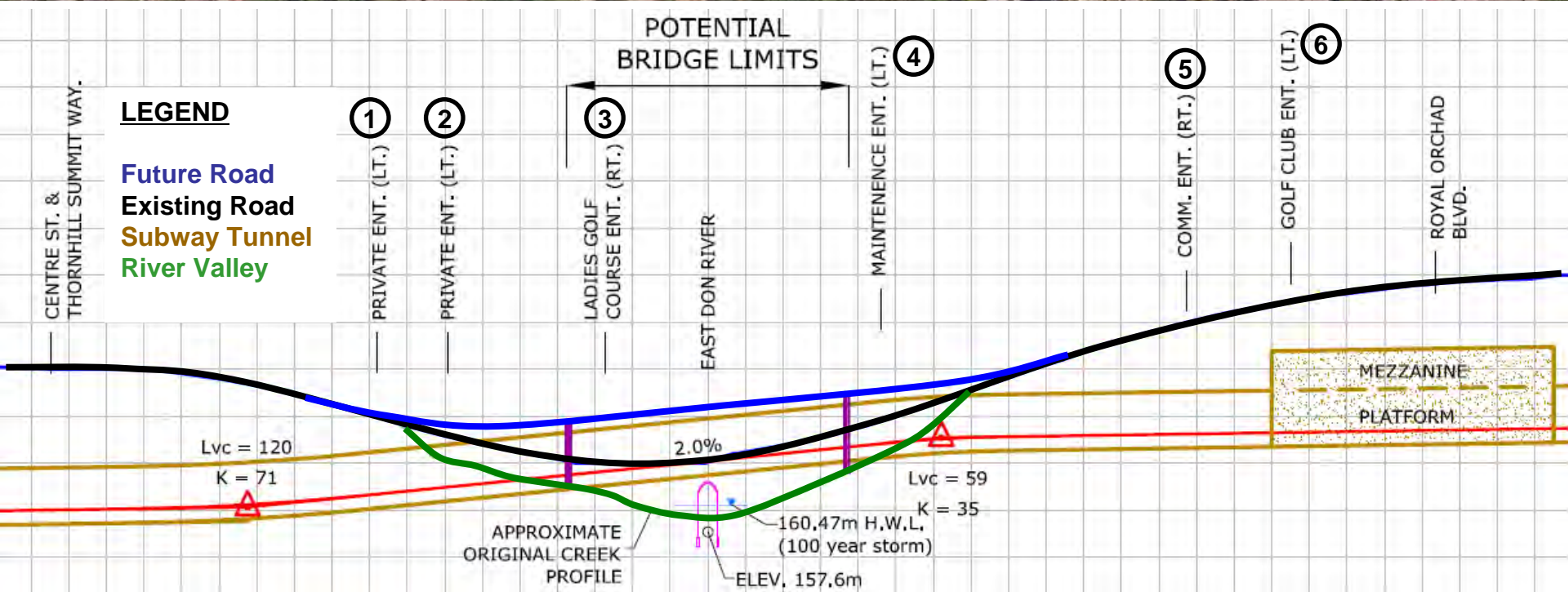
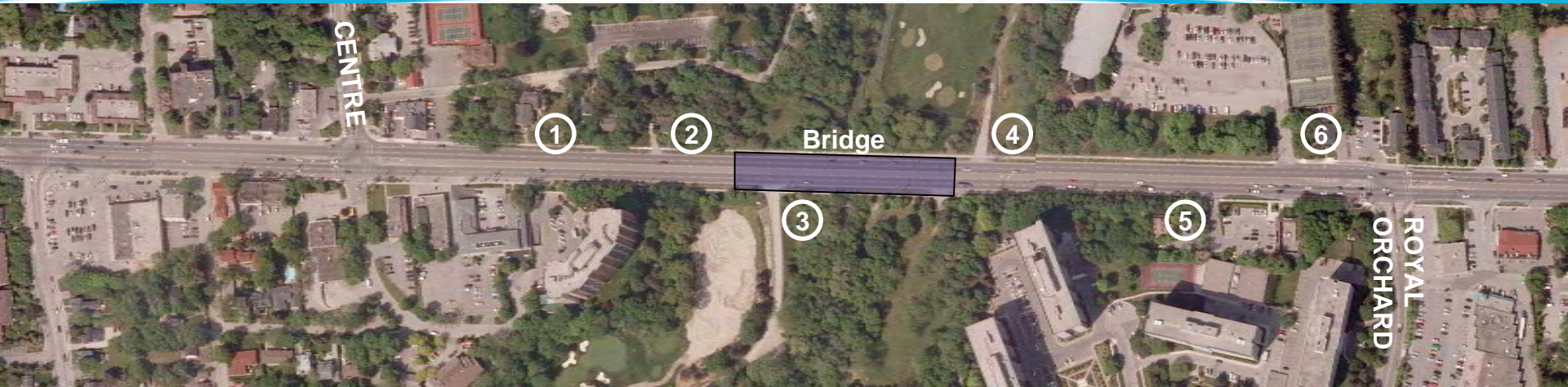
- Bridge preferred:

- Allows for a shallow subway station at Royal Orchard – easier pedestrian access, quicker emergency response, and lower station cost
- Presents an opportunity to improve road profile on Yonge Street for pedestrians and drivers
- Presents an opportunity to naturalize the valley



- Residential/commercial properties
  - 3 heritage residential properties
  - 3 high rise apartments/condominiums
  - 2 golf courses
  - 1 other heritage structure
- 6 driveways between crests
  - 2 residential driveways
  - Entrance to Toronto Ladies' Golf Course
  - Maintenance entrance to Thornhill Golf Club
  - Commercial driveway
  - Entrance to Thornhill Golf Club

# development of East Don River Bridge concepts





# Bunker/Longbridge Station





### Commuter Parking Facility

- Access in/out of park'n ride
- Traffic impact on Yonge Street and Hwy 407 off-ramp
- Walking distance between the subway and commuter parking facility – should be no more than 500m
- Property impacts on west side of Yonge Street
- Impact on local traffic circulation
- Avoid impact to Hydro One's 230/500kV transmission facilities

# development of station layout concepts

- key considerations @ bunker/longbridge station





# Richmond Hill Centre Station

- Option 'C' preferred:
  - Best opportunity to create a well-integrated, inter-modal transit hub connecting the subway, YRT buses, GO buses, 407 Transitway, and GO Train. Shortest walking distances between all transit modes
  - Optimizes development potential both east and west of CN rail corridor
  - Furthest away from the protected woodlot at Yonge Street and High Tech Road – minimal impact
  - Lowest construction-related traffic impact on Yonge Street
  - Lower potential for impacting existing residential properties as there are no houses adjacent to the alignment



# technically preferred alternative - richmond hill centre alignment



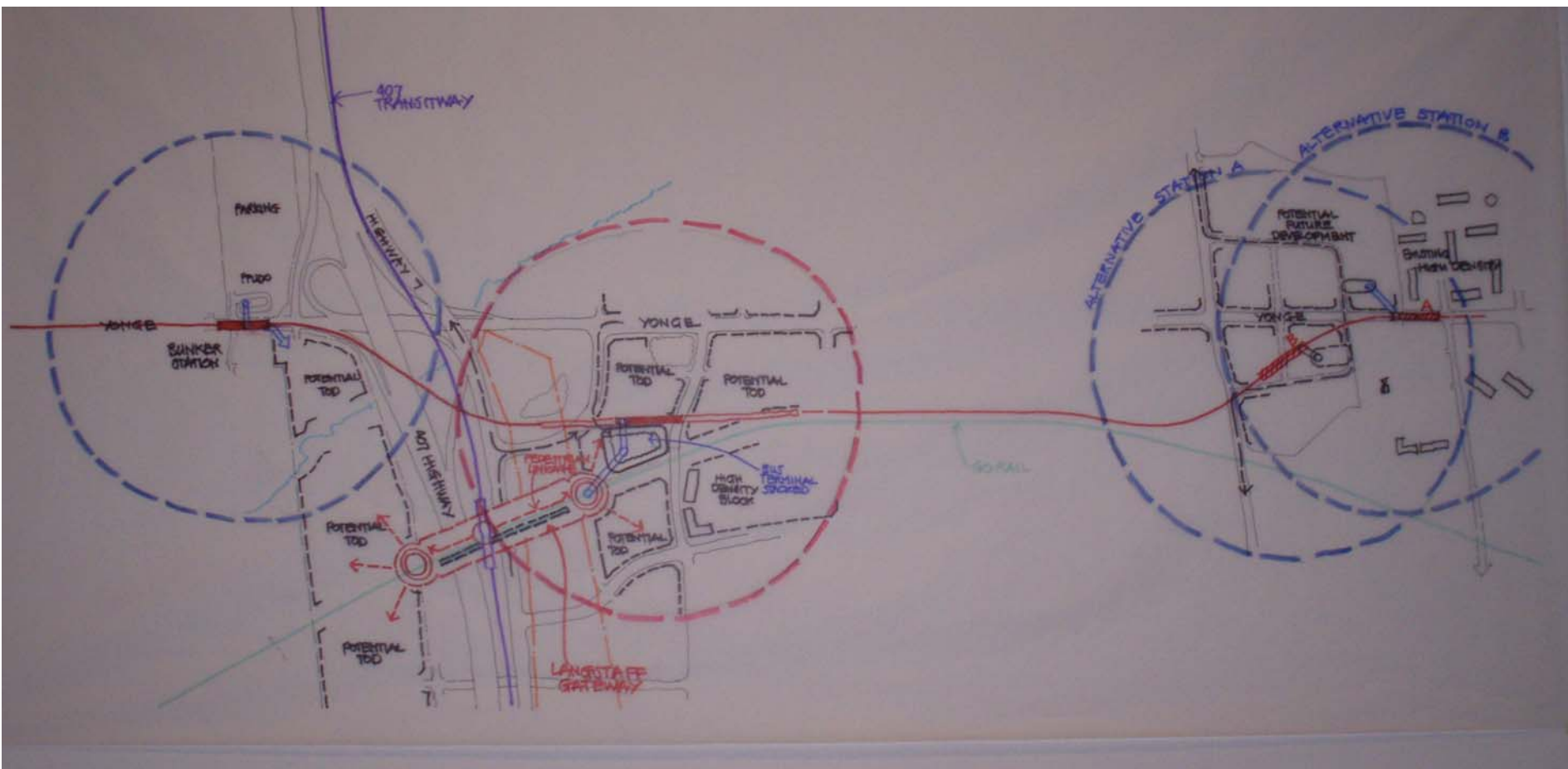


# technically preferred alternative

- richmond hill centre alignment

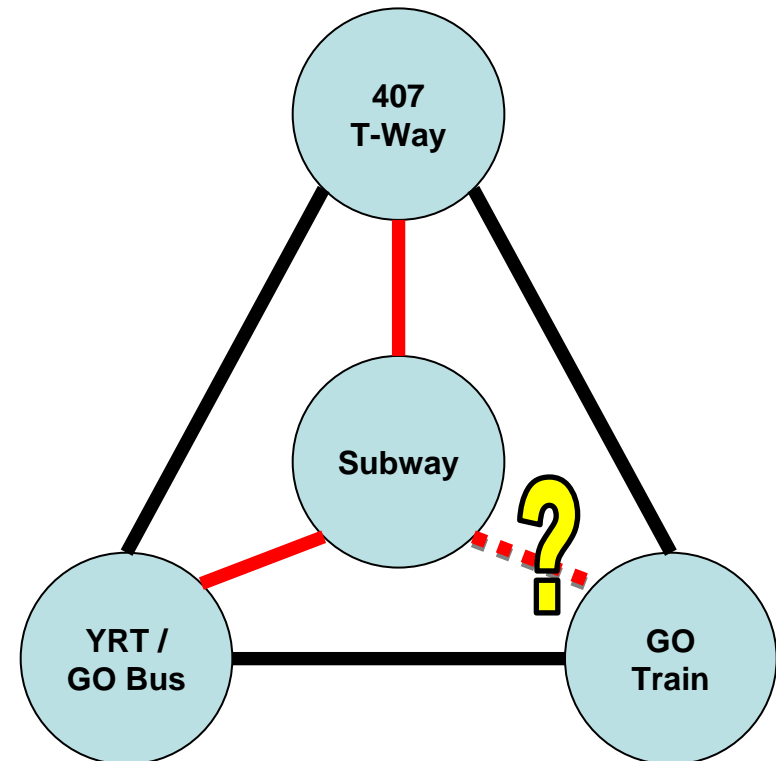


# conceptual design protecting for future extension





- Surface layout and integration with development will be determined by the *Richmond Hill Centre Land Use and Built Form Master Plan Study* currently underway
- Subway study will specify surface facilities footprint requirements associated with the subway station
  - Bus terminal (28 bus bays)
  - PPUDO
  - Pedestrian entrances
  - Substation
  - Vent shafts
- Multiple inter-modal interfaces:
  - Subway
  - YRT and GO Bus
  - 407 Transitway
  - GO Train





## Summer 2008

- Continued technical work to evolve preferred design
- Assess and evaluate station layout concepts

## Fall 2008

- Municipal presentations to Committees on preferred design including City of Toronto
- Public Meeting #2
  - September 25 (York Region)
  - October 15/16 (Toronto), Tentative
- Public Meeting #3 – November 26, 2008