



### EAST BAYFRONT TRANSIT EA COMMUNITY LIAISON COMMITTEE MEETING AGENDA

Project: TTC-TWRC Waterfront Transit Environmental Assessments
Date: May 3, 2007
Time: 6:00 – 8:00 pm
Location: TWRC Board Room, 20 Bay Street

Item

- 1. Review of Minutes
- 2. CWNA Change in Representative to Daniel Belanger
- 3. Update Project Status and Future Meetings
- 4. Presentation of Consultation Team on current progress
  - Buses versus streetcars/LRVs
  - Portal location options
  - Queens Quay right of way
- 5. Discussion CLC Comments
- 6. Next Meeting



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### **MEETING NOTES**

<b>PROJECT:</b>	TTC-TWRC East Bayfront Transit Environmental Assessment	
<b>MEETING NO:</b>	CLC 4	
FILE NO.:	6377	
DATE:	May 3, 2007	<b>TIME:</b> 6:00 p.m.
PLACE:	TWRC Boardroom, Suite 1310, 20 Bay Street	
PRESENT:	Community Liaison Comm Daniel Belanger Tom Davidson Deb Devgan David Fisher Ian McCorquodale Braz Menezes Steve Munro Helen Riley David White	hittee (CLC) Central Waterfront Neighbourhood Association Office of Councillor Pam McConnell GWNA Rocket Riders GWNA YQNA and QQHBIA Transit Advocate Feet on the Street Waterfront Action
	Cynthia Wilkey John Wilson	West Don Lands Committee Task Force to Bring Back the Don
	Project Team (PT) Bill Dawson Mike Ronson Tim Laspa Dennis Callan Hank Wang Brent Raymond Antonio Medeiros	TTC Service Planning TTC Service Planning City of Toronto Transportation Planning McCormick Rankin Corporation (MRC) McCormick Rankin Corporation (MRC) du Toit Allsopp Hillier (DTAH) TWRC
PURPOSE:	ModeratorPino DiMascioUrban Strategies (USI/TWRC)EBF Community Liaison Committee Meeting #4	

### **ACTION BY:**

### 1. Review of Minutes

a) EBF CLC Meeting 3 Minutes approved.

### 2. CWNA Change in Representative to Daniel Belanger

 a) Margaret Samuel has resigned from the Board of the Central Waterfront Neighbourhood Association (CWNA) due to time requirements at work. Her notice of resignation was emailed to the Project Team on April 26, 2007. Daniel Belanger replaces Margaret Samuel as the CWNA representative on the West Don Lands CLC and the East Bayfront CLC.

### 3. Update Project Status and Future Meetings

- a) Pino DiMascio reminded the CLC that the first EBF EA PIC/public workshop was held at Novotel Hotel on Wednesday, March 28. The Project Team recommended 'Queens Quay only' as the preferred corridor and 'transit in dedicated ROW' along Queens Quay East as the preferred method for providing service to the East Bayfront. The Project Team provided an overview of ROW design considerations that will form the basis for generating design alternatives for Queens Quay East during the next phase of the study. With respect to connection between Queens Quay and Union Station, the Project Team presented suggested alternatives for relocating the existing portal on Queens Quay and re-routing the existing tunnel under Bay Street. Following the Project Team presentation, workshop attendees were invited to participate in a one-hour long small group discussion session and provide their comments on the Project Team's recommendations.
- b) The next EBF CLC meeting is planned for May 29 2007 with a public meeting/workshop to be held (tentatively) on June 12, 2007

### 4. Project Team Presentation on Current Progress

- a) D. Callan began his presentation with an overview of key discussion items. A copy of the presentation is available on the TWRC project website.
- 4.1 <u>Summary of Project Team recommendation of the preferred Planning</u> <u>Alternatives</u>
- a) **CLC:** When you say "participants are generally in favour of", can you tell us what "generally" means? How many participants were "in favour of" the Project Team's recommendations?
- b) PT: Given the format of the workshop discussion session where participants formed small groups of 6 to 8 and provided their comments as a whole – there are no statistics on a disaggregated level. Of the comments we received during the group discussion session, none expressed any strong negative response towards the Project team's recommendation on corridor and technology/ROW – this was an indication to us that participants were generally in favour of the recommendations.
- c) CLC: What do you mean by "higher service frequency"?
- d) **PT:** We will explain that to you later in the presentation.

### 4.2 Alternative Technologies

- a) CLC: I have some doubts about your ridership forecast numbers. I think your projection is too high. Your model predicts 1225 transit users from Queens Quay West heading to Union Station during the morning peak hour where are these people coming from? Right now all I can see are empty streetcars going in and out of Union Station. Do you know how many people live on Queens Quay West right now? Do you know how many people will be living on Queens Quay East?
- b) PT: The ridership forecast was generated by the City's travel demand model which is based on the long-range population and employment projection for the entire GTA. The forecast ridership along Queens Quay East includes future transit demands from the East Bayfront, West Don Lands, and Port Lands. In our earlier presentations, we have shown an exhibit that illustrates a combined long-range population of approximately 58,000 residents and 38,000 jobs in the Central Waterfront, the West Don Lands, and the Port Lands.
- c) **CLC:** I think some of your numbers in the forecast ridership are questionable. Your projection shows that during the morning peak hour, there will be 2000 passengers going westbound west of Lower Simcoe along Bremner Boulevard and another 3650 heading west along Queens Quay West. I just cannot imagine that many people heading from Union Station to that area by transit.
- d) **PT:** As noted in our presentation, we are reviewing the estimated ridership numbers heading south and west out of Union Station.. Up to now we have concentrated on the ridership estimates to the east serving the East Bayfront, the West Don Lands and the Port Lands. We are very confident in the forecasts to the east and our review of the projections to the west will have no bearing on the forecasts to the east.
- e) D. Callan explained the streetcar clearance envelope. In addition to the physical outline of a transit vehicle there is an additional envelope around a vehicle which includes the maximum lean of the vehicle as it moves under a variety of conditions including a worn suspension system. Tunnel clearance for the vehicle includes roughly 100 mm between the clearance envelope and the centre wall on one side and a 600 mm safety catwalk plus 65 cm open door clearance on the other side. D. Callan reminded the group that streetcar vehicles are fixed to tracks but that buses require extra driver manoeuvrability clearance to operate safely inside a tunnel. Because of that either guided buses would have to be used or the existing tunnel would have to be widened. The existing Bay Street tunnel would also have to be paved in order to accommodate buses.
- f) CLC: Will a guided-bus guideway cause extra wear to a bus's tires?
- g) **PT:** A guided-bus runs on a curbed track bed with a separate guide wheel running along the curb that steers the bus for the driver. Tires on a guided-bus would be subjected to the same typical wear and tear as a regular bus.
- h) **CLC:** Apart from paving the tunnel for buses to operate on, the streetcar tracks would have to be heated as well given that ice tends to build up inside that tunnel.

#### **ACTION BY:**

- i) **CLC:** Has the TTC ever operated any surface route at 1-minute headways, say, before the Bloor-Danforth subway was built?
- j) PT: The old Spadina bus route operated at 90-second headways during the peak hour. In order for buses to operate at short headways (less than 2 minutes), however, a passing lane would be required so buses can bypass one another.
- k) CLC: I would like to reinforce the support for trolley buses. Trolley buses do not need rails to operate on and they are cheaper. If you are going to assess hydrogen fuel cell buses seriously as a technology alternative, you need to assess fairly and include trolley bus to the list of bus propulsions being considered.
- 1) **PT:** Note that the analysis being undertaken by the Project Team covers attributes that are common to all bus propulsion systems. If results of the analysis show that bus operation is feasible, then trolleys will be included as one of the propulsion options.

### 4.3 Portal Locations

- a) CLC: Does the 6% gradient standard for streetcars apply to buses as well?
- b) **CLC:** A fully loaded bus has difficulty climbing steeper hills in inclement weather think of the Bathurst Street hill north of Bloor Street.
- c) **PT:** Streetcars can draw down more electrical power as needed on hills compared to buses; hence streetcars out-perform buses on steep hills.
- d) **CLC:** Why can't you move the Bay Street portal further north so it does not block the Queens Quay/Bay intersection?
- e) **PT:** Because you would block the Harbour/Bay intersection instead.
- f) CLC: Why can't you shorten the portal then?
- g) **PT:** Because you have to maintain the 4.7 m vertical clearance inside the tunnel. It is a matter of geometry. The portal cannot be made shorter unless the ramp gradient becomes steeper. As shown, 6% is the maximum desirable ramp gradient for streetcars.
- h) **CLC:** Can you raise the Harbour/Bay intersection instead? How high would it have to be for Harbour Street to cross over the portal?
- i) **CLC:** If you brought Harbour Street over the portal, you would have to bring Bay Street up as well the intersection would be up in the air and would affect the connecting elements such as sidewalks and surrounding building entrances.
- j) **CLC:** If you put a portal on Harbour Street and close the traffic lanes, where would the traffic go instead?
- k) **PT:** That is part of our analysis in the next step.
- The CWNA representative made a point that with the potential relocation of the Ferry Docks to the foot of Yonge Street, there will be a significant increase of pedestrian activities around Yonge Street and Queens Quay in

### **ACTION BY:**

the future. There are concerns from local residents that congestion in front of the Westin Harbour Castle hotel will be worsened if a portal were located at Yonge Street.

- m) The CWNA representative submitted a petition signed by 81 residents of 10 Yonge Street and 10 Queens Quay West in support of retaining the existing portal on Queens Quay west of Bay Street. The undersigned were also opposed to re-routing the existing tunnel under Bay Street.
- n) **CLC:** What about building a curved portal ramp that spirals under the York/Queens Quay loop ramp off the Gardiner Expressway?
- o) **PT:** It would be geometrically impossible for streetcars. Tracks would be both on a curve and on a grade at very odd angles for maintaining rail/wheel contact. It would also be extremely noisy if you could achieve it.
- p) CLC: Have you looked at a possible portal location on Yonge Street?
- q) **PT:** We will consider your suggestion.
- r) **CLC:** I think you should just close Bay Street from traffic and convert it into a transit mall.
- s) **PT:** As discussed previously when we presented the surface transit scheme for 'Lake Shore Express', there are pedestrian traffic and operational issues around Union Station that hinder the feasibility of a dedicated surface transit facility or a transit mall on Bay Street even if you closed the street to traffic.
- t) CLC: There is a new condo on Bay Street currently under construction where is the entrance to the condo's garage? Is it on Bay Street? How would cars and service vehicles reach any developments fronting on Bay Street? If you were to implement a transit mall on Bay Street for streetcars or buses from Queens Quay, keep in mind that once these vehicles have dropped off passengers on one side of the road, they would have to turn around to pick up passengers on the other side.
- u) There was discussion amongst the group pertaining to potential portal locations on Queens Quay East. There was a suggestion to consider possibilities further east than Freeland Street. The Project Team responded that a tunnel portal on Queens Quay east of Freeland Street will be considered as part of the analysis. The further east the portal is on Queens Quay, the longer the tunnel would have to be. As the tunnel lengthens, an intermediate underground station would have to be considered due to the increased walking distance between stops.
- v) The YQNA representative asked the Project Team to reconsider the Union Station-Queens Quay shuttle ("People Mover") proposal that was discussed at earlier CLC meetings. The representative noted the perceived immediate benefits associated with the aforementioned shuttle. The Project Team agreed to consider the shuttle as an alternative method of connecting to Union Station from Queens Quay.
- w) The Project Team asked the group if there was any other connection alternative that should be considered. There was a suggestion for a new

#### **ACTION BY:**

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portal located at the site of an existing surface parking lot adjacent to 20 Bay Street. The Project Team responded that there are approved plans to construct a new building at that location. The Project Team will follow up on the status of those development plans.

### 5. Other Comments

- a) A CLC member noted that considerable amount of work have been done recently through the community-driven Cherry Street Design Charrette for the West Don Lands. The community's ideas generated during that process should be brought into this study to inform the Project Team with respect to the design of Queens Quay East. The Project Team noted that the essence of discussions from the Cherry Street charrette will be carried over to this study. Key members of the East Bayfront Project Team have been involved in that process and are aware of the issues common to both the East Bayfront and the West Don Lands.
- b) It was also noted that there is concurrently a larger exercise taking place by the West 8 group for the design of Queens Quay West. Work being done by that process will be tied into this study. The Project Team is committed to reviewing the West 8 concept for Queens Quay West as a base for generating design alternatives for Queens Quay East.

### 6. Next Steps

- a) The Project Team will proceed with additional analysis on transit technology alternatives (bus versus streetcar/LRV) and alternative methods of connecting Queens Quay to Union Station. The Project Team will also begin development of preliminary ROW design alternatives for Queens Quay East.
- b) The Project Team will develop a list of measures to assess/evaluate transit technology alternatives as well as alternative Union Station connections being carried forward for further analysis. These measures will be developed based on the list of evaluation criteria and indicators found in Appendix C of the Terms of Reference. A copy of the draft assessment/evaluation measures will be emailed to the CLC for review and comment.

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c) It was confirmed that the next West Don Lands and East Bayfront CLC meetings will take place as scheduled on May 24 and May 29 respectively.

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 meeting notes at 905-823-8500.

Notes prepared by, McCormick Rankin Corporation Hank Wang

#### **ACTION BY:**



## East Bayfront

**CLC Meeting #4** 

May 3, 2007





# Agenda

• Introductions

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- Near Term Study Schedule
- Reminder of Preferred Corridor/Technology(s)
- Discuss Options Being Considered
  - o Portal Location Options
  - o Technology Options
- Alternative Locations in Queens Quay corridor being developed







## From Public Workshop March 28, 2007



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## Reminder of Preferred Corridor/Technology(s) Recommendations

### CORRIDOR

37

 Carry Option #1 (Queens Quay only) as the "preferred corridor" option to the design alternatives stage

### **TECHNOLOGY (s)**

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- Carry two technology alternatives forward to the design alternatives stage
  - o Alternative 1 Streetcars in their own right-of-way
  - o Alternative 2 Buses in their own right-of-way

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# **Key Comments on Corridor**

- Participants in favour of "Queens Quay only" as the preferred corridor for providing transit service to the East Bayfront
  - o Higher service frequency on Queens Quay East
  - o Simple connection/transfer at Union Station
  - o Better serve the needs of future local population/employment
  - o Flexibility for future service expansion in the study area
  - o Less costly





# **Key Comments on Technology/ROW**

- Participants in favour of **"transit in dedicated ROW"** along Queens Quay East as the preferred approach to provide service to the East Bayfront
  - o Offers a reliable service
  - o Provides the required capacity to meet future demand
  - o Encourages use of TTC
  - o Preference for curb-side (West 8) transit ROW



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# **Alternative Technologies**

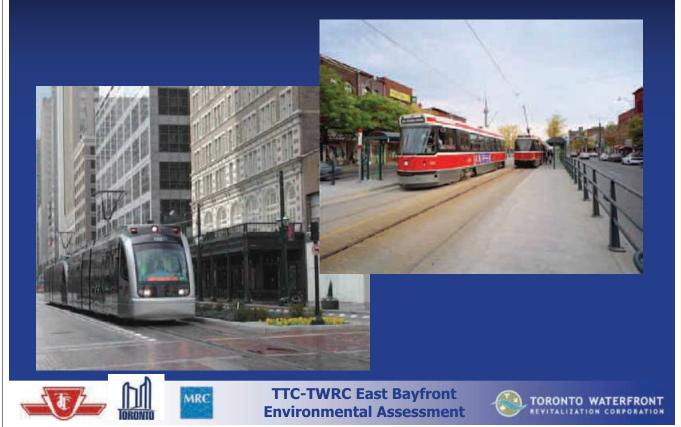


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TORONTO WATERFRONT

### **Alternative Technologies Streetcar in Dedicated Right of Way**



### Alternative Technologies **Bus in Dedicated Right of Way**





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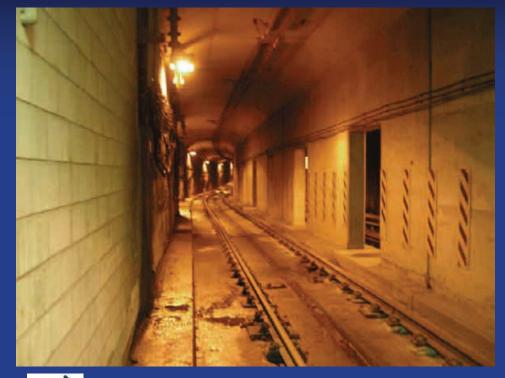
# **Vehicle Assumptions**



**Environmental Assessment** 

## **Number of Vehicles to Union Station** At least 5700 passengers /hour northbound from QQ station requires: o Approximately 46 streetcars (ALRVs) per hour or o Approximately 10 streetcars (from west) plus 56 (18m) buses from east. (total of 66 vehicles) **Resulting Headways:** • o Streetcar (ALRV) only option – 1 vehicle every 1 min 18 sec. o Buses and streetcars option – 1 vehicle every 54 sec Still have to consider mixed operation in the tunnel with these headways TT **TTC-TWRC East Bayfront** MRC TORONTO WATERFRONT **Environmental Assessment**

## **Clearance in Existing Bay Street Tunnel**

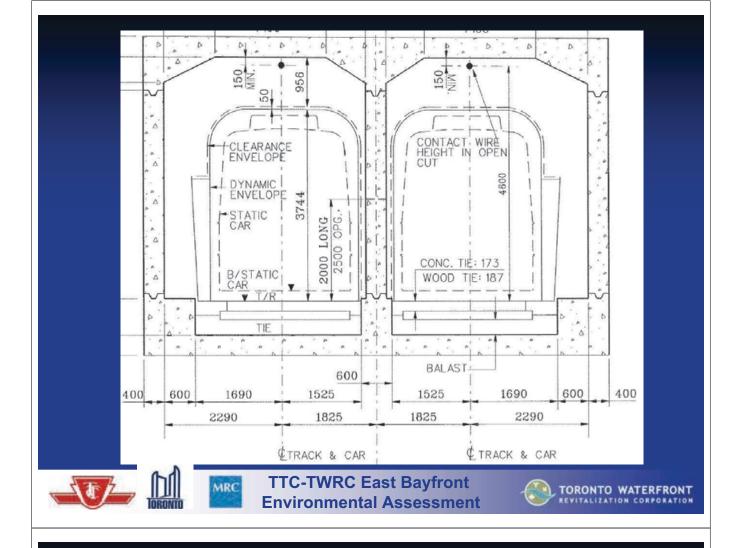




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# **Tunnel Clearance**

- Streetcars and Buses are the same width (2.59 m excluding mirrors)
- Existing streetcar tunnel is 3.25 m driving area plus .665 m emergency walkway (includes open vehicle door)
- For Buses Have to allow extra width for driver manoeuvrability
- Lawrence Station bus tunnel is 4.5 m wide and causes drivers difficulty
- Therefore, have to widen tunnel or provide guided buses
- Will be reviewing in more detail





# **Additional Analysis Being Done**

- Additional analysis to be done to assess/evaluate bus versus streetcar/LRV:
  - o Bus clearance requirements in tunnel widening ?
  - Mixed bus/streetcar operation inside tunnel pave trackbed for buses
  - o Operating headways required
  - o Loading/unloading dwell time/clearance times
  - Underground station layout requirements at Union Station terminal for mixed bus/streetcar operation
  - o Cost
  - o Noise



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# **Portal Options**



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## **Portal Locations**

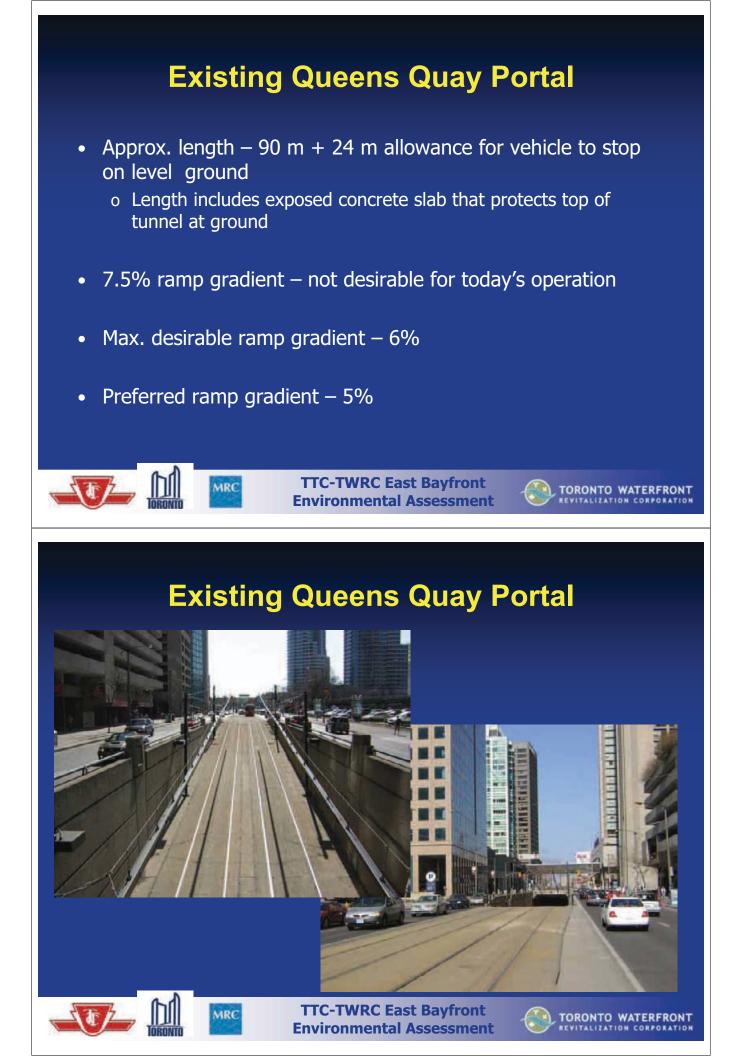
- Key element of alignment design
- Portal location options being reviewed
  - o York Street
  - o Harbour Street
  - o Bay Street
  - o Queens Quay
- First step is to see which options will physically fit
- Screen out options which do not have adequate room



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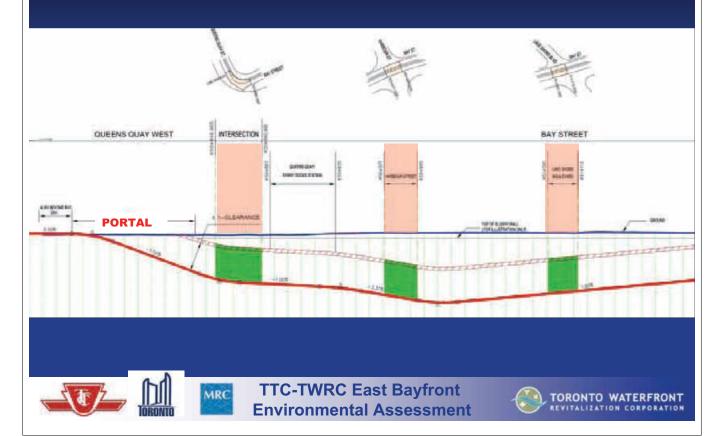




# **Existing Queens Quay Portal**



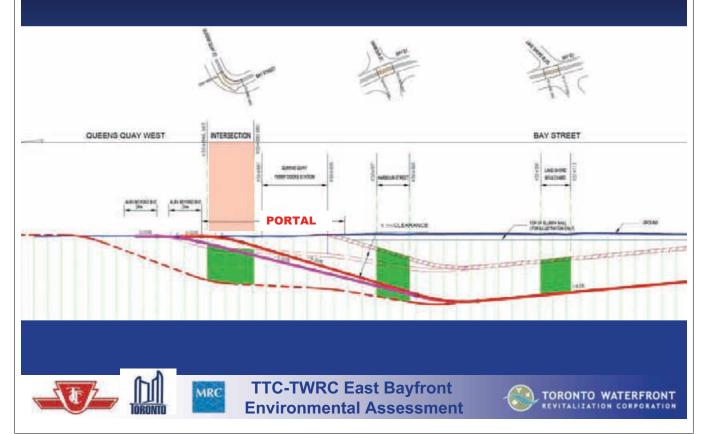
# **Existing Queens Quay Portal Profile**



# **Bay Street Portal – Option 1**



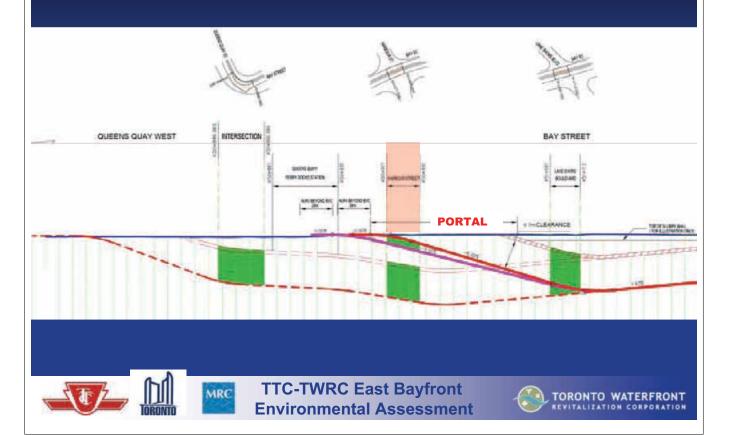
# **Bay Street Portal Profile- Option 1**



# **Bay Street Portal – Option 2**



## **Bay Street Portal Profile – Option 2**



## **York Street Portal**



## **Harbour Street Portal Option**



# **Queens Quay Portal Options**



## Preliminary Portal Screening Conclusions

- Bay and York portals have been screened out because they are not feasible (cross major intersections)
- Will carry Harbour Street and Queens Quay options forward for further analysis



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Starting to Develop Design Alternatives for Discussion on Queens Quay East



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## From Workshop Key Comments on ROW Design

- Participants reiterated the importance of:
  - o Wide sidewalks
  - o Separation between cyclists and motorists
  - o A pedestrian-friendly transit facility
  - o Emphasis on user safety and convenience
  - o Attractive urban design and aesthetics
  - o Parking/loading lanes
  - o Emergency vehicle access

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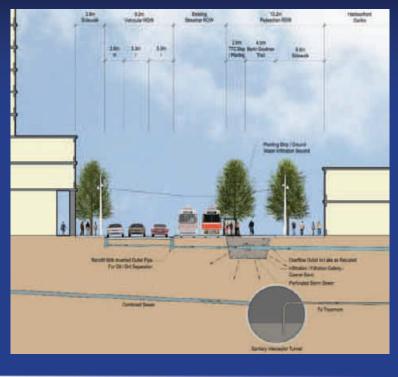
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## **Central Waterfront Study**

- Coordinating with Waterfront Innovation study
- Plans now being developed by West 8 – DTAH
- Will feed into our work as one of the options

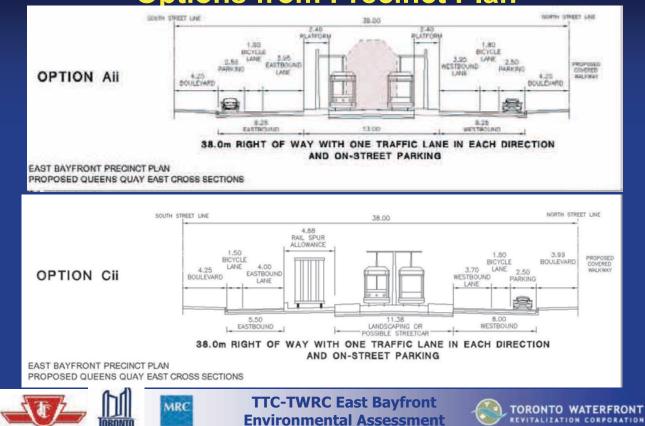
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## Will Also Develop Options from Precinct Plan



# **Queens Quay Options**

- West 8- DTAH option
  - o 2 traffic lanes
  - o Transit on south side of road
  - o Include Redpath Spur
- Precinct Plan Options
  - o 4 traffic lanes
    - > Transit in **centre** of road
    - > Accommodate Redpath spur in centre
  - o 2 traffic lanes
    - > Transit in **centre** of road

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- > Redpath adjacent to south side of transit lanes
- Others ??

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# **Next Steps**

- Analyse technology options
- Analyse portal options
- Develop preliminary Queens Quay options
- May 29 Next CLC meeting
- June 12 (tentative) EBF PIC/Workshop



