



# New LRV Fleet Maintenance & Storage Facility

Presentation to

**The Port Lands Action Committee**

September 17, 2009





## TODAY'S PRESENTATION

- Provide background and context to the TTC proposal to develop a new maintenance and storage facility for the new Low Floor Light Rail Vehicles (LRV) fleet
- Present the site locations considered and the criteria used to assess those sites
- Identify preferred site
- Answer any questions you may have with this project

## NEW LIGHT RAIL VEHICLE

- Existing streetcars are 30 to 40 years old and are nearing the end of their useful lives
- Replacement fleet will consist of 204 new Low Floor Light Rail Vehicles (LRVs)
- New LRVs will improved reliability of the vehicles (LRVs)
- New vehicle is almost twice as long as the current streetcars
- Will provide higher capacity for improved passenger flow and reduced crowding
- Are wheelchair accessible
- Designed with a strong focus on safety, security and customer convenience in all aspects of design
- Provides bright and easy to read LED route/destination signs
- Provide improved interior and exterior lighting
- Provide air conditioning
- Accommodates bicycles and baby strollers in the passenger compartment



LRV - LODZ, POLAND



BOMBARDIER LOW FLOOR LRV

Preliminary Concept



# MAINTENANCE AND STORAGE FACILITY MASTER PLAN STUDY

- Initiated by TTC to review the requirements to maintain and store the new fleet of 204 LRVs
- Considered Roncesvalles Carhouse and Russell Carhouse
  - Over 80 years old
  - Insufficient space within the existing buildings to service new LRVs
  - Insufficient storage space within the yards for new vehicles
  - Would require rebuilding and expanding existing facilities into adjacent residential neighbourhoods





# SCHEDULE FOR NEW LRVs

## LRV Fleet Delivery Schedule

- Delivery of 6 Demonstration/Prototype vehicles By end of 2012
- Delivery of 36 production vehicles annually Starting in 2013
- Complete fleet delivery (204 cars) By end of 2018

## Project Schedule

- Conceptual Design Complete Fall 2009
- Environmental Assessment Commence Fall 2009
- Preliminary Design Commence Fall 2009
- Detailed Design Commence Mid 2010
- Construction Commence Early 2011-Complete Mid 2013

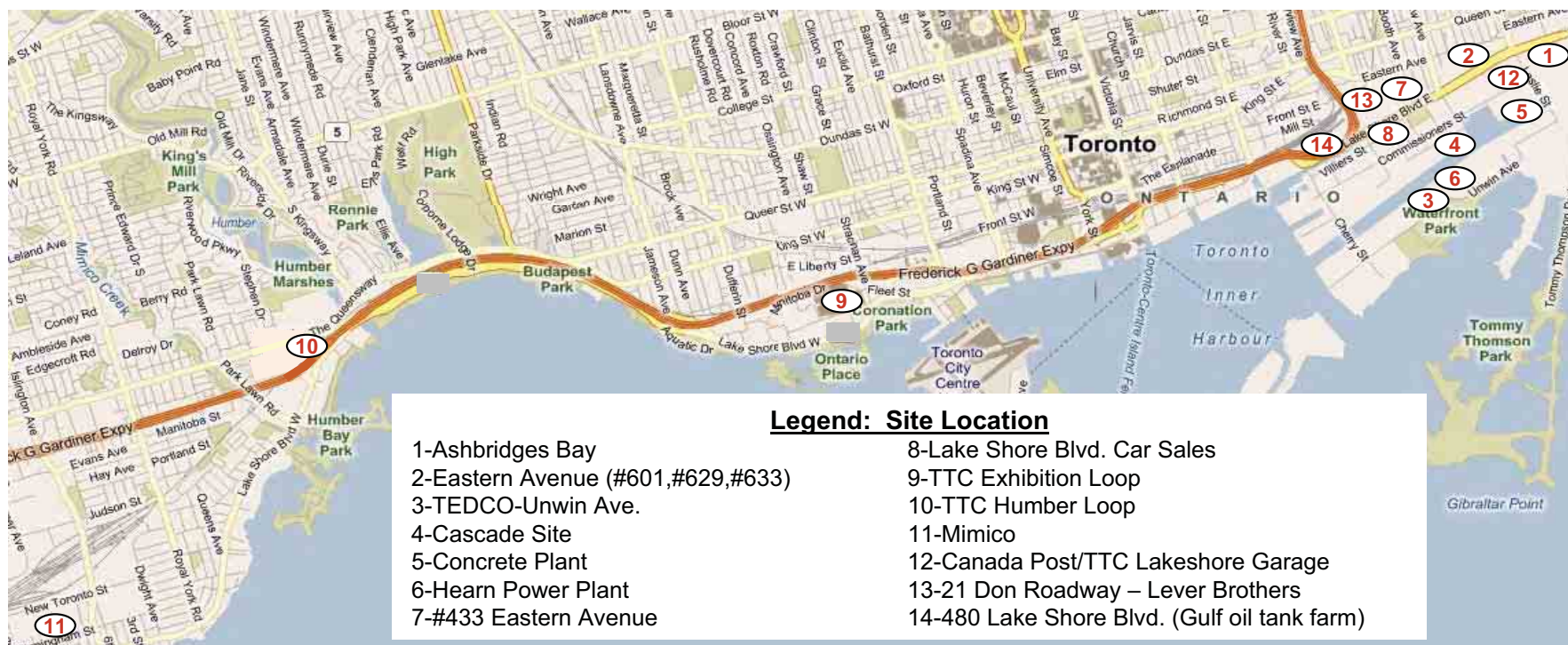


# NEW FACILITY SITE SEARCH CRITERIA

## Initial Search Criteria

- Property requirement approximately 22 acres
- Close proximity to existing streetcar network
- Minimal relocation of existing business and their facilities
- Minimize crossings of existing rail road tracks

# PROPERTY SEARCH



- Fourteen sites were investigated as potential locations to accommodate the Fleet Replacement Maintenance and Storage Facility (MSF)
- Six of these sites met the minimum property requirements (Sites #1-#6)
- The remaining eight sites were not suitable for the MSF as they did not meet the minimum property requirement



## PROPERTY SEARCH

The following six sites that met the minimum property size and access requirement are:

1. Ashbridges Bay- Leslie Street at Lake Shore Blvd. East
2. Eastern Avenue (#601, #629 & #633)
3. TEDCO - Unwin Avenue (Lots 447-449, 451)
4. Cascade site- Commissioners St./Basin St.
5. Concrete Plant – Commissioner St./Leslie St.
6. Old Hearn Generating Plant



## PROPERTY SCREENING

The site evaluations were assessed based on the following criteria:

- Property Size
- Community Considerations
- Operational Issues
- Cost
- Potential for site to be developed and in service by mid 2013



# SITES WHICH MEET PROPERTY CRITERIA



## LEGEND

- Property Boundary
- - - Connection Track from site to Queen Street

# SITE EVALUATION

Factors/Criteria and indicators	Site 1 Ashbridges Bay Site (Leslie St. & Lake Shore Blvd.)	Site 2 #601 & #629, #633 Eastern Avenue	Site 3 TEDCO – Urwin Ave. (Lots 447-449, 451)	Site 4 Cascade Site (Commissioners St./Basin St.)	Site 5 Concrete Plant (Commissioners St./Leslie St.)	Site 6 Hearn Power Plant (440 Urwin Ave.)
<b>1. Property</b> <ul style="list-style-type: none"> <li>• Current use on site and availability of site</li> <li>• Ease of acquisition and availability</li> <li>• Size</li> </ul>	<p>Vacant land</p> <p>Property owned by Port Authority; lease amendment required.</p> <p>22 acres</p>	<p>Film Studio / vacant land and car dealership</p> <p>Requires relocation of Toronto Film Studio and car dealership</p> <p>22 acres</p>	<p>Staging of granular material</p> <p>Property owned by TEDCO</p> <p>22.7 acres</p>	<p>Business Activity and vacant land</p> <p>Require relocation of businesses</p> <p>25 acres</p>	<p>Concrete Batch plant. Long term leases established by TEDCO</p> <p>Requires relocation of concrete batch plant.</p> <p>25 acres</p>	<p>Disused Hearn Power Plant</p> <p>Property owned by OPG.</p> <p>32 acres</p>
<b>2 Community Considerations</b> <ul style="list-style-type: none"> <li>• Adjacent land uses</li> </ul>	<p>Linear Park/ Berm buffer between MSF and adjacent streets.</p> <p>Wastewater treatment Plant, commercial and industrial uses</p>	<p>Relocation of businesses. Adjacent to film studios (potential noise and vibration issues)</p> <p>Residential community to the north of the site.</p>	<p>No perceived impacts to community</p> <p>Industrial uses adjacent to site.</p>	<p>Relocation of businesses</p> <p>Adjacent to film studio (potential noise and vibration issues)</p> <p>Industrial uses adjacent.</p>	<p>Relocation of businesses</p> <p>Industrial uses adjacent to site.</p>	<p>Short term uses for other activities (eg. filming)</p> <p>Industrial uses adjacent to site</p>
<b>3. Operational Issues</b> <ul style="list-style-type: none"> <li>• Operational impediments</li> <li>• Distance traveled by vehicles to City's core operational routes</li> </ul>	<p>No rail track crossing</p> <p>0.8 km connection track to line</p>	<p>No rail track crossing</p> <p>0.8 km connection track to line</p>	<p>Requires crossing of existing rail spur line on Leslie Street</p> <p>3.0 km connection track to line</p>	<p>Requires crossing of existing rail spur line at the east end of Commissioners Street</p> <p>1.8 km connection track to line</p>	<p>Requires crossing of existing rail spur line at the east end of Commissioners Street</p> <p>1.1 km connection track to line</p>	<p>Requires crossing of existing rail spur line on Leslie Street</p> <p>2.6 km connection track to line</p>
<b>4. Schedule/Timing</b> <ul style="list-style-type: none"> <li>• Facility complete by end of 2012</li> </ul>	<p>Meets schedule</p>	<p>Acquisition and demolition of building could extend completion by 1-2 years</p> <p>Will not meet schedule</p>	<p>Plans require review by Waterfront Toronto's Design Review Panel – scheduled impact 3 months</p> <p>Meets schedule</p>	<p>Acquisition and demolition of building could extend completion by 1-2 years</p> <p>Plans require review by Waterfront Toronto's Design Review Panel – scheduled impact 3 months</p> <p>Will not meet schedule</p>	<p>Acquisition and demolition of building could extend completion by 1-2 years</p> <p>Plans require review by Waterfront Toronto's Design Review Panel – scheduled impact 3 months</p> <p>Will not meet schedule</p>	<p>Demolition of building is anticipated to extend completion by 1-2 years</p> <p>Plans require review by Waterfront Toronto's Design Review Panel – scheduled impact 3 months</p> <p>Will not meet schedule</p>
<b>5. Costs</b>	<p>Property</p> <p>Connection Track</p> <p>Deadhead</p> <p>Berm/wall</p> <p>Landscape feature</p> <p>Site levelling</p> <p>Use amendment</p>	<p>Property</p> <p>Connection Track</p> <p>Deadhead</p> <p>Berm/wall</p> <p>Demolition</p> <p>Business Relocation</p> <p>Existing facility modifications to meet schedule</p> <p>Premium to meet schedule</p>	<p>Property</p> <p>Connection Track</p> <p>Deadhead</p> <p>Berm/wall</p> <p>Rail Crossing</p> <p>Structures/bridge</p>	<p>Property</p> <p>Connection Track</p> <p>Deadhead</p> <p>Berm/wall</p> <p>Demolition</p> <p>Business Relocation</p> <p>Rail Crossing</p>	<p>Property</p> <p>Connection Track</p> <p>Deadhead</p> <p>Berm/wall</p> <p>Demolition</p> <p>Business Relocation</p> <p>Rail Crossing</p>	<p>Property</p> <p>Connection Track</p> <p>Deadhead</p> <p>Berm/wall</p> <p>Demolition</p> <p>Rail Crossing</p> <p>Structures/bridge</p>

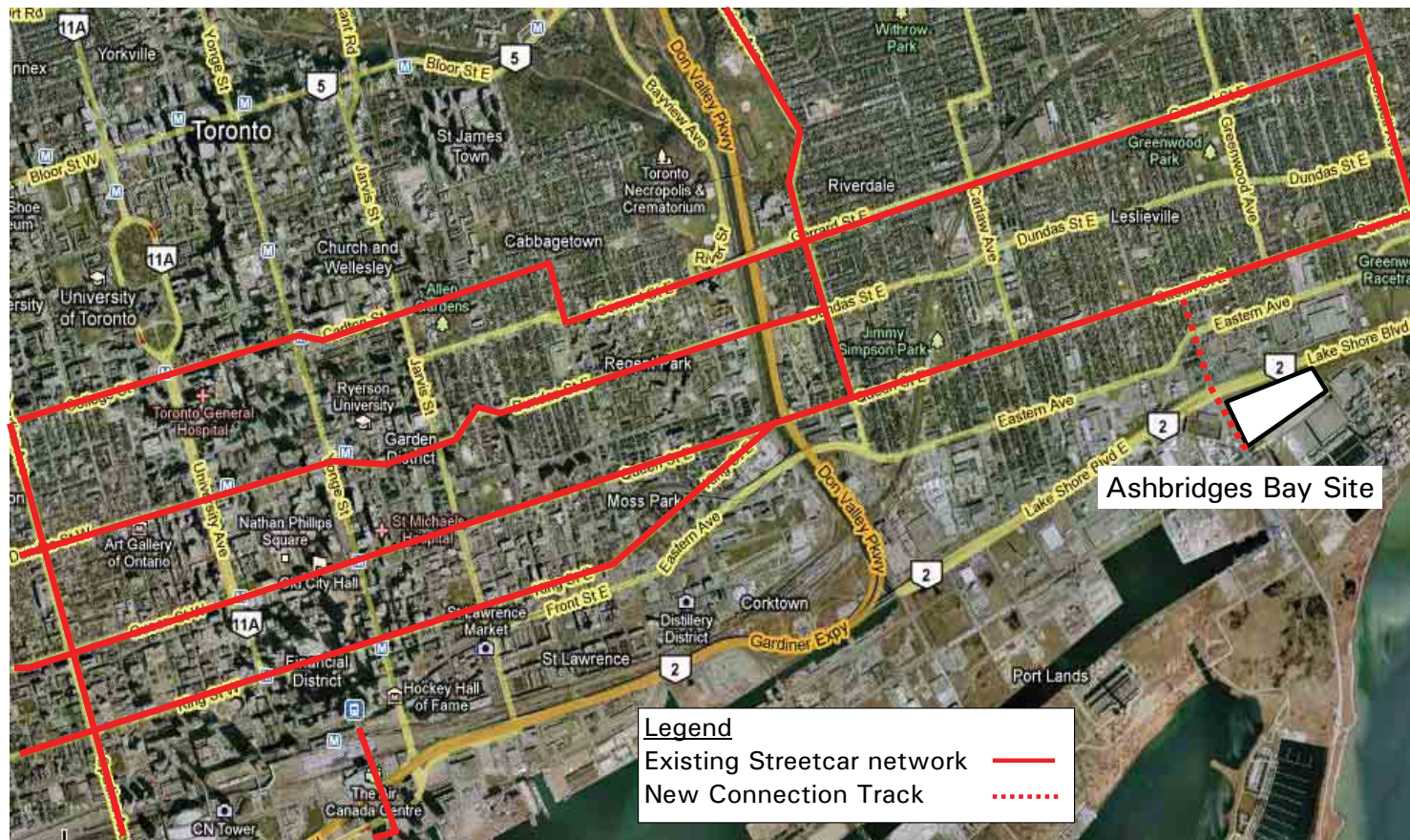


## **SITE EVALUATION**

- Based on the evaluation, the following three sites meet the criteria to accommodate the new LRV Maintenance & Storage Facility and have the highest potential to meet the scheduled completion date of 2013
  - Ashbridges Bay (Leslie Street at Lake Shore Blvd. East)
  - Eastern Avenue (#601, #629 & #633)
  - TEDCO – Unwin Avenue



## PREFERRED SITE – Ashbridges Bay



### Advantages

- Close proximity to existing streetcar line (Queen St.)
- Site is mostly vacant and has most potential to meet the 2013 completion date
- Meets the minimum property size requirement
- Adjacent to industrial and commercial developments

# ASHBRIDGES BAY





# ASHBRIDGES BAY



PRELIMINARY

Ashbridges Bay Facility Layout



# ASHBRIDGES BAY



Connecting Track to Queen Street East



# ASHBRIDGES BAY



QUEEN ST.  
WEST VIEW AT LESLIE ST.

EXISTING



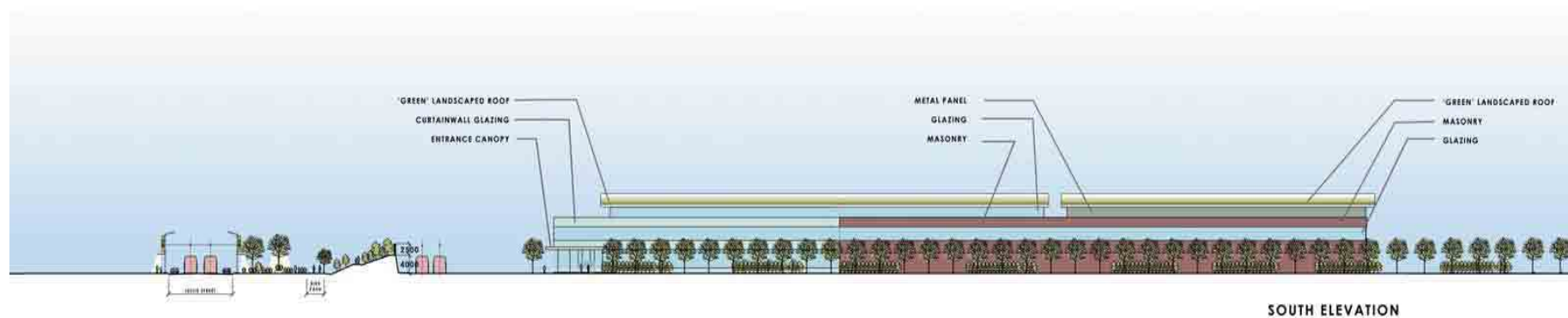
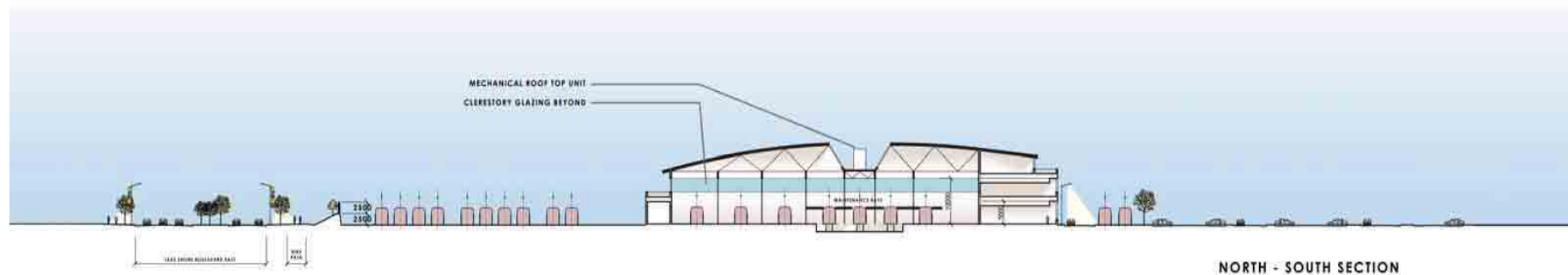
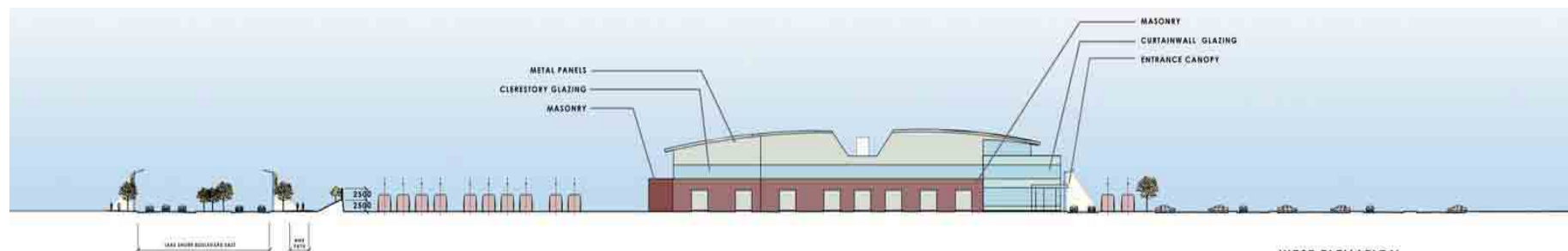
PROPOSED

PRELIMINARY

Queen St./Leslie St. Track Connection

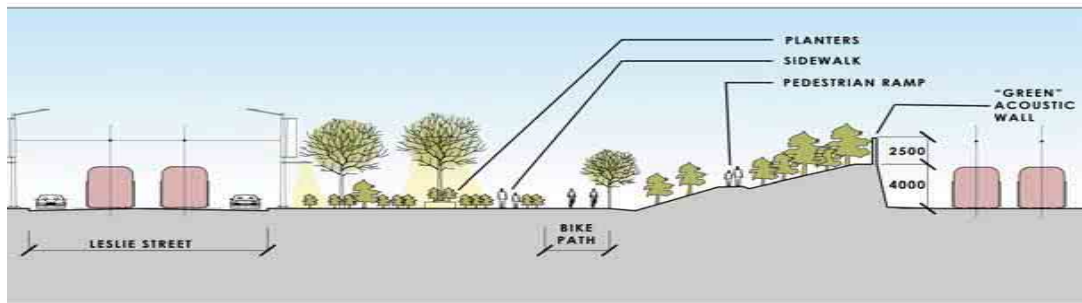


# TYPICAL FACILITY ELEVATIONS AND SECTION

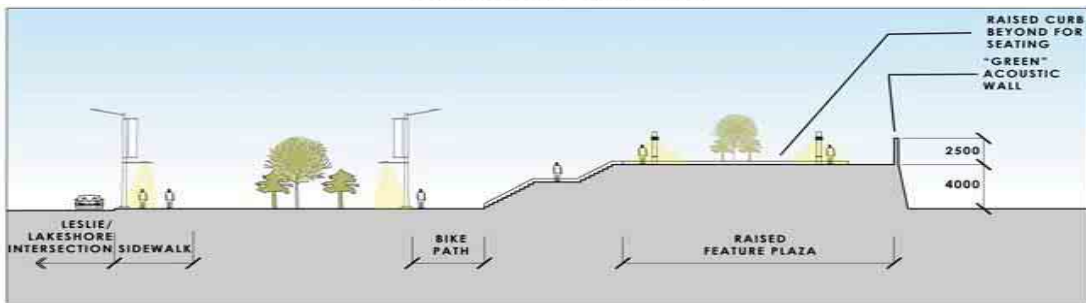




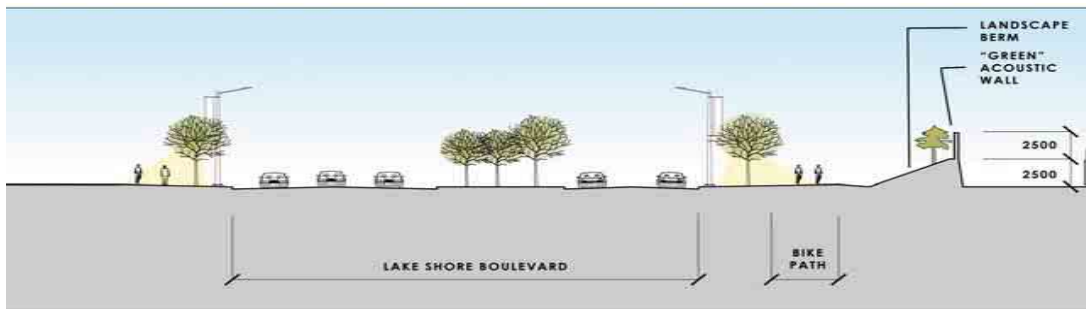
# ASHBRIDGES BAY



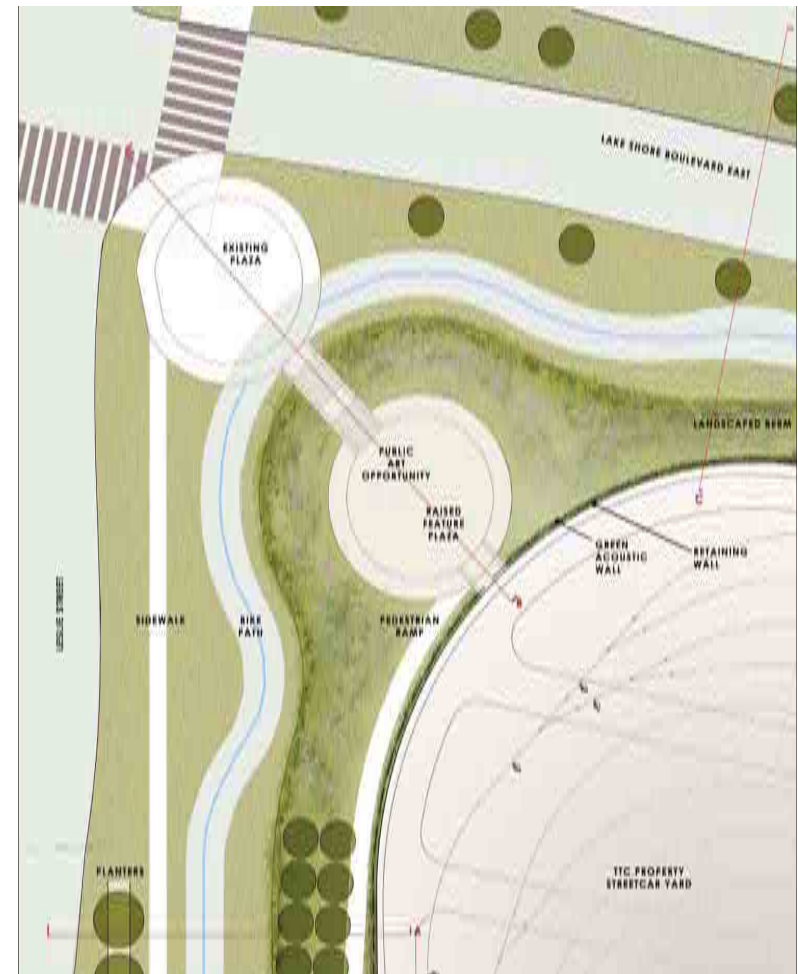
LESLIE STREET SECTION A



PARKETTE PLAZA SECTION SECTION B



LAKE SHORE BOULEVARD SECTION C



Proposed Parkette at Leslie and Lake Shore and cross sections along Lake Shore and Leslie



# ASHBRIDGES BAY



Existing south view of Martin Goodman Trail at Leslie and Lake Shore



Proposed south view of Martin Goodman Trail at Leslie and Lake Shore



# ASHBRIDGES BAY

Existing north view of Martin Goodman trail at Leslie and Commissioners Street



**Proposed North View of Martin Goodman Trail at Leslie and Commissioners Street**



## GREENING INITIATIVES

- New LRV Maintenance and Storage Facility will be built to:
  - Toronto Green Development Standards
  - Green development standards that may be considered for this site could include:
    - Provision for bicycle parking
    - 50% green roof coverage
    - Storm water management ponds and systems
    - Accommodate collection of recyclables
    - Window shading devices
    - Natural light utilization for interior spaces
    - Urban heat island reduction on roof (light coloured roof membrane)





## ECONOMIC DEVELOPMENT

- The New LRV Fleet Maintenance and Storage facility will stimulate both short term and long term job creation
  - Short Term – Construction jobs
  - Long Term – Approximately 540 employees working from this facility
- Provides durable employment land use
- Brings new wages to the area and a new customer base for local restaurants and retailers
- Improves an existing underutilized site
- Will catalyze improvement to underutilized property in the area
- Will compel investment in needed infrastructure improvements



## **PUBLIC CONSULTATION**

- Public Open House
  - Series of three Public Open Houses held June 16, 17, 18
  - Over 185 people attended
  - Approximately 200 comments received
  - Overwhelming majority of comments advocating against the selection of Eastern Avenue site
- Toronto Film Board
  - Met with Toronto Film Board Executive to discuss proposed sites
  - Subsequent meeting scheduled for September 22



## NEXT STEPS

- Continue discussions with Toronto Port Authority for the Ashbriges Bay site
- Obtain Toronto City Council approval on recommended site
- Commence Environmental Assessment and preliminary planning on Ashbridges Bay site and connecting trackwork between Queen Street and new carhouse

Website: [www.toronto.ca/involved/projects/lrv](http://www.toronto.ca/involved/projects/lrv)