Lakeshore East Rail Corridor

Community Advisory Committee #1

March 27, 2018

DELIVERY PACKAGES

Package 1: Enabling Works

- Mostly civil works projects underway or can be completed by 2022 (i.e. advanced design, double tracking, grade separations); refer to the timing below

- Scope includes:
  - Grading for the future fourth track on the south side between the Don River Bridge and Gerrard Street shifting to the north side between Pape Avenue and Scarborough GO Station.
  - Widening of bridges at: Woodbine Avenue, Warden Avenue and Danforth Avenue.
  - Widening works under the Birchmount Road Bridge.
  - New station building and platform changes at Danforth GO Station.
  - Retaining walls.
  - Existing culvert rehabilitation.

- Timing:
  - Detailed Design: Present - September 2018
  - Construction Tender Timeline : October 2018 – June 2019
  - Contract Execution: July 2019
  - Construction Duration: 3 Years

DELIVERY PACKAGES

Package 2: Off-Corridor Works

- Development of new stations at Gerrard and East Harbour

- RFQ scope:
  - New station buildings or pavilions
  - Trackbed and grading
  - Platforms
  - New parking
  - Pedestrian access (tunnel or overpass)
  - Public realm improvements

- Timing:
  - RFQ – April 2018
  - RFP – Fall 2018
  - Construction – TBD

DELIVERY PACKAGES

Package 3: On-Corridor Works

- DBFOM – Design, Build, Finance, Operate and Maintain the GO Rail expansion project.

- The RFQ outlines the scope of work required, which includes:
  - Track construction
  - New trains: new electric locomotives and electric multiple units
  - Civil works: upgrades to bridges, retaining walls, noise walls, grading, etc.
  - Union Station: changing the platform and track configurations
  - Systems: electrification infrastructure and power system upgrades
  - Operations
  - Maintenance

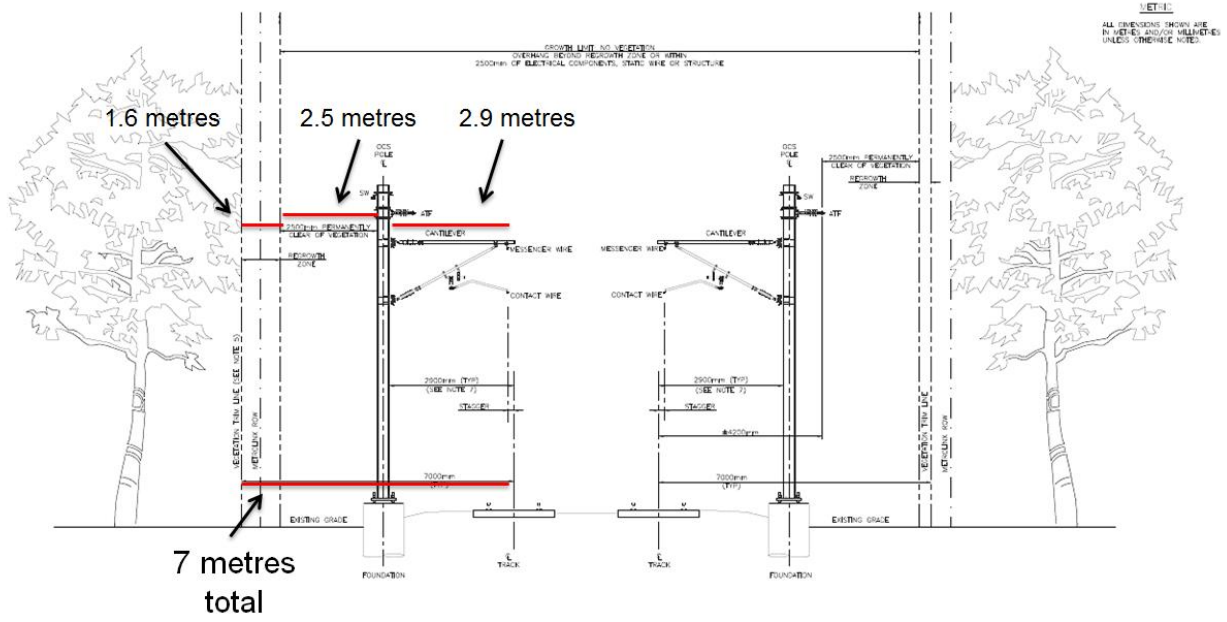
- Timing:
  - RFQ – March 29, 2018
  - RFP – January 2019
  - Construction - TBD

METROLINX AND NOISE MITIGATION - OPTIONS

Application	Mitigation Measure		Effectiveness
SOURCE	Stringent Vehicle & Equipment Noise Specifications		Varied
	Operational Restrictions		Varied
	Resilient or Damped Wheels*	For Rolling Noise on Tangent Track:	2 dB
		For Wheel Squeal on Curved Track:	10-20 dB
	Vehicle Skirts*		6-10 dB
	Undercar Absorption*		5 dB
	Spin-slide control (prevents flats)*		**
	Wheel Truing (eliminates wheel flats)*		**
	Rail Grinding (eliminates corrugations)*		**
	Turn Radii greater than 1000 ft*		(Avoids Squeal)
	Rail Lubrication on Sharp Curves*		(Reduces Squeal)
	Movable-Point Frogs (reduce rail gaps at crossovers)*		(Reduces Impact Noise)
PATH	Sound Barriers close to Vehicles		6-15 dB
	Sound Barriers at ROW Line		3-10 dB
	Alteration of Horiz. & Vert. Alignments		Varied
	Acquisition of Buffer Zones		Varied
	Ballast on At-Grade Guideway*		3 dB
	Ballast on Aerial Guideway*		5 dB
	Resilient Track Support on Aerial Guideway		Varied
RECEIVER	Acquisition of Property Rights		
	Building Noise Insulation		5-20 dB

METROLINX AND NOISE MITIGATION – OPTIONS AND TREE IMPACTS

- Trees and vegetation will require removal to accommodate new infrastructure.
- Noise Barriers may exacerbate tree removal requirements, specifically those trees providing visual screening to the rail corridor – may provide an opportunity for mitigation options other than traditional noise barriers to be explored.
- Community consultation on approach to noise mitigation in these areas will be essential.



TREES AND VEGETATION

- Tree replacement
  - Metrolinx is developing a Vegetation Compensation Approach on a network-wide basis to compensate for the removal of vegetation resulting from infrastructure works planned under the Regional Express Rail program.
  - Compensation for vegetation removal will be based on the following approaches:
    1. Ecosystem Approach - Compensation based on loss of ecological services
    2. Municipal Bylaw - Follow compensation requirements as defined in municipal bylaws
    3. Integrated Vegetation Management - Program to manage compatible vegetation along rail corridor

- City of Toronto strategy on Pollinator Protection Strategy
  - As part of the vegetation compensation strategy, we will look at ways to offset the ecological loss of trees, including the establishment of pollinator habitat.

RAILWAY SAFETY AT METROLINX

- Safety is our top priority
  - Railway safety at Metrolinx is under the purview of Transport Canada and its Railway Safety Act.
  - In addition to this act and other safety legislation, Metrolinx follows and complies with various rules, regulations and standards, all of which, ensure the safety of our operations.
  - In addition to our own internal audit system, we are audited regularly by safety regulators, including our Safety Management System framework.

- Our plan for railway safety
  - High security fencing will be installed to secure the corridor and reduce graffiti, trespassing and any other loitering or other illegal gatherings.
    - Height and material will be determined based on the environmental considerations (i.e. topography) of this corridor.