

Queens Quay Construction Fact Sheet

CONSTRUCTION LOCATION

- Main Construction Scope: North and south side of Queens Quay between Yo Yo Ma Lane (just west of Lower Spadina Ave.) to just east of Bay Street (at the Westin Hotel)
- The project also includes: enhancements to the south side of Queens Quay between Bay St. and Yonge St. and a new section of Martin Goodman Trail and sidewalk between Yonge St. and Jarvis St. which were completed in fall 2013

DESIGN/CONSTRUCTION TEAM

Lead Designer: West 8 + DTAH
Construction Manager: Eastern Construction Company Ltd.

PROJECT DIMENSIONS

- Length of the construction area from Yo Yo Ma Lane to Yonge St. – 1.7km
- Granite pedestrian promenade – Average 5.0m wide by 1.7km long
- Buffer zone (between promenade and Martin Goodman Trail) – 2.4m
- Martin Goodman Trail – Approx. avg. 3.6m wide by 1.7km long
- Interim Martin Goodman Trail between Yonge St. and Jarvis St. – approx. 3.6m wide by 480m long
- New or improved south side sidewalk between Yonge St. and Jarvis St.– approx. 2.2m wide by 546m long
- Number of trees: 240 (north and south side)

PROJECT DESCRIPTION

When complete in spring 2015, Queens Quay will be a waterfront showpiece and a must-see Toronto destination. The new Queens Quay will feature:

- A generous granite mosaic pedestrian promenade with a canopy of trees
- A new stretch of Martin Goodman Trail connecting cyclists through the downtown waterfront
- A new two-lane roadway with improved signal timing, turning lanes and new lay-bys for passenger loading/unloading
- An improved streetcar corridor with widened platforms and new passenger amenities
- Granite sidewalks and landscaping improvements in front of storefronts on the north side

TIMING

The project is on schedule for Summer 2015, in time for the start of the Pan Am Games and the many visitors expected to come to Toronto for the Games.

CONSTRUCTION SCOPE

Stage One – Underground Work

Much of the most complicated work for the revitalization of Queens Quay occurred below grade. Most of the utilities and services located underground had to be replaced and updated before major work could occur above ground.

Bell: Install/relocate duct banks and new copper and fibre-optic cabling

- Locations: On Queens Quay between Rees St. and York St. and on the east side of York St.
- Timeline: Crews started civil work June 2012 and completed late July 2012. Cable pulls, splicing and terminations are underway and expected to be complete by Spring 2013.

Toronto Hydro: Upgrade its service through the construction of new cable chambers and the replacement of aging underground primary cables

- Location: Between Yo Yo Ma Lane and Yonge St.
- Timeline: Multiple crews began civil work in October 2012 with expected completion of late 2014. There are 47 new or rebuilt chambers and 32 concrete-encased ducts in this work package.

Enbridge: Relocate and upgrade its gas main along Queens Quay

- Location: Between York Street and the western edge of HTO Park West
- Timeline: Work completed in early 2013 with additional scope completed at Rees Street (late 2013) and at Lower Spadina (mid-2014).

Sanitary Sewer: Construction of new sewer system replacing aging sewer infrastructure.

- Location: Work to be completed in three areas:
 - Rees St. to York St.
 - Bay St. to York St.
 - Lower Spadina Ave. to HTO West
- Timeline: Crews will excavate and then install the new sewers, backfill and grade. Work was completed in mid-2014.

Storm Sewer: Construction of new storm sewers to replace legacy/aging systems.

- Location: Work to be completed in two areas:
 - York St. to Bay St.
 - 350 Queens Quay to Rees St.
- Timeline: Crews will excavate and then install the new sewers. Work was completed in mid-2014.

Stage Two – Above Ground Work

TTC Demolition: Demolish old concrete TTC corridor and Spadina Loop

- Location: From Harbourfront Portal/Tunnel to Yo Yo Ma Lane including Spadina grand union turning loop
- Timeline:
 - Demolition: Work began in the fall of 2012 and continued in sequences until the entire corridor and turning loop was demolished. Demolition was completed early 2013 (with Spadina Loop demolition completed in fall of 2013)

TTC Rebuild: Rebuild the TTC corridor and install new tracks from Harbourfront Portal/Tunnel to Yo Yo Ma Lane including Spadina grand union turning loop

- Location: From Harbourfront Portal/Tunnel to Yo Yo Ma Lane
- Description: The new TTC corridor is 6.1 metres wide and made of concrete with granite curbs. It features 2.4 metre wide platforms with new TTC/City of Toronto shelters and traffic railings/barriers.
- Timeline:
 - Spadina Loop reconstruction began in fall 2013 and was operational on August 31, 2014. Construction on the rest of the corridor began in early 2013 and service resumed on October 12, 2014.
 - Other TTC-related tasks: Construction of new duct with chambers for electrical/communications cables, installation of cantilever poles and overhead wiring.

North Side Sidewalks: Demolish current sidewalk and install new granite curbs and granite sidewalk pavers. New lighting and final finishes are installed including planting trenches. Tree planting will depend on season and feasibility of planting specific tree species.

- Description: Tree pits will be installed prior to Caledonia Grey granite curbstones and Royal Canadian red granite sidewalk pavers. There will be 68 trees planted in tree trenches spaced 10 metres apart.
- Location: Between Yo Yo Ma Lane and Bay St.
- Scope of work: Crews will demolish the existing sidewalks and excavate several metres of soil in order to install trees in continuous planting areas. Deep caisson foundations will be drilled and filled with concrete as supports for the new light poles. Crews will then build up the sidewalks with granular 'A' bedding, pour a concrete base and install smooth 80mm thick Royal Canadian Red granite pavers. The road will be lined with new 300mm wide granite curbs. Bike rings and garbage receptacles will also be installed. Sidewalk work began in early 2013 and will be complete by May 2015.

Roadway: Demolish north side traffic lanes and curbs and rebuild new roadway.

- Description: Two lanes of east/west traffic with expanded turning lanes and new lay-bys for passenger loading/unloading and deliveries. New granite curbs and street lights will also be installed.
- Location: Between Yo Yo Ma Lane and Bay St.
- Scope of work: Remove existing road and curbs. Install new street lights, catch basins, and underground utilities (lateral connections, electrical conduit, etc.). Install new asphalt roads, lay-bys and granite curbs. Work began in summer 2014 and will be complete by late 2014. Traffic will remain one-way until the road is commissioned in Spring 2015.

Pedestrian Promenade: Demolish current sidewalk and install new granite curbs and promenade mosaic pavers including new pedestrian lighting, benches, bike rings, trash cans and other amenities.

- Description: The promenade will be made of Canadian granite paving stones with split face edges and a smooth surface, set on a concrete base. Each paver will measure 100x100x80mm. There will be approximately 2.3 million paving stones laid on Queens Quay.
 - 1,401,500 for the south side of Queens Quay
 - 965,300 for the north side of Queens Quay
- The mosaic will be two-tone: The paving surface will be smooth Royal Canadian red granite, while the maple leaf figures will be outlined with white St. Sebastien granite.
- Location: Between Yo Yo Ma Lane and Bay St.
- Scope of work: Crews will demolish the existing sidewalks and excavate a couple metres of soil to install soil cells and trees in the planting areas. Deep caisson foundations will be drilled and filled with concrete as supports for new light/traffic poles. Crews will build up sidewalks with granular 'A' bedding, followed by a concrete base finished with smooth 80mm thick Royal Canadian Red granite pavers, inset with "Maple Leaf" patterns. Promenade work began in 2013 and will be complete in June 2014.

Martin Goodman Trail: Demolish south side traffic lanes and build the Martin Goodman Trail

- Description: The Martin Goodman Trail will be asphalt with green and blue painted lines and a maple leaf pattern that helps denote driveways, intersections and other pedestrian crossings.
- Location: Between Yo Yo Ma Lane and Bay St.
- Scope of work: The Martin Goodman Trail construction will occur on top of the soil cells installed earlier. These soil cells are the structural system for the trail. Heavy duty asphalt paving, 3.6 metres wide will be the final finish running material. Double delineation lines will be painted to separate eastbound and westbound lanes, completed with 'slow' boxes at every intersection. A rough paving strip between the Martin Goodman Trail and the TTC corridor will also be installed. Bike rings, benches and garbage receptacles will be installed along the way as well. Work began in summer 2014 and will be complete in June 2014.

LIGHTING

The "signature poles" for the project were designed to reference trees. They feature a Western Yellow Cedar tapered light pole with a cast metal "tree bark" footing.

- The poles are 9 metres high, with two cast aluminum arms and two signature "Olivio" light features at the top – one for the purpose of street lighting and the other to illuminate pedestrian walkways.

BENCHES

A backless bench will be installed along Queens Quay like those already installed at the wavedecks and water's edge promenade. These backless benches will be placed along the south side promenade. The benches are supported by custom cast red aluminum brackets with a maple leaf motif and ipe wood slats.

- Number of Backless benches: 25
- Dimensions: 450mm high x 770mm x 4.2metres long
- Type of wood: Ipe

TREES

A double row of trees will be planted along the south side featuring one continuous tree species. The north side sidewalk will feature a diverse variety of species planted to suit difficult urban planting conditions.

- Approximately 240 trees will be planted:
 - 165 for the promenade / Martin Goodman Trail
 - 74 for the north side sidewalk

- Tree species include:
 - South side: Plane Trees
 - North side: Freeman Maple, Sunset Maple, Turkish Hazel, Sunset Honey Locust, Greenspire Linden and Princeton Elm

- Soil Cells: To help deliver mature trees, a tiered web of rigid boxes called Silva Cells will be installed on the promenade and Martin Goodman Trail. A tree trench will be used on the north side sidewalk which will ensure a similar or greater soil volume than the City of Toronto standard.

ACCESSIBILITY

Waterfront Toronto engaged an accessibility consultant for the project to ensure that Queens Quay was designed to be fully accessible for people with disabilities. The pedestrian promenade features granite pavers that are flush to the ground with a “waterjet” finish to provide ample traction. There are also wider sidewalks on the northside of the street. The rebuilt TTC corridor will feature wider platforms with ramps. Along the corridor, grooved/textured curbs will be installed to assist visually impaired pedestrians. To make passenger drop-off and pick-up easier, the new roadway will include lay-bys on the north side of the street. Other accessibility features include texture contrasts (e.g., rough surface in between the sidewalk and Martin Goodman Trail) to differentiate between the Martin Goodman Trail and promenade, curb cuts/slopes at pedestrian crosswalks with blind-lines cut into the granite, signals with audio chirps at crosswalks and pedestrian scale lighting.