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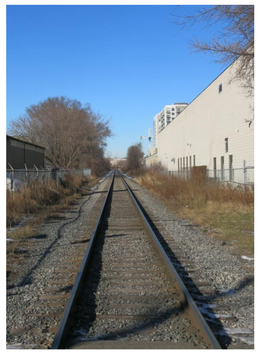
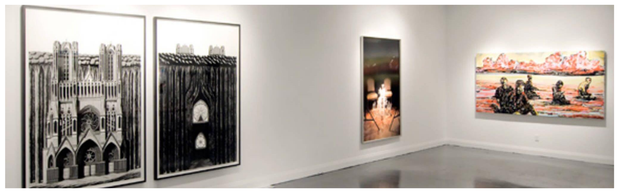
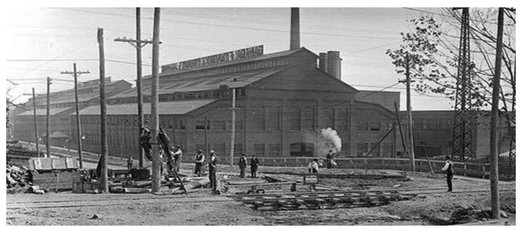
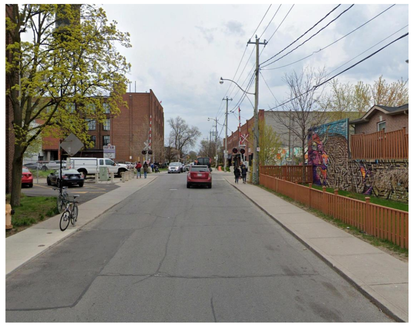
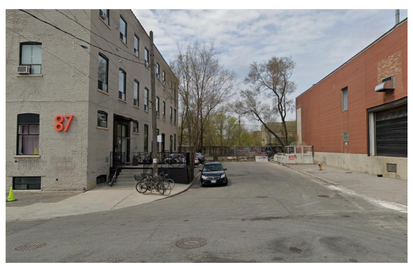










Davenport Diamond Guideway & Greenway
Live Event: June 1st, 2021, 6-7:30 p.m.

For more info go to: **metrolinx.com/davenport**
For further feedback: **TorontoWest@metrolinx.com**

LAND ACKNOWLEDGMENT

Metrolinx wishes to recognize that it operates on the traditional territories of the Anishnabeg, the Haudenosaunee and the Wendat Peoples.

In particular, we acknowledge that the Davenport Guideway and Greenway projects take place on Treaty 13 territory of the Mississaugas of the Credit First Nation.

We acknowledge that Metrolinx operates on these lands and has a responsibility to work with the original keepers of this territory and the many diverse Indigenous Peoples living here today.

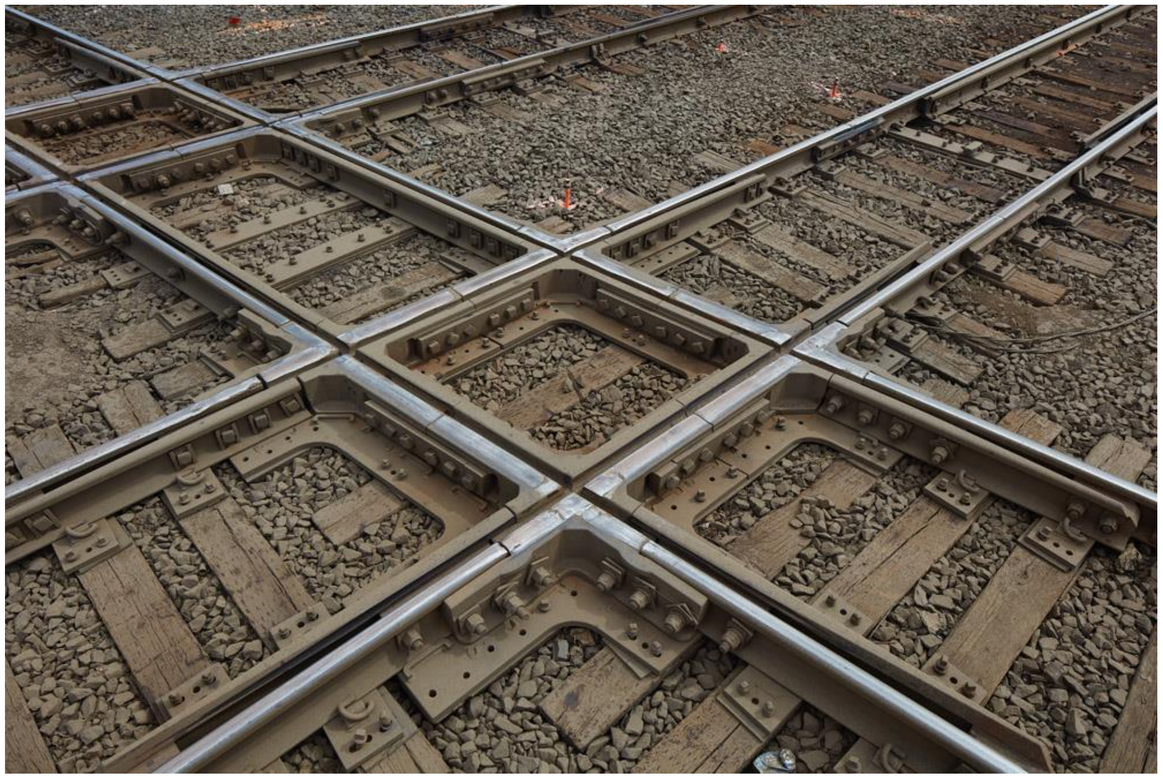
Metrolinx remains committed to engaging with Indigenous Peoples and Nations on these projects.

DAVENPORT DIAMOND GUIDEWAY

PROJECT OVERVIEW

What is the project?

The Davenport Diamond refers to the intersection where the Barrie GO corridor meets the CP Rail tracks near Dupont Street. The Davenport Diamond Guideway project eliminates this at-grade crossing by building an elevated twin-track guideway between Bloor Street and Davenport Road for GO trains to travel above the CP tracks.



PROJECT OVERVIEW

Why is it happening?

The Davenport Diamond is one of the busiest train intersections in North America.

As Metrolinx connects our region with two-way all-day GO service, it means more trains will be passing through the intersection and we need a solution to this congestion problem.

Enter the Davenport Diamond Guideway project.

The Davenport Diamond Guideway project is part of Metrolinx's GO Expansion program.

Who is the builder?

Graham Commuter Rail Solutions was selected by Metrolinx and Infrastructure Ontario to build the Davenport Diamond Elevated Guideway.

GRAHAM
COMMUTER RAIL SOLUTIONS

PROJECT OVERVIEW

The Davenport Diamond Guideway project includes:

- Construction of a new elevated twin-track guideway between Bloor Street and Davenport Road (parts of which are MSE – mechanically stabilized earth – wall)
- Replacement of the Bloor Street bridge
- Rehabilitation of bridges at Davenport Road and Dupont Street
- Construction of a new rail over road bridge at Wallace Avenue, to remove the existing level crossing
- Creation of a pedestrian underpass at Paton Road

Davenport Diamond Guideway Project Map

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INFOGRAPHIC LEGEND

Davenport bridge rehabilitation

New bridge over CP Rail tracks

Dupont bridge rehabilitation

New bridge at Wallace Ave

New pedestrian tunnel at Paton Rd

Bloor St bridge replacement

CONSTRUCTION TIMELINE: BY MILESTONE

Construction began in April 2020.
Expected completion: 2023.

Activity	2019	2020	2021	2022	2023
Contract Awarded					
Detailed Design Diversion Track					
Diversion Track Construction					
Detailed Design Mainline Track					
New West Mainline Construction					
New East Mainline Construction					
Final Completion					
Greenway Construction					

DIVERSION TRACK

Diversion track installation prior to construction of elevated guideway

Activity	2019	2020	2021	2022	2023
Diversion track installation					
Move train to diversion track (Milestone)					

The diversion track and the temporary Davenport Diamond were installed in September 2020 (pictured here).

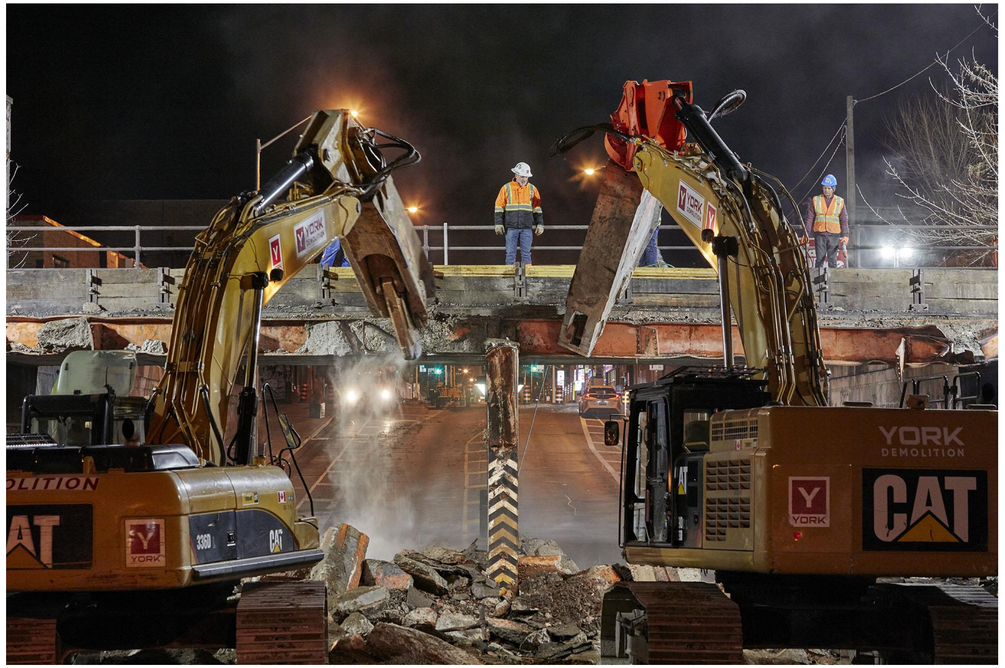
The diversion track allows GO service to continue while the elevated guideway is built.

Since September 2020, trains have been running on the diversion track.

BLOOR STREET BRIDGE

Replacement of existing bridge over Bloor Street (west of Lansdowne)

Activity	2019	2020	2021	2022	2023
Remove and replace west half		[redacted]			
Remove and replace east half				[redacted]	



Removal of the west half of the bridge was completed in November 2020 (pictured here).

Replacement of the west half of the bridge in underway.

Once the west half is replaced and the west main line track is installed, trains will be moved over to the west side.

The east half of the bridge will then be removed and replaced.

SOUTH MECHANICALLY STABILIZED EARTH (MSE) WALL AND PATON ROAD UNDERPASS

Construction of the MSE wall between Bloor Street and Wallace Avenue to raise tracks to match height of elevated guideway and new pedestrian underpass to provide new connectivity at Paton Road

Activity	2019	2020	2021	2022	2023
MSE wall construction					
Paton Road underpass					

WALLACE AVENUE BRIDGE

Construction of new bridge over Wallace Avenue to remove existing at-grade rail crossing

Activity	2019	2020	2021	2022	2023
Elevated guideway columns and south bridge abutment					
Girder installation and bridge deck					

ELEVATED GUIDEWAY

Construction of elevated guideway to remove at-grade rail within the corridor, including existing Davenport Diamond crossing, to open up public space below the new guideway

Activity	2019	2020	2021	2022	2023
Elevated guideway caisson drilling and column installation					
Girder erection					

DUPONT STREET

Rehabilitation of existing bridge over Dupont Street to retain pedestrian connectivity between north and south side of Dupont Street below new elevated guideway

Activity	2019	2020	2021	2022	2023
Elevated guideway construction					
Partial bridge rehab					

NORTH MECHANICALLY STABILIZED EARTH (MSE) WALL

Construction of the MSE wall between the CP Rail tracks and Davenport Road

Activity	2019	2020	2021	2022	2023
MSE wall construction			[redacted]		

CP RAIL BRIDGE

Construction of new bridge over CP tracks to eliminate existing Davenport Diamond rail crossing

Activity	2019	2020	2021	2022	2023
Elevated guideway columns and north bridge abutment			[redacted]		
Girder installation and bridge deck			[redacted]		

DAVENPORT ROAD BRIDGE REHABILITATION

Rehabilitation of existing bridge over Davenport Road

Activity	2019	2020	2021	2022	2023
Partial bridge rehabilitation					
Remaining partial bridge rehab					

MAINLINE TRACK INSTALLATION

Installation of mainline track on elevated guideway

Activity	2019	2020	2021	2022	2023
West mainline track					
Move train to west mainline track					
East mainline track construction					

WHAT HAS BEEN COMPLETED SO FAR

Since construction started in April 2020:

- Installed the diversion track and moved trains over so that GO service can continue while we build the elevated guideway.
- Removed the west half of the Bloor Street bridge to allow construction of the new west half to commence.

Diversion track was completed in September 2020.

West half of **Bloor Street bridge** was removed in November 2020.

WHAT'S HAPPENING NOW

Elevated Guideway Caisson Drilling - Overview

Drilled caissons act as underground columns.

They form the structural piers that support the load of the elevated guideway structure by transferring the weight to the foundation below.

Caisson drilling involves:

- Drilling a hole into the ground, down to more supportive bedrock
- Installing steel reinforcement, i.e., rebar cage
- Pouring concrete

Expected completion: July 2021

Concrete pour.

WHAT'S HAPPENING NOW

Elevated Guideway Caisson Drilling – Continued

- Between CP Diamond and Wallace Ave.
  - Completed between CP Diamond and Antler St.
  - Crews are currently working north from Wallace Ave. towards Antler St.

Caisson drilling at Wallace Ave.

Schedule:

Monday – Sunday
7 a.m. – 1 a.m.

Drilling will stop at approximately 11 p.m.

Wrap-up / cleanup will continue afterwards. Crews may work past 11 p.m. to finish a concrete pour or other activities already underway – other activities include crane lifts, equipment moves, and use of an oscillator to push casing.

Crews will be offsite by approximately 1 a.m.

WHAT'S HAPPENING NOW

Bloor Street Bridge Abutment Replacement – Overview

In late-February, we started preparation for the replacement of the Bloor Street bridge.

The first step is to replace the north and south abutments (the concrete structures at the two ends of the bridge span that support the bridge).

Until November 2021, we are doing the following at both ends of the bridge (on the west side):

- Installing a temporary shoring wall to protect the existing track (completed)
- Excavating behind the existing abutments
- Drilling structural caissons that will form the foundation of the new bridge (partially completed on the south side)
- Demolishing the existing abutments
- Reconstructing the new concrete abutments

Bloor St W bridge (northwest view).

WHAT'S HAPPENING NOW

Bloor Street Bridge Abutment Replacement – Continued

Approximate timing of upcoming work:

May/June: drill structural caissons on south side and begin excavating behind north and south abutments (both sides same time)

Late-June/Early-July: drill structural caissons on north side

July: begin demolition of north and south abutments (includes demo of sidewalks and installation of temporary sidewalks); start on south side, then north side (Bloor St partial closure on demo side; access maintained on other side)

August: drill remaining structural caissons on south side (Bloor St partial closure south side; access maintained on north side); drill remaining structural caissons on north side (no partial road closure required on north).

Drilling on south side (northwest view).

WHAT'S HAPPENING NOW

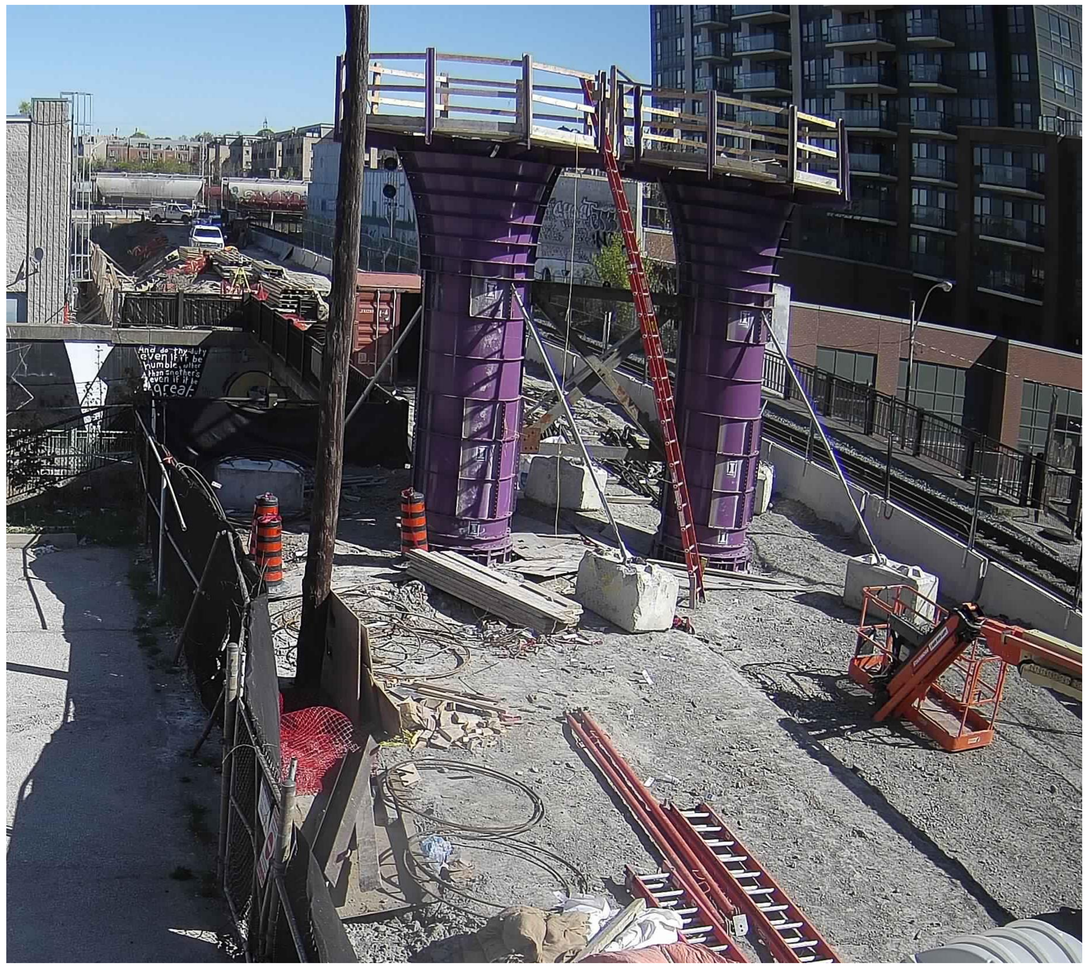
Column Erection

Column erection is underway north and south of Dupont St.

Forms are erected, rebar is installed, concrete is poured, forms are stripped.

The result is concrete columns for the elevated guideway.

Design rendering on the elevated guideway over Dupont bridge.



Formwork erected at Dupont St.

WHAT'S HAPPENING NOW

CP Bridge North Abutment and Pier 29

A new bridge will be built over the CP Rail tracks.

Immediately north of the CP Rail tracks is the CP bridge north abutment, the structure at the end of the bridge span on which the bridge rests that provides vertical and lateral support for the bridge. This abutment is set to be poured in June.
Immediately south of the CP Rail tracks is Pier 29, which will be poured in the summer.

New CP bridge design rendering (looking east).

CP bridge north abutment rebar.

WHAT'S COMING UP

MSE (Mechanically Stabilized Earth) Walls

MSE walls are massive soil structures that have been strengthened by placing reinforced straps in horizontal layers throughout the height of the wall connected to pre-cast concrete panels.

The panels fit together like puzzle pieces to keep everything in. The combination of the panels and the straps allows the wall to be built with a near vertical face because of the tension produced by the straps.

There are two MSE walls on the project:

1) North MSE wall
   - North of CP Rail to south of Davenport Rd
   - Construction begins late-June

   Ground improvement completed May 2021 *(strengthened the existing ground by drilling small concrete columns to transfer the load to stronger soil below)*

   Load transfer platform construction mid-June 2021 *(granular platform on top of the ground improvement work)*

2) South MSE wall
   - Between Bloor St W and Wallace Ave
   - Construction begins late 2021

   South MSE wall construction will begin once drilling between Bloor St W and Wallace Ave is completed

A closer look at an MSE wall (photo credit: Regina Bypass).

WHAT'S COMING UP

Paton Road Caisson Drilling

Caisson drilling will begin at Paton Road for the pedestrian underpass.

Caisson drilling involves:

- Drilling a hole into the ground, down to more supportive bedrock
- Installing steel reinforcement, i.e., rebar cage
- Pouring concrete

Scheduled to begin in June.

Hours: 7 a.m. – 5 p.m.

A concrete pump truck will be stationed on west side of Paton Rd, outside of the rail corridor, for the duration of work (about one month). Concrete trucks will enter via west side of Paton Rd when concrete pours are scheduled.

Paton Road pedestrian underpass design rendering.

West side of Paton Rd.

WHAT'S COMING UP

Girder Installation

The elevated guideway portion of the project is made up of precast concrete girders.

Tentatively starting in August (depends on where we are with columns and other work).

Estimated completion is spring 2022.

Design rendering showing the elevated guideway (Dupont St.)

Each girder consists of three pieces.

The pieces are delivered to the Lansdowne yard, where they are post-tensioned.

The girder is then loaded on a trailer and taken to site via Paton Rd, Lansdowne Ave and Wallace Ave.

The girders enter the rail corridor via Wallace Ave.

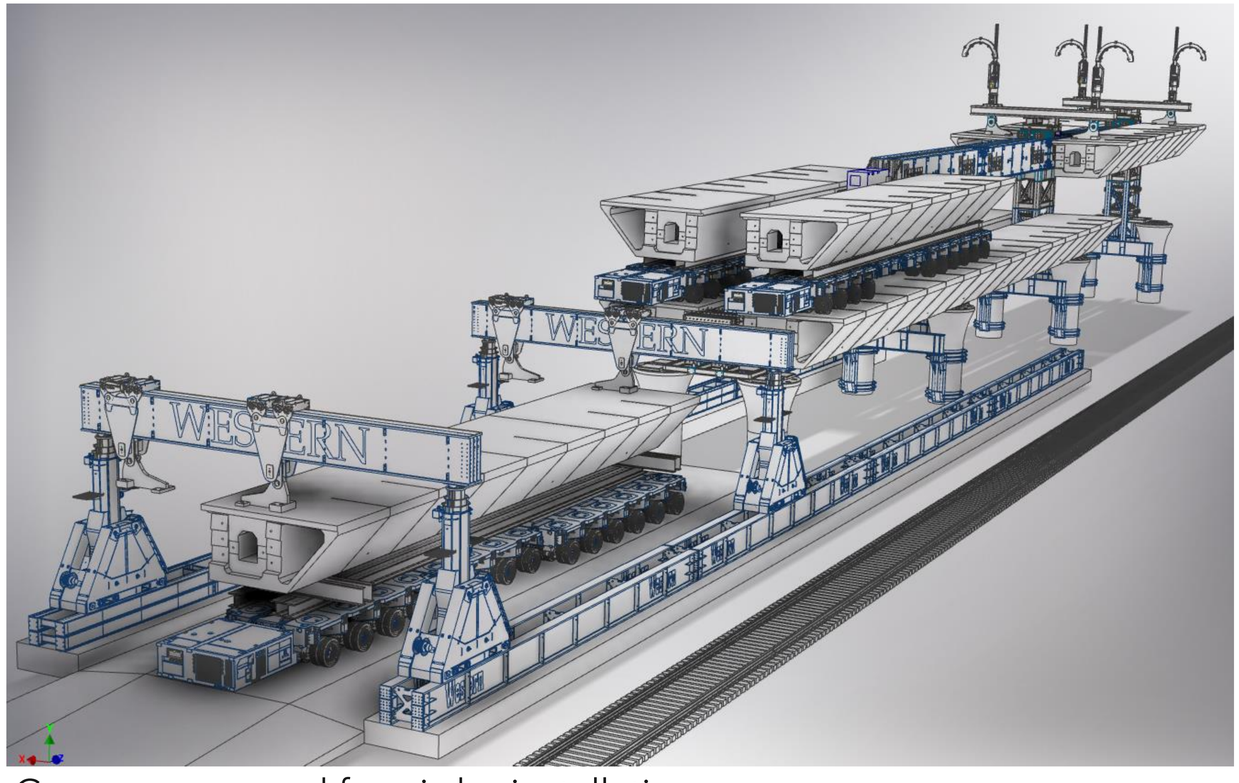
WHAT'S COMING UP

Girder Installation - Continued

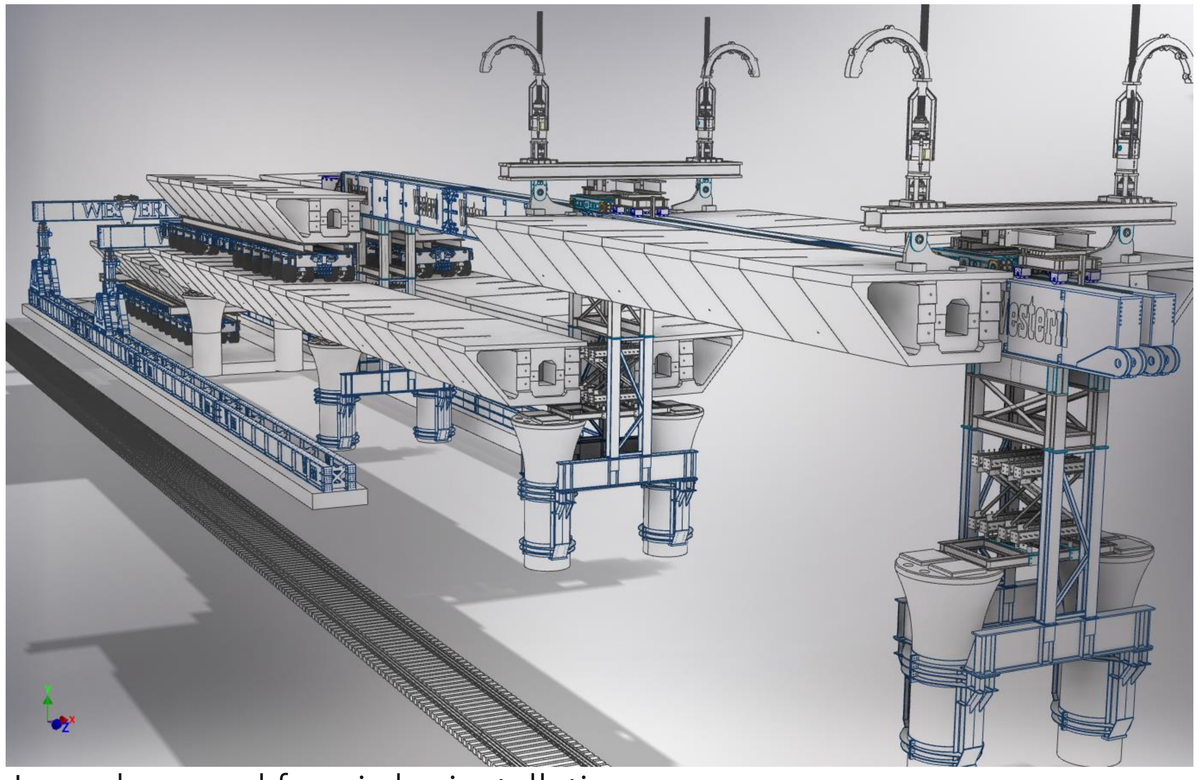
A gantry crane and a launcher are used to install the girders.

The gantry crane picks up the girders and places them on top of girders that are already in place.

The gantry crane then drives the girders down the line to the launcher, that then drops the girders in place.



Gantry crane used for girder installation.



Launcher used for girder installation.

WHAT'S COMING UP

Girder Installation - Continued

Girders between Wallace and Dupont

The gantry crane pulls up the girder to the elevation of the pier tops and rolls/moves along the track with the girder hoisted up. The gantry crane then places the girder on top of the already placed girders, where the launcher picks up the girder and places it onto the columns.
The launcher moves to next set of columns. The gantry crane travels back to Wallace to pick up the next girder.

Girders at Dupont (over the bridge)

At Dupont, the girder span is longer as it spans over the existing Dupont bridge. The girder is post-tensioned in the corridor at Paton Rd, picked by a crane, placed onto a rail car, and driven to Dupont St.
The gantry crane spans over the diversion track.
Requires a full road closure of Dupont St. as the crane will be set up from the road.

Schedule

We are currently identifying ways to carry out as much of this work as possible during the day. However, night work is inevitable as passing trains on the diversion track pose a safety concern with the precast concrete girders travelling above. Residents can expect significant night work for this portion of construction.

OVERNIGHT WORK

It is challenging to work in an **active rail corridor** with **limited space**.

- Barriers are installed along the rail corridor to facilitate more daytime work and keep crews safe, but certain activities can only be carried out when GO trains aren't running, which is overnight.
- Overnight work is required when we must eliminate interaction with passing trains due to the nature of the work (for example, working very close to the track with the possibility of disrupting it, or working high above the barriers with the possibility of falling objects).
- The community will be notified in advance of any overnight work.

NOISE MITIGATION

Noise limits are in place and based on FTA (Federal Transit Administration) guidelines. The allowable 8-hour equivalent noise limits are as follows:

- 80 dBA daytime/evening (7 a.m. to 11p.m.)
- 70 dBA nighttime (11 p.m. to 7 a.m.)

There are six noise monitors installed across the project and noise levels are monitored 24 hours a day.
We regularly review all noise monitoring data to ensure the project is within allowable limits.

When noise exceedances are detected, investigations take place to determine the cause of the exceedance and what measures can potentially be implemented to mitigate such occurrences.

We know the evening and overnight work is disruptive to the community. We do our best to complete as much work as possible during the day and get work done as early as possible each night.

Efforts to reduce noise include: no blasting or pile driving, using broadband (white noise) backup alarms, no idling of non-essential equipment, using mufflers or silencers with certain equipment, and when possible, scheduling the noisiest activities during the day.

Noise monitor located in the corridor.

DUST & VIBRATION MITIGATION

Dust mitigation

We are continuously monitoring for dust, and dryer weather means more mitigation.

Two ways we mitigate dust:

1) with environmentally friendly chemicals in high traffic areas
2) with our water trailer that we use to water down areas where dust is kicked up

Water application trailer.

Vibration monitoring

We have four vibration monitors installed throughout the project in areas known to be sensitive receivers.

Vibration monitoring is in place to make sure there is no negative or structural impact.


Vibration sensor adjacent to the corridor.

IMPROVED CONNECTIVITY

Pedestrian connectivity will be vastly improved as a result of the Davenport Diamond Guideway project.

Paton Road Underpass

- New pedestrian underpass at Paton Road will provide connectivity between the east and west sides of the road, previously cut off by rail corridor, and create access to the new greenway.

Wallace Avenue

- New bridge over Wallace Avenue will eliminate existing at-grade rail crossing on an increasingly busy road, improving both connectivity and safety.

Dupont Street

- The elevated guideway over the existing Dupont St bridge will provide pedestrian access along the Greenway above Dupont St.

Elevated Guideway

- Construction of elevated guideway provides access to existing rail corridor for new guideway.

Multi-Use Trail

- The new multi-use trail will become an integral part of a comprehensive pedestrian and bicycle network across the City of Toronto.

IMPROVED CONNECTIVITY

Paton Road Underpass – New pedestrian underpass at Paton Road will provide connectivity between the east and west sides of the road, previously cut off by rail corridor, and create access to the new guideway.

Paton Road Before

Paton Road Underpass After

IMPROVED CONNECTIVITY

Wallace Avenue – New bridge over Wallace Avenue will eliminate existing at-grade rail crossing on an increasingly busy road, improving both connectivity and safety.

IMPROVED CONNECTIVITY

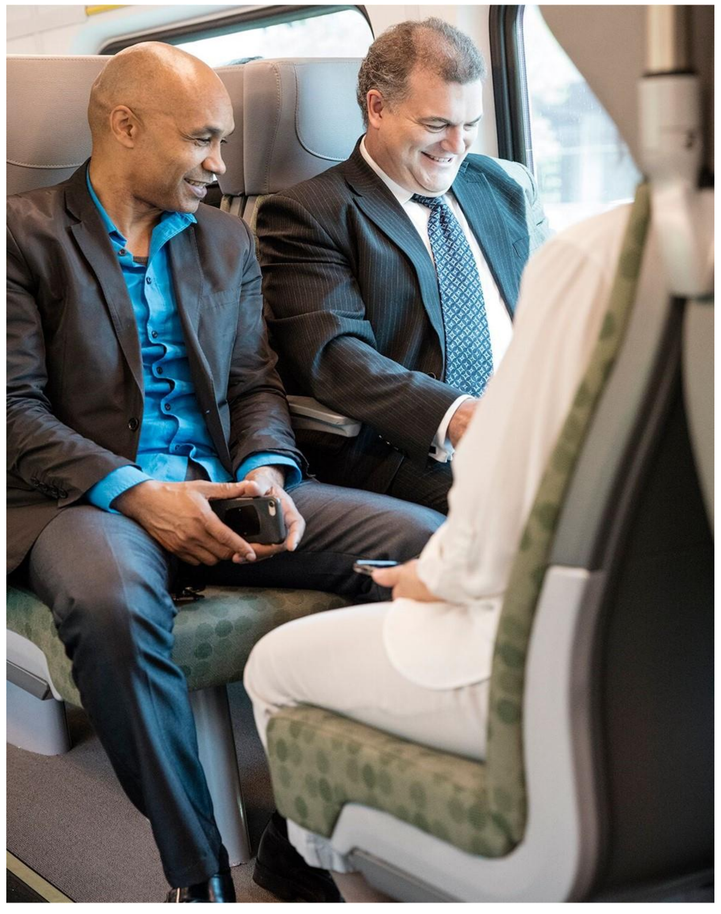
Dupont Street – The elevated guideway over the existing Dupont St bridge will provide pedestrian access along the Greenway above Dupont St.

IMPROVED MOBILITY

The upgrades to the Davenport Diamond will allow for increased GO rail service on the Barrie line and will help support two-way, all-day GO rail service.

By transforming GO rail from a 9-to-5 commuter service to a two-way, all-day transit service, Ontario will benefit from the following:

- More incentive for travellers to use the train as a travel mode
- Faster travel times for transit riders and road users
- Enhanced rail service with trains every 15 minutes, all day, in both directions over core portions of the network
- Greater access to GO Transit and seamless rail travel throughout the GTHA

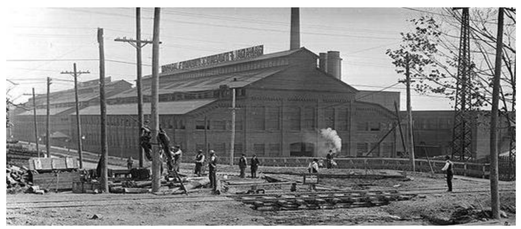


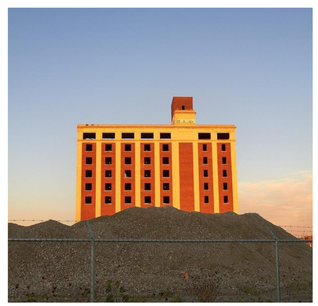
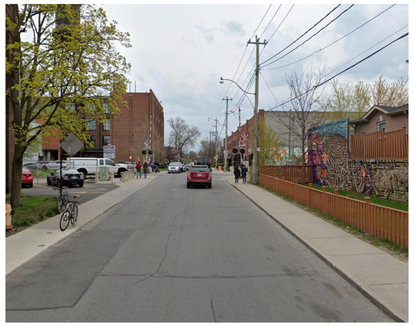


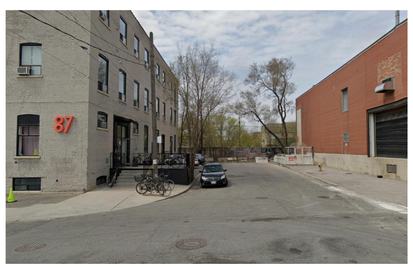










Update on Davenport Diamond Greenway

GREENWAY: LOCAL NEIGHBOURHOOD BENEFITS

- Some of the key features of the greenway project will include sustainably designed green spaces, new east-west connections, a new multi-use trail, pedestrian bridges, pedestrian underpasses, and enhanced connections to transit.
- The Davenport Diamond Greenway Project can act a catalyst for social and economic development – attract the talent, which attracts the companies, which drive economic growth.

- Opening up the rail corridor to public uses (multi-use trail, greenway) will create new primary frontages for the commercial and industrial buildings adjacent to the corridor.
- The Davenport Diamond Greenway Project is intended to provide enhanced connectivity to the communities on both sides of the rail corridor and to pedestrian and bicycle paths linking to other parts of the city.

UPDATE ON THE GREENWAY

Benefits of separating the Greenway from the Guideway project

- A Design-Bid-Build (DBB) procurement model provides greater control over the design process.
- This next phase of the greenway project will build on over five years of consultations with the community.
- Ensures that considerations around the long-term operations and maintenance are built into the design of the greenway. The design will be developed with a focus on durability and ease of maintenance for both the greenway elements and the rail infrastructure.

Schedule

- Greenway schedule has not changed: construction will start in 2023 after the Guideway is complete and finish in about 2024.
- The Greenway is built after the Guideway project is completed so that we can properly restore and improve the landscape without risking damage from Guideway construction.

Continuity of Community Engagement

- Metrolinx will work with the Construction Liaison Committee (CLC) to ensure continuity in the design process for the greenway.

Continuity in the design of the Greenway

- The original design scope and intent will be the building blocks for the greenway project moving forward.
- Metrolinx will ensure that considerations around the long-term operations and maintenance are built into the design of the project.

GREENWAY DESIGN SCOPE

Here are the public elements that will be included in the scope of the greenway:

- A linear park adjacent to the multi-use trail and under the elevated guideway to reconnect the communities on the east and west side of the rail corridor
- A fully accessible multi-use path for pedestrians and cyclists
- A sustainable approach to landscape and plantings
- Beautiful pollinating gardens
- Gathering spaces for the community

HOW TO STAY INFORMED

Communication Methods:

- Email Messages to Davenport Diamond mailing list
- Construction Notices
- Sharing through elected officials (e-newsletter)
- Wayfinding and Signage
- Project Website Updates
- Frequently Asked Questions

Engagement Tools:

- Public Meetings
- Technical Tours
- Pop Ups
- School Visits
- Working or Advisory Group meetings
- Business Liaison
- Special Events

Stay informed: metrolinx.com/davenport & sign up to our Toronto West e-newsletter
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Questions or comments: TorontoWest@metrolinx.com or 416.202.6911
Stefany Stadnyk, Community Relations and Issues Specialist