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Eglinton Crosstown West Extension

Landscape Restoration Plan Open House

DECEMBER 3, 2024

Welcome

Thank you for attending the Eglinton Crosstown West Extension open house.

Since the last restoration open house in March 2024, the project team has been working towards finalizing the restoration plan for the Eglinton Crosstown West Extension. It will set the stage for how parks, open spaces, trails and project lands will be restored.

Find out what elements will make the restoration plan successful and learn more about plans for restoration along the route.

Check out:

- The different stations around the room, each highlighting a component of successful restoration.
- The table map, which shows the types of restoration elements you can expect to see along the route and where they will be located.
- The technical experts around the room who can answer your questions or provide more information.

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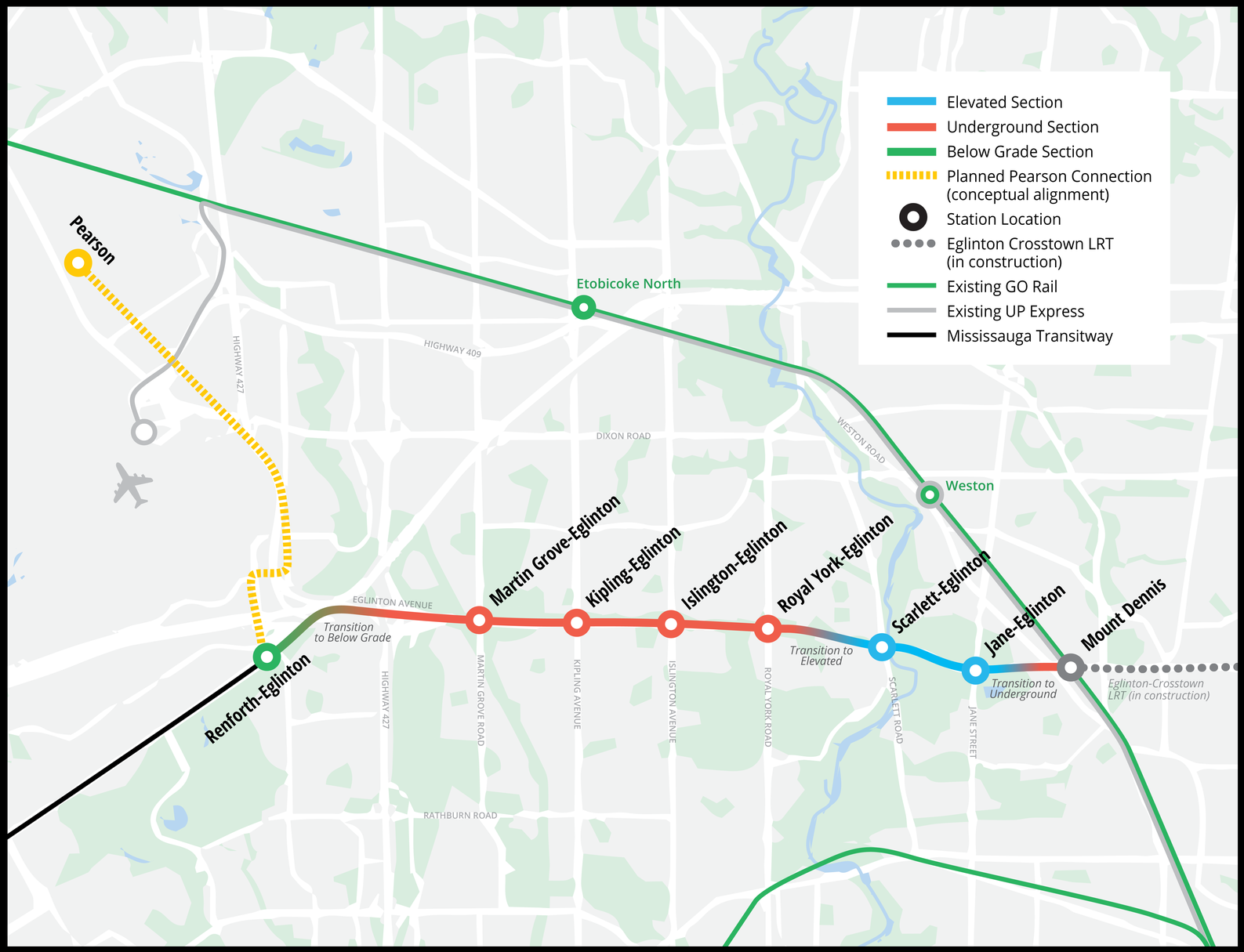
The Eglinton Crosstown West Extension

- 9.2 km of new rapid transit line
- Seven (7) new stations
- Five (5) connections to other transit options, including: UP Express, Kitchener GO Train, GO Transit, TTC and MiWay buses
- 37,500 more people within walking distance to transit
- 23,600 more jobs within walking distance to transit



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Project overview

- The *Restoration Plan* advances a line-wide approach to landscape development and enhancement.
- The *Restoration Plan* includes over 100 detailed planting plans to guide implementation through four independent contracts extending over 10 years.

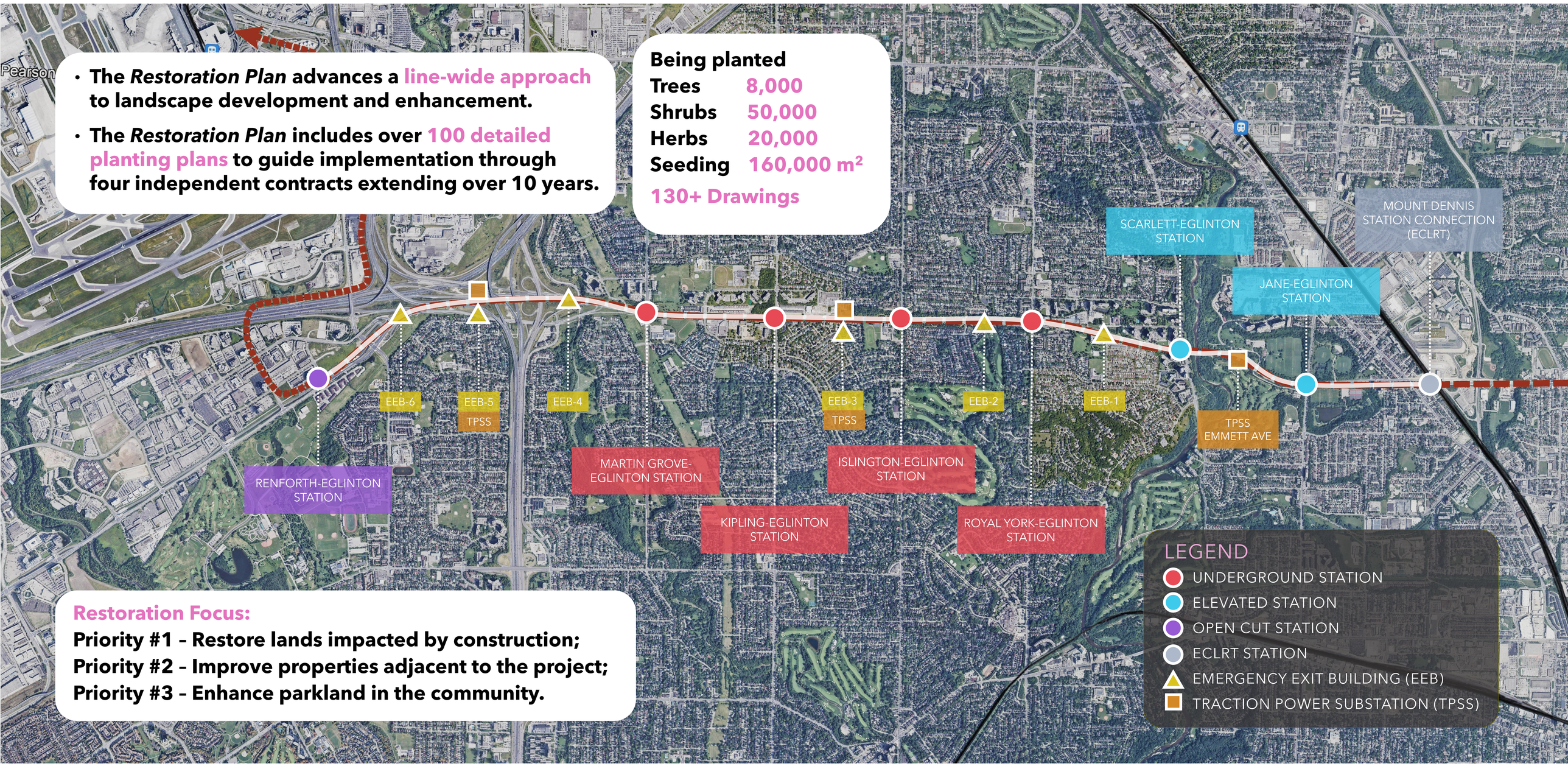
Being planted

Trees	8,000
Shrubs	50,000
Herbs	20,000
Seeding	160,000 m²

130+ Drawings

Restoration Focus:

Priority #1 – Restore lands impacted by construction;
Priority #2 – Improve properties adjacent to the project;
Priority #3 – Enhance parkland in the community.



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How stakeholder feedback has influenced the restoration plan

In total, we have held 16 meetings with Indigenous communities, nine restoration working group meetings, and four joint workshops with the City of Toronto and TRCA. Here are some of the ways what we heard has influenced the restoration plan:

Through the feedback from Indigenous communities, we:
- reduced hardscaping under the guideway
- increased planting diversity and density
- considered wildlife movement and passage through restoration planning
- enhanced the health of the Kipling (and other) woodlots

Through the feedback from the public, we:
- minimized tree removals and replanted in affected areas as much as possible
- enhanced and connected existing green spaces
- prioritized community spaces
- kept restoration as natural as possible to keep a "green theme" throughout the corridor – including adding rain gardens below the guideway

Through the feedback from the Working Group, we:
- confirmed the vision for restoration, the direction of the plan and the priorities
- confirmed restoration plan concepts (mini-forests, public nooks, etc.)
- identified criteria for what successful restoration looks like
- identified additional locations for plants and restoration along the corridor
- developed an extensive list of restoration ideas and considerations
- added additional plant species and learned about plant diseases to consider

Through the feedback from the City of Toronto and TRCA, we:
- reached our compensation requirements
- piloted a line-wide approach to landscape and restoration
- focussed on shared design principles in a multi-jurisdictional setting

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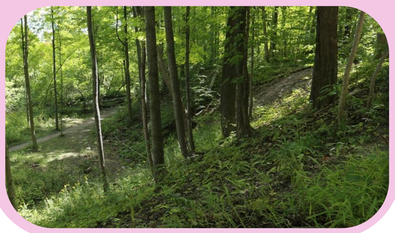
How we got here and achievements along the way

START
June 2023

Researching and reaching agreement on soil remediation

Seed collection (vegetation rescue and reuse) – replicating local ecosystem



60% design Mar 2023

Remnant forest monitoring (Kipling, Denfield, and Wincott woodlots)

Negotiations with the City to plant on City of Toronto lands

30% design Nov 2023

Developing a line-wide approach

Bringing together multi-disciplines

90% design July 2024

Restoring canopy in a responsible way

OBJECTIVE: develop a comprehensive restoration plan for the Eglinton Crosstown West Extension

NEXT STEPS: Now that we have the restoration plan in place, we will be assigning our contractors to implement segments over time

What's required for successful landscape restoration?

Provide healthy soil

+

Use only native plants

+

Design for diversity

+

Monitor and maintain

=

Landscape restoration requires an understanding of ecological systems including soil types, moisture regimes and local weather conditions as well as a thorough knowledge of native plants and plant communities.

It's more than just one single act; successful landscape restoration is a carefully managed process that extends over many years and involves a series of planned, sequential stages intended to replicate natural processes.

Find out how these elements of successful restoration will be used in the project, by visiting the three different stations around the room!

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Station #1: Healthy soils

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Soil analysis

- **Soil health is "the continued capacity of the soil to function as a vital living ecosystem that sustains plants, animals and humans**" (Doran et al. 1996)
- The lands along the Eglinton Crosstown West Extension presently contain a mix of healthy and unhealthy soils.
- As new trees and vegetation are re-planted as part of restoration, unhealthy soils and planting conditions need to be improved to support plant life, especially in degraded areas.
- To achieve this, the team assessed the soil's overall quality using key indicators for physical, chemical, biological and hydrological properties.
- Overall, the aim is to increase nutrient availability and plant growth.

When assessing the health of soil, these factors will be examined:
• Organic matter
• Soil respiration
• Particulate organic matter
• Texture
• pH
• Electrical conductivity
• Bulk density (from topsoil)

The topsoil that is being added to the impacted lands for restoration needs the right balance of:	
• pH (and buffer pH if required)	• Calcium
• Total salts / electrical conductivity	• Sodium
• Organic carbon / organic matter	• Chloride
• Phosphorus	• Sodium absorption ratio
• Potassium	• Cation exchange capacity
• Magnesium	• Texture (percent sand, silt and clay)

Check out the soil sample below to see the difference between unhealthy and healthy soil!

Soil matters

The three-step process outlined below will guarantee a healthy soil and planting environment where all new plantings will thrive.

Step 1: Decompact
Loosening the soil and puncturing holes in the ground will ensure air, water and nutrients can get into the soil more easily.

Step 2: Amend
Adding certain ingredients (e.g., fungi and bugs) will ensure there is the perfect balance of nutrients and organisms needed for healthy soil. We try to treat the existing soil to make it better.

Step 3: Import
Adding new, high-quality soil to maintain the best possible conditions.

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Station #2: Diversity of plants

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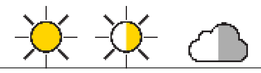
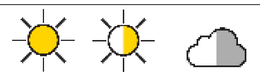
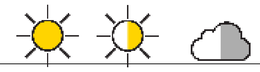
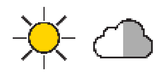
Native plant selection

The restoration plan provides a plant selection guideline to dictate the types of native plants that will be planted and used to restore the project lands.. Here are some examples of the tree, shrubs and herbs that will be planted.

Scientific Name	Common Name	Preferred Soil Conditions	Wildlife Use	Light Requirements	Characteristics
		Trees			
Acer rubrum	Red maple	Intermediate / moist			
Betula alleghaniensis	Yellow birch	Moist			
Carpinus caroliniana	Blue beech	Moist			
Carya cordiformis	Bitternut hickory	Dry / moist			
		Shrubs			
Amelanchier laevis	Smooth serviceberry	Dry / moist			
Cephalanthus occidentalis	Buttonbush	Moist / wet			
Diervilla lonicera	Bush honeysuckle	Dry / moist			
		Herbaceous			
Eurybia macrophylla	Large-leaved aster	Dry / moist			
Monarda fistulosa ssp. fistulosa	Wild bergamont	Intermediate / dry			
Rudbeckia hirta	Black-eyed susan	Intermediate / moist			

Wildlife Use
- = Breeding and migratory birds
- = Pollinators
- = Fruit / nut bearing species
- = Forage for mammals

Light Requirements
- = Full sun
- = Part sun
- = Full shade
- = Part shade

Characteristics
- = Salt tolerant
- = Drought tolerant

Check out the examples of the native plant species you can expect to see in the pots below!

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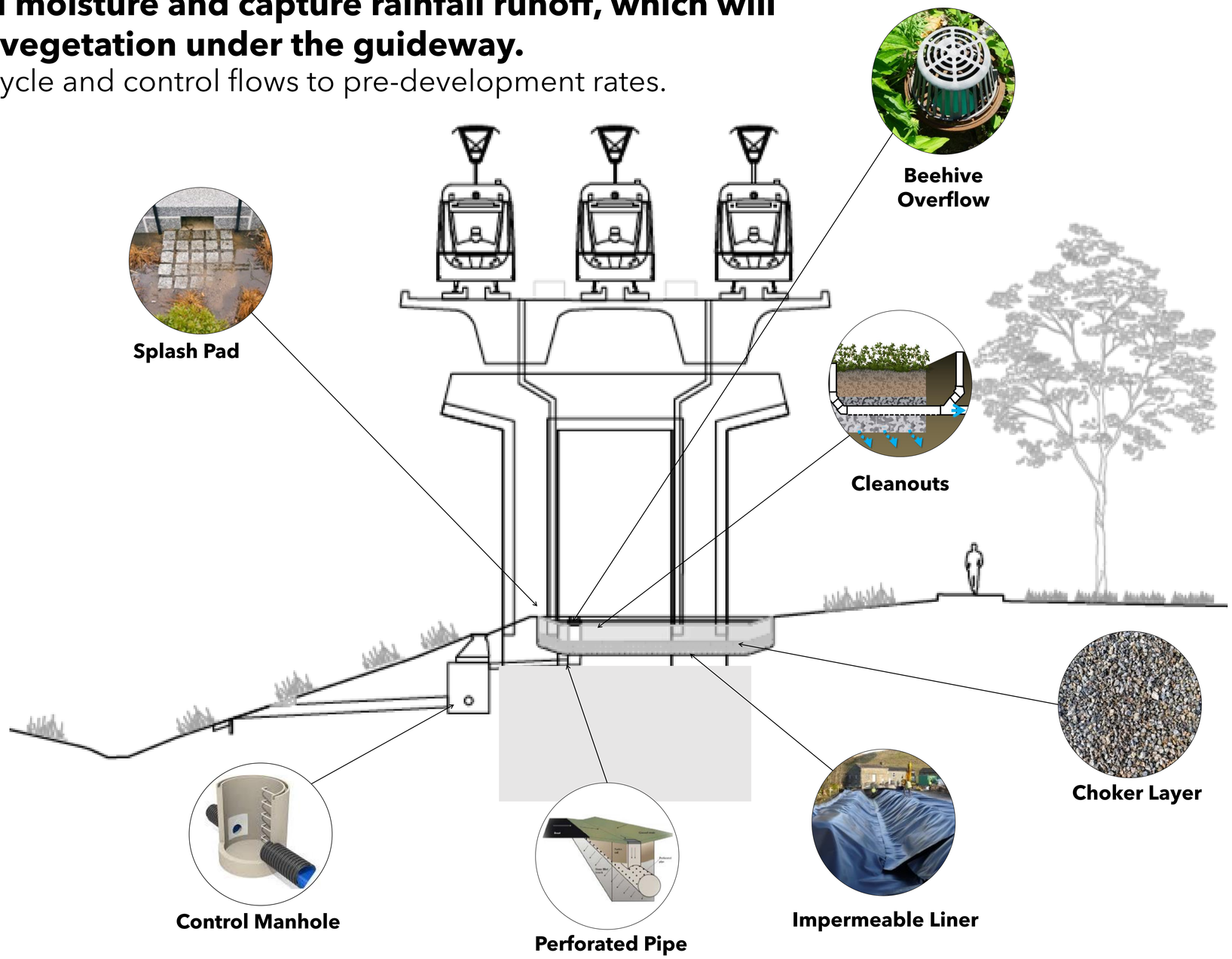
Rain gardens

The elevated guideway will control moisture and capture rainfall runoff, which will be used to water shrubs and other vegetation under the guideway.
This helps to maintain the natural water cycle and control flows to pre-development rates.

- Rain gardens and bioretention have net positive carbon footprint compared to other stormwater infrastructure
- This is the first rapid transit project in the GTA incorporating large-scale ground level Low Impact Development (LID) features
- Efficient use of space for stormwater storage, water quality and temperature control
- New public space providing access to nature and allowing public an opportunity to interact with landscape



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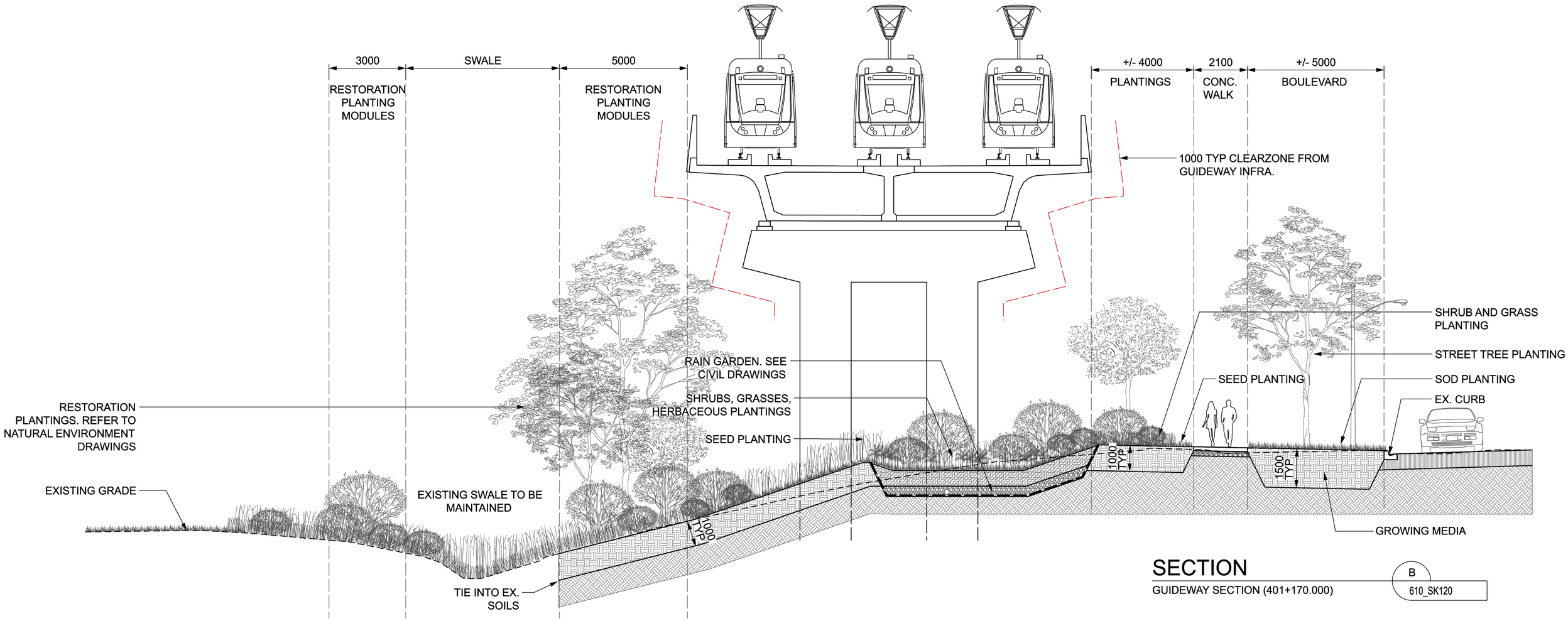
Rain gardens



SECTION B

GUIDEWAY SECTION (401+170.000) 610_SK120

Check out the mini-model of the rain garden!

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Shade-tolerant native species

Shrubs and Perennials

Deciduous Shrubs

Ca	Cornus alternifolia	Alternate-leaved dogwood
Cr	Cornus racemos	Grey dogwood
Cg	Cornus rugosa	Round-leaved Dogwood
Ch	Corylus Americana	American Hazelnut
Hv	Hamamelis virginiana	Witch Hazel
Pv	Prunus virginiana	Chokecherry
Ra	Ribes americanum	Black Currant
Sr	Sambucus racemose ssp pubens	Red-berried Elder
Vl	Vibrunum lentago	Nannyberry

Herbaceous Perennials

Ac	Asarum canadense	Wild Ginger
Af	Athyrium filix-femina	Lady Fern
Ap	Adiantum pedatum	Maidenhair Fern
Dc	Deschampsia cespitosa	Tufted Hairgrass
Ea	Erythronium albidum	White Trout Lily
Ed	Eurybia divaricata	White Wood Aster
Gm	Geranium maculatum	Wild Geranium
Hd	Helianthus divaricatus	Woodland sunflower
Hv	Hydrophyllum virginianum	Virginia Waterleaf
Hp	Hypericum prolificum	Shurbby St. John's Wort
Ms	Matteuccia struthiopteris	Ostrich Fern
Pq	Parthenocissus quinquefolia	Virginia creeper
Sc	Sanguinaria canadensis	Bloodroot
Sf	Solidago flexicaulis	Zig Zag Goldenrod
St	Staphylea trifolia	Balddernut
Tc	Tiarella cordifolia	Foamflower
Va	Veronia altissima	Tall Ironweed

Seed Mix for Shade

Permanent Seed Mix	Seed Mix %
Type 4: Difficult Site Mix	
TRCA-SC-1 – Difficult Site Mix	
Seed Rate: Sow at 28.37 kg/ha	
Grasses, Sedges	
Andropogon geardii (Big Bluestem)	15%
Elymus riparius (Riverbank Rye)	15%
Elymus villosus (Silk Wild Rye)	15%
Schizachyrium scoparium (Little Bluestem)	15%
Forbs	
Agastache nepetoides (Yellow Hyssop)	1%
Aquilegia canadensis (Wild Columbine)	1%
Ceanothus americanus (New Jersey Tea)	1%
Desmodium canadens (Showy Tick-trefoil)	3%
Heliopsis helianthoides (Oxeye)	2%
Hypericum ascyron (Great St. John's Wort)	1%
Monarda didyma (Bee Balm)	1%
Monarda fisulosa (Wild Bergamont)	3%
Oenothera biennis (Evening Primrose)	2%
Penstemon digitalis (Foxglove Beardtongue)	2%
Penstemon hirsutus (Hairy Beardtongue)	1%
Pycnanthemum virginianum (Virginia Mountain Mint)	2%
Verbena urticifolia (White Vervain)	1%
Zizia aurea (Golden Alexander)	2%
Grasses, Sedges	
Elymus canadensis (Canada Wild Rye)	

Adiantum pedatum
Maidenhair fern

Sambucus racemose ssp pubens
Red-berried Elder

Asarum canadense
Wild Ginger

Sanguinaria canadensis
Bloodroot

Solidago flexicaulis
Zig Zag goldenrod

Helianthus divaricatus
Woodland sunflower

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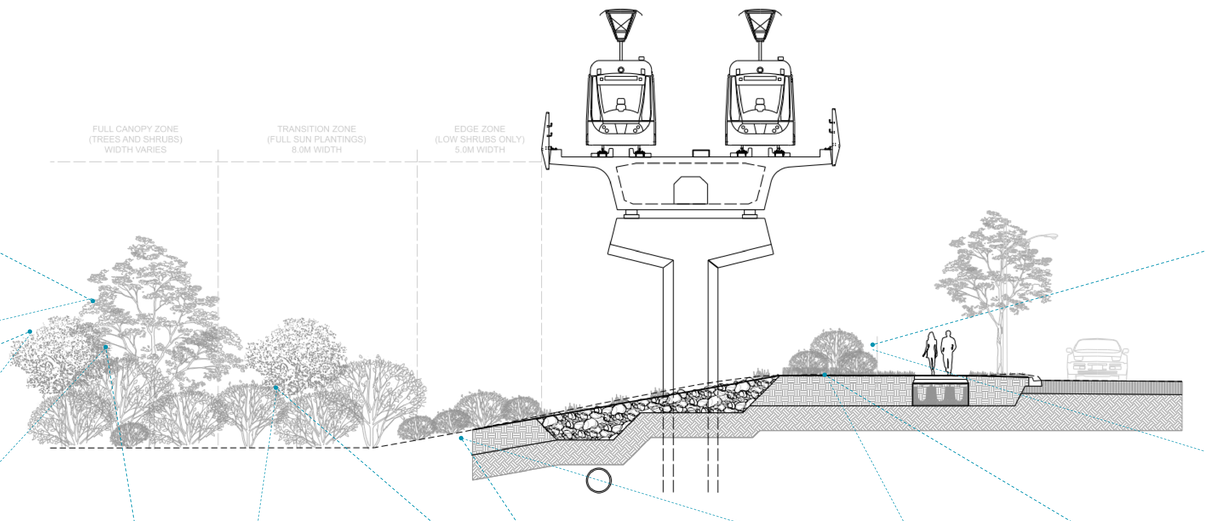
Vegetation zones

Basswood
Tilia americana



Smooth rose
Rosa blanda

Sugar maple
Acer saccharum

Bitternut hickory
Carya cordiformis

Red osier dogwood
Cornus sericea

Bush honeysuckle
Diervilla lonicera

Purple flowering raspberry
Rubus odoratus

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Metrolinx Vegetation Guideline

Our goal is to keep the number of trees we remove to a minimum and we strive to replace them in areas where they are being removed as early as we can. The restoration plan is guided by the Metrolinx Vegetation Guideline.

- In a built-up and growing region, trees need to be removed to make room for new transit lines. To offset these removals, Metrolinx follows a detailed, best practices plan for planting new trees and keeping the region green.
- Metrolinx has developed a Vegetation Guideline that provides direction for managing vegetation, including the removal and replacement of trees based on the size and location of the tree being removed. **It applies to all capital projects across our entire network** to ensure more trees are planted than removed as we carry out the largest transit expansion in the history of the region.

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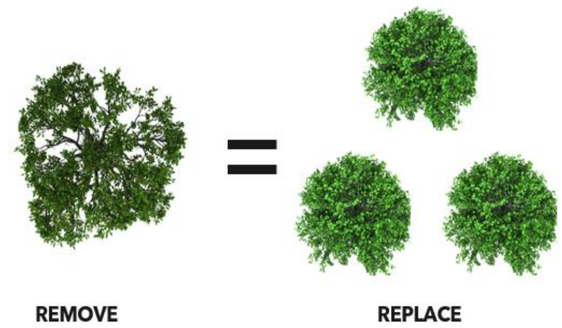
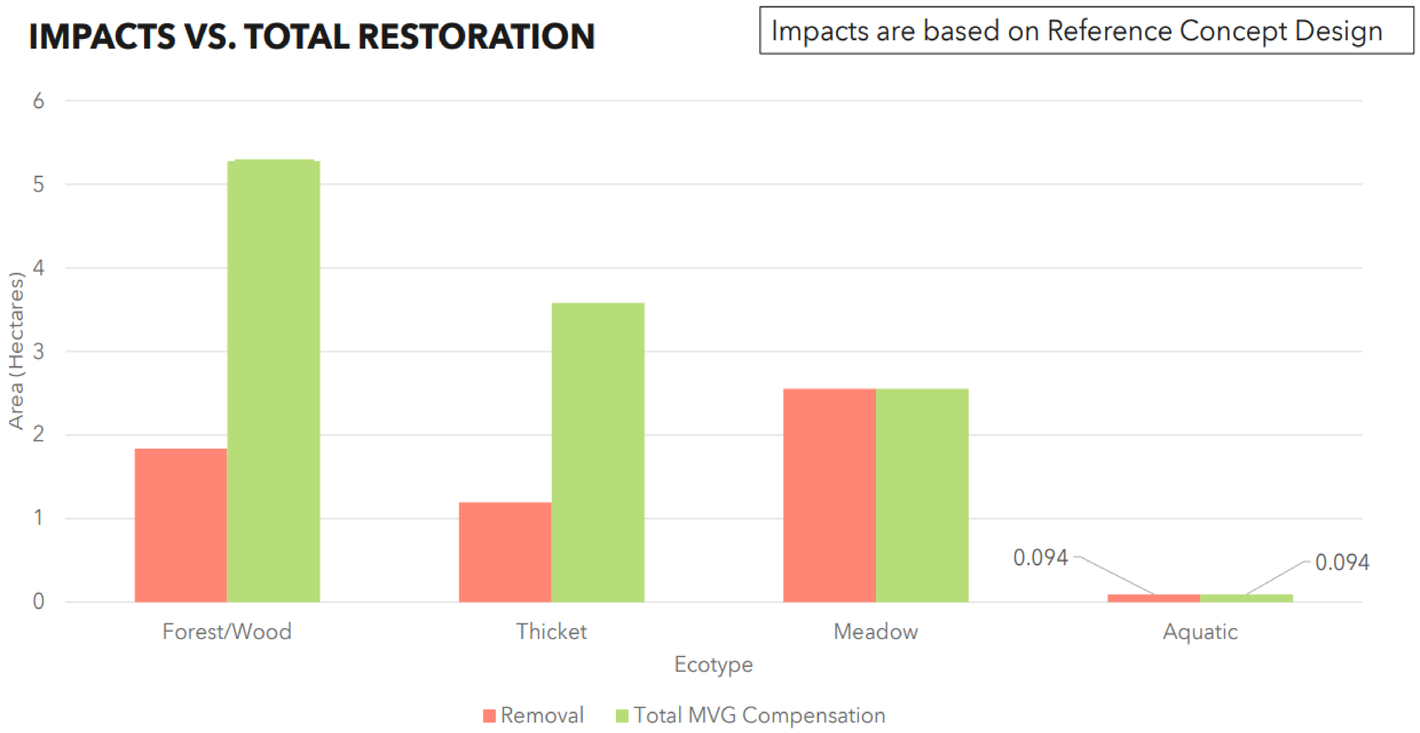
Maintaining canopy in the corridor

- Tree removals will be compensated at **a minimum 3:1 ratio** (e.g. for every 10 trees removed, 30 trees would be planted).

- 40% of trees will be planted on Metrolinx lands, while 60% will be on the City of Toronto and TRCA lands – all within the corridor.





- The approximately 5,585 hectares of trees removed will be compensated and replaced by approximately 11,420 hectares of new trees

- 1 hectare = 2.47 acres = about 2 and half football fields

- Replacing the canopy is not just about compensation, but also repair and improvement by making sure replanting results in **the local ecosystem in a better state** that its current condition.

Station #3: Monitoring and maintenance

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Monitoring and maintenance

Monitoring

- Post-planting monitoring by a qualified professional for five years
- Mortality/dieback; survival rate (e.g., % surviving plants, % vegetative cover, etc.)
- Plant condition, presence of yellowing leaves
- Evidence of pests & diseases (e.g., fugus, insect damage, etc.)
- Mechanical or physical damage (e.g., animal feeding, trampling, etc.)

Maintenance

- **Watering** - varies depending on species, plant size, soil type/composition, topography, ambient temperature, drought, etc.
- **Invasive Species Control** – multi-year process
- **Soil Amendments** – high nitrogen fertilizers
- **Weeding** - Removal of weeds immediately adjacent to newly planted trees and shrubs

Invasive species management

- Common invasive plant species in the project area include garlic mustard, phragmites, common buckthorn and dog-strangling vine.
- Both natural and chemical methods are viable for the treatment of some species.
- Proposed control methods are based on best management practices from the Ontario Invasive Plant Council.
- Treatment is typically completed in stages and over many years.
- Invasive tree species may be managed by girdling, whereby they remain on the landscape to decay over time, providing habitat for birds and mammals.
- We will work closely with the City of Toronto and local conservation authority to follow their guidelines and best management practices.

Garlic mustard

Dog-strangling vine

Common buckthorn

Phragmites at Fergy Brown park

Check out the sample of phragmites!

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Woodlot monitoring

Woodlots are a key landscape feature that include the last remaining original, native vegetation in the area. Here are several strategies the restoration plan will utilize to monitor and enhance the Kipling and Wincott woodlots.

Work with the City to monitor effects of new transit stations and ancillary buildings on the woodlots.

Use the Denfield Park woodlot as a control site to protect against long-term negative changes.

Add edge plantings, which are less densely planted trees and shrubs, to buffer the interior forest and facilitate forest succession.

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Thank you for coming to the Open House

Visit us at the Community Office

326 Scarlett Road

Tuesdays and Thursdays,
10 a.m. - 5 p.m. or by appointment

Want to know more?

Visit: metrolinx.com/EglintonWest

Email us: EglintonWest@metrolinx.com

@EglintonWestEXT

Call us: 416-202-8001

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