

Highway 27-Woodbine Station

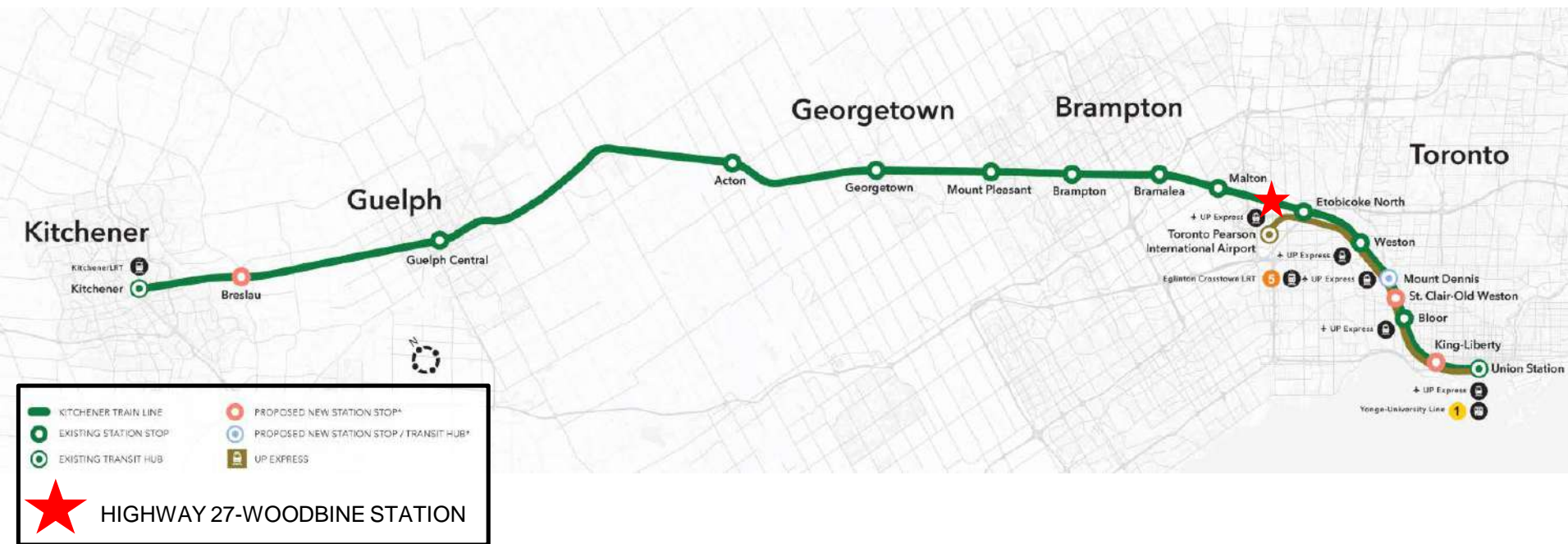
**Transit Project Assessment Process (TPAP)
Online Survey Project Information Slides**

**Notice of Commencement
November 21, 2019**

Highway 27-Woodbine Station – Overview

- Woodbine Entertainment Group (WEG) has proposed a new GO station to be developed in partnership with Metrolinx
- GO Transit currently operates train service along the Kitchener Rail Corridor, from Union Station in Toronto to Kitchener GO Station in Kitchener.
- An Environmental Assessment (EA) will be completed following the Transit Project Assessment Process (TPAP), as prescribed in O. Reg. 231/08 under the *Environmental Assessment Act*.
- The proposed GO Station is anticipated to evolve into a multi-modal transportation hub that will increase annual visits to the Woodbine Districts to potentially over 16 million.

Highway 27-Woodbine Station – Along the Kitchener Corridor



Highway 27-Woodbine Station – What's Involved

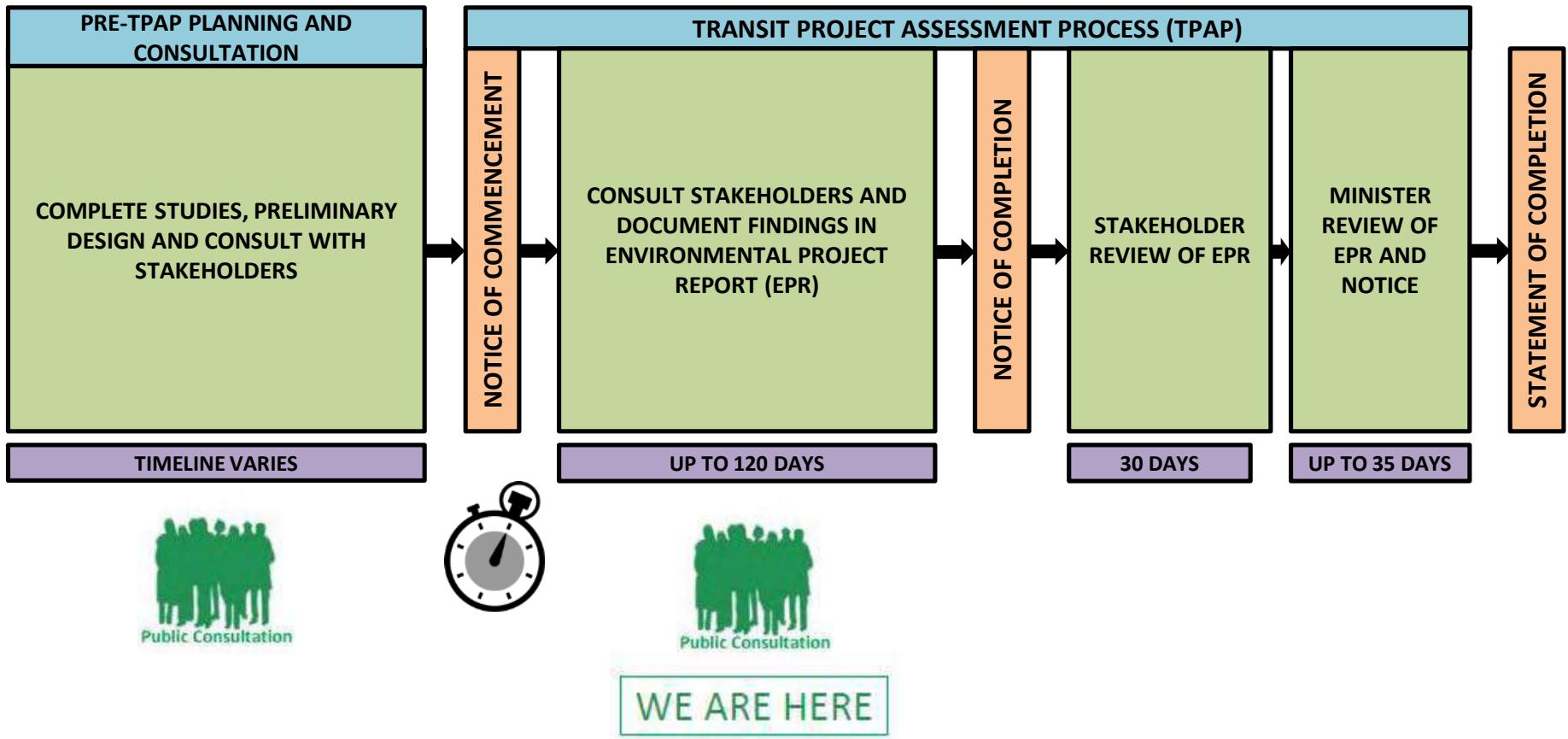
The proposed station will include:

- Two island platforms (north and south);
- Passenger pick up and drop off;
- Bus loop;
- Passenger plaza;
- Vehicle parking;
- Bicycle storage facility;
- Station building;
- Roadway with direct access to the station building, parking facility and public roadway;
- Electrification enabling infrastructure at the station; and
- New tracks and/or realignment of the existing tracks.

Highway 27-Woodbine Station – Study Area



Transit Project Assessment Process



What We Have Assessed

Natural Environment	<ul style="list-style-type: none">• Terrestrial habitat and species• Aquatic habitat and species• Species of conservation concern• Sensitive areas and features
Socio-Economic Environment	<ul style="list-style-type: none">• Land use• Socio-economic features• Air quality• Noise and vibration• Traffic and transportation• Utilities
Cultural Environment	<ul style="list-style-type: none">• Archaeological resources• Built heritage resources• Cultural heritage landscapes

Summary of Potential Impacts

Natural Environment

- **Vegetation:** Potential effects considered negligible.
- **Migratory Breeding Birds:** Potential displacement and/or destruction of active nests as a result of vegetation removal during construction. Mitigation and monitoring will be implemented in accordance with MBCA and OBBA requirements.
- **SAR & SOCC:** Potentially suitable habitat and medium probability for occurrence was identified for Barn Swallow (SAR) and Monarch (SOCC). Potential loss/degradation of habitat, displacement from noise disturbance, and possible mortality. Mitigation measures and prescribed avoidance timing windows will be followed per the MBCA. ESA applies because medium potential for Barn Swallow. Further consultation with MECP to identify additional targeted surveys and permitting requirements.
- **Fish & Fish Habitat:** No impacts.

MBCA – Migratory Birds Convention Act

OBBA – Ontario Breeding Birds Atlas

SAR – Species at Risk

SOCC – Species of Conservation Concern

ESA – Endangered Species Act

MECP – Ministry of the Environment, Conservation and Parks



Barn Swallow

Summary of Potential Impacts

Socio-Economic Environment

- **Land Use:** Generally consistent with the surrounding land uses (mostly heavy industrial).
- **Construction Impacts:** Woodbine Districts staff and visitors may experience temporary nuisance effects as a result from construction (noise, air quality, traffic, etc.).
- **Benefit:** Supporting future development by providing new transit option and increasing opportunities for existing and future residents and commuters in Rexdale and North Etobicoke.



Project Site in Winter 2019

Summary of Potential Impacts

Noise and Vibration

Sensitive Receptors: 1 Noise Sensitive Area (NSA) identified (Woodbine Hotel & Suites) window façade of a 2-storey hotel.

Construction Impacts

Noise: Not expected to exceed ambient noise levels at the assessed receptor; construction noise levels may be perceived at the NSA. Mitigation measures have been recommended to reduce noise impacts at the NSA.

Vibration: Not expected to result in perceptible vibration or building damage. Mitigation measures have been recommended to reduce vibration impacts at the NSA.

Station Operations

Noise: Levels expected to comply with MECP NPC-300 at NSA. No noise mitigation is expected to be required for this station.

Vibration: Negligible source of vibration.



Woodbine Hotel & Suites

Summary of Potential Impacts

Traffic & Transportation

- **Road Network:** To reduce potential vehicle delays, traffic within the Study Area will be mitigated through modifications to signal timing, lane configurations, and storage lane improvements in consultation with the City of Toronto.
- **Transit Network:** The proposed Station is anticipated to trigger modifications to the existing transit services provided by other regional transit operators serving the Study Area, such as TTC, Mississauga Transit (MiWay), Brampton Transit, and York Region Transit (YRT/Viva). Connection opportunities are being discussed with these transit operators.
- **Pedestrian and Cycling Network:** It is anticipated that the new station will result in an increased demand for modal share (e.g., transit, walking, cycling) at the Project Site.



Traffic Study Area

Summary of Potential Impacts

Cultural Heritage

- 9 properties with potential CHVI; 2 of these properties identified as potential cultural heritage resources:
 - 555 Rexdale Boulevard (race track)
 - Highway 27 bridge.
- Potential indirect impacts will be mitigated and are not anticipated to result in impacts to the potential CHVI or potential heritage attributes of either property.
- No further cultural heritage investigations are recommended.



Highway 27 Bridge

Archaeology

- Stage 1 AA found that a small area of undisturbed land may have archaeological potential and required a Stage 2.
- Stage 2 AA fieldwork completed and reporting is underway. The study area is cleared of archaeological potential and no further work is required.

CHVI – Cultural Heritage Value or Interest

AA – Archaeological Assessment

Upcoming Schedule

Completion of Environmental Impact Studies
September 2019



Town Hall
October 10, 2019



Prepare Draft Environmental Project Report (EPR)
Early October 2019



TPAP Notice of Commencement / Online Survey
November 21, 2019



TPAP Statement of Completion
End of March 2020



Construction Completion (estimated)
2022

List of Acronyms

Acronym	Definition
AA	Archaeological Assessment
CAC	Criteria Air Contaminant
CHAR	Cultural Heritage Assessment Report
CHER	Cultural Heritage Evaluation Report
CHR	Cultural Heritage Resource
EASR	Environmental Activity and Sector Registry
ECA	Environmental Compliance Approval
ECCC	Environment and Climate Change Canada
EMMP	Environmental Mitigation and Monitoring Plan
EPR	Environmental Project Report
ESA	<i>Endangered Species Act</i>
ESA	Environmentally Significant Area
GHG	Greenhouse Gas
HIA	Heritage Impact Assessment
MBCA	<i>Migratory Bird Convention Act</i>
MECP	Ministry of the Environment, Conservation and Parks
MNRF	Ontario Ministry of Natural Resources and Forestry
MOECC	Ontario Ministry of the Environment and Climate Change (now MECP)
MTCS	Ontario Ministry of Tourism, Culture and Sport
<i>O. Reg.</i>	<i>Ontario Regulation</i>
OBBA	Ontario Breeding Birds Atlas
OPSS	Ontario Provincial Standards Specification
OWRA	<i>Ontario Water Resources Act</i>
PTTW	Permit to Take Water
SAR	Species at Risk
SOCC	Species of Conservation Concern
SUE	Subsurface Utility Engineering
WEG	Woodbine Entertainment Group
ZOI	Zone of Influence

Table 8-1: Summary of Future Commitments, Mitigation Measures, and Monitoring Requirements

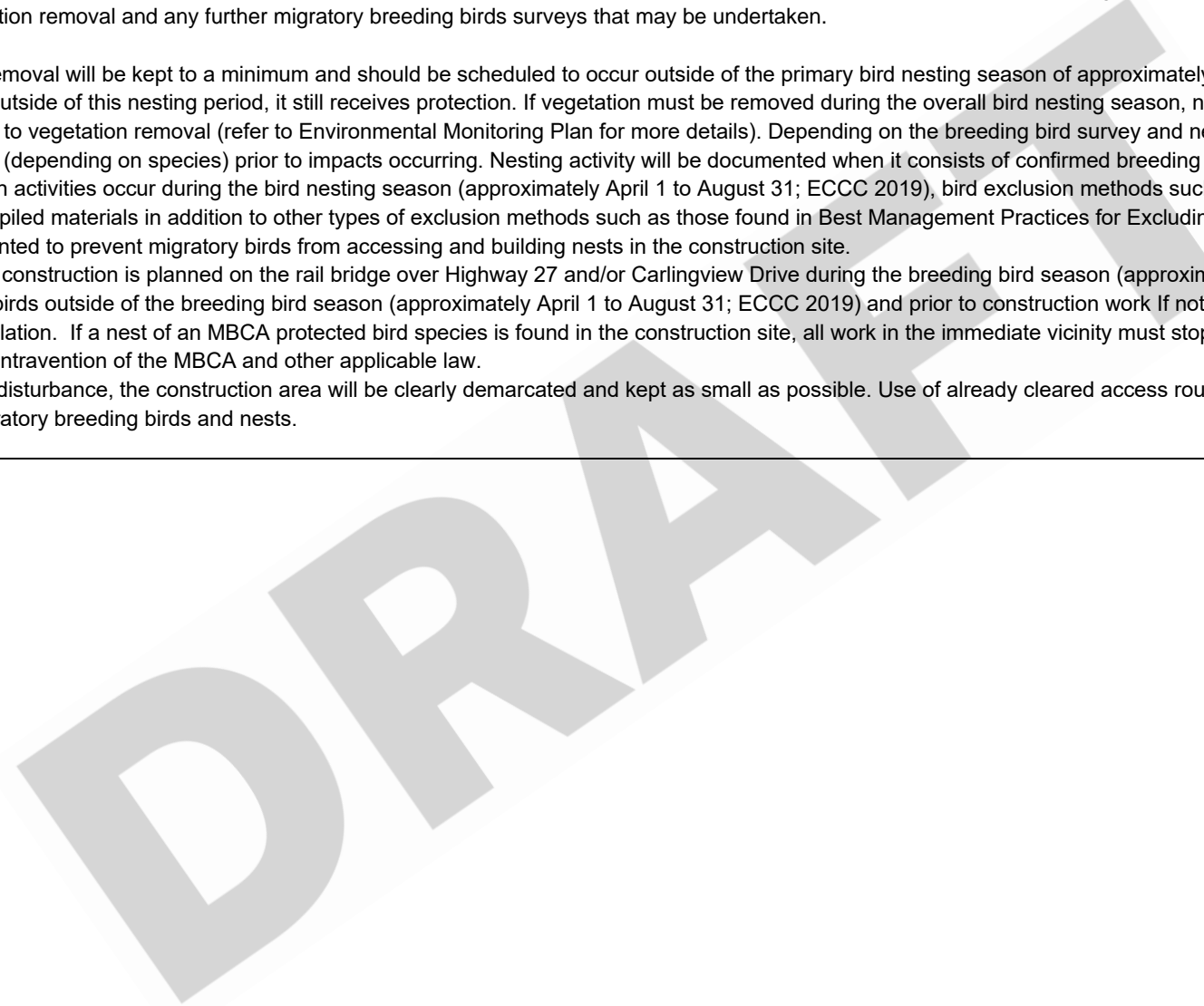
Discipline	EPR Commitments
	Mitigation Measure (or related action) or Future Commitment
Natural Environment – Naturalized Areas and Vegetation Communities	<p><u>Construction</u></p> <ul style="list-style-type: none"> Existing vegetation will be retained to the extent practicable. Removals will be kept to a minimum to limit direct effects to vegetation communities and vascular flora, as well as indirect effects (e.g., soil compaction and changes to topography and drainage). Construction fencing and/or silt fencing, where appropriate, will be installed and maintained to clearly define the construction footprint and prevent accidental damage to adjacent vegetation or street trees. <ul style="list-style-type: none"> Any damaged trees will be pruned through the implementation of proper arboricultural techniques by or under supervision of an Arborist or Forester. All equipment and vehicles will be cleaned and inspected prior to arriving onsite to reduce the introduction and/or spread of invasive plant species in accordance with the Clean Equipment Protocol for Industry (Halloran et al., 2013). Mitigation measures specific to trees shall be adhered to, including municipal by-law permitting requirements where applicable shall be further detailed in an Arborist Report to be completed during detailed design. Disturbed areas will be re stabilized, incorporating revegetation using non-invasive, preferably native plantings and/or seed mix appropriate to the site conditions and adjacent vegetation communities. Seed mixes will be used in conjunction with an appropriate non-invasive cover crop as appropriate.
Natural Environment – Wildlife and Wildlife Habitat	<p><u>Construction</u></p> <p>Migratory Breeding Birds:</p> <ul style="list-style-type: none"> Vegetation removal will be kept to a minimum and should be scheduled to occur outside of the primary bird nesting season of approximately April 1 to August 31 (ECCC, 2019). If a nest of a migratory bird is found within the construction area outside of this nesting period, it still receives protection. If vegetation must be removed during the overall bird nesting season, nest and nesting activity searches will be conducted by a qualified Biologist no more than 24 hours prior to vegetation removal (refer to Environmental Monitoring Plan for more details). Depending on the breeding bird survey and nests found, the Canadian Wildlife Service may need to be contacted for specific mitigation methods (depending on species) prior to impacts occurring. Nesting activity will be documented when it consists of confirmed breeding evidence, as defined by the Ontario Breeding Bird Atlas criteria (Cadman <i>et al.</i>, 2007). If construction activities occur during the bird nesting season (approximately April 1 to August 31; ECCC 2019), bird exclusion methods such as covering potentially suitable nesting locations on idle machinery, structures, equipment or stockpiled materials in addition to other types of exclusion methods such as those found in <i>Best Management Practices for Excluding Barn Swallows and Chimney Swifts from Buildings and Structures</i> (MNRF, 2017) should be implemented to prevent migratory birds from accessing and building nests in the construction site. In addition, if construction is planned on the rail bridge over Highway 27 and/or Carlingview Drive during the breeding bird season (approximately April 1 to August 31; ECCC, 2019), exclusion measures should be installed to prevent access of birds outside of the breeding bird season (approximately April 1 to August 31; ECCC 2019) and prior to construction work. If not possible, a nest search will be conducted by a qualified Biologist no more than 24 hours prior to installation. If a nest of an MBCA protected bird species is found in the construction site, all work in the immediate vicinity must stop and a Qualified Biologist be contacted to determine appropriate avoidance measures in order to avoid contravention of the MBCA and other applicable law. To minimize disturbance, the construction area will be clearly demarcated and kept as small as possible. Use of already cleared access routes will be used, where possible, to avoid further vegetation clearing and/or disturbance to migratory breeding birds and nests. <p>Wildlife:</p> <ul style="list-style-type: none"> Prior to construction, investigation will be completed a Qualified Biologist for wildlife and wildlife habitat that may have established following the completion of previous survey(s). Any wildlife incidentally encountered during vegetation clearing or subsequent construction activities will not be knowingly harmed and will be allowed to exit the site on their own, via safe routes. In the event that the wildlife does not move or is injured, the Environmental Monitor/Qualified Biologist will be contacted to assess and rescue/relocate wildlife if necessary.
Natural Environment – Fish and Fish Habitat	<p><u>Construction</u></p> <p>Erosion and Sediment Control:</p> <ul style="list-style-type: none"> Work will be scheduled to avoid wet, windy and rainy periods that may increase erosion and sedimentation. Erosion and sediment control (ESC) measures will be implemented, monitored and maintained and modified as necessary throughout the construction period until all disturbed ground has been permanently stabilized. ESC will include measures to contain and stabilize any waste material (e.g., dredging soils, construction waste and materials, uprooted or cut aquatic plants, accumulated debris) to prevent to the drainage features. Non-biodegradable ESC materials will be removed once site is stabilized. Any dewatering required for construction activities will be discharged to an appropriate sediment control measure for treatment prior to release to a well vegetated area setback a minimum of 30 metres from waterbodies or wetlands, where feasible. <p>Operation of Machinery and Industrial Equipment:</p> <ul style="list-style-type: none"> Activities near water will be planned to ensure that such materials such as paint, primers, blasting abrasives, rust, solvents, degreasers, grout or other chemicals do not enter the drainage features. Building material used in a drainage feature will be handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious. All construction materials will be removed from site upon project completion. Confirm that machinery arrives on site in a clean condition and is maintained free of fluid leaks, invasive species and noxious weeds. Wash, refuel and service machinery; and, store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water.
Natural Environment – SAR or SOCC	<p><u>Construction</u></p> <ul style="list-style-type: none"> Same mitigation measures as identified for vegetation above for during construction apply herein. Same mitigation measures as identified for migratory breeding birds above for during construction apply herein. If construction is planned on the rail bridge over Highway 27 and/or Carlingview Drive during the breeding bird season (approximately April 1 to August 31; ECCC, 2019), appropriate exclusion measures for Barn Swallow, such as those found in <i>Best Management Practices for Excluding Barn Swallows and Chimney Swifts from Buildings and Structures</i> (MNRF, 2017) should be applied to prevent Barn Swallows from accessing and building nests under the bridge(s). Installation of exclusion measures should occur outside of the breeding bird season (approximately April 1 to August 31; ECCC, 2019) and prior to construction start, if possible. However, if installation is to

Discipline	EPR Commitments
	Mitigation Measure (or related action) or Future Commitment
	<p>occur within this period, a nest search will be conducted by a qualified Biologist within 48 hours prior to installation. If a Barn Swallow nest is found in the construction site, all work in the immediate vicinity must stop and the MECP must be consulted in order to avoid contravention of the ESA.</p> <ul style="list-style-type: none"> • Same mitigation measures as identified for wildlife above during construction apply herein. • Same mitigation measures as identified above for aquatic features apply herein. • Common Milkweed and native flowering plants will be incorporated into the restoration or landscaping plan to compensate for Monarch habitat removals.
<p>Geology and Groundwater</p>	<p><u>Construction</u></p> <ul style="list-style-type: none"> • Estimates of water taking quantities and resultant dewatering ZOI will be determined during Detailed Design. • As prescribed under O. Reg. 63/16, water taking for construction site dewatering in excess of 50,000 L/day and under 400,000 L/day is subject to registration through the EASR system. Where construction dewatering volumes are expected to exceed 400,000 L/day, a Category 3 PTTW will be required from MECP, in accordance with Section 34 of the Ontario Water Resources Act (OWRA). Similarly, approvals for the discharge of pumped water also may be required, which could include one or a combination of Municipal Discharge Permits, Conservation Authority notification, and/or MECP Environmental Compliance Approval (ECA) (OWRA, Section 53). • Any discharge of water would be subject to the terms and conditions of all required permits and approvals obtained by WEG and/or the Contractor based on the expected site conditions. • A Phase I Environmental Site Assessment (ESA) investigation will be completed during Detailed Design to confirm existing contamination within the Study Area. Based on the findings of the Phase I ESA, a Phase II ESA may be warranted. • The following plans shall be developed during Detailed Design and implemented during construction activities: <ul style="list-style-type: none"> – If dewatering is required, a Dewatering Management Plan will be prepared to provide the procedures and protocols that need to be implemented to ensure that all site dewatering activities are completed in a manner that does not cause harm to the environment and meets applicable laws, by-laws, codes, regulations and standards, while preventing site flooding from the discharge of dewatering effluent. Groundwater quality sampling will be conducted prior to discharge to assess baseline groundwater quality. Discharge water will be treated prior to discharge if contamination/exceedance is detected. – A Soil and Groundwater Management Plan shall be prepared prior to construction to describe the general principles and develop specific protocols to address the handling, management and disposal of soil and groundwater that is generated or encountered during the Project construction. – An Erosion and Sediment Control Plan will be developed prior to construction. Implementation of the erosion and sedimentation control measures will conform to recognized standard specifications such as Ontario Provincial Standards Specification (OPSS). Sediment and erosion control measures (e.g., silt curtains, silt fence) will be installed prior to site clearing, grubbing, excavation or grading works. No effluent discharge to the ground surface will occur prior to implementation of this plan. – A Spill Prevention and Response Plan will be developed prior to construction outlining steps to prevent and contain any chemicals and/or spills in a timely and effective manner and to avoid soil and water contamination. This plan will include the requirement for a spill kit to be maintained on site at all times during construction. <p><u>Operations</u></p> <ul style="list-style-type: none"> • The potential reduction in aquifer recharge will be addressed during Detailed Design to ensure that the Project is compliant with all Source Water Protection policies. Appropriate mitigation will be determined at that time, if required.
<p>Air Quality</p>	<p><u>Construction</u></p> <ul style="list-style-type: none"> • Exposure to construction-related emissions will be mitigated by the following: <ul style="list-style-type: none"> – Ensuring all mobile equipment is in good condition, properly and regularly maintained, and compliant with applicable federal and provincial regulations for off-road diesel engines; – Ensuring all machinery is maintained and operated in accordance with manufacturer’s specification; – Locating stationary equipment (generators, compressors, etc.) as far away from sensitive receptors as practical; – Minimizing idling time and posting signage to this effect around the construction site; – Ensuring stationary and mobile equipment are not operated during early morning (before 6 AM, or sunrise) or evening periods (after 8 PM, or sunset) as often as practical; – Implementing a Dust Management Plan for the duration of the construction phase, which includes practices to minimize fine particulate release from mobile equipment, materials handling, and wind erosion; and – Ensuring that the areas most impacted by particulate levels are vegetated (i.e., tree planting) to reduce the cumulative particulate impacts. • Site supervisors during the construction phase should monitor the site for wind direction and weather conditions to ensure that high-impact activities be reduced when the wind is blowing consistently towards nearby sensitive receptors. The site supervisor should also monitor for visible fugitive dust and take action to determine the root-cause in order to counteract this. Specific details to this effect should be included in the construction site DMP. It is further recommended that mitigation measures detailed in “<i>Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities (March 2005)</i>” prepared by Cheminfo for Environment Canada be implemented, where practical. <p><u>Operations</u></p> <ul style="list-style-type: none"> • Potential mitigation of the potential emissions may be achieved by implementing an anti-idling or restricted idling policy within the PPUDO area and parking lots which would limit the number of minutes a vehicle is allowed to remain in idle during a passenger pick-up or drop-off. Electric vehicles and fuel-efficient vehicle implementation into an existing vehicle fleet will also provide significant CAC and GHG reduction in the short to medium term. The introduction and increasing popularity and affordability of hybrid and full electric vehicles, as well as transit authority led initiatives to increase the percentage of fuel efficient and hybrid busses within their vehicle fleet will continue to reduce emission impacts from vehicles using the proposed station within the future. • As suggested within the construction mitigation section, areas affected by air born particulates may be benefited by introducing vegetation (e.g. trees, shrubbery, etc.) to help reduce cumulative particulate impacts during the operational phase.
<p>Noise and Vibration</p>	<p><u>Construction</u></p> <ul style="list-style-type: none"> • The following practices are recommended throughout construction to reduce noise impacts at sensitive receptors: <ul style="list-style-type: none"> – Adhere to City of Toronto By-law requirements and the terms of any By-Law exemptions granted by the City of Toronto; – Maintain equipment in a condition that prevents unnecessary noise while operating, including but not limited to, effective muffler systems, properly secured components, and the lubrication of moving parts;

Discipline		EPR Commitments	
		Mitigation Measure (or related action) or Future Commitment	
		<ul style="list-style-type: none"> – Restrict idling of equipment to the minimum necessary to perform the specified work; – Ensure vehicles employed continuously on site for extended periods of time (two days or more) are fitted with sound reducing back-up (reversing) alarms*; – Avoid unnecessary revving of engines and switch off equipment when not required (do not idle); – If construction needs to be undertaken outside of the normal daytime hours, inform local residents beforehand of the type of construction planned and the expected duration; – Use construction equipment compliant with noise level specifications in MECP guidelines NPC-115 and NPC-118; – Minimize drop heights of materials; and – In consultation with the City of Toronto, route haulage/dump trucks on main roads where possible, rather than quieter residential roads. • If it is determined that there is a need to further reduce noise effects during construction work, the following additional mitigation measures may be considered and implemented, where appropriate: <ul style="list-style-type: none"> – Offset usage of active heavy equipment (schedule non-concurrent use); – Implement noise compliance checks to ensure equipment levels are in compliance with MECP guidelines NPC-115 and NPC-118; – Reroute construction and truck traffic, when possible; – Co-ordinate ‘noisy’ operations such that they will not occur simultaneously, where possible; – Where possible, investigate and implement the use of alternative construction equipment or methods to reduce noise emissions from construction. Utilize alternative equipment that generates lower noise levels or optimize silencer/muffler/enclosure performance; – Use rubber linings in chutes and dumpers to reduce impact noise; – Install acoustic enclosures, noise shrouds or noise curtains around noisy equipment; and – Install temporary noise barriers/solid construction hoarding on site boundary to screen affected locations. • The following general measures are recommended during construction to manage potential vibration impacts at sensitive receptors: <ul style="list-style-type: none"> – Operate earth-moving equipment on the construction lot as far away from vibration-sensitive sites as possible; – For piling operations, consider piling methods with reduced impact/energy input; – Route heavily-loaded trucks away from residential streets, if possible. Select streets with fewest homes if no alternatives are available; and – Phase any demolition, earth-moving and ground-impacting operations so as not to occur in the same time period. • If use of vibratory rollers can be restricted to at least 8 m from the Saand building, the ZOI could be reduced to avoid the building. If this restriction is not possible, a pre-construction condition inspection and vibration monitoring during corridor construction work would be required at the building. 	
Socio-Economic Environment – Land Use	Commercial	<p><u>Construction</u></p> <ul style="list-style-type: none"> • Refer to the measures provided in this Table 8-1 – Air Quality, Noise and Vibration to reduce potential effects to Woodbine Hotel & Suites during construction. <p><u>Operations</u></p> <ul style="list-style-type: none"> • Refer to the measures provided in this Table 8-1 – Air Quality to reduce potential effects to Woodbine Hotel & Suites during operations. 	
	Industrial	<p><u>Construction</u></p> <ul style="list-style-type: none"> • If use of vibratory rollers can be restricted to at least 8 m from Saand Rexdale, the ZOI could be reduced to avoid the building. If this restriction is not possible, a pre-construction condition inspection and vibration monitoring during corridor construction work would be required at the building. 	
	Recreational	<p><u>Construction</u></p> <ul style="list-style-type: none"> • Avoid potential heritage attributes located at the Woodbine Racetrack, including the grandstand structure, various stable facilities, and multiple tracks located on the property. 	
Socio-Economic Environment – Property		<p><u>Construction</u></p> <ul style="list-style-type: none"> • For safety purposes, the Project Site will maintain secure fencing and will not be accessible to the public during construction. 	
Socio-Economic Environment – Utilities		<p><u>Construction</u></p> <ul style="list-style-type: none"> • Consultation with the City of Toronto will be completed to address modifications to public site servicing. • Existing and proposed future utilities plans will be reviewed once confirmed. Subsurface Utility Engineering (SUE) investigations may be conducted to confirm existing utilities. Any potential conflicts and associated mitigation measures will be identified as design progresses. If required, co-ordination with affected utility companies will be completed during detailed design. <p><u>Operations</u></p> <ul style="list-style-type: none"> • Once utility conflicts have been specifically identified and resolved, no further mitigation measures related to utilities are expected during operations. Potential access requirements as a result of maintenance within the Project Site will be determined in consultation with relevant utility companies. 	
Cultural Heritage		<p>555 Rexdale Boulevard – CHR 1:</p> <ul style="list-style-type: none"> • Preferred Option: At further design stages, the project should continue to be designed to avoid the potential heritage attributes included within this report, including the grandstand structure, the various stable facilities, and the multiple tracks located on the property. • Alternative Option: Should further design stages result in an expansion of the project footprint; a qualified heritage consultant should be retained to review whether the project activities may result in potential impacts to the potential heritage attributes. Specifically, if this results in the potential for impacts to the training track, currently shown within the Study Area for this CHAR, additional evaluation should be completed. If impacts to potential heritage attributes appear to be evident, further investigation may be required in the form of a Cultural Heritage Evaluation Report (CHER) to fully evaluate the potential cultural heritage value of the property, and confirm heritage attributes, and an HIA. The HIA should discuss alternatives considered and recommend the alternative to minimize or mitigate adverse effects on the property. The CHER and HIA, if required should be completed by a qualified person. 	

Discipline	EPR Commitments
	Mitigation Measure (or related action) or Future Commitment
	<p>Highway 27 Bridge – CHR 6:</p> <ul style="list-style-type: none"> Preferred Option: Continued avoidance of the bridge during construction. Alternative Option: In order to mitigate the potential vibration impacts to this structure, the existing structural conditions of the bridge should be reviewed or established. Should further design stages result in direct impact to the bridge; a qualified heritage consultant should be retained to review whether the project activities may result in potential impacts to the potential heritage attributes. If impacts to potential heritage attributes appear to be evident, further investigation may be required in the form of a CHER to fully evaluate the potential cultural heritage value of the property, and confirm heritage attributes, and an HIA. The HIA should discuss alternatives considered and recommend the alternative to minimize or mitigate adverse effects on the property. The CHER and HIA, if required should be completed by a qualified person.
Archaeology	<ul style="list-style-type: none"> Should the proposed work extend beyond the Study Area, a Stage 1 AA shall be conducted to determine the archaeological potential and requirement for further Stage 2 AA work of any additional lands; Any additional Archaeological Assessments (e.g., Stage 2, Stage 3 if recommended by the Stage 2) shall be completed as early as possible, and prior to the completion of detailed design. This work shall be done in accordance with the MTCS's Standards and Guidelines for Consultant Archaeologists (2011) to identify any archaeological resources that may be present; In the event that additional Stage 1 and/or Stage 2 AA identifies potential for the discovery of an Indigenous archaeological site, Metrolinx shall engage appropriate Indigenous communities to review the findings of the report and determine next steps and monitoring requirements to be considered during further stages of archaeological assessment; and Should previously unknown or unassessed deeply buried archaeological resources be uncovered during construction activities, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological field work, in compliance with Section 48 (1) of the Ontario Heritage Act. Any person discovering human remains must immediately notify the police or coroner and the Registrar of Cemeteries, Ministry of Government Services. In addition, consultation with relevant Indigenous communities will be initiated in the event that archaeological resources or human remains are discovered.
Traffic and Transportation	<p><u>Operations</u></p> <ul style="list-style-type: none"> The following signal timing adjustments or lane configurations will reduce the average vehicle delay and improve road operations: <ul style="list-style-type: none"> Add 2 additional seconds of green time to the westbound left-turn phase at Highway 27 and Rexdale Boulevard Providing an additional northbound lane at Club House Road and Entrance Road, in which the northbound approach lane configuration becomes a northbound through lane and a shared northbound through and left lane Changing the lane configuration at the eastbound approach at Grandstand Entrance Road and Entrance Road from the current dedicated eastbound left-turn lane and dedicated eastbound right-turn lane to a dedicated left-turn lane and a share left- and right-turn lane Modifications to storage lanes (increased length) at locations provided in Table 5-9.
Stakeholder Engagement	<p><u>Detailed Design / Construction</u></p> <ul style="list-style-type: none"> Design and implement a response strategy to address/resolve potential construction concerns; Maintain the Project Website throughout detailed design and construction where the public can access updated information on the Project; and Continue discussions/consultation with local stakeholders with respect to potential impacts during detailed design and construction, as appropriate.

Discipline	EPR Commitments
	Mitigation Measure (or related action) or Future Commitment
<p>Permits and Approvals Required – Federal</p>	<ul style="list-style-type: none"> • Where possible, vegetation removal shall take place outside of the primary breeding bird season (April 1 to August 31). If vegetation must be removed during the overall bird nesting season, nest and nesting activity searches will be conducted by a qualified Biologist within 48 hours prior to vegetation removal. • If construction activities occur during the bird nesting season (April 1 to August 31), bird exclusion methods such as covering potentially suitable nesting locations on machinery, equipment or stockpiled materials in addition to other types of exclusion methods shall be implemented to prevent migratory birds from accessing and building nests in the construction site. If a nest is found in the construction site, all work in the immediate vicinity must stop and a Qualified Biologist be contacted to determine appropriate avoidance measures in order to avoid contravention of the <i>MBCA</i>. • Permits under the <i>MBCA</i> are not anticipated to be required if the recommended avoidance measures are implemented. The following describes the prescribed avoidance timing windows and associated mitigation measures required for vegetation removal and any further migratory breeding birds surveys that may be undertaken. <ul style="list-style-type: none"> • Vegetation removal will be kept to a minimum and should be scheduled to occur outside of the primary bird nesting season of approximately April 1 to August 31 (ECCC, 2019). If a nest of a migratory bird is found within the construction area outside of this nesting period, it still receives protection. If vegetation must be removed during the overall bird nesting season, nest and nesting activity searches will be conducted by a qualified Biologist no more than 24 hours prior to vegetation removal (refer to Environmental Monitoring Plan for more details). Depending on the breeding bird survey and nests found, the Canadian Wildlife Service may need to be contacted for specific mitigation methods (depending on species) prior to impacts occurring. Nesting activity will be documented when it consists of confirmed breeding evidence, as defined by the Ontario Breeding Bird Atlas criteria (Cadman et al., 2007). • If construction activities occur during the bird nesting season (approximately April 1 to August 31; ECCC 2019), bird exclusion methods such as covering potentially suitable nesting locations on idle machinery, structures, equipment or stockpiled materials in addition to other types of exclusion methods such as those found in Best Management Practices for Excluding Barn Swallows and Chimney Swifts from Buildings and Structures (MNR, 2017) should be implemented to prevent migratory birds from accessing and building nests in the construction site. • In addition, if construction is planned on the rail bridge over Highway 27 and/or Carlingview Drive during the breeding bird season (approximately April 1 to August 31; ECCC, 2019), exclusion measures should be installed to prevent access of birds outside of the breeding bird season (approximately April 1 to August 31; ECCC 2019) and prior to construction work. If not possible, a nest search will be conducted by a qualified Biologist no more than 24 hours prior to installation. If a nest of an <i>MBCA</i> protected bird species is found in the construction site, all work in the immediate vicinity must stop and a Qualified Biologist be contacted to determine appropriate avoidance measures in order to avoid contravention of the <i>MBCA</i> and other applicable law. • To minimize disturbance, the construction area will be clearly demarcated and kept as small as possible. Use of already cleared access routes will be used, where possible, to avoid further vegetation clearing and/or disturbance to migratory breeding birds and nests.



Discipline	EPR Commitments
	Mitigation Measure (or related action) or Future Commitment
Permits and Approvals Required – Provincial	<p><u>Detailed Design</u></p> <ul style="list-style-type: none"> As prescribed under <i>O. Reg. 63/16</i>, water taking for construction site dewatering in excess of 50,000 L/day and under 400,000 L/day is subject to registration through EASR. In accordance with Section 34 of the <i>OWRA</i>, a Category 3 PTTW from MECP must be obtained for the taking of more than 400,000 L/day of groundwater for the purposes of construction dewatering from any given source. Approvals for the discharge of pumped water will also be required, and could be a combination of Municipal Discharge Permits, agreement with Conservation Halton, and/or MOECC ECA in accordance with Section 53 of the <i>OWRA</i>. Any discharge of water would be subject to the terms and conditions of required permits and approvals based on the expected site conditions. Permitting requirements shall be confirmed during detailed design, when specific details such as construction timing and methods are known. Project construction is expected to generate excess soil that cannot be reused on site due to its geotechnical properties or quality of the excess soil. In all cases the on-site and off-site beneficial reuse of excess soil will be explored during detailed design and shall be undertaken in accordance with <i>Excess Soil – A Guide to Best Management Practices</i> (MOECC, January 2014). It is noted that the MOECC is presently contemplating the creation of a Regulation to govern excess soil management. Should this Regulation come into force within the implementation of the Project the requirements shall be incorporated, as applicable. If construction is planned on the Highway 27 Bridge and/or Carlingview Drive during the breeding bird season (approximately April 1 to August 31; ECCC, 2019), appropriate exclusion measures for Barn Swallow, such as those found in <i>Best Management Practices for Excluding Barn Swallows and Chimney Swifts from Buildings and Structures</i> (MNR, 2017) should be applied to prevent Barn Swallows from accessing and building nests under the bridge(s). Installation of exclusion measures should occur outside of the breeding bird season (approximately April 1 to August 31; ECCC, 2019) and prior to construction start, if possible. However, if installation is to occur within this period, a nest search will be conducted by a qualified Biologist within 48 hours prior to installation. If a Barn Swallow nest is found in the construction site, all work in the immediate vicinity must stop and the MECP must be consulted in order to avoid contravention of the <i>ESA</i>.
Permits and Approvals Required – Municipal	<p><u>Detailed Design</u></p> <ul style="list-style-type: none"> WEG will comply with City of Toronto tree protection by-laws and obtain the associated tree injury/removal permits. Where possible, Metrolinx and WEG will continue to communicate and engage with the City of Toronto during detailed design and construction planning to ensure that municipal concerns are addressed in the construction plans prior to commencement of construction activities, as applicable.
Permits and Approvals Required – Utilities	<p><u>Detailed Design</u></p> <ul style="list-style-type: none"> The final assessment of utility conflicts shall be reviewed in consultation with each utility company as part of detailed design. Implementation and construction obligations shall be undertaken pursuant to the crossing agreements with each of the utility companies as required.
Permits and Approvals Required – Future Work	<p><u>Detailed Design</u></p> <ul style="list-style-type: none"> An EMMP shall be developed to outline the responsibility for carrying out monitoring and reporting activities, including timing and frequency of monitoring activities, as well as the compliance process. The EMMP shall include all mitigation measures, categorized by project phase, and shall identify the party responsible for implementation.

Table 5-1: Proposed Modifications to Length of Storage Lanes

Location of Storage Lane	Existing Length (m)	Proposed Length (m)
Westbound left-turn at the intersection of Highway 27 and Rexdale Boulevard	30	85
Northbound left-turn at the intersection of Highway 27 and Rexdale Boulevard	80	125
Eastbound left-turn at the intersection of Rexdale Boulevard and Queens Plate Drive (West)	65	145
Northbound left-turn at the intersection of Rexdale Boulevard and Queens Plate Drive (West)	55	80
Eastbound left-turn at the intersection of Rexdale Boulevard and Humberwood Boulevard	85	95
Southbound left-turn at the intersection of Rexdale Boulevard and Humberwood Boulevard	35	120