

Alternative S7-3 (2019 Preferred)		Alternative S7-13		Alternative S7-14	
<b>Evaluation Factors and Sub-Factors</b>					
<b>1.0 Natural Environment</b>					
<b>1.1 Fish and Fish Habitat</b>					
<b>1.1.1 Fish Habitat</b>					
	<p><b>13 watercourses impacted:</b></p> <ul style="list-style-type: none"> <li>3 permanent, baitfish (coolwater indicators, darters) (tributary to Robinson Creek was dry at the time of the July survey)</li> <li>4 intermittent, unconfirmed fish (warmwater)</li> <li>6 ephemeral, no fish habitat</li> </ul> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until confirmed, net effects remain the same as potential effects:</p> <ul style="list-style-type: none"> <li>Impacting long reaches (2.1 km total) of permanent watercourses with moderately sensitive coolwater fish communities</li> <li>Crossings are within the broad interchange footprint and could be either perpendicular crossings or channel realignments; therefore, effects dependent on interchange configuration.</li> <li>Network of ephemeral drainage features on west side of alignment will be impacted</li> </ul>	<p><b>13 watercourses impacted:</b></p> <ul style="list-style-type: none"> <li>2 permanent, baitfish (coolwater indicators, darters) (3 required crossings as main stem Robinson Creek crossed twice)</li> <li>4 intermittent, unconfirmed fish (warmwater)</li> <li>7 ephemeral, no fish habitat</li> </ul> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until confirmed, net effects remain the same as potential effects:</p> <ul style="list-style-type: none"> <li>Impacting long reaches (3.72 km total) of permanent watercourses with moderately sensitive coolwater fish communities</li> <li>Crossings are within the broad interchange footprint and could be either perpendicular crossings or channel realignments; therefore, effects dependent on interchange configuration.</li> <li>Network of ephemeral drainage features on west and east sides of alternative will be impacted</li> </ul>	<p><b>13 watercourses impacted:</b></p> <ul style="list-style-type: none"> <li>2 permanent, baitfish (coolwater indicators, darters) (3 required crossings as main stem Robinson Creek crossed twice)</li> <li>4 intermittent, unconfirmed fish (warmwater)</li> <li>7 ephemeral, no fish habitat</li> </ul> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until confirmed, net effects remain the same as potential effects:</p> <ul style="list-style-type: none"> <li>Impacting long reaches (2.4 km total) of permanent watercourses with moderately sensitive coolwater fish communities</li> <li>Crossings are within the broad interchange footprint and could be either perpendicular crossings or channel realignments; therefore, effects dependent on interchange configuration.</li> <li>A network of three watercourses (2 permanent, 1 Intermittent (+ realignment of intermittent watercourse)) will require crossings in close proximity to each other due to the location of the confluence within the alternative.</li> <li>Network of ephemeral drainage features on west and east sides of alternative will be impacted</li> </ul>		
	<p><b>1.1.2 Fish Community</b></p> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until confirmed, net effects remain the same as potential effects:</p> <ul style="list-style-type: none"> <li>Impacting long reaches (2.1 km total) of permanent watercourses with moderately sensitive coolwater fish communities</li> </ul>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until confirmed, net effects remain the same as potential effects:</p> <ul style="list-style-type: none"> <li>Impacting long reaches (3.72 km total) of permanent watercourses with moderately sensitive coolwater fish communities</li> </ul>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until confirmed, net effects remain the same as potential effects:</p> <ul style="list-style-type: none"> <li>Impacting long reaches (2.4 km total) of permanent watercourses with moderately sensitive coolwater fish communities</li> </ul>		
<b>1.2 Terrestrial Ecosystems</b>					
	<p><b>1.2.1 Wildlife and Wildlife Habitat</b></p> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Permanent loss of a relatively small proportion of the identified SWH in the section and relatively small loss of higher quality wildlife habitats.</li> <li>Permanent loss of habitat for SAR/SCC species including Eastern Wood Pewee (edge removal at one location and substantial removal of habitat at a second location), terrestrial crayfish and Western Chorus Frog.</li> <li>Removal of Bobolink (THR) habitat (up to 50% removal of breeding habitat), and potential Barn Swallow habitat; however, habitat loss would be compensated through the ESA, if present.</li> <li>Fragmentation of the valley corridor in two locations.</li> </ul>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Permanent loss of a relatively small proportion of the identified SWH in the section and relatively small loss of higher quality wildlife habitats.</li> <li>Permanent loss of habitat for SAR/SCC including Eastern Wood Pewee (edge removal at one location), terrestrial crayfish and Western Chorus Frog.</li> <li>Possible removal of Barn Swallow and Eastern Meadowlark (THR) habitat; however, loss of habitat would be compensated through ESA if present.</li> <li>Fragmentation of the valley corridor in two locations.</li> <li>Reduction of wildlife habitat quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased</li> </ul>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Permanent loss of a relatively small proportion of the identified SWH in the section and relatively small loss of higher quality wildlife habitats.</li> <li>Permanent loss of habitat for SAR/SCC species including Eastern Wood Pewee (edge removal at one location), terrestrial crayfish and Western Chorus Frog.</li> <li>Possible removal of Barn Swallow and Eastern Meadowlark (THR) habitat; however, loss of habitat would be compensated through ESA if present.</li> <li>Fragmentation of the valley corridor in two locations.</li> </ul>		

Evaluation Factors and Sub-Factors	Alternative S7-3 (2019 Preferred)	Alternative S7-13	Alternative S7-14
1.2.2 Wetlands	<ul style="list-style-type: none"> <li>Reduction of wildlife habitat quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased light and noise and the introduction of pathways for invasive species) and increased potential for animal-vehicle collisions</li> </ul> <p>Impacts are generally confined to lower quality habitats within the landscape, however, riparian corridor fragmentation is unavoidable.</p> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Impacts to several wetlands including approximately ~9.8 ha of removal</li> <li>Reduction in wetland quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased light, wind, road contaminants and the introduction of pathways for invasive species) and impacts to hydrologic and groundwater inputs that support these features</li> </ul> <p>Affected wetlands are generally small and of lower diversity, however, they contribute a variety of functions to the local landscape.</p>	<p>light and noise and the introduction of pathways for invasive species) and increased potential for animal-vehicle collisions.</p> <p>Impacts are generally confined to lower quality habitats within the landscape, however, riparian corridor fragmentation is unavoidable.</p> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation / enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Removal of ~20.7 ha of low quality unevaluated wetland</li> <li>Reduction in wetland quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased light, wind, road contaminants and the introduction of pathways for invasive species) and impacts to hydrologic and groundwater inputs that support these features</li> </ul> <p>Affected wetlands are generally small and of lower diversity, however, they contribute a variety of functions to the local landscape.</p>	<ul style="list-style-type: none"> <li>Reduction of wildlife habitat quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased light and noise and the introduction of pathways for invasive species) and increased potential for animal-vehicle collisions</li> </ul> <p>Impacts are generally confined to lower quality habitats within the landscape, however, riparian corridor fragmentation is unavoidable.</p> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation / enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Removal of ~18.5 ha of low quality unevaluated wetland</li> <li>Reduction in wetland quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased light, wind, road contaminants and the introduction of pathways for invasive species) and impacts to hydrologic and groundwater inputs that support these features</li> </ul> <p>Affected wetlands are generally small and of lower diversity, however, they contribute a variety of functions to the local landscape.</p>
1.2.3 Woodlands and Vegetation	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Removal of ~17.1 ha of cultural thicket and meadow</li> <li>Removal of ~4.2 ha of deciduous forest and deciduous swamp</li> <li>Removal of one provincially rare vegetation community</li> <li>Reduction in vegetation community quality through indirect effects that cannot be fully mitigated including effects from road contaminants (e.g. salt, heavy metals, sediment / debris), introduction of pathways for invasive species, edge / exposure impacts (e.g. canopy blow down)</li> </ul> <p>Vegetation communities within this alternative are generally small and of low diversity, or early-successional and containing higher abundances of non-native and disturbance-tolerant species, however, higher quality and provincially rare habitats are also present. These features represent the only remaining patches of natural vegetation in the general landscape.</p> <p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation / enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Removal of ~18.5 ha of cultural thicket and meadow with small sections of tree swamp (&lt;0.1 ha) and deciduous forest (0.4 ha)</li> <li>Reduction in vegetation community quality through indirect effects that cannot be fully mitigated including effects from road contaminants (e.g. salt, heavy metals, sediment / debris), introduction of pathways for invasive species, edge / exposure impacts (e.g. canopy blow down)</li> </ul> <p>Vegetation communities within this alternative are generally small, scattered patches of cultural thicket, deciduous forest, deciduous swamp, and cultural meadow.</p>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation / enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p> <ul style="list-style-type: none"> <li>Removal of ~18.0 ha of cultural thicket and meadow</li> <li>Removal of 0.4 ha of deciduous forest</li> <li>Reduction in vegetation community quality through indirect effects that cannot be fully mitigated including effects from road contaminants (e.g. salt, heavy metals, sediment / debris), introduction of pathways for invasive species, edge / exposure impacts (e.g. canopy blow down)</li> </ul> <p>Vegetation communities within this alternative are generally small, scattered patches of cultural thicket, deciduous forest, and cultural meadow.</p>
1.2.4 Designated/Special/ Natural Areas	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation/enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation / enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p>	<p>Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, compensation / enhancement measures; until confirmed, net effects remain the same as potential effects.</p> <p>Net effects include:</p>

Evaluation Factors and Sub-Factors		Alternative S7-3 (2019 Preferred)	Alternative S7-13	Alternative S7-14
1.3 Ecosystem Services	No removals of the Natural Heritage System of the Greenbelt Plan Removals within the York Region 'Greenlands System' and 'Core Features' within the City of Vaughan	No removals of the Natural Heritage System of the Greenbelt Plan Removals within the York Region 'Greenlands System' and 'Core Features' within the City of Vaughan	Removal of 0.65 ha of the Natural Heritage System of the Greenbelt Plan Removals within the York Region 'Greenlands System' and 'Core Features' within the City of Vaughan	No removals of the Natural Heritage System of the Greenbelt Plan Removals within the York Region 'Greenlands System' and 'Core Features' within the City of Vaughan
	Relative ES Value • Agriculture: Moderate • Natural Cover: Low • Cumulative: Low	Relative ES Value • Agriculture: High • Natural Cover: Low • Cumulative: Low	Relative ES Value • Agriculture: High • Natural Cover: Low • Cumulative: Low	Relative ES Value • Agriculture: Moderate • Natural Cover: Low • Cumulative: Low
1.4 Groundwater	ES Value Representation • Agriculture: 59% • Natural Cover: 41%	ES Value Representation • Agriculture: 59% • Natural Cover: 41%	ES Value Representation • Agriculture: 52% • Natural Cover: 48%	ES Value Representation • Agriculture: 52% • Natural Cover: 48%
	1.4.1 Areas of Groundwater Recharge or Discharge	• Small loss of recharge due to footprint on permeable soils and small loss of discharge due to interception.	• Small to moderate loss of recharge due to footprint on permeable soils and small loss of discharge due to interception.	• Small to moderate loss of recharge due to footprint on permeable soils and small loss of discharge due to interception.
1.4.2 Groundwater Source Areas and Wellhead Protection Areas	1.4.2 Groundwater Source Areas	• Footprint is at the far end of the WHPA which remains protected.	• Footprint passes through the WHPA which remains protected.	• Footprint passes through the WHPA which remains protected.
	1.4.3 Large Volume Wells	• No effects to large capacity wells	• No effects to large capacity wells	• No effects to large capacity wells
1.4.4 Private Wells	1.4.4 Private Wells	• Potential reduction in water quality in at least 8 wells due to potential salt issue only, because wells are shallow • At least 11 wells are to be removed / decommissioned by alternative.	• Potential reduction in water quality in at least 3 wells due to potential salt issue only, because wells are shallow • At least 16 wells are to be removed / decommissioned by alternative.	• Potential reduction in water quality in at least 4 wells due to potential salt issue only, because wells are shallow • At least 16 wells are to be removed / decommissioned by alternative.
	1.4.5 Groundwater-Dependent Commercial Enterprises	• No commercial wells displaced. • Nine (9) commercial uses adjacent to the alternative potentially affected.	• Three (3) commercial wells displaced. • Six (6) commercial uses adjacent to the alternative potentially affected.	• Three (3) commercial wells displaced. • Six (6) commercial uses adjacent to the alternative potentially affected.
1.4.6 Groundwater-Sensitive Ecosystems	1.4.6 Groundwater-Sensitive Ecosystems	• Low potential to affect sensitive ecosystems with two (2) wetland areas in buffer zone and warmwater streams that are not dependent on groundwater.	• Moderate potential to affect sensitive ecosystems with seven (7) wetland areas that may be displaced within this alternative. • Low potential to affect 12 additional wetland/discharge areas and warmwater streams in the buffer zone that are not dependent on groundwater.	• Moderate potential to affect sensitive ecosystems with seven (7) wetland areas that may be displaced within this alternative. • Low potential to affect 13 additional wetland/discharge areas and warmwater streams in the buffer zone that are not dependent on groundwater.
	1.5 Surface Water	• Complicated crossings of moderate to major watercourses which are actively meandering will require wide spans. • Introduces approximately 60 ha of impervious area to Robinson Creek. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden runoff, thermal impact on the coolwater system. • Medium impacts on hydrology due to changes in ground permeability. • High impacts on modifications to surface drainage patterns and alterations of water bodies.	• Complicated crossings of moderate to major watercourses which are actively meandering will require wide spans. • Introduces approximately 68 ha of impervious area to Robinson Creek. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden runoff, thermal impact on the coolwater system. • Medium impacts on hydrology due to changes in ground permeability. • High impacts on modifications to surface drainage patterns and alterations of water bodies.	• Complicated crossings of moderate to major watercourses which are actively meandering will require wide spans. • Introduces approximately 64 ha of impervious area to Robinson Creek. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden runoff, thermal impact on the coolwater system. • Medium impacts on hydrology due to changes in ground permeability. • High impacts on modifications to surface drainage patterns and alterations of water bodies.
1.6 Air Quality and Climate Change	1.6.1 Local and regional air quality impacts; greenhouse gas emissions	• A few residences may be close enough to experience a change in air quality, but pollutants will be within acceptable levels (mainly where the link to Highway 427 meets Huntington Rd. and Major Mackenzie Dr.).	• A few residences may be close enough to experience a change in air quality, but pollutants will be within acceptable levels (mainly where the link to Highway 427 meets Huntington Rd. and Major Mackenzie Dr.).	• A few residences may be close enough to experience a change in air quality, but pollutants will be within acceptable levels (mainly where the link to Highway 427 meets Huntington Rd. and Major Mackenzie Dr.).
	2.0 Land Use / Socio-Economic Environment	2.1 Land Use Planning Policies, Goals, Objectives	2.1 Land Use Planning Policies, Goals, Objectives	2.1 Land Use Planning Policies, Goals, Objectives

Evaluation Factors and Sub-Factors		Alternative S7-3 (2019 Preferred)	Alternative S7-14
2.1.1 Indigenous Land Claims	Treaties including Nanfan (1701), Treaty 3 (1795), Treaty 3.75 (1795), Treaty 13 (1805), Treaty 13A (1805), Treaty 18, 1818, Treaty 19 (1918), Williams Treaty (1923), as well as various Assertions and Claims. <ul style="list-style-type: none"> <li>Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time.</li> </ul>	Treaties including Nanfan (1701), Treaty 3 (1795), Treaty 3.75 (1795), Treaty 13 (1805), Treaty 13A (1805), Treaty 18, 1818, Treaty 19 (1918), Williams Treaty (1923), as well as various Assertions and Claims. <ul style="list-style-type: none"> <li>Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time.</li> </ul>	Treaties including Nanfan (1701), Treaty 3 (1795), Treaty 3.75 (1795), Treaty 13 (1805), Treaty 13A (1805), Treaty 18, 1818, Treaty 19 (1918), Williams Treaty (1923), as well as various Assertions and Claims. <ul style="list-style-type: none"> <li>Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time.</li> </ul>
2.1.2 Provincial / Federal Land Use Planning Policies / Goals / Objectives	Impacts PPS agricultural public space and recreational and employment lands policies. <ul style="list-style-type: none"> <li>Impacts 128 hectares of Agricultural lands.</li> <li>Impacts 47 hectares of Designated Employment lands.</li> <li>Consistent with the Greenbelt Plan (no impact).</li> <li>Impacts 17 hectares of Environmental Policy Area lands.</li> <li>Impacts 17 hectares of Environmental Policy Area lands.</li> <li>Impacts 60 hectares of Future Urban Area lands.</li> <li>Impacts 8 hectares of Rural Area lands.</li> <li>Impacts 128 hectares of Agricultural lands.</li> <li>Impacts 47 hectares of Designated Employment lands.</li> <li>Impacts approved Highway 50 Truck Stop (2.1 hectares).</li> </ul>	Impacts PPS agricultural public space and recreational and employment lands policies. <ul style="list-style-type: none"> <li>Impacts 162 hectares of Agricultural lands.</li> <li>Impacts 52 hectares of Designated Employment lands.</li> <li>Consistent with the Greenbelt Plan (very small impact of 0.65 ha).</li> <li>Impacts 19 hectares of Environmental Policy Area lands.</li> <li>Impacts 19 hectares of Environmental Policy Area lands.</li> <li>Impacts 60 hectares of Future Urban Area lands.</li> <li>Impacts 8 hectares of Rural Area lands.</li> <li>Impacts 162 hectares of Agricultural lands.</li> <li>Impacts 52 hectares of Designated Employment lands.</li> <li>Impacts approved Highway 50 Truck Stop (2.1 hectares).</li> </ul>	Impacts PPS agricultural public space and recreational and employment lands policies. <ul style="list-style-type: none"> <li>Impacts 147 hectares of Agricultural lands.</li> <li>Impacts 52 hectares of Designated Employment lands.</li> <li>Consistent with the Greenbelt Plan (no impact).</li> <li>Impacts 19 hectares of Environmental Policy Area lands.</li> <li>Impacts 19 hectares of Environmental Policy Area lands.</li> <li>Impacts 60 hectares of Future Urban Area lands.</li> <li>Impacts 8 hectares of Rural Area lands.</li> <li>Impacts 147 hectares of Agricultural lands.</li> <li>Impacts 52 hectares of Designated Employment lands.</li> <li>Impacts approved Highway 50 Truck Stop (2.1 hectares).</li> </ul>
2.1.3 Municipal (local and regional) Land Use Planning Policies / Goals / Objectives	Impacts 17 hectares of Environmental Policy Area lands. <li>Impacts 60 hectares of Future Urban Area lands.</li> <li>Impacts 8 hectares of Rural Area lands.</li> <li>Impacts 128 hectares of Agricultural lands.</li> <li>Impacts 47 hectares of Designated Employment lands.</li> <li>Impacts approved Highway 50 Truck Stop (2.1 hectares).</li>		
2.1.4 Development Objectives of Private Property Owners	Impacts approved Highway 50 Truck Stop (2.1 hectares).		
<b>2.2 Land Use – Community</b>			
2.2.1 First Nation Reserves	No reserves in study area.	No reserves in study area.	No reserves in study area.
2.2.2 Indigenous Sacred Areas	No known or reported Indigenous Sacred Areas	No known or reported Indigenous Sacred Areas	No known or reported Indigenous Sacred Areas
2.2.3 Urban and Rural Residential Uses and Properties	10 residential properties impacted.	7 residential properties impacted.	7 residential properties impacted.
2.2.4 Commercial/ Industrial Uses and Properties	Impacts 6 commercial operations: Zara Natural Stone (2.2 hectares), C Valley Paving (6.4 hectares), Nashville Sod Supply (0.05 hectares), Apra Truck Lines Transport (2.0 hectares), SMS Landscaping (0.02 hectares) and Temp Outdoor Storage (0.2 hectares).	Impacts 5 commercial operations: Zara Natural Stone, C Valley Paving, Coffee Time/Esso, Downsview Group Outdoor Storage, Pets Get Physical.	Impacts 5 commercial operations: Zara Natural Stone, C Valley Paving, Coffee Time/Esso, Downsview Group Outdoor Storage, other Outdoor Storage.
2.2.5 Recreational Areas and Tourist Attractions	No impacts.	No impacts.	No impacts.
2.2.6 Community Facilities / Institutions	2 properties impacted: Nashville Road School/ Community Church (0.3 hectares) and Shiloh Primitive Methodist Cemetery (0.04 hectares).	Impacts a small portion of the Shiloh Primitive Methodist Cemetery.	Impacts a small portion of the Shiloh Primitive Methodist Cemetery.
2.2.7 Municipal Infrastructure and Public Service Facilities	1 rail crossing.	1 rail crossing.	1 rail crossing.
<b>2.3 Noise Sensitive Areas (NSA's)</b>			
2.3.1 Transportation Noise	A few residences may be close enough to experience an increase in traffic noise (mainly where the link to Highway 427 meets Huntington Rd. and Major MacKenzie Dr.).	A few residences may be close enough to experience an increase in traffic noise (mainly where the link to Highway 427 meets Huntington Rd. and Major MacKenzie Dr.).	A few residences may be close enough to experience an increase in traffic noise (mainly where the link to Highway 427 meets Huntington Rd. and Major MacKenzie Dr.).
<b>2.4 Land Use – Resources</b>			
2.4.1 Indigenous Treaty Rights and Land Use Management	Treaties including Nanfan (1701), Treaty 3 (1795), Treaty 3.75 (1795), Treaty 13 (1805), Treaty 13A (1805), Treaty 18, 1818, Treaty 19 (1918), Williams Treaty (1923), as well as various Assertions and Claims. <ul style="list-style-type: none"> <li>Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time.</li> </ul>	Treaties including Nanfan (1701), Treaty 3 (1795), Treaty 3.75 (1795), Treaty 13 (1805), Treaty 13A (1805), Treaty 18, 1818, Treaty 19 (1918), Williams Treaty (1923), as well as various Assertions and Claims. <ul style="list-style-type: none"> <li>Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time.</li> </ul>	Treaties including Nanfan (1701), Treaty 3 (1795), Treaty 3.75 (1795), Treaty 13 (1805), Treaty 13A (1805), Treaty 18, 1818, Treaty 19 (1918), Williams Treaty (1923), as well as various Assertions and Claims. <ul style="list-style-type: none"> <li>Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time.</li> </ul>
2.4.2 Agriculture / Specialty Crop	Loss of 120.5 ha of Class 1 – 3 lands	Loss of 154.2 ha of Class 1 – 3 lands	Loss of 140.1 ha of Class 1 – 3 lands
Removal or sterilization of Class 1 – 3 agricultural lands	Loss of 120.5 ha of Class 1 – 3 lands	Loss of 154.2 ha of Class 1 – 3 lands	Loss of 140.1 ha of Class 1 – 3 lands

<ul style="list-style-type: none"> <li>• Specialty Crops/Cropland affected</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>
<ul style="list-style-type: none"> <li>• Cropland affected</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• Livestock operations affected</li> </ul>	<ul style="list-style-type: none"> <li>• Two livestock operations affected (dairy, horse) (loss of buildings and land for both operations)</li> </ul>	<ul style="list-style-type: none"> <li>• Two livestock operations affected (poultry, horse) (buildings and land)</li> </ul>	<ul style="list-style-type: none"> <li>• Two livestock operations affected (poultry, horse) (buildings and land)</li> </ul>
<ul style="list-style-type: none"> <li>• Loss of agricultural buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• Agricultural buildings within 50 m</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>
<ul style="list-style-type: none"> <li>• Field crop operations affected</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• Farm properties greater than 20 ha affected</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• Farm properties less than 20 ha affected</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• Severed parcels greater than 20 ha created</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• Severed parcels less than 20 ha created</li> </ul>	<ul style="list-style-type: none"> <li>• Nine severed parcels less than 20 ha created</li> </ul>	<ul style="list-style-type: none"> <li>• Ten severed parcels less than 20 ha created</li> </ul>	<ul style="list-style-type: none"> <li>• Nine severed parcels less than 20 ha created</li> </ul>
<ul style="list-style-type: none"> <li>• Landlocked parcels created</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>	<ul style="list-style-type: none"> <li>• Potential effect remains the same</li> </ul>
<ul style="list-style-type: none"> <li>• High investment operations affected</li> </ul>	<ul style="list-style-type: none"> <li>• Two high investment operations affected (horse, dairy) (loss of land and buildings for both operations)</li> </ul>	<ul style="list-style-type: none"> <li>• One high investment operation affected (horse) (buildings and land)</li> </ul>	<ul style="list-style-type: none"> <li>• One high investment operation affected (horse) (buildings and land)</li> </ul>
<ul style="list-style-type: none"> <li>• Farm equipment transportation routes affected</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>
<ul style="list-style-type: none"> <li>• Division of agricultural community areas</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>
<ul style="list-style-type: none"> <li>• Loss of tile drainage</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>	<ul style="list-style-type: none"> <li>• No effect</li> </ul>
<ul style="list-style-type: none"> <li>• 2.4.3 Recreation</li> </ul>	<ul style="list-style-type: none"> <li>• No impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• No impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• No impacts.</li> </ul>
<ul style="list-style-type: none"> <li>• 2.4.4 Aggregate and Mineral Resources</li> </ul>	<ul style="list-style-type: none"> <li>• No impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• No impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• No impacts.</li> </ul>
<p><b>2.5 Major Utility Transmission Corridors and Pipelines</b></p>			
<ul style="list-style-type: none"> <li>• 2.5.1 Major Existing Utility Transmission Corridors and Pipelines</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative crosses pipeline, hydro lines and hydro towers.</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative crosses pipeline, hydro lines and hydro towers.</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative crosses pipeline, hydro lines and hydro towers.</li> </ul>

<p>2.5.2 Major Proposed Utility Transmission Corridors and Pipelines</p>	<ul style="list-style-type: none"> <li>No impacts.</li> </ul>	<ul style="list-style-type: none"> <li>No impacts.</li> </ul>	<ul style="list-style-type: none"> <li>No impacts.</li> </ul>
<p>2.6 Contaminated Property and Waste Management</p>	<p><b>Properties within alternative:</b></p> <ul style="list-style-type: none"> <li>One (1) waste disposal site located at 10335 Highway 50;</li> <li>One (1) gas station;</li> <li>One (1) commercial property with automobile storage and stock piles;</li> <li>One (1) industrial property with automobile storage and stock piles;</li> <li>Two (2) private properties with abandoned/ used cars and stock piles;</li> <li>One (1) CNR rail line;</li> <li>One (1) cemetery;</li> <li>One (1) private property with storage of materials and an AST.</li> </ul> <p><b>Properties within 250 m of alternative:</b></p> <ul style="list-style-type: none"> <li>Two (2) private properties with stock piles and construction work;</li> <li>One (1) commercial property with truck storage.</li> </ul>	<p><b>Properties within alternative:</b></p> <ul style="list-style-type: none"> <li>One (1) waste disposal site at 10335 Highway 50;</li> <li>One (1) gas station;</li> <li>Three (3) commercial properties with storage of automobiles and stock piles;</li> <li>One (1) cemetery;</li> <li>One (1) commercial property with outdoor storage and abandoned/used car; and</li> <li>One (1) CNR rail line.</li> </ul> <p><b>Properties within 250 m of alternative:</b></p> <ul style="list-style-type: none"> <li>One (1) railway line and railway property;</li> <li>One (1) transformer station property;</li> <li>One (1) landscaping property with storage of automobiles and fill piles.</li> </ul>	<p><b>Properties within alternative:</b></p> <ul style="list-style-type: none"> <li>One (1) waste disposal site at 10335 Highway 50;</li> <li>One (1) gas station;</li> <li>Three (3) commercial properties with storage of automobiles and stock piles;</li> <li>One (1) cemetery;</li> <li>One (1) commercial property with outdoor storage and abandoned/used car; and</li> <li>One (1) CNR rail line.</li> </ul> <p><b>Properties within 250 m of alternative:</b></p> <ul style="list-style-type: none"> <li>One (1) railway line and railway property;</li> <li>One (1) transformer station property;</li> <li>One (1) landscaping property with storage of automobiles and fill piles.</li> </ul>
<p>2.7 Landscape Composition</p> <p>2.7.1 Terrain</p>	<ul style="list-style-type: none"> <li>Predominantly flat topography except for creek valley.</li> <li>Designated predominantly agricultural area, with some environmental policy area, employment area, future urban area and a small portion of rural area.</li> <li>Small area of wetland impacted/removed.</li> <li>Crosses 13 streams/branches of streams.</li> <li>Crosses hydro corridor twice.</li> <li>Part of the alternative encroaches on the Wellhead Protection Area for Kleinberg.</li> <li>West end of alternative goes partially over Shiloh Primitive Methodist Cemetery.</li> </ul>	<ul style="list-style-type: none"> <li>Predominantly flat topography except for creek valley.</li> <li>Designated predominantly agricultural area, with some environmental policy area, employment area, future urban area, and small portions of rural area and developed area.</li> <li>Moderate area of wetland impacted/removed.</li> <li>Crosses 13 streams/branches of streams.</li> <li>Crosses hydro corridor twice.</li> <li>Part of the alternative falls on the Wellhead Protection Area.</li> <li>West end of alternative goes over Shiloh Primitive Methodist Cemetery.</li> </ul>	<ul style="list-style-type: none"> <li>Predominantly flat topography except for creek valley.</li> <li>Designated predominantly agricultural area, with some environmental policy area, employment area, future urban area, and small portions of rural area and developed area.</li> <li>Moderate area of wetland impacted/removed.</li> <li>Crosses 13 streams/branches of streams.</li> <li>Crosses hydro corridor twice.</li> <li>Part of the alternative falls on the Wellhead Protection Area.</li> <li>West end of alternative goes over Shiloh Primitive Methodist Cemetery.</li> </ul>
<p>2.7.2 Vegetation</p>	<ul style="list-style-type: none"> <li>Interrupts 1 linear vegetation community in 2 locations (unidentified wetland; wood lot and warm-water stream).</li> <li>Crosses 8 unevaluated wetlands.</li> <li>Crosses 2 wooded areas (less than 5 ha)</li> <li>Runs adjacent to 2 woodlots contiguous to streams.</li> </ul>	<ul style="list-style-type: none"> <li>Interrupts 1 linear vegetation community in 2 locations (unidentified wetland; wood lot and warm-water stream).</li> <li>Crosses 11 unevaluated wetlands.</li> <li>Covers or crosses 2 wooded areas (~0.5 ha).</li> </ul>	<ul style="list-style-type: none"> <li>Interrupts 1 linear vegetation community in 2 locations (unidentified wetland; wood lot and warm-water stream)</li> <li>Crosses 10 unevaluated wetlands</li> <li>Covers or crosses 1 wooded area (~0.5 ha)</li> </ul>
<p>2.7.3 Visual Impacts</p>	<ul style="list-style-type: none"> <li>Diminished aesthetic quality of scenic views, reduced visual effect through mitigation/compensation measures.</li> <li>This alternative would have a moderate to high effect on the sensitive residential receptors, particularly the subdivision.</li> <li>Low to moderate impacts to sensitive receptor of new subdivision north of Major MacKenzie Drive and east of Huntington Road.</li> <li>Sensitive viewer Nashville Road Community Church will have its northern vista affected by this alternative (moderate effect).</li> <li>A moderate to low spatial dominance in terms of land covered by this alternative, absorptivity of the landscape is low due to primarily flat open agricultural lands.</li> </ul>	<ul style="list-style-type: none"> <li>Diminished aesthetic quality of scenic views, reduced visual effect through mitigation/compensation measures.</li> <li>Low to moderate effect on the sensitive residential receptors (subdivision and Nashville Village to the east).</li> <li>Low to moderate impacts to sensitive receptor of new subdivision north of Major MacKenzie Drive and east of Huntington Road.</li> <li>Sensitive receptor Nashville Road Community Church will have its northern vista impacted by this alternative (low to moderate effect).</li> <li>A moderate spatial dominance in terms of land covered by this option, absorptivity of the landscape is low due to primarily flat open agricultural lands at the south end. At the north there is some varied topography and vegetation which increases landscape absorptivity.</li> </ul>	<ul style="list-style-type: none"> <li>Diminished aesthetic quality of scenic views, reduced visual effect through mitigation/compensation measures.</li> <li>Low to moderate effect on the sensitive residential receptors (subdivision and Nashville Village to the east)</li> <li>Low to moderate impacts to sensitive receptor of new subdivision north of Major MacKenzie Drive and east of Huntington Road.</li> <li>Sensitive receptor Nashville Road Community Church will have its northern vista impacted by this alternative (low to moderate effect).</li> <li>A moderate spatial dominance in terms of land covered by this option, absorptivity of the landscape is low due to primarily flat open agricultural lands at the south end. At the</li> </ul>

Evaluation Factors and Sub-Factors		Alternative S7-3 (2019 Preferred)	Alternative S7-13	Alternative S7-14
2.7.4 Aesthetics	<ul style="list-style-type: none"> <li>Alignment in this alternative is somewhat integrated with the landscape and interrupts some existing uses (rural, commercial and residential).</li> <li>One (1) cemetery falls partially under this alternative.</li> <li>Potential views and vistas from the corridor include predominantly agricultural lands.</li> </ul>	<ul style="list-style-type: none"> <li>Alignment in this option is fairly well integrated with the landscape and existing uses.</li> <li>Interrupts some existing uses (rural, commercial and residential).</li> <li>One (1) cemetery falls partially under this alternative.</li> <li>Potential views and vistas from the corridor include predominantly agricultural lands.</li> </ul>	<ul style="list-style-type: none"> <li>Alignment in this option is fairly well integrated with the landscape and existing uses.</li> <li>Interrupts some existing uses (rural, commercial and residential).</li> <li>One (1) cemetery falls partially under this alternative.</li> <li>Potential views and vistas from the corridor include predominantly agricultural lands.</li> </ul>	<ul style="list-style-type: none"> <li>north there is some varied topography and vegetation which increases landscape absorptivity.</li> <li>Alignment in this option is fairly well integrated with the landscape and existing uses.</li> <li>Interrupts some existing uses (rural, commercial and residential).</li> <li>One (1) cemetery falls partially under this alternative.</li> <li>Potential views and vistas from the corridor include predominantly agricultural lands.</li> </ul>
<b>3.0 Cultural Environment</b>				
<b>3.1 Built Heritage and Cultural Heritage Landscapes</b>				
3.1.1 Built Heritage Resources	<ul style="list-style-type: none"> <li>There are two (2) potential BHRs (BHR 223 and BHR 226) and one (1) listed BHR (BHR 234) affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are two (2) potential BHRs (BHR 223, BHR 226) affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are two (2) potential BHRs (BHR 223, BHR 226) affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are two (2) potential BHRs (BHR 223, BHR 226) affected by this alternative.</li> </ul>
3.1.2 Heritage Bridges	<ul style="list-style-type: none"> <li>There are no Heritage Bridges affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are no Heritage Bridges affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are no Heritage Bridges affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are no Heritage Bridges affected by this alternative.</li> </ul>
3.1.3 Cultural Heritage Landscapes	<ul style="list-style-type: none"> <li>There is one (1) designated cemetery CHL (CHL 222) and one (1) listed CHL (CHL 221) affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There is one (1) designated cemetery CHL (CHL 222) and one (1) listed CHL (CHL 221) affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There is one (1) designated cemetery (CHL 222) and one (1) listed (CHL 221) affected by this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There is one (1) designated cemetery (CHL 222) and one (1) listed (CHL 221) affected by this alternative.</li> </ul>
<b>3.2 Archaeology</b>				
3.2.1 Pre-Contact and Contact Indigenous Archaeological Sites	<ul style="list-style-type: none"> <li>Three (3) registered sites (AKGv-308, AKGv-300, AKGv-330), however no further work is required as they have been mitigated. Archaeological potential is present within 192 hectares of this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There is one (1) registered pre-contact or contact Indigenous Archaeological site (AKGv-308) within this alternative, although no further work is required as it has been mitigated. Archaeological potential is present within 239 hectares of this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There is one (1) registered pre-contact or contact Indigenous Archaeological site (AKGv-308) within this alternative, although no further work is required as it has been mitigated. Archaeological potential is present within 227 hectares of this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There is one (1) registered pre-contact or contact Indigenous Archaeological site (AKGv-308) within this alternative, although no further work is required as it has been mitigated. Archaeological potential is present within 227 hectares of this alternative.</li> </ul>
3.2.2 Historic Euro-Canadian Archaeological Sites	<ul style="list-style-type: none"> <li>Two (2) registered sites (AKGw-469, AIGw-168), however no further work is required as they have been mitigated. Archaeological potential is present within 192 hectares of this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are two (2) registered archaeological sites (AIGw-168, AKGw-469) within this alternative, although no further work is required as the sites have been mitigated. Archaeological potential is also present within 239 hectares of this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are two (2) registered archaeological sites (AIGw-168, AKGw-469) within this alternative, although no further work is required as the sites have been mitigated. Archaeological potential is also present within 227 hectares of this alternative.</li> </ul>	<ul style="list-style-type: none"> <li>There are two (2) registered archaeological sites (AIGw-168, AKGw-469) within this alternative, although no further work is required as the sites have been mitigated. Archaeological potential is also present within 227 hectares of this alternative.</li> </ul>
3.2.3 Indigenous Burial Sites	<ul style="list-style-type: none"> <li>No known or reported Indigenous Burial Sites</li> </ul>	<ul style="list-style-type: none"> <li>No known or reported Indigenous Burial Sites</li> </ul>	<ul style="list-style-type: none"> <li>No known or reported Indigenous Burial Sites</li> </ul>	<ul style="list-style-type: none"> <li>No known or reported Indigenous Burial Sites</li> </ul>
3.2.4 Cemeteries	<ul style="list-style-type: none"> <li>One (1) registered cemetery is present within this alternative</li> </ul>	<ul style="list-style-type: none"> <li>One (1) registered cemetery is present within this alternative</li> </ul>	<ul style="list-style-type: none"> <li>One (1) registered cemetery is present within this alternative</li> </ul>	<ul style="list-style-type: none"> <li>One (1) registered cemetery is present within this alternative</li> </ul>
<b>4.0 Transportation</b>				
<b>4.1 System Capacity &amp; Efficiency</b>				
<b>4.1.1 Movement of People</b>				
4.1.1.1 Movement of People	<ul style="list-style-type: none"> <li>706,000 auto vehicle km</li> <li>2,937,000 auto vehicle km</li> <li>86% better than LOS D (80% in base without GTAW)</li> <li>68% better than LOS D (60% in base without GTAW)</li> <li>Improves connections to existing and planned urban centres.</li> <li>Improves connections to transitway from urban centres, mobility hubs, and other transit services.</li> <li>Improved transportation options for travellers.</li> <li>GTA West – 2.5 km, Hwy 427 – 2.3 km</li> </ul>	<ul style="list-style-type: none"> <li>706,000 auto vehicle km</li> <li>2,937,000 auto vehicle km</li> <li>86% better than LOS D (80% in base without GTAW)</li> <li>68% better than LOS D (60% in base without GTAW)</li> <li>Improves connections to existing and planned urban centres.</li> <li>Improves connections to transitway from urban centres, mobility hubs, and other transit services.</li> <li>Improved transportation options for travellers.</li> <li>GTA West – 2.5 km, Hwy 427 – 2.3 km</li> </ul>	<ul style="list-style-type: none"> <li>706,000 auto vehicle km</li> <li>2,937,000 auto vehicle km</li> <li>86% better than LOS D (80% in base without GTAW)</li> <li>68% better than LOS D (60% in base without GTAW)</li> <li>Improves connections to existing and planned urban centres.</li> <li>Improves connections to transitway from urban centres, mobility hubs, and other transit services.</li> <li>Improved transportation options for travellers.</li> <li>GTA West – 2.5 km, Hwy 427 – 2.3 km</li> </ul>	<ul style="list-style-type: none"> <li>706,000 auto vehicle km</li> <li>2,937,000 auto vehicle km</li> <li>86% better than LOS D (80% in base without GTAW)</li> <li>68% better than LOS D (60% in base without GTAW)</li> <li>Improves connections to existing and planned urban centres.</li> <li>Improves connections to transitway from urban centres, mobility hubs, and other transit services.</li> <li>Improved transportation options for travellers.</li> <li>GTA West – 2.5 km, Hwy 427 – 2.3 km</li> </ul>
4.1.1.2 Movement of Goods	<ul style="list-style-type: none"> <li>52,000 truck vehicle km</li> <li>255,000 truck vehicle km</li> <li>85% better than LOS D (78% in base without GTAW)</li> <li>69% better than LOS D (62% in base without GTAW)</li> <li>Supports connections to existing and planned freight trip generators</li> </ul>	<ul style="list-style-type: none"> <li>52,000 truck vehicle km</li> <li>255,000 truck vehicle km</li> <li>85% better than LOS D (78% in base without GTAW)</li> <li>69% better than LOS D (62% in base without GTAW)</li> <li>Supports connections to existing and planned freight trip generators</li> </ul>	<ul style="list-style-type: none"> <li>52,000 truck vehicle km</li> <li>255,000 truck vehicle km</li> <li>85% better than LOS D (78% in base without GTAW)</li> <li>69% better than LOS D (62% in base without GTAW)</li> <li>Supports connections to existing and planned freight trip generators</li> </ul>	<ul style="list-style-type: none"> <li>52,000 truck vehicle km</li> <li>255,000 truck vehicle km</li> <li>85% better than LOS D (78% in base without GTAW)</li> <li>69% better than LOS D (62% in base without GTAW)</li> <li>Supports connections to existing and planned freight trip generators</li> </ul>
4.1.3 System performance during peak periods	<ul style="list-style-type: none"> <li>South of Kirby Rd - 0.97</li> <li>North of Major MacKenzie Dr - 0.61</li> <li>West of Hwy 50 - 0.52</li> <li>East of Huntington Rd - 0.62</li> <li>GTAW (West of Hwy 427) - 0.82</li> </ul>	<ul style="list-style-type: none"> <li>South of Kirby Rd - 0.97</li> <li>North of Major MacKenzie Dr - 0.61</li> <li>West of Hwy 50 - 0.52</li> <li>East of Huntington Rd - 0.62</li> <li>GTAW (West of Hwy 427) - 0.82</li> </ul>	<ul style="list-style-type: none"> <li>South of Kirby Rd - 0.97</li> <li>North of Major MacKenzie Dr - 0.61</li> <li>West of Hwy 50 - 0.52</li> <li>East of Huntington Rd - 0.62</li> <li>GTAW (West of Hwy 427) - 0.82</li> </ul>	<ul style="list-style-type: none"> <li>South of Kirby Rd - 0.97</li> <li>North of Major MacKenzie Dr - 0.61</li> <li>West of Hwy 50 - 0.52</li> <li>East of Huntington Rd - 0.62</li> <li>GTAW (West of Hwy 427) - 0.82</li> </ul>

Evaluation Factors and Sub-Factors		Alternative S7-3 (2019 Preferred)	Alternative S7-13	Alternative S7-14
		<ul style="list-style-type: none"> <li>• GTAW (East of Hwy 427) – 0.96</li> <li>• Hwy 427 (South of GTAW) – 0.74</li> <li>• Supports potential demand management strategies and travel demand supportive measures</li> <li>• Good opportunity for redundancy on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• GTAW (East of Hwy 427) – 0.96</li> <li>• Hwy 427 (South of GTAW) – 0.74</li> <li>• Supports potential demand management strategies and travel demand supportive measures</li> <li>• Good opportunity for redundancy on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• GTAW (East of Hwy 427) – 0.96</li> <li>• Hwy 427 (South of GTAW) – 0.74</li> <li>• Supports potential demand management strategies and travel demand supportive measures</li> <li>• Good opportunity for redundancy on the local road network.</li> </ul>
<b>4.2 System reliability / redundancy</b>		<ul style="list-style-type: none"> <li>• Good opportunity for redundancy on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for redundancy on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for redundancy on the local road network.</li> </ul>
<b>4.3 Safety</b>		<ul style="list-style-type: none"> <li>• Good opportunity for traffic safety on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for traffic safety on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for traffic safety on the local road network.</li> </ul>
4.3.1 Traffic Safety		<ul style="list-style-type: none"> <li>• Good opportunity for traffic safety on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for traffic safety on the local road network.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for traffic safety on the local road network.</li> </ul>
4.3.2 Emergency Access		<ul style="list-style-type: none"> <li>• High potential for improved access without reductions to existing access.</li> </ul>	<ul style="list-style-type: none"> <li>• High potential for improved access without reductions to existing access.</li> </ul>	<ul style="list-style-type: none"> <li>• High potential for improved access without reductions to existing access.</li> </ul>
<b>4.4 Mobility &amp; Accessibility</b>		<ul style="list-style-type: none"> <li>• Good opportunity for intermodal connections at transitway stations and carpool lots.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for intermodal connections at transitway stations and carpool lots.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for intermodal connections at transitway stations and carpool lots.</li> </ul>
4.4.1 Modal integration and balance		<ul style="list-style-type: none"> <li>• Good opportunity for intermodal connections at transitway stations and carpool lots.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for intermodal connections at transitway stations and carpool lots.</li> </ul>	<ul style="list-style-type: none"> <li>• Good opportunity for intermodal connections at transitway stations and carpool lots.</li> </ul>
4.4.2 Linkages to Population and Employment Centres		<ul style="list-style-type: none"> <li>• Improved access to future employment lands. Close connection to south Bolton area.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved access to future employment lands. Close connection to south Bolton area.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved access to future employment lands. Close connection to south Bolton area.</li> </ul>
4.4.3 Recreation and Tourism Travel		<ul style="list-style-type: none"> <li>• High support for inter-regional connections.</li> </ul>	<ul style="list-style-type: none"> <li>• High support for inter-regional connections.</li> </ul>	<ul style="list-style-type: none"> <li>• High support for inter-regional connections.</li> </ul>
4.4.4 Accommodation for pedestrians, cyclists, snowmobiles, and specialized vehicles		<ul style="list-style-type: none"> <li>• Maintains all existing roads crossing the future corridor</li> </ul>	<ul style="list-style-type: none"> <li>• Maintains all existing roads crossing the future corridor</li> </ul>	<ul style="list-style-type: none"> <li>• Maintains all existing roads crossing the future corridor</li> </ul>
<b>4.5 Network Compatibility</b>		<ul style="list-style-type: none"> <li>• High potential for improved connectivity to/from the Study Area</li> </ul>	<ul style="list-style-type: none"> <li>• High potential for improved connectivity to/from the Study Area</li> </ul>	<ul style="list-style-type: none"> <li>• High potential for improved connectivity to/from the Study Area</li> </ul>
4.5.1 Network connectivity		<ul style="list-style-type: none"> <li>• High potential for improved connectivity to/from the Study Area</li> </ul>	<ul style="list-style-type: none"> <li>• High potential for improved connectivity to/from the Study Area</li> </ul>	<ul style="list-style-type: none"> <li>• High potential for improved connectivity to/from the Study Area</li> </ul>
4.5.2 Flexibility for future expansion		<ul style="list-style-type: none"> <li>• Opportunities to expand freeway and transitway within the proposed right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to expand freeway and transitway within the proposed right-of-way</li> </ul>	<ul style="list-style-type: none"> <li>• Opportunities to expand freeway and transitway within the proposed right-of-way</li> </ul>
<b>4.6 Engineering</b>		<ul style="list-style-type: none"> <li>• Only minor constructability issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate constructability issues crossing hydro corridor</li> <li>• Increased spacing between the CP Rail line and Huntington Road may facilitate the design of the vertical profiles and grades for the mainline. Huntington Road crossing is near intersection of Kirby Road and Huntington Road. May require relocation of intersection.</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate constructability issues crossing hydro corridor.</li> <li>• Increased spacing between the CP Rail line and Huntington Road may facilitate the design of the vertical profiles and grades for the mainline. Huntington Road grade falling to the north. GTA West may have to cross over Huntington Road at a point where Huntington is dropping down towards Kirby Road. This may complicate the crossing design and construction.</li> </ul>
4.6.1 Constructability		<ul style="list-style-type: none"> <li>• Only minor constructability issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate constructability issues crossing hydro corridor</li> <li>• Increased spacing between the CP Rail line and Huntington Road may facilitate the design of the vertical profiles and grades for the mainline. Huntington Road crossing is near intersection of Kirby Road and Huntington Road. May require relocation of intersection.</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate constructability issues crossing hydro corridor.</li> <li>• Increased spacing between the CP Rail line and Huntington Road may facilitate the design of the vertical profiles and grades for the mainline. Huntington Road grade falling to the north. GTA West may have to cross over Huntington Road at a point where Huntington is dropping down towards Kirby Road. This may complicate the crossing design and construction.</li> </ul>
4.6.2 Compliance with design criteria		<ul style="list-style-type: none"> <li>• Conforms to design criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Conforms to design criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Conforms to design criteria</li> </ul>
<b>4.7 Construction Cost</b>		<ul style="list-style-type: none"> <li>• Estimated Cost - 161 M dollars</li> </ul>	<ul style="list-style-type: none"> <li>• Estimated Cost - 165 M dollars</li> <li>• Additional cost due to relatively longer alignment and estimated hydro tower relocation</li> </ul>	<ul style="list-style-type: none"> <li>• Estimated Cost - 165 M dollars</li> <li>• Additional cost due to relatively longer alignment and estimated hydro tower relocation</li> </ul>
<b>4.8 Traffic Operations</b>		<ul style="list-style-type: none"> <li>• Low potential of reduced traffic operations</li> </ul>	<ul style="list-style-type: none"> <li>• Low potential of reduced traffic operations</li> </ul>	<ul style="list-style-type: none"> <li>• Low potential of reduced traffic operations</li> </ul>