Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
1.0 Natural Environment				
1.1 Fish and Fish Habitat				
1.1.1 Fish Habitat	Standard net effects to watercourses as outlined in the accompanying memo at the following: **23 potential water crossings:** • 4 permanent cool/coldwater systems with remaining intermittent or ephemeral watercourses. • 3 crossings with Redside Dace habitat (2 occupied and 1 recovery) • 1 permanent, 1 intermittent, and 2 ephemeral contributing habitat crossings • 12 intermittent or ephemeral watercourses 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. Net effects include: • Unable to avoid the negative effects of structures on groundwater patterns • High potential of crossings to negatively affect riparian and valley function along 6 permanent, cool/coldwater watercourses • Redside Dace habitat identified within alternative. HIGH NET EFFECT	Standard net effects to watercourses as outlined in the accompanying memo at the following: **28 potential water crossings:** • 5 permanent cool/coldwater systems with remaining intermittent or ephemeral watercourses. • 2 crossings with Redside Dace habitat (1 occupied and 1 recovery) • 1 permanent, 1 intermittent, and 6 ephemeral crossings contributing to Redside Dace habitat • 13 intermittent or ephemeral watercourses 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. Net effects include: • Unable to avoid the negative effects of structures on groundwater patterns • High potential of crossings to negatively affect riparian and valley function along 6 permanent, cool/coldwater watercourses • Redside Dace habitat identified within alternative. HIGH NET EFFECT	Standard net effects to watercourses as outlined in the accompanying memo at the following: **28 potential water crossings**: • 3 permanent cool/coldwater systems with remaining intermittent or ephemeral watercourses. • 2 crossings with Redside Dace habitat (1 occupied and 1 recovery) • 1 permanent, 1 intermittent, and 6 ephemeral crossings contributing to Redside Dace habitat • 14 intermittent or ephemeral watercourses • 1 open water pond/unclassified wetland 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. Net effects include: • Unable to avoid the negative effects of structures on groundwater patterns • High potential of crossings to negatively affect riparian and valley function along 6 permanent, cool/coldwater watercourses • Alternative may require substantial realignments of natural watercourses. • Redside Dace habitat identified within alternative. HIGH NET EFFECT	Standard net effects to watercourses as outlined in the accompanying memo at the following: **26 potential water crossings:** • 4 permanent cool/coldwater systems with remaining intermittent or ephemeral watercourses. • 3 crossings with Redside Dace habitat (2 occupied and 1 recovery) • 1 permanent, 1 intermittent, and 2 ephemeral contributing habitat crossings • 14 intermittent or ephemeral watercourses • 1 open water pond/unclassified wetland 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. Net effects include: • Unable to avoid the negative effects of structures on groundwater patterns • High potential of crossings to negatively affect riparian and valley function along 6 permanent, cool/coldwater watercourses • Redside Dace habitat identified within alternative. HIGH NET EFFECT
	RANKING: 1st This alternative includes the lowest number of potential water crossings overall, but the same number of Redside Dace habitat crossings as S6-4 and one more permanent cool/coldwater system crossing than S6-3. However, with a minor shift to the proposed Gore Road interchange, one crossing of Redside Dace habitat may be avoided and thus this alternative would have the fewest Redside Dace habitat crossings and fewest crossings overall. This alternative could impact a valley with well-established riparian and wetland features.	**RANKING: 3rd** This alternative has the highest number of potential water crossings and highest number of Redside Dace habitat crossings (same as S6-3). Additionally, this alternative could impact a valley with well-established riparian and wetland features.	**RANKING: 4th** This alternative includes five more potential water crossings than alternative S6-1 and the highest number of Redside Dace habitat crossings (same as S6-2). This alternative could impact a valley with well-established riparian and wetland features, and there is also a high likelihood that substantial channel realignments would be required.	**RANKING: 2nd** This alternative includes three more potential water crossings overall than S6-1, but the same number of Redside Dace habitat crossings. However, with a minor shift to the proposed Gore Road interchange, one crossing of Redside Dace habitat may be avoided (same as S6-1). Additionally, this alternative could impact a valley with well-established riparian and wetland features.
1.1.2 Fish Community	Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until	Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures;	Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures; until	Net effects associated with the alternative are dependent on the ability to implement avoidance, mitigation, offsetting / enhancement measures;

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	confirmed, net effects remain the same as potential effects. Net effects include: • 2 crossings with SAR (Redside Dace) • Long potential channel realignment could affect fish community including Redside Dace HIGH NET EFFECT	until confirmed, net effects remain the same as potential effects. Net effects include: • 2 crossings with SAR (Redside Dace) • Long potential channel realignment could affect fish community including Redside Dace HIGH NET EFFECT	confirmed, net effects remain the same as potential effects. Net effects include: • 2 crossings with SAR (Redside Dace) • Long potential channel realignment could affect fish community including Redside Dace HIGH NET EFFECT	until confirmed, net effects remain the same as potential effects. Net effects include: • 2 crossing with SAR (Redside Dace) • Long potential channel realignment could affect fish community including Redside Dace HIGH NET EFFECT
	RANKING: 1st While there are 2 crossings over occupied and recovery Redside Dace habitats, it is possible to construct crossings that would not impact these sensitive species (i.e. follow guidance in the Redside Dace Recovery Strategy). Ranking based on effect on fish habitat.	**RANKING: 3rd** While there are 2 crossings over occupied and recovery Redside Dace habitats, it is possible to construct crossings that would not impact these sensitive species (i.e. follow guidance in the Redside Dace Recovery Strategy). Ranking based on effect on fish habitat.	**RANKING: 4th** While there are 2 crossings over occupied and recovery Redside Dace habitats, it is possible to construct crossings that would not impact these sensitive species (i.e. follow guidance in the Redside Dace Recovery Strategy). Ranking based on effect on fish habitat.	**RANKING: 2nd** While there are 2 crossing over occupied and recovery Redside Dace habitats, it is possible to construct crossings that would not impact these sensitive species (i.e. follow guidance in the Redside Dace Recovery Strategy). Ranking based on effect on fish habitat.
1.2 Terrestrial Ecosystems				
1.2.1 Wildlife and Wildlife Habitat	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. Large portions of existing wildlife habitats associated with the West Humber will be removed. Net effects include: • Permanent loss of wildlife habitat including candidate habitat for SAR and large tracts of candidate SWH and other areas for breeding and rearing of young (e.g. amphibian breeding habitat) • Habitat function of features includes low to moderate opportunities for overwintering, and moderate opportunities for breeding and rearing of young for amphibians, birds, reptiles and mammals. The size and isolation of some these patches may reduce the anticipated function of these features as wildlife habitat. • There are two landscape level movement corridors identified. These corridors are associated with natural features such as woodland and wetland within the 2 existing Greenbelt Area Natural Heritage System crossings. The landscape surrounding these features is agricultural and is also generally permeable to wildlife movement. • Removals would represent ~24.2 ha loss of habitat with respect to patches affected by this alternative. • Reduction of wildlife habitat quality through indirect effects that cannot be fully mitigated	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. Large portions of existing wildlife habitats associated with the West Humber will be removed. Net effects include: • Permanent loss of wildlife habitat including candidate habitat for SAR and confirmed SCC, large tracts of candidate SWH and other areas for breeding and rearing of young (e.g. amphibian breeding habitat) • Habitat function of features includes moderate to high opportunities for overwintering, and moderate opportunities for breeding and rearing of young for amphibians, birds, reptiles and mammals. The size and isolation of some these patches may reduce the anticipated function of these features as wildlife habitat. • There is one landscape level movement corridor identified. This corridor is associated with natural features such as woodland and wetland within the West Humber River corridor. The landscape surrounding these features is predominantly agricultural and is also generally permeable to wildlife movement. • Removals would represent 28 ha loss of habitat with respect to patches affected by this alternative.	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. Large portions of existing wildlife habitats associated with the West Humber will be removed. Net effects include: • Permanent loss of wildlife habitat including candidate habitat for SAR and confirmed SCC, large tracts of candidate SWH and other areas for breeding and rearing of young (e.g. amphibian breeding habitat) • Habitat function of features includes moderate to high opportunities for overwintering, and moderate opportunities for breeding and rearing of young for amphibians, birds, reptiles and mammals. The size and isolation of some these patches may reduce the anticipated function of these features as wildlife habitat. • There is one landscape level movement corridor identified. This corridor is associated with natural features such as woodland and wetland within the West Humber River corridor. The landscape surrounding these features is predominantly agricultural and is also generally permeable to wildlife movement. • Removals through this alternative would represent large 29.6 ha losses, or complete removal for many habitat patches. • Reduction of wildlife habitat quality through indirect effects that cannot be fully mitigated including edge effects (e.g. increased light and	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. Large portions of small and medium sized existing wildlife habitats associated with the West Humber will be removed. Net effects include: • Permanent loss of wildlife habitat including candidate habitat for SAR and SCC, large tracts of candidate SWH and other areas for breeding and rearing of young (e.g. amphibian breeding habitat) • Habitat function of features includes moderate opportunities for overwintering, and moderate opportunities for breeding and rearing of young for amphibians, birds, reptiles and mammals. The size and isolation of some these patches may reduce the anticipated function of these features as wildlife habitat. • There are two landscape level movement corridors identified. These corridors are associated with natural features such as woodland and wetland within the 2 existing Greenbelt Area Natural Heritage System crossings. The landscape surrounding these features is agricultural and is also generally permeable to wildlife movement. • Removals through this alternative would represent large percent losses, or complete removal for many patches. • Reduction of wildlife habitat quality through indirect effects that cannot be fully mitigated

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	including edge effects (e.g. increased light and noise and the introduction of pathways for invasive species) and increased potential for animal-vehicle collisions Loss of habitat would affect critical life stages by removing habitat requirements (e.g. wetlands for amphibian breeding or upload forest habitat for foraging and nesting, etc.). MODERATE NET EFFECT	• 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 Loss of habitat would affect critical life stages by removing habitat requirements (e.g. wetlands for amphibian breeding or upload forest habitat for foraging and nesting, etc.). HIGH NET EFFECT	noise and the introduction of pathways for invasive species) and increased potential for animal-vehicle collisions Loss of habitat would affect critical life stages by removing habitat requirements (e.g. wetlands for amphibian breeding or upload forest habitat for foraging and nesting, etc.). HIGH NET EFFECT	including edge effects (e.g. increased light and noise and the introduction of pathways for invasive species) and increased potential for animal-vehicle collisions Loss of habitat would affect critical life stages by removing habitat requirements (e.g. wetlands for amphibian breeding or upload forest habitat for foraging and nesting, etc.). MODERATE NET EFFECT
	RANKING: 2nd This alternative requires similar habitat removal to alternative S6-4. However, habitat is less diverse and of lower quality than alternative S6-4.	**RANKING: 3rd** This alternative requires the most habitat removal of quality habitat associated with the West Humber. However, removal requires fewer habitat types than alternative S6-3.	**RANKING: 4th** This alternative requires the most habitat removal of quality habitat associated with the West Humber. This alternative removes more community types than alternative S6-2.	**RANKING: 1st** This alternative requires the least amount of habitat removal.
1.2.2 Wetlands	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. Large portions of small existing communities will be removed. Net Effects include: • Impacts to 11 unevaluated wetlands including approximately 13.5 ha of removal • 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 Wetland features through this alternative have limited natural buffers. Existing natural buffers are proposed for removal as a result of this alternative. Changes to adjacent land use have the potential to impact hydrological inputs to portions of features remaining. HIGH NET EFFECT	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. Large portions of small existing communities as well as medium sized riparian communities will be removed. Net Effects include: • Impacts to 12 unevaluated wetlands including approximately ~14.1 ha of removal • 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 Wetland features through this alternative have limited natural buffers. Existing natural buffers are proposed for removal as a result of this alternative. Changes to adjacent land use have the potential to impact hydrological inputs to portions of features remaining. MODERATE NET EFFECT	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. Large portions of small existing communities as well as medium sized riparian communities will be removed Net Effects include: • Removal of 9 unevaluated wetlands including ~17.5 ha of wetland removal. • 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 Wetland features through this alternative have limited natural buffers. Existing natural buffers are proposed for removal as a result of this alternative. Changes to adjacent land use have the potential to impact hydrological inputs to portions of features remaining. HIGH NET EFFECT	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. Large portions of small existing communities will be removed. Net Effects include: • Removal of 8 unevaluated wetlands including ~12.6 ha of wetland removal • 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 Wetland features through this alternative have limited natural buffers. Existing natural buffers are proposed for removal as a result of this alternative. Changes to adjacent land use have the potential to impact hydrological inputs to portions of features remaining. MODERATE NET EFFECT
	RANKING: 4th This alternative will require the largest area of unevaluated wetland removal	**RANKING: 2nd** This alternative will require a greater area of unevaluated wetland removal than alternative S6-4.	**RANKING: 3rd** This alternative will require a greater area of unevaluated wetland removal than alternative S6-2.	**RANKING: 1st** This alternative will require the least amount of unevaluated wetland removal.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
1.2.3 Woodlands and Vegetation	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. Large portions of woodland and other upland communities will require removal. Net Effects include: • Removal of ~ 24.2 ha of vegetation communities including forest, meadow, swamp, cultural thicket and cultural woodland. • No significant woodlands are affected by this alternative. • No interior woodland habitat is affected by this alternative. • No SAR plant or rare vegetation communities have been identified. However, not all communities could be assessed in the field due to access restrictions (PTE). • 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) Vegetation communities in this alternative are generally small and isolated, but are the representative features within the landscape. HIGH NET EFFECT	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. Large portions of woodland and other upland communities will require removal. Net Effects include: • Removal of ~17.8 ha of vegetation communities including forest, meadow, cultural thicket, plantation and swamp • The majority of remaining and higher quality vegetation communities are significantly impacted by the alternative • A potentially significant woodland will be affected by this alternative requiring removal of ~5 ha. • No interior woodland habitat is affected by this alternative. • No SAR plant or rare vegetation communities have been identified. However, not all communities could be assessed in the field due to access restrictions (PTE). • 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) Upland and woodland community features are large and contiguous within the alternative. MODERATE NET EFFECT	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. Large portions of woodland and other upland communities will require removal. Net Effects include: • Removal of ~19.5 ha of vegetation communities including forest, meadow cultural thicket, plantation and swamp • A potentially significant woodland will be affected by this alternative requiring removal of ~7.2 ha. • No interior woodland habitat is affected by this alternative. • No SAR plant or rare vegetation communities have been identified. However, not all communities could be assessed in the field due to access restrictions (PTE). • 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) Upland and woodland community features are large and contiguous within the alternative. MODERATE NET EFFECT	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. Large portions of woodland and other upland communities will require removal. Net Effects include: • Removal of ~20.7 ha of vegetation communities including forest, meadow, swamp, cultural thicket and cultural plantation. • No significant woodlands are affected by this alternative. • No interior woodland habitat is affected by this alternative. • No SAR plant or rare vegetation communities have been identified. However, not all communities could be assessed in the field due to access restrictions (PTE). • 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) Vegetation communities in this alternative vary in size and include contiguous features but are the representative features within the landscape. MODERATE NET EFFECT
	RANKING: 4th This alternative will require the largest area of woodland and other vegetation removal.	**RANKING: 1st** This alternative will require the smallest area of woodland and other vegetation removal.	**RANKING: 3rd** This alternative will require a similar area of woodland and other vegetation removal as S6-4 but includes a potentially significant woodland.	**RANKING: 2nd** This alternative will require a greater area of habitat removal than alternative S6-3. A greater number of community types will require removal compared with alternative S6-3.
1.2.4 Designated/Special/ Natural Areas	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. • There are no ESA, ESPAs, ANSI or other designated areas within this alternative. • There are no national or provincial parks within this alternative. • There are no Conservation Authority lands within this alternative.	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. • There are no ESA, ESPAs, ANSI or other designated areas within this alternative. • There are no national or provincial parks within this alternative. • There are no Conservation Authority lands within this alternative.	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. • There are no ESA, ESPAs, ANSI or other designated areas within this alternative. • There are no national or provincial parks within this alternative. • There are no Conservation Authority lands within this alternative.	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. • There are no ESA, ESPAs, ANSI or other designated areas within this alternative. • There are no national or provincial parks within this alternative. • There are no Conservation Authority lands within this alternative.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	• ~925 m (~40 ha) of the alternative is within the Greenbelt Plan Area – Natural Heritage System. • Region of Peel Official Plan Designations - Intersects with 'Core Areas of Greenlands System' at four locations, including fragmentation of three minor riparian zones and fragmentation of one significant forested riparian corridor • Town of Caledon Official Plan (Schedule A - Land Use Plan) - Intersects with Environmental Policy Areas at four locations, including fragmentation of three minor riparian zones and fragmentation of one significant forested riparian corridor MODERATE NET EFFECT	• ~832 m (~23 ha) of the alternative is within the Greenbelt Plan Area – Natural Heritage System. • Region of Peel Official Plan Designations - Intersects with 'Core Areas of Greenlands System' at six locations, including fragmentation of five minor riparian zones, fragmentation of one significant forested riparian corridor and partial removal of one forested patch (connected with riparian zone) • Town of Caledon Official Plan (Schedule A - Land Use Plan) - Intersects with Environmental Policy Areas at six locations, including five minor riparian zones, fragmentation of one significant forested riparian corridor and partial removal of one forested patch (connected with riparian zone) MODERATE NET EFFECT	• ~872 km (~24 ha) of the alternative is within the Greenbelt Plan Area – Natural Heritage System. • Region of Peel Official Plan Designations - Intersects with 'Core Areas of Greenlands System' at six locations, including fragmentation of five minor riparian zones, fragmentation of one significant forested riparian corridor • Town of Caledon Official Plan (Schedule A - Land Use Plan) - Intersects with Environmental Policy Areas at six locations, including fragmentation of five minor riparian zones, fragmentation of one significant forested riparian corridor MODERATE NET EFFECT	• ~854 km (~38 ha) of the alternative is within the Greenbelt Plan Area – Natural Heritage System. • Region of Peel Official Plan Designations - Intersects with 'Core Areas of Greenlands System' at six locations, including fragmentation of three minor riparian zones, fragmentation of one significant forested riparian corridor • Town of Caledon Official Plan (Schedule A - Land Use Plan) - Intersects with Environmental Policy Areas at four locations, including fragmentation of three minor riparian zones and fragmentation of one significant forested riparian corridor MODERATE NET EFFECT
	RANKING: 3rd All alternatives have the potential to affect designated features such as greenbelt, greenlands and EPAs. This alternative will result in the greater area of these features removal.	**RANKING: 1st** All alternatives have the potential to affect designated features such as greenbelt, greenlands and EPAs. This alternative will result in the lesser area of these features removal.	**RANKING: 1st** All alternatives have the potential to affect designated features such as greenbelt, greenlands and EPAs. This alternative will result in the lesser area of these features removal.	**RANKING: 3rd** All alternatives have the potential to affect designated features such as greenbelt, greenlands and EPAs. This alternative will result in the greater area of these features removal.
1.3 Ecosystem Services	**Relative ES Value** • Agriculture: High • Natural Cover: Moderate • Cumulative: Moderate **ES Value Representation** • Agriculture: 50% • Natural Cover: 50% MODERATE NET EFFECT	**Relative ES Value** • Agriculture: High • Natural Cover: Moderate • Cumulative: High **ES Value Representation** • Agriculture: 40% • Natural Cover: 60% HIGH NET EFFECT	**Relative ES Value** • Agriculture: High • Natural Cover: Moderate • Cumulative: Moderate **ES Value Representation** • Agriculture: 36% • Natural Cover: 64% MODERATE NET EFFECT	**Relative ES Value** • Agriculture: High • Natural Cover: Moderate • Cumulative: Moderate **ES Value Representation** • Agriculture: 51% • Natural Cover: 49% MODERATE NET EFFECT
	RANKING: 1st Alternatives S6-1, 6-3 and 6-4 have moderate net effects using the Ecosystem Service (ES) Net Effects weighting. Differentiation between these alternatives is generated by examining the proportion of Natural Cover and relative contribution of Natural Cover ES value to total value. There are no differentiating factors between alternatives S6-1 and S6-4; as such, they have been ranked equally as the most preferred alternatives in S6.	**RANKING: 4th** Alternative S6-2 has a high net effect using the Ecosystem Service (ES) Net Effects weighting making it the least preferred alternative in S6.	**RANKING: 3rd** Alternatives S6-1, 6-3 and 6-4 have moderate net effects using the Ecosystem Service (ES) Net Effects weighting. Differentiation between these alternatives is generated by examining the proportion of Natural Cover and relative contribution of Natural Cover ES value to total value. Alternative S6-3 has the highest relative natural cover (although still 'low') and higher proportional contribution from Natural Cover to total ES impacts. As such it is less preferred than S6-1 and S6-4.	**RANKING: 1st** Alternatives S6-1, 6-3 and 6-4 have moderate net effects using the Ecosystem Service (ES) Net Effects weighting. Differentiation between these alternatives is generated by examining the proportion of Natural Cover and relative contribution of Natural Cover ES value to total value. There are no differentiating factors between alternatives S6-1 and S6-4; as such, they have been ranked equally as the most preferred alternatives in S6.
1.4 Groundwater				

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
1.4.1 Areas of Groundwater Recharge or Discharge	• Low net effect to groundwater recharge and discharge in areas of low permeability surficial sediments. LOW NET EFFECT	• Low net effect to groundwater recharge and discharge in areas of low permeability surficial sediments. LOW NET EFFECT	• Low net effect to groundwater recharge and discharge in areas of low permeability surficial sediments. LOW NET EFFECT	• Low net effect to groundwater recharge and discharge in areas of low permeability surficial sediments. LOW NET EFFECT
	RANKING: 1st All alternatives similar.	**RANKING: 1st** All alternatives similar.	**RANKING: 1st** All alternatives similar.	**RANKING: 1st** All alternatives similar.
1.4.2 Groundwater Source Areas and Wellhead Protection Areas	• No net effect to groundwater source areas or wellhead protection areas as they do not exist within the alternative. NO NET EFFECT	• No net effect to groundwater source areas or wellhead protection areas as they do not exist within the alternative. NO NET EFFECT	• No net effect to groundwater source areas or wellhead protection areas as they do not exist within the alternative. NO NET EFFECT	• No net effect to groundwater source areas or wellhead protection areas as they do not exist within the alternative. NO NET EFFECT
	RANKING: 1st No relative ranking; effect on indicator is not present for any alternative.	**RANKING: 1st** No relative ranking; effect on indicator is not present for any alternative.	**RANKING: 1st** No relative ranking; effect on indicator is not present for any alternative.	**RANKING: 1st** No relative ranking; effect on indicator is not present for any alternative.
1.4.3 Large Volume Wells	• No presence of large volume wells NO NET EFFECT	• One large volume well requiring decommissioning. LOW NET EFFECT	• One large volume well requiring decommissioning. LOW NET EFFECT	• No effects to large volume wells NO NET EFFECT
	RANKING: 1st • No presence of large volume wells	**RANKING: 3rd** • One large volume well requiring decommissioning.	**RANKING: 3rd** • One large volume well requiring decommissioning.	**RANKING: 1st** • No presence of large volume wells
1.4.4 Private Wells	• Potential reduction in water quality to at least 3 shallow wells due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. At least 32 wells require decommissioning. MODERATE NET EFFECT	• Potential reduction in water quality to at least 2 shallow wells due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. At least 25 wells require decommissioning. MODERATE NET EFFECT	• Potential reduction in water quality to at least 5 shallow wells due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. At least 31 wells require decommissioning. MODERATE NET EFFECT	• Potential reduction in water quality to at least 3 shallow wells due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. At least 26 wells require decommissioning. MODERATE NET EFFECT
	RANKING: 3rd This alternative has a few shallow wells and higher number of wells to be removed.	**RANKING: 1st** This alternative has a few shallow wells and lower number of wells to be removed.	**RANKING: 3rd** This alternative has a few shallow wells and higher number of wells to be removed.	**RANKING: 1st** This alternative has a few shallow wells and lower number of wells to be removed.
1.4.5 Groundwater-Dependent Commercial Enterprises	• Low net effect to one commercial enterprise due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. LOW NET EFFECT	• Low net effect to one golf course and one commercial property due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. LOW NET EFFECT	• Low net effect to one golf course and one commercial property due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. LOW NET EFFECT	• Low net effect to one golf course and one commercial property due to the use of road salt on new highway/interchange resulting in a potential reduction in water quality. LOW NET EFFECT
	RANKING: 1st Lowest number of commercial enterprises affected.	**RANKING: 2nd** Golf course potentially affected by a reduction in groundwater quality due to the application of road salt in the vicinity of mapped coarse-textured sediments with relative higher groundwater recharge properties. Same ranking as alternatives S6-2, S6-3 and S6-4.	**RANKING: 2nd** Golf course potentially affected by a reduction in groundwater quality due to the application of road salt in the vicinity of mapped coarse-textured sediments with relative higher groundwater recharge properties. Same ranking as alternatives S6-2, S6-3 and S6-4.	**RANKING: 2nd** Golf course potentially affected by a reduction in groundwater quality due to the application of road salt in the vicinity of mapped coarse-textured sediments with relative higher groundwater recharge properties. Same ranking as alternatives S6-2, S6-3 and S6-4.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
1.4.6 Groundwater-Sensitive Ecosystems	• Moderate potential to adversely affect groundwater sensitive ecosystems. MODERATE NET EFFECT	• Moderate potential to adversely affect groundwater sensitive ecosystems. MODERATE NET EFFECT	• Moderate potential to adversely affect groundwater sensitive ecosystems. MODERATE NET EFFECT	• Moderate potential to adversely affect groundwater sensitive ecosystems. MODERATE NET EFFECT
	RANKING: 3rd Higher number of unevaluated wetlands. Similar to S6-4.	**RANKING: 1st** Less than 3 unevaluated wetlands. Similar to S6-3.	**RANKING: 1st** Less than 3 unevaluated wetlands. Similar to S6-2.	**RANKING: 3rd** Higher number of unevaluated wetlands. Similar to S6-1.
1.5 Surface Water				
1.5.1 Watershed / Subwatershed Drainage Features / Patterns	• Given the number of crossings, the size of the watercourses and the effects of the three interchanges, this alternative results in a high net effect. HIGH NET EFFECT	• Given the number of crossings, the size of the watercourses and the effects of the three interchanges this alternative results in a high net effect. HIGH NET EFFECT	• Given the number of crossings, the size of the watercourses and the effects of the two interchanges this alternative results in a high net effect. HIGH NET EFFECT	• Given the number of crossings, the size of the watercourses and the effects of the three interchanges this alternative results in a high net effect. HIGH NET EFFECT
	RANKING: 1st Fewer crossings identified in fluvial geomorphology assessment. Bramalea interchange closer to headwater limit on minor watercourse.	**RANKING: 4th** More crossings identified in fluvial geomorphology assessment and three interchanges.	**RANKING: 3rd** More crossings identified in fluvial geomorphology assessment and two interchanges.	**RANKING: 2nd** Fewer crossings identified in fluvial geomorphology assessment.
1.5.2 Surface Water Quality and Quantity	• Introduces 91 ha impervious area including 11 ha to the West Branch of West Humber, 53 ha to Main Branch of West Humber, 16 ha to the East Branch West Humber, 7 ha to Rainbow Creek of Main Humber and 5 ha to Robinson Creek of Main Humber. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden run-off, thermal impact on the cool/coldwater system. • Medium impacts on hydrology due to changes in ground permeability. • High impacts on modifications to surface drainage patterns and alterations of water bodies. MODERATE NET EFFECT	• Introduces 89 ha impervious area including 16 ha to the West Branch of West Humber, 47 ha to Main Branch of West Humber, 14 ha to the East Branch West Humber, 7 ha to Rainbow Creek of Main Humber and 5 ha to Robinson Creek of Main Humber. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden run-off, thermal impact on the cool/coldwater system. • Medium impacts on hydrology due to changes in ground permeability. • Low impacts on modifications to surface drainage patterns and alterations of water bodies. MODERATE NET EFFECT	• Introduces 85 ha impervious area including 16 ha to the West Branch of West Humber, 47 ha to Main Branch of West Humber, 14 ha to the East Branch West Humber, 6 ha to Rainbow Creek of Main Humber and 3 ha to Robinson Creek of Main Humber. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden run-off, thermal impact on the cool/coldwater system. • Medium impacts on hydrology due to changes in ground permeability. • Low impacts on modifications to surface drainage patterns and alterations of water bodies. MODERATE NET EFFECT	• Introduces 89 ha impervious area including 12 ha to the West Branch of West Humber, 53 ha to Main Branch of West Humber, 16 ha to the East Branch of West Humber, 7 ha to Rainbow Creek of Main Humber and 3 ha to Robinson Creek of Main Humber. • Medium impacts on quality through direct and indirect discharges of contaminated and sediment-laden run-off, thermal impact on the cool/coldwater system. • Medium impacts on hydrology due to changes in ground permeability. • High impacts on modifications to surface drainage patterns and alterations of water bodies. MODERATE NET EFFECT
	RANKING: 3rd Impact on sensitive creek; greater impact on regulated watercourse.	**RANKING: 1st** Impact on sensitive creek; impact on regulated watercourse.	**RANKING: 1st** Impact on sensitive creek; impact on regulated watercourse.	**RANKING: 3rd** Impact on sensitive creek; greater impact on regulated watercourse.
1.6 Air Quality and Climate Change				
1.6.1 Local and regional air quality impacts; greenhouse gas emissions	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd and other roads are anticipated to be close enough to experience a change in air quality levels. However, pollutants will remain within acceptable levels. LOW NET EFFECT	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd and other roads are anticipated to be close enough to experience a change in air quality levels. However, pollutants will remain within acceptable levels. LOW NET EFFECT	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd and other roads are anticipated to be close enough to experience a change in air quality levels. However, pollutants will remain within acceptable levels. LOW NET EFFECT	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd and other roads are anticipated to be close enough to experience a change in air quality levels. However, pollutants will remain within acceptable levels. LOW NET EFFECT
	RANKING: 3rd	**RANKING: 1st**	**RANKING: 1st**	**RANKING: 3rd**

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	Somewhat more affected residences than S6-2 and S6-3.	Somewhat fewer affected residences that S6-1 and S6-4.	Somewhat fewer affected residences that S6-1 and S6-4. This alternative also contributes to the shortest overall corridor length, thus reducing regional emissions of GHG and air pollutants. Alternative length is similar to S6-2.	Somewhat more affected residences than S6-2 and S6-3.
2.0 Land Use / Socio-Economic Environment				
2.1 Land Use Planning Policies, Goals, Objectives				
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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT	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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT	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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT	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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT
	RANKING: 1st No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.
2.1.2 Provincial / Federal Land Use Planning Policies / Goals / Objectives	• Impacts PPS agricultural, recreational and public space and employment lands policies. • Impacts 239 hectares of Agricultural lands. • Impacts 31 hectares of designated employment lands. • Impacts 4 hectares of environmental policy area. • Impacts 29 hectares of Greenbelt lands Protected Countryside- Natural Heritage System. • Impacts Agricultural System. MODERATE NET EFFECT	• Impacts PPS agricultural recreational and public space and employment lands policies. • Impacts 225 hectares of Agricultural lands. • Impacts 42 hectares of designated employment lands. • Impacts 5 hectares of environmental policy area. • Impacts 21 hectares of Greenbelt lands Protected Countryside- Natural Heritage System. • Impacts Agricultural System. LOW NET EFFECT	• Impacts PPS agricultural, recreational and public space housing and employment lands policies. • Impacts 206 hectares of Agricultural lands. • Impacts 4 hectares of designated residential lands. • Impacts 36 hectares of designated employment lands. • Impacts 9 hectares of environmental policy area. • Impacts 19 hectares of Greenbelt lands Protected Countryside- Natural Heritage System. • Impacts Agricultural System. LOW NET EFFECT	• Impacts PPS agricultural recreational and public space and employment lands policies. • Impacts 241 hectares of Agricultural lands. • Impacts 23 hectares of designated employment lands. • Impacts 4 hectares of environmental policy area. • Impacts 28 hectares of Greenbelt lands Protected Countryside- Natural Heritage System. • Impacts Agricultural System. MODERATE NET EFFECT
	RANKING: 3rd Impacts a moderate amount of Greenbelt lands and employment lands but bisects the moderate amount of agricultural lands and System it impacts.	**RANKING: 2nd** Impacts a low amount of Greenbelt lands and does not bisect the low amount of agricultural lands and System it impacts and could act as a long-term urban rural edge.	**RANKING: 1st** Impacts a low amount of Greenbelt lands and a moderate amount of employment lands and does not bisect the low amount of agricultural lands and System it impacts and could act as a long-term urban rural edge.	**RANKING: 4th** Impacts a moderate amount of Greenbelt lands and low amount of employment lands but bisects the moderate amount of agricultural lands and System it impacts.
2.1.3 Municipal (local and regional) Land Use Planning Policies / Goals / Objectives	• Impacts 239 hectares of Agricultural lands. • Impacts 31 hectares of designated employment lands. • Impacts 34 hectares of future urban area. • Impacts 4 hectares of environmental policy area. • Impacts 34.1 hectares of Brampton Area 47.	• Impacts 225 hectares of Agricultural lands. • Impacts 42 hectares of designated employment lands. • Impacts 47 hectares of future urban area. • Impacts 5 hectares of environmental policy area.	• Impacts 206 hectares of Agricultural lands. • Impacts 36 hectares of designated employment lands. • Impacts 50 hectares of future urban area. • Impacts 4 hectares of designated residential lands. • Impacts 9 hectares of environmental policy area.	• Impacts 241 hectares of Agricultural lands. • Impacts 23 hectares of designated employment lands. • Impacts 27 hectares of future urban area. • Impacts 4 hectares of environmental policy area.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
		Summary of Potential Net Effects and Ranking		
	• Consistent with proposed Brampton SPA 47 MODERATE NET EFFECT	• Impacts 46.5 hectares of Brampton Area 47. • Consistent with proposed Brampton SPA 47 LOW NET EFFECT	• Impacts 49.7 hectares of Brampton Area 47. • Conflicts with proposed Brampton SPA 47 MODERATE NET EFFECT	• Impacts 26.6 hectares of Brampton Area 47. • Consistent with proposed Brampton SPA 47 MODERATE NET EFFECT
	RANKING: 3rd Impacts a low amount of Area 47 lands and future urban area lands but bisects the agricultural lands and System it impacts; longer route option that extends beyond the urban built up area.	**RANKING: 1st** Impacts a high amount of Area 47 lands and future urban area lands but does not bisect the agricultural lands and System it impacts; shorter route option	**RANKING: 2nd** Impacts a high amount of Area 47 lands and future urban area lands but does not bisect the agricultural lands and System it impacts; shorter route option. Has greater impacts on the environmental policy area and future urban area in comparison to S6-2.	**RANKING: 3rd** Impacts the least amount of Area 47 lands and future urban area lands but does bisect the agricultural lands and System it impacts; longer route option that extends beyond the urban built up area.
2.1.4 Development Objectives of Private Property Owners	• Impacts 82.6 hectares of Solmar lands. • Impacts 34.1 hectares of Area 47. LOW NET EFFECT	• Impacts 57.8 hectares of Solmar lands. • Impacts 46.5 hectares of Area 47. MODERATE NET EFFECT	• Impacts 37.6 hectares of Solmar lands. • Impacts 2.6 hectares of Prologis and Orlando application. • Impacts 49.7 hectares of Area 47. HIGH NET EFFECT	• Impacts 82.6 hectares of Solmar lands. • Impacts 26.6 hectares of Area 47. LOW NET EFFECT
	RANKING: 1st Intersects through the middle of the Solmar lands and has a low impact on Area 47 lands.	**RANKING: 3rd** Impacts the southern portion of Solmar Lands and has a higher impact on Area 47 lands.	**RANKING: 4th** Impacts Solmar lands; impacts the southern portion of the lands. Highest impact on Prologis and Orlando Application and Area 47 lands.	**RANKING:1st** Intersects through the middle of the Solmar lands and impacts a low amount of Area 47.
2.2 Land Use – Community				
2.2.1 First Nation Reserves	• No reserves in study area. NO NET EFFECT	• No reserves in study area. NO NET EFFECT	• No reserves in study area. NO NET EFFECT	• No reserves in study area. NO NET EFFECT
	RANKING: 1st No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.
2.2.2 Indigenous Sacred Areas	• No known or reported Indigenous Sacred Areas NO NET EFFECT	• No known or reported Indigenous Sacred Areas NO NET EFFECT	• No known or reported Indigenous Sacred Areas NO NET EFFECT	• No known or reported Indigenous Sacred Areas NO NET EFFECT
	RANKING: 1st No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.
2.2.3 Urban and Rural Residential Uses and Properties	• 14 residential properties impacted (9.3 hectares). • Continues to impact residential properties. LOW NET EFFECT	• 26 residential properties impacted (10.7 hectares). • Continues to impact residential properties. HIGH NET EFFECT	• 29 residential properties impacted (14.6 hectares). • Continues to impact residential properties. HIGH NET EFFECT	• 18 residential properties impacted (12.5 hectares). • Continues to impact residential properties MODERATE NET EFFECT
	RANKING: 1st Impacts the least number of residential properties.	**RANKING: 3rd** Impacts the second highest number of residential properties.	**RANKING: 3rd** Impacts the highest number of residential properties.	**RANKING: 1st** Impacts the second least number of residential properties.
2.2.4 Commercial/ Industrial Uses and Properties	• Impacts 4 properties: Gore Garden Nursery (0.01 hectares), Mahli Farm and Garden Centre (3.6 hectares), Rossi	• Impacts 3 properties: Jhutti Transport (2.1 hectares), Varcon Construction (0.09 hectares), and Rossi Quality Services (3.8 hectares).	• Impacts 4 properties: Tarpa Commercial Nursery (temporary use of 2.7 hectares), Jhutti Transport (0.2 hectares), Varcon	• Impacts 4 properties: Gore Garden Nursery (0.01 hectares), Mahli Farm and Garden Centre (3.6 hectares),

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
		Summary of Potential Net Effects and Ranking		
	Quality Services (0.7 hectares), and RBI Mechanical SVC (3 hectares). LOW NET EFFECT	MODERATE NET EFFECT	Construction (1.3 hectares), and Ray Nitti Horse Training (0.6 hectares). MODERATE NET EFFECT	Rossi Quality Services (0.7 hectares), and RBI Mechanical SVC (3 hectares). LOW NET EFFECT
	RANKING: 1st Minimal impacts to properties; same impacts as S6-4 (4.31 hectares total).	**RANKING: 4th** Impacts a high amount of property area (5.99 hectares total).	**RANKING: 3rd** Impacts the most properties (4.8 hectares total); possibility to reduce impacts to properties through preliminary design given the low impacts on 2 properties.	**RANKING: 1st** Minimal impacts to properties; same impacts as S6-1 (4.31 hectares total).
2.2.5 Recreational Areas and Tourist Attractions	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.
2.2.6 Community Facilities / Institutions	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.
2.2.7 Municipal Infrastructure and Public Service Facilities	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.
2.3 Noise Sensitive Areas (NSA's)				
2.3.1 Transportation Noise	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd, and other roads are anticipated to be close enough to experience a significant increase in traffic noise. MODERATE NET EFFECT	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd. and other roads are anticipated to be close enough to experience a significant increase in traffic noise. MODERATE NET EFFECT	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd. and other roads are anticipated to be close enough to experience a significant increase in traffic noise. MODERATE NET EFFECT	• Some residences on Bramalea Rd., Airport Rd., the Gore Rd., Mayfield Rd. and other roads are anticipated to be close enough to experience a significant increase in traffic noise. MODERATE NET EFFECT
	RANKING: 2nd Comparable level of impact to S6-3 and S6-4.	**RANKING: 1st** Slightly less impact than all other alternatives.	**RANKING: 2nd** Comparable level of impact to S6-1 and S6-4.	**RANKING: 2nd** Comparable level of impact to S6-1 and S6-3.
2.4 Land Use – Resources				
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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT	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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT	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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT	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. • Additional Indigenous Assertions and/or Claims may be filed and/or proven at any time. MODERATE NET EFFECT
	RANKING: 1st No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.
2.4.2 Agriculture / Specialty Crop				

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
		Summary of Potential Net Effects and Ranking		
• Removal or sterilization of Class 1 – 3 agricultural lands	• Loss of 292.0 ha of Class 1 – 3 lands	• Loss of 243.8 ha of Class 1 – 3 lands	• Loss of 230.9 ha of Class 1 – 3 lands	• Loss of 269.2 ha of Class 1 – 3 lands
• Specialty Crops/Cropland affected	• Loss 0.6 ha of orchard • Loss of 10.9 ha of market garden	• Loss 1.4 ha of orchard	• No loss of specialty crops/cropland	• Loss 0.3 ha of orchard Loss of 10.9 ha of market garden
• Cropland affected	• Loss of 121.6 ha of common field crop cropland Loss of 12.8 ha small grain cropland Loss of 96.2 ha forage/pasture cropland Loss of 5.6 ha of open field cropland	• Loss of 148.6 ha of common field crop cropland Loss of 13.8 ha of small grain cropland Loss of 57.2 ha of forage/pasture cropland Loss of 3.6 ha of open field cropland Loss of 8.4 ha of plowed field	• Loss of 138.7 ha of common field crop cropland Loss of 13.8 ha of small grain cropland Loss of 60.1 ha of forage/pasture cropland Loss of 3.5 ha of open field cropland Loss of 8.4 ha of plowed field	• Loss of 133.1 ha of common field crop cropland Loss of 2.0 ha of small grain cropland Loss of 91.2 ha of forage/pasture cropland Loss of 5.6 ha of open field cropland
• Livestock operations affected	• Three livestock operations affected (1 beef and 2 horse) (loss of buildings and land for beef and one operation horse operation, loss of land for the other horse operation)	• Three livestock operations affected (2 dairy, one horse) (loss of land only from each operation)	• Three livestock operations affected (2 dairy, horse) (loss of land only)	• Three livestock operations affected (2 horse, 1 beef) (loss of buildings and land on beef and one horse operation, loss of land on the other horse)
• Loss of agricultural buildings	• Loss of retired bank barn, pole barn, two sheds, farm residential unit, bank barn with extensions, two sheds, retired pole barn, farm residential unit, pole barn with extensions, retired bank barn, retired pole barn, Quonset, two pole barns/sheds, retired pole barn, pole barn/stable, retired pole barn with extension, retired pole barn, residence, bank barn with extensions	• Loss of retired pole barn with extension, farm residential unit, pole barn (orchard), 2 retired machine sheds, residential unit, pole barn, shed, residential unit	• Loss of retired pole barn with extension, farm residential unit, retired pole barn with open top silo, retired pole barn with extension	• Loss of retired bank barn, pole barn, two sheds, farm residential unit, bank barn with extensions, two sheds, retired pole barn, farm residential unit, pole barn with extensions, retired bank barn, retired pole barn, Quonset, two pole barns/sheds, retired pole barn, pole barn/stable, pole barn/stable, retired pole barn, residential unit, bank barn with extensions
• Agricultural buildings within 50 m	• No additional agricultural buildings within 50 m	• Small pole barn, large pole barn, pole barn with extension, three harvestore silos, pole barn, two plastic covered storage structures, farm residential unit	• Small pole barn, large pole barn, pole barn with extension, three harvestore silos, pole barn, two plastic covered storage structures, farm residential unit, retired bank barn, retired pole barn, retired capped silo (2), retired grain bins (2), retired machine shed, farm residential unit	• No additional agricultural buildings within 50 m
• Field crop operations affected	• Thirty-seven crop operations affected	• Thirty-three crop operations affected	• Thirty-four crop operations affected	• Thirty-three crop operations affected
• Farm properties greater than 20 ha affected	• Twenty farm properties greater than 20 ha affected	• Fifteen farm properties greater than 20 ha affected	• Fourteen farm properties greater than 20 ha affected	• Sixteen farm properties greater than 20 ha affected
• Farm properties less than 20 ha affected	• Forty properties less than 20 ha affected	• Thirty-eight farm properties less than 20 ha affected	• Thirty-five farm properties less than 20 ha affected	• Thirty-six farm properties less than 20 ha affected
• Severed parcels greater than 20 ha created	• Eight severed parcels greater than 20 ha created	• Nine severed parcels greater than 20 ha created	• Seven severed parcels greater than 20 ha created	

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
• Severed parcels less than 20 ha created • Landlocked parcels created • High investment operations affected • Farm equipment transportation routes affected • Division of agricultural community areas • Loss of tile drainage	• Thirty-nine severed parcels less than 20 ha created • Twenty-five landlocked parcels created • One high investment operation affected (beef) • Bramalea Road, Old School Road, Torbram Road, Airport Road, Old School Road, Innis Lake Road, Centreville Creek Road, The Gore Road, Humber Station Road, Mayfield Road and Coleraine Drive are active farm travel corridors • No division of agricultural community areas • Loss of 1.6 ha of tile drainage (systematic) MODERATE NET EFFECT	• Forty-nine severed parcels less than 20 ha created • Twenty landlocked parcels created • Three high investment operations affected (2 dairy, grain elevators) (loss of land only) • Bramalea Road, Old School Road, Torbram Road, Airport Road, Old School Road, Innis Lake Road, Centreville Creek Road, The Gore Road, Humber Station Road, Mayfield Road and Coleraine Drive are active farm travel corridors • No division of agricultural community areas • Loss of 28.1 ha of tile drainage (systematic) and 2.4 ha of tile drainage (random) HIGH NET EFFECT	• Thirty-seven severed parcels less than 20 ha created • Fifteen landlocked parcels created • Three high investment operations affected (2 dairy, grain elevators) (loss of land) • Bramalea Road, Old School Road, Torbram Road, Airport Road, Old School Road, Innis Lake Road, Centreville Creek Road, The Gore Road, Humber Station Road, Mayfield Road and Coleraine Drive are active farm travel corridors • No division of agricultural community areas • Loss of 28.1 ha of tile drainage (systematic) and 0.8 ha of tile drainage (random) HIGH NET EFFECT	• Eight severed parcels greater than 20 ha created • Thirty-nine severed parcels less than 20 ha created • Eighteen landlocked parcels created • One high investment operation affected (beef) • Bramalea Road, Old School Road, Torbram Road, Airport Road, Old School Road, Innis Lake Road, Centreville Creek Road, The Gore Road, Humber Station Road, Mayfield Road and Coleraine Drive are active farm travel corridors • No division of agricultural community areas • Loss of 10.3 ha of tile drainage (systematic) MODERATE NET EFFECT
	RANKING: 1st - Three livestock operations affected (2 horse, 1 beef) (loss of buildings and land for beef and one horse operation, loss of land for the other) - One high investment operation affected (beef) - Loss of 1.6 ha of tile drainage (systematic) - Loss of 292.0 ha of Class 1 – 3 lands - Eight severed parcels greater than 20 ha created - Thirty-nine severed parcels less than 20 ha created - Twenty-five landlocked parcels created	**RANKING: 3rd** - Three livestock operations affected (2 dairy, one horse) (loss of land only from each operation) - Three high investment operations affected (2 dairy, grain elevators) (loss of land) - Loss of 243.8 ha of Class 1 – 3 lands - Nine severed parcels greater than 20 ha created - Forty-nine severed parcels less than 20 ha created - Twenty landlocked parcels created	**RANKING: 3rd** - Three livestock operations affected (2 dairy, one horse) (loss of land only from each operation) - Three high investment operations affected (2 dairy, grain elevators) (loss of land) - Loss of 230.9 ha of Class 1 – 3 lands - Seven severed parcels greater than 20 ha created - Thirty-seven severed parcels less than 20 ha created - Fifteen landlocked parcels created	**RANKING: 1st** - Three livestock operations affected (2 horse, 1 beef) (loss of buildings and land for beef and one horse operation, loss of land for the other) - One high investment operation affected (beef) - Loss of 10.3 ha of tile drainage (systematic)Loss of 269.2 ha of Class 1 – 3 lands - Eight severed parcels greater than 20 ha created - Thirty-nine severed parcels less than 20 ha created - Eighteen landlocked parcels created
2.4.3 Recreation	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.
2.4.4 Aggregate and Mineral Resources	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st	**RANKING: 1st**	**RANKING: 1st**	**RANKING: 1st**

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
		Summary of Potential Net Effects and Ranking		
	No impacts.	No impacts.	No impacts.	No impacts.
2.5 Major Utility Transmission Corridors and Pipelines				
2.5.1 Major Existing Utility Transmission Corridors and Pipelines	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.
2.5.2 Major Proposed Utility Transmission Corridors and Pipelines	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT	• No impacts. NO NET EFFECT
	RANKING: 1st No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.	**RANKING: 1st** No impacts.
2.6 Contaminated Property and Waste Management	**Properties within alternative:** • One (1) property with historical fuel storage; • One (1) vehicle repair facility; • Three (3) commercial/light industrial property. **Properties within 250 m of alternative:** • One (1) vehicle repair facility; • One (1) property with historical fuel storage; • Seven (7) commercial/ light industrial properties. HIGH NET EFFECT	**Properties within alternative:** • One (1) property with historical auto wrecker; • Four (4) commercial/light industrial properties. **Properties within 250 m of alternative:** • Three (3) commercial/light industrial properties. HIGH NET EFFECT	**Properties within alternative:** • Four (4) commercial/light industrial properties. **Properties within 250 m of alternative:** • Five (5) commercial/light industrial properties; • One (1) institutional facility (Temple). MODERATE NET EFFECT	**Properties within alternative:** • One (1) property with historical fuel storage; • One (1) vehicle repair facility; • Three (3) commercial/ light industrial property. **Properties within 250 m of alternative:** • One (1) vehicle repair facility; • One (1) property with historical fuel storage; • Eight (8) commercial/ light industrial properties. HIGH NET EFFECT
	RANKING: 2nd Four properties of high concern and one property of medium concern to be directly impacted; seven properties of high concern and two properties of medium concern to be indirectly impacted. Same properties as Alternative S6-4.	**RANKING: 4th** Five properties of high concern to be directly impacted; three properties of high concern and a significant spill to be indirectly impacted.	**RANKING: 1st** Three properties of high concern and one property of medium concern to be directly impacted; five properties of high concern and one property of medium concern to be indirectly impacted.	**RANKING: 3rd** Four properties of high concern and one property of medium concern to be directly impacted; eight properties of high concern and two properties of medium concern to be indirectly impacted. Same properties as Alternative S6-1.
2.7 Landscape Composition				
2.7.1 Terrain	• Alternative is characterized by predominantly level topography and agricultural land use patterns, crossing through some more varied rolling topography associated with creek valley lands in the Healy Rd./ Gore Rd. area. • Majority of alternative is designated Agricultural land use, crosses 2 Greenbelt/ Protected Countryside areas, and 2 small pockets of Developed areas. Far East section of alternative enters Future Urban Area with Designated Employment Area and crosses 1 Environmental Policy Area. • Alternative crosses 22 watercourses and associated floodplains in total	• Alternative is characterized by predominantly level topography and agricultural land use patterns, interspersed with small areas of varied topography associated with creek valley lands primarily in the area just east of Gore Rd. • Majority of alternative is designated Agricultural land use, crosses 2 Greenbelt/ Protected Countryside areas and 3 small pockets of Developed areas. Far East section of alternative enters Future Urban Area with Designated Employment Area and crosses 1 Environmental Policy Area.	• Alternative is characterized by predominantly level topography and agricultural land use patterns, interspersed with small areas of varied topography associated with creek valley lands primarily in the area just east of Gore Rd. • Majority of alternative is designated Agricultural land use, crosses 2 Greenbelt/ Protected Countryside areas and 2 small pockets of Developed areas. Far East section of alternative enters Future Urban Area with Designated Employment Area and Designated Residential Area and crosses 2 Environmental Policy Areas.	• Alternative is characterized by predominantly level topography and agricultural land use patterns, crossing through some more varied rolling topography associated with creek valley lands in the Healy Rd./ Gore Rd. area. • Majority of alternative is designated Agricultural land use, crosses 2 Greenbelt/ Protected Countryside areas and 2 small pockets of developed areas. Far East section of alternative enters Future Urban Area with Designated Employment Area and crosses 1 Environmental Policy Area. • Alternative crosses 24 watercourses and associated floodplains in total

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
		Summary of Potential Net Effects and Ranking		
	MODERATE NET EFFECT	• Alternative crosses a total of 28 watercourses and associated floodplains MODERATE NET EFFECT	• Alternative crosses 24 watercourses and associated floodplains in total across section MODERATE NET EFFECT	MODERATE NET EFFECT
	RANKING: 1st Similar topographical effects to other routes however this alternative has least number of creek crossings and fewer effects on existing land use patterns. Highest wetland area affected by this alternative however has least watercourse crossings.	**RANKING: 3rd** This alternative is very similar to S6-3 however it affects only 1 Environmental Policy area. Less area of wetland affected than S6-1 however has 28 watercourse crossings	**RANKING: 4th** Similar topographical effects to other routes however this alternative has greatest effect on existing land use patterns as well as high number of creek crossings and effects to 2 Environmental Policy areas. Similar to S6-2 however has 22 watercourse crossings	**RANKING: 2nd** This alternative is similar to S6-1 however it has somewhat greater effects on existing land use patterns as well as 1 additional creek crossing. Similar to S6-2 and S6-3 however has 24 watercourse crossings
2.7.2 Vegetation	• West interchange area affects edge of 1 wooded area and removes another wooded area and associated unevaluated wetland. • Alternative affects connectivity of several established hedgerows. • 1 large wooded area will be impacted/ removed just west of Airport Rd. interchange. • Airport Rd interchange also removes 1 smaller wooded area • Gore Rd. interchange area interrupts connectivity of large wooded area vegetation communities associated with creek in 2 locations • Alternative interrupts connectivity of smaller wooded area associated with watercourse just west of Coleraine Dr. HIGH NET EFFECT	• Alternative affects edge wooded area associated with watercourse on west side of Torbram Rd. • Alternative affects connectivity of several established hedgerows • Alternative affects edge wooded area associated with watercourse on west side of Centreville Creek Rd. • Alternative will have significant effects to connectivity of large wooded area associated with creek valley land just east of Gore Rd. • Alternative affects connectivity of additional wooded area associated with watercourse on west side of Humber Station Rd. MODERATE NET EFFECT	• Alternative affects edge wooded area associated with watercourse on west side of Torbram Rd. • Alternative affects connectivity of several established hedgerows • Alternative affects edge wooded area associated with watercourse on west side of Centreville Creek Rd. • Alternative will have significant effects to connectivity of large wooded area associated with creek valley land just east of Gore Rd. • Alternative affects connectivity of additional wooded area associated with watercourse on west side of Humber Station Rd. MODERATE NET EFFECT	• West interchange area removes another wooded area and associated unevaluated wetland. • Alternative interrupts connectivity of wooded vegetation community associated with watercourse crossing east of Bramalea Rd. • Alternative affects connectivity of several established hedgerows • 1 large wooded area will be affected/ removed just west of Airport Rd. interchange • Airport Rd interchange also removes 1 smaller wooded area and associated wetland area • Gore Rd. interchange area interrupts connectivity of large wooded area vegetation communities associated with creek in 2 locations • Alternative interrupts connectivity of smaller wooded area associated with watercourse just west of Coleraine Dr. HIGH NET EFFECT
	RANKING: 4th Alternatives are very similar however this alternative has the largest area of vegetation removals.	**RANKING: 1st** This alternative requires the smallest area of vegetation removals but has effect on the highest number of community types.	**RANKING: 2nd** This alternative requires a similar size of area of vegetation removals as S6.2 but affects a larger area of potentially significant woodland.	**RANKING: 3rd** This alternative has a greater amount of affected vegetation and more vegetation community types are affected than in alternative S6-3.
2.7.3 Visual Impacts	• Diminished aesthetic quality of scenic views, reduced visual impact through mitigation/compensation measures. • Sensitive viewers include: cluster of 10 residential properties north of Bramalea Rd. interchange; 7 residential and 2 residential/ farm on Torbram Rd.; 6 residential properties on Old School Rd.; 6 residential properties on Healy Rd.; 12 residential properties on Innis Lake Rd.; 2 clusters of residential properties (10-15	• Diminished aesthetic quality of scenic views, reduced visual impact through mitigation/compensation measures. • Sensitive viewers include: 2 residential/ agricultural properties on Bramalea Rd.; 14 residential properties on Old School Rd.; 3 residential properties on Healy Rd.; 1 commercial, 2 residential and 2 residential/farm properties on Airport Rd.; 1 residential property on Torbram Rd.; 11	• Diminished aesthetic quality of scenic views, reduced visual impact through mitigation/compensation measures. • Sensitive viewers include: 2 residential/agricultural properties on Bramalea Rd.; 14 residential properties on Old School Rd.; 3 residential properties on Healy Rd.; 1 commercial, 2 residential and 2 residential/farm properties on Airport Rd.; 1 residential property on Torbram Rd.; 11 residential	• Diminished aesthetic quality of scenic views, reduced visual impact through mitigation/compensation measures. • Sensitive viewers include: cluster of 10 residential properties north of Bramalea Rd. interchange; 7 residential and 2 residential/farm on Torbram Rd.; 6 residential properties on Old School Rd.; 6 residential properties on Healy Rd.; 12 residential properties on Innis Lake Rd.; 2 clusters of residential properties (10-

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	each) and 2 residential/ agricultural on Centreville Creek Rd.; 5 residential and 1 residential/agricultural on Gore Rd.; 8 residential on Humber Station Rd.; 3 residential/commercial and 4 residential properties on Mayfield Rd. • Alternative fairly well related to existing landscape, bypassing major topographical features and vegetation communities. Low landscape absorptivity across level open agricultural lands, however greater opportunities for retaining existing vegetation may provide more visual buffers. MODERATE NET EFFECT	residential and 1 residential/ farm property on Innis Lake Rd.; 1 commercial, 2 residential and 2 residential/farm properties on Centreville Creek Rd.; 1 commercial property and two clusters of residential properties (totalling 10) on Gore Rd.; 5 residential and 1 commercial property on Humber Station Rd.; 5 residential and 1 residential/farm property on Mayfield Rd.; 2 residential and 1 residential/farm property on Coleraine Rd. • Low landscape absorptivity due to level topography and open agricultural land throughout much of alternative; however, some opportunities to incorporate existing vegetation/wooded areas and hedgerows to reduce visual impacts. MODERATE NET EFFECT	and 1 residential/farm property on Innis Lake Rd.; 1 commercial, 2 residential and 2 residential/farm properties on Centreville Creek Rd.; 1 commercial property and two clusters of residential properties (totalling 7) on Gore Rd.; 3 residential and 2 residential/farm properties on Humber Station Rd.; 19 residential and 3 residential/commercial on Mayfield Rd.; 1 residential property on Coleraine Rd.; 2 residential and 3 residential/farm properties on Countryside Dr. • Low landscape absorptivity due to level topography and open agricultural land throughout much of alternative; however, some opportunities to incorporate existing vegetation/wooded areas and hedgerows to reduce visual impacts. MODERATE NET EFFECT	15 each) and 2 residential/agricultural on Centreville Creek Rd.; 5 residential and 1 residential/agricultural on Gore Rd.; 8 residential on Humber Station Rd.; 3 residential/commercial and 4 residential properties on Mayfield Rd. • Alternative fairly well related to existing landscape, bypassing major topographical features and vegetation communities. Low landscape absorptivity across level open agricultural lands, however greater opportunities for retaining existing vegetation may provide more visual buffers. MODERATE NET EFFECT
	RANKING: 1st Alternatives S6-1 and S6-2 have overall fewer effects on sensitive viewers and spatial dominance; low landscape absorptivity.	**RANKING: 1st** Alternatives S6-1 and S6-2 have overall fewer effects on sensitive viewers and spatial dominance; low landscape absorptivity.	**RANKING: 3rd** Alternatives S6-3 and S6-4 have overall equal effects on sensitive viewers and spatial dominance; low landscape absorptivity.	**RANKING: 3rd** Alternatives S6-3 and S6-4 have overall equal effects on sensitive viewers and spatial dominance; low landscape absorptivity.
2.7.4 Aesthetics	• Primarily open vistas across agricultural land throughout alternative interspersed by occasional wooded areas and hedgerow (moderate scenic value). • Opportunities for more scenic views crossing creek valley lands (i.e. area west of Gore Rd). LOW NET EFFECT	• Primarily open vistas across agricultural land throughout alternative interspersed by occasional wooded areas and hedgerow (moderate scenic value). • Opportunities for more scenic views crossing creek valley lands (i.e. area west of Gore Rd). LOW NET EFFECT	• Primarily open vistas across agricultural land throughout alternative interspersed by occasional wooded areas and hedgerow (moderate scenic value). • Opportunities for more scenic views crossing creek valley lands (i.e. area west of Gore Rd). LOW NET EFFECT	• Primarily open vistas across agricultural land throughout alternative interspersed by occasional wooded areas and hedgerow (moderate scenic value). • Opportunities for more scenic views crossing creek valley lands (i.e. area west of Gore Rd). LOW NET EFFECT
	RANKING: 1st Alternatives are similar however more northerly alignment in east half creates fewer effects on scenic integrity of area.	**RANKING: 3rd** Alternatives are similar however more southerly alignment in east half is more disruptive to scenic integrity of area.	**RANKING: 3rd** Alternatives are similar however more southerly alignment in east half is more disruptive to scenic integrity of area.	**RANKING: 1st** Alternatives are similar however more northerly alignment in east half creates fewer effects on scenic integrity of area.
3.0 Cultural Environment				
3.1 Built Heritage and Cultural Heritage Landscapes				
3.1.1 Built Heritage Resources	• There are 6 potential (BHR 155, BHR 169, BHR 180, BHR 185, BHR 186 and BHR 187) and 1 designated (BHR 168) BHRs affected by this alternative HIGH NET EFFECT	• There are 4 potential (BHR 155, BHR 167, BHR 176 and BHR 177) BHRs affected by this alternative MODERATE NET EFFECT	• There are 1 listed (BHR 212) and 6 potential (BHR 155, BHR 167, BHR 176, BHR 177, BHR 194 and BHR 195) BHRs affected by this alternative HIGH NET EFFECT	• There are 6 potential (BHR 169, BHR 155. BHR 180, BHR 185, BHR 186 and BHR 187) and 1 designated (BHR 168) BHRs affected by this alternative. HIGH NET EFFECT
	RANKING: 2nd There are 6 potential and 1 designated BHRs affected by this alternative which will require further	**RANKING: 1st** There are 4 potential BHRs affected by this alternative which will require further evaluation in	**RANKING: 2nd** There are 1 listed and 6 potential BHRs affected by this alternative which will require further evaluation	**RANKING: 2nd** There are 6 potential and 1 designated BHRs affected by this alternative which will require

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	evaluation in order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed.	order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed.	in order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed.	further evaluation in order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed.
3.1.2 Heritage Bridges	• There are no Heritage Bridges affected by this alternative. NO NET EFFECT	• There are no Heritage Bridges affected by this alternative. NO NET EFFECT	• There are no Heritage Bridges affected by this alternative. NO NET EFFECT	• There are no Heritage Bridges affected by this alternative. NO NET EFFECT
	RANKING: 1st There are no Heritage Bridges affected by this alternative.	**RANKING: 1st** There are no Heritage Bridges affected by this alternative.	**RANKING: 1st** There are no Heritage Bridges affected by this alternative.	**RANKING: 1st** There are no Heritage Bridges affected by this alternative.
3.1.3 Cultural Heritage Landscapes	• There are 1 designated (CHL 159) and 1 listed (CHL 221) CHLs affected by this alternative. HIGH NET EFFECT	• There is 1 listed (CHL 221) CHL affected by this alternative. MODERATE NET EFFECT	• There are no CHLs affected by this alternative. NO NET EFFECT	• There is 1 designated CHL (CHL 159) affected by this alternative. HIGH NET EFFECT
	RANKING: 3rd There are 1 designated and 1 listed CHLs affected by this alternative which will require further evaluation in order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed	**RANKING: 2nd** There is 1 listed CHL affected by this alternative which will require further evaluation in order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed	**RANKING: 1st** There are no CHLs affected by this alternative.	**RANKING: 3rd** There is 1 designated CHL affected by this alternative which will require further evaluation in order to determine their cultural heritage value and interest. Once cultural heritage value and interest has been determined, avoidance, protection and mitigation measures must be completed
3.2 Archaeology				
3.2.1 Pre-Contact and Contact Indigenous Archaeological Sites	• No registered sites, however archaeological potential is present within much of this alternative. LOW NET EFFECT	• No registered sites, however archaeological potential is present within much of this alternative. LOW NET EFFECT	• No registered sites, however archaeological potential is present within much of this alternative. LOW NET EFFECT	• No registered sites, however archaeological potential is present within much of this alternative. LOW NET EFFECT
	RANKING: 1st No registered pre-contact and contact Indigenous sites are present within this alternative. This alternative contains 347 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered pre-contact and contact Indigenous sites are present within this alternative. This alternative contains 336 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered pre-contact and contact Indigenous sites are present within this alternative. This alternative contains 325 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered pre-contact and contact Indigenous sites are present within this alternative. This alternative contains 338 hectares of undisturbed land containing archaeological potential.
3.2.2 Historic Euro-Canadian Archaeological Sites	• 3 registered archaeological sites, and archaeological potential is present within much of this alternative MODERATE NET EFFECT	• No registered sites, however archaeological potential is present within much of this alternative LOW NET EFFECT	• No registered sites, however archaeological potential is present within much of this alternative LOW NET EFFECT	• 3 registered archaeological sites, and archaeological potential is present within much of this alternative MODERATE NET EFFECT
	RANKING: 3rd 3 registered Historic Euro-Canadian Archaeological Sites are present within this alternative. This alternative contains 347 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered Historic Euro-Canadian Archaeological Sites are present within this alternative. This alternative contains 336 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered Historic Euro-Canadian Archaeological Sites are present within this alternative. This alternative contains 325 hectares of undisturbed land containing archaeological potential.	**RANKING: 3rd** 3 registered Historic Euro-Canadian Archaeological Sites are present within this alternative. This alternative contains 338 hectares of undisturbed land containing archaeological potential.
3.2.3 Indigenous Burial Sites	• No known or reported Indigenous Burial Sites.	• No known or reported Indigenous Burial Sites.	• No known or reported Indigenous Burial Sites.	• No known or reported Indigenous Burial Sites.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	NO NET EFFECT	NO NET EFFECT	NO NET EFFECT	NO NET EFFECT
	RANKING: 1st No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.	**RANKING: 1st** No difference between alternatives.
3.2.4 Cemeteries	• No cemeteries present within this alternative. LOW NET EFFECT	• No cemeteries present within this alternative. LOW NET EFFECT	• No cemeteries present within this alternative. LOW NET EFFECT	• No cemeteries present within this alternative. LOW NET EFFECT
	RANKING: 1st No registered cemeteries are present within this alternative. 347 hectares of undisturbed land containing archaeological potential	**RANKING: 1st** No registered cemeteries are present within this alternative. 336 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered cemeteries are present within this alternative. 325 hectares of undisturbed land containing archaeological potential.	**RANKING: 1st** No registered cemeteries are present within this alternative. 338 hectares of undisturbed land containing archaeological potential.
4.0 Transportation				
4.1 System Capacity & Efficiency				
4.1.1 Movement of People	• Supports efficient movement of people. • Improves transportation options for travellers. HIGH CAPACITY & EFFICIENCY	• Supports efficient movement of people. • Improves transportation options for travellers. HIGH CAPACITY & EFFICIENCY	• Supports efficient movement of people. • Improves transportation options for travellers. HIGH CAPACITY & EFFICIENCY	• Supports efficient movement of people. • Improves transportation options for travellers. HIGH CAPACITY & EFFICIENCY
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.1.2 Movement of Goods	• Supports efficient movement of goods. HIGH CAPACITY & EFFICIENCY	• Supports efficient movement of goods. HIGH CAPACITY & EFFICIENCY	• Supports efficient movement of goods. HIGH CAPACITY & EFFICIENCY	• Supports efficient movement of goods. HIGH CAPACITY & EFFICIENCY
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.1.3 System performance during peak periods	• Improves system performance during peak periods. HIGH PERFORMANCE	• Improves system performance during peak periods. HIGH PERFORMANCE	• Improves system performance during peak periods. HIGH PERFORMANCE	• Improves system performance during peak periods. HIGH PERFORMANCE
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.2 System reliability / redundancy	• Supports system reliability and redundancy. HIGH RELIABILITY / REDUNDANCY	• Supports system reliability and redundancy. HIGH RELIABILITY / REDUNDANCY	• Supports system reliability and redundancy. HIGH RELIABILITY / REDUNDANCY	• Supports system reliability and redundancy. HIGH RELIABILITY / REDUNDANCY
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.3 Safety				
4.3.1 Traffic Safety	• Improves traffic safety. HIGH POTENTIAL FOR IMPROVEMENT	• Improves traffic safety. HIGH POTENTIAL FOR IMPROVEMENT	• Improves traffic safety. HIGH POTENTIAL FOR IMPROVEMENT	• Improves traffic safety. HIGH POTENTIAL FOR IMPROVEMENT
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
4.3.2 Emergency Access	• Supports emergency service access / routing. HIGH ACCESS	• Supports emergency service access / routing. HIGH ACCESS	• Supports emergency service access / routing. HIGH ACCESS	• Supports emergency service access / routing. HIGH ACCESS
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.4 Mobility & Accessibility				
4.4.1 Modal integration and balance	• Improves transportation options for travellers. HIGH POTENTIAL FOR IMPROVEMENT	• Improves transportation options for travellers. HIGH POTENTIAL FOR IMPROVEMENT	• Improves transportation options for travellers. HIGH POTENTIAL FOR IMPROVEMENT	• Improves transportation options for travellers. HIGH POTENTIAL FOR IMPROVEMENT
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.4.2 Linkages to Population and Employment Centres	• Improves linkages to population and employment centres. HIGH ACCESSIBILITY	• Improves linkages to population and employment centres. HIGH ACCESSIBILITY	• Improves linkages to population and employment centres. HIGH ACCESSIBILITY	• Improves linkages to population and employment centres. HIGH ACCESSIBILITY
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.4.3 Recreation and Tourism Travel	• Supports recreation and tourism travel. HIGH SUPPORT	• Supports recreation and tourism travel. HIGH SUPPORT	• Supports recreation and tourism travel. HIGH SUPPORT	• Supports recreation and tourism travel. HIGH SUPPORT
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.4.4 Accommodation for pedestrians, cyclists, snowmobiles, and specialized vehicles	• High potential to accommodate pedestrians, cyclists and specialized vehicles at grade separated crossings. HIGH ACCOMMODATION	• High potential to accommodate pedestrians, cyclists and specialized vehicles at grade separated crossings. HIGH ACCOMMODATION	• High potential to accommodate pedestrians, cyclists and specialized vehicles at grade separated crossings. HIGH ACCOMMODATION	• High potential to accommodate pedestrians, cyclists and specialized vehicles at grade separated crossings. HIGH ACCOMMODATION
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.5 Network Compatibility				
4.5.1 Network connectivity	• Improves network connectivity. • Improves transportation options for travellers. HIGH CONNECTIVITY	• Improves network connectivity. • Improves transportation options for travellers. HIGH CONNECTIVITY	• Improves network connectivity. • Improves transportation options for travellers. HIGH CONNECTIVITY	• Improves network connectivity. • Improves transportation options for travellers. HIGH CONNECTIVITY
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.5.2 Flexibility for future expansion	• Provides flexibility for future expansion. HIGH FLEXIBITY	• Provides flexibility for future expansion. HIGH FLEXIBITY	• Provides flexibility for future expansion. HIGH FLEXIBITY	• Provides flexibility for future expansion. HIGH FLEXIBITY
	RANKING: 1st	**RANKING: 1st**	**RANKING: 1st**	**RANKING: 1st**

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	Comparable net effect to other alternatives.	Comparable net effect to other alternatives.	Comparable net effect to other alternatives.	Comparable net effect to other alternatives.
4.6 Engineering				
4.6.1 Constructability	• Requires multiple watercourse crossings and realignment of several local roads to maintain local road network connectivity and provide required access to GTA West corridor. MODERATE POTENTIAL FOR CONSTRUCTABILITY ISSUES	• Requires multiple watercourse crossings and realignment of several local roads to maintain local road network connectivity and provide required access to GTA West corridor MODERATE POTENTIAL FOR CONSTRUCTABILITY ISSUES	• Requires multiple watercourse crossings and realignment of several local roads to maintain local road network connectivity and provide required access to GTA West corridor MODERATE POTENTIAL FOR CONSTRUCTABILITY ISSUES	• Requires multiple watercourse crossings and realignment of several local roads to maintain local road network connectivity and provide required access to GTA West corridor MODERATE POTENTIAL FOR CONSTRUCTABILITY ISSUES
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.6.2 Compliance with design criteria	• High conformity to safety and design standards. HIGH CONFORMITY	• High conformity to safety and design standards. HIGH CONFORMITY	• High conformity to safety and design standards. HIGH CONFORMITY	• High conformity to safety and design standards. HIGH CONFORMITY
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.
4.7 Construction Cost	• Estimated Cost $358 Million MODERATE RELATIVE COST	• Estimated Cost $349 Million LOW RELATIVE COST	• Estimated Cost $379 Million HIGH RELATIVE COST	• Estimated Cost $358 Million MODERATE RELATIVE COST
	RANKING: 2nd Moderate relative cost	**RANKING: 1st** Lowest relative cost	**RANKING: 4th** Highest relative cost	**RANKING: 2nd** Moderate relative cost
4.8 Traffic Operations	• Complies with design standards however less than desirable spacing between Coleraine Drive interchange and Hwy 427 extension freeway to freeway interchange; road realignments required to maintain local road network connectivity; full moves interchange can be provided at proposed new N-S arterial road in Brampton west of Coleraine Drive; would require planned new arterial road to “T” into Mayfield Road with an extension northerly through the interchange area to Coleraine Drive to achieve acceptable operations.	• Complies with design standards however less than desirable spacing between Coleraine Drive interchange and Hwy 427 extension freeway to freeway interchange; road realignments required to maintain local road network connectivity; full moves interchange can be provided at proposed new N-S arterial road in Brampton west of Coleraine Drive; would require planned new arterial road to “T” into Mayfield Road with an extension northerly through the interchange area to Coleraine Drive to achieve acceptable operations; proximity of south ramp terminal intersection to Mayfield Road requires introduction of grade separation at Mayfield Road and provision of a connecting roadway to maintain connectivity between Mayfield Road and planned new arterial road – this results in one additional arterial road intersection.	• Complies with design standards however less than desirable spacing between Coleraine Drive interchange and Hwy 427 extension freeway to freeway interchange; road realignments required to maintain local road network connectivity; full moves interchange can be provided at proposed new N-S arterial road in Brampton west of Coleraine Drive; would require planned new arterial road to “T” into Mayfield Road with an extension northerly through the interchange area to Coleraine Drive to achieve acceptable operations.	• Complies with design standards however less than desirable spacing between Coleraine Drive interchange and Hwy 427 extension freeway to freeway interchange; road realignments required to maintain local road network connectivity; full moves interchange can be provided at proposed new N-S arterial road in Brampton west of Coleraine Drive; would require planned new arterial road to “T” into Mayfield Road with an extension northerly through the interchange area to Coleraine Drive to achieve acceptable operations.

Evaluation Factors and Sub-Factors	Alternative S6-1 - Preferred	Alternative S6-2	Alternative S6-3	Alternative S6-4
	Summary of Potential Net Effects and Ranking			
	MODERATE POTENTIAL FOR NEGATIVE EFFECT	MODERATE POTENTIAL FOR NEGATIVE EFFECT	MODERATE POTENTIAL FOR NEGATIVE EFFECT	MODERATE POTENTIAL FOR NEGATIVE EFFECT
	RANKING: 1st Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives.	**RANKING: 1st** Comparable net effect to other alternatives	**RANKING: 1st** Comparable net effect to other alternatives