

FACTOR/ MEASURE	ALTERNATIVE 1A		ALTERNATIVE 1B		ALTERNATIVE 2A		ALTERNATIVE 2B		ALTERNATIVE 3
	Option 1 (Widen to North on Hwy 3)	Option 2 (Widen to South on Hwy 3)	Option 1 (Widen to North on Hwy 3)	Option 2 (Widen to South on Hwy 3)	Option 1 (Widen to North on Hwy 3)	Option 2 (Widen to South on Hwy 3)	Option 1 (Widen to North on Hwy 3)	Option 2 (Widen to South on Hwy 3)	
Changes to Air Quality									
Results of modeling to date (before mitigation)	<ul style="list-style-type: none"> Concentrations of Volatile Organic Compounds (VOC's) predicted to be well below provincial standards Predicted concentrations of NO_x associated with the alternatives are lower in the future compared to today's values due to changes in fuels and vehicle technologies Depressed roadway sections result in lower concentrations of PM_{2.5} and NO_x in vicinity of ROW compared to at grade alternatives Tunnel results in lower concentrations of PM_{2.5} in vicinity of ROW compared to at grade alternatives, but NO_x concentrations increase over a broader area compared to at grade alternatives (greater dispersion from ventilation stacks) 								
Protection of Community and Neighbourhood Characteristics									
Potential Acquisitions	Residences • 150-190 Businesses • 30	• 145-185 • 45	• 150-190 • 30	• 150-190 • 45	• 175-210 • 25	• 160-200 • 40	• 170-205 • 25	• 160-200 • 40	• 125-175 • 44
Community Features Potentially Displaced	3 (Royal Canadian Legion, Heritage Park Alliance Church, Erie Wildlife Rescue)								
Noise Receptors with >5 dB increase (before mitigation)	• 90 +/-	• 50 +/-	• 40 +/-	• 40 +/-	• 140 +/-	• 90 +/-	• 60 +/-	• 60 +/-	• To be determined
Effect on Access	<ul style="list-style-type: none"> 10 road closings 20 local access connections to new transportation facility No access to the new corridor from Cabana Road/Todd Lane; no access to Howard Avenue from Highway 401 Eastbound; 		<ul style="list-style-type: none"> 12 road closings 15 local access connections to new transportation facility Partial access to/from the new corridor from/to Cabana Road/Todd Lane; No access to Howard Avenue from Highway 401 Eastbound 		<ul style="list-style-type: none"> 14 road closings 14 local access connections to new transportation facility Full access to/from the new corridor from/to Cabana Road/Todd Lane; Access to Howard Avenue from Highway 401 Eastbound 	<ul style="list-style-type: none"> 15 road closings 7 local access connections to new transportation facility Full access to/from the new corridor from/to Cabana Road/Todd Lane; Access to Howard Avenue from Highway 401 Eastbound 	<ul style="list-style-type: none"> 13 road closings 10 local access connections to new transportation facility Full access to/from the new corridor from/to Cabana Road/Todd Lane; Access to Howard Avenue from Highway 401 Eastbound 	<ul style="list-style-type: none"> 14 road closings 11 local access connection to new transportation facility Full access to/from the new corridor from/to Cabana Road/Todd Lane; Access to Howard Avenue from Highway 401 Eastbound 	<ul style="list-style-type: none"> 8 road closings 13 local access connections to new transportation facility No access to/from Cabana Lane/Todd Lane; No access to Howard Avenue from Highway 401 Eastbound
Consistency with Existing & Planned Land Use									
All alternatives make use of Huron Church Road/Highway 3 Corridor (major roadway, historical connection to border crossing); localized land use impacts with all alternatives Proposed route is consistent with local Official Plans Impacts to existing residential, commercial and vacant lands zoned commercial/residential with all alternatives									
Protection of Cultural Resources									
Built Heritage Features	All access road alternatives potentially displace nine built heritage features								
Parks	All alternatives impact 6 parks (Bellewood Park, Aboriginal (Indian) Memorial Park, Beals Park (Oakwood Bush), Veteran's Memorial Park, St. Clair College Athletic Field, Matthew Rodzick Park)								
Archaeology	No known sites of high to moderate significance are impacted; no notable difference among the alternatives in terms of potential to disturb archaeological features								

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Protection of Natural Environment									
Fish and Fish Habitat	No critical fish habitat identified for any access road alternatives								
Plant/Vegetation Species	• 0.38 ha to 0.82 ha of tallgrass prairie impacted	• 0.49 ha to 0.92 ha of tallgrass prairie impacted	• 0.43 ha to 0.86 ha of tallgrass prairie and deciduous swamp impacted	• 0.55 ha to 0.84 ha of tallgrass prairie and deciduous swamp impacted	• 1.54 ha to 1.98 ha of tallgrass prairie and deciduous swamp impacted	• 1.54 ha to 1.98 ha of tall grass prairie and deciduous swamp impacted	• 0.92 ha to 1.36 ha of tall grass prairie and deciduous swamp with impacted	• 0.92 ha to 1.36 ha of tallgrass prairie and deciduous swamp impacted	• 0.48 ha to 0.87 ha of tallgrass prairie impacted
Wildlife Species and Habitat	• 70 to 129 specimens/colonies of provincially rare plants impacted	• 60 to 149 specimens/colonies of provincially rare plants impacted	• 70 to 139 specimens/colonies of provincially rare plants impacted	• 60 to 149 specimens/colonies of provincially rare plants with Plaza A connection	• 80 to 159 specimens/colonies of provincially rare plants impacted	• 120 to 159 specimens/colonies of provincially rare plants with Plaza B or C	• 70 to 139 specimens/colonies of provincially rare plants impacted	• 70 to 139 specimens/colonies of provincially rare plants impacted A	• 70 to 139 specimens/colonies of provincially rare plants impacted
Improvements to Regional Mobility									
Highway Capacity	Six lane freeway with controlled access and service roads provides sufficient capacity to meet future (2035) travel demand; Peak Hour LOS (2035) = C								
Continuous Capacity	<ul style="list-style-type: none"> Safety of controlled access freeway for access road is greatly increased compared to present arterial roadway with signalized intersections and other entrances/conflict points Elements of tunnel driving that negatively effect safety may include limited visibility due to tunnel walls and light changes at the portals. It is much more difficult to control events in a tunnel crash; motorists escape is not simple, and it is harder for emergency response teams to reach the crash site. The positive effects of tunnels on safety include elimination of adverse weather conditions and increased driver attention and/or slower speeds due to the confined driving space. The consequences of a crash in a tunnel are greatly increased over those on an open road, however the frequency of a catastrophic event are low, and the occurrence of general traffic crashes (on a tunneled freeway) is marginally less than on an open road. The crash risk near the portals of the tunnel is higher than elsewhere within the tunnel All practical alternatives will provide substantial travel time savings for local traffic when compared to the "do nothing" alternative All of the service road alternatives provide increased local and regional mobility over the "do nothing" alternative 								
Reasonable and Secure Options	<ul style="list-style-type: none"> All access road alternatives provide connections to Huron Church Road at E.C. Row enabling choice between new and existing crossings 								
Cost and Constructability									
Estimated Construction Cost (\$CAD)	\$750 M to \$920 M		\$1.19 B to \$1.36 B		\$620 M to \$790 M		\$1.03 B to \$1.20 B		\$3.6 B to 3.78 B
Key Issues	<ul style="list-style-type: none"> Traffic management during construction Utility relocations Watercourse crossings 		<ul style="list-style-type: none"> Traffic management during construction Utility relocations Watercourse crossings The high water table and relatively poor ground conditions, particularly towards the north and west ends of the project, complicate access road construction. These problems increase with the depth of construction. 		<ul style="list-style-type: none"> Traffic management during construction Utility relocations Watercourse crossings 		<ul style="list-style-type: none"> Traffic management during construction Utility relocations Watercourse crossings The high water table and relatively poor ground conditions, particularly towards the north and west ends of the project, complicate access road construction. These problems increase with the depth of construction 		<ul style="list-style-type: none"> Traffic management during construction Utility relocations Watercourse crossings Construction of the tunnel alternative is more complex and more intense than other alternatives due to the necessity to build the tunnel box, ventilation, electrical and communication systems