



**Highway 7&8 Transportation Corridor Planning and Class EA Study  
EVALUATION OF SHORT LIST OF CORRIDOR ALTERNATIVES (Preliminary Planning Alternatives)**

Note – Evaluation of the short list of corridor alternatives is based on a qualitative assessment of each corridor (high, medium or low) and is based on secondary source information presented in Report F, Part 1 (June, 2008)  
Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment

**SECTION # 4 FROM WEST OF NEW HAMBURG TO EAST OF NEW HAMBURG**

FACTORS/SUB-FACTORS	CRITERIA	INDICATORS	CORRIDOR ALTERNATIVES	
			CORRIDOR ALTERNATIVE 4A (Existing Highway 7&8 Corridor through New Hamburg) Nodes: 4-1, 4-2, 4-3, 4-5	CORRIDOR ALTERNATIVE 4B (New Hamburg South Bypass Corridor) Nodes: 4-1, 4-2, 4-4, 4-5
KEY MAP				

**1. NATURAL ENVIRONMENT FACTORS**

<b>1.1 Fisheries and Aquatic Ecosystems</b>	1.1.1 Fish Habitat	Potential to affect fish species and their habitat	<b>Medium</b> potential to impact permanent warmwater and coolwater fish habitat <ul style="list-style-type: none"> <li>Utilizes existing crossing locations; modifications may be required</li> <li>Corridor intersects 1 permanent warmwater tributary and 1 permanent coolwater tributary of the Nith River. It also crosses 3 watercourses with undocumented thermal regimes.</li> </ul>	<b>High</b> potential to impact permanent warmwater and coolwater fish habitat <ul style="list-style-type: none"> <li>New crossing locations which would have more impact than modifications to existing crossings</li> <li>Corridor intersects 1 permanent warmwater tributary and 1 permanent coolwater tributary of the Nith River. It also crosses 4 permanent watercourses and 2 intermittent watercourses with undocumented thermal regimes.</li> </ul>
	AND	1.1.2 Fish Community		
<b>1.2 Terrestrial Ecosystems</b>	1.2.1 Wildlife	Potential to affect wildlife species at risk (special concern, endangered or threatened wildlife species), and provincially rare (S1 – S3) species and their habitat	<b>Low</b> potential to affect wildlife and their habitat <ul style="list-style-type: none"> <li>No special concern, endangered or threatened wildlife species</li> <li>No provincially rare species (S1 – S3)</li> </ul>	<b>Low</b> potential to affect wildlife and their habitat <ul style="list-style-type: none"> <li>No special concern, endangered or threatened wildlife species</li> <li>No provincially rare species (S1 – S3)</li> </ul>
	1.2.2 Wetlands	Potential to affect provincially (PSW) and locally (LSW) significant wetlands.	<b>Low</b> potential to affect both PSW and LSW wetlands <ul style="list-style-type: none"> <li>Predominantly utilizes existing corridor</li> <li>Locally significant wetlands (no name identified)</li> </ul>	<b>High</b> potential to affect both PSW and LSW wetlands <ul style="list-style-type: none"> <li>Predominantly new corridor</li> <li>New Hamburg Oxbow Wetland Complex</li> <li>Locally significant wetlands (no name identified)</li> </ul>
	1.2.3 Forests	Potential to affect woodlands, especially larger core woodlands and interior habitat	<b>Medium</b> potential to affect woodlands <ul style="list-style-type: none"> <li>Predominantly utilizes existing corridor</li> <li>5 woodlands potentially affected, 2 of which are larger with identified core/interior habitat</li> </ul>	<b>High</b> potential to affect woodlands <ul style="list-style-type: none"> <li>Predominantly new corridor</li> <li>9 woodlands potentially affected, 4 of which are larger with identified core/interior habitat</li> </ul>
	1.2.4 Vegetation	Potential to affect populations of rare vegetation, including species at risk, provincially rare species and provincially rare vegetation communities	<b>Low</b> potential to affect populations of rare vegetation <ul style="list-style-type: none"> <li>1 MNR record found for (Longleaf Dropseed, S4) within the corridor</li> </ul>	<b>Low</b> potential to affect populations of rare vegetation <ul style="list-style-type: none"> <li>No rare or SAR identified within the corridor</li> <li>New corridor would result in much higher removal of vegetation</li> </ul>
	1.2.5 Designated/Special Areas	Potential to affect designated/special areas	<b>Low</b> potential to affect designated/special areas <ul style="list-style-type: none"> <li>Does not cross any ESA or ANSI</li> </ul>	<b>Low</b> potential to affect designated/special areas <ul style="list-style-type: none"> <li>Does not cross any ESA or ANSI</li> </ul>
<b>1.3 Groundwater</b>	1.3.1 Areas of Groundwater Recharge and Discharge	Potential to affect volume of groundwater at recharge and discharge areas (depends on presence of low permeability, i.e. till or fine grained glaciolacustrine sediments, or high permeability, i.e. sand, gravels, fractured bedrock, soils at surface)	<b>Low</b> potential to affect volume of groundwater at recharge and discharge areas <ul style="list-style-type: none"> <li>Surface runoff is interpreted to exceed infiltration in western portion of proposed corridor</li> <li>No long-term change to groundwater recharge or discharge is anticipated due to the small surface area affected by highway construction in the proposed corridor.</li> <li>Temporary reduction in groundwater discharge anticipated for bridge construction at Nith River crossing.</li> <li>Potential for temporary reduction in groundwater discharge anticipated for construction at New Hamburg Oxbow Wetland.</li> </ul>	<b>Medium</b> potential to affect volume of groundwater recharge and discharge areas <ul style="list-style-type: none"> <li>Surface runoff is interpreted to exceed infiltration in western portion of proposed corridor</li> <li>No long-term change to groundwater recharge or discharge is anticipated due to the small surface area affected by highway construction in the proposed corridor.</li> <li>Temporary reduction in groundwater discharge anticipated for bridge construction at Nith River crossing.</li> <li>Temporary reduction of groundwater discharge anticipated for construction near New Hamburg Oxbow Wetland Complex</li> <li>Potential for temporary reduction of groundwater discharge anticipated for construction near Bamberg Swamp and Bog.</li> </ul>

**LEGEND**

MOST PREFERRED	MODERATELY PREFERRED	LEAST PREFERRED	NO DIFFERENCE	<b>SELECTED CORRIDOR</b>
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**SECTION # 4 FROM WEST OF NEW HAMBURG TO EAST OF NEW HAMBURG**

FACTORS/SUB-FACTORS	CRITERIA	INDICATORS	CORRIDOR ALTERNATIVES	
			CORRIDOR ALTERNATIVE 4A (Existing Highway 7&8 Corridor through New Hamburg) Nodes: 4-1, 4-2, 4-3, 4-5	CORRIDOR ALTERNATIVE 4B (New Hamburg South Bypass Corridor) Nodes: 4-1, 4-2, 4-4, 4-5
		Potential to affect quality of groundwater at recharge and discharge areas (depends on attenuation capacity of soils, and, rate of groundwater infiltration and/or discharge)	<b>Medium</b> potential to affect groundwater quality at recharge and discharge areas. <ul style="list-style-type: none"> <li>Rate of groundwater infiltration is low, with no significant surficial aquifer units within the western portion of the proposed corridor. However, some surficial aquifer units exist within the eastern portion of the proposed corridor.</li> </ul>	<b>Medium</b> potential to affect groundwater quality at recharge and discharge areas. <ul style="list-style-type: none"> <li>Rate of groundwater infiltration is low, with no significant surficial aquifer units within the western portion of the proposed corridor. However, some surficial aquifer units exist within the eastern portion of the proposed corridor.</li> </ul>
	1.3.2 Groundwater Source and Wellhead Protection Areas (WHPAs)	Potential to affect groundwater wellhead protection areas (i.e., is route upgradient of or within a delineated wellhead protection area)	<b>Low</b> potential to affect groundwater wellhead protection area. <ul style="list-style-type: none"> <li>Proposed corridor is located downgradient of well head capture zones.</li> </ul>	<b>Low</b> potential to affect groundwater wellhead protection area. <ul style="list-style-type: none"> <li>Proposed corridor is located downgradient of well head capture zones.</li> </ul>
	1.3.3 Large Volume Wells	Potential to affect large volume wells	<b>Low</b> potential to affect large volume wells <ul style="list-style-type: none"> <li>Proposed corridor is located downgradient of large volume wells.</li> </ul>	<b>Low</b> potential to affect large volume wells <ul style="list-style-type: none"> <li>Proposed corridor is located downgradient of large volume wells.</li> </ul>
	1.3.4 Private Wells	To be considered in the detailed planning and preliminary design phases		
	1.3.5 Groundwater-Sensitive Ecosystems	To be considered in the detailed planning and preliminary design phases		
<b>1.4 Surface Water</b>	1.4.1 Watershed / Sub-Watershed Drainage Features/Patterns	Potential to affect permanent watercourses	<b>Medium</b> potential to affect permanent watercourses <ul style="list-style-type: none"> <li>Utilizes existing crossing locations</li> <li>Potential to impact 2 tributaries of the Nith River and 3 other watercourses.</li> </ul>	<b>High</b> potential to affect permanent watercourses <ul style="list-style-type: none"> <li>Requires new crossings</li> <li>Potential to impact 2 tributaries of the Nith River. It also crosses 4 permanent watercourses and 2 intermittent watercourses.</li> </ul>
	1.4.2 Surface Water Quality and Quantity	To be considered in the detailed planning and preliminary design phases		
<b>SUMMARY OF NATURAL ENVIRONMENT</b>			Key natural environment conditions that differentiate Corridor 4A from Corridor 4B in Section 4 are the following: <ul style="list-style-type: none"> <li>Medium potential to affect fish species and their habitat</li> <li>Low potential to affect provincially (PSW) and locally (LSW) significant wetlands</li> <li>Medium potential to affect woodlands</li> <li>Low potential to affect areas of Groundwater Recharge and Discharge</li> <li>Medium potential to affect permanent watercourses</li> </ul>	Key natural environment conditions that differentiate Corridor 4B from Corridor 4B in Section 4 are the following: <ul style="list-style-type: none"> <li>High potential to affect fish species and their habitat</li> <li>High potential to affect provincially (PSW) and locally (LSW) significant wetlands</li> <li>High potential to affect woodlands</li> <li>Medium potential to affect areas of Groundwater Recharge and Discharge</li> <li>High potential to affect permanent watercourses</li> </ul>
			Corridor 4A is completely based upon the existing highway. As a result: <ul style="list-style-type: none"> <li>It has low potential impacts to the natural environment, primarily because of the relatively low “footprint” impact;</li> <li>Its potential impacts to fisheries and aquatic ecosystems and to watershed features tend to be of a nature that can be spanned/bridged;</li> <li>Its potential impacts to wetlands and forests tend to be “edge effects” and therefore relatively low; and</li> <li>Its potential impact to groundwater is associated with bridge construction over the Nith River, and would therefore be temporary.</li> </ul>	
			<b>Therefore, from a natural environment perspective, Corridor 4A is preferred in Section 4.</b>	

**2. LAND USE / SOCIO-ECONOMIC ENVIRONMENT FACTORS**

<b>2.1 Land Use Planning Policies, Goals, Objectives</b>	2.1.1 First Nation Land Claims	Potential to affect areas for which there are First Nation outstanding land claims	Five filed land claims that may apply to this analysis area	Five filed land claims that may apply to this analysis area
	2.1.2 Provincial/Federal land use planning policies/goals/objectives	Potential to support federal/provincial land use policies/goals/objectives  NOTES:  PPS Policy 1.6.6.4 stipulates that when planning for corridors for significant transportation facilities, consideration will be given to significant natural heritage, water, agricultural, mineral, cultural heritage and	<b>High</b> potential to support federal/provincial land use policies/goals/objectives. <ul style="list-style-type: none"> <li>Corridor uses the existing highway thereby minimizing impacts relative to PPS Policies 1.6.6.4 and 2.3.</li> <li>The Growth Plan for the Greater Golden Horseshoe applies only to Section 4</li> </ul>	<b>Low</b> potential to support federal/provincial land use policies/goals/objectives. <ul style="list-style-type: none"> <li>Corridor is all new corridor which would have significant impacts relative to PPS Policies 1.6.6.4 and 2.3.</li> <li>The Growth Plan for the Greater Golden Horseshoe applies only to Section 4</li> </ul>

**LEGEND**

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		archaeological resources.  PPS Policy 2.3 requires prime agricultural areas be protected for long-term use. Prime agricultural areas include specialty crop areas and Classes 1, 2, and 3 soils in this order of priority.		
	2.1.3 Municipal (regional and local) land use planning policies/ goals/objectives (Official Plans)	Potential to support municipal Official Plans	<b>High</b> potential to support municipal Official Plans. <ul style="list-style-type: none"> <li>Corridor is within Region of Waterloo, Wilmot Township. Study area traverses Agricultural lands between nodes 4-1 and 4-2 and for some sections between nodes 4-2 and 4-3. Between nodes 4-3 and 4-5, the study area is within New Hamburg, a Township Urban Area, traversing Urban Residential, Major Recreational, and Industrial/Commercial areas and adjacent to an Open Space area at the east end of the town.</li> </ul>	<b>Medium</b> potential to support municipal Official Plans. <ul style="list-style-type: none"> <li>Corridor is within Region of Waterloo, Wilmot Township. Study area traverses Agricultural lands between nodes 4-1 and 4-2. Section between nodes 4-2, 4-4, and 4-5 is largely adjacent to New Hamburg, a Wilmot Township Urban Area, and traverses small sections of Urban Residential areas at east side of the town.</li> </ul>
	2.1.4 Development Objectives of Private Property Owners	To be considered in the detailed planning and preliminary design phases		
<b>2.2 Land Use / Community</b>	2.2.1 Indian Reserves	Potential to affect Indian Reserves	No Indian reserves within the analysis area.	No Indian reserves within the analysis area.
	2.2.2 First Nation Sacred Grounds	To be considered in the detailed planning and preliminary design phases		
	2.2.3 Urban and Rural Residential	Potential to affect urban and rural residential areas	<b>High</b> potential to affect urban residential areas <ul style="list-style-type: none"> <li>Predominantly utilizes existing corridor.</li> <li>The corridor borders residential areas on both sides of Highway 7&amp;8 in New Hamburg.</li> </ul>	<b>High</b> potential to affect urban and rural residential areas <ul style="list-style-type: none"> <li>Predominantly utilizes new corridor.</li> <li>The corridor borders the south edge of residential areas in New Hamburg and encroaches into planned development area east of Bleams Road.</li> </ul>
	2.2.4 Commercial/Industrial	Potential to affect commercial and industrial areas	<b>Medium</b> potential to affect commercial and industrial areas. <ul style="list-style-type: none"> <li>Widening of the existing highway through New Hamburg includes modification or closure of some existing intersections, with a possible service road. This will result in some out-of-way travel where current intersection access is reduced (eg left turns no longer possible because of median barrier) or eliminated.</li> <li>The corridor borders two highway commercial areas and an industrial area in New Hamburg. There is a potential for businesses to be displaced.</li> <li>The local business community has indicated that it prefers this corridor.</li> </ul>	<b>High</b> potential to affect commercial and industrial areas. <ul style="list-style-type: none"> <li>Business exposure is reduced because through traffic bypasses New Hamburg, and there is some out-of-way travel for local access to the corridor.</li> <li>The corridor borders the south edge of an industrial area in New Hamburg. No commercial lands located within this corridor.</li> </ul>
	2.2.5 Tourist Areas and Attractions (e.g. museums, theatres, etc.)	Potential to affect tourist areas and attractions	<b>Low</b> potential to affect tourist areas and attractions <ul style="list-style-type: none"> <li>No tourist attractions or areas located within or adjacent to the corridor.</li> </ul>	<b>Low</b> potential to affect tourist areas and attractions <ul style="list-style-type: none"> <li>No tourist attractions or areas located within or adjacent to the corridor.</li> </ul>
	2.2.6 Community Facilities / Institutions (e.g. hospitals, schools, places of worship, unique community features)	Potential to affect community facilities and institutions	<b>Medium</b> potential to affect community facilities and institutions <ul style="list-style-type: none"> <li>Corridor borders the Wilmot Township recreational facility and is adjacent to the New Hamburg Arena and Community Center.</li> </ul>	<b>Medium</b> potential to affect community facilities and institutions <ul style="list-style-type: none"> <li>Corridor is adjacent to the Wilmot Township recreational facility.</li> </ul>
	2.2.7 Municipal Infrastructure and Public Service Facilities	To be considered in the detailed planning and preliminary design phases		
<b>2.3 Noise Sensitive Areas (NSAs)</b>  (residential)	2.3.1 Highway Noise	Potential for increased traffic noise in NSAs	<b>Medium</b> potential to affect NSAs <ul style="list-style-type: none"> <li>Utilizes existing corridor through New Hamburg; several NSAs adjacent to the existing highway ROW which would likely experience insignificant increases in traffic noise relative to future no-build conditions</li> </ul>	<b>High</b> potential to affect NSAs <ul style="list-style-type: none"> <li>Corridor borders southern New Hamburg, adjacent to existing and planned development areas in a rural environment</li> </ul>

**LEGEND**

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areas and sensitive institutional uses)	2.3.2 Construction Noise	Not considered until the preliminary design phase		
<b>2.4 Agriculture</b>	2.4.1 Canada Land Inventory (CLI) Class 1,2,3 Land	Potential to affect specialty crop areas and/or areas of Canada Land Inventory Classes 1, 2 and 3 soils  NOTES:  CLI Class 1 - no significant growth limitations CLI Class 2 - moderate growth limitations CLI Class 3 - moderately severe growth limitations	<b>Low</b> potential to affect specialty crop areas and/or areas of Canada Land Inventory Classes 1, 2 and 3 soils. <ul style="list-style-type: none"> <li>Corridor predominantly utilizes the existing corridor, and is both outside and inside of an urban setting.</li> <li>The portion of the corridor west of Walker Road is predominately situated within Huron Clay Loam soil series which 60% CLI Class 1 soils and 40% CLI Class 3 soils. Mid-way between Wilmot-Easthope Road and Walker Road is an area of Huron Loam soil, which is 100% CLI Class 2 soils. In addition, there are two (2) intersecting areas of Bottom Land soil series, which is 100% CLI Class 5 soils (heavy severe limitations). In the vicinity of Walker Road, there is an area of Tavistock Loam and Bennington Loam which are both 100% CLI Class 1 soils, and a small portion of Huron Clay Loam and Perth Loam which are 100% CLI Class 2 soils.</li> <li>The portion of the corridor east of Walker Road is situated within several soil series and soil compositions. On the east side of the Nith River the soils are 60% Macton Loam, 20% Kirkland Sandy Loam and 20% Maysville Sandy Loam composition and are 100% CLI Class 3 soils. At two locations, the corridor traverses soils that are 30% Lisbon Sandy Loam, 30% Brant Loam and 40% Waterloo Fine Sandy Loam, which are 70% CLI Class 1 soils and 30% CLI Class 2 soils. There is also an isolated pocket of 30% Perth Sandy Loam, 30% Perth Clay Loam and 40% disturbed land is situated within the corridor which is 100% CLI Class 2 soils. The Elmira soils within the urban area of New Hamburg are not ranked from an agricultural perspective. However there is also a soil series composition of 60% Tavistock Loam, 20% Maplewood Loam and 20% Huron Clay Loam which is 60% CLI Class 1 soils, 20% CLI Class 2 soils and 20% Class 3 soils. On either side of Nafziger Road, the soils are 60% Perth Clay Loam and 40% Huron Clay Loam soil which are 100% CLI Class 2 soils. East of Nafziger Road the soils are 60% Huron Clay Loam, 20% Perth Clay Loam and 20% Wilmot Silty Clay Loam, which is 80% comprised of CLI Class 2 soils and 20% Class 4 soils (severe limitations).</li> <li>At the east end of the corridor, there is an area which is 60% Perth Loam, 20% Perth Clay Loam and 20% Huron Clay Loam, which is 100% comprised of CLI Class 2 soils. There is also an area which is 60% Lisbon Sandy Loam, 20% Burford Gravelly Loam and 20% Burford Cobby Loam, which are all CLI Class 3 soil.</li> </ul>	<b>High</b> potential to affect specialty crop areas and/or areas of Canada Land Inventory Classes 1, 2 and 3 soils. <ul style="list-style-type: none"> <li>Corridor is predominantly new corridor, and is outside of an urban setting.</li> <li>The portion of the corridor west of Walker Road is predominately situated within Huron Clay Loam soil series which 60% CLI Class 1 soils and 40% CLI Class 3 soils. Mid-way between Wilmot-Easthope Road and Walker Road is an area of Huron Loam soil, which is 100% CLI Class 2 soils. In addition, there are two (2) intersecting areas of Bottom Land soil series, which is 100% CLI Class 5 soils (heavy severe limitations). In the vicinity of Walker Road, there is an area of Tavistock Loam and Bennington Loam which are both 100% CLI Class 1 soils, and a small portion of Huron Clay Loam and Perth Loam which are 100% CLI Class 2 soils. In addition, a portion of the corridor west of Walker Road is within an area of soils which are 60% Maplewood Loam and 40% Tavistock Loam soil which are 60% CLI Class 2 soils and 40% CLI Class 1 soils.</li> <li>The portion of the corridor east of Walker Road is within several soil series and soil compositions. The portion of the corridor adjacent to Haysville Road is within Huron Clay Loam soils noted above. There is also an area of soils which are 40% Tuscola Loam, 30% Bennington Loam and 30% Tavistock Loam (100% comprised of CLI Class 1 soils) and an area that is 60% Lisbon Sandy Loam, 20% St. Jacobs Loam and 20% Maplewood Loam (80% CLI Class 2 and 20% Class 1 soils). On the east side of the Nith River is an area of soils which is 60% Macton Loam, 20% Kirkland Sandy Loam and 20% Maysville Sandy Loam which is 100% comprised of CLI Class 3 soils. Adjacent to this, is an area which is 60% Huron Clay Loam, 20% Huron Loam and 20% Kirkland Sandy Loam (80% of this soil type is CLI Class 2 soils and 20% is CLI Class 3 soils).</li> <li>West of Nafziger Road is a small area of soils which is 60% Tavistock Loam, 20% Maplewood Loam and 20% Huron Clay Loam which is 60% CLI Class 1 soils, 20% CLI Class 2 soils and 20% CLI Class 3 soils. On either side of Nafziger Road is an area of soils which is 60% Perth Clay Loam and 40% Huron Clay Loam which are 100% CLI Class 2 soils. Located east of Nafziger Road is an area which is 60% Huron Clay Loam, 20% Perth Clay Loam and 20% Wilmot Silty Clay Loam, which is 80% comprised of CLI Class 2 soils and 20% Class 4 soils (severe limitations).</li> <li>At the east end of the corridor, there is an area which is 60% Perth Loam, 20% Perth Clay Loam and 20% Huron Clay Loam, which is 100% comprised of CLI Class 2 soils. There is also an area which is 60% Lisbon Sandy Loam, 20% Burford Gravelly Loam and 20% Burford Cobby Loam, which are all CLI Class 3 soil.</li> </ul>
	2.4.2 Agricultural - Farm Infrastructure	Potential to affect farm infrastructure (field tile drainage systems/outlets, irrigation systems, barns/silos/structures, etc.)  NOTES:  The broader issue of wells is addressed under the groundwater factor  The broader issue of drainage along and across transportation rights-of-way is addressed as part of "drainage and hydrology engineering" that is undertaken for the selected alternative.	<b>Low</b> potential to affect farm infrastructure <ul style="list-style-type: none"> <li>Corridor predominantly utilizes existing corridor. Widening will cause minimal disruption/diversion of field tile drainage systems, and irrigation systems within an individual farm, and since most farm buildings are set back from the highway, minimal impact to farm buildings.</li> </ul>	<b>High</b> potential to affect farm infrastructure <ul style="list-style-type: none"> <li>Corridor is predominantly new corridor, which may result in considerable disruption / diversion of field tile drainage systems, irrigation systems, and farm buildings within an individual farm.</li> </ul>
	2.4.3 Agriculture – Operations on Individual Farms	Potential to sever/disrupt in-farm field operations (planting, harvesting, grazing, nutrient management, etc)	<b>Low</b> potential to affect in-farm field operations. <ul style="list-style-type: none"> <li>Corridor predominantly utilizes existing corridor. Widening may result in the loss of small amounts of farm frontage, but will cause minimal disruption of planting, harvesting, grazing, nutrient management etc within an individual farm.</li> </ul>	<b>High</b> potential to affect in-farm field operations <ul style="list-style-type: none"> <li>Corridor is predominantly new corridor, which may result in major severance / disruption of planting, harvesting, grazing, nutrient management within an individual farm.</li> </ul>

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	2.4.4 Agriculture – Transportation Linkages between Multiple-Farm Operations	Potential to sever/disrupt transportation linkages between multiple-farm operations (movement between linked multiple-farm operations of equipment, materials, workers, etc)  NOTES:  The generic issue of shipments to/from farms is covered under the broader transportation sub-factor “movement of goods”. The generic issue of farm resident/worker movement to/from farms is covered under the broader transportation sub-factor “movement of people”.  Movement of equipment, materials and workers between multiple-farm operations will occur in the context of increased overall traffic on roadways within the analysis area regardless of the alternative selected.	<b>Low</b> potential to sever/disrupt transportation linkages between multiple-farm operations. • Median barrier may cause some out-of-way travel for movement of equipment, materials, or workers between farms by changing current road connections between farms.	<b>High</b> potential to sever/disrupt transportation linkages between multiple-farm operations. • Corridor is predominantly new corridor, which may result in some out-of-way travel for movement of equipment, materials, or workers between farms by changing current road connections between farms.
2.5 Land Use / Resources	2.5.1 First Nation Treaty Rights or Use of Land and Resources for Traditional Purposes  (e.g. hunting, fishing, harvesting of country foods, harvesting of medicinal plants)	Potential to affect First Nation Treaty Rights or use of land and resources for traditional purposes  NOTE: The protection of the natural environment is important to the continued use of lands for traditional First Nations activities.	<b>Low</b> potential to affect First Nation Treaty Rights or use of land and resources for traditional purposes • Corridor predominantly utilizes existing corridor.	<b>Medium</b> potential to affect First Nation Treaty Rights or use of land and resources for traditional purposes • Corridor is predominantly new corridor.
	2.5.2 Parks and Recreational Areas  (e.g. national/provincial parks, conservation areas, municipal parks, public spaces, golf courses, trails, greenways and open space linkages)	Potential to affect parks and recreational areas.	<b>Medium</b> potential to affect parks and recreational areas • Corridor borders open space and a major recreation area in New Hamburg. Improvements at the intersection at Peel Street / Haysville Road may intrude into recreational areas east of the intersection.	<b>Medium</b> potential to affect parks and recreational areas • Corridor borders open space in New Hamburg and a major recreation area.
	2.5.3 Aggregates, Mineral Resources	Potential to affect aggregate and mineral resources sites	<b>Low</b> potential to affect aggregate and mineral resource sites • The existing corridor borders an area of aggregate extraction; however improvements to this corridor would not intrude into those areas.	<b>Low</b> potential to affect aggregate and mineral resource site • No aggregate and mineral sites located within this corridor.
2.6 Major Utility Transmission Corridors  (e.g. railroads, hydro, gas, oil)	Potential to affect major utility transmission corridors	<b>Low</b> potential to affect major utility transmission corridors • No major transmission corridors within/crossing corridor.	<b>Low</b> potential to affect major utility transmission corridors • No major transmission corridors within/crossing corridor.	
2.7 Contaminated Property and Waste Management  (e.g. Landfills, hazardous waste sites, former industrial areas and other known contaminated sites)	Potential to affect landfills (open and closed), hazardous waste sites “brownfield” areas, and other known contaminated sites.	<b>Low</b> potential to affect known contaminated sites • No sources of contamination identified within this corridor.	<b>Low</b> potential to affect known contaminated sites • No sources of contamination identified within this corridor.	
2.8 Landscape Composition	2.8.1 Scenic Composition	To be considered in the detailed planning and preliminary design phases		

**LEGEND**

MOST PREFERRED	MODERATELY PREFERRED	LEAST PREFERRED	NO DIFFERENCE	<b>SELECTED CORRIDOR</b>
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**Highway 7&8 Transportation Corridor Planning and Class EA Study  
EVALUATION OF SHORT LIST OF CORRIDOR ALTERNATIVES (Preliminary Planning Alternatives)**

Note – Evaluation of the short list of corridor alternatives is based on a qualitative assessment of each corridor (high, medium or low) and is based on secondary source information presented In Report F, Part 1 (June, 2008)  
Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment

**SECTION # 4 FROM WEST OF NEW HAMBURG TO EAST OF NEW HAMBURG**

FACTORS/SUB-FACTORS	CRITERIA	INDICATORS	CORRIDOR ALTERNATIVES	
			CORRIDOR ALTERNATIVE 4A (Existing Highway 7&8 Corridor through New Hamburg) Nodes: 4-1, 4-2, 4-3, 4-5	CORRIDOR ALTERNATIVE 4B (New Hamburg South Bypass Corridor) Nodes: 4-1, 4-2, 4-4, 4-5
	2.8.2 Sensitive Viewer Groups	To be considered in the detailed planning and preliminary design phases		
	2.8.3 Scenic Value of Views/Vistas from the transportation facility	To be considered in the detailed planning and preliminary design phases		
	2.8.4 Specimen Trees	To be considered in the detailed planning and preliminary design phases		
2.9 Air Quality	2.9.1 Regional Air Quality and Total Contaminant / Greenhouse Gas Emissions	Potential to reduce the regional air quality consequences of traffic congestion	<b>Medium</b> potential to reduce the regional air quality consequences of traffic congestion <ul style="list-style-type: none"> <li>Several suburban intersections and other existing traffic sources.</li> </ul>	<b>High</b> potential to reduce the regional air quality consequences of traffic congestion <ul style="list-style-type: none"> <li>Few rural intersections and few other existing traffic sources.</li> </ul>
	2.9.2 Local Air Quality and Sensitive Receptors to Air Pollutants	Potential to affect local receptors sensitive to air pollutants	<b>Medium</b> potential to affect local receptors sensitive to air pollutants <ul style="list-style-type: none"> <li>Predominantly utilizes existing corridor</li> <li>Critical receptors within 600 m; several sensitive receptors</li> </ul>	<b>Medium</b> potential to affect local receptors sensitive to air pollutants <ul style="list-style-type: none"> <li>Predominantly utilizes new corridor, bordering existing and planned development areas</li> <li>Critical receptors within 600 m; several sensitive receptors</li> </ul>
<b>SUMMARY OF LAND USE/SOCIO-ECONOMIC ENVIRONMENT</b>			Key land use / socio-economic environment conditions that differentiate Corridor 4A from Corridor 4B in Section 4 are the following: <ul style="list-style-type: none"> <li>High potential to support provincial land use policies</li> <li>High potential to support municipal official plans</li> <li>High potential to affect urban and rural residential area</li> <li>Medium potential to affect commercial and industrial areas</li> <li>Medium potential to affect noise sensitive areas</li> <li>Low potential to affect Canada Land Inventory Classes 1, 2 and 3 soils</li> <li>Low potential to affect farm infrastructure</li> <li>Low potential to affect in-farm field operations</li> <li>Low potential to sever/disrupt transportation linkages between multiple-farm operations</li> <li>Low potential to affect First Nation Treaty Rights or use of land and resources for traditional purposes</li> <li>Medium potential to reduce regional air quality consequences of traffic congestion</li> <li>Medium potential to affect local receptors sensitive to air pollutants</li> </ul>	Key land use / socio-economic environment conditions that differentiate Corridor 4B from Corridor 4B in Section 4 are the following: <ul style="list-style-type: none"> <li>Low potential to support provincial land use policies</li> <li>Medium potential to support municipal official plans</li> <li>High potential to affect urban and rural residential area</li> <li>High potential to affect commercial and industrial areas</li> <li>High potential to affect noise sensitive areas</li> <li>High potential to affect Canada Land Inventory Classes 1, 2 and 3 soils</li> <li>High potential to affect farm infrastructure</li> <li>High potential to affect in-farm field operations</li> <li>High potential to sever/disrupt transportation linkages between multiple-farm operations</li> <li>Medium potential to affect First Nation Treaty Rights or use of land and resources for traditional purposes</li> <li>High potential to reduce regional air quality consequences of traffic congestion</li> <li>Medium potential to affect local receptors sensitive to air pollutants</li> </ul>
			Corridor 4A is completely based upon the existing highway. As a result: <ul style="list-style-type: none"> <li>It has high potential to support provincial/federal land use policies/goals and objective and municipal official plans;</li> <li>It has low potential impacts to residential and commercial/industrial lands, agricultural lands/operations and resources, primarily because of its low "footprint" impact; and</li> <li>It results in comparable potential impacts from a noise and local air quality perspective given that the existing corridor currently passes through New Hamburg.</li> </ul> <p><b>Therefore, from a land use / socio-economic environment perspective, Corridor 4A is preferred in Section 4.</b></p>	

**3. CULTURAL ENVIRONMENT FACTORS**

3.1 Cultural Heritage – Built Heritage and Cultural Landscapes	3.1.1 Buildings or "Standing" Sites of Architectural or Heritage Significance or Ontario Heritage Foundation Easement Properties	Potential to affect buildings or "standing" sites of extreme local, provincial or national interest or Ontario Heritage Foundation easements properties	<b>Low</b> potential to affect buildings or "standing" sites of extreme local, provincial or national interest or Ontario Heritage Foundation easement properties. <ul style="list-style-type: none"> <li>No sites identified.</li> </ul>	<b>Low</b> potential to affect buildings or "standing" sites of extreme local, provincial or national interest or Ontario Heritage Foundation easement properties. <ul style="list-style-type: none"> <li>No sites identified</li> </ul>
	3.1.2 Heritage Bridges	Potential to affect heritage bridges	<b>Low</b> potential to affect inventoried heritage bridges	<b>Low</b> potential to affect inventoried heritage bridges
	3.1.3 Areas of Historic 19 <sup>th</sup> Century Settlement	Potential to affect areas of historic 19 <sup>th</sup> century settlement	<b>Low</b> potential to affect areas of historic 19 <sup>th</sup> century settlement. <ul style="list-style-type: none"> <li>No areas of concentrated 19<sup>th</sup> century development.</li> </ul>	<b>Low</b> potential to affect areas of historic 19 <sup>th</sup> century settlement. <ul style="list-style-type: none"> <li>No areas of concentrated 19<sup>th</sup> century development.</li> </ul>
	3.1.4 Cultural Heritage Landscapes	To be considered in the detailed planning and preliminary design phases		

**LEGEND**

MOST PREFERRED	MODERATELY PREFERRED	LEAST PREFERRED	NO DIFFERENCE	<b>SELECTED CORRIDOR</b>
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**Highway 7&8 Transportation Corridor Planning and Class EA Study**  
**EVALUATION OF SHORT LIST OF CORRIDOR ALTERNATIVES (Preliminary Planning Alternatives)**  
 Note – Evaluation of the short list of corridor alternatives is based on a qualitative assessment of each corridor (high, medium or low) and is based on secondary source information presented In Report F, Part 1 (June, 2008)  
 Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment

**SECTION # 4 FROM WEST OF NEW HAMBURG TO EAST OF NEW HAMBURG**

FACTORS/SUB-FACTORS	CRITERIA	INDICATORS	CORRIDOR ALTERNATIVES	
			CORRIDOR ALTERNATIVE 4A (Existing Highway 7&8 Corridor through New Hamburg) Nodes: 4-1, 4-2, 4-3, 4-5	CORRIDOR ALTERNATIVE 4B (New Hamburg South Bypass Corridor) Nodes: 4-1, 4-2, 4-4, 4-5
	3.1.5 First Nations Burial Sites	To be considered in the detailed planning and preliminary design phases		
	3.1.6 Cemeteries	Potential to affect cemeteries	<b>Low</b> potential to affect cemeteries • No cemeteries identified	<b>Low</b> potential to affect cemeteries • No cemeteries identified
<b>3.2 Cultural Heritage - Archaeology</b>	3.2.1 Pre-Historic and Historic First Nations' Archaeological Sites	Potential to affect significant pre-historic and historic First Nation archaeological sites of extreme local, provincial or national interest	<b>Low</b> potential to affect significant pre-historic and historic First Nation archaeological sites of extreme local, provincial or national interest • Corridor predominantly utilizes existing corridor with low archaeological potential because it has been considerably disturbed through past construction activities.	<b>High</b> potential to affect significant pre-historic and historic First Nation archaeological sites of extreme local, provincial or national interest. • Corridor is predominantly new corridor with high archaeological potential because it is in "green field" area with little previous disturbance through construction.
	3.2.2 Historic Euro-Canadian Archaeological Sites	Potential to affect significant historic Euro-Canadian archaeological sites of extreme local, provincial or national interest	<b>Low</b> potential to affect significant pre-historic and historic First Nation archaeological sites of extreme local, provincial or national interest • Corridor predominantly utilizes existing corridor with low archaeological potential because it has been considerably disturbed through past construction activities.	<b>High</b> potential to affect significant historic Euro-Canadian archaeological sites of extreme local, provincial or national interest. • Corridor is predominantly new corridor with high archaeological potential because it is in "green field" area with little previous disturbance through construction.
<b>SUMMARY OF CULTURAL ENVIRONMENT</b>			Key cultural environment conditions that differentiate Corridor 4A from Corridor 4B in Section 4 are the following: • Low potential to affect significant pre-historic and historic First Nation archaeological sites of extreme local, provincial or national interest • Low potential to affect significant historic Euro-Canadian archaeological sites of extreme local, provincial or national interest	Key cultural environment conditions that differentiate Corridor 4B from Corridor 4B in Section 4 are the following: • High potential to affect significant pre-historic and historic First Nation archaeological sites of extreme local, provincial or national interest • High potential to affect significant historic Euro-Canadian archaeological sites of extreme local, provincial or national interest
			Corridor 4A is completely based upon the existing highway. As a result: • It has low potential impact to buildings of heritage significance and areas of historic 19 <sup>th</sup> century settlement; and • It has low potential impact to archaeology because the existing corridor has already been disturbed by road construction.  <b>Therefore, from a cultural environment perspective, Corridor 4A is preferred in Section 4.</b>	

**4. AREA ECONOMY FACTORS** – Deleted due to duplication of considerations addressed in Factors 2.2.4, 2.2.5, 5.1.2, 5.1.3, and 5.4.3 (deletion eliminated double-counting).

**5. TRANSPORTATION FACTORS**

5.1 Area Transportation System Capacity and Efficiency	5.1.1 Federal/Provincial/Municipal transportation planning policies/goals/objectives	Potential to support federal/provincial/municipal transportation planning policies/goals/objectives  NOTES: Provincial Policy Statement (PPS) Policy 1.6.5.1 stipulates that transportation systems should be provided which are safe, energy efficient, facilitate the movement of people and goods, and are appropriate to address projected needs.  PPS Policy 1.6.5.2 stipulates that efficient use shall be made of existing and planned infrastructure.	<b>Medium</b> potential to support federal/provincial/municipal transportation planning policies/goals/objectives • Provides transportation system that meets objectives of PPS policy 1.6.5.1. Although corridor utilizes existing roadway, the introduction of a median barrier and modified intersections/interchanges would provide a facility that is safe and efficient, and is effective in moving people and goods based on the 2031 travel demand projections. • Corridor utilizes existing roadway, thereby meeting the objectives of PPS policy 1.6.5.2.	<b>Medium</b> potential to support federal/provincial/municipal transportation planning policies/goals/objectives • Provides transportation system that meets objectives of PPS policy 1.6.5.1. Corridor is predominantly new corridor, which would be more safe and efficient and more effective in moving people and goods than use of existing roadway/highway. • Corridor is predominantly new corridor, which would not meet the objectives of PPS policy 1.6.5.2.
	5.1.2 Efficient movement of people	Potential to support the efficient movement of people between communities and regions based on Level of Service (LOS) and volume to capacity (v/c) on a network, screenline and critical link basis	<b>High</b> potential to support efficient movement of people • Corridor utilizes existing roadway, but good level of service achieved through the introduction of median barrier and modified intersections/interchanges. • Direct access to New Hamburg.	<b>High</b> potential to support efficient movement of people. • Corridor is predominantly new corridor, with high level of service due to few intersections and no driveways. • Some out-of-way travel for local access from New Hamburg to corridor.

**LEGEND**

MOST PREFERRED	MODERATELY PREFERRED	LEAST PREFERRED	NO DIFFERENCE	<b>SELECTED CORRIDOR</b>
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**Highway 7&8 Transportation Corridor Planning and Class EA Study  
EVALUATION OF SHORT LIST OF CORRIDOR ALTERNATIVES (Preliminary Planning Alternatives)**

Note – Evaluation of the short list of corridor alternatives is based on a qualitative assessment of each corridor (high, medium or low) and is based on secondary source information presented In Report F, Part 1 (June, 2008)  
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**SECTION # 4 FROM WEST OF NEW HAMBURG TO EAST OF NEW HAMBURG**

FACTORS/SUB-FACTORS	CRITERIA	INDICATORS	CORRIDOR ALTERNATIVES	
			CORRIDOR ALTERNATIVE 4A (Existing Highway 7&8 Corridor through New Hamburg) Nodes: 4-1, 4-2, 4-3, 4-5	CORRIDOR ALTERNATIVE 4B (New Hamburg South Bypass Corridor) Nodes: 4-1, 4-2, 4-4, 4-5
	5.1.3 Efficient movement of goods	Potential to support efficient movement of goods between urban growth centres and regional intermodal facilities based on road network and Highway 7&8 corridor performance measures (LOS and travel speed)	<b>High</b> potential to support efficient movement of goods <ul style="list-style-type: none"> <li>Corridor utilizes existing roadway, but good level of service achieved through the introduction of median barrier and modified intersections/interchanges.</li> <li>Direct access to New Hamburg.</li> </ul>	<b>High</b> potential to support efficient movement of goods. <ul style="list-style-type: none"> <li>Corridor is predominantly new corridor, with high level of service due to few intersections and no driveways.</li> <li>Some out-of-way travel for local access from New Hamburg to corridor.</li> </ul>
5.2 Area Transportation System Reliability / Redundancy		Potential to support system reliability and redundancy for travel (people and goods) between regions and communities during adverse conditions	<b>Low</b> potential to support system reliability and redundancy <ul style="list-style-type: none"> <li>Corridor utilizes existing roadway, which does not provide a new connection between regions and communities during adverse conditions.</li> </ul>	<b>High</b> potential to support system reliability and redundancy <ul style="list-style-type: none"> <li>Corridor is predominantly new corridor, which provides new connection between regions and communities during adverse conditions.</li> </ul>
5.3 Safety	5.3.1 Traffic Safety	Potential to improve traffic safety based on opportunity to reduce congestion on area road network (LOS and v/c) and reduce the frequency of intersections and entrances in the Highway 7&8 corridor	<b>High</b> potential to improve traffic safety <ul style="list-style-type: none"> <li>Although it utilizes the existing Highway 7&amp;8 corridor, introduction of median barrier and modified intersections/interchanges will address long-term traffic demands and improve the safety characteristics of the corridor</li> </ul>	<b>High</b> potential to improve traffic safety <ul style="list-style-type: none"> <li>Most of corridor is new corridor with limited number of access points at intersection / interchange locations.</li> </ul>
	5.3.2 Emergency Access	To be considered in the detailed planning and preliminary design phases		
5.4 Mobility and Accessibility	5.4.1 Modal integration, balance and efficiency	Potential to improve modal choice and increase mode split for person trips between communities, regions and major transit station areas based on connection to concentrations of population, travel performance indicators (LOS, v/c, travel speed) at critical screenlines and on potential to provide higher order transit service in the Highway 7&8 corridor.	<b>Medium</b> potential to improve modal integration, balance and efficiency. <ul style="list-style-type: none"> <li>Potential transit in corridor supported by direct connection to New Hamburg and the development along Highway 7&amp;8.</li> <li>Use of existing Highway 7&amp;8 corridor limits opportunities to provide higher order transit service.</li> </ul>	<b>Medium</b> potential to improve modal integration, balance and efficiency <ul style="list-style-type: none"> <li>Transit in corridor not supported by bypass of New Hamburg.</li> <li>Does not use existing corridor so there is the opportunity to provide higher order transit service.</li> </ul>
	5.4.2 Linkages to Population and Employment Centres	Potential to improve linkages to population and employment centres for people and goods movement	<b>High</b> potential to improve linkages to population and employment centres <ul style="list-style-type: none"> <li>Direct connection to New Hamburg.</li> </ul>	<b>Medium</b> potential to improve linkages to population and employment centres <ul style="list-style-type: none"> <li>Bypass of New Hamburg is in close proximity.</li> </ul>
	5.4.3 Recreation and Tourism Travel	Potential to support recreation and tourism travel within and to/from the Analysis Area by provision of higher order network (roads and transit) continuity and connectivity and through network performance indicators (LOS, v/c, travel speed)	<b>High</b> potential to support recreation and tourism travel <ul style="list-style-type: none"> <li>Direct route; passes through New Hamburg.</li> </ul>	<b>Medium</b> potential to support recreation and tourism travel <ul style="list-style-type: none"> <li>Less direct route; does not pass through New Hamburg.</li> </ul>
	5.4.4 Accommodation for pedestrians, cyclists and snowmobiles	Potential to accommodate pedestrians, cyclists within critical travel corridors in urbanized areas and snowmobiles in recognized rural trails	<b>Low</b> potential to support pedestrians. <ul style="list-style-type: none"> <li>Although urban area better supports justification for sidewalks, a high order facility with median barriers does not lend itself to pedestrian use.</li> <li>No designated bicycle lanes or snowmobile trails identified.</li> </ul>	<b>Low</b> potential to support pedestrians. <ul style="list-style-type: none"> <li>Rural area does not support sidewalks</li> <li>No designated bicycle lanes or snowmobile trails identified.</li> </ul>
5.5 Network Compatibility	5.5.1 Network Connectivity	Potential to improve transportation system connectivity within and to/from the analysis area	<b>High</b> potential to improve transportation system connectivity <ul style="list-style-type: none"> <li>Direct connection</li> </ul>	<b>High</b> potential to improve transportation system connectivity <ul style="list-style-type: none"> <li>Direct connection</li> </ul>
	5.5.2 Flexibility for Future Expansion	Potential to address future transportation needs beyond the forecasted planning horizons	<b>High</b> potential to address future transportation needs beyond the planning horizon <ul style="list-style-type: none"> <li>While a significant component of corridor is within the New Hamburg urban boundary, introduction of an urban cross-section could accommodate future expansion through the urban area</li> </ul>	<b>High</b> potential to address future transportation needs beyond the planning horizon. <ul style="list-style-type: none"> <li>Corridor is outside the New Hamburg urban boundary, and since it is predominantly new corridor, the right-of-way could accommodate future expansion</li> </ul>
5.6 Engineering	5.6.1 Constructability	Potential constructability issues considering physical, property or environmental constraints	<b>Medium</b> potential for constructability issues <ul style="list-style-type: none"> <li>Utilizes existing Highway 7&amp;8 corridor; confined environment through New Hamburg</li> </ul>	<b>Medium</b> potential for constructability issues <ul style="list-style-type: none"> <li>Utilizes segment of existing Highway 7&amp;8 corridor; requires new crossing of Nith River</li> </ul>
	5.6.2 Compliance with Design Criteria	To be considered in the detailed planning and preliminary design phases		

**LEGEND**

MOST PREFERRED	MODERATELY PREFERRED	LEAST PREFERRED	NO DIFFERENCE	<b>SELECTED CORRIDOR</b>
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**Highway 7&8 Transportation Corridor Planning and Class EA Study  
EVALUATION OF SHORT LIST OF CORRIDOR ALTERNATIVES (Preliminary Planning Alternatives)**

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**SECTION # 4 FROM WEST OF NEW HAMBURG TO EAST OF NEW HAMBURG**

FACTORS/SUB-FACTORS	CRITERIA	INDICATORS	CORRIDOR ALTERNATIVES	
			CORRIDOR ALTERNATIVE 4A (Existing Highway 7&8 Corridor through New Hamburg) Nodes: 4-1, 4-2, 4-3, 4-5	CORRIDOR ALTERNATIVE 4B (New Hamburg South Bypass Corridor) Nodes: 4-1, 4-2, 4-4, 4-5
5.7 Traffic Operations		Potential for negative impact on traffic operations due to factors such as design features, private access, and transportation network connections	<b>High</b> potential for negative impact on traffic operations. <ul style="list-style-type: none"> <li>Corridor utilizes existing roadway, and part of it is in urban area with multiple intersections.</li> </ul>	<b>Low</b> potential for negative impact on traffic operations. <ul style="list-style-type: none"> <li>Corridor predominantly does not utilize existing roadways.</li> </ul>
<b>SUMMARY OF TRANSPORTATION</b>		<b>It should be noted that the process utilized to generate corridor alternatives ensures that each corridor is capable of satisfying transportation criteria.</b>	Key transportation issues that differentiate Corridor 4A from the other corridor alternatives in Section 4 are the following: <ul style="list-style-type: none"> <li>Low potential to support system reliability and redundancy for travel (people and goods) between regions and communities during adverse conditions</li> <li>High potential to improve linkages between population and employment centres</li> <li>High potential to support recreation and tourism travel within and to/from the Analysis Area</li> <li>High potential for negative impact on traffic operations due to factors such as design features, private access, and transportation network connections</li> </ul>	Key transportation issues that differentiate Corridor 4B from the other corridor alternatives in Section 4 are the following: <ul style="list-style-type: none"> <li>High potential to support system reliability and redundancy for travel (people and goods) between regions and communities during adverse conditions</li> <li>Medium potential to improve linkages between population and employment centres</li> <li>Medium potential to support recreation and tourism travel within and to/from the Analysis Area</li> <li>Low potential for negative impact on traffic operations due to factors such as design features, private access, and transportation network connections</li> </ul>
			Corridors 4A and 4B are comparable in their ability to support transportation criteria for most transportation factors. <b>Therefore, from a transportation perspective, Corridors 4A and 4B are preferred in Section 4.</b>	

<b>SUMMARY OF EVALUATION</b>	<p><b>Summary of Natural Environment</b></p> <p>Corridor 4A is completely based upon the existing highway. As a result:</p> <ul style="list-style-type: none"> <li>It has low potential impacts to the natural environment, primarily because of the relatively low “footprint” impact;</li> <li>Its potential impacts to fisheries and aquatic ecosystems and to watershed features tend to be of a nature that can be spanned/bridged;</li> <li>Its potential impacts to wetlands and forests tend to be “edge effects” and therefore relatively low; and</li> <li>Its potential impact to groundwater is associated with bridge construction over the Nith River, and would therefore be temporary.</li> </ul> <p>Therefore, from a natural environment perspective, Corridor 4A is preferred in Section 4.</p> <p><b>Summary of Land Use / Socio-Economic Environment</b></p> <p>Corridor 4A is completely based upon the existing highway. As a result:</p> <ul style="list-style-type: none"> <li>It has high potential to support provincial/federal land use policies/goals and objective and municipal official plans;</li> <li>It has low potential impacts to residential and commercial/industrial lands, agriculture lands/operations and resources, primarily because of its low “footprint” impact; and</li> <li>It results in comparable potential impacts from a noise and local air quality perspective given that the existing corridor currently passes through New Hamburg.</li> </ul> <p>Therefore, from a land use / socio-economic environment perspective, Corridor 4A is preferred in Section 4.</p> <p><b>Summary of Cultural Environment</b></p> <p>Corridor 4A is completely based upon the existing highway. As a result:</p> <ul style="list-style-type: none"> <li>It has low potential impact to buildings of heritage significance and areas of historic 19<sup>th</sup> century settlement; and</li> <li>It has low potential impact to archaeology because the existing corridor has already been disturbed by road construction.</li> </ul> <p>Therefore, from a cultural environment perspective, Corridor 4A is preferred in Section 4.</p> <p><b>Summary of Transportation</b></p> <p>Corridors 4A and 4B are comparable in their ability to support transportation criteria for most transportation factors. Therefore, from a transportation perspective, Corridors 4A and 4B are preferred in Section 4.</p> <p><b>Conclusion</b></p> <p>Based upon the above, Corridor 4A is preferred in Section 4.</p>
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**LEGEND**

MOST PREFERRED	MODERATELY PREFERRED	LEAST PREFERRED	NO DIFFERENCE	<b>SELECTED CORRIDOR</b>
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