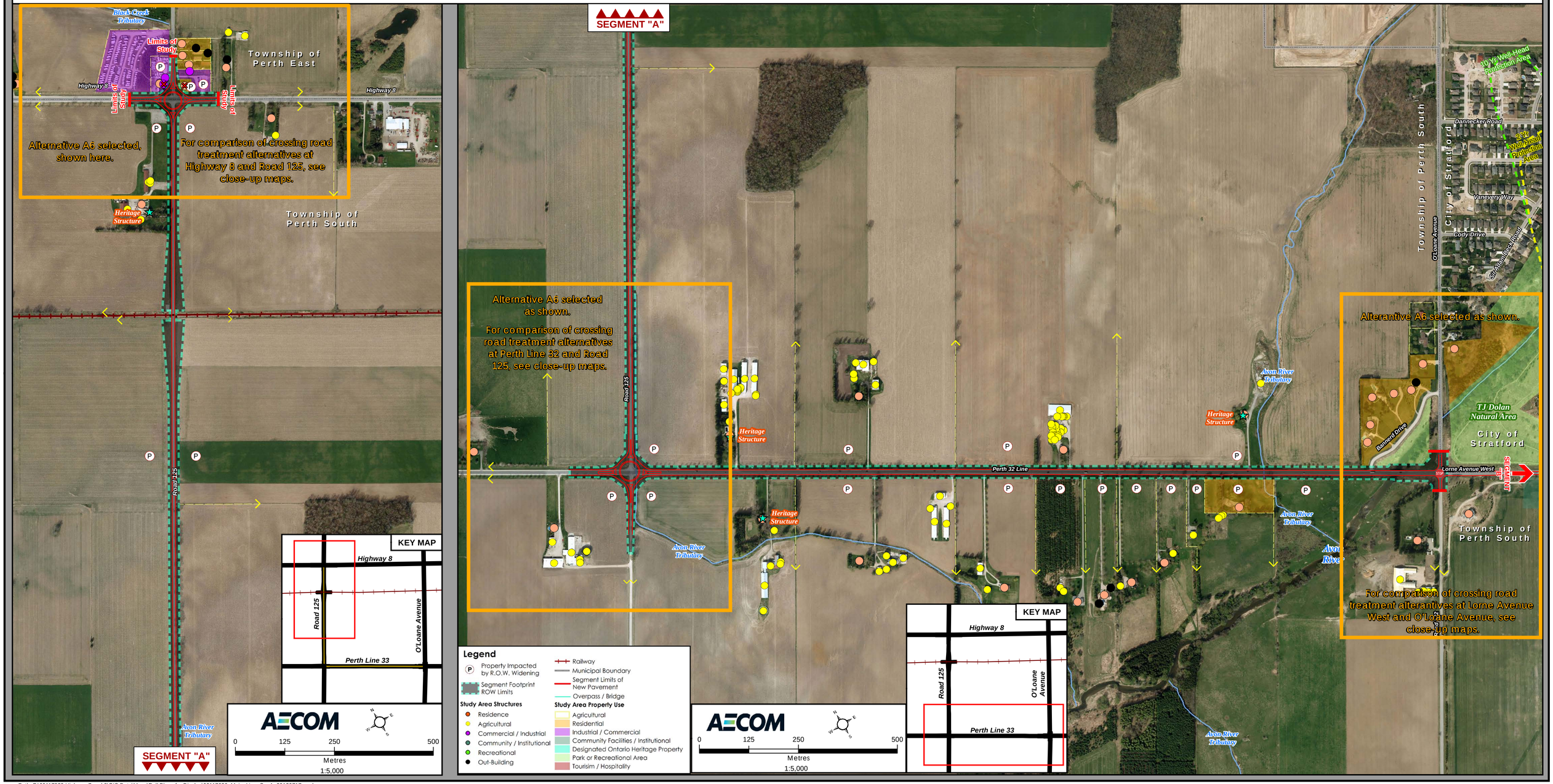
APPENDIX A

Segment A: West of Road 125 to West Limit of Stratford

Environmental Considerations Mapping: Preliminary Design Map for Recommended Plan and Close-up Maps of Crossing Road Intersection Treatment Alternatives

Preliminary Design Alternatives Assessment and Evaluation Table

Highway 7 & 8 Transportation Corridor Planning and Class EA Study - Preliminary Design Map of Segment A - Draft - July, 2013

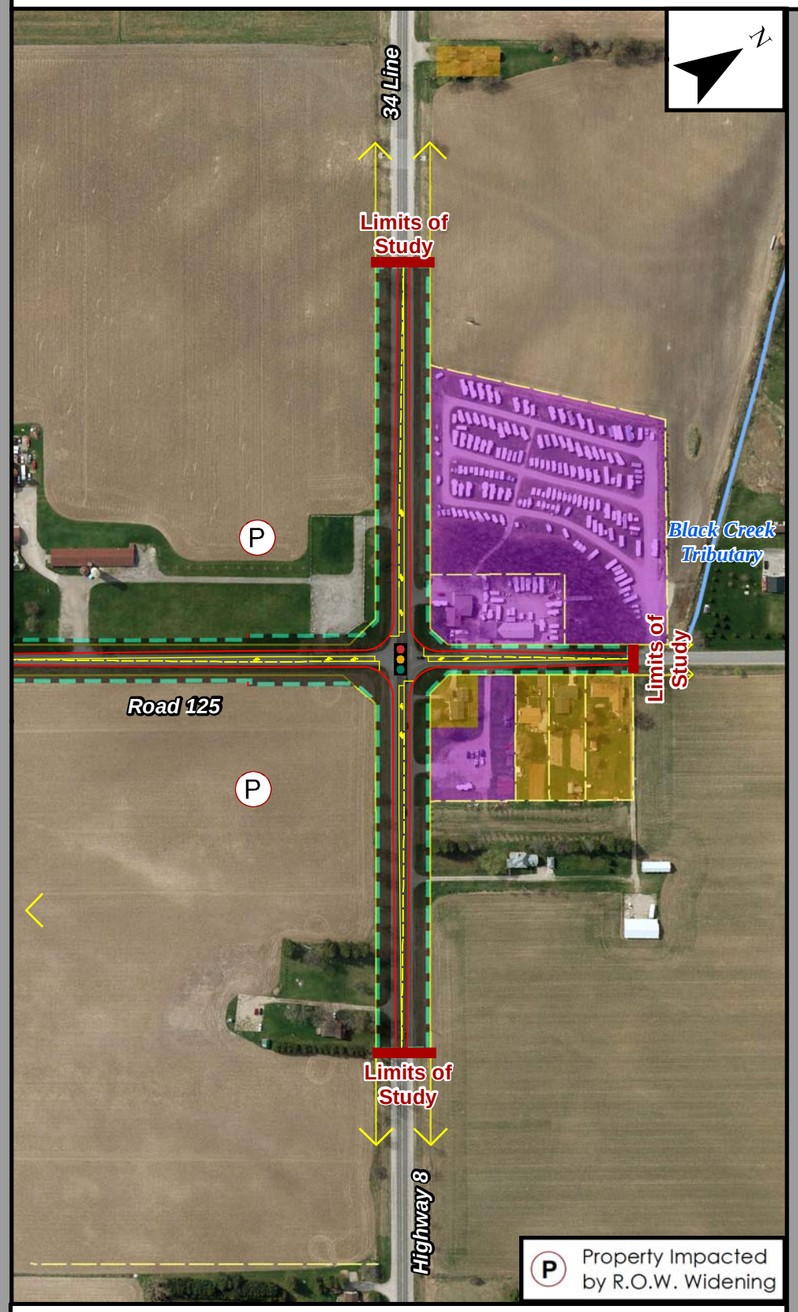


Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Roll Plans for Display\60117929_Main_Line_SegA_20130717.mxd

Highway 7 & 8 Corridor Planning and Class EA Study - Preliminary Design

Close-up Map of Connecting Road Intersection Treatment Alternatives for Segment A - 1 of 6 (July 2013)

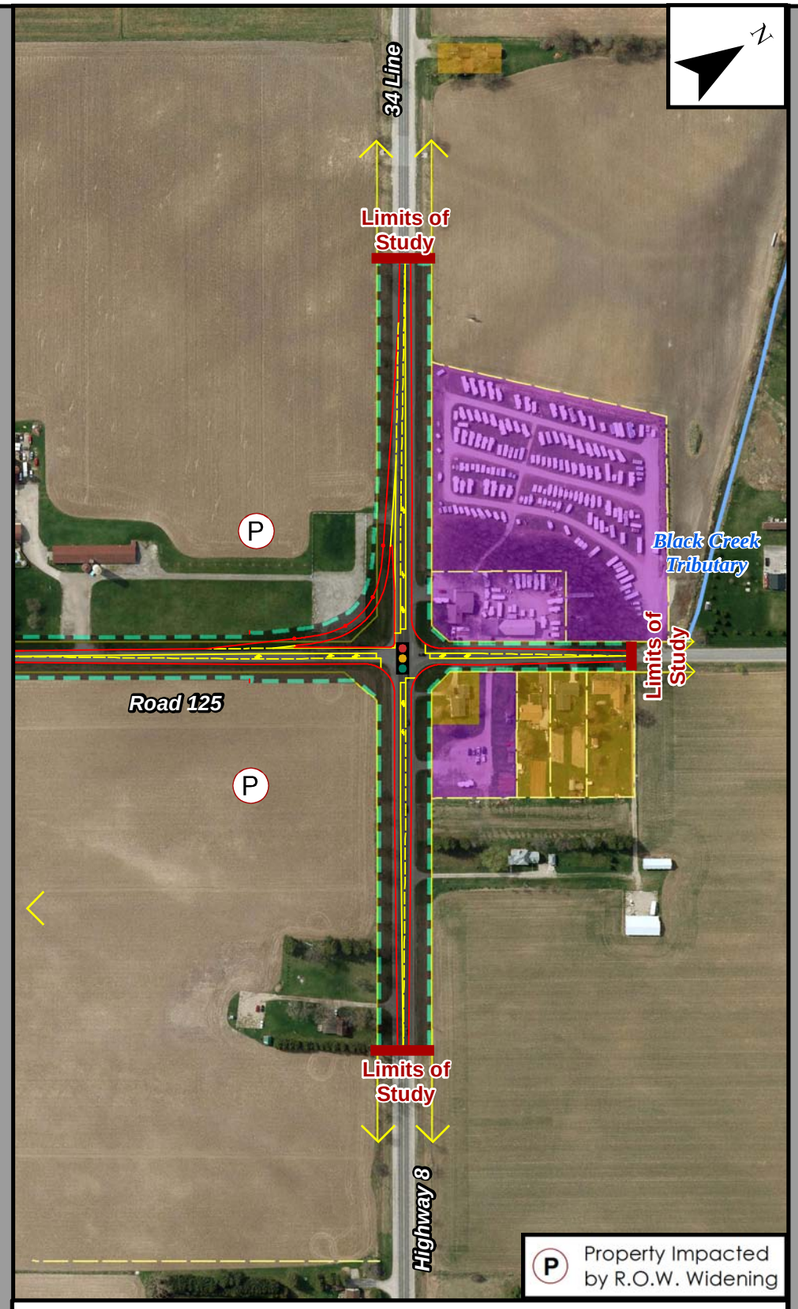
Road 125 at Highway 8



Alternative A1 - Signalized intersection

0 50 100 200 300

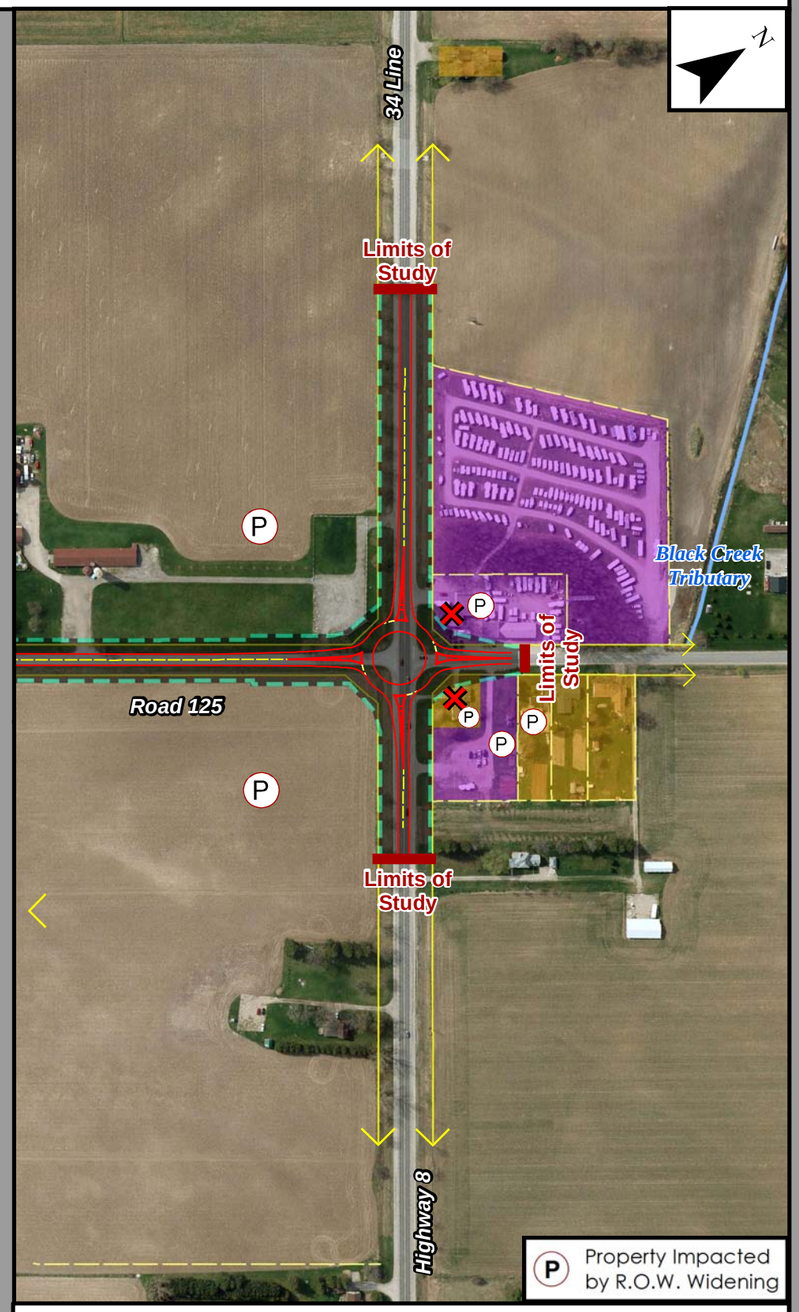
Metres



Alternative A2 - Signalized with channelization

0 50 100 200 300

Metres



Alternative A3 - 1-Lane roundabout

0 50 100 200 300

Metres

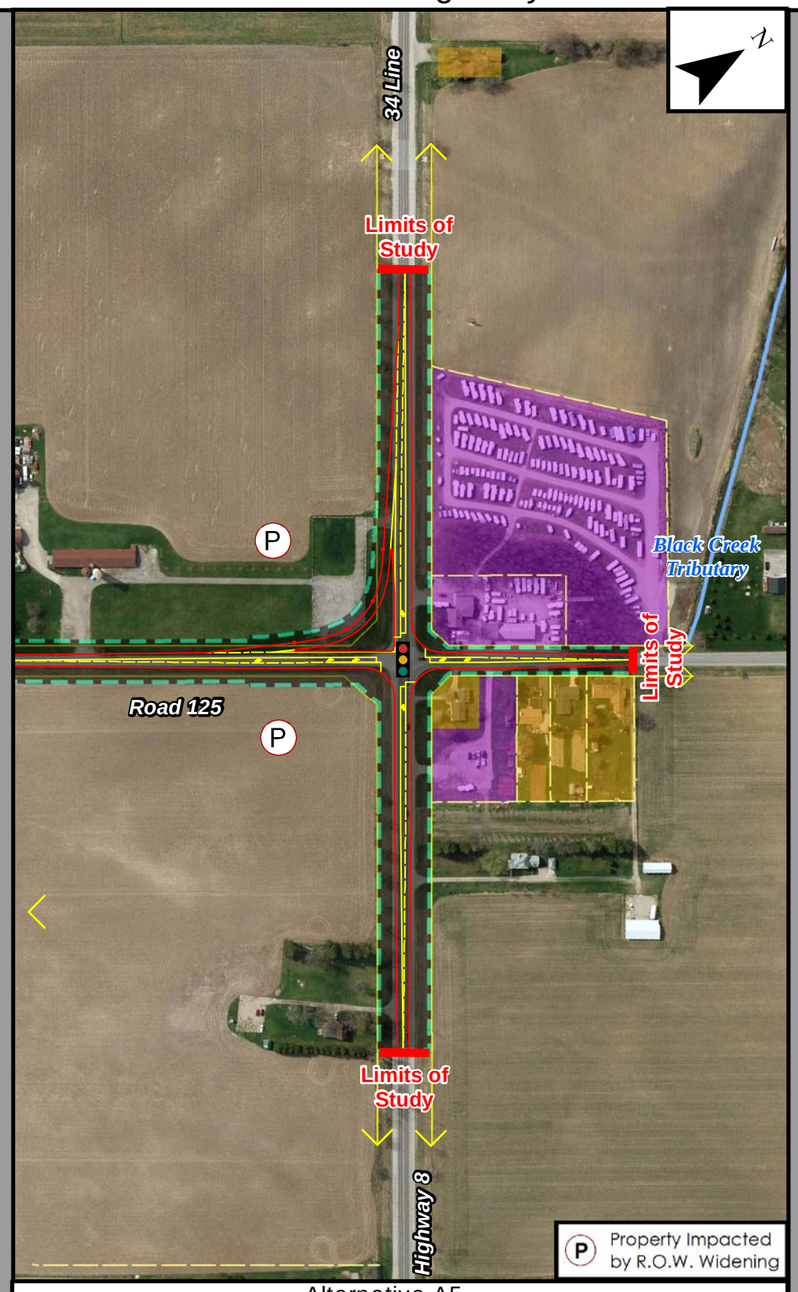
Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Road Treatments\60117929_SegA_Intersection_Group_Map_1_20130319.mxd

Highway 7 & 8 Corridor Planning and Class EA Study - Preliminary Design
Close-up Map of Connecting Road Intersection Treatment Alternatives for Segment A - 2 of 6 (July 2013)

Road 125 at Highway 8

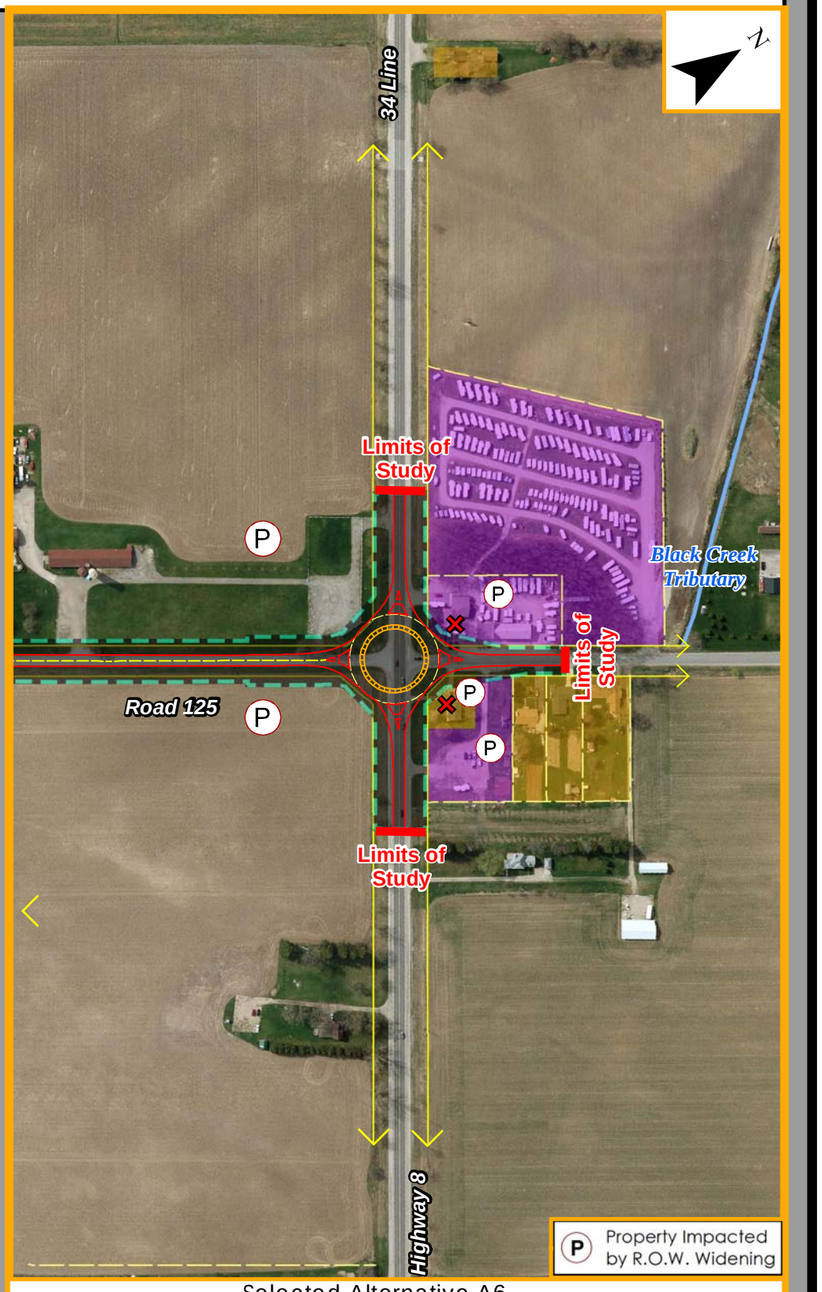
Alternative A4
Signalized intersection,
2-lanes with continuous left turn lane.

0 50 100 200 300
Metres



Alternative A5
Signalized with channelization,
2-lanes with continuous left turn lane.

0 50 100 200 300
Metres



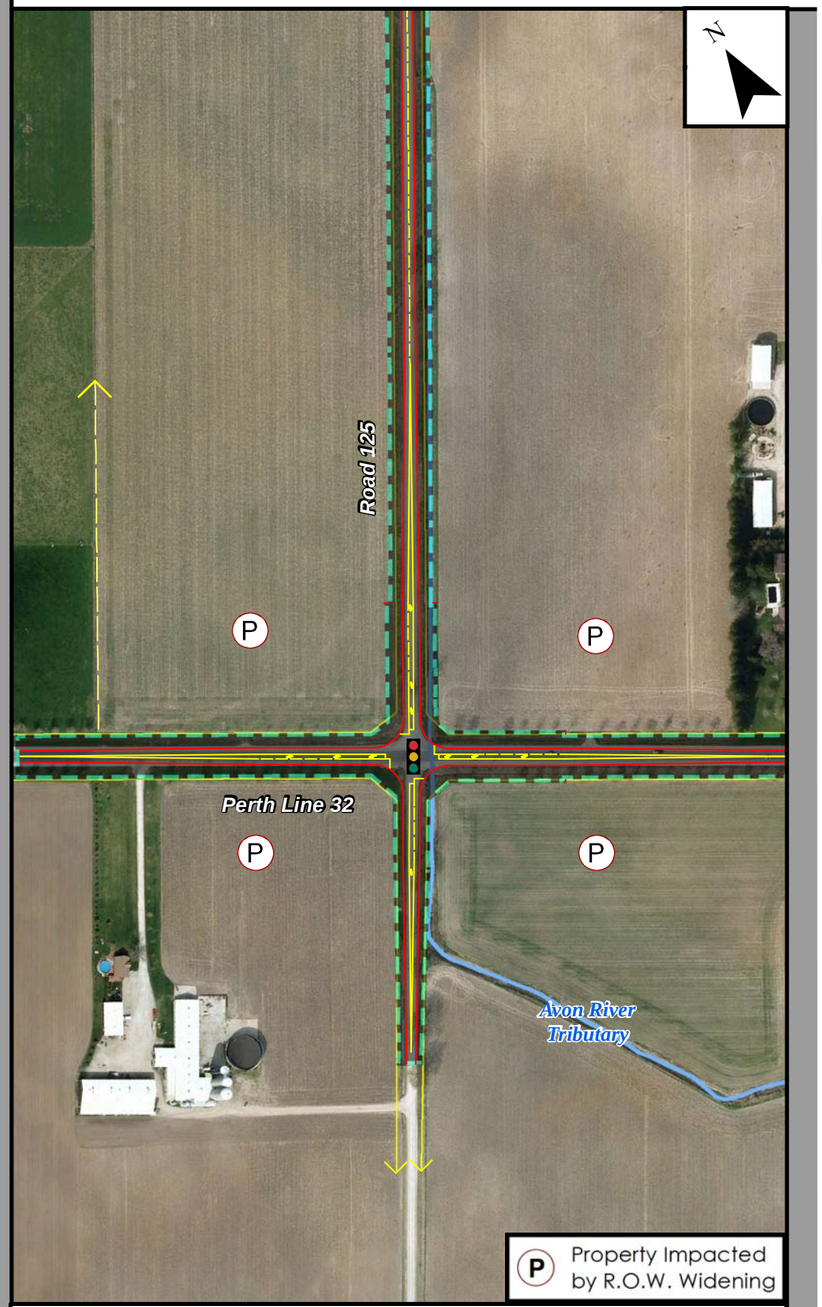
Selected Alternative A6
1-Lane roundabout,
2-lanes with continuous left turn lane.

0 50 100 200 300
Metres

Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Road Treatments\60117929_SegA_Intersection_Group_Map_2_20130319.mxd

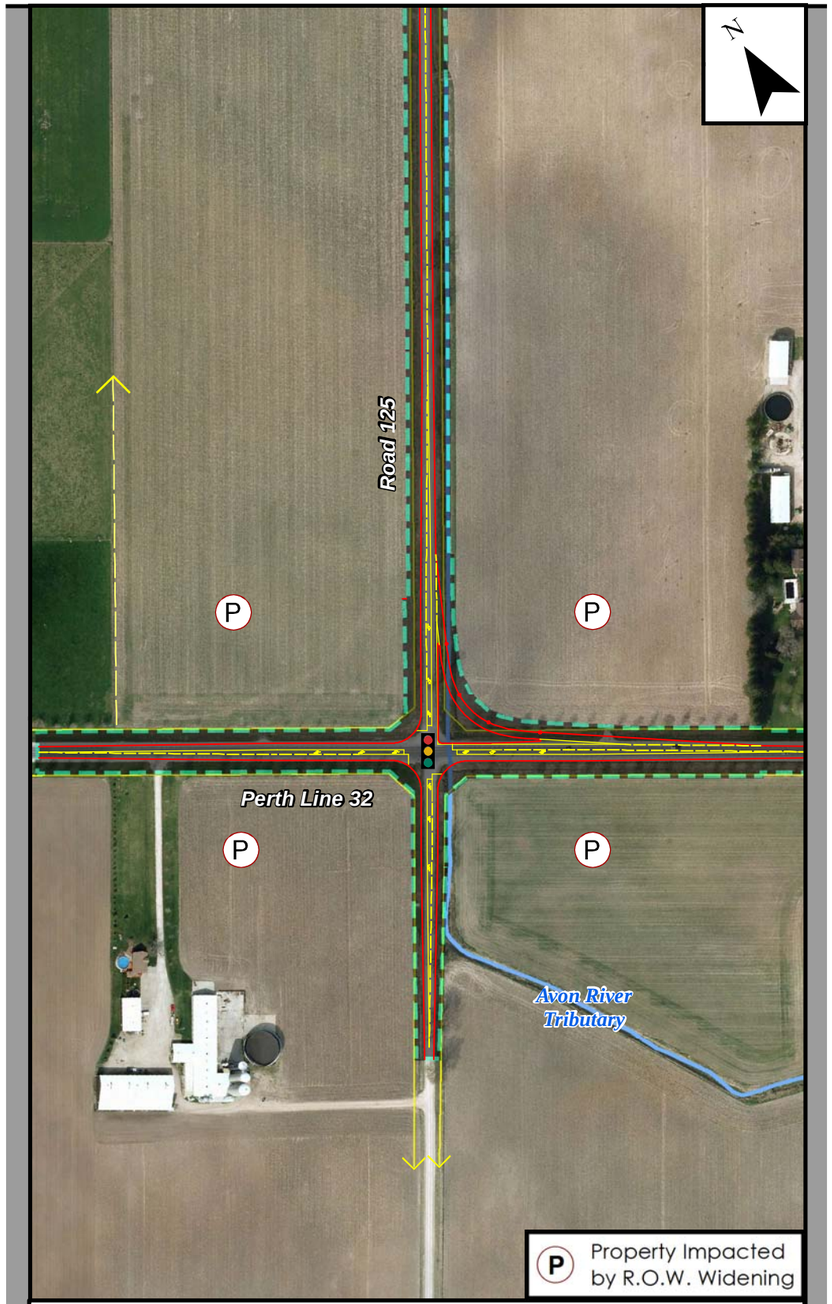
Highway 7 & 8 Corridor Planning and Class EA Study - Preliminary Design
Close-up Map of Connecting Road Intersection Treatment Alternatives for Segment A - 3 of 6 (July 2013)

Perth Line 32 at Road 125



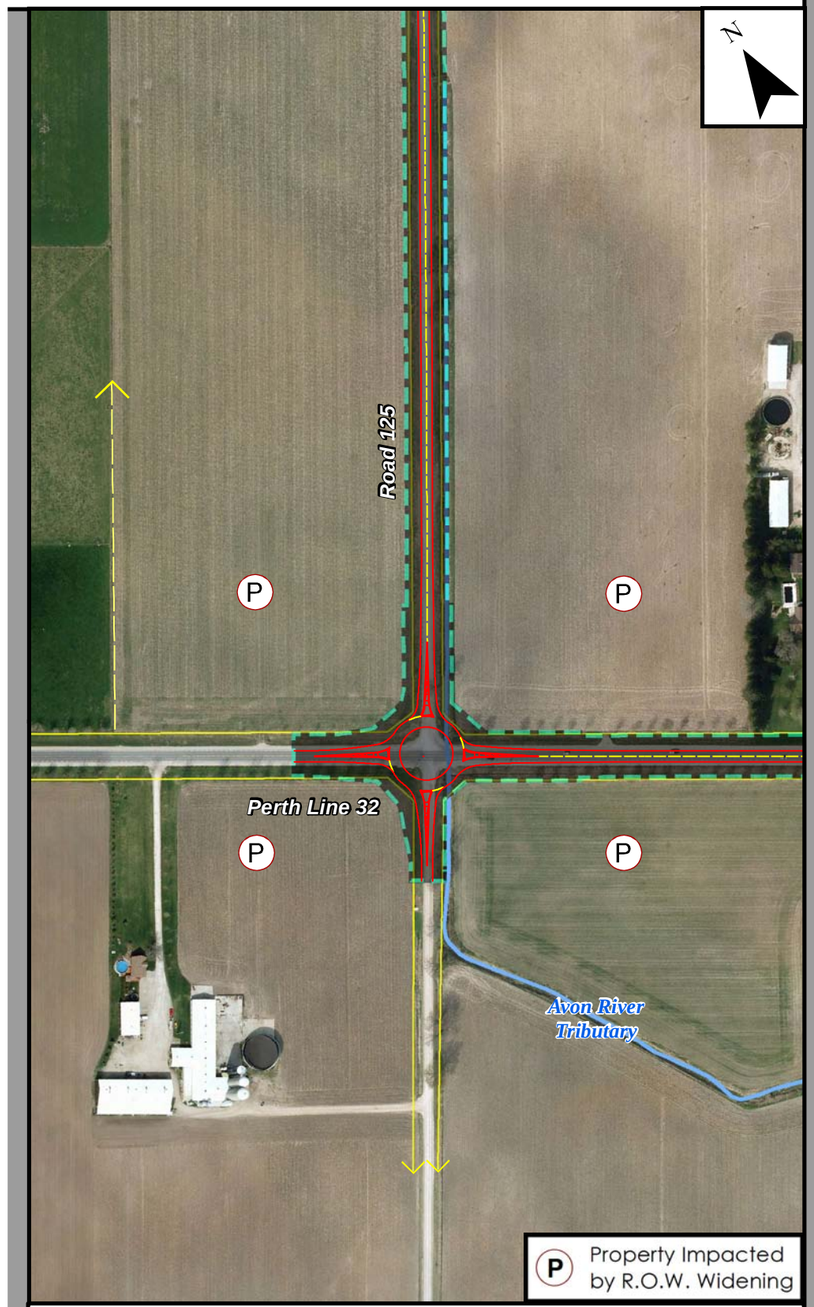
Alternative A1 - Signalized intersection

0 50 100 200 300
Metres



Alternative A2 - Signalized with channelization

0 50 100 200 300
Metres



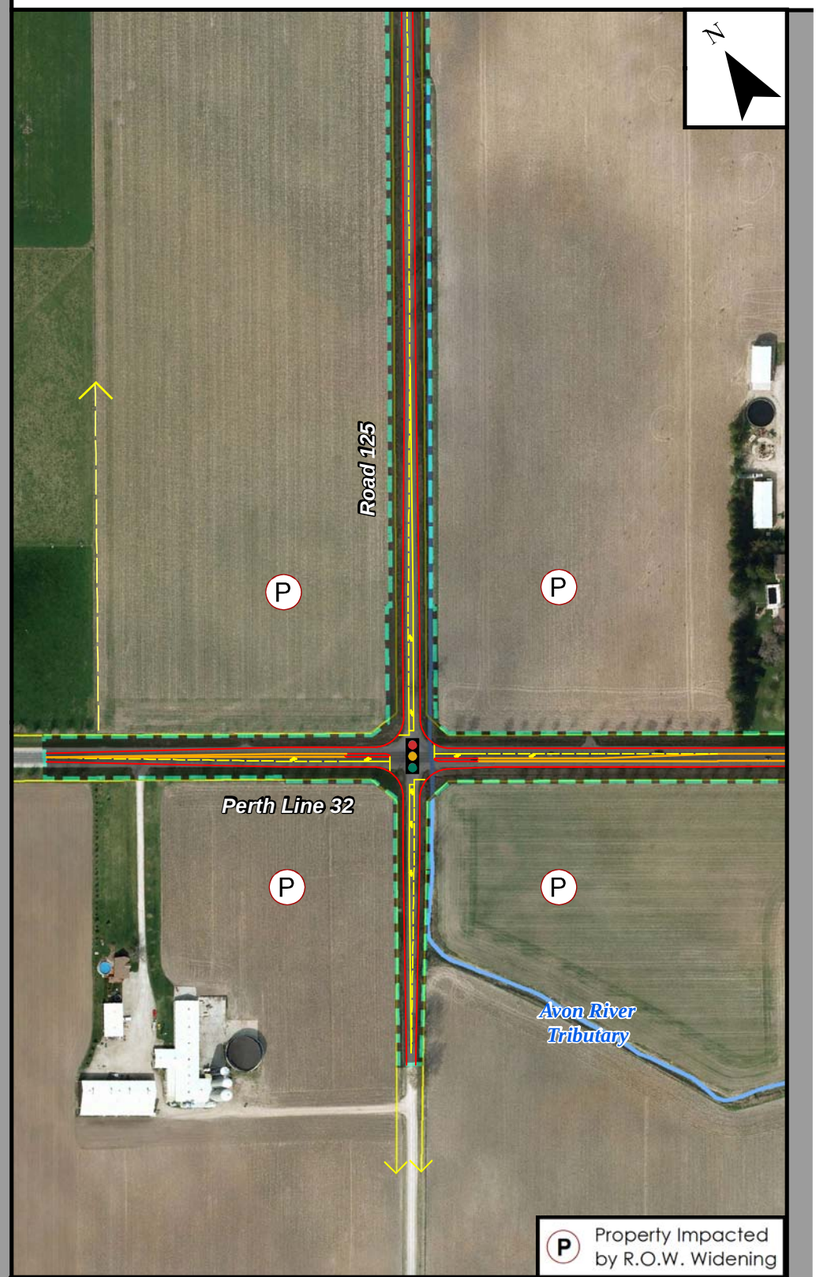
Alternative A3 - 1-Lane roundabout

0 50 100 200 300
Metres

Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Road Treatments\60117929_SegA_Intersection_Group_Map_3_20130319.mxd

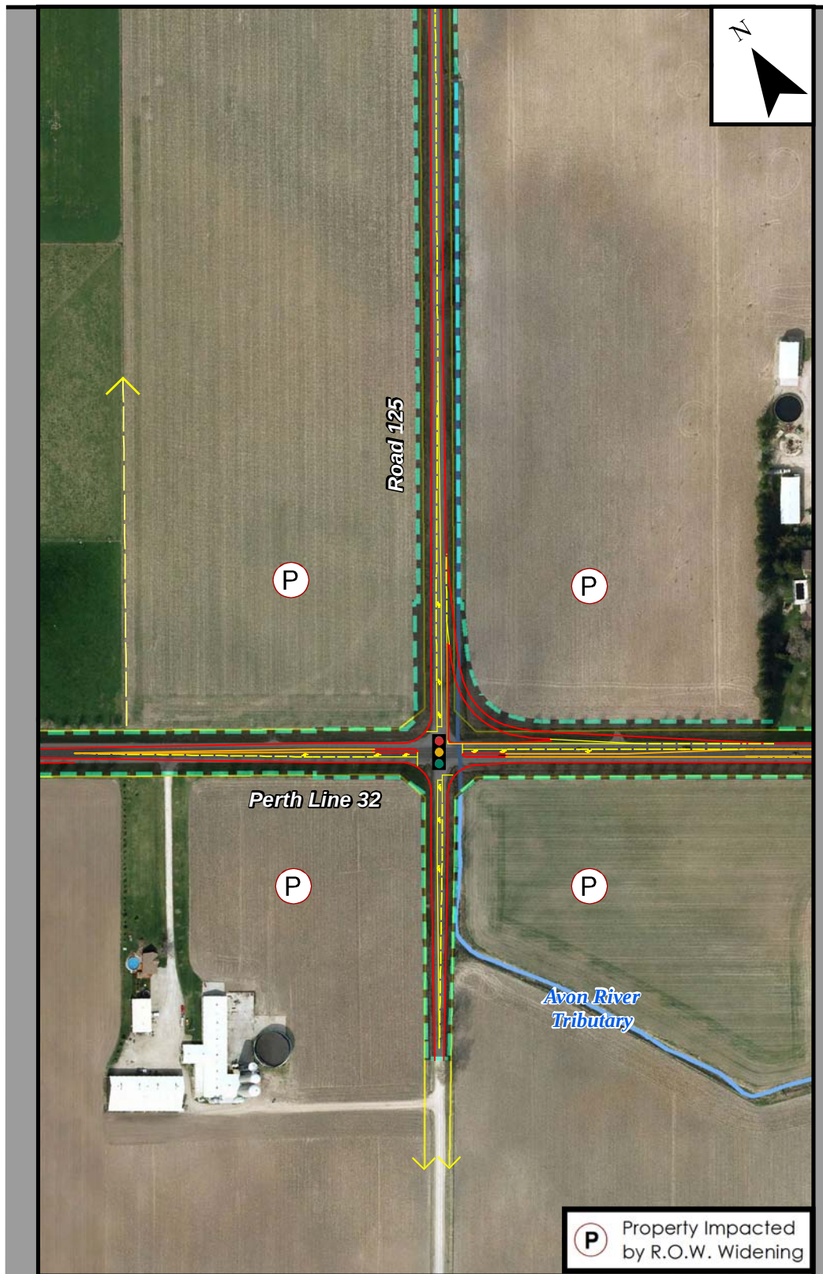
Highway 7 & 8 Corridor Planning and Class EA Study - Preliminary Design
Close-up Map of Connecting Road Intersection Treatment Alternatives for Segment A - 4 of 6 (July 2013)

Perth Line 32 at Road 125



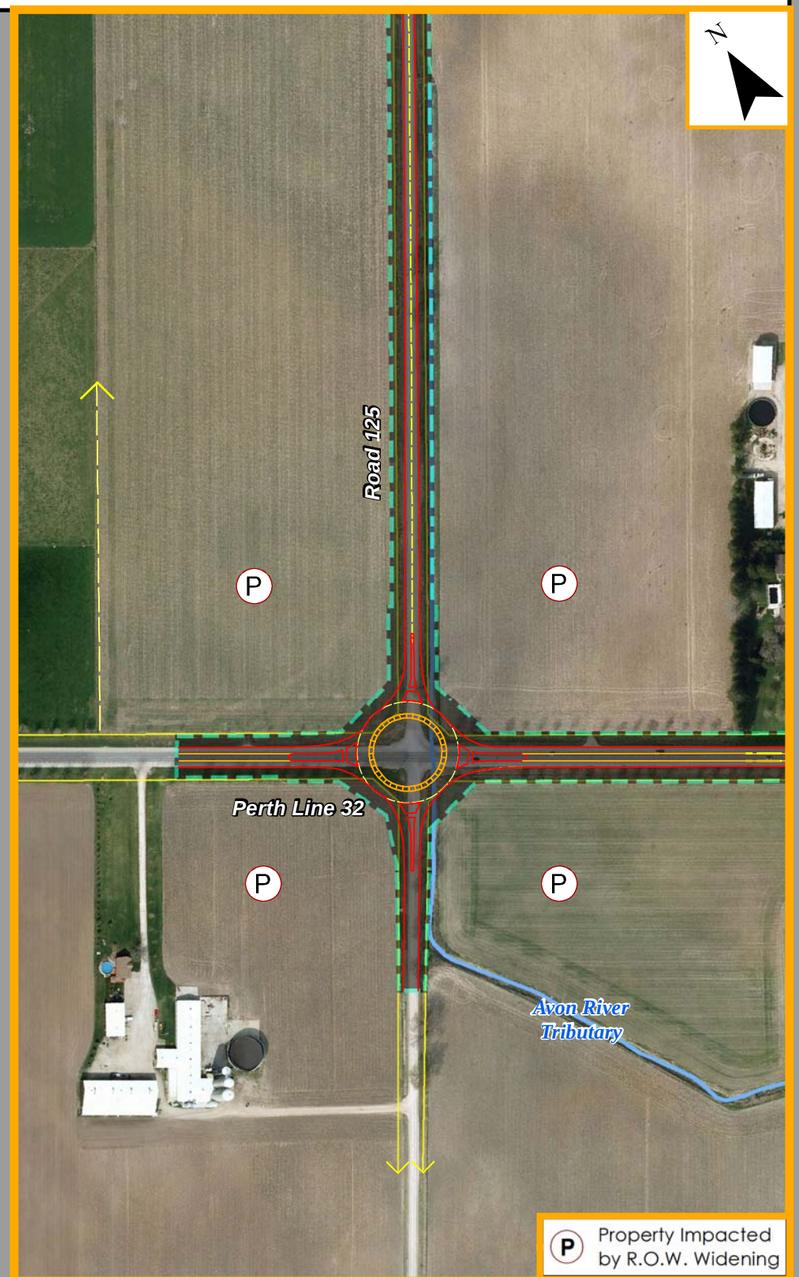
Alternative A4
Signalized intersection,
2-Lanes with continuous left turn lane

0 50 100 200 300
Metres



Alternative A5
Signalized with channelization,
2-Lanes with continuous left turn lane

0 50 100 200 300
Metres



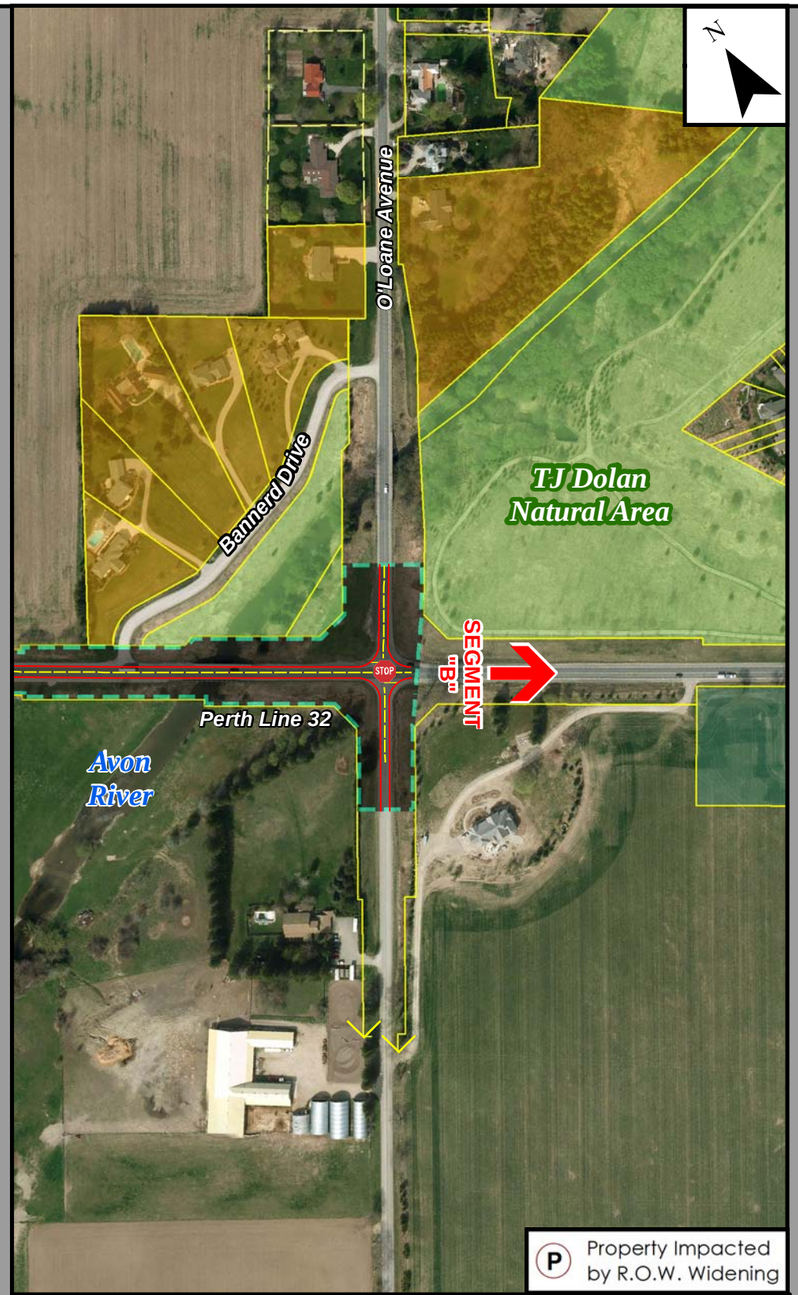
Selected Alternative A6
1-Lane roundabout
2-Lanes with continuous left turn lane

0 50 100 200 300
Metres

Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Road Treatments\60117929_SegA_Intersection_Group_Map_4_20130319.mxd

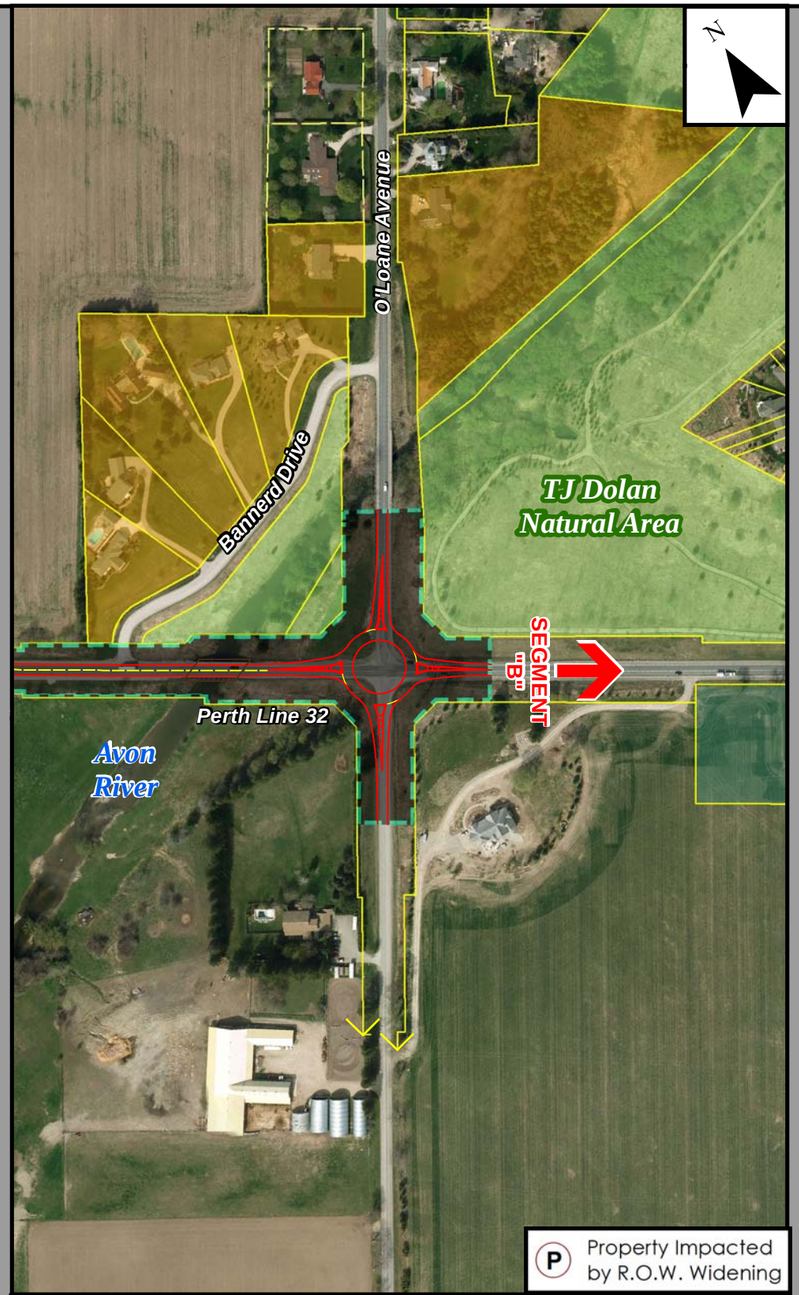
Highway 7 & 8 Corridor Planning and Class EA Study - Preliminary Design
Close-up Map of Connecting Road Intersection Treatment Alternatives for Segment A - 5 of 6 (July 2013)

Perth Line 32 at O'Loane Avenue



Alternative A1 and A2 are the same at this crossing road.
Unsignalized with stop signs on crossing road

0 50 100 200 300
Metres



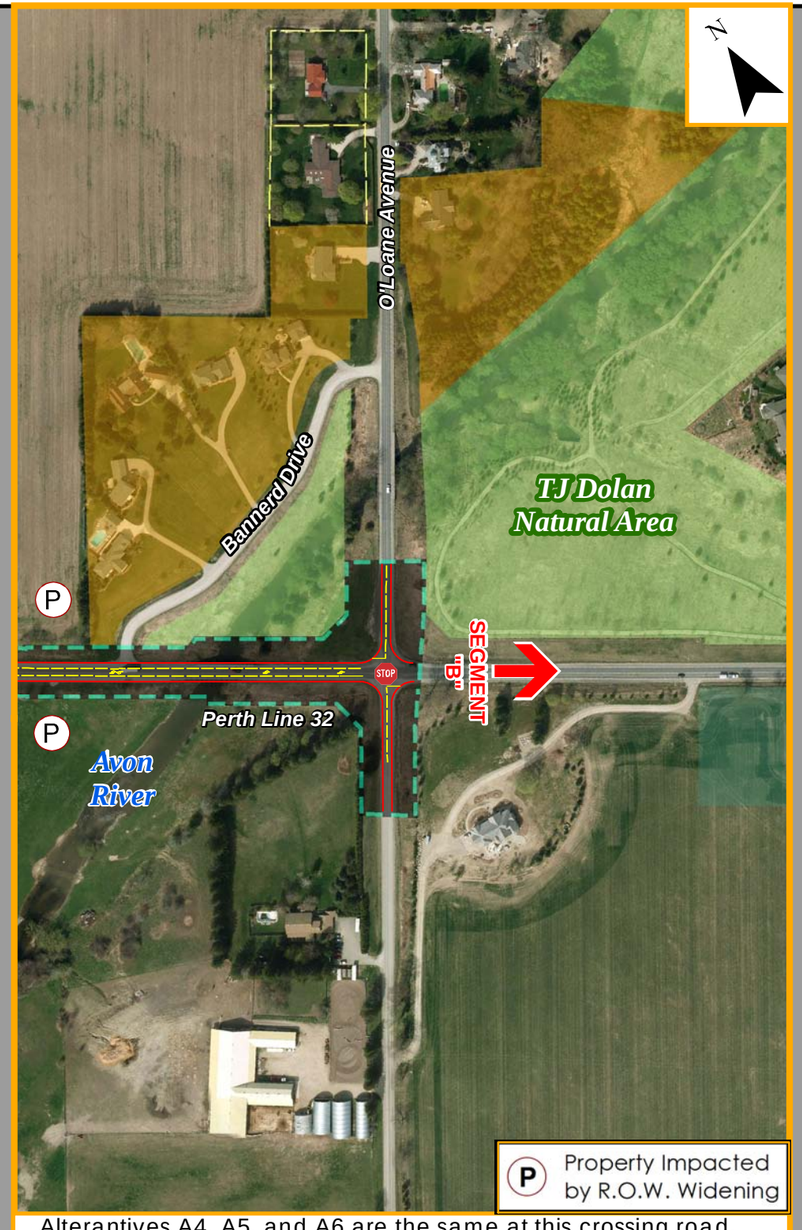
Alternative A3
1-Lane roundabout

0 50 100 200 300
Metres

Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Road Treatments\60117929_SegA_Intersection_Group_Map_5_20130319.mxd

Highway 7 & 8 Corridor Planning and Class EA Study - Preliminary Design
Close-up Map of Connecting Road Intersection Treatment Alternatives for Segment A - 6 of 6 (July, 2013)

Perth Line 32 at O'Loane Avenue



Alterantives A4, A5, and A6 are the same at this crossing road.

Alternative A6 Selected
Unsignalized with stop signs on crossing road,
2-Lanes with continuous left turn lane.

0 50 100 200 300
Metres

Path: F:\60117929 Highway 7 and 8\GIS Data\Maps\Road Treatments\60117929_SegA_Intersection_Group_Map_6_20130409.mxd

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
1. Natural Environmental Factors							
1.1 Fisheries and Aquatic Ecosystems	1.1.1 Fish Habitat 1.1.2 Fish Community	**Moderate** potential to affect fish and fish habitat • 3 watercourse crossings (warmwater) - 1 crossing of the Avon River - 2 crossings of tributaries to Avon River • No SAR recorded in any crossing	**Moderate** potential to affect fish and fish habitat • 3 watercourse crossings (warmwater) - 1 crossing of the Avon River - 2 crossings of tributaries to Avon River • No SAR recorded in any crossing	**Moderate** potential to affect fish and fish habitat • 3 watercourse crossings (warmwater) - 1 crossing of the Avon River - 2 crossings of tributaries to Avon River • No SAR recorded in any crossing	**Moderate** potential to affect fish and fish habitat • 3 watercourse crossings (warmwater) - 1 crossing of the Avon River - 2 crossings of tributaries to Avon River • No SAR recorded in any crossing	**Moderate** potential to affect fish and fish habitat • 3 watercourse crossings (warmwater) - 1 crossing of the Avon River - 2 crossings of tributaries to Avon River • No SAR recorded in any crossing	**Moderate** potential to affect fish and fish habitat • 3 watercourse crossings (warmwater) - 1 crossing of the Avon River - 2 crossings of tributaries to Avon River • No SAR recorded in any crossing
1.2 Terrestrial Ecosystems	1.2.1 Wildlife	**Low** potential to affect wildlife and their habitat • 1 species of special concern (MNR S-Rank 3) in close proximity / within the alternative • 98 breeding bird species in the study area • Area sensitive bird species recorded in close proximity / within the alternative • MNR area sensitive bird species in close proximity / within the alternative • 4 frog species recorded in close proximity	**Low** potential to affect wildlife and their habitat • 1 species of special concern (MNR S-Rank 3) in close proximity / within the alternative • 98 breeding bird species in the study area • Area sensitive bird species recorded in close proximity / within the alternative • MNR area sensitive bird species in close proximity / within the alternative • 4 frog species recorded in close proximity	**Low** potential to affect wildlife and their habitat • 1 species of special concern (MNR S-Rank 3) in close proximity / within the alternative • 98 breeding bird species in the study area • Area sensitive bird species recorded in close proximity / within the alternative • MNR area sensitive bird species in close proximity / within the alternative • 4 frog species recorded in close proximity	**Low** potential to affect wildlife and their habitat • 1 species of special concern (MNR S-Rank 3) in close proximity / within the alternative • 98 breeding bird species in the study area • Area sensitive bird species recorded in close proximity / within the alternative • MNR area sensitive bird species in close proximity / within the alternative • 4 frog species recorded in close proximity	**Low** potential to affect wildlife and their habitat • 1 species of special concern (MNR S-Rank 3) in close proximity / within the alternative • 98 breeding bird species in the study area • Area sensitive bird species recorded in close proximity / within the alternative • MNR area sensitive bird species in close proximity / within the alternative • 4 frog species recorded in close proximity	**Low** potential to affect wildlife and their habitat • 1 species of special concern (MNR S-Rank 3) in close proximity / within the alternative • 98 breeding bird species in the study area • Area sensitive bird species recorded in close proximity / within the alternative • MNR area sensitive bird species in close proximity / within the alternative • 4 frog species recorded in close proximity
	1.2.2 Wetlands	**No** potential to affect wetlands • No wetlands impacted	**No** potential to affect wetlands • No wetlands impacted	**No** potential to affect wetlands • No wetlands impacted	**No** potential to affect wetlands • No wetlands impacted	**No** potential to affect wetlands • No wetlands impacted	**No** potential to affect wetlands • No wetlands impacted
	1.2.3 Forests (e.g. woodlands [forest stands, woodlots and interior forest habitat] and significant valley lands [valley and stream corridors])	**Low** potential to affect forested areas • No forested areas impacted	**Low** potential to affect forested areas • No forested areas impacted	**Low** potential to affect forested areas • No forested areas impacted	**Low** potential to affect forested areas • No forested areas impacted	**Low** potential to affect forested areas • No forested areas impacted	**Low** potential to affect forested areas • No forested areas impacted

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	1.2.4 Vegetation Species At Risk	**Low** potential to affect vegetation • 1 vegetation SAR (Harbinger of Spring, S-Rank 3) in close proximity	**Low** potential to affect vegetation • 1 vegetation SAR (Harbinger of Spring, S-Rank 3) in close proximity	**Low** potential to affect vegetation • 1 vegetation SAR (Harbinger of Spring, S-Rank 3) in close proximity	**Low** potential to affect vegetation • 1 vegetation SAR (Harbinger of Spring, S-Rank 3) in close proximity	**Low** potential to affect vegetation • 1 vegetation SAR (Harbinger of Spring, S-Rank 3) in close proximity	**Low** potential to affect vegetation • 1 vegetation SAR (Harbinger of Spring, S-Rank 3) in close proximity
	1.2.5 Designated/Special Areas (such as world biosphere reserves, heritage rivers, ESAs, ESPAs, ANSIs, environmental plan areas, conservation reserves; and the designated special areas of national parks, provincial parks, conservation areas, etc)	**High** potential to affect designated special areas • 1 designated special area crossed (Avon River is designated as Open Space Area in Perth east Official Plan)	**High** potential to affect designated special areas • 1 designated special area crossed (Avon River is designated as Open Space Area in Perth east Official Plan)	**High** potential to affect designated special areas • 1 designated special area crossed (Avon River is designated as Open Space Area in Perth east Official Plan)	**High** potential to affect designated special areas • 1 designated special area crossed (Avon River is designated as Open Space Area in Perth east Official Plan)	**High** potential to affect designated special areas • 1 designated special area crossed (Avon River is designated as Open Space Area in Perth east Official Plan)	**High** potential to affect designated special areas • 1 designated special area crossed (Avon River is designated as Open Space Area in Perth east Official Plan)
1.3 Groundwater	1.3.1 Areas of Groundwater Recharge and Discharge 1.3.2 Groundwater Source Areas and Wellhead Protection Areas	**Low** potential to affect areas of groundwater recharge / discharge areas / wellhead protection areas • 1 recharge areas / municipal wellhead protection areas impacted - Stratford Municipal Well – Steady State capture zone, 5.4 hectares impacted (0.4 % of the total WPA) • No temporary or long term change to groundwater recharge / discharge areas • Some surface runoff is expected to exceed infiltration for the majority of the route given the relatively impermeable nature of the surrounding soils	**Low** potential to affect areas of groundwater recharge / discharge areas / wellhead protection areas • 1 recharge areas / municipal wellhead protection areas impacted - Stratford Municipal Well – Steady State capture zone, 5.4 hectares impacted (0.4 % of the total WPA) • No temporary or long term change to groundwater recharge / discharge areas • Some surface runoff is expected to exceed infiltration for the majority of the route given the relatively impermeable nature of the surrounding soils	**Low** potential to affect areas of groundwater recharge / discharge areas / wellhead protection areas • 1 recharge areas / municipal wellhead protection areas impacted - Stratford Municipal Well – Steady State capture zone, 5.4 hectares impacted (0.4 % of the total WPA) • No temporary or long term change to groundwater recharge / discharge areas • Some surface runoff is expected to exceed infiltration for the majority of the route given the relatively impermeable nature of the surrounding soils	**Low** potential to affect areas of groundwater recharge / discharge areas / wellhead protection areas • 1 recharge areas / municipal wellhead protection areas impacted - Stratford Municipal Well – Steady State capture zone, 5.4 hectares impacted (0.4 % of the total WPA) • No temporary or long term change to groundwater recharge / discharge areas • Some surface runoff is expected to exceed infiltration for the majority of the route given the relatively impermeable nature of the surrounding soils	**Low** potential to affect areas of groundwater recharge / discharge areas / wellhead protection areas • 1 recharge areas / municipal wellhead protection areas impacted - Stratford Municipal Well – Steady State capture zone, 5.4 hectares impacted (0.4 % of the total WPA) • No temporary or long term change to groundwater recharge / discharge areas • Some surface runoff is expected to exceed infiltration for the majority of the route given the relatively impermeable nature of the surrounding soils	**Low** potential to affect areas of groundwater recharge / discharge areas / wellhead protection areas • 1 recharge areas / municipal wellhead protection areas impacted - Stratford Municipal Well – Steady State capture zone, 5.4 hectares impacted (0.4 % of the total WPA) • No temporary or long term change to groundwater recharge / discharge areas • Some surface runoff is expected to exceed infiltration for the majority of the route given the relatively impermeable nature of the surrounding soils

Highway 7&8 Transportation Corridor Planning and Class EA Study

EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford

Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	1.3.3 Large Volume Wells	**Low** potential to affect large volume wells • No large volume wells impacted	**Low** potential to affect large volume wells • No large volume wells impacted	**Low** potential to affect large volume wells • No large volume wells impacted	**Low** potential to affect large volume wells • No large volume wells impacted	**Low** potential to affect large volume wells • No large volume wells impacted	**Low** potential to affect large volume wells • No large volume wells impacted
	1.3.4 Private Wells	**Moderate** potential to affect private well use • No private wells displaced • 8 shallow dug wells in close proximity (<150 m) - Sensitive to surface contamination; potential short and long term impacts • 1 deep bedrock aquifer wells in close proximity (<150 m) - May require decommissioning and replacement	**Moderate** potential to affect private well use • No private wells displaced • 8 shallow dug wells in close proximity (<150 m) - Sensitive to surface contamination; potential short and long term impacts • 1 deep bedrock aquifer wells in close proximity (<150 m) - May require decommissioning and replacement	**Moderate** potential to affect private well use • No private wells displaced • 7 shallow dug wells in close proximity (<150 m) - Sensitive to surface contamination; potential short and long term impacts • 1 deep bedrock aquifer wells in close proximity (<150 m) - May require decommissioning and replacement	**Moderate** potential to affect private well use • No private wells displaced • 7 shallow dug wells in close proximity (<150 m) - Sensitive to surface contamination; potential short and long term impacts • 1 deep bedrock aquifer wells in close proximity (<150 m) - May require decommissioning and replacement	**Moderate** potential to affect private well use • No private wells displaced • 8 shallow dug wells in close proximity (<150 m) - Sensitive to surface contamination; potential short and long term impacts • 1 deep bedrock aquifer wells in close proximity (<150) - May require decommissioning and replacement	**Moderate** potential to affect private well use • No private wells displaced • 7 shallow dug wells in close proximity (<150 m) - Sensitive to surface contamination; potential short and long term impacts • 1 deep bedrock aquifer wells in close proximity (<150 m) - May require decommissioning and replacement
	1.3.5 Groundwater-Sensitive Ecosystems (e.g. groundwater fed wetlands, coldwater streams)	**Low** potential to affect groundwater sensitive ecosystems • No groundwater sensitive ecosystems impacted • Low potential for short and long term change to groundwater quantity / quality - Potential for long-term effects to groundwater quality due to increased road salt use and road run-off. - Potential for temporary effects to groundwater quantity if construction dewatering is required.	**Low** potential to affect groundwater sensitive ecosystems • No groundwater sensitive ecosystems impacted • Low potential for short and long term change to groundwater quantity / quality - Potential for long-term effects to groundwater quality due to increased road salt use and road run-off. - Potential for temporary effects to groundwater quantity if construction dewatering is required.	**Low** potential to affect groundwater sensitive ecosystems • No groundwater sensitive ecosystems impacted • Low potential for short and long term change to groundwater quantity / quality - Potential for long-term effects to groundwater quality due to increased road salt use and road run-off. - Potential for temporary effects to groundwater quantity if construction dewatering is required.	**Low** potential to affect groundwater sensitive ecosystems • No groundwater sensitive ecosystems impacted • Low potential for short and long term change to groundwater quantity / quality - Potential for long-term effects to groundwater quality due to increased road salt use and road run-off. - Potential for temporary effects to groundwater quantity if construction dewatering is required.	**Low** potential to affect groundwater sensitive ecosystems • No groundwater sensitive ecosystems impacted • Low potential for short and long term change to groundwater quantity / quality - Potential for long-term effects to groundwater quality due to increased road salt use and road run-off. - Potential for temporary effects to groundwater quantity if construction dewatering is required.	**Low** potential to affect groundwater sensitive ecosystems • No groundwater sensitive ecosystems impacted • Low potential for short and long term change to groundwater quantity / quality - Potential for long-term effects to groundwater quality due to increased road salt use and road run-off. - Potential for temporary effects to groundwater quantity if construction dewatering is required.

Highway 7&8 Transportation Corridor Planning and Class EA Study
EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford

Segment A Alternatives		Alternative A1	Alternative A2	Alternative A3	Alternative A4	Alternative A5	Alternative A6 - Recommended
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
1.4 Surface Water	1.4.1 Watershed / Sub-Watershed Drainage Features/Patterns 1.4.2 Surface Water Quality and Quantity	**Low** potential to affect drainage features / patterns and surface water quality / quantity • 3 watercourse crossings	**Low** potential to affect drainage features / patterns and surface water quality / quantity • 3 watercourse crossings	**Low** potential to affect drainage features / patterns and surface water quality / quantity • 3 watercourse crossings	**Low** potential to affect drainage features / patterns and surface water quality / quantity • 3 watercourse crossings	**Low** potential to affect drainage features / patterns and surface water quality / quantity • 3 watercourse crossings	**Low** potential to affect drainage features / patterns and surface water quality / quantity • 3 watercourse crossings
NATURAL ENVIRONMENT SUMMARY		**For all alternatives, potential impacts to features of the natural environment are comparable with no discernible differences.**					
2. Land Use / Socio-Economic Environmental Factors							
2.1 Land Use Planning Policies, Goals, Objectives	2.1.1 First Nations Land Claims	**No** potential to affect First Nations Land Claims • No First Nations Land Claims impacted - 5 First Nations Land Claims filed in the study area	**No** potential to affect First Nations Land Claims • No First Nations Land Claims impacted - 5 First Nations Land Claims filed in the study area	**No** potential to affect First Nations Land Claims • No First Nations Land Claims impacted - 5 First Nations Land Claims filed in the study area	**No** potential to affect First Nations Land Claims • No First Nations Land Claims impacted - 5 First Nations Land Claims filed in the study area	**No** potential to affect First Nations Land Claims • No First Nations Land Claims impacted - 5 First Nations Land Claims filed in the study area	**No** potential to affect First Nations Land Claims • No First Nations Land Claims impacted - 5 First Nations Land Claims filed in the study area
	2.1.2 Provincial/Federal land use planning policies/goals/objectives	*Previously addressed through the detailed planning phase.*					
	2.1.3 Municipal (regional and local) land use planning policies/ goals/objectives (Official Plans)	*Previously addressed through the detailed planning phase.*					
	2.1.4 Development Objectives of Private Property Owners	*Previously addressed through the detailed planning phase.*					
2.2 Land Use / Community	2.2.1 First Nation Reserves	**No** potential to affect First Nations Reserves • No First Nations Reserves in the study area	**No** potential to affect First Nations Reserves • No First Nations Reserves in the study area	**No** potential to affect First Nations Reserves • No First Nations Reserves in the study area	**No** potential to affect First Nations Reserves • No First Nations Reserves in the study area	**No** potential to affect First Nations Reserves • No First Nations Reserves in the study area	**No** potential to affect First Nations Reserves • No First Nations Reserves in the study area
	2.2.2 First Nations' Sacred Grounds	**Low** potential to affect First Nations Sacred Grounds • No known First Nations Sacred Grounds in the study area	**Low** potential to affect First Nations Sacred Grounds • No known First Nations Sacred Grounds in the study area	**Low** potential to affect First Nations Sacred Grounds • No known First Nations Sacred Grounds in the study area	**Low** potential to affect First Nations Sacred Grounds • No known First Nations Sacred Grounds in the study area	**Low** potential to affect First Nations Sacred Grounds • No known First Nations Sacred Grounds in the study area	**Low** potential to affect First Nations Sacred Grounds • No known First Nations Sacred Grounds in the study area

Highway 7&8 Transportation Corridor Planning and Class EA Study
EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford

Segment A Alternatives		Alternative A1	Alternative A2	Alternative A3	Alternative A4	Alternative A5	Alternative A6 - Recommended
Cross Section		2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
Crossing Road Treatments		Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	2.2.3 Urban and Rural Residential	**Low** potential for impacts to urban and rural residential areas • No residential properties impacted • Low impact on character and use of residential property because change is limited to a few individual rural residential properties • Low interference with residential community cohesion given the alternative does not pass through built up residential areas	**Low** potential for impacts to urban and rural residential areas • No residential properties impacted • Low impact on character and use of residential property because change is limited to a few individual rural residential properties • Low interference with residential community cohesion given the alternative does not pass through built up residential areas	**Moderate** potential for impacts to urban and rural residential areas • 2 residential properties impacted - 1 residential property loses frontage - Home is displaced on 1 residential property - 1 residential property completely displaced - No residential property severed • Low impact on character and use of residential property because change is limited to a few individual rural residential properties • Low interference with residential community cohesion given the alternative does not pass through built up residential areas	**Moderate** potential for impacts to urban and rural residential areas • 1 residential properties impacted - 1 residential properties lose frontage - Homes are displaced on 0 residential properties - No residential property completely displaced - No residential property severed • Low impact on character and use of residential property because change is limited to a few individual rural residential properties • Low interference with residential community cohesion given the alternative does not pass through built up residential areas	**Moderate** potential for impacts to urban and rural residential areas • 1 residential properties impacted - 1 residential properties lose frontage - Homes are displaced on 0 residential properties - No residential property completely displaced - No residential property severed • Low impact on character and use of residential property because change is limited to a few individual rural residential properties • Low interference with residential community cohesion given the alternative does not pass through built up residential areas	**High** potential for impacts to urban and rural residential areas • 2 residential properties impacted - 1 residential property loses frontage - Home is displaced on 1 residential property - 1 residential property completely displaced - No residential property severed • Low impact on character and use of residential property because change is limited to a few individual rural residential properties • Low interference with residential community cohesion given the alternative does not pass through built up residential areas
	2.2.4 Commercial/Industrial	**Low** potential for impacts to commercial and industrial areas • No commercial / industrial properties impacted • No commercial / industrial property impacted, which results in low impact on character and use of commercial / industrial areas	**Low** potential for impacts to commercial and industrial areas • No commercial / industrial properties impacted • No commercial / industrial property impacted, which results in low impact on character and use of commercial / industrial areas	**Moderate** potential for impacts to commercial and industrial areas • 2 commercial / industrial properties impacted - 1 commercial / industrial property loses frontage - 1 commercial / industrial building is displaced and access must be relocated • Low impact on character and use of commercial / industrial areas	**Low** potential for impacts to commercial and industrial areas • No commercial / industrial properties impacted • No commercial / industrial property impacted, which results in low impact on character and use of commercial / industrial areas	**Low** potential for impacts to commercial and industrial areas • No commercial / industrial properties impacted • No commercial / industrial property impacted, which results in low impact on character and use of commercial / industrial areas	**Moderate** potential for impacts to commercial and industrial areas • 2 commercial / industrial properties impacted - 1 commercial / industrial property loses frontage - 1 commercial / industrial building is displaced and access must be relocated • Low impact on character and use of commercial / industrial areas

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	2.2.5 Tourist Areas and Attractions (e.g. museums, theatres, etc.)	**No** potential for impacts to tourist areas and attractions • No tourist areas / attractions impacted • No impacts on use, character and cohesion of tourist areas / attractions	**No** potential for impacts to tourist areas and attractions • No tourist areas / attractions impacted • No impacts on use, character and cohesion of tourist areas / attractions	**No** potential for impacts to tourist areas and attractions • No tourist areas / attractions impacted • No impacts on use, character and cohesion of tourist areas / attractions	**No** potential for impacts to tourist areas and attractions • No tourist areas / attractions impacted • No impacts on use, character and cohesion of tourist areas / attractions	**No** potential for impacts to tourist areas and attractions • No tourist areas / attractions impacted • No impacts on use, character and cohesion of tourist areas / attractions	**No** potential for impacts to tourist areas and attractions • No tourist areas / attractions impacted • No impacts on use, character and cohesion of tourist areas / attractions
	2.2.6 Community Facilities / Institutions (e.g. hospitals, schools, places of worship, community features, municipal parks, public spaces, golf courses, trails, greenways and open space linkages)	**No** potential for impacts to community facilities and institutions • No community facilities / institutions impacted • No impacts on use, character and cohesion of community facilities / institutions	**No** potential for impacts to community facilities and institutions • No community facilities / institutions impacted • No impacts on use, character and cohesion of community facilities / institutions	**No** potential for impacts to community facilities and institutions • No community facilities / institutions impacted • No impacts on use, character and cohesion of community facilities / institutions	**No** potential for impacts to community facilities and institutions • No community facilities / institutions impacted • No impacts on use, character and cohesion of community facilities / institutions	**No** potential for impacts to community facilities and institutions • No community facilities / institutions impacted • No impacts on use, character and cohesion of community facilities / institutions	**No** potential for impacts to community facilities and institutions • No community facilities / institutions impacted • No impacts on use, character and cohesion of community facilities / institutions
	2.2.7 Municipal Infrastructure and Public Service Facilities (e.g. sewage and water services, police/emergency services, local utilities)	**No** potential to affect Municipal Infrastructure and Public Service Facilities • No municipal infrastructure / public service facilities impacted	**No** potential to affect Municipal Infrastructure and Public Service Facilities • No municipal infrastructure / public service facilities impacted	**No** potential to affect Municipal Infrastructure and Public Service Facilities • No municipal infrastructure / public service facilities impacted	**No** potential to affect Municipal Infrastructure and Public Service Facilities • No municipal infrastructure / public service facilities impacted	**No** potential to affect Municipal Infrastructure and Public Service Facilities • No municipal infrastructure / public service facilities impacted	**No** potential to affect Municipal Infrastructure and Public Service Facilities • No municipal infrastructure / public service facilities impacted
	2.2.8 Downtown Historic Crossroads Function	**No** potential to affect Downtown or Historic Crossroads • No historic downtown cross roads in this segment	**No** potential to affect Downtown or Historic Crossroads • No historic downtown cross roads in this segment	**No** potential to affect Downtown or Historic Crossroads • No historic downtown cross roads in this segment	**No** potential to affect Downtown or Historic Crossroads • No historic downtown cross roads in this segment	**No** potential to affect Downtown or Historic Crossroads • No historic downtown cross roads in this segment	**No** potential to affect Downtown or Historic Crossroads • No historic downtown cross roads in this segment
	2.2.9 Out of Way Travel for Access to / from local land uses	**Low** potential to affect Out of Way Travel • No crossing roads where crossing road treatment introduces out-of-way travel	**Low** potential to affect Out of Way Travel • No crossing roads where crossing road treatment introduces out-of-way travel	**Low** potential to affect Out of Way Travel • No crossing roads where crossing road treatment introduces out-of-way travel	**Low** potential to affect Out of Way Travel • No crossing roads where crossing road treatment introduces out-of-way travel	**Low** potential to affect Out of Way Travel • No crossing roads where crossing road treatment introduces out-of-way travel	**Low** potential to affect Out of Way Travel • No crossing roads where crossing road treatment introduces out-of-way travel

Highway 7&8 Transportation Corridor Planning and Class EA Study
EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford

Segment A Alternatives		Alternative A1	Alternative A2	Alternative A3	Alternative A4	Alternative A5	Alternative A6 - Recommended
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
2.3 Noise Sensitive Areas (NSAs) (residential areas and sensitive institutional uses)	2.3.1 Highway Noise	**Low** potential for highway noise impacts. • Noise levels are anticipated to increase based on additional traffic volumes using the corridor. • Design alternatives presented result in no discernible differences in noise levels for receptors adjacent to or in close proximity to the corridor.	**Low** potential for highway noise impacts. • Noise levels are anticipated to increase based on additional traffic volumes using the corridor. • Design alternatives presented result in no discernible differences in noise levels for receptors adjacent to or in close proximity to the corridor.	**Low** potential for highway noise impacts. • Noise levels are anticipated to increase based on additional traffic volumes using the corridor. • Design alternatives presented result in no discernible differences in noise levels for receptors adjacent to or in close proximity to the corridor.	**Low** potential for highway noise impacts. • Noise levels are anticipated to increase based on additional traffic volumes using the corridor. • Design alternatives presented result in no discernible differences in noise levels for receptors adjacent to or in close proximity to the corridor.	**Low** potential for highway noise impacts. • Noise levels are anticipated to increase based on additional traffic volumes using the corridor. • Design alternatives presented result in no discernible differences in noise levels for receptors adjacent to or in close proximity to the corridor.	**Low** potential for highway noise impacts. • Noise levels are anticipated to increase based on additional traffic volumes using the corridor. • Design alternatives presented result in no discernible differences in noise levels for receptors adjacent to or in close proximity to the corridor.
	2.3.2 Construction Noise	**Moderate** potential for construction noise impacts • For all alternatives, construction activities will vary temporally and spatially as the project progresses. • Noise levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location. • At this time, detailed construction plans are not available. Construction noise mitigation in the form of a construction Code of Practice will be written into the contract documentation for the contractor.	**Moderate** potential for construction noise impacts • For all alternatives, construction activities will vary temporally and spatially as the project progresses. • Noise levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location. • At this time, detailed construction plans are not available. Construction noise mitigation in the form of a construction Code of Practice will be written into the contract documentation for the contractor.	**Moderate** potential for construction noise impacts • For all alternatives, construction activities will vary temporally and spatially as the project progresses. • Noise levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location. • At this time, detailed construction plans are not available. Construction noise mitigation in the form of a construction Code of Practice will be written into the contract documentation for the contractor.	**Moderate** potential for construction noise impacts • For all alternatives, construction activities will vary temporally and spatially as the project progresses. • Noise levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location. • At this time, detailed construction plans are not available. Construction noise mitigation in the form of a construction Code of Practice will be written into the contract documentation for the contractor.	**Moderate** potential for construction noise impacts • For all alternatives, construction activities will vary temporally and spatially as the project progresses. • Noise levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location. • At this time, detailed construction plans are not available. Construction noise mitigation in the form of a construction Code of Practice will be written into the contract documentation for the contractor.	**Moderate** potential for construction noise impacts • For all alternatives, construction activities will vary temporally and spatially as the project progresses. • Noise levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location. • At this time, detailed construction plans are not available. Construction noise mitigation in the form of a construction Code of Practice will be written into the contract documentation for the contractor.
2.4 Agriculture	2.4.1 Agriculture - Canada Land Inventory Class 1,2,3 Land	**Moderate** potential for impacts to CLI Class 1,2, 3 lands • Potentially displaces 2.7 hectares of agricultural land from a total of 6 agricultural properties	**Moderate** potential for impacts to CLI Class 1,2, 3 lands • Potentially displaces 2.9 hectares of agricultural land from a total of 6 agricultural properties	**Moderate** potential for impacts to CLI Class 1,2, 3 lands • Potentially displaces 2.7 hectares of agricultural land from a total of 6 agricultural properties	**High** potential for impacts to CLI Class 1,2, 3 lands • Potentially displaces 3.5 hectares of agricultural land from a total of 18 agricultural properties	potential for impacts to CLI Class 1,2, 3 lands • Potentially displaces 3.8 hectares of agricultural land from a total of 18 agricultural properties	**High** potential for impacts to CLI Class 1,2, 3 lands • Potentially displaces 3.6 hectares of agricultural land from a total of 18 agricultural properties
	2.4.2 Agricultural - Farm Infrastructure	**Low** potential for impacts to farm infrastructure	**Low** potential for impacts to farm infrastructure	**Low** potential for impacts to farm infrastructure	**Moderate** potential for impacts to farm infrastructure	**Moderate** potential for impacts to farm infrastructure	**Moderate** potential for impacts to farm infrastructure

Highway 7&8 Transportation Corridor Planning and Class EA Study
EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford

Segment A Alternatives		Alternative A1	Alternative A2	Alternative A3	Alternative A4	Alternative A5	Alternative A6 - Recommended
Cross Section		2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
Crossing Road Treatments		Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
		• No farm buildings (excluding houses) displaced • 6 farm properties with tile drainage / irrigation systems impacted (assume all impacted agricultural properties are tile drained)	• No farm buildings (excluding houses) displaced • 6 farm properties with tile drainage / irrigation systems impacted (assume all impacted agricultural properties are tile drained)	• No farm buildings (excluding houses) displaced • 6 farm properties with tile drainage / irrigation systems impacted (assume all impacted agricultural properties are tile drained)	• No farm buildings (excluding houses) displaced • 18 farm properties with tile drainage / irrigation systems impacted (assume all impacted agricultural properties are tile drained)	• No farm buildings (excluding houses) displaced • 18 farm properties with tile drainage / irrigation systems impacted (assume all impacted agricultural properties are tile drained)	• No farm buildings (excluding houses) displaced • 18 farm properties with tile drainage / irrigation systems impacted (assume all impacted agricultural properties are tile drained)
	2.4.3 Agriculture – Operations on Individual Farms	**Low** potential for impacts to operations on individual farms • 6 agricultural properties impacted - No agricultural properties are severed and no parcels become potentially landlocked - 6 agricultural properties lose frontage	**Low** potential for impacts to operations on individual farms • 6 agricultural properties impacted - No agricultural properties are severed and no parcels become potentially landlocked - 6 agricultural properties lose frontage	**Low** potential for impacts to operations on individual farms • 6 agricultural properties impacted - No agricultural properties are severed and no parcels become potentially landlocked - 6 agricultural properties lose frontage	**Moderate** potential for impacts to operations on individual farms • 18 agricultural properties impacted - No agricultural properties are severed and no parcels become potentially landlocked - 18 agricultural properties lose frontage	**Moderate** potential for impacts to operations on individual farms • 18 agricultural properties impacted - No agricultural properties are severed and no parcels become potentially landlocked - 18 agricultural properties lose frontage	**Moderate** potential for impacts to operations on individual farms • 18 agricultural properties impacted - No agricultural properties are severed and no parcels become potentially landlocked - 18 agricultural properties lose frontage
	2.4.4 Agriculture – Transportation Linkages between Integrated Agricultural Business Units	**Moderate** potential for impacts to transportation linkages between integrated agricultural business units • Grade separation on Road 125 improves travel across railway • Line 32 and Road 125 converted to highway use with additional traffic causing disruption to agricultural linkage • Linkage and travel along highway improved for agricultural vehicles and local users with introduction left turn lanes	**Moderate** potential for impacts to transportation linkages between integrated agricultural business units • Grade separation on Road 125 improves travel across railway • Line 32 and Road 125 converted to highway use with additional traffic causing disruption to agricultural linkage • Linkage and travel along highway improved for agricultural vehicles and local users with introduction left turn lanes	**High** potential for impacts to transportation linkages between integrated agricultural business units • Grade separation on Road 125 improves travel across railway • Line 32 and Road 125 converted to highway use with additional traffic causing disruption to agricultural linkage • Linkage and travel along highway improved for local users with introduction left turn lanes	**Low** potential for impacts to transportation linkages between integrated agricultural business units • Grade separation on Road 125 improves travel across railway • Line 32 and Road 125 converted to highway use with additional traffic causing disruption to agricultural linkage • Linkage and travel along highway significantly improved for agricultural vehicles and local users with introduction of CLTL and left turn lanes	**Low** potential for impacts to transportation linkages between integrated agricultural business units • Grade separation on Road 125 improves travel across railway • Line 32 and Road 125 converted to highway use with additional traffic causing disruption to agricultural linkage • Linkage and travel along highway significantly improved for agricultural vehicles and local users with introduction of CLTL and left turn lanes	**High** potential for impacts to transportation linkages between integrated agricultural business units • Grade separation on Road 125 improves travel across railway • Line 32 and Road 125 converted to highway use with additional traffic causing disruption to agricultural linkage • Linkage and travel along highway significantly improved for local users with introduction of CLTL and left turn lanes

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
Cross Section		2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
Crossing Road Treatments		Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
2.5 Land Use / Resources	2.5.1 First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes (e.g. hunting, fishing, harvesting of country foods, harvesting of medicinal plants)	**Low** potential to affect First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes • All alternatives result in similar potential to affect First Nations People's Treaty Rights of Use of Land / Resources	**Low** potential to affect First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes • All alternatives result in similar potential to affect First Nations People's Treaty Rights of Use of Land / Resources	**Low** potential to affect First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes • All alternatives result in similar potential to affect First Nations People's Treaty Rights of Use of Land / Resources	**Low** potential to affect First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes • All alternatives result in similar potential to affect First Nations People's Treaty Rights of Use of Land / Resources	**Low** potential to affect First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes • All alternatives result in similar potential to affect First Nations People's Treaty Rights of Use of Land / Resources	**Low** potential to affect First Nations People's Treaty Rights or Use of Land and Resources for Traditional Purposes • All alternatives result in similar potential to affect First Nations People's Treaty Rights of Use of Land / Resources
	2.5.2 Parks and Recreational Areas (e.g. national/provincial parks, conservation areas)	**No** potential to affect parks and recreational areas • No parks or conservation areas impacted	**No** potential to affect parks and recreational areas • No parks or conservation areas impacted	**No** potential to affect parks and recreational areas • No parks or conservation areas impacted	**No** potential to affect parks and recreational areas • No parks or conservation areas impacted	**No** potential to affect parks and recreational areas • No parks or conservation areas impacted	**No** potential to affect parks and recreational areas • No parks or conservation areas impacted
	2.5.3 Aggregates, Mineral Resources	**No** potential to affect aggregate / mineral resources • No aggregate / mineral resources impacted	**No** potential to affect aggregate / mineral resources • No aggregate / mineral resources impacted	**No** potential to affect aggregate / mineral resources • No aggregate / mineral resources impacted	**No** potential to affect aggregate / mineral resources • No aggregate / mineral resources impacted	**No** potential to affect aggregate / mineral resources • No aggregate / mineral resources impacted	**No** potential to affect aggregate / mineral resources • No aggregate / mineral resources impacted
2.6 Major Utility Transmission Corridors (e.g. railroads, hydro, gas, oil)		**Low** potential to affect major utility corridors • 1 crossing of railway corridor	**Low** potential to affect major utility corridors • 1 crossing of railway corridor	**Low** potential to affect major utility corridors • 1 crossing of railway corridor	**Low** potential to affect major utility corridors • 1 crossing of railway corridor	**Low** potential to affect major utility corridors • 1 crossing of railway corridor	**Low** potential to affect major utility corridors • 1 crossing of railway corridor
2.7 Contaminated Property and Waste Management (e.g. Landfills, Hazardous Waste Sites, "Brownfield" Areas, other known contaminated sites, and high-risk contamination areas)		**Low** potential to affect contaminated property / waste management sites • 1 closed waste disposal site in close proximity (west of study limits)	**Low** potential to affect contaminated property / waste management sites • 1 closed waste disposal site in close proximity (west of study limits)	**Low** potential to affect contaminated property / waste management sites • 1 closed waste disposal site in close proximity (west of study limits)	**Low** potential to affect contaminated property / waste management sites • 1 closed waste disposal site in close proximity (west of study limits)	**Low** potential to affect contaminated property / waste management sites • 1 closed waste disposal site in close proximity (west of study limits)	**Low** potential to affect contaminated property / waste management sites • 1 closed waste disposal site in close proximity (west of study limits)
2.8 Landscape Composition	2.8.1 Scenic Composition (total aesthetic value of landscape components)	**Low** potential to affect scenic composition / aesthetic value • Low impacts to scenic composition given alternative uses existing roads	**Low** potential to affect scenic composition / aesthetic value • Low impacts to scenic composition given alternative uses existing roads	**Low** potential to affect scenic composition / aesthetic value • Low impacts to scenic composition given alternative uses existing roads	**Low** potential to affect scenic composition / aesthetic value • Low impacts to scenic composition given alternative uses existing roads	**Low** potential to affect scenic composition / aesthetic value • Low impacts to scenic composition given alternative uses existing roads	**Low** potential to affect scenic composition / aesthetic value • Low impacts to scenic composition given alternative uses existing roads

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	2.8.2 Sensitive Viewer Groups	**Low** potential to affect sensitive viewer groups • No sensitive viewer groups adjacent to this alternative where vistas / outlooks will be impacted	**Low** potential to affect sensitive viewer groups • No sensitive viewer groups adjacent to this alternative where vistas / outlooks will be impacted	**Low** potential to affect sensitive viewer groups • No sensitive viewer groups adjacent to this alternative where vistas / outlooks will be impacted	**Low** potential to affect sensitive viewer groups • No sensitive viewer groups adjacent to this alternative where vistas / outlooks will be impacted	**Low** potential to affect sensitive viewer groups • No sensitive viewer groups adjacent to this alternative where vistas / outlooks will be impacted	**Low** potential to affect sensitive viewer groups • No sensitive viewer groups adjacent to this alternative where vistas / outlooks will be impacted
	2.8.3 Scenic value of views/vistas from the transportation facility	**Low** potential to affect views / vistas from the facility • All alternatives result in similar alteration of the vistas / outlooks for users of the transportation facility	**Low** potential to affect views / vistas from the facility • All alternatives result in similar alteration of the vistas / outlooks for users of the transportation facility	**Low** potential to affect views / vistas from the facility • All alternatives result in similar alteration of the vistas / outlooks for users of the transportation facility	**Low** potential to affect views / vistas from the facility • All alternatives result in similar alteration of the vistas / outlooks for users of the transportation facility	**Low** potential to affect views / vistas from the facility • All alternatives result in similar alteration of the vistas / outlooks for users of the transportation facility	**Low** potential to affect views / vistas from the facility • All alternatives result in similar alteration of the vistas / outlooks for users of the transportation facility
	2.8.4 Specimen Trees	**Moderate** potential to affect specimen trees	**Moderate** potential to affect specimen trees	**Moderate** potential to affect specimen trees	**Moderate** potential to affect specimen trees	**Moderate** potential to affect specimen trees	**Moderate** potential to affect specimen trees
2.9 Air Quality	2.9.1 Regional Air Quality and Total Contaminant and Greenhouse Gas Emissions	*Previously considered during the detailed planning phase.*					
	2.9.2 Local Air Quality and Sensitive Receptors to Air Pollutants	**Low** potential to affect air quality for sensitive receptors • Design alternatives presented result in no discernible differences in air quality levels for sensitive receptors adjacent to or in close proximity to the corridor.	**Low** potential to affect air quality for sensitive receptors • Design alternatives presented result in no discernible differences in air quality levels for sensitive receptors adjacent to or in close proximity to the corridor.	**Low** potential to affect air quality for sensitive receptors • Design alternatives presented result in no discernible differences in air quality levels for sensitive receptors adjacent to or in close proximity to the corridor.	**Low** potential to affect air quality for sensitive receptors • Design alternatives presented result in no discernible differences in air quality levels for sensitive receptors adjacent to or in close proximity to the corridor.	**Low** potential to affect air quality for sensitive receptors • Design alternatives presented result in no discernible differences in air quality levels for sensitive receptors adjacent to or in close proximity to the corridor.	**Low** potential to affect air quality for sensitive receptors • Design alternatives presented result in no discernible differences in air quality levels for sensitive receptors adjacent to or in close proximity to the corridor.
SOCIO-ECONOMIC SUMMARY		**From a Socio-economic perspective, Alternative A1 and A2 have the least direct impacts on the environment. However, Alternatives A4 and A5 have the most potential to have positive, indirect impacts on local and agricultural users of the system with only slightly larger direct impacts on residential / agricultural land uses (than A1 and A2) and are most preferred.**					
3. Cultural Environmental 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	**No** potential for impacts to buildings or "standing" sites of architectural or heritage significance • No sites of architectural or heritage significance impacted	**No** potential for impacts to buildings or "standing" sites of architectural or heritage significance • No sites of architectural or heritage significance impacted	**No** potential for impacts to buildings or "standing" sites of architectural or heritage significance • No sites of architectural or heritage significance impacted	**No** potential for impacts to buildings or "standing" sites of architectural or heritage significance • No sites of architectural or heritage significance impacted	**No** potential for impacts to buildings or "standing" sites of architectural or heritage significance • No sites of architectural or heritage significance impacted	**No** potential for impacts to buildings or "standing" sites of architectural or heritage significance • No sites of architectural or heritage significance impacted

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	3.1.2 Heritage Bridges	**No** potential for impacts to heritage bridges • No heritage bridges displaced	**No** potential for impacts to heritage bridges • No heritage bridges displaced	**No** potential for impacts to heritage bridges • No heritage bridges displaced	**No** potential for impacts to heritage bridges • No heritage bridges displaced	**No** potential for impacts to heritage bridges • No heritage bridges displaced	**No** potential for impacts to heritage bridges • No heritage bridges displaced
	3.1.3 Areas of Historic 19^{th} Century Settlement	**No** potential for impacts to areas of historic 19^{th} century settlement • No intrusion into 19th century settlement areas	**No** potential for impacts to areas of historic 19^{th} century settlement • No intrusion into 19th century settlement areas	**No** potential for impacts to areas of historic 19^{th} century settlement • No intrusion into 19th century settlement areas	**No** potential for impacts to areas of historic 19^{th} century settlement • No intrusion into 19th century settlement areas	**No** potential for impacts to areas of historic 19^{th} century settlement • No intrusion into 19th century settlement areas	**No** potential for impacts to areas of historic 19^{th} century settlement • No intrusion into 19th century settlement areas
	3.1.4 Cultural Heritage Landscapes (collection of individual man-made features modifying pristine landscape)	**No** potential for impacts to cultural landscapes • No cultural landscapes identified	**No** potential for impacts to cultural landscapes • No cultural landscapes identified	**No** potential for impacts to cultural landscapes • No cultural landscapes identified	**No** potential for impacts to cultural landscapes • No cultural landscapes identified	**No** potential for impacts to cultural landscapes • No cultural landscapes identified	**No** potential for impacts to cultural landscapes • No cultural landscapes identified
	3.1.5 First Nations' Burial Sites	**Low** potential for impacts to First Nations burial sites • No known / reported First Nation burial sites in the study area	**Low** potential for impacts to First Nations burial sites • No known / reported First Nation burial sites in the study area	**Low** potential for impacts to First Nations burial sites • No known / reported First Nation burial sites in the study area	**Low** potential for impacts to First Nations burial sites • No known / reported First Nation burial sites in the study area	**Low** potential for impacts to First Nations burial sites • No known / reported First Nation burial sites in the study area	**Low** potential for impacts to First Nations burial sites • No known / reported First Nation burial sites in the study area
	3.1.6 Cemeteries	**Low** potential for impacts to cemeteries • No known cemeteries impacted	**Low** potential for impacts to cemeteries • No known cemeteries impacted	**Low** potential for impacts to cemeteries • No known cemeteries impacted	**Low** potential for impacts to cemeteries • No known cemeteries impacted	**Low** potential for impacts to cemeteries • No known cemeteries impacted	**Low** potential for impacts to cemeteries • No known cemeteries impacted
3.2 Cultural Heritage – Archaeology	3.2.1 Pre-Historic and Historic First Nations Sites 3.2.2 Historic Euro-Canadian Archaeological Sites	**Low** potential for destruction or disturbance of documented or undocumented archaeological sites • General concentration of registered archaeological sites in vicinity of existing roads (Road 125, Line 32 and Highway 8) • Some potential for previously undocumented archaeological sites within new areas of right-of-way	**Low** potential for destruction or disturbance of documented or undocumented archaeological sites • General concentration of registered archaeological sites in vicinity of existing roads (Road 125, Line 32 and Highway 8) • Some potential for previously undocumented archaeological sites within new areas of right-of-way	**Low** potential for destruction or disturbance of documented or undocumented archaeological sites • General concentration of registered archaeological sites in vicinity of existing roads (Road 125, Line 32 and Highway 8) • Some potential for previously undocumented archaeological sites within new areas of right-of-way	**Low** potential for destruction or disturbance of documented or undocumented archaeological sites • General concentration of registered archaeological sites in vicinity of existing roads (Road 125, Line 32 and Highway 8) • Some potential for previously undocumented archaeological sites within new areas of right-of-way	**Low** potential for destruction or disturbance of documented or undocumented archaeological sites • General concentration of registered archaeological sites in vicinity of existing roads (Road 125, Line 32 and Highway 8) • Some potential for previously undocumented archaeological sites within new areas of right-of-way	**Low** potential for destruction or disturbance of documented or undocumented archaeological sites • General concentration of registered archaeological sites in vicinity of existing roads (Road 125, Line 32 and Highway 8) • Some potential for previously undocumented archaeological sites within new areas of right-of-way

Highway 7&8 Transportation Corridor Planning and Class EA Study

EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
CULTURAL ENVIRONMENT SUMMARY		**For all alternatives, potential impacts to features of the cultural environment are comparable with no discernible differences.**					
4. Area Economy	Previously Addressed During the Needs Assessment Phase						
5. Transportation Factors							
5.1 Area Transportation System Capacity and Efficiency	5.1 Federal/Provincial/Municipal transportation planning policies/goals/objectives	*Previously addressed during Needs Assessment Phase*	Highway 7&8 is a regionally significant part of the overall provincial highway network. It plays a key role in linking communities in south-western Ontario and supports economic prosperity across Ontario.				
	5.2 Efficient movement of people	**Moderate** potential to support efficient movement of people • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of people • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of people • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of people • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of people • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of people • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route
	5.3 Efficient movement of goods	**Moderate** potential to support efficient movement of goods • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of goods • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of goods • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of goods • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of goods • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route	**Moderate** potential to support efficient movement of goods • Route utilizes existing roadway corridors (Hwy 8, Road 125, Perth Line 32), with reduced level of service given number of private driveways • Direct route
5.2 System reliability / redundancy		**Low** potential to support system reliability and redundancy • Route uses existing roadway corridors, which does not provide an alternate route to accommodate travel during adverse conditions; however, parallel municipal roads do currently serve this function	**Low** potential to support system reliability and redundancy • Route uses existing roadway corridors, which does not provide an alternate route to accommodate travel during adverse conditions; however, parallel municipal roads do currently serve this function	**Low** potential to support system reliability and redundancy • Route uses existing roadway corridors, which does not provide an alternate route to accommodate travel during adverse conditions; however, parallel municipal roads do currently serve this function	**Low** potential to support system reliability and redundancy • Route uses existing roadway corridors, which does not provide an alternate route to accommodate travel during adverse conditions; however, parallel municipal roads do currently serve this function	**Low** potential to support system reliability and redundancy • Route uses existing roadway corridors, which does not provide an alternate route to accommodate travel during adverse conditions; however, parallel municipal roads do currently serve this function	**Low** potential to support system reliability and redundancy • Route uses existing roadway corridors, which does not provide an alternate route to accommodate travel during adverse conditions; however, parallel municipal roads do currently serve this function

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
Cross Section		2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
Crossing Road Treatments		Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
5.3 Safety	5.3.1 Traffic Safety	**Low** potential to improve traffic safety • Route uses existing roadway corridors with direct access points associated with private entrances • Two lane cross section does not provide for good passing opportunity • Left turn movements to private entrances must be made from through lane	**Low** potential to improve traffic safety • Route uses existing roadway corridors with direct access points associated with private entrances • Two lane cross section does not provide for good passing opportunity • Left turn movements to private entrances must be made from through lane	**Low** potential to improve traffic safety • Route uses existing roadway corridors with direct access points associated with private entrances • Two lane cross section does not provide for good passing opportunity • Left turn movements to private entrances must be made from through lane • Reduced collision potential with roundabouts	**Moderate** potential to improve traffic safety • Route uses existing roadway corridors with direct access points associated with private entrances • Three lane cross section does not provide for good passing opportunity but centre left turn lane would accommodate safer left turns along the highway to private entrances	**Moderate** potential to improve traffic safety • Route uses existing roadway corridors with direct access points associated with private entrances • Three lane cross section does not provide for good passing opportunity but centre left turn lane would accommodate safer left turns along the highway to private entrances	**Moderate** potential to improve traffic safety • Route uses existing roadway corridors with direct access points associated with private entrances • Three lane cross section does not provide for good passing opportunity but centre left turn lane would accommodate safer left turns along the highway to private entrances • Reduced collision potential with roundabouts
	5.3.2 Emergency Access	**High** potential to support emergency access to/from route • Full moves connection provided at all sideroads	**High** potential to support emergency access to/from route • Full moves connection provided at all sideroads	**High** potential to support emergency access to/from route • Full moves connection provided at all sideroads	**High** potential to support emergency access to/from route • Full moves connection provided at all sideroads	**High** potential to support emergency access to/from route • Full moves connection provided at all sideroads	**High** potential to support emergency access to/from route • Full moves connection provided at all sideroads
	5.3.3 Pedestrian, Cyclist and Snowmobile Safety within the highway right-of-way	**Low** potential to improve pedestrian, cyclist and snowmobile safety • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to improve pedestrian, cyclist and snowmobile safety • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to improve pedestrian, cyclist and snowmobile safety • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to improve pedestrian, cyclist and snowmobile safety • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to improve pedestrian, cyclist and snowmobile safety • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to improve pedestrian, cyclist and snowmobile safety • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations
5.4 Mobility and Access	5.4.1 Modal integration, balance and efficiency	**Low** potential to improve modal integration, balance and efficiency • Transit service is potentially constrained by bypass of downtown	**Low** potential to improve modal integration, balance and efficiency • Transit service is potentially constrained by bypass of downtown	**Low** potential to improve modal integration, balance and efficiency • Transit service is potentially constrained by bypass of downtown	**Low** potential to improve modal integration, balance and efficiency • Transit service is potentially constrained by bypass of downtown	**Low** potential to improve modal integration, balance and efficiency • Transit service is potentially constrained by bypass of downtown	**Low** potential to improve modal integration, balance and efficiency • Transit service is potentially constrained by bypass of downtown

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
		Stratford, but is supported by direct connection to development along Lorne Avenue • Use of existing roadways would constrain transit travel performance	Stratford, but is supported by direct connection to development along Lorne Avenue • Use of existing roadways would constrain transit travel performance	Stratford, but is supported by direct connection to development along Lorne Avenue • Use of existing roadways would constrain transit travel performance	Stratford, but is supported by direct connection to development along Lorne Avenue • Use of existing roadways would constrain transit travel performance	Stratford, but is supported by direct connection to development along Lorne Avenue • Use of existing roadways would constrain transit travel performance	Stratford, but is supported by direct connection to development along Lorne Avenue • Use of existing roadways would constrain transit travel performance
	5.4.2 Linkages to Population and Employment Centres	**High** potential to improve linkages to population and employment centres • Improved linkage to Stratford area to/from the east via 4-lane facility	**High** potential to improve linkages to population and employment centres • Improved linkage to Stratford area to/from the east via 4-lane facility	**High** potential to improve linkages to population and employment centres • Improved linkage to Stratford area to/from the east via 4-lane facility	**High** potential to improve linkages to population and employment centres • Improved linkage to Stratford area to/from the east via 4-lane facility	**High** potential to improve linkages to population and employment centres • Improved linkage to Stratford area to/from the east via 4-lane facility	**High** potential to improve linkages to population and employment centres • Improved linkage to Stratford area to/from the east via 4-lane facility
	5.4.3 Recreation and Tourism Travel	**Moderate** potential to support recreation and tourism travel • Stratford tourist area is bypassed, but tourist travel through the analysis area and to/from Highway 8 is facilitated	**Moderate** potential to support recreation and tourism travel • Stratford tourist area is bypassed, but tourist travel through the analysis area and to/from Highway 8 is facilitated	**Moderate** potential to support recreation and tourism travel • Stratford tourist area is bypassed, but tourist travel through the analysis area and to/from Highway 8 is facilitated	**Moderate** potential to support recreation and tourism travel • Stratford tourist area is bypassed, but tourist travel through the analysis area and to/from Highway 8 is facilitated	**Moderate** potential to support recreation and tourism travel • Stratford tourist area is bypassed, but tourist travel through the analysis area and to/from Highway 8 is facilitated	**Moderate** potential to support recreation and tourism travel • Stratford tourist area is bypassed, but tourist travel through the analysis area and to/from Highway 8 is facilitated
	5.4.4 Accommodate mobility of pedestrians, cyclists and snowmobiles	**Low** potential to accommodate mobility of pedestrians, cyclists and snowmobiles • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to accommodate mobility of pedestrians, cyclists and snowmobiles • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to accommodate mobility of pedestrians, cyclists and snowmobiles • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to accommodate mobility of pedestrians, cyclists and snowmobiles • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to accommodate mobility of pedestrians, cyclists and snowmobiles • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations	**Low** potential to accommodate mobility of pedestrians, cyclists and snowmobiles • Cyclist movements within right-of-way can be accommodated via improved shoulders • Pedestrian, cyclist and snowmobile movements across right-of-way can be provided at intersection locations and/or designated crossing locations
5.5 Network Compatibility	5.5.1 Network Connectivity	**High** potential to improve transportation system connectivity • Provides improved linkage between Stratford and New Hamburg	**High** potential to improve transportation system connectivity • Provides improved linkage between Stratford and New Hamburg	**High** potential to improve transportation system connectivity • Provides improved linkage between Stratford and New Hamburg	**High** potential to improve transportation system connectivity • Provides improved linkage between Stratford and New Hamburg	**High** potential to improve transportation system connectivity • Provides improved linkage between Stratford and New Hamburg	**High** potential to improve transportation system connectivity • Provides improved linkage between Stratford and New Hamburg

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
	5.5.2 Flexibility for Future Expansion	**Moderate** potential for future expansion • Route uses existing alignments	**Moderate** potential for future expansion • Route uses existing alignments	**Moderate** potential for future expansion • Route uses existing alignments	**Moderate** potential for future expansion • Route uses existing alignments	**Moderate** potential for future expansion • Route uses existing alignments	**Moderate** potential for future expansion • Route uses existing alignments
5.6 Engineering	5.6.1 Constructability	**Moderate** potential for constructability issues • Uses existing roadway corridors (Hwy 8, Road 125, Perth Line 32) requiring more complex traffic staging during construction • One railway crossing • Upgraded bridge crossing required west of O'Loane Avenue	**Moderate** potential for constructability issues • Uses existing roadway corridors (Hwy 8, Road 125, Perth Line 32) requiring more complex traffic staging during construction • One railway crossing • Upgraded bridge crossing required west of O'Loane Avenue	**Moderate** potential for constructability issues • Uses existing roadway corridors (Hwy 8, Road 125, Perth Line 32) requiring more complex traffic staging during construction • One railway crossing • Upgraded bridge crossing required west of O'Loane Avenue	**Moderate** potential for constructability issues • Uses existing roadway corridors (Hwy 8, Road 125, Perth Line 32) requiring more complex traffic staging during construction • One railway crossing • Upgraded bridge crossing required west of O'Loane Avenue	**Moderate** potential for constructability issues • Uses existing roadway corridors (Hwy 8, Road 125, Perth Line 32) requiring more complex traffic staging during construction • One railway crossing • Upgraded bridge crossing required west of O'Loane Avenue	**Moderate** potential for constructability issues • Uses existing roadway corridors (Hwy 8, Road 125, Perth Line 32) requiring more complex traffic staging during construction • One railway crossing • Upgraded bridge crossing required west of O'Loane Avenue
	5.6.2 Compliance with Design Criteria	**High** conformity to safety and design standards • Supports use of better than minimum horizontal and vertical alignment elements • Can accommodate standard lane and shoulder widths **High** conformity to control private entrances and road connections onto highway • Strict access control resulting in highway that functions safely and efficiently for its useful life • Highway Access Management Plan would be developed for managing entrances onto the corridor: - spacing between existing/proposed intersections along highway	**High** conformity to safety and design standards • Supports use of better than minimum horizontal and vertical alignment elements • Can accommodate standard lane and shoulder widths **High** conformity to control private entrances and road connections onto highway • Strict access control resulting in highway that functions safely and efficiently for its useful life • Highway Access Management Plan would be developed for managing entrances onto the corridor: - spacing between existing/proposed intersections along highway	**High** conformity to safety and design standards • Supports use of better than minimum horizontal and vertical alignment elements • Can accommodate standard lane and shoulder widths **High** conformity to control private entrances and road connections onto highway • Strict access control resulting in highway that functions safely and efficiently for its useful life • Highway Access Management Plan would be developed for managing entrances onto the corridor: - spacing between existing/proposed intersections along highway	**High** conformity to safety and design standards • Supports use of better than minimum horizontal and vertical alignment elements • Can accommodate standard lane and shoulder widths **High** conformity to control private entrances and road connections onto highway • Strict access control resulting in highway that functions safely and efficiently for its useful life • Highway Access Management Plan would be developed for managing entrances onto the corridor: - spacing between existing/proposed intersections along highway	**High** conformity to safety and design standards • Supports use of better than minimum horizontal and vertical alignment elements • Can accommodate standard lane and shoulder widths **High** conformity to control private entrances and road connections onto highway • Strict access control resulting in highway that functions safely and efficiently for its useful life • Highway Access Management Plan would be developed for managing entrances onto the corridor: - spacing between existing/proposed intersections along highway	**High** conformity to safety and design standards • Supports use of better than minimum horizontal and vertical alignment elements • Can accommodate standard lane and shoulder widths **High** conformity to control private entrances and road connections onto highway • Strict access control resulting in highway that functions safely and efficiently for its useful life • Highway Access Management Plan would be developed for managing entrances onto the corridor: - spacing between existing/proposed intersections along highway

Highway 7&8 Transportation Corridor Planning and Class EA Study EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.							
SEGMENT A – West of Road 125 to West Limit of Stratford							
Segment A Alternatives		**Alternative A1**	**Alternative A2**	**Alternative A3**	**Alternative A4**	**Alternative A5**	**Alternative A6 - Recommended**
	Cross Section	2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
	Crossing Road Treatments	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
		- density of proposed entrances along highway - offset spacing from highway to first intersection / entrance on public crossing road - location of existing and proposed inter-regional and municipal transit routes and facilities - traffic impact study(s), to support existing and future land use planning decisions for above	- density of proposed entrances along highway - offset spacing from highway to first intersection / entrance on public crossing road - location of existing and proposed inter-regional and municipal transit routes and facilities - traffic impact study(s), to support existing and future land use planning decisions for above	- density of proposed entrances along highway - offset spacing from highway to first intersection / entrance on public crossing road - location of existing and proposed inter-regional and municipal transit routes and facilities - traffic impact study(s), to support existing and future land use planning decisions for above	- density of proposed entrances along highway - offset spacing from highway to first intersection / entrance on public crossing road - location of existing and proposed inter-regional and municipal transit routes and facilities - traffic impact study(s), to support existing and future land use planning decisions for above	- density of proposed entrances along highway - offset spacing from highway to first intersection / entrance on public crossing road - location of existing and proposed inter-regional and municipal transit routes and facilities - traffic impact study(s), to support existing and future land use planning decisions for above	- density of proposed entrances along highway - offset spacing from highway to first intersection / entrance on public crossing road - location of existing and proposed inter-regional and municipal transit routes and facilities - traffic impact study(s), to support existing and future land use planning decisions for above

Highway 7&8 Transportation Corridor Planning and Class EA Study
EVALUATION OF PRELIMINARY DESIGN ALTERNATIVES

Note: The evaluation is based on a qualitative assessment of each alternative (high, medium or low). Relevant and site-specific information for each criterion/cell is provided to justify the high, medium or low assessment.

SEGMENT A – West of Road 125 to West Limit of Stratford

Segment A Alternatives		Alternative A1	Alternative A2	Alternative A3	Alternative A4	Alternative A5	Alternative A6 - Recommended
Cross Section		2-lanes throughout	2-lanes throughout	2-lanes throughout	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32	2-lanes on Road 125 2-lanes with continuous centre left turn lane on Line 32
Crossing Road Treatments		Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – 1-lane roundabout	Road 125 / Highway 8 - Signalized Road 125 / Line 32 – Signalized O'Loane Avenue – Unsignalized	Road 125 / Highway 8 - Signalized with channelization Road 125 / Line 32 – Signalized with channelization O'Loane Avenue – Unsignalized	Road 125 / Highway 8 – 1-lane roundabout Road 125 / Line 32 – 1-lane roundabout O'Loane Avenue – Unsignalized
Factor / Sub-Factor	**Criteria**						
5.7 Traffic Operations		**Moderate** potential for negative impact on traffic operations • Route uses existing roadway alignments, with multiple private entrances • Left turn movements from highway will disrupt traffic volumes on highway • 3 at-grade intersections (2 signalized and 1 unsignalized) • Mainline traffic flow accommodated via right and left turn movements at Road 125	**Moderate** potential for negative impact on traffic operations • Route uses existing roadway alignments, with multiple private entrances • Left turn movements from highway will disrupt traffic volumes on highway • 3 at-grade intersections (2 signalized with channelization and 1 unsignalized) • Mainline traffic flow accommodated via channelized right turn and left turn movements; channelization offers increased capacity, reduced delay and better accommodation of large vehicles by using larger turning radii for several key movements	**Moderate** potential for negative impact on traffic operations • Route uses existing roadway alignments, with multiple private entrances • Left turn movements from highway will disrupt traffic volumes on highway • 3 at-grade intersections (3 roundabouts) • Roundabout treatment provides best bi-directional uninterrupted flow where Hwy 7&8 changes direction at Road 125	**Moderate** potential for negative impact on traffic operations • Route uses existing roadway alignments, with multiple private entrances • Continuous two-way left turn lane would separate left turns from through movement • 3 at-grade intersections (2 signalized and 1 unsignalized) • Mainline traffic flow accommodated via right and left turn movements at Road 125	**Low** potential for negative impact on traffic operations • Route uses existing roadway alignments, with multiple private entrances • Continuous two-way left turn lane would separate left turns from through movement • 3 at-grade intersections (2 signalized with channelization and 1 unsignalized) • Mainline traffic flow accommodated via channelized right turn and left turn movements; channelization offers increased capacity, reduced delay and better accommodation of large vehicles by using larger turning radii	**Low** potential for negative impact on traffic operations • Route uses existing roadway alignments, with multiple private entrances • Continuous two-way left turn lane would separate left turns from through movement • 3 at-grade intersections (2 roundabouts and 1 unsignalized) • Mainline traffic flow accommodated via channelized right turn and left turn movements; channelization offers increased capacity, reduced delay and better accommodation of large vehicles by using larger turning radii • Roundabout treatment provides best bi-directional uninterrupted flow where Hwy 7&8 changes direction at Road 125
5.8 Construction Cost (excludes property costs and engineering costs)		**Low Relative Cost** $4.5 M	**Low Relative Cost** $4.5 M	**Low Relative Cost** $5.0 M	**Moderate Relative Cost** $8.3 M	**Moderate Relative Cost** $8.3 M	**Moderate Relative Cost** $8.8 M
TRANSPORTATION SUMMARY		**Alternative A6 is preferred from a transportation perspective as it has higher potential to improve traffic safety and lower potential for negative impact on traffic operations relative to the other alternatives and roundabout treatment provides best bi-directional uninterrupted flow where Highway 7&8 changes direction at Road 125.**					
RECOMMENDATION		**Alternative A6 is recommended.** **For all alternatives, potential impacts to features of the natural and cultural environments are comparable with no discernible differences.** **From a socio-economic perspective, Alternatives A1 and A2 have the least direct impacts on the environment; however Alternatives A5 and A6 have the most potential to have positive, indirect impacts on local and agricultural users of the system with only slightly larger direct impacts on residential / agricultural land uses and are most preferred.** **Alternative A6 is preferred from a transportation perspective as it has higher potential to improve traffic safety and lower potential for negative impact on traffic operations relative to the other alternatives and roundabout treatment provides best bi-directional uninterrupted flow where Hwy 7&8 changes direction at Road 125.**					