



CITY OF BRANTFORD

WAYNE GRETZKY PARKWAY NORTH EXTENSION MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY

PUBLIC INFORMATION CENTRE #2

October 2, 2024



WELCOME TO PUBLIC INFORMATION CENTRE # 2

WAYNE GRETZKY PARKWAY NORTH EXTENSION ENVIRONMENTAL ASSESSMENT

The purpose of Public Information Centre #2 is to present information about the Environmental Assessment, provide the public with an opportunity to review and comment on the study process, existing conditions, and recommended technically preferred design concept(s).

Representatives from the City of Brantford and their consultant, Egis Canada Ltd. (formerly McIntosh Perry Consulting Engineers Ltd.), are available to discuss the project and answer any questions.



We want to hear from you as your involvement is key to the success of the Wayne Gretzky Parkway North Extension Environmental Assessment. **Please sign in before leaving!**

More details about the project are available on the project website:

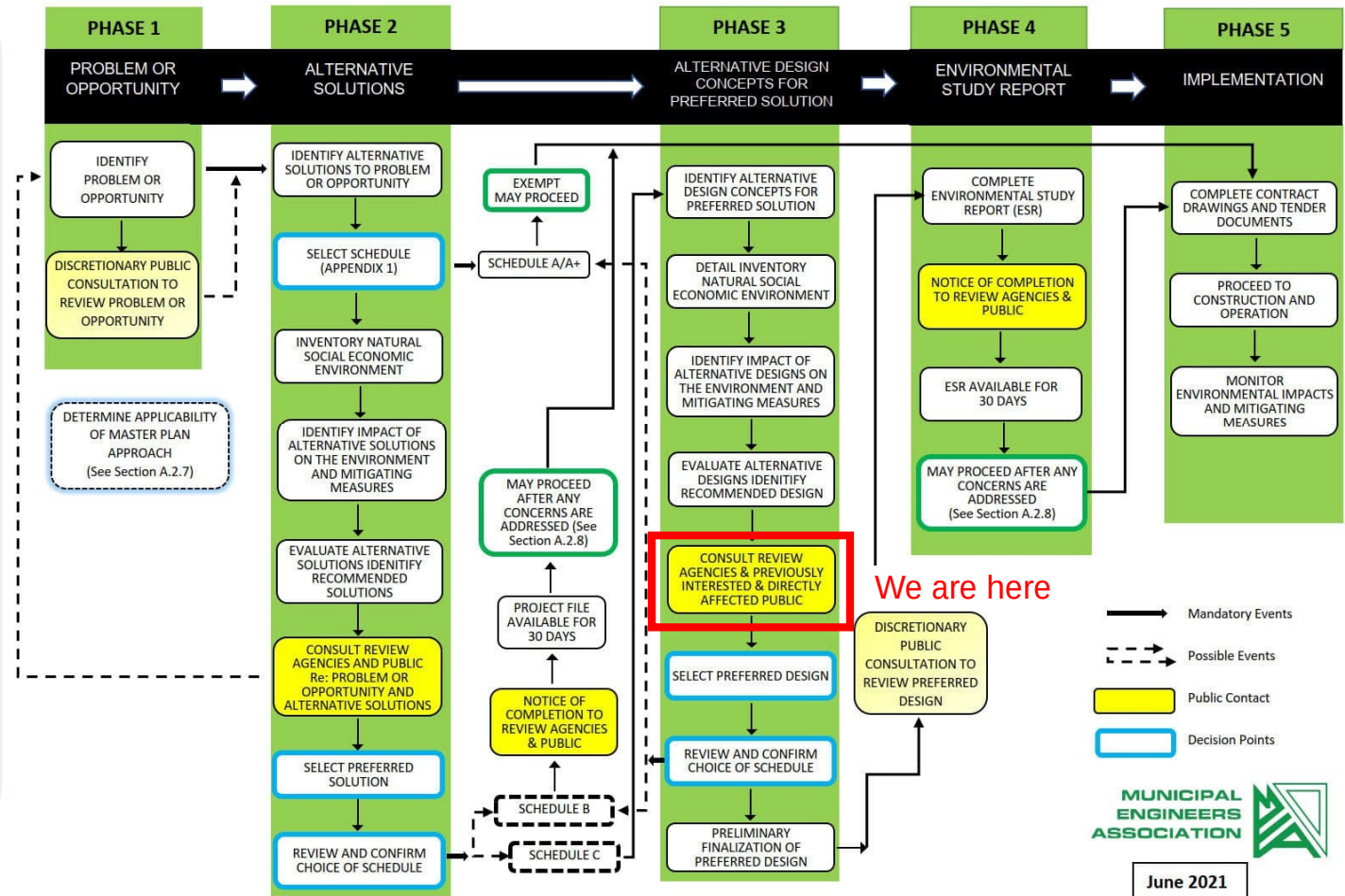
Brantford.ca/WGPExtension

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT STUDY PHASES

- The Wayne Gretzky Parkway North Extension will be completed in accordance with a Schedule 'C' Municipal Class Environmental Assessment (MCEA) and will complete Phase 1 to 4.
- The MCEA is a process by which municipal infrastructure projects (municipal roads, water and wastewater) are planned in accordance with the Environmental Assessment Act.
- The MCEA gives due regard to protect the environment, impacts, and includes the involvement of affected stakeholders in the decision-making process.
- Please visit: <https://municipalclassea.ca> for more information on the Municipal Class Environmental Assessment Process.

MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the Municipal Class EA



PROBLEM AND OPPORTUNITY STATEMENT

The Wayne Gretzky Parkway is a major arterial roadway that serves the City of Brantford (City) as a significant north-south travel route for accessing the Alexander Graham Bell Parkway (Highway 403).

The North Expansion Lands, north of Powerline Road, are anticipated to have high population and employment growth that require increased traffic capacity on the existing transportation network. The Transportation Master Plan Update (TMP 2020) identified the extension of Wayne Gretzky Parkway north of Powerline Road to provide relief to the anticipated (2051) capacity constraints to:

- service future growth;
- provide capacity relief to the King George Road corridor and north/south travel demands for the North Expansion Lands, and
- be consistent with the future vision for the area and proposed adjacent developments.

The project presents an opportunity to optimize the transportation network to accommodate the current and future travel demands, while minimizing potential impacts to the environment and climate change by:

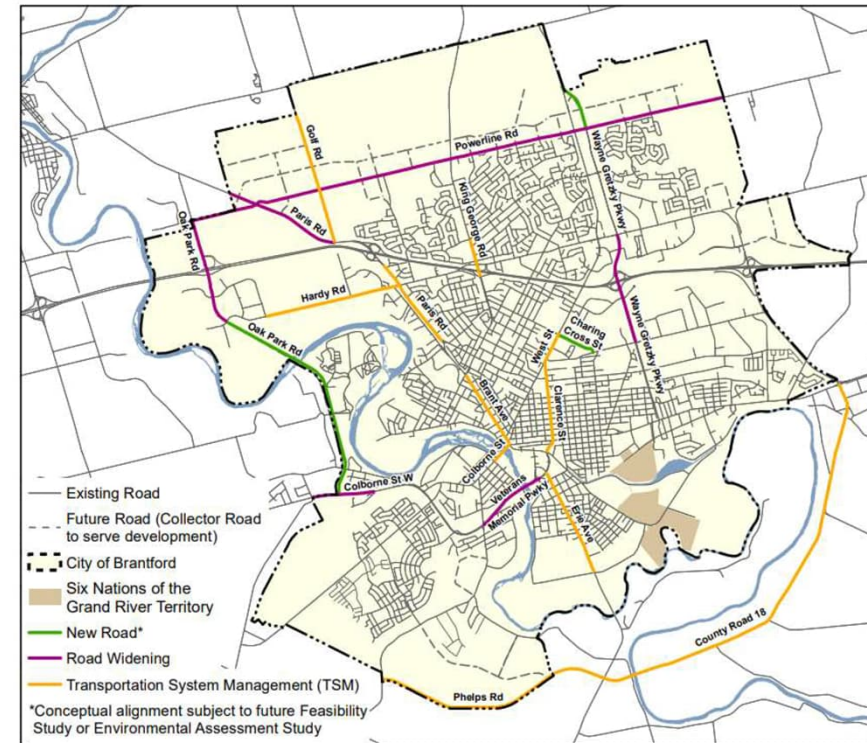
- extending the Wayne Gretzky Parkway north of Powerline Road;
- providing a parallel route to connect travel demand back to the Highway 24 corridor for inter-regional travel via Governors Road and future provincial connecting link roadways, and
- improving multi-modal connectivity and enhancing active transportation infrastructure to improve pedestrian and cycling travel choices.



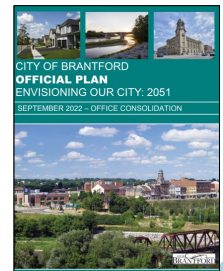
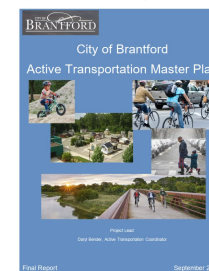
PLANNING AND POLICY CONTEXT

- City visions, policies, and principles have been outlined in the City's Official Plan (2021), Updated 2020 Transportation Master Plan (TMP), and Active Transportation Master Plan (2023).
- The City's updated Transportation Master Plan (2020) provided recommendations for future road network which included:
 - City wide Transportation Demand Management (TDM) initiative for new/extended transit services into the urban expansion area;
 - Transportation System Management (TSM) initiatives, including urban cross section, intersection control, auxiliary lane provisions, traffic signal coordination, roundabouts where feasible, etc., and
 - Extension of Wayne Gretzky Parkway north of Powerline Road to provide relief to the anticipated future (2051) capacity constraints.
- The existing Wayne Gretzky Parkway serves as a major north-south connection through the City. The corridor also conveys the traffic from downtown Brantford to Highway 403 and other major east-west transportation corridors.
- By 2051 population and employment forecasts for the City of Brantford and County of Brant are expected to grow by 60% and 77% respectively.

Demographic Area	2016	2051	Growth
Population			
County of Brant	38,000	59,000	55%
City of Brantford	101,700	165,000	62%
Total	139,700	224,000	60%
Employment			
County of Brant	15,000	26,000	73%
City of Brantford	44,900	80,000	78%
Total	59,900	106,000	77%

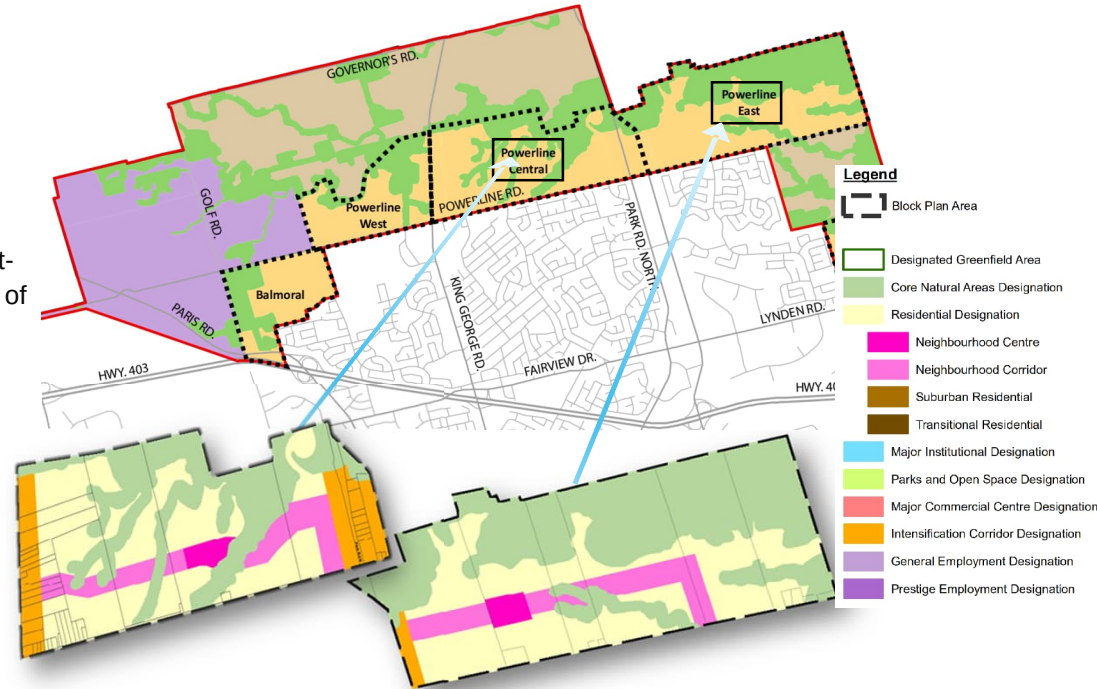


Source: Figure 4-11: Proposed 2051 Road Network Brantford TMP



PROJECT OVERVIEW AND UNDERSTANDING

- The study area is to the north of Highway 403 and includes Park Road, Governors Road, Powerline Road and Wayne Gretzky Parkway.
- The study area land use is primarily rural and agricultural north of Powerline Road and more urbanized residential / commercial south of Powerline Road.
- By 2051 population and employment forecasts for the City of Brantford and County of Brant are expected to grow by 60% and 83% respectively.
- In order to accommodate growth and through intensification within existing built-up areas, in 2017, the City of Brantford annexed approximately 2,720 hectares of land from the County of Brant.
- Within the vicinity of the study area and within the North Expansion lands area, are the Block Plan areas of Powerline East and Powerline Central.



- Extension of Wayne Gretzky Parkway, connecting to Park Road North, north of Powerline Road has been recommended to accommodate the anticipated growth within these Block Plans.
- Additional future east-west collector road to serve the development has also been recommended which would run parallel to Powerline Road, intersecting the new Wayne Gretzky Parkway extension and Park Road North.
- Realignment of Wayne Gretzky Parkway will also require the realignment of Park Road North to intersect with Wayne Gretzky Parkway.
- Several new intersections - roundabouts are to be considered (City's Roundabout Installation Policy (Public Works-022))

INVENTORY STUDIES

Phase 2 Studies/Investigations – Completed

- Natural Heritage Assessment
- Socio-Economic Assessment
- Stage 1 Archaeological Assessment
- Cultural and Built Heritage Assessment (CHRA)
- Source Water Protection Review
- Transportation Impact Study (on-going)

Phase 3 Studies – On-going

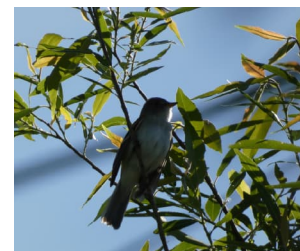
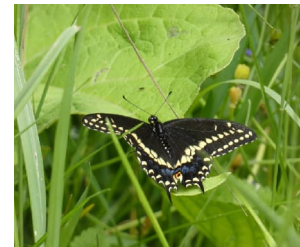
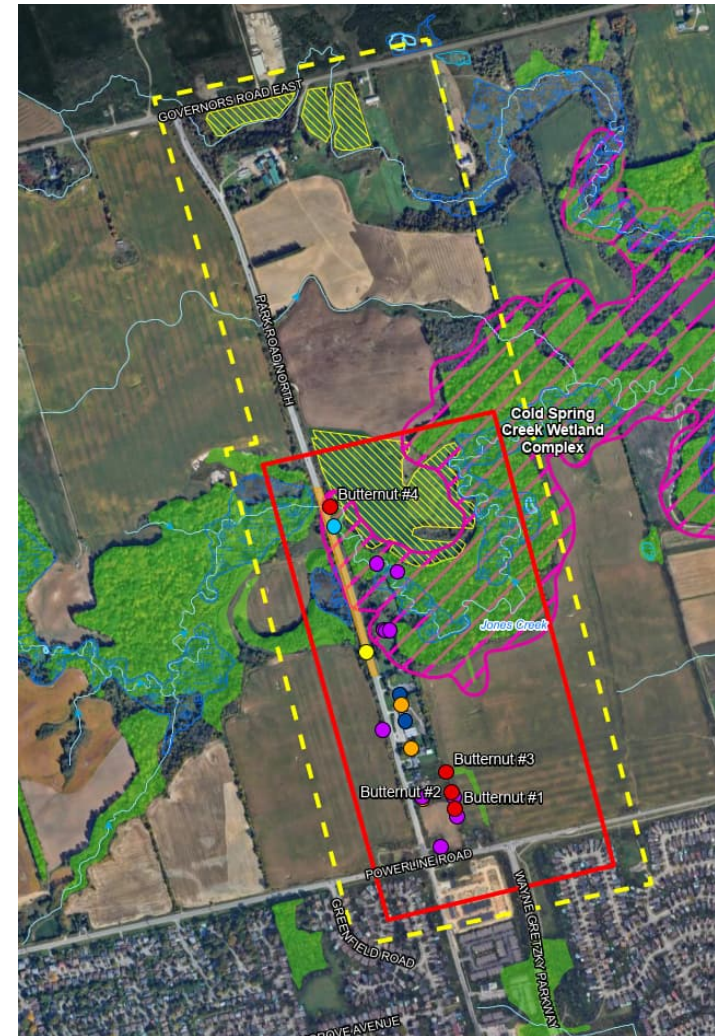
- Additional Natural Heritage Assessment – SAR Target Surveys (completed)
- Watercourse and Culvert Crossing Assessment (completed)
- Stage 2 Archaeological Assessment (Fall 2024)
- Air Quality and Emission Assessment including Climate Change Assessment (Fall 2024)
- Noise and Vibration Impact Assessment (Fall 2024)
- Geotechnical and Hydrogeological Documentation (Fall 2024)
- Stormwater Management Assessment (Fall 2024)



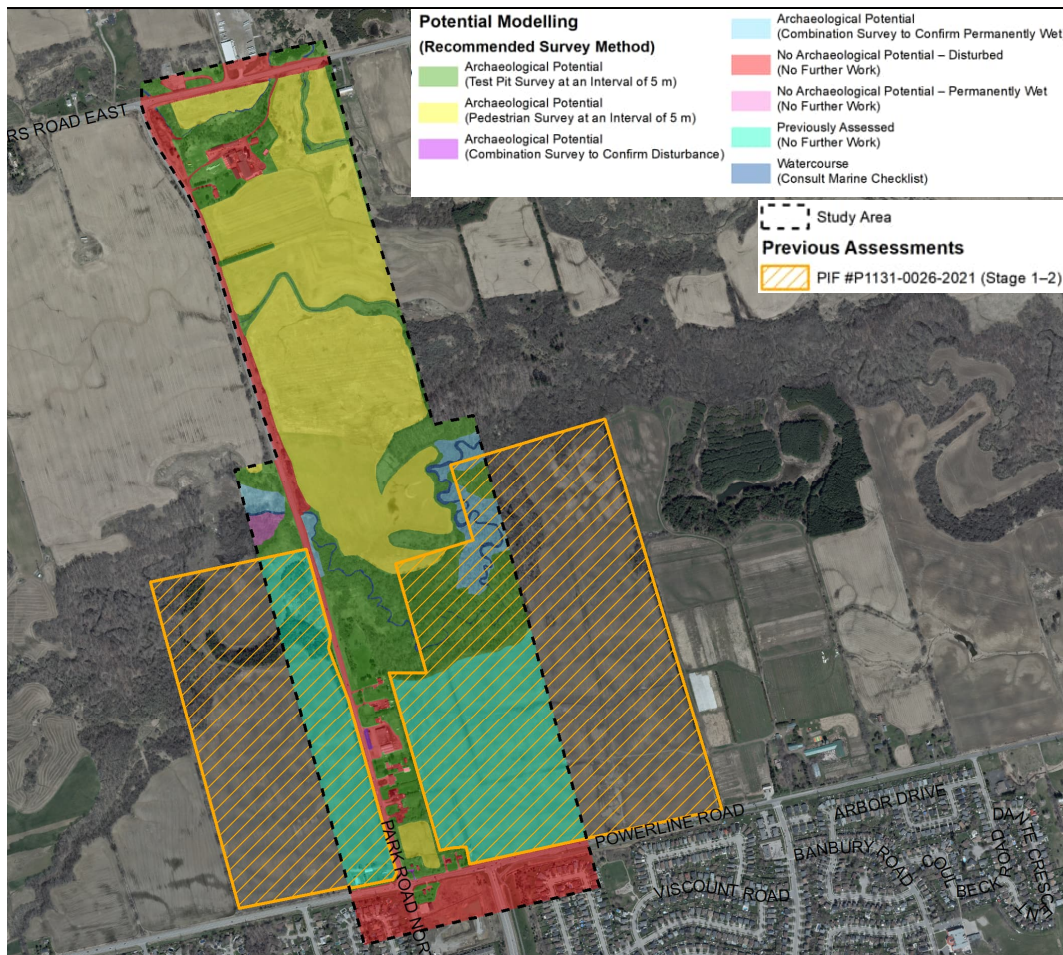
NATURAL HERITAGE ENVIRONMENT

Natural heritage features including Species-at-Risk (SAR) within the study area include:

- Lower Jones Creek and Cold Spring Creek Complex (Provincially Significant Wetland)
- Natural vegetation / woodland coverage is confined to the edges of cultivated fields, natural features (Lower Jones Creek and Cold Spring Creek Complex), residences / farmsteads and existing roadway corridors.
- Appropriate habitat present for breeding/nesting /foraging for several Herptiles, birds, and mammals.
- Additional SAR Bats and Birds Target Surveys were undertaken May 28-29 and July 17-19, 2024
 - o Woodlands along tributaries, as well as residential dwellings/building along Park Road North, have the potential to provide bat roosting habitat:
 - Little Brown Myotis, Northern Myotis, Tri-colored Bat.
 - Target Survey yielded - Big Brown bat, Hoary bat and Silver haired bat.
 - o Farm fields - suitable for / contain Eastern Meadowlark and Bobolink.
 - Target Survey - no targeted birds observed.
 - o SAR Birds – suitable habitat for:
 - Eastern Wood-Pewee, Barn Swallow and Wood Thrush, Chimney Swift, Common Nighthawk.
 - Target Survey - no targeted birds observed.
 - o SAR Vascular Plants that have been identified within the study area:
 - Butternut trees.



ARCHAEOLOGICAL AND BUILT CULTURAL HERITAGE



- A Stage 1 Archaeological Assessment was undertaken by Archaeological Research Associates Ltd. (ARA).
 - o The study area comprises a mixture of areas of archaeological potential, areas of no archaeological potential and previously assessed lands of no further concern.
 - o It is recommended that all areas of archaeological potential which could be impacted by the project be subject to a Stage 2 property assessment.
 - o A Stage 2 Archaeological Assessment is scheduled for Fall 2024.
- Lincoln Environmental Consulting Corp. (LEC) was retained by the Developers to complete a Stage 1-2 archaeological assessment of 281 and 317 Powerline Road.
 - o No archaeological resources were identified during the Stage 2 archaeological assessment of the study area, and as such no further archaeological assessment is required.
- A Cultural Heritage Assessment Report (CHAR) was completed for the study area.
 - o The study area is not located within or adjacent to a Heritage Conservation District designated under Part V of the Ontario Heritage Act.
 - o No Part IV individually designated properties, or listed properties under the City of Brantford are located within or adjacent to the study area.
 - o One (1) potential Built Heritage Resource (BHR) and Cultural Heritage Landscape (CHL) was identified during field investigations.

EVALUATION PROCESS FOR PROPOSED DESIGN CONCEPTS

Proposed Design Concepts were developed and evaluated using a two-stage approach:

Stage 1:
Identify Recommended Alignment Concept



Stage 2:
Conduct Intersection Control Analysis to Identify Recommended Intersection Control Methods

Transportation Operation / Technical Engineering	Natural Environment	Social Environment
Criteria to evaluate whether the proposed design concepts addresses the transportation problems and opportunities identified for this study; as well as evaluate the technical suitability and engineering characteristics of the proposed design concepts.	Criteria to evaluate the proposed design concepts effects on the natural heritage systems, natural environment and habitats, air and water quality and Climate Change.	Criteria to evaluate the proposed design concepts effects on community, businesses and social features, and properties within the study area.
 - Existing and Future Transportation Network - Connectivity – Existing and Future - Active Transportation - Transit Service - Traffic Safety - Constructability - Existing Infrastructure - Durability/ Service Life - Phasing and Implementation	 - Environmentally Sensitive Areas - Terrestrial Habitat (Wildlife and Vegetation) - Fisheries/Aquatic Impacts - Species at Risk - Existing Watercourses - Ground and Surface Water Quality/Quantity - Air Quality - Climate Change Mitigation	 - Land Use - Property Requirements - Noise and Vibration - Air Quality - Aesthetics
Land Use Planning Objectives	First Nations / Cultural Environment	Economic Environment
Criteria to evaluate the proposed design concept's ability to comply with City and Provincial Policies.	Criteria to evaluate the proposed design concepts effects on First Nation Lands, archaeological, built and cultural heritage features and resources within the study area.	Criteria to evaluate the financial implications of the proposed design concepts.
 - City Policies - Provincial Policies	 - First Nation Lands - Natural Resources - Hunting, Harvesting, and Seedling Cultivating - Archaeological Resources - Built Heritage Resources and Cultural Heritage Landscapes	 - Capital Costs - Operational and Maintenance Costs - Property Acquisition Costs

PROPOSED ALIGNMENT CONCEPT #1 & 2

- A total of five (5) preliminary alignment options were developed for the Wayne Gretzky Parkway North Extension.
- Design Options #1 & 2 were screened out for the following reasons:
 - Failure to meet the planning and policy objectives of the City;
 - Not preferred from a geometric design perspective;
 - Do not accommodate future East/West collector, and
 - Do not satisfy future development traffic needs.

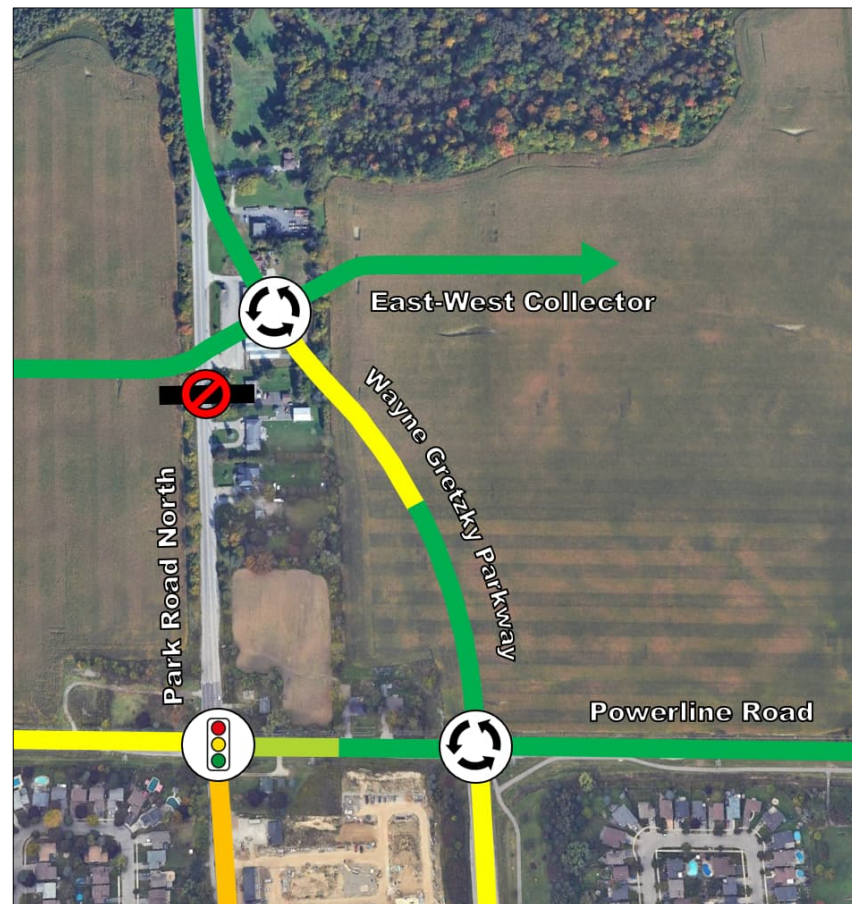
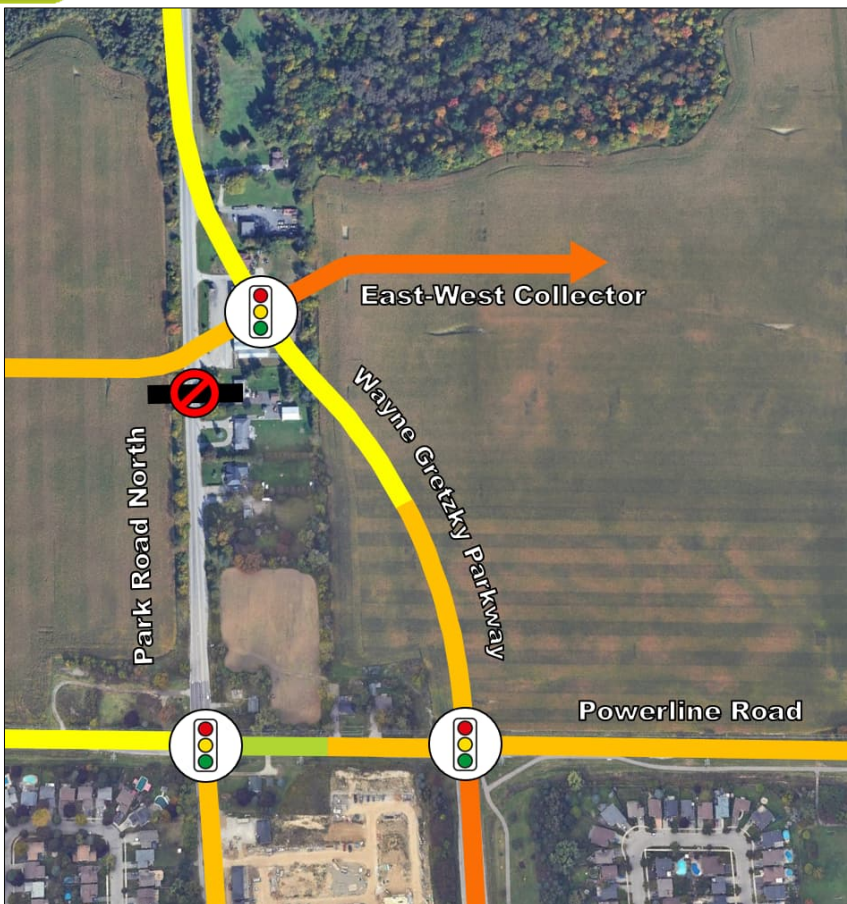


Alignment Concept #1: Extending Wayne Gretzky Parkway north of Powerline Road with a curved transition back to Park Road North prior to Lower Jones Creek. This option includes a Park Road North access for remaining residents. This option does not accommodate a future east-west collector.



Alignment Concept #2: Extending Wayne Gretzky Parkway north of Powerline Road to a new intersection (signalized or roundabout) at Park Road North prior to Lower Jones Creek. This option would maintain Park Road North access but does not accommodate a future east-west collector.

PROPOSED ALIGNMENT CONCEPT #3

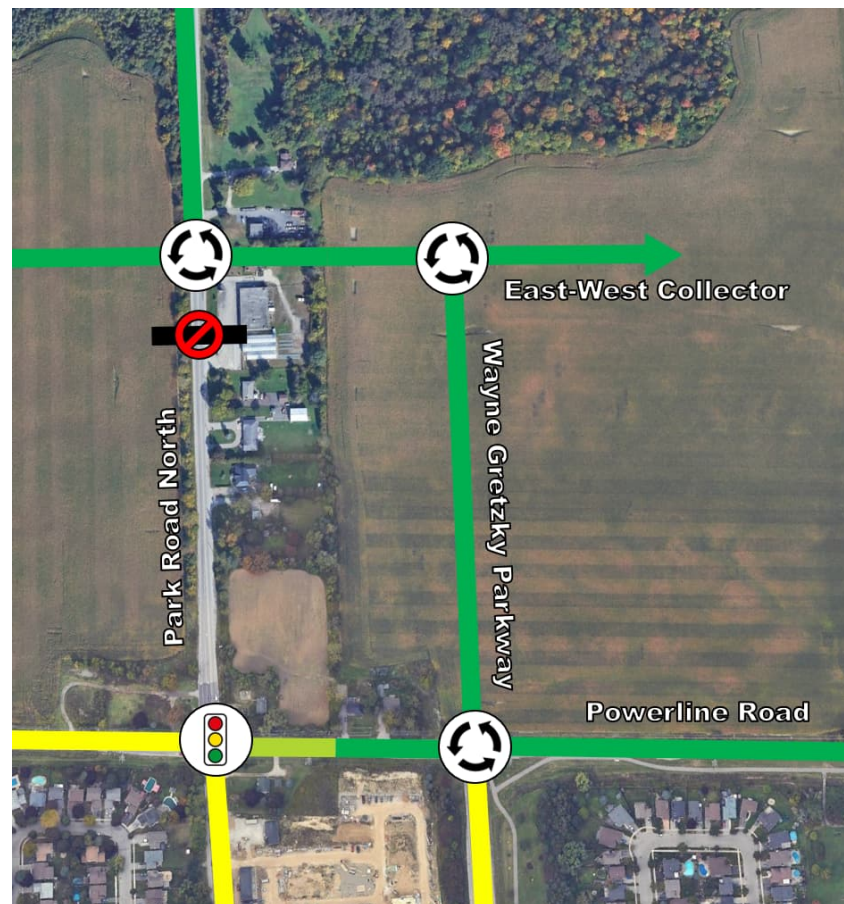
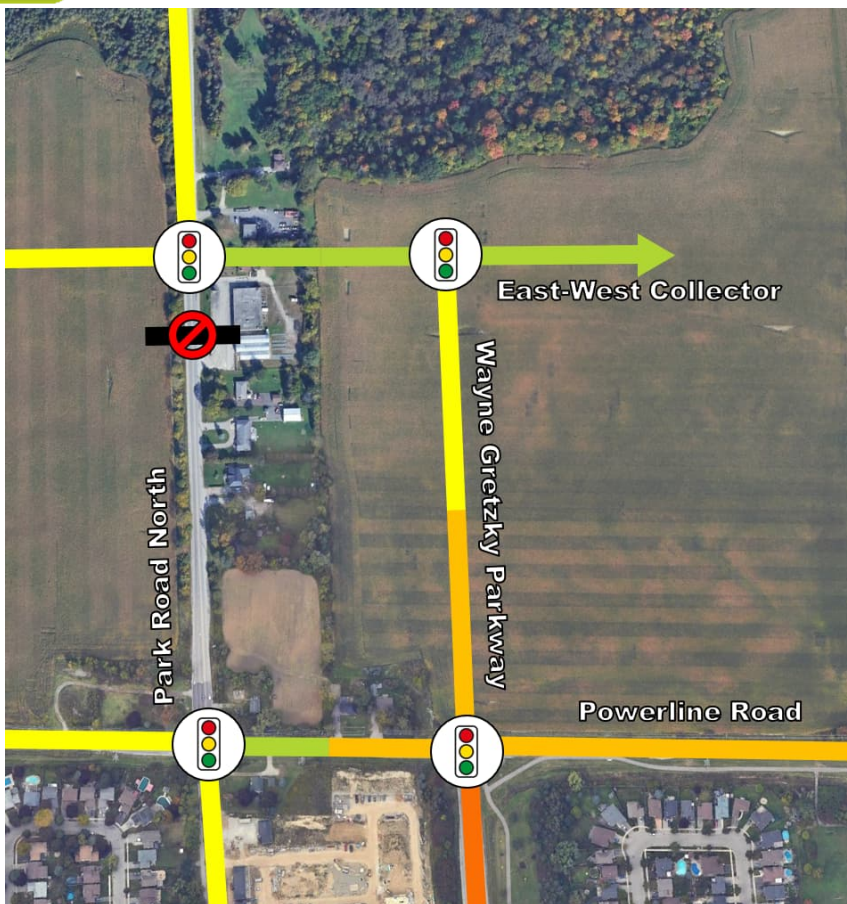


Level of Service (Control Delay)	
—	A (≤ 10)
—	B ($> 10 - 20$)
—	C ($> 20 - 35$)
—	D ($> 35 - 55$)
—	E ($> 55 - 80$)
—	F (> 80)
	Roundabout
	Signalization
	Dead End

- Traffic operations assessed for intersection control types and treatments
- Operations reflective of intersection improvements

Alignment Concept #3: Extending Wayne Gretzky Parkway north of Powerline Road with a curved transition to Park Road North, forming a new four-leg intersection (Signalized or Roundabout) with the future east-west collector. This option considers terminating Park Road North, south of the future east-west collector.

PROPOSED ALIGNMENT CONCEPT #4

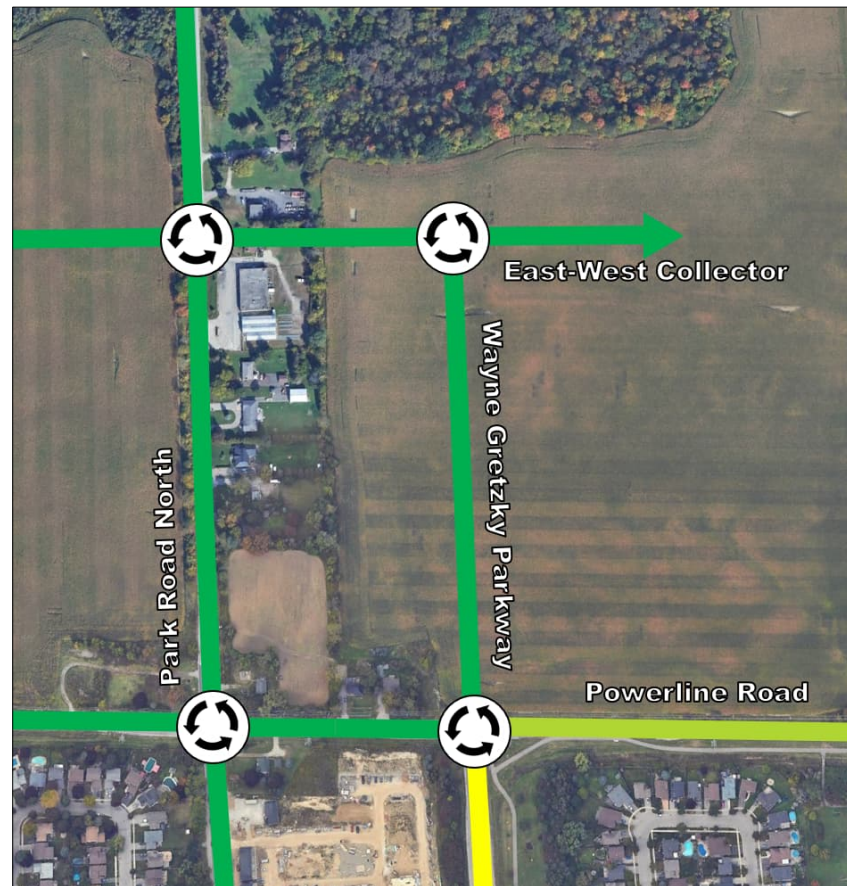
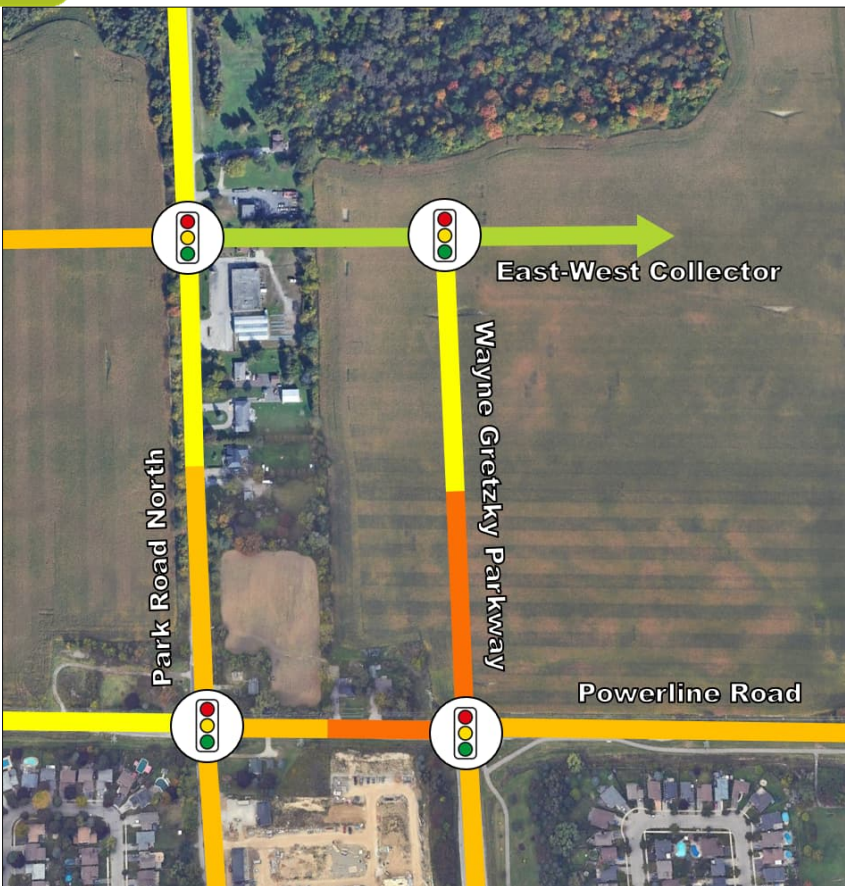


Level of Service (Control Delay)	
—	A (≤ 10)
—	B ($> 10 - 20$)
—	C ($> 20 - 35$)
—	D ($> 35 - 55$)
—	E ($> 55 - 80$)
—	F (> 80)
	Roundabout
	Signalization
	Dead End

- Traffic operations assessed for intersection control types and treatments
- Operations reflective of intersection improvements

Alignment Concept #4: Extending Wayne Gretzky Parkway north of Powerline Road to a new three-leg intersection (Signalized or Roundabout) with the east-west collector, continuing perpendicular to Park Road North and connecting at a new three-leg intersection (Signalized or Roundabout). This option includes terminating Park Road North, south of the future intersection.

PROPOSED ALIGNMENT CONCEPT #5



Level of Service (Control Delay)	
—	A (≤ 10)
—	B ($> 10 - 20$)
—	C ($> 20 - 35$)
—	D ($> 35 - 55$)
—	E ($> 55 - 80$)
—	F (> 80)
	Roundabout
	Signalization
	Dead End

- Traffic operations assessed for intersection control types and treatments
- Operations reflective of intersection improvements

Alignment Concept #5: Extending Wayne Gretzky Parkway north of Powerline Road to a new three-legged intersection (Signalized or Roundabout) with a proposed east-west collector, continuing perpendicular to Park Road North and connecting at a new four-leg intersection (Signalized or Roundabout). This option maintains connection to Park Road North at the future four-leg intersection.

PRELIMINARY EVALUATION OF PROPOSED ALIGNMENT CONCEPTS

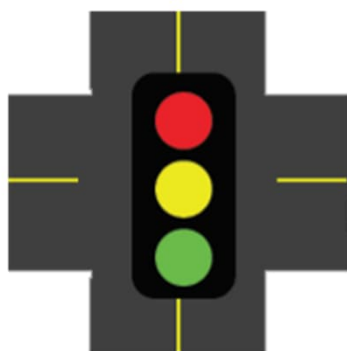
Category	Alignment Concept #3 Extending Wayne Gretzky Parkway with a curved transition to Park Road North, forming a new four-leg intersection (Signalized or Roundabout) with the future east-west collector	Alignment Concept #4 Extending Wayne Gretzky to a new three-leg intersection with the east-west collector, continuing perpendicular to Park Road North and connecting at a new three-leg intersection	Alignment Concept #5 Extending Wayne Gretzky Parkway to a new three-legged intersection with a proposed east-west collector, continuing perpendicular to Park Road North and connecting at a new four-leg intersection
Transportation / Engineering	Preferred	Less Preferred	Less Preferred
Land Use Planning Objectives	Preferred	Preferred	Preferred
Natural Environment	Preferred	Less Preferred	Not Preferred
First Nations / Cultural Environment	Preferred	Less Preferred	Less Preferred
Social Environment	Not Preferred	Preferred	Less Preferred
Economic Environment	Preferred	Less Preferred	Not Preferred
Summary (Key Pros/Cons):	Recommended – Addresses the P&O Statement and provides a continuous link for the new extension in accordance with the intent of the City's policy documents (Official Plan, TMP).	Not Recommended – Addresses the P&O Statement but provides a discontinuous extension and does not align with the intent of the City's policy documents (Official Plan, TMP).	Not Recommended – Addresses the P&O Statement but provides a discontinuous extension and does not align with the intent of the City's policy documents (Official Plan, TMP).
Abbreviation Legend: ▪ P&O – Problem and Opportunity ▪ TMP – City of Brantford Transportation Master Plan ▪ ATMP – City of Brantford Active Transportation Master Plan ▪ OP – City of Brantford Official Plan ▪ GHG – Greenhouse Gas ▪ ROW – Right-of-Way Ranking: Not Preferred Less Preferred Preferred	Pros: ✓ Accommodates anticipated development traffic and new east-west collector road; ✓ Achieves acceptable levels of service; ✓ Eliminates through traffic along Park Road North, and ✓ Provides adequate setback from to Lower Jones Creek and Coldwater Spring Wetland Complex. Cons: × Requires the acquisition of multiple parcels of land (+/- 4 properties); × Limits access to Park Road North for remaining properties; × Signalized option requires significant modifications to existing intersection configuration at Powerline and Wayne Gretzky Pkwy, and × Roundabout option requires large diameter roundabout at Powerline Road and Wayne Gretzky Pkwy.	Pros: ✓ Accommodates anticipated development traffic and new east-west collector road; ✓ Achieves acceptable levels of service; ✓ Eliminates through traffic along Park Road North, and ✓ Potential reduction to property acquisition requirements when compared to Option #3. Cons: × Requires property acquisition (1-4 properties). × Limits connectivity via Park Road North for remaining properties; × Requires larger overall construction footprint, and × Does not achieve minimum separation between intersections.	Pros: ✓ Accommodates anticipated development traffic and new east-west collector road; ✓ Achieves acceptable levels of service; ✓ Maintains connectivity via Park Road North for remaining properties; ✓ Provides redundant connection to Park Road North; ✓ Reduces through traffic on Park Road North, and ✓ Potential reduction to property acquisition requirements when compared to Option #3. Cons: × Requires property acquisition (1-4 properties). × Discontinuous extension, does not align with intent of City's policy documents (Official Plan, TMP). × Does not achieve minimum separation between intersections, and × May not effectively reduce traffic volumes along Park Road North between new intersection and Powerline Road.

PROPOSED INTERSECTION CONTROL METHODS

Stage 2: Conduct Intersection Control Method Analysis

Following the identification of the recommended alignment concept, an Intersection Control Method analysis was conducted to determine the recommended intersection control method for Wayne Gretzky Parkway and Powerline Road, Powerline Road and Park Road North, and the new four-leg intersection with the east-west collector.

Proposed Intersection Control Methods:



Traffic Signal



Roundabout

Key considered in the development of the intersection control methods for each intersection is:

- Intersection efficiency/operation;
- Large vehicles (transport trucks and farm equipment) expected to traverse the intersection;
- Geometry of proposed intersection and impact to existing utilities;
- Active Transportation Facilities;
- Property requirements, and
- Potential environmental impacts.

PRELIMINARY EVALUATION OF INTERSECTION CONTROL METHODS

Category	Intersection Control Method #1 Signalized Intersections at Powerline Road and Wayne Gretzky Parkway, and new four-leg intersection with the future east-west collector and Park Road North	Intersection Control Method #2 Roundabout Intersections at Powerline Road and Wayne Gretzky Parkway, and new four-leg intersection with the future east-west collector and Park Road North
Transportation / Engineering	Less Preferred	Preferred
Land Use Planning Objectives	Less Preferred	Preferred
Natural Environment	Preferred	Preferred
First Nations / Cultural Environment	Preferred	Preferred
Social Environment	Preferred	Less Preferred
Economic Environment	Less Preferred	Preferred
Summary (Key Pros/Cons):	Not Recommended – Address the P&O Statement but not as effective as roundabouts, as well as it doesn't align with the City Roundabout Installation Policy.	Recommended – Aligns with the City Roundabout Installation Policy and addresses P&O Statement.
Abbreviation Legend: - P&O – Problem and Opportunity - TMP – City of Brantford Transportation Master Plan - ATMP – City of Brantford Active Transportation Master Plan - OP – City of Brantford Official Plan - GHG – Greenhouse Gas - ROW – Right-of-Way Ranking: Not Preferred Less Preferred Preferred	Pros: ✓ The new intersection of Wayne Gretzky Parkway at the future east-west Collector operates at generally acceptable levels of service. ✓ Construction of signalized intersections could be completed within existing ROW, minimizing need for property acquisition. ✓ Easier to design and implement with existing technology and infrastructure. ✓ Less likely to require utility relocation in comparison to roundabouts due to the require footprint area. ✓ Initial capital cost of installing a signalized intersection relatively lower compared to roundabouts. Cons: × Requires the acquisition of multiple parcels of land (+/- 4 properties); × Intersection of Wayne Gretzky Parkway at Powerline Road, operate poorly during the afternoon peak with several movements operating at LOS E and F. × Significant modifications to existing intersection configuration at Powerline and Wayne Gretzky Pkwy will be required to accommodate future traffic volumes. × Does not align with the City Roundabout Installation Policy. × Vehicles frequently stop and start at traffic signals, leading to noise and air emissions from acceleration and deceleration, including engine noise, tire friction, and exhaust sounds. This can result in higher overall noise levels and air emissions at the intersection.	Pros: ✓ Achieves acceptable levels of service at both proposed roundabouts with mostly levels of service A. ✓ Roundabouts have specific geometric design and traffic control features to enhance safety and capacity of intersections. ✓ Roundabouts tend to have fewer high-speed, right-angle, and head-on collisions, leading to a lower overall severity of collisions. ✓ Long-term benefits from a traffic flow and safety perspective. ✓ Overall traffic can be improved with the implementation of roundabouts. ✓ Reduce traffic congestion, and queuing, which in turn can decrease the noise generated and air emissions from prolonged vehicle idling and high-density traffic conditions. Cons: × Generally, more challenging to construct due to the need for more land, complex geometric design, extensive earthworks, and additional aesthetic considerations. × Requires the acquisition of multiple parcels of land; × Roundabout option requires large diameter roundabout at Powerline Road and Wayne Gretzky Parkway which may require utility relocation pending geometry. × The construction cost of a roundabout can be higher than that of a signalized intersection; however generally require less maintenance compared to traffic signals, as they do not rely on electronic components.

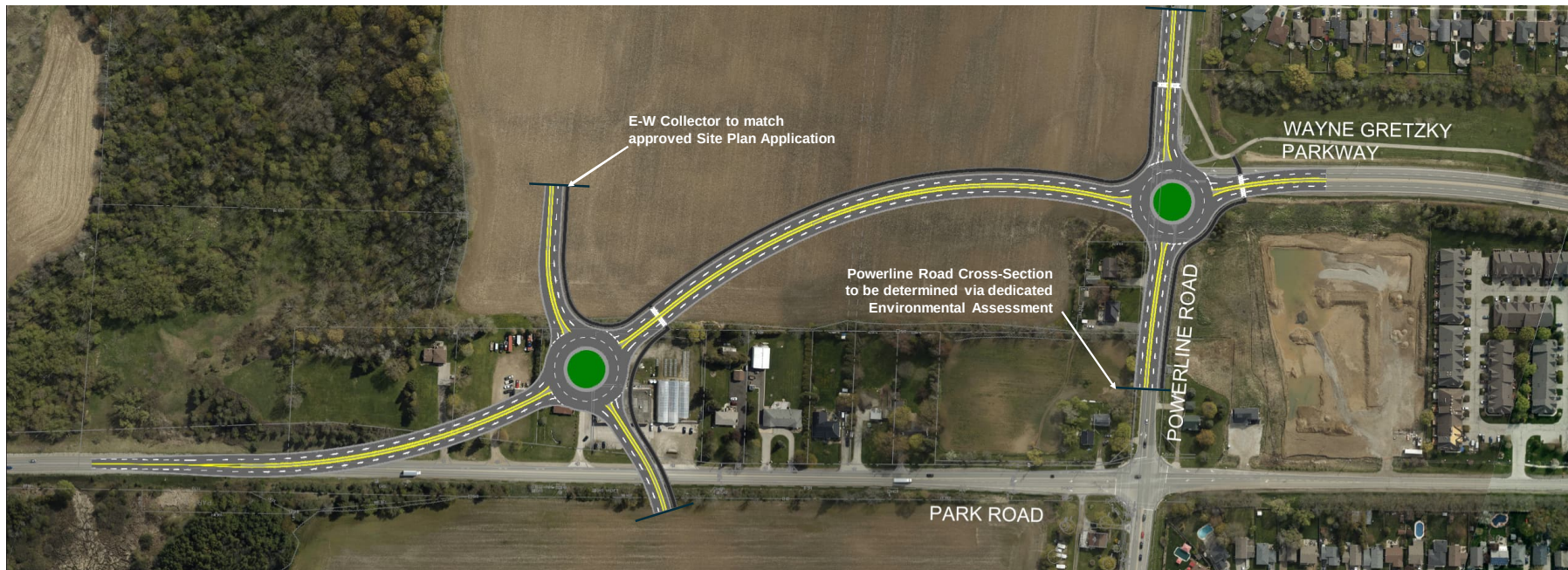
RECOMMENDED PREFERRED DESIGN CONCEPT

Design Concept # 3 – Detail Design Considerations:

Connectivity: Provide connectivity to the City's existing road network and future development of the north expansion lands.

Property Impacts: The alignment and geometry will be refined to minimize impacts on properties. The City's Real Estate department will engage with individual property owners to further discuss land acquisition needs, property appraisals, and other relevant matters.

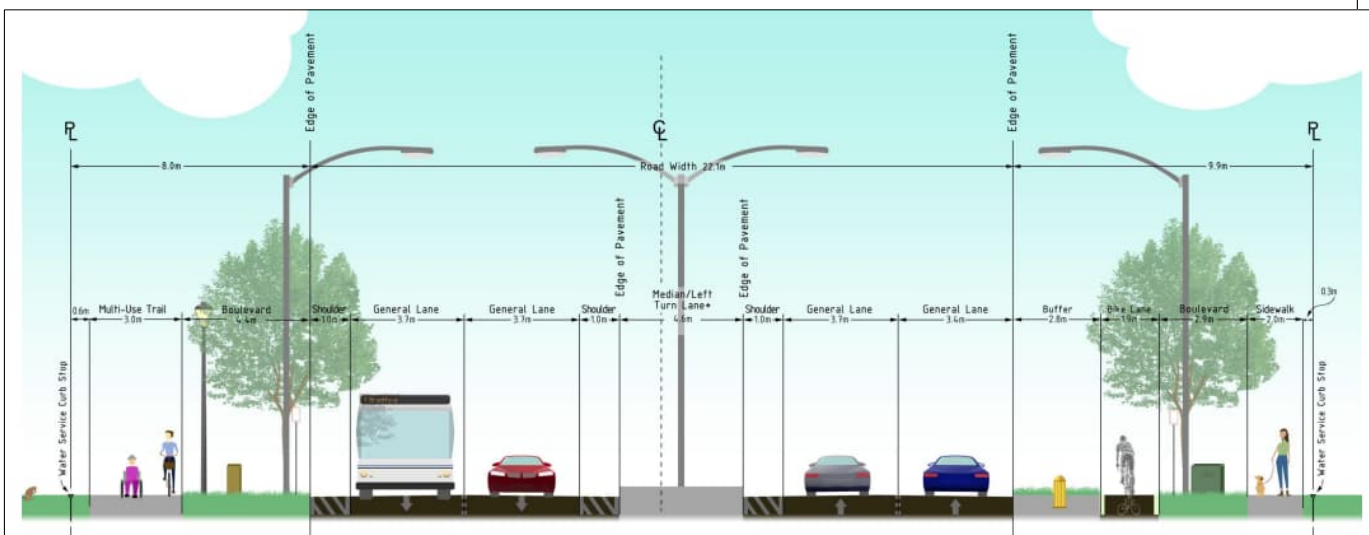
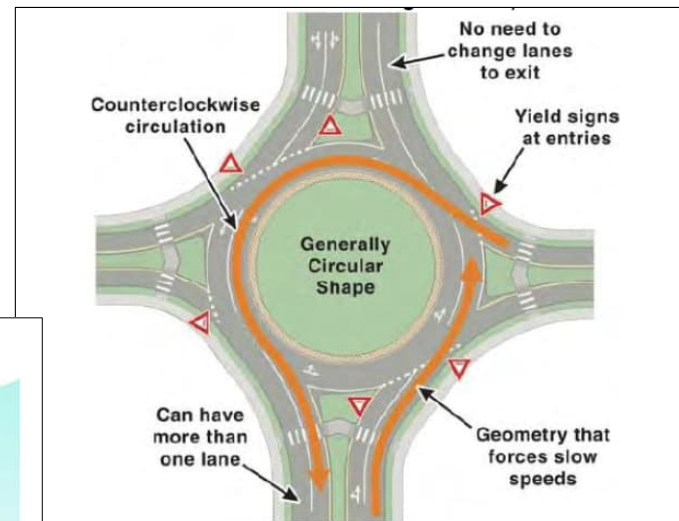
Natural/Cultural Heritage: Appropriate mitigation measures will be implemented to protect the natural environment, cultural heritage, and First Nations' natural resources and access. Measure could include adhering to Species at Risk (SAR) and Migratory Bird time windows, implementing an environmental buffer from Lower Jones Creek, complying with the City Noise By-Law, installing bat roosting structures, preparing a Vegetation Preservation and Replanting Plan, and implementing Erosion and Sediment Control Plans. Additionally, Traffic Detours and Signage Plans will be established, as well as Construction Notifications will be circulated to the public and interested parties.



RECOMMENDED PREFERRED DESIGN CONCEPT

Active Transportation: The roadway and roundabouts will incorporate dedicated active transportation facilities for pedestrians and cyclists along the Wayne Gretzky Parkway North extension. Additionally, a connecting link will be established to the existing multi-use path/trail at Powerline Road and Wayne Gretzky Parkway.

Large Vehicles: Roundabouts will be designed to accommodate large vehicles, such as transport trucks and farm vehicles. These vehicles will be able to safely maneuver through the roundabout using the “truck apron” around the center island.



Note: Geometry, cross-sections, and potential property impacts are subject to change during the preliminary and detailed design phases. The drawings provided are for illustration purposes only.

NEXT STEPS

Following this Public Information Centre, the City and Egis will:

- Undertake Phase 3 Field Investigations – Stage 2 Archaeological Assessment, Geotechnical/Hydrogeological, Air and Noise Assessment;
- Continue consultation with agencies, stakeholders, First Nations, Developers, Utilities, and the Public;
- Finalize evaluation of Design Concept(s) based on consultation input, and
- Select the Technically Preferred Design Concept(s), to address the Problem and Opportunity Statement identified in Phase 1.
- Commence Phase 4 – Environmental Study Report

Thank you, your input is important to us!

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