Dufferin County Road 109/2nd Line Realignment

Schedule 'C' Municipal Class Environmental Assessment Study

Public Information Centre #2

June 6, 2023

Land Acknowledgement

We would like to begin by respectfully acknowledging that Dufferin County resides within the traditional territory and ancestral lands of the Tionontati (Petun), Attawandaron (Neutral), Haudenosaunee (Six Nations), and Anishinaabe peoples.

We also acknowledge that various municipalities within the County of Dufferin reside within the treaty lands named under the Haldimand Deed of 1784 and two of the Williams Treaties of 1818: Treaty 18: the Nottawasaga Purchase, and Treaty 19: The Ajetance Treaty.

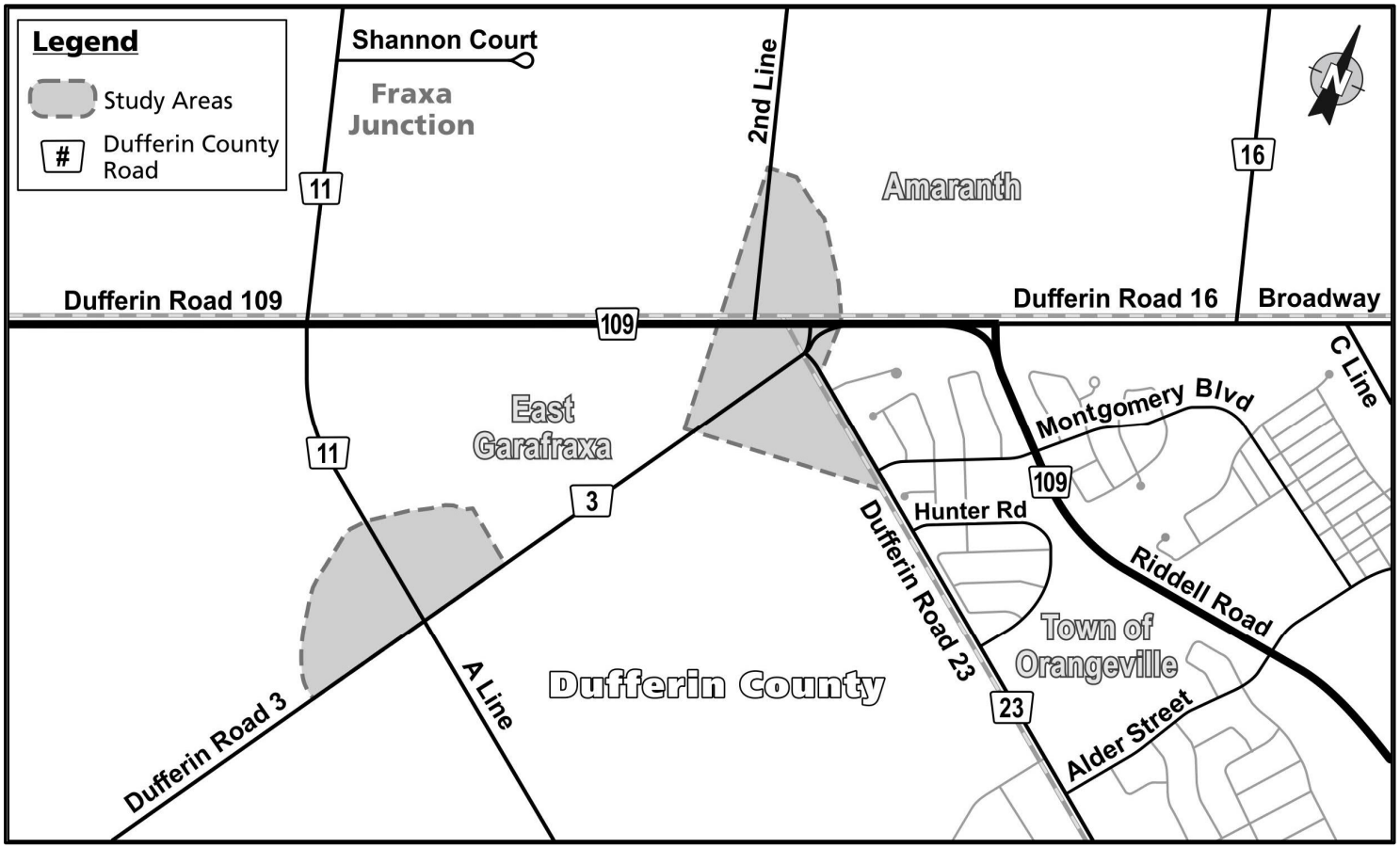
These traditional territories upon which we live and learn, are steeped in rich Indigenous history and traditions. It is with this statement that we declare to honour and respect the past and present connection of Indigenous peoples with this land, its waterways and resources.

Overview of Public Information Centre #1

1. Project Background
2. Project Refresher – Project Objective, Problems/Opportunity, MCEA Process, Existing Conditions
3. Overview of PIC #1
4. Evaluation Process
5. Screening of Long List of Alternative Designs
6. Alternatives Carried Forward for Evaluation
7. Evaluation Criteria
8. Summary of the Evaluation of Alternative Designs
9. Traffic Summary of Preferred Alternative
10. Potential Environmental Impacts and Proposed Mitigation
11. Next Steps

Project Objective

Dufferin County is conducting a Class Environmental Assessment (EA) Study for the intersection realignment of **Dufferin County Road 109 and 2nd Line.**



Objective:

To better understand the broader traffic impacts of the realignment and to confirm the best solution(s) for the study area.

Problems and Opportunity Statement

There is a proposed development located near Dufferin County Road 109 and 2nd Line (Amaranth). As part of the development, 2nd Line is proposed to be realigned as the fourth leg of the Dufferin County Road 109 and Dufferin County Road 3 intersection. This realignment could precipitate a domino effect on traffic impacting other intersections in the surrounding area.

Given this, the Environmental Assessment Study will evaluate alternatives that will:

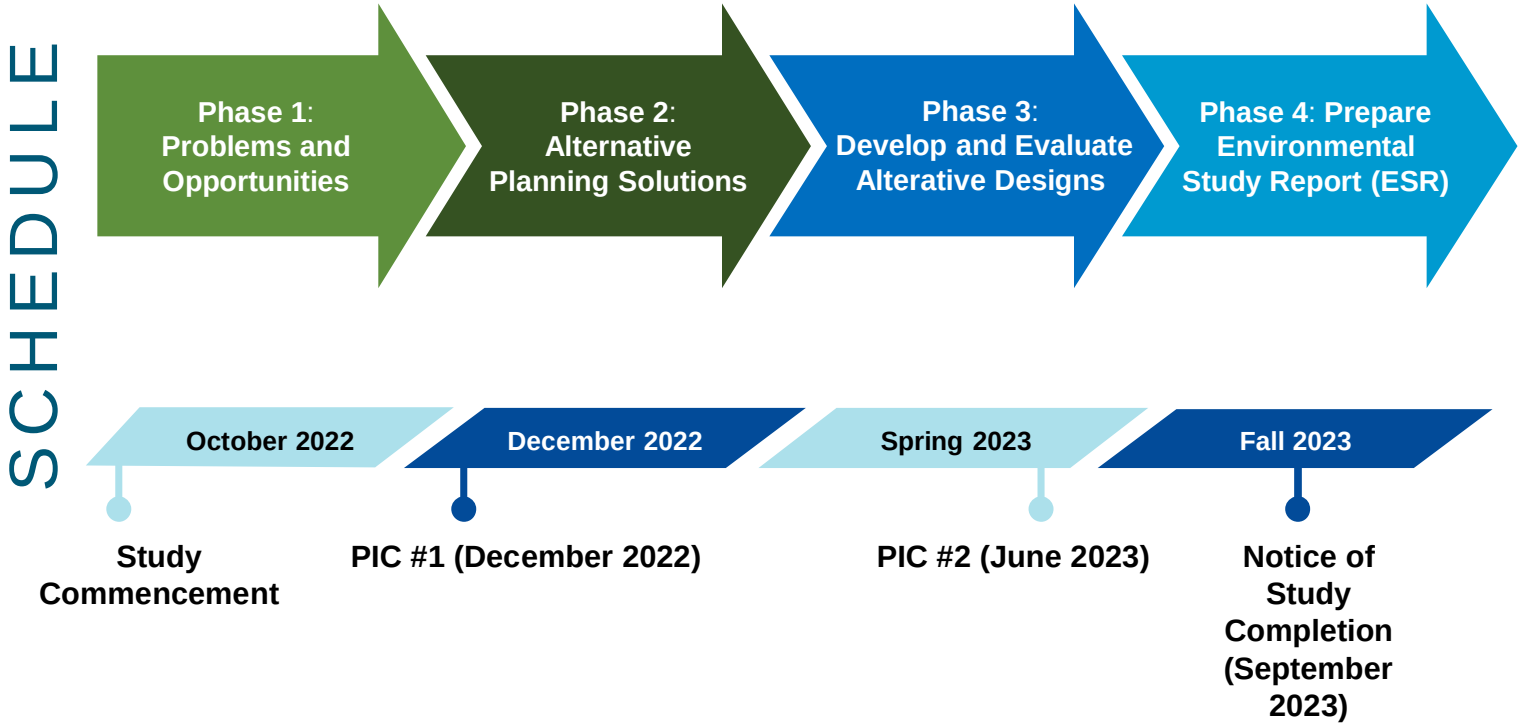
Enhance safety of all users and all modes in the surrounding area

Accommodate existing and future traffic demand

Environmental Assessment Process

This study follows the **Municipal Class Environmental Assessment (MCEA)** process, which is a process set out by the Province with established phases and requirements for data collection, notification of stakeholders, public consultation and engagement, and reporting.

There are five phases in an EA process. This study is a Schedule 'C' project, which includes Phases 1 through 4. Phase 5 of the EA process is the implementation.



Overview of Public Information Centre (PIC) #1

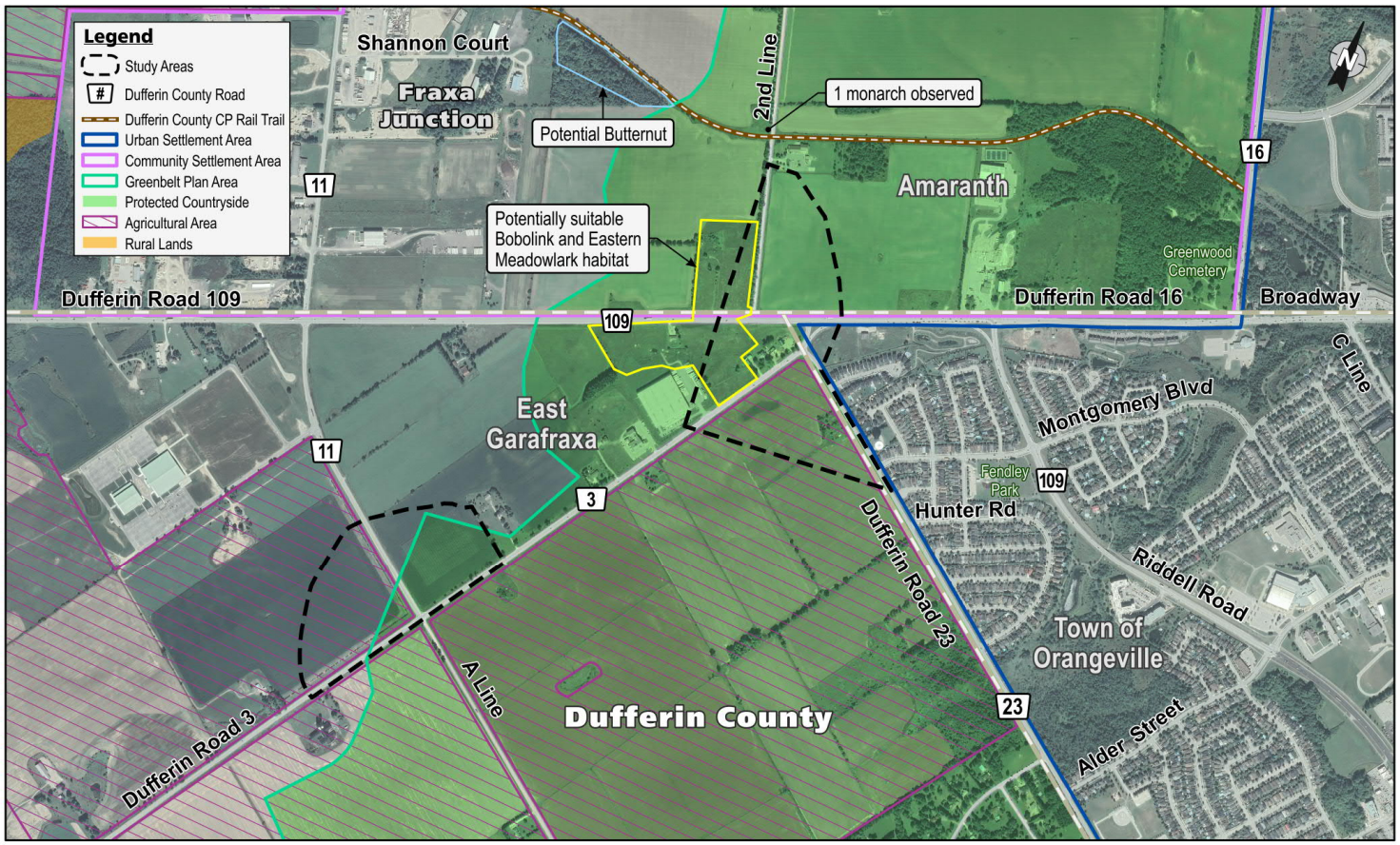
PIC #1 was held in-person on December 15, 2023. The PIC presented on:

- The Dufferin County EA study purpose, study area, and problems and opportunities statement;
- The Municipal Class EA process and study timeline;
- An overview of the existing conditions;
- An overview of Environmental Studies; and
- Preliminary alternative concepts for consideration.

Common feedback themes:

- General interest in considering roundabouts for the alternative routes;
- General interest in alternative routes that might alleviate truck traffic;
- Concerns about having a dedicated through, left, and right turn lanes;
- Concerns about too many trucks on County Road 11;
- Concerns about snow drifts affecting visibility of oncoming / turning vehicles;
- Concerns about the grades of the roads; and
- Concerns about the alternative routes creating a backtrack.

Existing Conditions Map



Evaluation Process

Prepare alternative designs to be considered for evaluation based on possible realignment alternative concepts presented at PIC #1, forecasted traffic, and public/stakeholder input.

Screen out any alternatives that are not feasible to be carried forward to the evaluation.

Confirm the Evaluation Criteria established through public input, similar projects, provincial guidelines, and existing conditions.

Identify potential impacts on the natural, cultural, and socio-economic environments and technical and financial criteria.

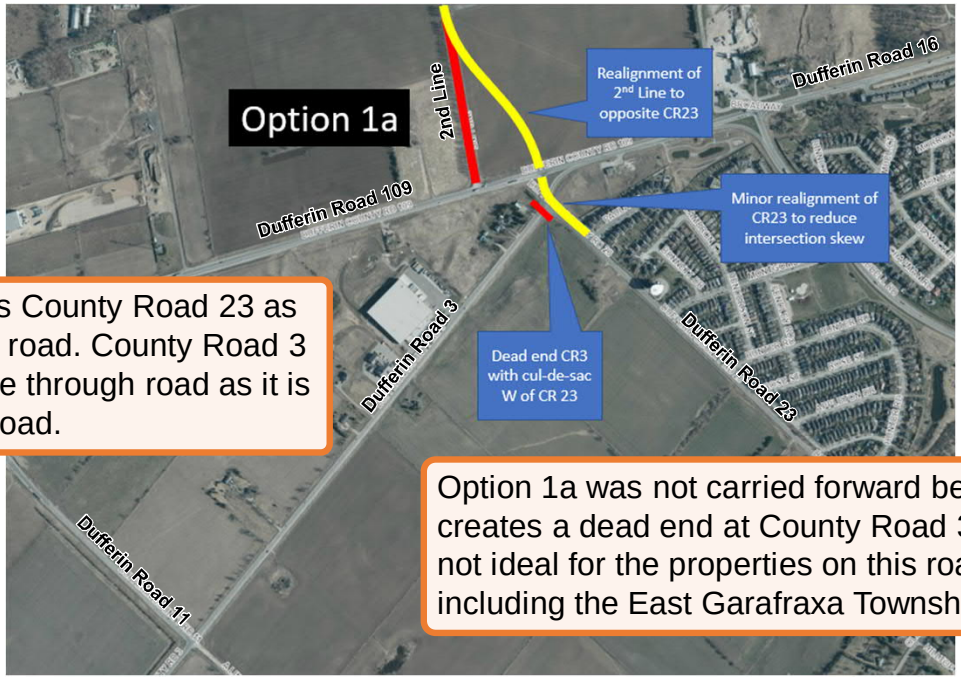
Rank alternative designs according to their relative advantages and disadvantages.

Identify a preferred alternative design

Screening of Long List of Alternative Designs

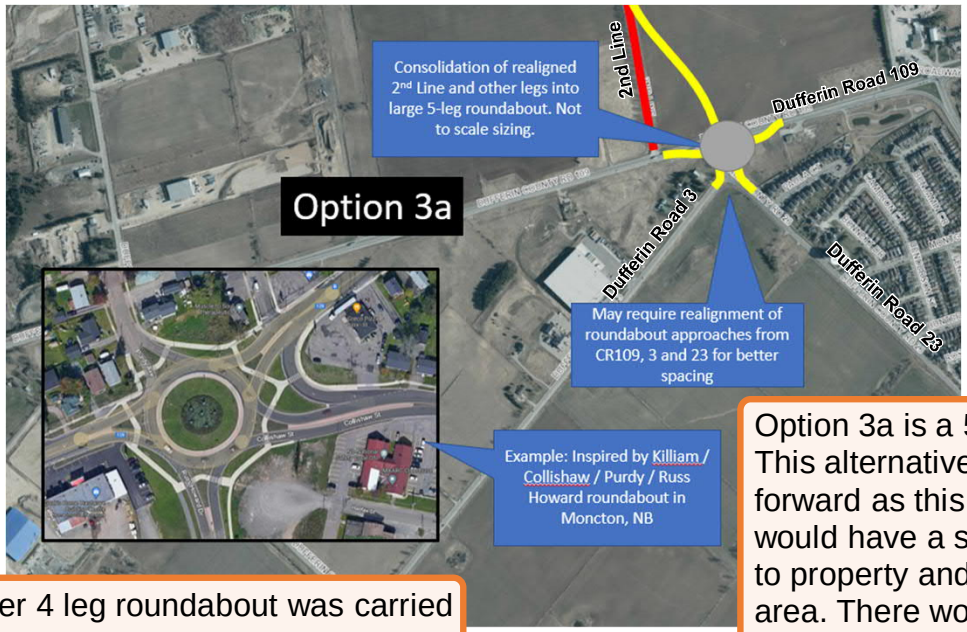
The Project Team developed possible alternatives based on feedback from PIC #1 and the forecasted traffic. Three alternatives were carried forward for evaluation (**Option 1b, 2c and 3b**).

The following alternatives were not carried forward for evaluation for the below mentioned reasons.



Option 1a creates County Road 23 as the main through road. County Road 3 is preferred as the through road as it is an interregional road.

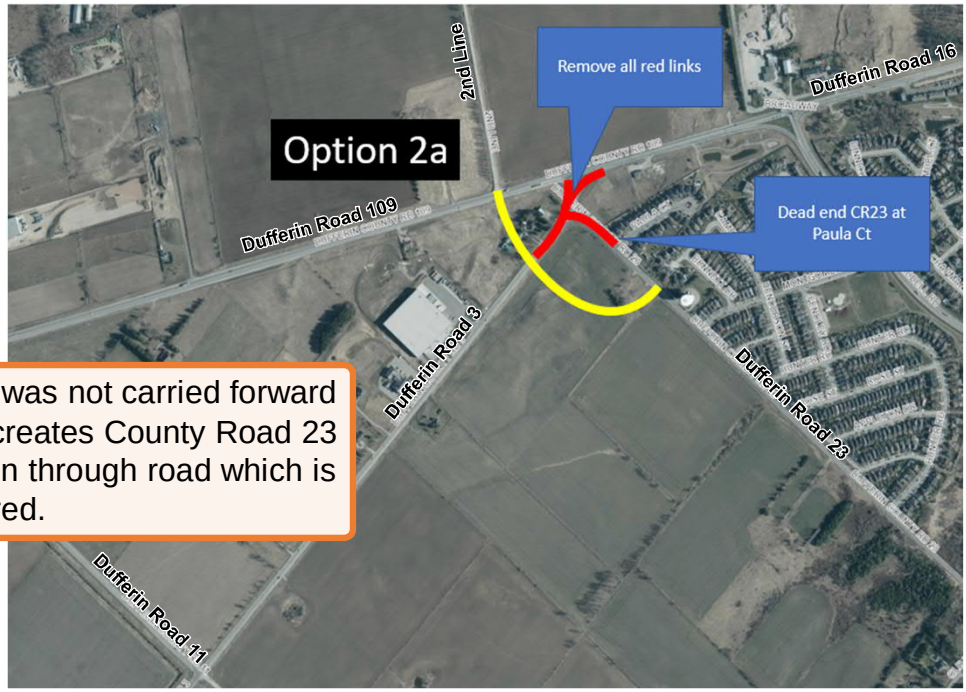
Option 1a was not carried forward because it creates a dead end at County Road 3. This is not ideal for the properties on this road, including the East Garafraxa Township Office.



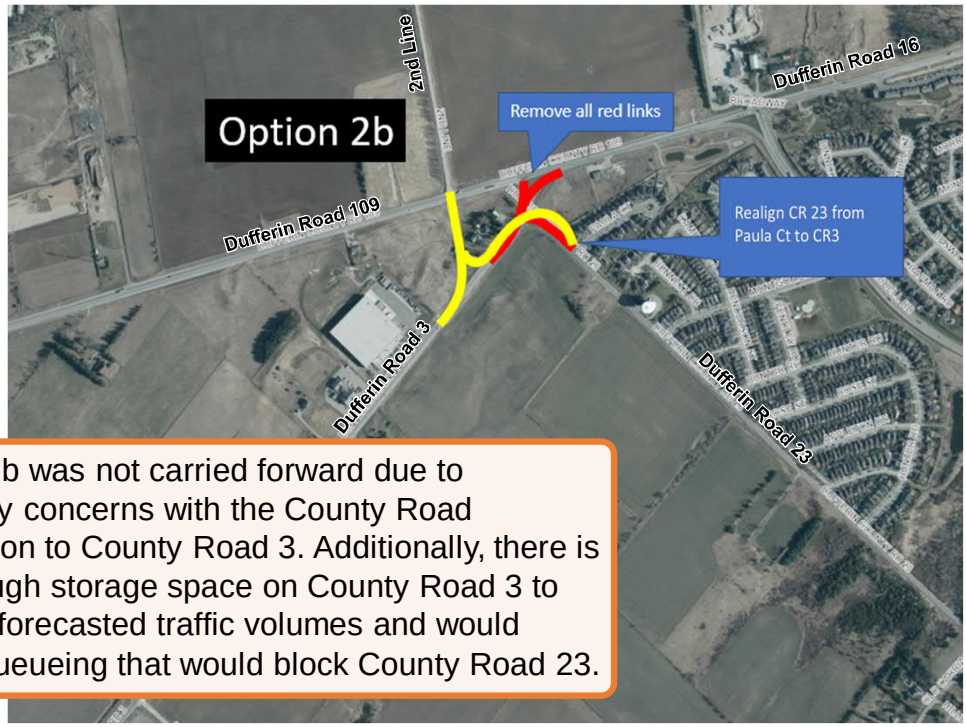
A smaller 4 leg roundabout was carried forward for evaluation (Option 3b).

Option 3a is a 5 leg roundabout. This alternative was not carried forward as this large roundabout would have a significant impact to property and the surrounding area. There would also be a high flow of uncontrolled traffic into adjacent controlled intersections.

Screening of Long List of Alternative Designs



Option 2a was not carried forward as it also creates County Road 23 as the main through road which is not preferred.



Option 2b was not carried forward due to geometry concerns with the County Road connection to County Road 3. Additionally, there is not enough storage space on County Road 3 to support forecasted traffic volumes and would cause queueing that would block County Road 23.

Option 2c is a more ideal version of extending 2nd Line south to County Road 3 and was carried forward for evaluation.

Option 1b – 2nd Line Realignment (County Road 23 Diverted to County Road 3)

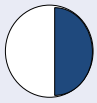
Option 2c: County Road 23 Realignment (County Road 3 Continuous)

Option 3b: Roundabout (4 legs)

Evaluation Criteria for Alternative Designs

Factor/Indicator	Weighting	Rationale
Natural Environment Impacts to wildlife, terrestrial resources, water resources, contamination, Species at Risk.	Medium	Natural environment features are not prominent in the study area.
Socio-Economic Environment Impacts to private properties and accesses, future land uses and operations, noise and air quality	High	Socio-economic is located in a built environment and it is desirable to minimize property requirements and potential impacts on residences, agricultural operations / lands and properties.
Cultural Environment Impacts to potential built and cultural heritage resources/landscapes, potential archaeological resources	Medium	Given the study area is actively used for farming, commercial or other active purposes, the archaeological potential is considered low. There are potential heritage resources in the area.
Transportation/Technical Impacts to predicated future traffic, resilience to extreme events and emergency responses, goods and service movements, active transportation, road user safety and traffic operations	High	Transportation has a high importance because the overall purpose of the project is to accommodate existing and future traffic demands.
Costs Construction and property acquisition costs	High	Construction costs are required while minimizing property acquisition costs where possible.

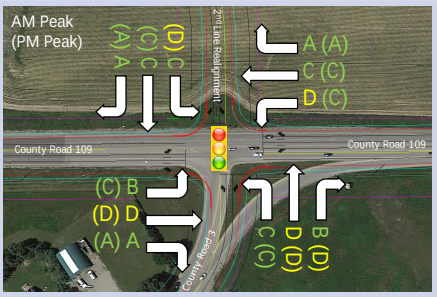
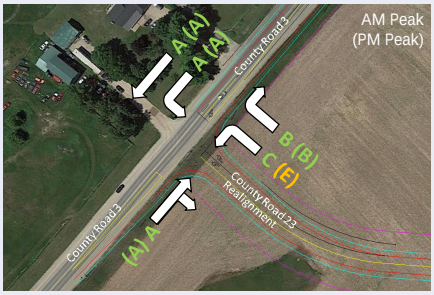
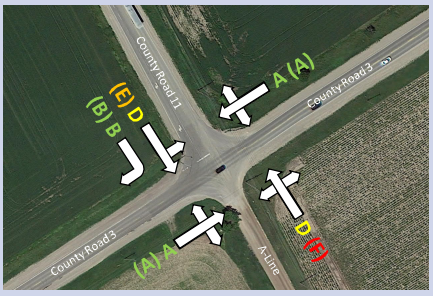
Summary of Evaluation of Alternatives

Factor / Indicator	Option 0 Do Nothing	Option 1b: 2nd Line Realignment (CR23 Diverted to CR 3)	Option 2c: CR 23 Realignment (CR3 Continuous)	Option 3b: Roundabout (2nd Line, CR 3, 23, and 109)
Natural Environment				
Evaluation				
Summary	From a Natural Environment perspective Option 0 is the preferred alternative because there are no impacts to the natural environment. Option 1b is the next preferred option with minimal and minor impacts to vegetation and wildlife. Option 1b and 3 both have minimal impacts to vegetation and wildlife. All alternatives have similar impacts to contaminated properties and groundwater. Option 2c has potentially suitable nesting habitat for two Threatened Species at Risk (Bobolink and Eastern Meadowlark) which makes this the least preferred option.			
Socio-Economic Environment				
Evaluation				
Summary	Option 0 is the preferred alternative because there are no impacts to property and access changes as well as minimal potential noise and air quality impacts. After Option 0, Option 1b is preferred because it has no property displacement and no property access impacts. Option 2c and Option 3b are least preferred because of their property displacement and property access impacts. Option 2c has the greatest loss of agricultural lands.			
Cultural Environment				
Evaluation				
Summary	Option 0 is the preferred option with no impacts on built heritage resources, cultural heritage landscapes and potential archeological resources. Option 1b is the next preferred option given there is no direct impacts on the built heritage resources or cultural heritage landscapes. Options 1b, 2c and 3b require a Stage 1-2 archeological assessment. Option 2c results in the demolition of a potential cultural heritage resource and its landscape and is the least preferred option.			
Transportation/Technical				
Evaluation				
Summary	Option 1b and Option 2c are tied as the preferred option based on the transportation evaluation given the acceptable level of service for all impacted movements for the roads in each direction. Option 0 does not solve the current concerns with traffic and safety and increases potential delays and surges in traffic. Option 3b does not accommodate future traffic volumes well, would need special design elements to account for heavy truck volumes, and is difficult for cyclists to navigate.			
Costs				
Evaluation				
Summary	Option 0 is preferred with no design to implement but does not solve the overall goal of the study. Option 1b is the next preferred option. Option 2c has the highest cost and Option 3b has the highest amount of ROW property requirements.			

Summary of Evaluation of Alternatives

Indicator	Do Nothing	Option 1b: 2nd Line Realignment (CR23 Diverted to CR 3)	Option 2c: CR 23 Realignment (CR3 Continuous)	Option 3b: Roundabout (2nd Line, CR 3, 23, and 109)
Overall Evaluation				
Evaluation	SET ASIDE	PREFERRED	SET ASIDE	SET ASIDE
Summary	Although having the least direct impacts and the lowest cost, the "Do Nothing" alternative does not achieve the overall goal of the study (to enhance safety through the realignment of the intersection).	Option 1b is the preferred option because of its minimal and minor impacts to the natural environment, minor impacts to socio-economic environment, and has no impacts to the cultural environment. From a traffic perspective, this option supports increases in traffic safety especially in light of projected future traffic volumes, ease of pedestrian crossings, and the potential for integration of cycling facilities in the future. The option has lowest cost and a moderate amount of ROW property requirement.	From a traffic perspective Option 1b and 2c are tied but Option 2c has more negative impacts in all the other categories assessed, including geometric concerns with the slope of County Road 109. Option 2c has potential impacts to two threatened Species at Risk, has socio-economic environment impacts and has negative impacts to the cultural environment. Option 2c has the highest cost but has a lowest ROW property requirement.	From a transportation and technical perspective, Option 3b does not accommodate future traffic volumes without future design changes. Option 3b is least preferred from a socio-economic perspective because of its impacts to property and accesses. Option 3b is tied with Option 1b from a natural environment perspective. Option 3b has the second highest cost and the highest amount of ROW requirements.

Traffic Summary of Preferred Alternative

Location	Notes	Configuration and Level of Service (2041)
County Road 109 / County Road 3 / 2nd Line (Signal)	• Traffic signal proposed, including left turn lanes and arrows on all approaches. • All movements operate at an acceptable LOS of D or better. • Southbound left turn includes advance green and long turn lane to accommodate traffic from future development.	
County Road 3 / County Road 23	• Unsignalized intersection with stop control for northbound traffic headed either east or west from County Road 23. • Southbound left turn lane provided for turns from County Road 3 to County Road 23. • Future traffic growth on County Road 3 may increase PM delays for left turns from County Road 23 – monitoring by County will be required to evaluate need for potential future additional traffic control.	
County Road 11 / County Road 3	• Unsignalized intersection with free flow along County Road 3 and stop control for County Road 11 and A-Line. • Future traffic growth on County Road 3 may increase delays for drivers waiting to turn from County Road 11 or A-Line – monitoring by County will be required to evaluate need for potential additional traffic control. • No improvements recommended as part of this study.	
Other Improvements to be Monitored	• County Road 109 / County Road 11 – signal timing, lane modifications and consideration of advanced green to reduce delays for southbound left turns. • County Road 109 / Riddell Road – signal timing modifications to increase traffic capacity along County Road 109. • To be looked at further outside of this EA process.	

Level of Service (LOS) Definitions	Unsignalized Intersections		Signalized Intersections	
	Delay (Average Wait Time) (s)	Level Of Service (LOS)	Delay (Average Wait Time) (s)	Level Of Service (LOS)
Acceptable Operations	≤10	A	≤10	A
	10 to 15	B	10 to 20	B
	15 to 25	C	20 to 35	C
Some Delay/Wait Time	25 to 35	D	35 to 55	D
Long Delay/Wait Time	35 to 50	E	55 to 80	E
Unacceptable Delay/Wait Time	>50	F	>80	F

Slide 18

GK0 From Scott:
-Just an ask…could we see this info for the other alternatives? Would be helpful for when the time comes to defend this option. Some will expect that any new project should produce an A scenario all around…
Greenberg, Kayla, 2023-05-04T17:20:42.803

VC0 0 [@Howell, Adam] I believe you have this info for other alternatives as it was used in evaluation? Let us know. Will it be in your memo/report? Thanks.
Vazz, Christine, 2023-05-10T13:37:13.545

HA0 1 Yes - the traffic memo/report will have the evaluation for all three of the short listed alternatives (to an extent, the operational analysis of 1b and 2c are mostly the same as noted). All information will be there including a comparison between the various options, which I think is what he's looking for.

Is there a need to do an option by option traffic slide, or are we still ok just doing it for the preferred alternative as we have now?
Howell, Adam, 2023-05-11T14:29:14.748

Environmental Investigations & Studies

Several technical analyses and disciplines have been or will be completed as part of this EA Study and included in the analysis of the final recommendations:


Cultural Heritage

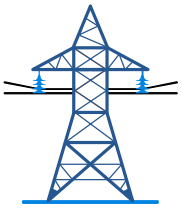

Groundwater


Drainage


Natural Environment


Traffic


Archaeology


Utilities


Agriculture


Geotechnical


Noise


Contamination


Air Quality

Summary of Environmental Impacts and Proposed Mitigation

Anticipated Environmental Effects		Recommended Mitigation Measures and Commitments to Future Work
Natural Environment	Impacts to **vegetation** (e.g., tree and vegetation communities)	•Impacts to trees will be minimized to the extent possible through the design •Impacts to vegetation communities will be minimized through avoidance & protection measures (e.g., ESC fencing)
	Potential impacts to **wildlife**	•Impacts to wildlife during construction will be minimized / avoided (e.g., using timing windows for vegetation removals to avoid impacts to nesting migratory birds, and implementing incidental encounter protocols to avoid wildlife harassment).
	Potential to impact **contaminated soils** during construction	•All impacted contaminated soils will be properly managed and disposed of during construction in accordance provincial and municipal standards.
	Potential to impact **drainage** features.	•A Drainage and Stormwater Management Report will be completed on the preferred alternative and mitigation measure will be considered as necessary.
	Potential impacts to **groundwater** quality and quantities during construction	•Contractor shall be responsible for treatment of contaminated groundwater prior to release and in accordance with applicable regulations during construction. •The Contractor will obtain all required permits prior to stat of construction (e.g. water-taking permit).
Socio-Economic Environment	**Property requirements** to construct recommended plan	•The County will continue to correspond with impacted property owners throughout the study. •The County will continue to reduce property impacts wherever possible.
	Change in **noise** during construction and following completion of road	•Construction will be completed in accordance with the Municipal Noise By-laws and their standard construction measures for noise. •A noise impact assessment is being prepared.
	Change in **air quality** during construction and following completion of road	•Emissions from construction operations will be managed through best management practices for construction operations and monitoring and mitigation requirements will be considered. •An air quality impact assessment is being prepared.
Cultural Environment	Potential impacts to areas with **archaeological** potential	•A Stage 1 archaeological assessment has been completed for the study area. Further archaeological assessments will be completed on areas with potential prior to the start of construction. •If previously unknown or deeply buried archaeological resources are uncovered during construction, work will cease and the appropriate Indigenous Communities and agencies will be contacted for direction.
	Potential impacts to areas with **cultural heritage** potential	•A cultural heritage existing conditions report has been completed for the study area. Further cultural heritage evaluation reports will need to be completed on areas with cultural heritage potential to confirm the heritage impacts.
Transportation Considerations	**Emergency access**	•Advanced notice will be provided to emergency service providers notifying them of construction start and anticipated lane closures, if required.
	Traffic interruptions and delays	•Advanced signage will be provided to motorists to notify them of construction start, and any lane closures, and detour routes required for construction. •Widening will address existing and future vehicle capacity concerns.
	Construction staging	•Advanced notice will be provided to property owners to notify them of construction start and any disruptions to existing accesses, as well as construction contractors and/or County's contact information. Access to all properties will be maintained.

Next Steps

After this Public Information Centre (PIC), the following tasks will be completed:

- Review comments received during this PIC and respond to comments;
- Incorporate any refinements into the Preferred Alternative based on public and agency input;
- Complete Technical Reports;
- Continue to discuss with impacted property owners and arrange meetings as needed;
- Prepare Environmental Study Report (ESR) summarizing the environmental investigation findings, mitigation measures, and features of the Preferred Alternative; and,
- Anticipate filing the ESR for a 30-day public and agency review and comment period in September 2023.

Contact Us

Thank you for attending!

For ongoing updates including study notices and other information, please visit the project website at: https://www.dufferincounty.ca/MCEA

If you have any questions or wish to be added to the mailing list, please email us directly at: dufferin109ea@dufferincounty.ca

Scott Burns, P.Eng., C.E.T.
Director of Public Works and County Engineer
County of Dufferin
30 Centre Street
Orangeville, ON L9W 2X1
Tel: 519-941-2816 Ext. 2601
Email: dufferin109ea@dufferincounty.ca

Brett Sears, MCIP, RPP
Senior Project Manager
WSP Canada Inc.
100 Commerce Valley Drive West
Thornhill, ON L3T 0A1
Tel: 289-982-4752
Email: dufferin109ea@dufferincounty.ca