



BURNSIDE

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Appendix L

Evaluation of Alternative Solutions

Sheridan Park Drive Environmental Assessment
Evaluation of Alternative Solutions

Alternative Descriptions

Do Nothing, do not make any changes / improvements to road network. Do not extend Sheridan Park Drive.

Limit development growth in surrounding areas.

Extend Sheridan Park Drive through from Speakman Drive to Homelands Drive.

Make improvements to adjacent roads to enable existing and future traffic to use alternate route options.

	CRITERIA FOR EVALUATING ALTERNATIVES	Alternative 1: Do Nothing	Alternative 2: Limit/ Manage Growth	Alternative 3: Extend Roadway (Sheridan Park Drive)	Alternative 4: Improve Alternative Routes for Existing and Traffic
A	NATURAL ENVIRONMENT				
1	Existing trees and vegetation communities	No impacts to existing conditions.	No impacts to existing conditions.	Based on the tree inventory there are no tree Species at Risk (SAR) in the Sheridan Park Drive right-of-way. Based on the preliminary preferred design plan, 105 trees (10 cm diameter or greater) and vegetation removals will be required to accommodate the road extension; however, tree removals will be minimized to the extent possible and compensated with new plantings of native species. Approximately 20 trees (10 cm diameter or greater) may be saved with grading revisions and/or arboricultural treatments like root pruning. Tree and vegetation removals within the existing road right-of-way will result in local edge effects to the adjacent wooded areas and thicket/meadow communities. The road extension is not anticipated to impact the form and function of the vegetation communities in the Study Area as there are significant wooded areas and large meadow/thicket vegetation communities within the private lands to the south of the right-of-way.	Avoids potential impact to natural environment in the Study Area, but potential for impacts to natural features along other roadways.
	Rating	●	●	○	◐
2	Wildlife	No impacts to existing conditions.	No impacts to existing conditions.	Some disturbance is expected in construction. The wooded area on the south side of the proposed road extension has the characteristics that could support bat habitat. Impacts to bat habitat can be readily mitigated through the installation of bat habitat boxes within the Study Area where appropriate. Based on the breeding bird surveys, no Threatened or Endangered avian SAR were observed. Two Special Concern SAR species (Eastern Wood Pewee and Wood Thrush) were observed; however, the proposed road extension will not directly affect breeding habitat for these two species. Proper mitigation measures for all confirmed species habitat will be implemented into construction and post construction monitoring.	No impacts to existing conditions within Study Area; however, potential impacts to wildlife along other roadways.
	Rating	●	●	○	◐
3	Aquatic habitat	No impacts to existing conditions.	No impacts to existing conditions.	There is no confirmed direct fish habitat in the Study Area. However, the headwater drainage features within the Study Area potentially contributes to the water quality and quantity of the downstream Sheridan Creek, which contains fish populations. With appropriate mitigation measures such as Low Impact Development (LID) techniques, the form and function of these headwater features can be maintained to ensure minimal impacts to downstream watercourses.	No impacts to existing conditions within Study Area; however, potential impacts to aquatic habitat along other roadways.
	Rating	●	●	○	◐
4	Hazard lands	No impacts to existing conditions.	No impacts to existing conditions.	No impacts are anticipated to the existing hazard lands within the Study Area.	No impacts to existing conditions.
	Rating	●	●	●	●
5	Surface water quality and drainage (stormwater management)	No impacts to existing conditions.	No impacts to existing conditions.	With appropriate mitigation measures, the form and function of the existing headwater drainage features in the Study Area can be maintained. There will be indirect impacts to surface water quality as a result of the road extension (i.e. road runoff); however, there are Low Impact Development (LID) opportunities to mitigate these impacts.	Improvements to adjacent roads may impact surface water quality if improvements require alterations to watercourse crossings (i.e. culverts or bridges); however, there are LID opportunities to mitigate these impacts.
	Rating	●	●	◐	◐
6	Groundwater quality	No impacts to existing conditions.	No impacts to existing conditions.	No impacts to existing conditions.	No impacts to existing conditions.
	Rating	●	●	●	●
	SUMMARY NATURAL ENVIRONMENT	●	●	◐	◐
	SUMMARY COMMENTS	No impacts to existing conditions.	No impacts to existing conditions.	Requires some tree / vegetation removals; however, impacts can be mitigated by tree plantings at a 2:1 replacement ratio. No tree Species at Risk (SAR) observed in Study Area. The proposed road extension will not directly affect wildlife habitat, any potential impacts will be mitigated. Road extension is not anticipated to impact the form and function of vegetation and headwater drainage features.	Avoids potential impacts to natural environment in the Study Area; however, there are potential for impacts to natural features along other roadways.

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B	SOCIO-ECONOMIC ENVIRONMENT				
1	Routing and connectivity within Study Area for all travel modes	Pedestrian and cycling travel will continue to be accommodated on the existing multi-use trail. Future vehicle connectivity within the Study Area will be limited without the road extension.	Pedestrian and cycling travel will continue to be accommodated on the existing multi-use trail. Future vehicle connectivity within the Study Area will be limited without the road extension.	Pedestrian and cycling travel will continue to be accommodated on the existing multi-use trail. Vehicle connectivity of the Study Area will be improved by providing additional connection to the broader road network.	Pedestrian and cycling travel will continue to be accommodated on the existing multi-use trail. Improvements to alternative roads does not increase connectivity within the Study Area.
	Rating	○	○	●	○
2	Noise and air quality	No impacts to existing conditions.	No impacts to existing conditions.	Noise assessment confirmed future noise levels are within Ministry and City standards and do not require mitigation. Short term nuisance noise and dust emissions expected during the construction phases and will be mitigated.	Improvements to adjacent roads would results in short term nuisance noise and dust emissions as well as potential for noise impacts.
	Rating	●	●	●	◐
3	Provision for emergency services	Emergency services access is provided within the existing road network.	Emergency services access is provided within the existing road network.	Provides additional access routes for emergency services.	Emergency services access is provided within the existing road network.
	Rating	◐	◐	●	◐
4	Lifestyle and culture of local residents	Opportunities for increased plantings along the multi-use trail. Local residents will continue to have access to the multi-use trail for recreation and leisure.	Opportunities for increased plantings along the multi-use trail. Local residents will continue to have access to the multi-use trail for recreation and leisure.	Views of utility corridor / green space will not change as a result of the road extension. Opportunities for increased plantings along the multi-use trail. Local residents will continue to have access to the multi-use trail for recreation and leisure.	Opportunities for increased plantings along the multi-use trail. Local residents will continue to have access to the multi-use trail for recreation and leisure.
	Rating	●	●	●	●
5	Supports planned development	Does not support the future potential development in the business park.	Does not support the future potential development in the business park.	The extension of the roadway supports the future potential development and diversification of business park by creating increased roadway connectivity and improving access routes for local traffic.	Does not support the future potential development in the business park.
	Rating	○	○	●	○
	SUMMARY SOCIO-ECONOMIC ENVIRONMENT	◐	◐	●	◐
	SUMMARY COMMENTS	Future vehicle connectivity in area is limited without extension. No changes to pedestrian and cycling use of corridor.	Future vehicle connectivity in area is limited without extension. No changes to pedestrian and cycling use of corridor.	Connectivity will be improved for all modes of transportation. Provides increased access routes for emergency services. No changes to pedestrian and cycling use of corridor.	Providing alternate route options does not increase connectivity within the Study Area. No changes to pedestrian and cycling use of corridor.

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C	CULTURAL ENVIRONMENT				
1	Archaeological Resources	No impacts to existing conditions.	No impacts to existing conditions.	Stage 1 Archaeological Assessment has identified some areas of archaeological potential within the Study Area, predominantly within the undeveloped lands of the Sheridan Park Drive right-of-way. A Stage 2 Archaeological Assessment will be conducted to determine if there are any potential archaeological resources within the Study Area.	No impacts to existing conditions within Study Area; however, some potential for impacts to archaeological resources in other corridors.
	Rating	●	●	◐	◑
2	Heritage Features	No impacts to existing conditions.	No impacts to existing conditions.	Cultural Heritage Resources Assessment notes that Sheridan Park is identified as a significant Cultural Landscape by the City with properties listed on the City's Heritage Register. No cultural heritage impacts to these resources are anticipated from the proposed extension of Sheridan Park Drive.	No impacts to existing conditions. Some potential for impacts to cultural heritage resources in other corridors.
	Rating	●	●	●	◑
	SUMMARY CULTURAL ENVIRONMENT	●	●	◐	◑
	SUMMARY COMMENTS	No impacts to existing conditions.	No impacts to existing conditions.	Some areas of archaeological potential to be investigated. No impacts anticipated to cultural heritage features.	No impacts to existing conditions within the Study Area. Some potential for impacts to archaeological resources and cultural heritage resources in other corridors.

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D	TRANSPORTATION ENGINEERING ENVIRONMENT				
1	Balancing of all travel modes	Not consistent with City planning policies (e.g., Official Plan). Does not address anticipated transportation needs. Does not improve network connectivity for all travel modes.	Not consistent with City planning policies (e.g., Official Plan). Does not address anticipated transportation needs. Does not improve network connectivity for all travel modes.	Consistent with City planning policies (e.g., Official Plan). Addresses anticipated transportation needs. Improves network connectivity for all travel modes.	Would potentially provide capacity in other corridors; however, does not improve network connectivity for all travel modes.
	Rating	○	○	●	○
2	Traffic Management	Does not allow for alternate route options or opportunity to divert traffic from the residential neighbourhood.	Does not allow for alternate route options or opportunity to divert traffic from the residential neighbourhood.	Allows for alternate route options and has potential to divert traffic from the residential community.	Does not allow for alternate route options within the Study Area and does not provide opportunity to divert traffic from the residential neighbourhood.
	Rating	○	○	●	○
3	Construction and Staging	No impacts to existing conditions.	No impacts to existing conditions.	Limited impact during construction at the adjacent intersections; however, most of the road construction can be accomplished without impact to the existing transportation network.	Improvements to adjacent roads would have a greater construction impact (within active roadways) as compared to the road extension which can be primarily constructed off-line (non-active road).
	Rating	●	●	◐	○
4	Speed Management	No impacts to existing conditions.	No impacts to existing conditions.	Road design can accommodate a variety speed management features including narrower roads and centre islands to mitigate potential speeding concerns.	May or may not be able to accommodate speed management on adjacent roads depending on roadway classification.
	Rating	●	●	◐	○
5	Vehicular level of service	Does not improve traffic operations because it does not provide alternate route options.	Does not improve traffic operations because it does not provide alternate route options.	Improves network redundancy by providing more alternate route options, which improves traffic operations.	Does not improve traffic operations within the Study Area as it does not provide alternate route options. Existing arterial routs are constrained and have limited potential to increase capacity.
	Rating	○	○	●	○
6	Impacts to Utilities	Limited access to existing hydro infrastructure in Study Area.	Limited access to existing hydro infrastructure in Study Area.	Extended roadway will have positive impacts for utilities, allowing for improved access to existing hydro corridor. May require utility relocations at intersections.	Limited access to existing hydro infrastructure in Study Area. Potential for utility relocations along adjacent corridors.
	Rating	◐	◐	●	◐
7	Comparative capital and operations costs of implementing alternatives	No capital costs. Continual costs for existing operations and maintenance.	No capital costs. Continual costs for existing operations and maintenance.	Capital costs and additional operations costs associated with extending Sheridan Park Drive.	Capital costs associated with improvements to adjacent roads.
	Rating	◐	◐	○	◐
	SUMMARY TRANSPORTATION ENGINEERING ENVIRONMENT	○	○	●	○
	SUMMARY COMMENTS	Not consistent with City planning policies (e.g., Official Plan). Does not address anticipated transportation needs. Does not improve network connectivity or provide alternate route options for all travel modes.	Not consistent with City planning policies (e.g., Official Plan). Does not address anticipated transportation needs. Does not improve network connectivity or provide alternate route options for all travel modes.	Consistent with City planning policies (e.g., Official Plan). Addresses anticipated transportation needs. Improves network connectivity and provides alternate route options for all travel modes.	Would potentially provide capacity in other corridors; however, does not improve network connectivity or provide alternate route options for all travel modes within the Study Area.

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E	Project Opportunity Statement				
	Addresses Project Opportunity Statement	✗	✗	✓	✗
	SUMMARY COMMENTS	Alternative 1 is unable to address the Project Opportunity Statement with the exception of preserving the natural feel and recreational benefits of the Study Area.	Alternative 2 is unable to address the Project Opportunity Statement with the exception of preserving the natural feel and recreational benefits of the study area.	Alternative 3 can fully address the Project Opportunity Statement as it supports multi-modal transportation for all users, can potentially divert traffic from the neighbourhood and improves network redundancy and improves access to the Study Area. Additionally, this alternative will preserve the natural feel and recreational benefits of the Study Area by implementing appropriate mitigation.	Alternative 4 partially addresses the Project Opportunity Statement as it supports multi-modal transportation however it does not improve network redundancy or improves access to the study area.

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	OVERALL SUMMARY	Not Carried Forward	Not Carried Forward	Carried Forward	Not Carried Forward
	SUMMARY COMMENTS	Does not impact natural or cultural environments. Do Nothing does not complete road network and is not consistent with City planning policies (e.g. Official Plan).	Does not impact natural or cultural environments. Limiting growth does not support future potential growth within business park and is not consistent with City planning policies (e.g. Official Plan).	Road extension will complete the road network and is consistent with City planning policies (e.g. Official Plan). This alternative provides an alternate route and improved access in the Study Area, for all travel modes. Any impacts to natural environment can be mitigated.	Would potentially provide capacity in other corridor; however, does not improve network connectivity or provide alternate route options for all travel modes within the Study Area.

ORDER OF PREFERENCE

Most Preferred ●

Somewhat Preferred ◐

Least Preferred ○