

Appendix B

Evaluation of Alternatives

TABLE 1 - ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - LESPERANCE PUMP STATION SERVICE AREA						
Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 Lesperance trunk sewer upgrade and Lesperance PS improvements with localized solutions	Alternative 2 New St. Pierre trunk sewer and Lesperance PS improvements with localized solutions	Alternative 3 Lesperance trunk sewer upgrades and New St. Pierre St. trunk sewer, Lesperance PS improvements
Meets Study Objective						
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified.	If the alternative does not address objectives, it will be screened for further consideration	Does not meet objective	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.
Technical Factors						
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Alternative increases the level of service of the minor system. Pump station improvements enhance level of service at the outlet. This alternative provides moderate potential to increase level of service in the minor system as a standalone regional solution.	Similar to Alt. 1	Similar to Alt. 1 This alternative provides high potential to increase level of service in the minor system as a standalone regional solution.
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding to provincially accepted standards during infrequent (major) storm events.	Decrease of roadway surface ponding depths to below +.5cm of 0.30m during 1:100 year event within service area.	N/A	Surface ponding depths are brought to provincially accepted depths during 1:100 year event throughout service area. This alternative provides moderate potential to reduce ponding depths as a standalone regional solution.	Similar to Alt. 1	Similar to Alt. 1. This alternative provides high potential to reduce ponding depths as a standalone regional solution.
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction (i.e. access, site conditions)	N/A	Alternative is difficult to construct due to several conflicts with the sanitary system. Storm sewer system would have to be very deep (+10m) to eliminate conflicts. Alternative would be very difficult to design and construct.	New trunk sewer has minor conflicts with sanitary, but some sanitary sewer replacement and PDC connections would be necessary. Alternative is fairly easy to implement.	Same as Alt. 1 & 2
Social/Economic Factors						
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	No Impact	No Impact	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Significant short term impacts to community due to noise, collector roadway/lane closures, access to adjacent businesses and parking during construction along Lesperance (urban collector/arterial roadway in Tecumseh)	Short term impacts to community due to noise, local roadway/lane closures and street parking during construction along St. Pierre (local roadway in Tecumseh)	Disruption of both St. Pierre (local roadway) and Lesperance (urban collector/arterial). Both Alt 1 & Alt 2 impacts.
Environmental Factors						
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	Low potential for Eastern Foxsnake and Barn Swallow habitat in the vicinity of the pump station. No significant natural features in the area. Impacts limited to landscape planting. Limited impacts to aquatic habitat anticipated based on required improvements to existing outfall structure.	Similar to Alt. 1	Similar to Alt. 1
Cultural Factors						
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Majority of lands impacted have been previously disturbed. Archaeological assessment required for previously undisturbed areas	Similar to Alt. 1	Similar to Alt. 1
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	No designated heritage features will be impacted	Similar to Alt. 1	Similar to Alt. 1
Cost Factors						
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	High capital cost than Alternative 2 due to depth of required storm trunk sewer upgrades and disruption to an urban collector/arterial roadway.	Lower capital cost than Alternative 1 due to constructability of trunk sewer along local roadway	High capital cost than Alternative 1 & 2 due to incorporation of two storm trunk sewers.
Concluding Comments					RECOMMENDED ALTERNATIVE	

TABLE 2- ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - WEST ST. LOUIS PUMP STATION SERVICE AREA				
Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 West St. Louis PS Improvements with localized solutions along Little River, Riverside Drive and Coronado Dish
Meets Study Objective				
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified. If the alternative does not, it will be screened for further consideration	If the alternative does not address objectives, it will be screened for further consideration	Does not meet objective	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.
Technical Factors				
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Alternative increases the level of service of the minor system through localized improvements. Pump station improvements enhance level of service at the outlet. This alternative provides moderate potential to increase level of service in the minor system.
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding to provincially accepted standards during infrequent (major) storm events.	Decrease of roadway surface ponding depths to below +/- 5cm of 0.30m during 1:100 year event within service area.	N/A	Surface ponding depths are brought to provincially accepted depths during 1:100 year event throughout service area. This alternative provides limited potential to reduce ponding depths as a standalone regional solution. Localized improvements are necessary to bring to a moderate potential to reduce ponding depths.
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct/implemented are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction/implementation (ie. access, site conditions)	N/A	Works proposed within municipally owned right-of-way. Pump station expansion outlined within original design of existing pump station with existing outfall designed for added outfall pipes.
Social/Economic Factors				
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Disruption along local roadways during construction where storm sewer improvements are proposed.
Environmental Factors				
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	No significant natural features in the area. Removal of existing landscape trees anticipated. Impacts to aquatic habitat not anticipated as work at outfall currently not planned.
Cultural Factors				
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Majority of lands impacted have been previously disturbed. Archaeological assessment required for previously undisturbed areas
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	No designated heritage features in the vicinity of the site.
Cost Factors				
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	Moderate capital cost due to pump station, road and storm sewer improvements required.
Concluding Comments				RECOMMENDED

TABLE 3 - ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - SCULLY, ST. MARK'S PUMP STATION SERVICE AREA & PJ CECILE PUMP STATION SERVICE AREA						
Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 Scully, St. Mark's and PJ Cecile PS improvements	Alternative 2 Decommission St. Mark's PS and consolidate service area to Scully PS location. New Consolidated Scully/St. Mark's PS and PJ Cecile PS improvements	Alternative 3 Decommission Scully PS and PJ Cecile PS and consolidate service areas to the St. Mark's PS location. New consolidated Scully/St. Mark's/PJ Cecile PS.
Meets Study Objective						
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified. If the alternative does not, it will be screened for further consideration	If the alternative does not address objectives, it will be screened for further consideration	Does not meet objective	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.
Technical Factors						
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Alternative provides increased level of service throughout service areas	Same as Alt. 1	Same as Alt. 1
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding to provincially accepted standards during infrequent (major) storm events.	Decrease of roadway surface ponding depths to below +/- 5cm of 0.30m during 1:100 year event within service area.	N/A	Surface ponding depths are brought to provincially accepted depths during 1:100 year event throughout service area.	Same as Alt. 1	Same as Alt. 1
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct/implemented are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction/implementation (ie. access, site conditions)	N/A	Storm sewer works proposed within municipally owned right-of-way. Pump station improvements can be accommodated within existing property	Same as Alt. 1. Minor sanitary conflicts along Riverside Drive between Arlington and St. Mark's.	Alternative requires land acquisition to accommodate consolidated pump station for the three service areas at the St. Mark's station location. Sanitary conflicts along Riverside Drive.
Social/Economic Factors						
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	No Impact	No Impact	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Temporary disruption to Beachgrove Club western parking lot during construction of new PJ Cecile pump station	Same as Alt. 1	Temporary disruption to Beachgrove Club western parking lot during construction of new PJ Cecile pump station. Potential land acquisition for new pump station causing permanent displacement for private property owner.
Environmental Factors						
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	Upgrade to PJ Cecile pump station outfall through marina jetty requires aquatic assessment during detailed design. Approval under the Fisheries Act will be required for all in-water work and will be obtained during detailed design, once impacts are further developed. Limited potential for SAR and SAR habitat within study area.	Same as Alt. 1.	St. Mark's pump station outfall location would require expansion and assessment of aquatic impacts during detailed design, similar to Alt. 1. Limited potential for SAR and SAR habitat within study area.
Cultural Factors						
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Due to outfall work for the PJ Cecile pump station in proximity to the Lake, there is potential for archaeological resources to be found on site. A Stage 1 and 2 Archaeological Assessment required during detailed design. Additional assessments will be completed (if required).	Same as Alt. 1	Any outfall work within the consolidated pump station site in proximity to the Lake has the potential for archaeological resources to be found on site. A Stage 1 and 2 Archaeological Assessment will be completed during detailed design. Additional assessments will be completed (if required).
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	No designated heritage features adjacent to site	Same as Alt. 1	Same as Alt. 1
Cost Factors						
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	Similar capital cost as Alternative 2 due to required upgrades at each pump station. Increased O&M costs than Alternative 2 due to more pump stations to operate and maintain.	Similar capital cost as Alternative 1 due to size of consolidated pump station. Less O&M costs than Alternative 1 due to less pump stations to operate and maintain.	Highest capital cost of all alternatives due to trunk sewer requirements, pump station requirements and land acquisition. Lowest O&M costs due to consolidation of 3 pump stations.
Concluding Comments					RECOMMENDED	

TABLE 4 - ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - NEW SOUTHWIND CRESCENT STORM PUMP STATION						
Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 New Pump station located within existing 4.5m easement	Alternative 2 New Pump station located within existing Southport Marina lands	Alternative 3 New Pump station located within existing municipal right-of-way
Meets Study Objective						
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified. If the alternative does not, it will be screened for further consideration	If the alternative does not address objectives, it will be screened for further consideration	"Do Nothing" alternative meets objective of study under low to average water level conditions at the outlet.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the regional problem area.
Technical Factors						
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Provides a hydraulic disconnect from the storm sewers to the outlet waterway, thus allowing for increased conveyance in the storm sewer system during more frequent events.	Similar to Alt. 1	Similar to Alt. 1
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding to provincially accepted standards during infrequent (major) storm events.	Decrease of roadway surface ponding depths to below +/- 5cm of 0.30m during 1:100 year event within service area.	N/A	Surface ponding depths are brought to provincially accepted depths during 1:100 year event throughout service area under high levels at the outlet. This alternative provides high potential to reduce ponding depths.	Similar to Alt. 1	Similar to Alt. 1
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct/implemented are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction/implemention (ie. access, site conditions)	N/A	Use of existing 4.5m storm easement for pump station location reduces construction time and approvals due to maintaining the existing outfall pipe and location. Pump station construction within existing storm easement causing temporary displacement of property and permanent site conditions with the incorporation of an above ground pump station electrical panel for adjacent residents. No maintenance easement requirements at this time beyond what is existing.	New pump station location requires a new maintenance easement or potential land acquisition along sailing club property. New outlet into waterway requires additional permitting and approvals.	Pump station location has conflicts with existing utilities within roadway right-of-way. Temporary impact of traffic during construction due to works within roadway right-of-way.
Social/Economic Factors						
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	No Impact	Municipal easement would limit new structure from being constructed within limits. Could impact any development in the future on sailing club property at pump station and outfall location.	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Temporary disruption to existing residents adjacent to existing storm easement during construction.	Temporary disruption to sailing club lands within vicinity of pump station during construction. Loss of boat docks at new pump station outfall location.	Temporary disruption to existing adjacent residents during construction.
Environmental Factors						
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	No impacts anticipated as no significant features on site. Existing outfall to Pike Creek will be maintained	Impacts to aquatic habitat as new outfall required. Approval under the Fisheries Act required during detailed design	Same as Alt. 1
Cultural Factors						
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Archaeological assessment anticipated for new pump station.	Archaeological assessment anticipated for new pump station and outfall.	Pump station located within municipa ROW and anticipated to be disturbed during construction of the roadway. Archaeological assessment not anticipated.
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	No features adjacent to site.	Same as Alt. 1	Same as Alt. 1
Cost Factors						
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	Lowest capital cost of alternatives due to construction within existing storm maintenance easement and use of existing outfall.	Highest capital cost due aquisition of maintenance easement/property, new outlet to the waterway and loss of boat docks along sailing club property due to outfall location.	Higher capital cost than Alternative 1 due to increased construction works within roadway right-of-way, work around existin utilities etc.
Concluding Comments				RECOMMENDED		

TABLE 5 - ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - ST. GREGORY'S ROAD

Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 Aboveground Storage within Soccer Field Park	Alternative 2 Underground Storage within Roadway
Meets Study Objective					
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified. If the alternative does not, it will be screened for further consideration	If the alternative does not address objectives, it will be screened for further consideration	Does not meet objective	Meets the objectives of the study to reduce surface flooding to acceptable standards in the localized problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the localized problem area.
Technical Factors					
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Storm sewer relief through overflow sewer to park adds resiliency to the local municipal minor system.	Upgraded storm sewers within roadway right-of-way provide a greater minor system level of service.
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding along ingress/egress of institutional lands during the simulated climate change event.	Decrease of roadway surface ponding depths along L'Essor Highschool ingress/egress routes during 1:100 year +40% event.	N/A	Surface ponding depths at entrance/exists to school are brought to accepted depths during 1:100 year + 40% event.	Same as Alt. 1
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct/implemented are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction/implementation (ie. access, site conditions)	N/A	Minimal disruption to traffic along roadway during construction. Easily constructed due to only the depression of fields and minor storm sewer construction required. Lands currently owned by CSC Providence School Board and requires a maintenance agreement prior to construction.	More disruption to traffic along roadway during construction. Requires more storm sewer infrastructure improvements compared to Alt. 1
Social/Economic Factors					
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	Park designated as a stormwater feature with a municipal maintenance easement. Could impact development in the future if property is sold.	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Temporary disruption to Tecumseh Soccer Fields during construction and restoration period.	Temporary disruption to traffic along roadway during construction, including ingress/egress of L'Essor Highschool.
Environmental Factors					
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	No natural features in the area – impacts limited to existing mown area of soccer field.	No natural features in the area – potential to remove existing boulevard trees
Cultural Factors					
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Land previously disturbed by construction of soccer fields.	Lands within roadway right-of-way previously disturbed during construction of roadway.
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	No designated heritage features adjacent to site	Same as Alt. 1
Cost Factors					
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	Lower capital cost due to limited storm infrastructure improvements within roadway right-of-way	Higher capital cost due to storm infrastructure improvements within roadway right-of-way
Concluding Comments				RECOMMENDED	

TABLE 6 - ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - BUSTER REAUME PARK

Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 Aboveground Storage within Buster Reaume Park	Alternative 2 Underground Storage within Roadway
Meets Study Objective					
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified. If the alternative does not, it will be screened for further consideration	If the alternative does not address objectives, it will be screened for further consideration	Does not meet objective	Meets the objectives of the study to reduce surface flooding to acceptable standards in the localized problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the localized problem area.
Technical Factors					
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Storm sewer relief through overflow sewer to park adds resiliency to the local municipal minor system.	Upgraded storm sewers within roadway right-of-way provide a greater minor system level of service.
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding along ingress/egress of institutional lands during the simulated climate change event.	Decrease of roadway surface ponding depths along L'Essor Highschool ingress/egress routes during 1:100 year +40% event.	N/A	Surface ponding depths in park are brought to accepted depths during 1:100 year + 40% event.	Same as Alt. 1
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct/implemented are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction/implementation (ie. access, site conditions)	N/A	Temporary disruption to residents along Lamire and Lanoue during construction. No long-term disruption to existing parkland.	Maintains existing direction of storm sewers and outlet sewer through municipal easement to Via Rail Ditch. Utility conflicts within roadway and depth constraints at VIA Rail ditch outlet. Requires more storm sewer infrastructure improvements compared to Alt. 1
Social/Economic Factors					
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	No Impact	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Temporary disruption to residents along Lamire and Lanoue during construction. No long-term disruption to existing parkland.	Temporary disruption to residents along Lamire and Lanoue during construction.
Environmental Factors					
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	No natural features in the area – impacts limited to existing mown area of park	No natural features in the area – potential to impact existing boulevard trees and mown lawn
Cultural Factors					
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Land previously disturbed by construction of park.	Lands within roadway right-of-way previously disturbed during construction of roadway.
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	No designated heritage features adjacent to site	Same as Alt. 1
Cost Factors					
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	Lower capital cost due to limited storm infrastructure improvements within roadway right-of-way	Higher capital cost due to storm infrastructure improvements within roadway right-of-way
Concluding Comments				RECOMMENDED	

TABLE 7 - ALTERNATIVE REGIONAL SOLUTION EVALUATION MATRIX - TECUMSEH CENTRE PARK					
Evaluation Criteria	Description	Measure	Do Nothing	Alternative 1 Above/Underground Storage with Overflow from Trunk Sewer	Alternative 2 Trunk Sewer Conveyance Upgrades
Meets Study Objective					
Addresses study Problem/Opportunity Statement	Alternative must address the study objectives identified. If the alternative does not, it will be screened for further consideration	If the alternative does not address objectives, it will be screened for further consideration	Does not meet objective	Meets the objectives of the study to reduce surface flooding to acceptable standards in the localized problem area.	Meets the objectives of the study to reduce surface flooding to acceptable standards in the localized problem area.
Technical Factors					
Impact on Minor system (sewers) drainage	The ability of the alternative to increase the level of service through the existing minor system for flow conveyance during frequent (minor) storm events.	Increase in level of service of the trunk storm sewer system. Increase the outlet capacity at the storm outlets.	N/A	Storm sewer relief through overflow sewer to baseball diamonds and skatepark adds resiliency to the local municipal minor system.	Upgraded storm sewers within roadway right-of-way provide a greater minor system level of service and regional solution to reduce surface flooding and improve storm sewer conveyance.
Impact on Major system (roadway) drainage	The ability of the alternative to enhance major system flow routing and reduce surface ponding along ingress/egress of institutional lands during the simulated climate change event.	Decrease of roadway surface ponding depths along L'Essor Highschool ingress/egress routes during 1:100 year +40% event.	N/A	Surface ponding depths in park are brought to accepted depths during 1:100 year + 40% event.	Same as Alt. 1
Ease of Construction and Implementation	The ability of the alternative to be easily implemented on a technical, regulatory and practical basis. Alternatives that are easier to construct/implemented are preferred.	Type of structure/construction required, permitting/approval requirements, difficulty of construction/implementati on (ie. access, site conditions)	N/A	Temporary disruption to of baseball diamond during construction and restoration. Temporary displacement of municipal building entrance during construction.	Trunk sewer is required to be constructed very deep to reduce conflicts with existing services. Greater traffic disruption along Lesperance than Alt. 1.
Social/Economic Factors					
Future land uses	Potential to influence infill development in currently developed areas.	Impact of solution on future development directly on site or along adjacent lands.	N/A	No Impact	No Impact
Impact on Urban Community	Potential for disruption or displacement of existing residents, greenspace/recreational uses (streets, trees, parks, open spaces)	Impact to vegetation, street trees, public parking, access to sites, visibility, road access, construction of mitigation measures, noise, light, short term construction impacts etc.	N/A	Limited traffic disruption and work within roadways	Greater traffic disruption along Lesperance than Alt. 1
Environmental Factors					
Natural environment	Potential for significant negative impacts on terrestrial and aquatic resources, including Species at Risk habitat	Alternatives with impacts to SAR habitat are less preferred.	N/A	No natural features in the area – impacts limited to existing mown area of park behind Town Hall	No natural features in the area – potential to impact existing mown lawns
Cultural Factors					
Archaeological resources	Potential to impact lands with archaeological resources	Need for archaeological assessment	N/A	Land previously disturbed by construction of park behind Town Hall	Lands within roadway right-of-way previously disturbed during construction of roadway.
Built heritage and/or cultural heritage resources	Potential impacts on built heritage and/or cultural heritage resources	Need for built heritage assessment	N/A	Historic plaque located on northeast corner of municipal land.	Same as Alt. 1
Cost Factors					
Relative capital cost	Relative overall capital costs, including restoration/enhancement costs for the alternative. Lower cost alternatives are preferred.	Capital Cost of Alternative relative to other alternatives	N/A	Lower capital cost due to limited storm infrastructure improvements within roadway right-of-way	Higher capital cost due to storm infrastructure improvements within roadway right-of-way
Concluding Comments				RECOMMENDED	