

Shawnee Road and Arbour Street Area Evaluation Matrix

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Evaluation of Alternative Solutions

Improvements to Shawnee Road and Arbour Street Area Alternative Solution Evaluation Matrix			
Description	Alternative 1	Alternative 2	Alternative 3
Evaluation Criteria	Do Nothing	Arbour Street Open with Traffic Calming	Arbour Street Remains Closed
Traffic Impacts			
Accessibility to Existing Land Uses	Low • No impact	Medium • Residential access near traffic circles may require some mitigating measures	Low • No impact
Accessibility to Proposed Land Uses	Low • Access is limited to institutional property on the south side of Arbour Street if Arbour remains closed	High • Access to institutional sites improve with Arbour Street open	Low • Access is limited to institutional property on the south side of Arbour Street if Arbour remains closed
Improvements to Traffic Flow	Low • No impact	High • Improved road surface will improve driving conditions • Traffic circles improve movement at intersections (no stop conditions) • Traffic calming measures discourage cut through traffic • Opening Arbour Street improves Emergency Vehicle access for Neighbourhood	Medium • Improved road surface will improve driving conditions
Improvements to Pedestrian Flow	Low • No impact	High • Sidewalks/multi-use pathways will improve walking conditions	Low • No impact
Improvements to Vehicular Safety	Low • No impact	Medium • Traffic circles will eliminate right angle crash risk at intersections • More appropriate vehicle speeds expected along Arbour and Shawnee	Low • No impact
Improvements to Pedestrian Safety	Low • No impact	High • More appropriate vehicle speeds expected, which will improve pedestrian safety • Sidewalks will improve pedestrian safety	Medium • Sidewalks will improve pedestrian safety
Improvements to Cyclist Safety	Low • No impact	Medium • Identified signed bicycle route for vehicle awareness along Arbour Street	Low • No impact
Environmental Impacts			
Impact on Terrestrial Environment	Low • No impact to terrestrial environment	Medium • Suburban landscaping (new proposed trees); no natural vegetation • Any trees/shrubs requiring removal should be cleared outside of bird nesting season	Medium • Suburban landscaping (new proposed trees); no natural vegetation • Any trees/shrubs requiring removal should be cleared outside of bird nesting season
Impact on Aquatic Environment	Low • No impact to aquatic environment	Low • No impact to aquatic environment	Low • No impact to aquatic environment

Improvements to Shawnee Road and Arbour Street Area Alternative Solution Evaluation Matrix			
	Alternative 1	Alternative 2	Alternative 3
Impact on Soil and Geology (erosion, contamination)	Low • No impact to soils/ geology	Low • Existing soils/geology are result of past filling • Grades are low, with low erosion potential • Risk of soil contamination mitigated by construction Best Management Practices (e.g., fuel storage/handling, spill response)	Low • Existing soils/geology are result of past filling • Grades are low, with low erosion potential • Risk of soil contamination mitigated by construction Best Management Practices (e.g., fuel storage/handling, spill response)
Social Impacts			
Impacts to Existing & Proposed Land Use	Low • No impacts to existing or future land uses	Medium • Temporary disruption during construction period • Impacts to residential land use along some portions of Arbour Street and Shawnee Road • House-to-house mail delivery to remain unchanged	Medium • Temporary disruption during construction period • Impacts to residential land use along some portions of Arbour Street and Shawnee Road • House-to-house mail delivery to remain unchanged
Property Acquisition	Low • No property to be acquired	Medium • Some residential property at key intersections may be acquired • Potential Easement for existing Utilities adjacent to institutional lands • Some residential property at cul-de-sac locations may be acquired	Medium • Potential Easement for existing Utilities adjacent to institutional lands • Some residential property at cul-de-sac locations may be acquired
Bicycle & Pedestrian Connectivity	Low • No impact	High • New concrete sidewalk to be installed along Arbour Street out to Southfield Lane • Signed bicycle route along Arbour Street to connect pathway out to Southfield Lane	Low • No connectivity along Arbour Street to Southfield
Economic Impacts			
Disruption to Existing Businesses	Low • No Disruption	Low • No Disruption	Low • No Disruption
Cultural Resources			
Effect on Cultural Resources	Low • No cultural resources will be affected	Low • Minimal disruption to access to St. Anne's Cemetery during construction	Low • Minimal disruption to access to St. Anne's Cemetery during construction
Utilities			
Relocation/Replacement of Existing Utilities	Low • No relocation of utilities to take place	Medium • Relocation of existing phone, cable, and gas utilities as necessary at conflict points • Hydro poles in right-of-way may be relocated/replaced • Replacement of existing watermain along Arbour Street • Replacement of storm sewer drainage system along Shawnee Road and Arbour Street	Medium • Relocation of existing phone, cable, and gas utilities as necessary at conflict points • Hydro poles in right-of-way may be relocated/replaced • Replacement of existing watermain along Arbour Street • Replacement of storm sewer drainage system along Shawnee Road and Arbour Street
Cost			
Capital Cost	Low	Medium-High	Medium
Relative Operational and Maintenance Cost	High	Medium	Low
Concluding Comments		RECOMMENDED SOLUTION	

