## Appendix D – Detailed Evaluation of Alternative Design Solutions

٨	OTE: ALL ALTERNATIVES INCLUDE WID	ENING, A CENTRE TWO WAY LEFT TURN	LANE AND MEDIAN ISLANDS AT INT	ERSECTIONS				
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*		
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3	Pts.) MOST PREFERRED (4	1 Pts.)				
1. Traffic Capacity, Ope	rations, Safety							
Existing Traffic  How does the alternative serve the current volume of vehicular, pedestrian and cycling traffic?	A widened Gordon Street including on road cycling and sidewalk on east and west side will serve the current vehicle, pedestrian and cycling needs. (See Active Transportation factors for further evaluation.)	A widened Gordon Street including on road cycling and sidewalk on east and west side will serve the current vehicle, pedestrian and cycling needs. (See Active Transportation factors for further evaluation.)	A widened Gordon Street including multi-use trail on east and west side will serve the current vehicle, pedestrian and cycling needs. (See Active Transportation factors for further evaluation.)	A widened Gordon Street including multi-use trail on east and west side will serve the current vehicle, pedestrian and cycling needs. (See Active Transportation factors for further evaluation.)	A widened Gordon Street including separated bike path on east and west side will serve the current vehicle, pedestrian and cycling needs. (See Active Transportation factors for further evaluation.)	A widened Gordon Street including boulevard cycle track and separate sidewalk on east and west side will serve the current vehicle, pedestrian and cycling needs. (See Active Transportation factors for further evaluation.)		
Forecasted Traffic/Transportation Network Does the alternative efficiently and safely handle the forecasted traffic?	Four (4) through lanes p	lus turn lanes will handle forecasted t	raffic volumes to 2031.					
Safety  Does the alternative address identified traffic safety issues along the corridor or at specific locations?	Centre two-way left turn lane provided in all locations except near intersections, where dedicated turn lanes are provided. Centre turn lane will permit more efficient turning to and from adjacent properties and will reduce overall through lane congestion during the peak periods. Extended vehicle storage length will allow for more efficient traffic operations. Additional signal timing optimization will further improve intersection operations.  Widening and reconstruction of roadway to address pavement condition.							
Access Management What effect will the alternative have on traffic access to properties fronting on Gordon Street?		uintained with full left and right turn ac equired to accommodate traffic sigr				islands will be installed. Centre		

Table 1.2 – Evalua	ation of Design Plan Alterno	atives				
N	OTE: ALL ALTERNATIVES INCLUDE WID	ENING, A CENTRE TWO WAY LEFT TURN	LANE AND MEDIAN ISLANDS AT INT	ERSECTIONS		
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3	Pts.) MOST PREFERRED (4	l Pts.)		
Active Transportation:						
Transit  How does the alternative serve future transit needs?	Transit service is maintained but roadside is shared with cyclists.  Potential conficts between cyclist and transit vehicles are a noted concern.	Transit service is maintained but roadside is shared with cyclists. Potential conficts between cyclist and transit vehicles are a noted concern.	Transit service is maintained and cyclist are moved to a shared multi-use trail on boulevard.	Transit service is maintained and cyclist are moved to a shared multi-use trail on boulevard.	Transit service is maintained but roadside is shared with cyclists.  Potential conficts between cyclist and transit vehicles are a noted concern. Access to transit stops is a noted concern and this option is least preferred by Transit.	Transit service is maintained but roadside is shared with cyclists.  Potential conficts between cyclist and transit users are a noted concern. Access to transit stops is a noted concern and this option is least preferred by Transit.
Cycling How does the alternative serve future cycling needs?	On Road cycling is preserved. <u>Conflicts</u> <u>between cyclist and</u> <u>vehicular traffic.</u>	On Road cycling is preserved. <u>Conflicts between cyclist and vehicular traffic.</u>	Separate cycling is provided. Potential conflicts between cyclist and pedestrians are a noted concern.	Separate cycling is provided. Potential conflicts between cyclist and pedestrians are a noted concern.	Separated cycling facility is provided. Potential conflicts between cyclist and transit patrons are a noted concern.	Separated cycling facility is provided. Potential conflicts between cyclist and transit patrons are a noted concern.
Pedestrians How does the alternative serve future pedestrian traffic needs?	Basic sidewalk is maintained.	Basic sidewalk is maintained.	Shared Multi-use trail is provided. Potential conflicts between cyclist and pedestrians are a noted concern.	Shared Multi-use trail is provided. Potential conflicts between cyclist and pedestrians are a noted concern.	Basic sidewalk provided.	Basic sidewalk provided.
Emergency Services  How does the alternative improve Emergency Service Response times?	Emergency response times vehicles.	will improve due to additional Two wo	ay left turn lane and related reduct	ions in conflict, delays and congest	ion. Centre lane provides bypass lan	e potential for emergency
Traffic Score	26 Points	26 Points	29 Points	29 Points	26 Points	26 Points

Table 1.2 – Evalua	ation of Design Plan Alterna	tives							
٨	IOTE: ALL ALTERNATIVES INCLUDE WIDE	NING, A CENTRE TWO WAY LEFT TURN	LANE AND MEDIAN ISLANDS AT INTE	ERSECTIONS					
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*			
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3 I	Pts.) MOST PREFERRED (4	Pts.)					
2. Natural Environment									
Aquatic Habitat, Fisheries, and Surface Water How does the alternative affect the aquatic life and aquatic habitats contained within the various watercourses crossing Gordon Street?	There are no existing waterc	ourses, culvert crossings or bridges re	quiring widening or replacement w	ithin the study area. Impact on fishe	eries is not anticipated.				
Terrestrial Habitat (Natural) How would the alternative affect existing vegetation (i.e. trees & woodlots) and bird/animal habitat within the project area?	No impacts to significant wo	No impacts to significant woodland areas or vegetation communities. Vegetation removal is limited to cultural woodland or cultural thicket communities and landscape trees.							
Floodplain What effect would the alternative have on the flood plain of various watercourses?	No impacts on the flood pla	n are anticipated for any of the alte	rnatives.						
Wetlands What impacts does the alternative have on any evaluated wetlands within the project area? Possible wellhead protection area	Alternative does not encroa	ch on wetlands adjacent to the corr	idor. Hydrogeological impacts, if ar	ny, are similar for all alternatives, and	d can be mitigated.				

N	OTE: ALL ALTERNATIVES INCLUDE WIDE	NING, A CENTRE TWO WAY LEFT TURN	LANE AND MEDIAN ISLANDS AT INT	ERSECTIONS					
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*			
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3	Pts.) MOST PREFERRED (4	Pts.)					
Trees (Landscaping) Are there any impacts to existing tree plantings and tree canopy within the project area?	Eight (8) Trees are directly impacted and will need to be replaced.	Sixteen (16) Trees are directly impacted and will need to be replaced.	Eleven (11) Trees are directly impacted and will need to be replaced.	Fourteen (14) Trees are directly impacted and will need to be replaced.	Twenty-One (21) Trees are directly impacted and will need to be replaced.	Four (4) Trees are directly impacted and will need to be replaced.			
Wildlife What are the effects of the alternative on "Species At Risk/Endangered Species" within the project area?	Enhancement, advanced warning, and improved awareness of the existing deer crossing must be addressed in the development of detailed design for the project. Each of the alternatives has a very similar impact on the deer crossing location.  All options will require mitigation of impacts within the Gordon Street corridor and surrounding area, if the area natural area (woodlot, wetland, habitat, stream bed, etc.) is disturbed in any way during construction mitigation will be required.								
Property Contamination Are there any known or potentially contaminated sites that require further investigation?		There are no known environmentally impacted lands affected by any of the proposed options. No contaminated properties have been identified in the City's past studies. Additional ESA's should be undertaken where potential environmental impacts are suspected and based on historic land uses.							
Storm Water Management Are stormwater management ponds required and will water Quality and Quantity be controlled?		No storm water management (SWM) ponds will be included but oil/grit separators are planned as well as Low Impact Development (LID) measures where they can be accommodated. This same condition exists for all of the alternatives. Sediment controls on existing storm sewers will be required.							
Natural	19 Points	18 Points	18 Points	18 Points	17 Points	20 Points			

Table 1.2 – Evalua	ation of Design Plan Alterno	atives						
٨	IOTE: ALL ALTERNATIVES INCLUDE WIDE	ENING, A CENTRE TWO WAY LEFT TURN	LANE AND MEDIAN ISLANDS AT INTE	ERSECTIONS				
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*		
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3 F	Pts.) MOST PREFERRED (4	Pts.)				
3. Social Environment								
Heritage and Archaeological Impacts								
What impact does the alternative have on the following; Built Heritage Resources and Features, Cultural Heritage Landscapes and Archaeological Impacts?	No anticipated impacts on t	matters of heritage interest.						
Are there any cultural or recreational institutions with the project area that may be affected by this alternative?	No cultural and recreationa	No cultural and recreational facilities are directly affected by any of the alternatives.						
Business Impacts  How will the alternative affect existing businesses, and how will businesses be affected during		will be experienced during construction construction, but access will be maint		eway restorations. There will be	Additional impacts will be experienced during construction due to second curb construction and paving operations.	Temporary access impacts will be experienced during construction of curbs, sidewalks/Trail and driveway restorations but access will be maintained.		
construction?	Property near southeast cor	rner of Gordon/Arkell is impacted by o	all alternatives. Less congestion ma	y improve overall future access to b	pusinesses.			

Table 1.2 – Evalua	ation of Design Plan Alterno	ıtives				
٨	IOTE: ALL ALTERNATIVES INCLUDE WIDE					
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3	Pts.) MOST PREFERRED (4	Pts.)		
Construction Impacts Is it constructible and how long will construction take?	existing pavement or newly	ed in stages (i.e. between major inte	Additonal separate paving will take longer to construct than the other single pathway alternatives.  Possibly one block at a time), with construction taking approximately 3 months year for each stage.	Traffic will be able to be maintained by constructing the west side, then the east side (or vice versa) while maintaining traffic on existing pavement or newly constructed pavement.  Possibly one block at a time with construction taking approximately 3 months for each stage.		
Streetscaping  Can the alternative incorporate streetscaping features to maintain and enhance the character of the community?	Opportunities for Streetscap decorative streetlights, etc.	ing exist within the designated road o	allowance including plantings, dec	orative paving materials,	Less space available for landscape enhancements due to total boulevard pavement widths	Less space available for landscape enhancements due to total boulevard pavement widths

٨	IOTE: ALL ALTERNATIVES INCLUDE WIDE	NING, A CENTRE TWO WAY LEFT TURN	I LANE AND MEDIAN ISLANDS AT INT	ERSECTIONS		
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3	Pts.) MOST PREFERRED (4	l Pts.)		
Private Property Impacts						
<ul> <li>How does the alternative impact the residential and commercial properties along the corridor?</li> <li>How much property will be required?</li> </ul>	Property is required to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at the southeast corner of Gordon/Arkell.  This alternative requires additional land from the properties at 1354, 1417, 1419, 1448 Gordon Street and SE corner Lowes, Solstice Condos.  190 m2	Property is required to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at the southeast corner of Gordon/Arkell.  This alternative requires additional land from the properties at 1354, 1388, 1408, 1417, 1419, 1448 Gordon Street and SE corner Lowes, Solstice Condos.  414 m2	Property is required to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at the southeast corner of Gordon/Arkell.  This alternative requires additional land from the properties at 1354, 1388, 1417, 1419, 1448 Gordon Street and SE corner Lowes, Solstice Condos.  254 m2	Property is required to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at the southeast corner of Gordon/Arkell.  This alternative requires additional land from the properties at 1354, 1417, 1419, 1448 Gordon Street and SE corner Lowes.  218 m2	Property is required to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at the southeast corner of Gordon/Arkell.  This alternative requires additional land from the properties at 1354, 1388, 1408, 1448 Gordon Street and SE corner Lowes, Solstice Condos.  369 m2	Property is required to accommodate sidewalk encroachments and develop a dedicated right turn lane storage and taper at the southeast corner of Gordon/Arkell.  This alternative requires additional land from the properties at 1354, 1388, 1408, 1417, 1419, 1448 Gordon Street and SE corner Lowes.  445 m2
Air Quality & Noise What effect does the alternative have on air quality and noise within the project area?		delay and related vehicle idling will crease due to projected traffic volun			 mproved overall Air quality. oated increase in noise levels for the	design horizon is 1 to 2 dB.
Social Score	16 Points	13 Points	15 Points	16 Points	11 Points	11 Points

	ation of Design Plan Alterna		LANE AND MEDIAN ISLANDS AT INT	EDSECTIONS		
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2  WIDENING EQUALLY ABOUT EXISTING  CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3  WIDENING EQUALLY ABOUT EXISTING  CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE  & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3 P	ets.) MOST PREFERRED (4	Pts.)		
4. Costs						
Utility Impacts						
What would be the extent of impacts on existing utilities that must be relocated and/or protected to construct the alternative?	Hydro/Communication poles on both sides of Gordon Street.  Approximately 19 Hydro poles will have to be relocated under this alternative at approx. cost of approx. \$380,000.00.	Hydro/Communication poles on both sides of Gordon Street.  Approximately 23 Hydro poles will have to be relocated under this alternative at approx. cost of approx. \$460,000.00.	Hydro/Communication poles on both sides of Gordon Street.  Approximately 14 Hydro poles will have to be relocated under this alternative at approx. cost of approx. \$280,000.00	Hydro/Communication poles on both sides of Gordon Street. Approximately 9 Hydro poles will have to be relocated under this alternative at approx. cost of approx. \$180,000.00	Hydro/Communication poles on both sides of Gordon Street.  Approximately 20 Hydro poles will have to be relocated under this alternative at approx. cost of approx. \$400,000.00.	Hydro/Communication poles on both sides of Gordon Street.  Approximately 12 Hydro poles will have to be relocated under this alternative at approx. cost of approx. \$240,000.00.
	Traffic Signals Poles at Intersections along Gordon Street.	Traffic Signals Poles at Intersections along Gordon Street.	Traffic Signals Poles at Intersections along Gordon Street.	Traffic Signals Poles at Intersections along Gordon Street.	Traffic Signals Poles at Intersections along Gordon Street.	Traffic Signals Poles at Intersections along Gordon Street.
	Approximately 7 traffic signal poles will have to be relocated under this alternative at approx. cost of approx. \$210,000.00.	Approximately 11 traffic signal poles will have to be relocated under this alternative at approx. cost of approx. \$330,000.00.	Approximately 9 traffic signal poles will have to be relocated under this alternative at approx. cost of approx. \$270,000.00.	Approximately 11 traffic signal poles will have to be relocated under this alternative at approx. cost of approx. \$330,000.00.	Approximately 9 traffic signal poles will have to be relocated under this alternative at approx. cost of approx. \$270,000.00.	Approximately 8 traffic signal poles will have to be relocated under this alternative at approx. cost of approx. \$240,000.00.
	Street Light Poles along Gordon Street.	Street Light Poles along Gordon Street.	Street Light Poles along Gordon Street.	Street Light Poles along Gordon Street.	Street Light Poles along Gordon Street.	Street Light Poles along Gordon Street.
	Approximately 11 street light poles will have to be relocated under this alternative at approx. cost of approx. \$165,000.00.	Approximately 21 street light poles will have to be relocated under this alternative at approx. cost of approx. \$315,000.00.	Approximately 14 street light poles will have to be relocated under this alternative at approx. cost of approx. \$210,000.00.	Approximately 22 street light poles will have to be relocated under this alternative at approx. cost of approx. \$330,000.00.	Approximately 15 street light poles will have to be relocated under this alternative at approx. cost of approx. \$225,000.00.	Approximately 16 street light poles will have to be relocated under this alternative at approx. cost of approx. \$240,000.00.

	NOTE: ALL ALTERNATIVES INCLUDE WIDE					
EVALUATION CRITERIA	PLAN OPTION NO. 1 WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 2 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	PLAN OPTION NO. 3 WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 4 WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	PLAN OPTION NO. 5 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	PLAN OPTION NO. 6 WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.9 m SIDEWALKS ON BOTH SIDES*
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3 F	Pts.) MOST PREFERRED (4	l Pts.)		
mpacts on Jnderground Utilities?	No significant impacts to ex accounted for in quantifica	isting mainline underground gas lines, tions below.	watermains, sewers or communico	ations cables, anticipated other tha	n many minor relocations, adjustmer	nts to manholes, etc. Other costs
Initial Capital Cost What is the estimated initial capital cost of the alternative? (including utility relocations and property acquisition/decommissioning) Road length for estimating purposes from Landsdown Drive to Lowes Road is 1,400m.	Preliminary Cost Estimate including the following:  Property Acquisition  Utility Relocations  Road and Drainage Works  Signals/Illumination  Roadside Protection and Line Markings.  Landscaping  Sidewalks  Construction Impacts  Catch Basin - New - 19  CB Manholes - New - 2  Catch Basin - Relocate - 13  Manhole - Relocate - 1  MH Replace Frame and Lid - 21  MH Adjust Frame and Lid - 3  Tree Removals - 20  Relocate Hydrants - 3	Preliminary Cost Estimate including the following:  Property Acquisition  Utility Relocations  Road and Drainage Works  Signals/Illumination  Roadside Protection and Line Markings.  Landscaping Sidewalks  Construction Impacts  Catch Basin - New - 19  CB Manholes - New - 2  Catch Basin-Relocate - 13  Manhole - Relocate - 1  MH Replace Frame and Lid - 21  MH Adjust Frame and Lid - 3  Tree Removals - 20	Preliminary Cost Estimate including the following:  Property Acquisition  Utility Relocations Road and Drainage Works Signals/Illumination Roadside Protection and Line Markings. Landscaping Multi-Use Trail Construction Impacts Catch Basin - New - 19 CB Manholes - New - 2 Catch Basin-Relocate - 13 Manhole - Relocate - 1 MH Replace Frame and Lid - 21 MH Adjust Frame and Lid - 3	Preliminary Cost Estimate including the following:  Property Acquisition  Utility Relocations  Road and Drainage Works  Signals/Illumination  Roadside Protection and Line Markings.  Landscaping  Multi-Use Trail  Construction Impacts  Catch Basin - New - 2  CB Manholes - New - 8  Catch Basin-Relocate - 2  Manhole- Relocate - 1  MH Replace Frame and Lid - 20  MH Adjust Frame and Lid - 3  Tree Removals - 20	Preliminary Cost Estimate including the following:  Property Acquisition  Utility Relocations Road and Drainage Works Signals/Illumination Roadside Protection and Line Markings. Landscaping Sidewalks/Separated Bike Lane Construction Impacts Catch Basin-New - 19 CB Manholes-New - 2 Catch Basin-Relocate - 13 Manhole- Relocate - 1 MH Replace Frame and Lid - 21 MH Adjust Frame and Lid - 3	Preliminary Cost Estimate including the following:  Property Acquisition  Utility Relocations Road and Drainage Works Signals/Illumination Roadside Protection and Line Markings. Landscaping Sidewalks/Cycle Track Construction Impacts Catch Basin - New - 20 CB Manholes - New - 5 Catch Basin-Relocate - 4 Manhole - Relocate - 0 MH Replace Frame and Lid - 21 MH Adjust Frame and Lid 8 Tree Removals - 8

• Tree Removals - 20

• Hydro Poles - 14

• Street Lights - 17

• Relocate Hydrants - 3

• Traffic Signal Poles - 9

• Relocate Hydrants - 3

• Traffic Signal Poles - 11

• Hydro Poles - 31

• Street Lights - 29

• Hydro Poles - 26

• Street Lights - 17

• Traffic Signal Poles - 7

• Tree Removals - 20

• Traffic Signal Poles - 9

• Hydro Poles - 27

• Street Lights - 20

Relocate Hydrants - 3

• Relocate Hydrants - 4

• Traffic Signal Poles - 12

• Hydro Poles - 12

• Street Lights - 20

• Relocate Hydrants - 3

• Traffic Signal Poles - 11

• Hydro Poles - 9

• Street Lights - 22

Table 1.2 – Evalua	ation of Design Plan Alterna	itives				
٨	IOTE: ALL ALTERNATIVES INCLUDE WIDE	NING, A CENTRE TWO WAY LEFT TURN	LANE AND MEDIAN ISLANDS AT INT	ERSECTIONS		
EVALUATION CRITERIA	PLAN OPTION NO. 1	PLAN OPTION NO. 2	PLAN OPTION NO. 3	PLAN OPTION NO. 4	PLAN OPTION NO. 5	PLAN OPTION NO. 6
	WIDENING EQUALLY ABOUT EXISTING CENTRELINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 5m WIDE CONTINUOUS LEFT TURN LANE WITH EXISTING SIDEWALKS AND ON STREET BIKE LANES MAINTAINED	WIDENING EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	WIDEN EXISTING ROAD ON WEST SIDE ONLY WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 3m MULTI-USE TRAIL ON EACH SIDE	WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m SEPARATED BIKE LANES & 1.50m SIDEWALKS ON BOTH SIDES	WIDEN EQUALLY ABOUT EXISTING CENTERLINE WITH 4m WIDE CONTINUOUS LEFT TURN LANE & 1.80m BLVD. CYCLE TRACK & 1.5 m SIDEWALKS ON BOTH SIDES*
LEGEND:	LEAST PREFERRED (0 Pts.)	(1 Pts.) (2 Pts.) (3	Pts.) MOST PREFERRED (4	Pts.)		
	Sub-TOTAL (Excl. HST) \$1,295,000.00 plus \$985,000 for Hydro, street light pole and Traffic signals relocations and \$102,000 in Property Costs.	Sub-TOTAL (Excl. HST) \$1,415,000.00 plus \$1,385,000 for Hydro, street light pole and Traffic signals relocations and \$223,000 in Property Costs.	Sub-TOTAL (Excl. HST) \$1,337,000.00 plus \$805,000 for Hydro, street light pole and Traffic signals relocations and \$137,000 in Property Costs.	Sub-TOTAL (Excl. HST) \$1,147,000.00 plus \$840,000 for Hydro, street light pole and Traffic signals relocations and \$117,000 in Property Costs.	Sub-TOTAL (Excl. HST) \$1,450,000.00 plus \$1,110,000 for Hydro, street light pole and Traffic signals relocations and \$199,000 in Property Costs.	Sub-TOTAL (Excl. HST) \$1,116,000.00 plus \$900,000 for Hydro, street light pole and Traffic signals relocations and \$239,000 in Property Costs.
	TOTAL (Excl.HST)	TOTAL (Excl.HST)	TOTAL (Excl.HST)	TOTAL (Excl.HST)	TOTAL (Excl.HST)	TOTAL (Excl.HST)
	\$2,382,000.00	\$3,023,000.00	\$2,279,000.00	\$2,104,000.00	\$2,759,000.00	\$2,255,000.00
Operations and maintenance costs	Status Quo held on Maintenance Costs.	Slightly wider pavement increases replacement costs from Option 1.	Slightly higher cost relative to current condition. Wider path for snow clearing. Greater replacement cost.	Slightly higher cost relative to current condition. Wider path for snow clearing. Greater replacement cost.	Significantly Higher cost relative to current condition. Wider path for snow clearing.	Significantly Higher cost relative to current condition. Separated path for snow clearing increases winter maintenance costs.  Greater replacement cost.
Total Cost Score	9 Points	5 Points	11 Points	11 Points	4 Points	7 Points
Total Overall Score	70 Points	62 Points	73 points	74 Points	58 Points	64 Points
Overall Ranking	3	5	2	1	6	4
Public preference based on Open House feedback	0%	14%	22%	28%	17%	Not Presented at PIC#1

Note: \* 1.5 m width is current published City minimum width and is acknowledged/retained where sidewalks are being maintained.