

## Comparative Evaluation Summary Alternative Solutions for the North Maple Community Bridge Class Environmental Assessment

Areas of Consideration/Criteria	Alternative No. 1 Do Nothing	Alternative No. 2 Reduce Auto Demand	Alternative No. 3 Upgrade/ Improve Other Roadways	Alternative No. 4 Build Highway 400 Overpass
<b>Description of Alternative</b>	No changes or improvements to the Block 33 transportation network would be undertaken,	Improve public transit, cycling and Travel Demand Management (TDM) initiatives within and around the Study Area	Improvements to other local roadways within the Study Area in conjunction with related ongoing studies.	Provide for a mid-block connection over Highway 400 between America Avenue and Canada Drive.
<b>1. Technical Assessment Group</b>				
1.1 Potential to improve traffic operations and address future transportation needs.	Analysis shows almost all signalized regional road intersections reaching failing conditions during the 2009 PM peak hour and many intersections at critical LOS during the 2021 PM peak hour. Local trips using Highway 400 will experience significant delays on Major Mackenzie Drive and Teston Road.	At best, the reduction of personal auto demand is assumed to be in the level of 5 to 10%. The conditions would be somewhat better than Do Nothing.	The widening of Major Mackenzie Drive to six lanes for High Occupancy Vehicles (HOV) and improved transit use has been identified in the York Region Transportation Master Plan (TMP) Update and in the Western Vaughan Individual Environmental Assessment (IEA). This improvement would address regional transportation needs.	Building of overpass provides significant opportunity for connectivity benefits for both east and west communities in order to travel within and around Block 33.
1.2 Potential to improve safety for the travelling public.	Unsafe conditions. Congested regional intersections would create delays and more driver frustration and aggressive behavior.	Since traffic volumes would not be significantly reduced, safety would not be measurably improved.	Traffic volumes on local and regional roads not expected to be reduced; therefore safety would not be improved significantly.	Improved safety for cyclist and pedestrians.
1.3 Potential for physical and operational implementation.	No physical or operational improvements.	Minor physical or operational improvements assumed for local roads.	Minor physical or operational improvements assumed for local roads. Widening of Major Mackenzie Drive is physically and operationally feasible.	A new link connecting Canada Drive and America Avenue is shown in the City Official Plan (OP) and necessary ROW has been protected.
1.4 Potential to support alternative modes including transit, cycling and pedestrian.	Sufficient right of way (ROW) for cycling, pedestrian, and transit improvements.	Through implementation of TDM initiatives and by increasing the percentage of trips made by public transit and bicycle, the demand for weekday peak hour trips by automobile can be reduced, thus reducing the need for road system improvements.	Widening of Major Mackenzie Drive will support transit and cycling nodes of travel.	Building of overpass provides significant opportunity for connectivity benefits for transit, pedestrians, and cycling.
<b>2. Social-Economic Assessment Group</b>				
2.1 Potential for disturbing existing residences, community and recreation facilities through temporary and/or permanent effects (i.e. construction/ traffic noise, dust, traffic disruption, property access disruption, etc)	No disturbance to existing residents, community and recreation facilities through temporary and/or permanent effects.	Improvements to public transit service and cycling would require roadway alterations (such as bus bays, bicycle lanes). These improvements have the potential for temporary and permanent construction effects, but can be mitigated with noise, dust, and odour controls.	Improvements to other roadways within the study area would require roadway widening, resulting in both temporary and permanent construction effects. However, these effects can be mitigated with noise, dust, and odour controls.	Implementing a mid-block connection over Highway 400 between America Avenue and Canada Drive would result in localized temporary effects to existing residents, but can be mitigated with noise, dust and odour controls.
2.2 Potential for property impacts.	No potential for property impacts.	Improvements to public transit service and cycling may require roadway alterations (such as bus bays, bicycle lanes), and would therefore likely impact private property through temporary or permanent property taking.	Improvements to other roadways within the study area would require roadway widening and would therefore likely impact private property through temporary or permanent property taking.	Implementing a mid-block connection over Highway 400 between America Avenue and Canada Drive would not result in property impacts, as the property (owned by the City) for the connection has been protected.

## Comparative Evaluation Summary Alternative Solutions for the North Maple Community Bridge Class Environmental Assessment

Areas of Consideration/Criteria	Alternative No. 1 Do Nothing	Alternative No. 2 Reduce Auto Demand	Alternative No. 3 Upgrade/ Improve Other Roadways	Alternative No. 4 Build Highway 400 Overpass
2.3 Degree of compatibility with Regional and Local Official Plans (OP), Transportation Plans and other relevant policies and plans.	The Do Nothing alternative is not compatible with the Regional OP as it would not allow for a mid-block connection. Further, this alternative is not compatible with the Local OP and the supporting transportation plans, as a mid-block connection has been provided for in Schedule B to OPA 600.	This alternative is in keeping with the Regional and Local OP's as well as associated transportation plans (i.e. York Region TMP). However, this alternative does not allow for the City to fully implement the road network outlined in Schedule B to OPA 600.	This alternative is in keeping with the Regional and Local OP as well as associated transportation plans (i.e. York Region TMP). However, this alternative does not allow for the City to fully implement the road network outlined in Schedule B to OPA 600.	This alternative is in keeping with the Regional and Local OP's as it provides for a mid-block connection as per the Region's policies and allows the City to fully implement the road network outlined in Schedule B to OPA 600.
2.4 Potential to improve emergency services response times.	No potential to improve emergency services response times.	Minimal potential to improve emergency services response times due to roadway widening, however emergency services will still need to access major arterial roadways in order to cross Highway 400.	Minimal potential to improve emergency services response times due to roadway widening, however emergency services will still need to access major arterial roadways in order to cross Highway 400.	High potential to improve emergency services response times as the mid-block connection will allow for a faster route over Highway 400, reducing the dependence on major arterial roadways.
2.5 Potential effects on existing community character.	No potential effects on existing community character.	Potential positive effect on existing community character, by providing for pedestrian and cycle friendly streets. However, without a connection between the two communities, fragmentation may occur.	No potential effects on existing community character.	Potential positive effect on community character by providing for pedestrian and cycle friendly streets. Further, by providing a connection between the two areas, a more cohesive community connection may occur.
2.6 Potential sustainability improvements to the community, including greenhouse gas emissions.	No potential for sustainability improvements to the community.	Increased potential for improving local sustainability, by providing alternative transportation modes in order to reduce auto dependency.	No potential for sustainability improvements to the community.	Increased potential to improve local sustainability as the connection over Highway 400 will allow for the efficient multi-modal travel (i.e. car, bus, cycle and pedestrian).
2.7 Potential to improve safety to cyclists and pedestrians.	No potential to improve safety to the local community, including cyclists and pedestrians.	Some potential to improve safety to cyclists and pedestrians through the provision of bicycle lanes. The improvements are minor as cyclists and pedestrians will still need to access major arterial roadways in order to cross Highway 400.	No potential to improve safety to the local community, including cyclists and pedestrians.	High potential to improve safety to cyclists and pedestrians as a connection will be provided over Highway 400 that will be designed and operate as a local road (i.e. speeds, width, etc).
2.8 Potential for sharing community resources (including community centers, worship sites, etc)	Sharing of community resources would remain the same.	Sharing of community resources would remain the same.	Sharing of community resources would remain the same.	Potential for sharing community resources would be improved as they would be more easily accessible for cars, buses, cyclists and pedestrians.
2.9 Potential for improving access to employment and commercial areas	No potential for improving access to employment and commercial areas	No potential for improving access to employment and commercial areas.	No potential for improving access to employment and commercial areas.	Higher potential to improve access to employment and commercial areas by providing a more efficient means of travelling to these areas via the mid-block connection.
<b>3. Financial Assessment Group</b>				
3.1 Potential cost for acquiring property.	No potential costs.	Costs for acquiring property would be minimal.	Costs for acquiring property would be minimal.	No potential costs.

## Comparative Evaluation Summary Alternative Solutions for the North Maple Community Bridge Class Environmental Assessment

Areas of Consideration/Criteria	Alternative No. 1 Do Nothing	Alternative No. 2 Reduce Auto Demand	Alternative No. 3 Upgrade/ Improve Other Roadways	Alternative No. 4 Build Highway 400 Overpass
3.2 Potential Capital costs to the City of Vaughan for implementation.	No potential Capital costs.	Capital costs to the City of Vaughan would be minimal.	Improving existing roadways would result in higher Capital costs to the City of Vaughan.	Capital costs to the City of Vaughan would be offset by funds provided via the Local Development Funds.
3.3 Potential future maintenance costs.	Future maintenance costs would remain the same.	Future maintenance costs would remain the same.	Future maintenance costs would be high.	Future maintenance costs would be high.
<b>Ranking of Alternative Solutions</b>	<p><b>Not Recommended (Ranked 3rd)</b> This Alternative Solution is not recommended for the following reasons:</p> <ul style="list-style-type: none"> <li>▪ Does not address current and future traffic operation issues</li> <li>▪ Does not improve safety</li> <li>▪ Does not implement the road network as outlined in the City's Official Plan</li> <li>▪ Does not improve emergency services response times</li> <li>▪ Does not provide connectivity for multi-modal transportation options</li> </ul> <p>Further, this alternative does not fully address the problems and opportunities for the project and therefore, will not be carried forward.</p>	<p><b>Recommended (Ranked Tied for 1st)</b> This Alternative Solution is recommended for the following reasons:</p> <ul style="list-style-type: none"> <li>▪ Improves current and future traffic conditions</li> <li>▪ Improves safety</li> <li>▪ Provides for multi-modal transportation options</li> <li>▪ Improves local sustainability</li> <li>▪ Low Capital costs</li> <li>▪ Low future maintenance costs</li> </ul> <p>Although this alternative does not implement the road network as outlined in the City's Official Plan and does not improve emergency services response times, when combined with Alternative #4, the problem and opportunities for the project will be met. Therefore, this alternative will be carried forward to Phase 3 of the Class EA process.</p>	<p><b>Not Recommended (Ranked 2nd)</b> This Alternative Solution is not recommended for the following reasons:</p> <ul style="list-style-type: none"> <li>▪ Does not address current and future traffic operation issues</li> <li>▪ Does not improve safety</li> <li>▪ Does not implement the road network as outlined in the City's Official Plan</li> <li>▪ Minimal improvement to emergency services response times</li> <li>▪ Does not provide connectivity for multi-modal transportation options</li> <li>▪ Capital costs will be high</li> <li>▪ Future maintenance costs will be high</li> </ul> <p>Further, this alternative does not fully address the problems and opportunities for the project and therefore, will not be carried forward.</p>	<p><b>Recommended (Ranked Tied for 1st)</b> This Alternative Solution is recommended for the following reasons:</p> <ul style="list-style-type: none"> <li>▪ Improves current and future traffic conditions</li> <li>▪ Provides connectivity for multi-modal transportation options</li> <li>▪ Implement the road network as outlined in the City's Official Plan</li> <li>▪ Improves emergency services response times</li> <li>▪ Improves local sustainability</li> <li>▪ Improves ability to access community facilities throughout Block 33</li> <li>▪ No costs for acquiring property</li> <li>▪ No Capital costs</li> </ul> <p>This alternative, in combination with Alternative #2, will fully address the problems and opportunities for the project and will be carried forward to Phase 3 of the Class EA process.</p>

Note:  Recommended Solution