

**Table 1 - Comparative Evaluation Summary Alternative Solutions  
for the Humber Bridge Trail Bowstring Arch Bridge Class Environmental Assessment**



Areas of Consideration/Criteria	Alternative No. 1 Do Nothing	Alternative No. 2 Rehabilitate the Bridge	Alternative No. 3 Remove Existing Bridge and Build a New Concrete Bowstring Arch Bridge	Alternative No. 4 Remove Existing Bridge and Build a New Precast Concrete Box Girder Bridge	Alternative No. 5 Remove Existing Bridge and Build a New Structural Steel Girder Bridge	Alternative No. 6 Remove Bridge and Provide Alternative Access Road to house #5789
<b>Description of Alternative</b>	Bridge is left as is.  Note: Transferring the bridge to TRCA/Private ownership, or buying out the property owner at house #5789 are variations of this alternative, but their implications are not explored in this analysis.	The existing bridge structure on Humber Bridge Trail would be maintained, while reinforcing and/or restoring the deteriorating sections to improve the overall structural integrity of the bridge.	Complete removal of the existing bridge structure on Humber Bridge Trail and construction of a new 2-lane concrete bowstring arch bridge in the same vicinity.	Complete removal of the existing bridge structure on Humber Bridge Trail and construction of a new 2-lane precast concrete box girder bridge in the same vicinity.	Complete removal of the existing bridge structure on Humber Bridge Trail and construction of a new 2-lane structural steel girder bridge in the same vicinity.	Removal of the existing Humber Bridge Trail Bridge and construction of an alternative access road to Padre Pio Gardens to the east to service house #5789.
<b>1. Technical</b>						
1.1 Potential to improve safety for bridge users.	None	High	High	High	High	High
1.2 Constructability of proposed infrastructure.	None	Low/Moderate constructability	High constructability	High constructability	High constructability	High constructability
1.3 Potential for future maintenance requirements.	High	Moderate	Moderate	Moderate	Moderate	Moderate
<b>2. Natural Environment</b>						
2.1 Potential for short-term construction related effects on the aquatic environment.	None	High	High	High	High	High
2.2 Potential for short-term construction related effects on the terrestrial environment.	None	High	High	High	High	High
2.3 Potential for short-term construction related effects on baseflow and/or groundwater.	None	Low	Moderate	Moderate	Moderate	Low
2.4 Potential for long-term effects on the aquatic environment.	None	Low	High	High	High	Low
2.5 Potential for long-term effects on the terrestrial environment.	None	Low	Low	Low	Low	High
2.6 Potential for long-term effects on baseflow and/or groundwater.	None	Low	Low	Low	Low	Low
<b>3. Social Environment</b>						
3.1 Potential for disturbing existing residences, community, and recreation facilities through temporary effects (i.e. construction noise, dust, property access disruption, etc).	None	Moderate	Moderate	Moderate	Moderate	Moderate
3.2 Potential to maintain and improve access to the resident on the eastern bank of the Humber River along Humber Bridge Trail.	Moderate/None	High (positive effect)	High (positive effect)	High (positive effect)	High (positive effect)	High (positive effect)

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3.3 Potential for requiring the acquisition of private property.	None	Moderate	High	High	High	High
3.4 Degree of compatibility with Regional and Local Official Plans (OP), Pedestrian and Bicycle Plans, and other relevant policies and plans.	High compatibility	High compatibility	High compatibility	High compatibility	High compatibility	Low compatibility
3.5 Potential for creating a visually appealing structure.	Low	High (positive effect)	Moderate	Moderate	Moderate	None
<b>4. Cultural Environment</b>						
4.1 Potential for negative effects on archaeological resources.	None	Low	Moderate	Moderate	Moderate	High
4.2 Potential for negative effects on built heritage resources.	None	Low	Moderate	High	High	High
<b>5. Financial</b>						
5.1 Potential cost for acquiring property.	None	Moderate	Moderate	Moderate	Moderate	High
5.2 Potential Capital costs to the City of Vaughan for implementation.	None	Approximately \$793,000.	Approximately \$1,696,000.	Approximately \$1,345,000.	Approximately \$1,280,000.	Approximately \$284,000 for decommissioning and between \$700,000 to \$1,000,000 for new access/structure.
5.3 Potential future maintenance costs.	High	Moderate	Moderate	Moderate	Moderate	Moderate
<b>Ranking of Alternative Solutions</b>	<b>Pros</b> - low immediate cost <b>Cons</b> - Does not address problem/opportunity statement - Conflicts with City's Pedestrian and Cycling Master Plan - Liability issues continue to exist	<b>Pros</b> - preserves cultural heritage - improves safety - best protects environment - moderately high cost <b>Cons</b> - provides only 1-lane vehicular access	<b>Pros</b> - preserves cultural heritage - improves safety - provides 2-lane bridge <b>Cons</b> - high cost	<b>Pros</b> - improves safety - provides 2-lane bridge <b>Cons</b> - high cost - loss of cultural heritage	<b>Pros</b> - improves safety - provides 2-lane bridge <b>Cons</b> - high cost - loss of cultural heritage	<b>Pros</b> - improves safety <b>Cons</b> - loss of cultural heritage - loss of recreational use - highest cost - high disruption to environment due to vegetation removal along new access route
	<b>6<sup>th</sup></b>	<b>1<sup>st</sup></b>	<b>2<sup>nd</sup></b>	<b>4<sup>th</sup></b>	<b>3<sup>rd</sup></b>	<b>5<sup>th</sup></b>

Note:  Recommended Solution