

# 11 Selection of Preferred Solutions

Forty-three (43) solutions were carried forward to form the short-list. These solutions were evaluated with the detailed evaluation criteria outlined in **Table 11-1** to determine the preferred solutions.

**Table 11-1. Detailed Evaluation Criteria**

Evaluation Criteria	Indicators
<b>Natural Environment</b>	<ul style="list-style-type: none"> <li>• Impact to:               <ul style="list-style-type: none"> <li>➤ Wildlife/habitat areas</li> <li>➤ Groundwater</li> <li>➤ Air quality</li> <li>➤ Noise</li> </ul> </li> </ul>
<b>Policy</b>	<ul style="list-style-type: none"> <li>• Complies with:               <ul style="list-style-type: none"> <li>➤ Regional Transportation Policies</li> <li>➤ City's transportation policies</li> <li>➤ City's Official Plan</li> </ul> </li> <li>• Policies including:               <ul style="list-style-type: none"> <li>➤ Metrolinx's 2041 Regional Transportation Plan</li> <li>➤ Dufferin Street Secondary Plan</li> <li>➤ Lawrence-Allen Secondary Plan</li> <li>➤ Dufferin Wilson Context Plan Site and Area Specific Policies</li> </ul> </li> </ul>



Evaluation Criteria	Indicators
<p><b>Technical</b> <b>(Including Transportation)</b></p>	<ul style="list-style-type: none"> <li>• Maximizes/enhances:                             <ul style="list-style-type: none"> <li>➤ Efficiency of the road network</li> <li>➤ Connectivity between GO Transit and TTC Subway</li> <li>➤ Connectivity and accessibility for all modes</li> <li>➤ Traffic safety (pedestrian, cyclist, and motor vehicle)</li> </ul> </li> <li>• Minimizes impacts to:                             <ul style="list-style-type: none"> <li>➤ Existing utility, water, stormwater, and sewer infrastructure</li> <li>➤ Provincial Highway operations</li> </ul> </li> <li>• Accommodates:                             <ul style="list-style-type: none"> <li>➤ Existing and future transit infrastructure</li> </ul> </li> </ul>
<p><b>Economic</b></p>	<ul style="list-style-type: none"> <li>• Ability to support new business frontage and access opportunities</li> <li>• Ability to support Yorkdale Shopping Centre operations</li> <li>• Order of magnitude construction costs (including streetscaping /landscaping)</li> <li>• Impacts to property and property acquisition costs</li> <li>• Ability to support accessibility</li> <li>• Ability to support goods movement</li> </ul>
<p><b>Cultural / Social</b></p>	<ul style="list-style-type: none"> <li>• Incorporate or provide:                             <ul style="list-style-type: none"> <li>➤ Pedestrian and cyclist amenities (bike racks, repair stations, etc.)</li> <li>➤ Streetscape and landscape elements</li> <li>➤ A well-connected pedestrian/cyclist network</li> </ul> </li> <li>• Minimize impact to:                             <ul style="list-style-type: none"> <li>➤ Listed cultural heritage features</li> <li>➤ Archeological resources</li> </ul> </li> <li>➤ Minimize impact or provide support to:</li> <li>➤ Improved social equity</li> </ul>

A detailed evaluation of the short-list solutions is provided in **Appendix G**. Of the forty-three (43) short-list solutions, twenty-six (26) were selected to be carried forward as the

preferred solutions. The following sections summarize the results of the detailed evaluation.

## 11.1 Evaluation of Short-List Pedestrian and Cycling Solutions

The detailed evaluation of pedestrian and cycling solutions resulted in the selection of twelve (12) preferred solutions to improve pedestrian and cyclist connections within the Yorkdale Shopping Centre area and the surrounding network. **Table 11-2** to **Table 11-5** provides a summary of the evaluation results and recommendations.

**Table 11-2. Evaluation Summary of Pedestrian and Cycling Solutions (21A, 21B, 26A, 26B)**

Criteria	Solution 21A: Pedestrian and Cycling Bridge (east-west) over Barrie GO Rail Corridor Connecting Floral Parkway to Bridgeland Avenue	Solution 21B: Pedestrian and Cycling Bridge (east-west) over Barrie GO Rail Corridor Connecting Rustic Road to Cartwright Avenue	Solution 26A: Continuation of Pedestrian and Cycling Facilities from 21A along Bridgeland Avenue	Solution 26B: Continuation of Pedestrian and Cycling Facilities from 21B along Cartwright Avenue
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				
Recommendation	<p>Not Recommended</p> <p>Solution 21A provides an east-west connection for pedestrians and cyclists; however, the connection across Floral Parkway to Bridgeland Avenue is limited to serving residents and businesses up to Keele Street, and the environment along Bridgeland Avenue may not be the ideal route given the industrial setting and numerous driveways.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 21B provides an east-west connection for pedestrians and cyclists that will serve a wider area of residents and businesses than Solution 21A with potential direct connection to Yorkdale Shopping Centre.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 26A is recommended to be carried forward from Dufferin Street to Caledonia Road Only.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 26B is carried forward based on the outcome of 21B to provide a continuous path through the study area.</p>

**Table 11-3. Evaluation Summary of Pedestrian and Cycling Solutions (22, 23, 24, 25A)**

Criteria	Solution 22: Pedestrian and Cycling Bridge (north-south) Bridgeland Avenue to Whitley Avenue/Northgate Drive (at Anthony Road School Park)	Solution 23: Pedestrian and Cycling Bridge (north-south) over Highway 401 connecting Yorkdale Road to Billy Bishop Way	Solution 24: Baycrest Park Pedestrian / Cycling Switchback Ramp / Stairs	Solution 25A: Add Sidewalk to Local Roads with no Sidewalks
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				



Criteria	<b>Solution 22:</b> Pedestrian and Cycling Bridge (north-south) Bridgeland Avenue to Whitley Avenue/Northgate Drive (at Anthony Road School Park)	<b>Solution 23:</b> Pedestrian and Cycling Bridge (north-south) over Highway 401 connecting Yorkdale Road to Billy Bishop Way	<b>Solution 24:</b> Baycrest Park Pedestrian / Cycling Switchback Ramp / Stairs	<b>Solution 25A:</b> Add Sidewalk to Local Roads with no Sidewalks
<b>Recommendation</b>	Not Recommended  Solution 22 provides a north-south connection for pedestrians and cyclists; however, this solution is not recommended based on Solution 1A where the Caledonia extension can provide pedestrian and cycling facilities and based on the outcome of Solution 21A versus 26A. Without Solution 21A and 26A, Solution 22 does not provide a well-connected pedestrian and cyclist network.	<b>CARRY FORWARD</b>  Solution 23 is recommended to be carried forward as a pedestrian bridge only. This solution is recommended as a potential improvement contingent on future intensification development on the SmartCentres and Downsview Airport lands, in which both sides of the connection can benefit from the crossing. The crossing would also be recommended if pedestrian and cycling facilities on Dufferin Street cannot be implemented across (under) Highway 401.	<b>CARRY FORWARD</b>  Solution 24 is carried forward as it provides a safer connection to the intersection at the Allen Road northbound off-ramp and road to Yorkdale Shopping Centre, due to the grade. The proposed switchback and steps design will mitigate the existing grade issue but will also not preclude the Varna Road extension and expansion of the Baycrest Park.	<b>CARRY FORWARD</b>  Solution 25A is carried forward as an overall improvement to provide safe and connected paths for pedestrians throughout the study area. Assessment of sidewalk will still be assessed on a case-by-case basis following sidewalk request procedures at the City.

**Table 11-4. Evaluation Summary of Pedestrian and Cycling Solutions (27, 28, 33, 34)**

Criteria	Solution 27: North-South Access on Highland Hill	Solution 28: East-west Cycling Facilities on Yorkdale Greenway	Solution 33: East-west Cycling Facilities on Yorkdale High Street	Solution 34: Cycling facilities on Yorkdale Road and under Allen Road connecting to Baycrest Park
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				
Recommendation	<p>Not Recommended</p> <p>Solution 27 is not recommended as this improvement would only serve a small population and will not have great visibility to/from the south. The access may also invite parking issues on the local roads. The north-south desire lines for pedestrian and cycling trips would continue through the Yorkdale Park.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 28 is recommended to be carried forward on the Yorkdale Greenway because it provides an east-west connection for cyclists through the Yorkdale Shopping Centre site and serves the core of the expansion area.</p>	<p>Not Recommended</p> <p>Solution 33 is not recommended to be carried forward because cycling infrastructure is recommended on the public road, which is proposed to be Yorkdale Greenway (Solution 28).</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 34 is recommended to be carried forward between Yorkdale Park and Dufferin Street, and connecting to Baycrest Park under Allen Road. This route is identified in the Lawrence-Allen and Dufferin Street Secondary Plans, which is expected to continue west to Bridgeland Avenue through the Dufferin</p>

				Street / Bridgeland Avenue intersection.
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**Table 11-5. Evaluation Summary of Pedestrian and Cycling Solutions (35, 36, 37, 38)**

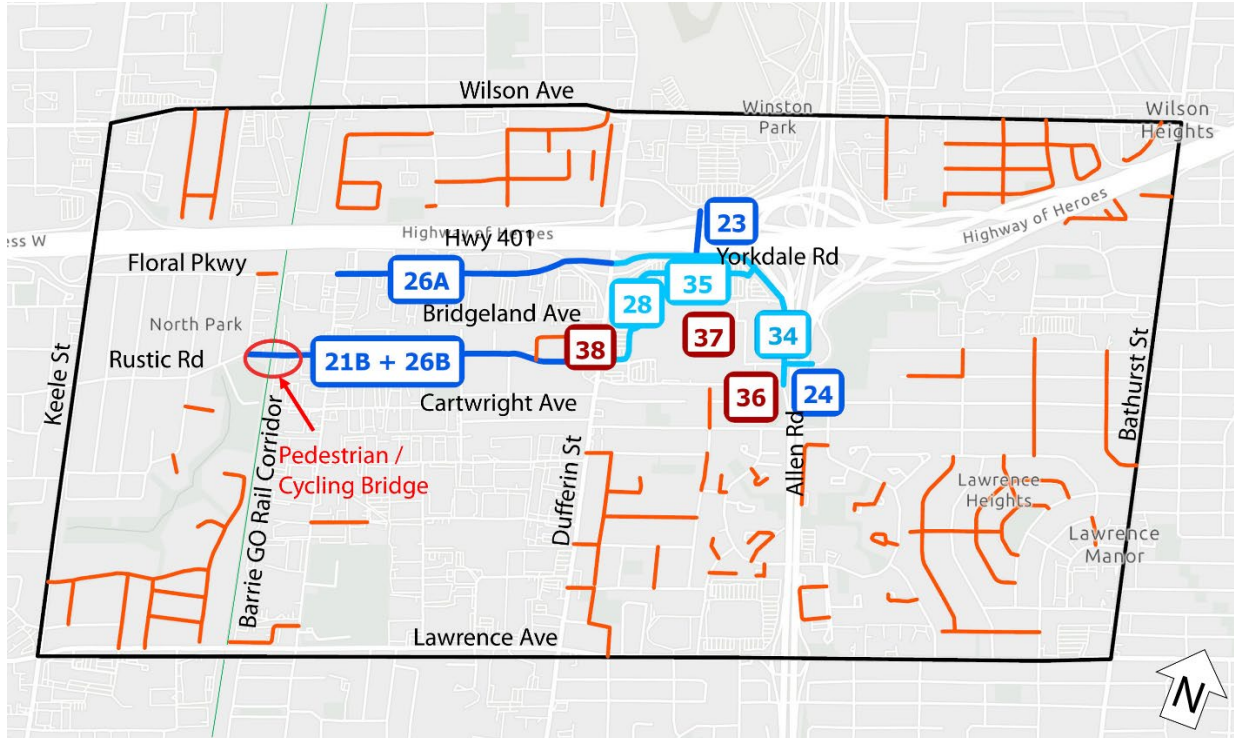
Criteria	Solution 35: North-south Cycling connection through Yorkdale Shopping Centre - Yorkdale Road to Yorkdale	Solution 36: Large Scale Mobility Hub – Rideshare and bikeshare (GO Bus Terminal)	Solution 37: Small Scale Mobility Hub – Bikeshare (Yorkdale Green)	Solution 38: Medium Scale Mobility Hub – Bikeshare (Yorkdale Plaza)
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				
Recommendation	<p><b>CARRY FORWARD</b></p> <p>Solution 35 is recommended to be carried forward to provide a dedicated north-south connection through the Yorkdale Shopping Centre site between Yorkdale Road to Yorkdale High Street.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 36 is carried forward to provide the public alternative mobility options to encourage non-auto use in order to achieve the high non-auto mode share for the shopping centre and expansion area.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 37 is carried forward to provide the public alternative mobility options to encourage non-auto use in order to achieve the high non-auto mode share for the shopping centre and expansion area.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 38 is carried forward to provide the public alternative mobility options to encourage non-auto use in order to achieve the high non-auto mode share for the shopping centre and expansion area.</p>



### 11.1.1 Recommended Pedestrian and Cycling Solutions

The following twelve (12) pedestrian and cycling solutions presented in **Figure 11-1** are recommended.

**Figure 11-1. Recommended Pedestrian and Cycling Solutions**



The Dufferin Street Secondary Plan policy direction states that “the City should initiate feasibility studies to examine new pedestrian and cycling connections crossing the railway tracks and Highway 401 to facilitate movement to local destinations like Yorkdale Shopping Centre, the subway stations, and Downsview Park, while helping to foster an overall culture of daily walking and cycling”.

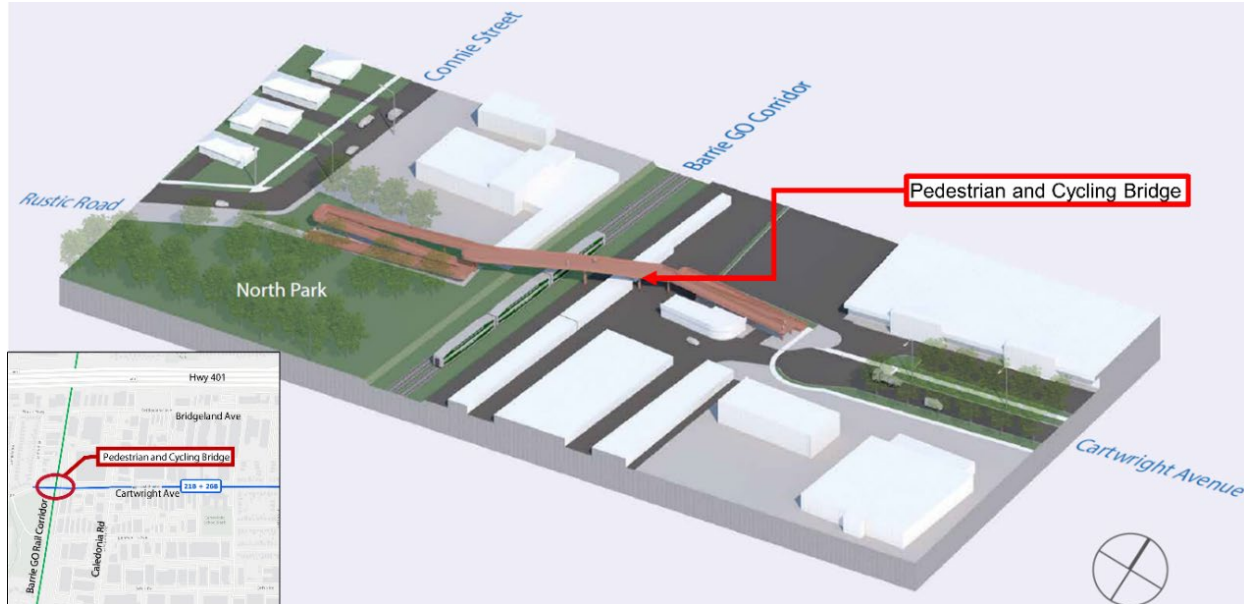
Recommended solutions 21B and 23 provide such connections, which will promote and facilitate connections and movement between surrounding neighbourhoods and Yorkdale Shopping Centre, Subway stations, and Downsview Park.

Solutions 21B: Pedestrian and cycling bridge (east-west) over Barrie GO Rail Corridor connecting Rustic Road to Cartwright Avenue and Solution 26B: Continuation of pedestrian and cycling facilities from 21B along Cartwright Avenue

Solution 21B was selected over Solution 21A because it provides an east-west connection for pedestrians and cyclists that will serve a wider area of residents and businesses, with connections beyond Keele Street and potential direct connection to Yorkdale Shopping Centre (with the implementation of Solution 13F). Solution 21B was also selected because impacts to properties would be less significant than the impacts

Solution 21A would impose. As a result, Solution 26B: Continuation of Pedestrian and Cycling Facilities from 21B along Cartwright Avenue is recommended to complete the pedestrian and cycling network. **Figure 11-2** illustrates the conceptual design of the recommended pedestrian and cycling bridge crossing over the Barrie GO Rail Line.

**Figure 11-2. Conceptual Rendering of Solution 21B**

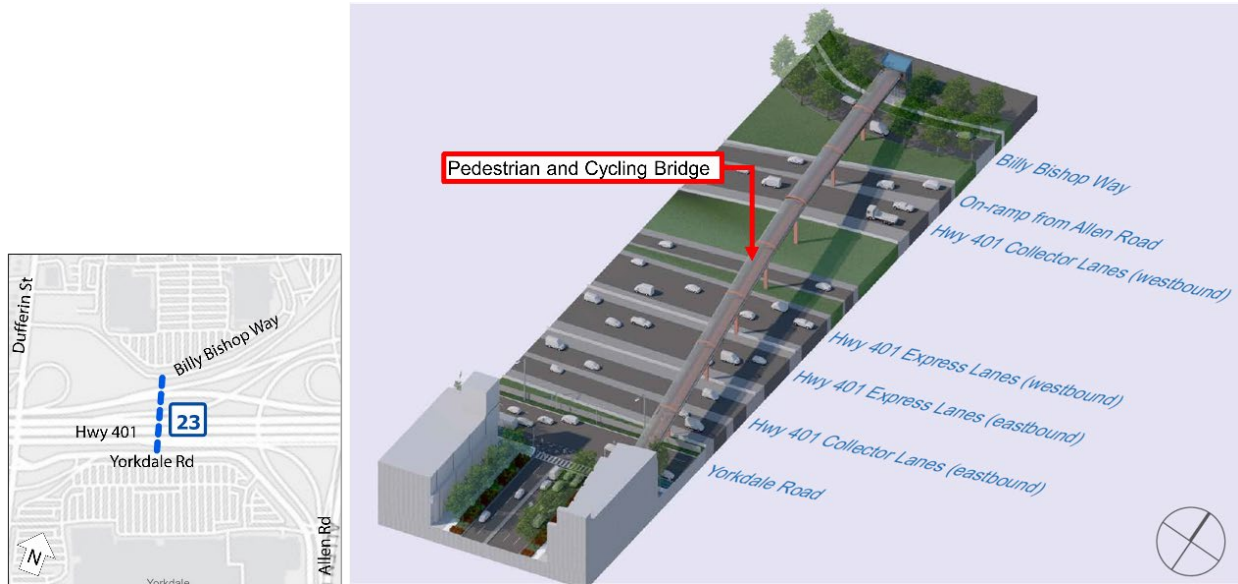


Solution 23: Pedestrian and cycling bridge (north-south) over Highway 401 connecting Yorkdale Road to Billy Bishop Way

Solution 23 was selected over Solution 22 because it facilitates movement across highway 401 to connect local destinations like Yorkdale Shopping Centre, the subway stations, and Downsview Park. Solution 22 was not selected based on Solution 1A, where the Caledonia extension can provide pedestrian and cycling facilities, and based on the outcome of Solution 21A versus Solution 26A. Without Solution 21A and 26A, Solution 22 does not provide a well-connected pedestrian and cyclist network.

Solution 23 is recommended as a pedestrian and cycling bridge and is recommended as a potential improvement contingent on future intensification on the SmartCentres lands north of Billy Bishop Way. **Figure 11-3** illustrates the conceptual design of the preferred pedestrian bridge crossing over Highway 401. As noted in **section 8.4.1**, approximately twenty (20) percent of pedestrian and cyclist volumes will be generated from the Yorkdale development. This crossing over highway 401 will provide a crucial connection between future developments and will help support non-auto mode shares required to support future growth in the area.

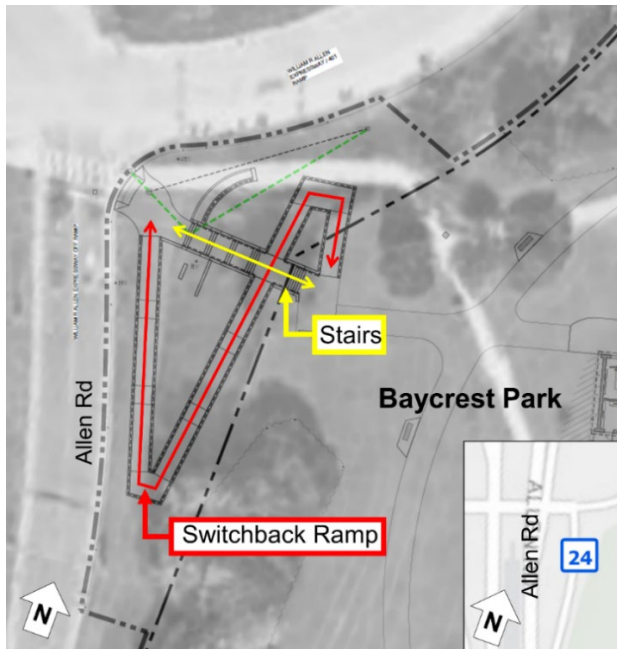
**Figure 11-3. Conceptual Rendering of Solution 23**



**Solution 24: Baycrest Park pedestrian / cycling switchback ramp / stairs**

In compliance with the Lawrence-Allen Secondary Plan, Solution 24 will improve the safety and accessibility to Baycrest Park. Due to the grade at the Allen Road intersection, the recommended switchback ramp will provide a safer connection to the intersection at the Allen Road northbound off-ramp and road to Yorkdale Shopping Centre. **Figure 11-4** illustrates the recommended switchback ramp and steps design. The switchback ramp and stairs would create a safer pathway for pedestrians and cyclists up and down the slope compared to the existing path.

**Figure 11-4. Conceptual Design of Solution 24**



### Solution 25A: Add sidewalks to local roads with no sidewalks

Solution 25A is recommended as an overall network improvement to provide safe and connected paths for pedestrians throughout the larger study area. **Figure 11-1** highlights all the existing streets that currently do not have sidewalks. Construction of new sidewalks would be assessed on a case-by-case basis following the City's sidewalk request procedures.

### Solution 26A: Continuation of Pedestrian and Cycling Facilities from 21A along Bridgeland Avenue

Although a pedestrian and cycling bridge over the Barrie GO Rail Line is not recommended at Floral Parkway / Bridgeland Avenue, sidewalks and cycling infrastructure (Solution 26A) is recommended along Bridgeland Avenue from Dufferin Street to Caledonia Road Only. This builds upon the Dufferin Street Secondary Plan providing connections to Dufferin Street, Yorkdale Road, and the recommended Caledonia Road extension (Solution 1A).

### Solutions 28, 34, and 35 – Cycling facilities within Yorkdale

Solutions 28, 34, and 35 were selected as the recommended solutions, creating safe cycling connections in the new street grid proposed within the Yorkdale development site. Together, the three solutions provide sufficient east-west and north-south cycling connections within the site as well as connections to Dufferin Street, Bridgeland Avenue, Cartwright Avenue, Yorkdale Park, the TTC Subway Station, and Baycrest Park. **Figure 11-5** illustrates the locations of the recommended cycling facilities within the Yorkdale development site.

#### **Solution 34**

Road improvements along Yorkdale Road are currently under review. In consultation with the City of Toronto, MTO, and Oxford properties, it is recommended that the pedestrian and cycling facilities be implemented in two (2) phases – Interim Solution and Ultimate Solution.

The Interim solution would provide pedestrians and cyclists a Multi-Use Path (MUP) along Yorkdale Road between the northern driveway of the Yorkdale Shopping Centre and the signalized intersection at the Allen Road off-ramp. The Ultimate Solution is recommended to be a bi-directional cycling track and separated sidewalk.

The ultimate design of Solution 34 will also consider future pedestrian and cycling connections to the Dufferin Street / Bridgeland Avenue intersection, Solution 16 (Oxford's contra-flow design), Solution 8 (Allen Road ramp realignment), cycle track connections to Baycrest Park under Allen Road, Solution 24 (Baycrest Park switch-back ramp), and connections to Yorkdale Park. In addition, future changes to the bus layby in front of Nordstrom will be tied to the redevelopment of the office building where the GO Bus Terminal is located.

**Figure 11-6** provides a conceptual design of Solution 34, looking south on Yorkdale Road toward the GO Bus Terminal and existing TTC pedestrian bridge.



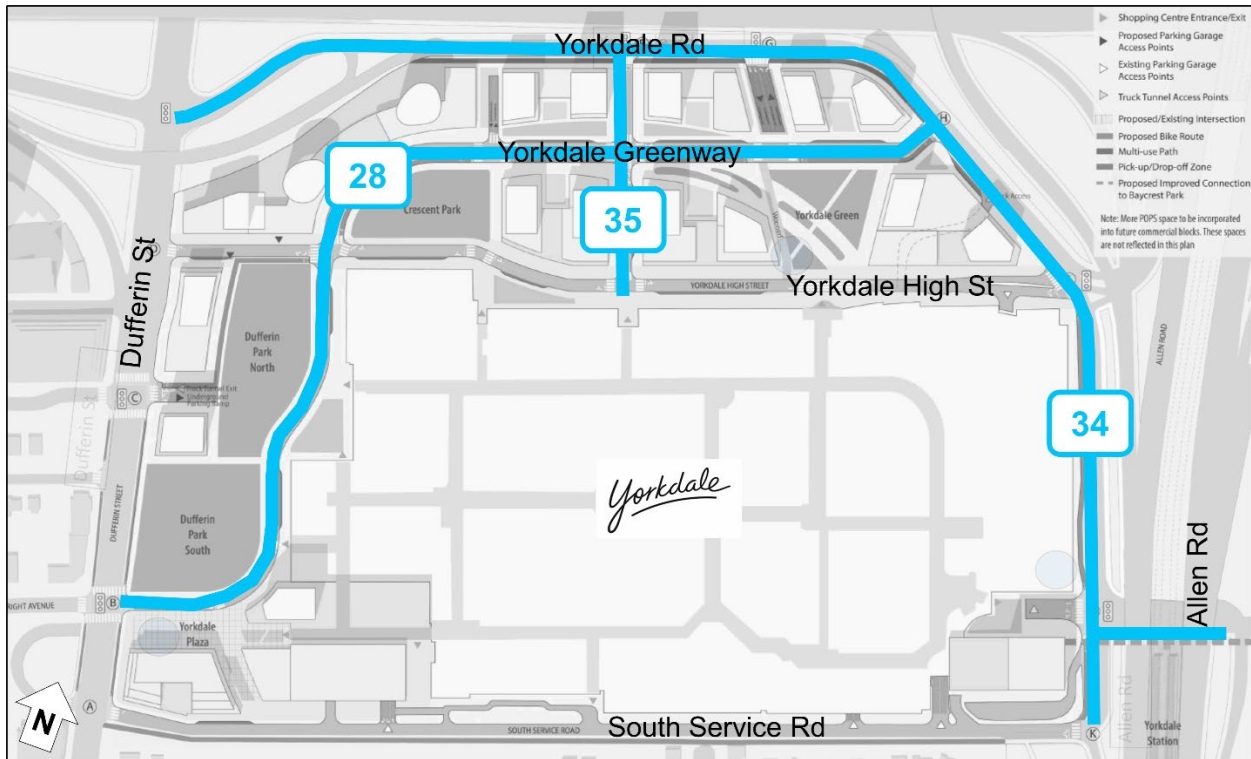
### Detailed Refinements to Solution 34

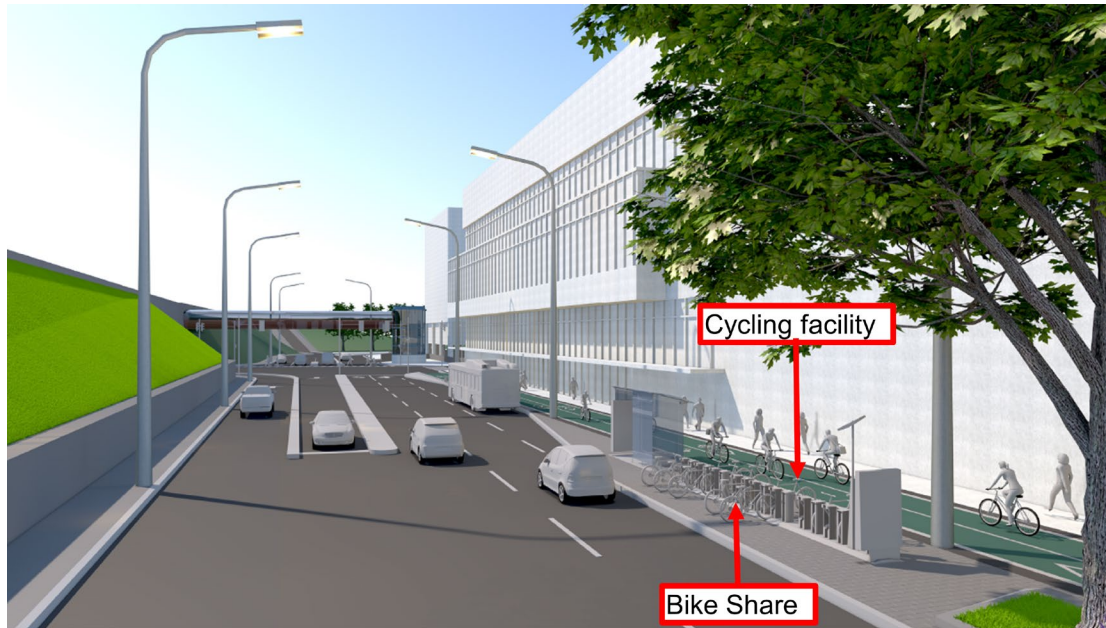
Following public consultation in January 2022, the project team refined the proposed cycle track design under Allen Road connecting to Baycrest Park and determined that it would not be compatible with current road and sidewalk cross section under Allen Road, the current Switchback Ramp Design provided by the City in 2021, the proposed contra-flow left-turn lane, and Allen Road ramp realignment.

In order to accommodate a bidirectional cycle track under Allen Road, a reduction of one (1) eastbound travel lane under Allen Road and one (1) northbound right turn lane at the signalized intersection of Yorkdale Road is required.

Additionally, the location of the switchback ramp is recommended to be reconsidered and the construction of the proposed cycle tracks under Allen Road, switchback ramp, and the Allen Road Ramp realignment shall be a coordinated effort.

Figure 11-5. Recommended Cycling Facilities within Yorkdale Site



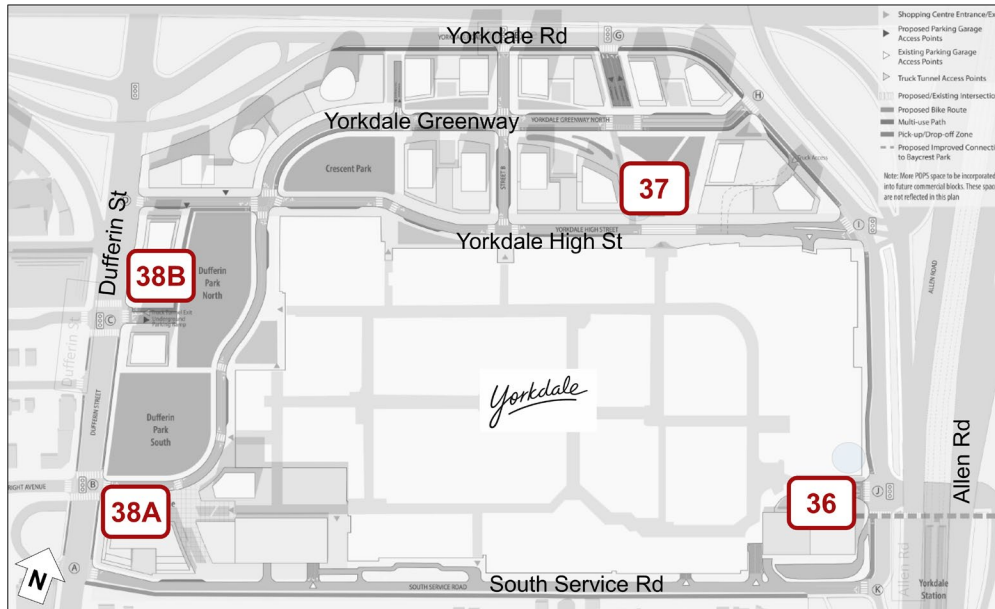
**Figure 11-6. Conceptual Design of Solution 34 and 36**

### Solutions 36, 37, and 38 – Shared Mobility Hubs

**Figure 11-7** illustrates the locations of the recommended shared mobility hubs within the Yorkdale site. Depending on the side of the recommended shared mobility hub, services and facilities such as bike share, ride share, car share, bike repair stations, bike racks, etc. will be provided.

Solution 38B is an additional recommendation that was suggested by the project's Local Advisory Committee. Solution 38B was accepted as a viable location due to its close proximity to a transit stop on Dufferin Street as well as Dufferin Park North. **Figure 11-6** illustrates a conceptual design of a bikeshare station where Solution 36 is recommended.

**Figure 11-7. Recommended Shared Mobility Hubs**



## 11.2 Shared Mobility Hub Demand Analysis

The following analysis is a summary of the estimated demand for shared mobility facilities within the Yorkdale site, based on the forecasted number of pedestrians, cyclists, and transit users that would fall within the service area of the proposed shared mobility hub locations.

### 11.2.1 Assumptions

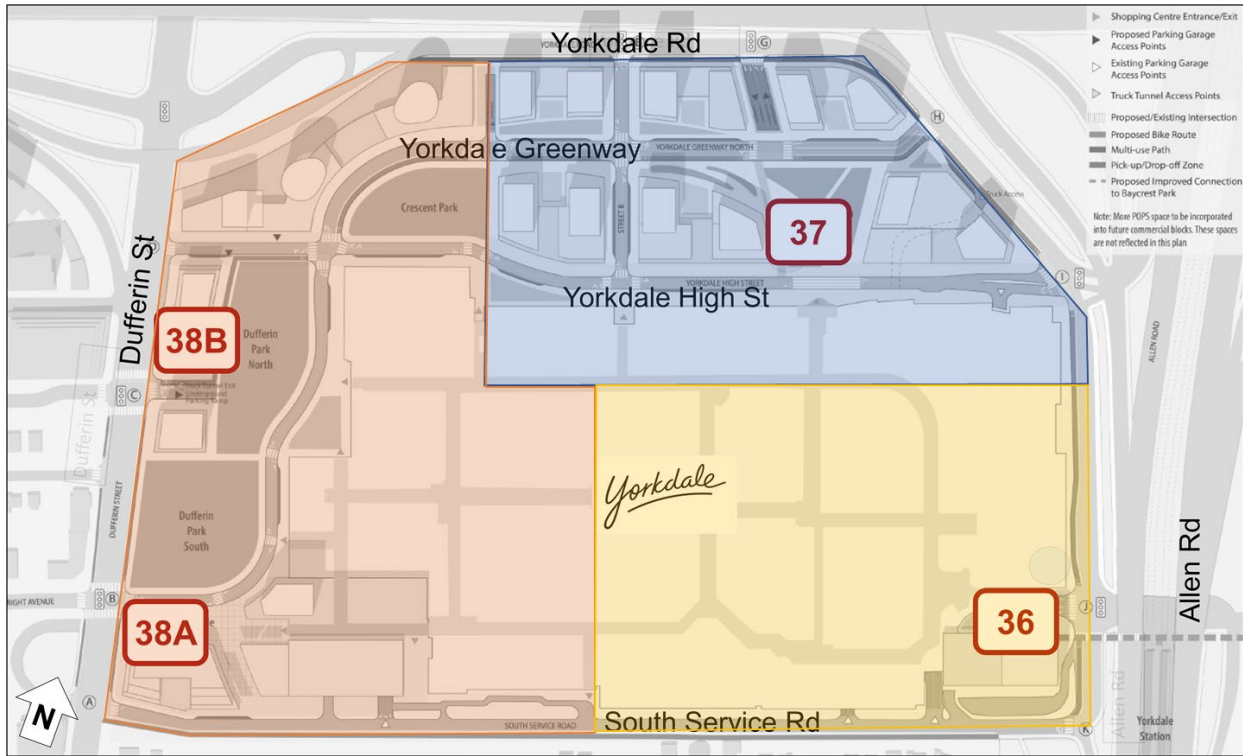
The following assumptions were made to calculate the projected 2041 PM peak hour travel demand for each shared mobility option:

1. Forecasted number of pedestrians, cyclists, and transit users was based on Oxford’s land use alternative discussed in **Section 8.4**;
2. The Yorkdale site was divided into three (3) service areas and was based on Oxford’s proposed Block Master Plan illustrated in **Figure 8-1**. The twelve (12) development blocks proposed by Oxford were allocated a service area as follows:
  - a. Hub 36 – block 12
  - b. Hub 37 – Blocks 6 to 11
  - c. Hub 38 A&B – Blocks 1 to 5

The potential service areas are illustrated in **Figure 11-8**.

3. Since Hub 36 is located in close proximity to the GO Bus Terminal and the TTC Subway station, adjustments were made to the allocation of transit user volumes, moving more transit users from Hubs 37 and 38 to Hub 36.
4. The potential demand at each shared mobility hub location was estimated based upon the potential modal shares developed in Section 9.3.4 of the ConsumersNext TMP.

Figure 11-8. Mobility Hub Service Areas



### 11.2.2 Recommendations

Based on the identified service areas, the potential demand for various mobility options (bikeshare, rideshare, and carshare) is presented in **Table 11-6**.

**Table 11-6. Shared Mobility Hub Projected 2041 PM Peak Hour Travel Demand\***

Hub ID	Pedestrian and Cyclist Volumes	Transit Volumes	Type	Location	Bike Share	Ride Share	Carshare	Total Demand
36	42	159	Large Scale	GO Bus Terminal	110	171	44	325
37	532	1997	Small Scale	Yorkdale Green	36	34	15	85
38 A&B	433	1626	Small Scale	Dufferin Street at Dufferin Park	29	28	12	69
<b>Total</b>	<b>1007</b>	<b>3782</b>			<b>175</b>	<b>233</b>	<b>71</b>	<b>479</b>

Note: Potential demand from Yorkdale Study area only - the calculation did not account for existing development.

\*Based on estimated modal shares from ConsumersNext TMP **Section 4.3.4**.

Based on the analysis, the estimated total demand can be used to identify which locations should be prioritized for implementation. Hub 36 could be considered for a large scale shared mobility hub to serve the existing demand at that location. Other opportunities for hub locations should be identified as development occurs.



## 11.3 Evaluation of Transit Solutions

The detailed evaluation of transit solutions resulted in the selection of three (3) preferred solutions to improve transit connections within the Yorkdale Shopping Centre area and the surrounding network. **Table 11-7** and **Table 11-8** provides a summary of the evaluation results and recommendations.

### 11.3.1 Recommended Transit Solutions

The following three (3) transit solutions presented in **Figure 11-9** are recommended.

**Figure 11-9. Recommended Transit Solutions**

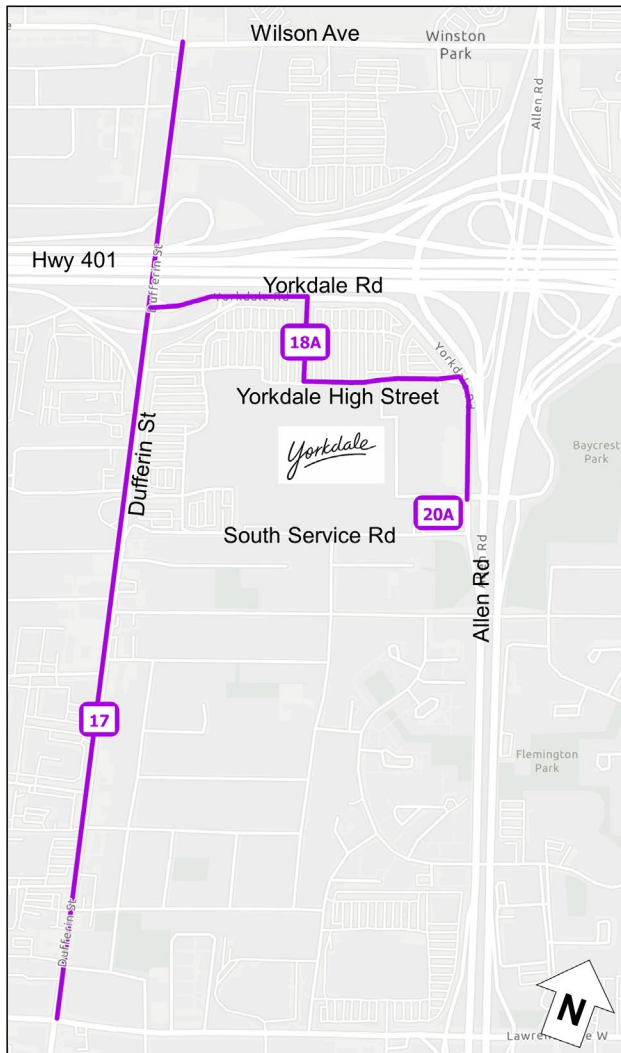


Table 11-7. Evaluation Summary of Transit Solutions (17, 19, 20A)

Criteria	Solution 17: Dufferin Street Transit Priority (Transit/HOV Lanes) – From Dufferin Street Secondary Plan	Solution 19: Expanded Transit Service along Rane Avenue (connecting Dufferin Street to Bathurst Street)	Solution 20A: Retention and Expansion of the GO Bus terminal
Natural Environment			
Policy			
Technical (Including Transportation)			
Economic			
Cultural / Social			
Overall Evaluation			
Recommendation	<p><b>CARRY FORWARD</b></p> <p>Solution 17 is recommended to be carried forward because it improves the attractiveness and use of public transit by introducing transit priority measures through queue jumps for the current 6-lane section on Dufferin Street.</p>	<p>Not Recommended</p> <p>Solution 19 is not fully supportive of environmental and economic sustainability due to existing transit coverage, and operational constraints and costs. Current bus routes can continue to serve the capture area along Rane Avenue.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 20A supports social, environmental, and economic sustainability while bringing better, more reliable, and integrated transit services, especially with Metrolinx/GO Transit specifying their preference to maintain the existing location and to investigate expansion options.</p>

Table 11-8. Evaluation Summary of Transit Solutions (18A, 18B, 18C, 18D)

Criteria	Solution 18A: Two-way service on Yorkdale Road – Yorkdale High Street to Street B	Solution 18B: Two-way service on Yorkdale Road – Yorkdale High Street to Dufferin Street	Solution 18C: Two-way service on Yorkdale Road – Yorkdale Greenway to Street B	Solution 18D: Two-way service on Yorkdale Road – Yorkdale Road with turnaround at Yorkdale GO
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				
Recommendation	<p><b>CARRY FORWARD</b></p> <p>Solution 18A is recommended to be carried forward because it supports economic, social, and environmental vitality, and promotes transit-supportive development while the routing encourages sustainable transportation modes by serving the shopping centre and the expansion area.</p>	<p>Not Recommended</p> <p>Solution 18B is not fully supportive of economic sustainability due to long route length compared to other options, and potential operational constraints as the bus uses Dufferin Street to connect back to Bridgeland Avenue.</p>	<p>Not Recommended</p> <p>Solution 18C is not recommended because it is not fully supportive of social and environmental vitality. While the route uses a proposed public road, the intersection at Yorkdale Road is unsignalized and would be challenging for bus operations and conflicts with other vehicles.</p>	<p>Not Recommended</p> <p>While Solution 18D is the most direct route, it is not fully supportive of transit-supportive development as it does not serve the heart of the Yorkdale expansion area and would involve limited areas for bus stops and poor pedestrian connections in the northbound / westbound direction.</p>

### Solutions 17: Dufferin Street Transit Priority (Transit / HOV Lane) – from Dufferin Street Secondary Plan

As a recommendation from the Dufferin Street Secondary Plan, this study confirms the need for a southbound transit / HOV lane on Dufferin Street and supports the recommended streetscape design, which includes sidewalks and cycle tracks on both sides. The southbound curb lane will be repurposed for transit/HOV use from Wilson Avenue to Cartwright Avenue. There are constrained areas related to the right-of-way under the Highway 401 flyover, and the City is committed to future discussions with MTO to resolve these issues.

### Solutions 18A: Two-way bus service on Yorkdale Road – Yorkdale High Street to Street B

Solution 18A is recommended because, not only does it promote transit-supportive development, but routing also through the Yorkdale site encourages sustainable transportation modes by serving a greater area of the shopping centre and expansion area.

### Solution 20A: Retention and expansion of the GO Bus Terminal

Retention and expansion of the GO Bus Terminal establishes Yorkdale Shopping Centre as a transit hub and will improve services, operational reliability, and access to TTC and GO Transit. Consideration for the Yorkdale Road boulevard improvements (i.e., sidewalk and cycle track) is necessary for the bus terminal redevelopment plans. As noted in **Section 11.1.1**, future changes to the bus layby in front of Nordstrom will be tied to the redevelopment of the office building where the GO Bus Terminal is located.

## 11.4 Evaluation of Short-List Road Intersection Solutions

The detailed evaluation of road intersection solutions resulted in the selection of eight (8) preferred solutions to improve traffic operations at intersections within study area. **Table 11-9 to Table 11-11** provides a summary of the evaluation results and recommendations.

Table 11-9. Evaluation Summary of Road Intersection Solutions (10, 11, 12, 14)

Criteria	Solution 10: Allow Southbound Left turn for all vehicles at the intersection of Dufferin Street/Bridgeland Avenue	Solution 11: Honda Access and Yorkdale Access to be normalized (aligned) with no offset. Southbound left turn permitted with no possible movement from 401 off-ramp	Solution 12: Unsignalized Separate Truck Access	Solution 14: New Signalized Full Access to Parking Garage
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				
Recommendation	<p><b>CARRY FORWARD</b></p> <p>Solution 10 is recommended to be carried forward because this improvement aligns with the Dufferin Street Secondary Plan and will provide additional capacity to Yorkdale Road, as well as alternative access to Yorkdale Shopping Centre, without major impact to the northbound traffic flow.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 11 is recommended to be carried forward with the noted restrictions. Additional full vehicle access will provide additional entering and exiting capacity for Yorkdale. The signalized intersection will continue to accommodate pedestrian and cycling crossings and will connect with dedicated pedestrian and cycling facilities with Yorkdale Shopping Centre. This improvement also aligns with the Dufferin Street Secondary Plan.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 12 is recommended to be carried forward because it provides a dedicated access for goods movement that must be maintained to be separated from general traffic.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 14 is recommended to be carried forward as one of the new key access points to the Yorkdale Shopping Centre. Providing access to underground parking via this access will minimize traffic on the surface, improving the pedestrian and cyclist environment.</p>

**Table 11-10. Evaluation Summary of Road Intersection Solutions (13 A, B, E, F)**

Criteria	Solution 13A: Do Nothing at McAdam Loop	Solution 13B: Street level 4-leg signalized intersection at Cartwright Avenue with no McAdam Loop ramp	Solution 13E: Maintain inbound and outbound access to McAdam Loop and signalized intersection at south service Road	Solution 13F: Maintain McAdam Loop with access to Yorkdale underground parking, and signalized intersection at Cartwright Avenue / Yorkdale Shopping Centre access
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				

Criteria	Solution 13A: Do Nothing at McAdam Loop	Solution 13B: Street level 4-leg signalized intersection at Cartwright Avenue with no McAdam Loop ramp	Solution 13E: Maintain inbound and outbound access to McAdam Loop and signalized intersection at south service Road	Solution 13F: Maintain McAdam Loop with access to Yorkdale underground parking, and signalized intersection at Cartwright Avenue / Yorkdale Shopping Centre access
<p><b>Recommendation</b></p>	<p>Not Recommended</p> <p>Solution 13A is not recommended to be carried forward because it does not provide a signalized and normalized intersection to accommodate pedestrian and cycling crossing of Dufferin Street. This option does not provide connectivity to Yorkdale Shopping Centre from Cartwright Avenue. Also, it is not compatible with the Dufferin Street Secondary Plan policies.</p>	<p>Not Recommended</p> <p>Although compatible with the Dufferin Street Secondary Plan, Solution 13B is not recommended to be carried forward because it does not maintain McAdam Loop, which will be required to providing access capacity to Yorkdale. The alternative SBL access into the shopping centre will result in long queues and delays which could extend and impact the through lanes on Dufferin Street.</p>	<p>Not Recommended</p> <p>Solution 13E is not recommended to be carried forward because this option does not provide connectivity to Yorkdale Shopping Centre from Cartwright Avenue. Although South Service Road would be realigned to provide a normalized intersection, southbound and westbound left turns would not be permitted. Moreover, the pedestrian/cycling crossing would not lead to a public road to connect to the community to the west, as it would terminate on the west side of Dufferin Street.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 13F is recommended to be carried forward because it maintains McAdam Loop for access capacity, while also providing a signalized and normalized intersection to accommodate pedestrian and cycling facilities crossing Dufferin Street. This crossing provides connectivity to Yorkdale Shopping Centre from Cartwright Avenue and is a better location for the connection compared with 13E. To maintain compatibility with the Dufferin Street Secondary Plan, there is a potential to deck the McAdam Loop to accommodate a park or Privately-Owned Publicly Accessible Spaces (POPS).</p>

Table 11-11. Evaluation Summary of Road Intersection Solutions (15, 16, 32A, 32B)

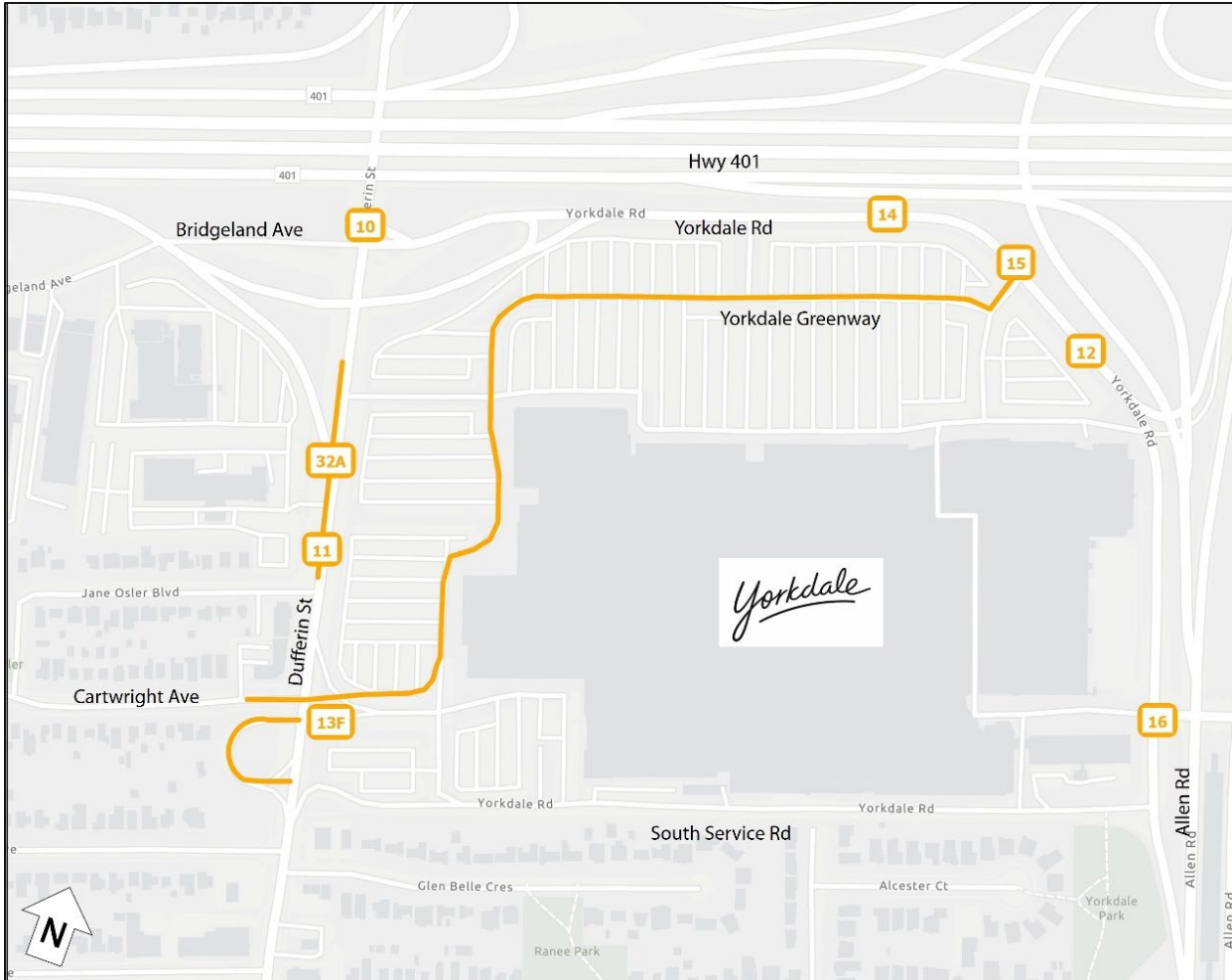
Criteria	Solution 15: New unsignalized access on Yorkdale Road (Yorkdale Greenway connecting to Dufferin Street)	Solution 16: Contra-flow southbound left-turn on Yorkdale Road	Solution 32A: 401 EB off-ramp to Dufferin Street – Retain Southbound Curb Lane for Transit/HOV	Solution 32B: 401 EB off-ramp to Dufferin Street – Closed Curb Lane north of ramp
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				
Recommendation	<p><b>CARRY FORWARD</b></p> <p>Solution 15 is recommended to be carried forward as a proposed east-west public road to serve the expansion. This proposed east-west connection through the Yorkdale Shopping Centre site from Yorkdale Road to Dufferin Street will also accommodate recommended cycling facilities through the property.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 16 is recommended to be carried forward to accommodate high traffic volumes at this intersection and to provide additional exit capacity connecting with Highway 401 and Allen Road NB.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 32A is recommended to be carried forward because priority goes to the Transit/HOV lane and pedestrians / cyclists, as ramp traffic is required to stop or yield to merge onto Dufferin Street.</p>	<p>Not Recommended</p> <p>Solution 32B is not recommended to be carried forward because southbound capacity on Dufferin Street would be reduced resulting in southbound queues on Dufferin Street.</p>



### 11.4.1 Recommended Road Intersection Solutions

The following eight (8) Road Intersection Solutions presented in **Figure 11-10** are recommended.

**Figure 11-10. Recommended Road Intersection Solutions**



#### Solutions 10, 11, and 16 – Intersection Operations Improvements

Solutions 10 and 11 recommend operational modifications to improve travel connections and safety conditions for all users.

Solution 10 permits southbound left turns for all vehicles at the intersection of Dufferin Street / Bridgeland Avenue, which improves access to Yorkdale. This improvement has already been implemented through MTO's realignment of the Dufferin Street / Bridgeland Avenue intersection.

Solution 11 normalizes the Honda access and Yorkdale access intersection, creating an intersection that is safe for pedestrians and cyclists to cross. Southbound left turns are permitted at this intersection; however, there is no possible movement from the Highway 401 off-ramp, which reduces the risk of weaving.

Solution 16 recommends a modification to the existing intersection, whereby a contra-flow southbound left-turn lane on Yorkdale Road will be introduced to provide drivers a direct connection from Yorkdale Road to Highway 401 and northbound Allen Road, and to alleviate congestion at the intersection. This improvement will be reviewed in tandem with Solution 34 and Solution 8.

### Solutions 12, 14, and 15 – New Intersections

Solution 12 provides a separate access for trucks. This solution improves goods movement and channels trucks away from other streets within the Yorkdale site, which creates a safer environment for pedestrians and cyclists.

Similar to Solution 12, Solution 14 provides a separate access to the parking garage which channels vehicles away from streets within the Yorkdale site. This improvement will create a safer environment for pedestrians and cyclists.

Solution 15 recommends a new intersection on Yorkdale Road at Yorkdale Greenway which provides a connection through the site to Dufferin Street, improving travel connections and safety conditions for all road users at this intersection.

### Solution 13F: Maintain McAdam Loop with access to Yorkdale underground parking, and signalized intersection at Cartwright Avenue / Yorkdale Greenway

Removing McAdam Loop was recommended through the Dufferin Street Secondary Plan. However, through further traffic analysis, it was determined that maintaining McAdam Loop is required to support the proposed density and provide access capacity to the Yorkdale site. Solution 13F provides a new signal at Dufferin Street and Cartwright Avenue / Yorkdale Greenway, which supports safe pedestrian and cycling connections to Yorkdale Shopping Centre. This improvement ties into the DSSP recommended streetscape design, including sidewalks and cycle tracks. Vehicles traveling southbound on Dufferin Street would continue to use McAdam Loop to access the Shopping Centre, as southbound left-turns would be prohibited at the signalized intersection. Westbound movements exiting the site would be restricted to right and left turns only, to prevent traffic infiltration on Cartwright Avenue. **Figure 11-11** illustrates a conceptual design of Solution 13F.

**Figure 11-11. Conceptual Design of Solution 13F**

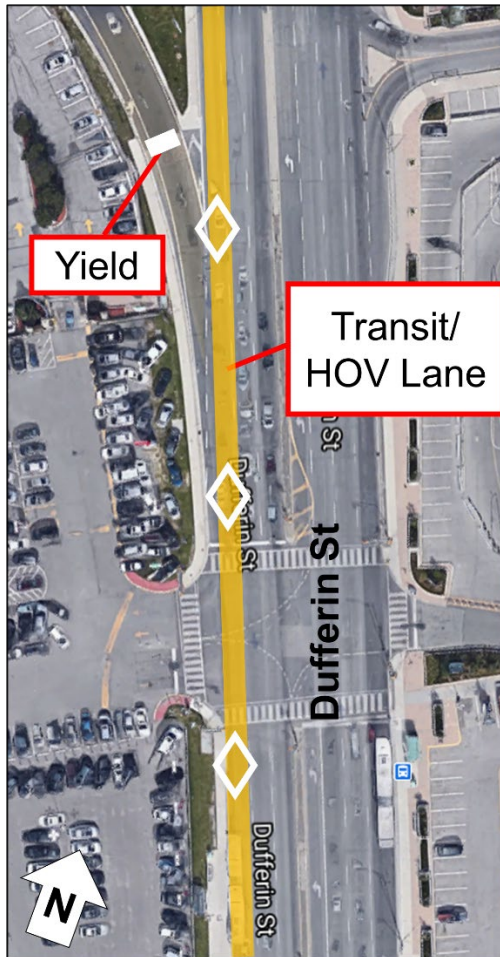


Solution 32A: 401 eastbound off-ramp to Dufferin Street – Retain Southbound Curb Lane for Transit / HOV

Solution 32A, illustrated in **Figure 11-12**, prioritizes transit and high-occupancy vehicles while maintaining traffic flow on Dufferin Street, and supports Solution 17. Vehicles on the Highway 401 eastbound off-ramp would yield to traffic, as they would today, before merging into the transit / HOV lane. Vehicles exiting the eastbound off-ramp intending to access Yorkdale Shopping Centre would be required to use the McAdam Loop, as there is no possible movement from the Highway 401 off-ramp to turn left at the Honda access and Yorkdale access intersection.

Single-occupancy vehicles (vehicles with only one driver and no passengers) would have to merge into the centre lane, prior to the McAdam Loop access, when it is safe to do so.

Figure 11-12. Solution 32A



## 11.5 Evaluation of Short-List Infrastructure Solutions

The detailed evaluation of infrastructure solutions resulted in the selection of two (2) preferred solutions to improve network connections within the larger study area to support future development within the Yorkdale site. **Table 11-12** and **Table 11-13** provides a summary of the evaluation results and recommendations.

**Table 11-12. Evaluation Summary of Infrastructure Solutions (1A, 1B, 2B, and 3C)**

Criteria	Solution 1A: Caledonia Road Extension Under Highway 401	Solution 1B: Extension Under Highway 401 to Bridgeland Avenue	Solution 2B: East-West Connection Rustic Avenue to Cartwright Avenue	Solution 3C: New Highway 401 EB Off-Ramp to Bridgeland Avenue
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				



Criteria	Solution 1A: Caledonia Road Extension Under Highway 401	Solution 1B: Extension Under Highway 401 to Bridgeland Avenue	Solution 2B: East-West Connection Rustic Avenue to Cartwright Avenue	Solution 3C: New Highway 401 EB Off-Ramp to Bridgeland Avenue
<b>Recommendation</b>	<p><b>CARRY FORWARD</b></p> <p>Solution 1A is recommended to be carried forward because it provides an alternative north-south route (i.e., additional capacity) to Dufferin Street and would divert traffic away from Dufferin Street. Of the shortlisted major road network improvements, this solution has the least permanent impact on Highway 401. There is potential for transit (bus) route, as well as dedicated cycling facilities. This Solution also results in a continuous Caledonia Road providing another crossing of Highway 401, which is an existing barrier in the study area.</p>	<p>Not Recommended</p> <p>Solution 1B would provide similar benefits as Solution 1A; however, this alignment option which was proposed to leverage the Barrie GO rail underpass, results in a non-direct route and would terminate at a T-intersection with Bridgeland Avenue. The alignment would negatively affect the attractiveness for traffic to divert from Dufferin Street.</p>	<p>Not Recommended</p> <p>Solution 2B is not recommended to be carried forward as the overpass cannot connect back to Rustic Road at-grade in time to maintain connections with Connie Street or Jocada Road. (Connie Street and Jocada Road would need to be converted to cul-de-sacs). The grade separation will attract traffic from the parallel arterial roads to the north and south, and there would be significant impacts to the stable residential neighbourhood (with increased infiltration traffic), industrial, and park lands to the north and south of Rustic Road.</p>	<p>Not Recommended</p> <p>Solution 3C is not recommended to be carried forward because of the significant impacts to the industrial lands to south of Highway 401 and the ramp alignment is not technically feasible with respect to ramp spacing (i.e., too close to Keele Street on ramp) on Highway 401. The proposed off ramp and the Keele Street on ramp space could also necessitate widening of Highway 401 to introduce an auxiliary lane.</p>

**Table 11-13. Evaluation Summary of Infrastructure Solutions (4A, 4B, 6A, and 8)**

Criteria	Solution 4A: Highway 401 WB Off-Ramp to Dufferin Street	Solution 4B: Highway 401 WB Off- Ramp to Dufferin Street	Solution 6A: New EB On-Ramp Dufferin Street to Highway 401	Solution 8: Modified On-Ramp EB to Highway 401
Natural Environment				
Policy				
Technical (Including Transportation)				
Economic				
Cultural / Social				
Overall Evaluation				



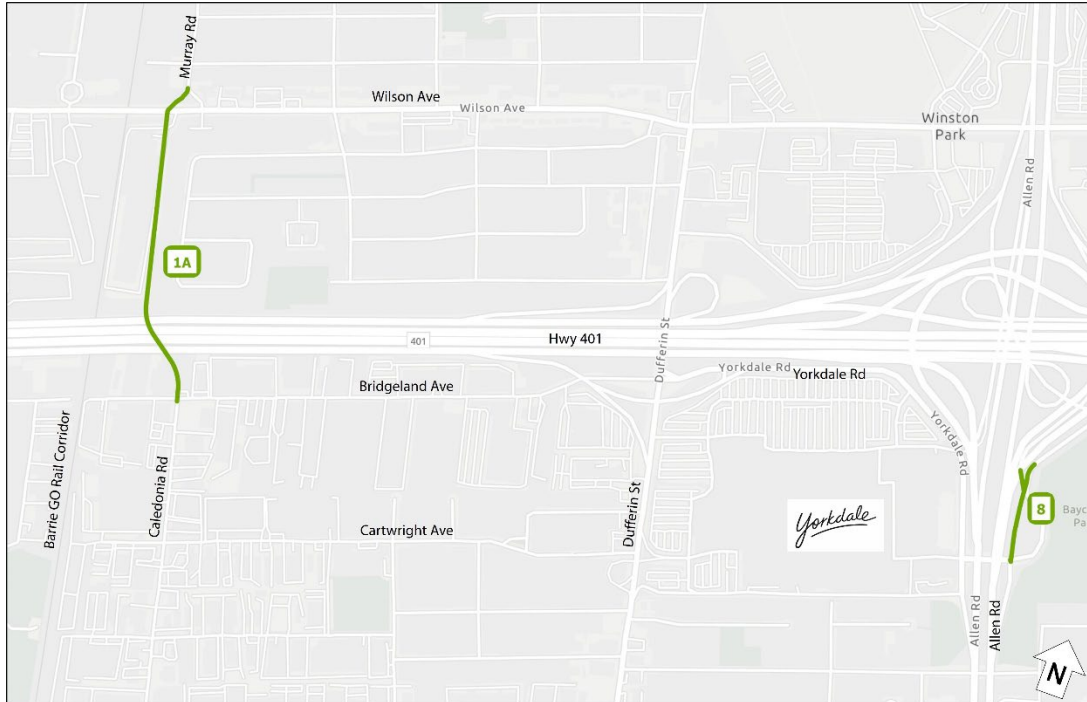
Criteria	Solution 4A: Highway 401 WB Off-Ramp to Dufferin Street	Solution 4B: Highway 401 WB Off-Ramp to Dufferin Street	Solution 6A: New EB On-Ramp Dufferin Street to Highway 401	Solution 8: Modified On-Ramp EB to Highway 401
<b>Recommendation</b>	<p>Not Recommended</p> <p>While a technically feasible ramp alignment was demonstrated for Solution 4A at a conceptual level and there would be benefits to the travel patterns to the study area, the alignment would have significant property impacts to lands that are subject of development applications east of Dufferin Street. There could also be impacts to lands north of Billy Bishop Way due to the realignment of Billy Bishop Way to accommodate signal spacing on Dufferin Street between the proposed off-ramp intersection and Billy Bishop Way. Lastly, the alignment requires closing the Allen S to 401 W express lane ramp. While this would improve 401 mainline operations on the express, the 401 mainline operations on the collector would be impacted.</p>	<p>Not Recommended</p> <p>Solution 4B is not recommended to be carried forward due to similar reasons as Solution 4A.</p>	<p>Not Recommended</p> <p>Solution 6A is not recommended to be carried forward based on development of conceptual alignments to connect with Highway 401 EB lanes that are not geometrically feasible. The introduction of the EB on ramp on Dufferin Street is feasible but requires shifting of the Bridgeland Avenue intersection to the south. There would also be insufficient spacing on Highway 401 EB to add an EB on-ramp with the proximity of the off-ramp lanes to Allen Road. The attractiveness of this on-ramp in diverting traffic away from Yorkdale Road and infiltration is evident but does not outweigh the technical feasibility challenges.</p>	<p><b>CARRY FORWARD</b></p> <p>Solution 8 is recommended to be carried forward because it aligns with the Lawrence Allen Secondary Plan Policy and TMP. It is also compatible with Oxford's proposal to improve exit capacity from Yorkdale via contraflow lanes. The ramp realignment will benefit expansion of the Baycrest Park and accommodate the City's proposed Varna Road extension, with minor impact to the ramp operations.</p>



### 11.5.1 Recommended Infrastructure Solutions

The following two (2) Infrastructure Solutions presented in **Figure 11-13** are recommended.

**Figure 11-13. Recommended Infrastructure Solution**



#### Solution 1A: Caledonia Road Extension Under Highway 401

Solution 1A aligns with the Official Plan policies that encourage connections crossing Highway 401. The extension of Caledonia Road under Highway 401 will span from Bridgeland Avenue to Wilson Avenue and Murray Road and creates a new north-south connection that provides an alternative route between Dufferin Street and Keele Street. The Caledonia Road extension will also provide sidewalks and separated cycling infrastructure to complete the pedestrian and cycling networks. **Figure 11-14** and **Figure 11-15** illustrate a conceptual design of the Caledonia Road extension. In consultation with MTO, it was noted that the alignment illustrated in this study is not preferred. Any road crossing the Highway 401 is preferred to have a perpendicular alignment. The City of Toronto is committed to further study of this solution and will be required to complete a Schedule EA, which includes the assessment of different alignment options. Further details on implementation are discussed in **Section 13**.

Figure 11-14. Conceptual Design of Caledonia Road Extension

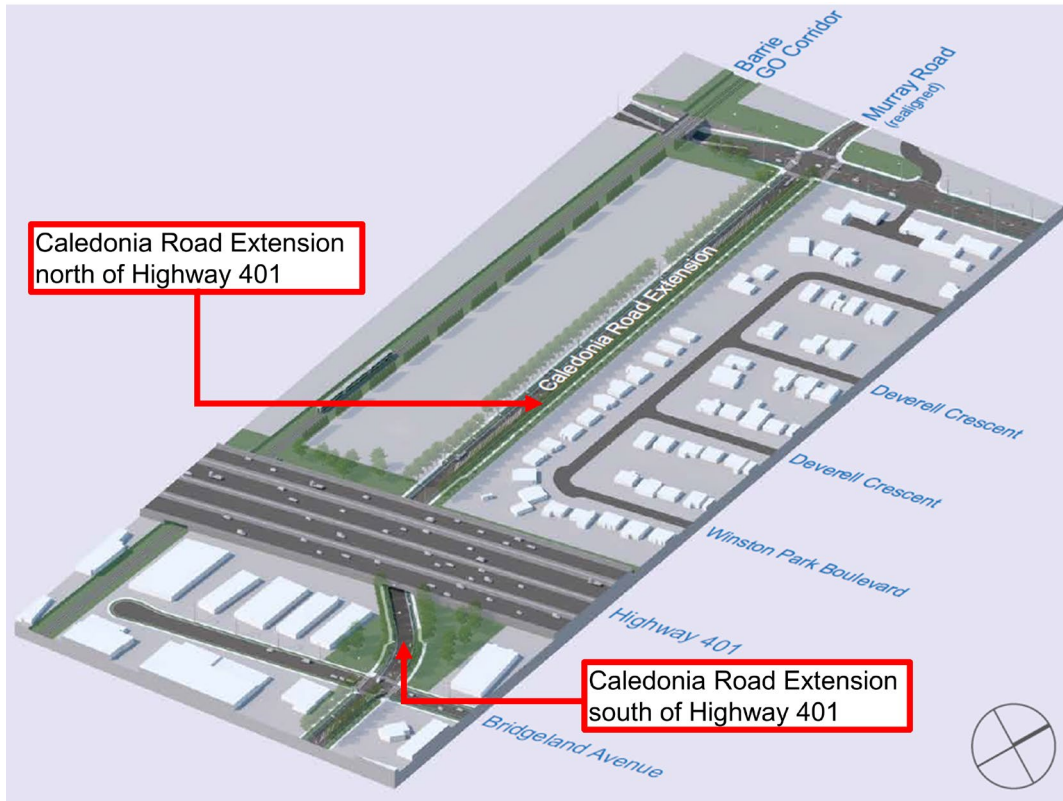
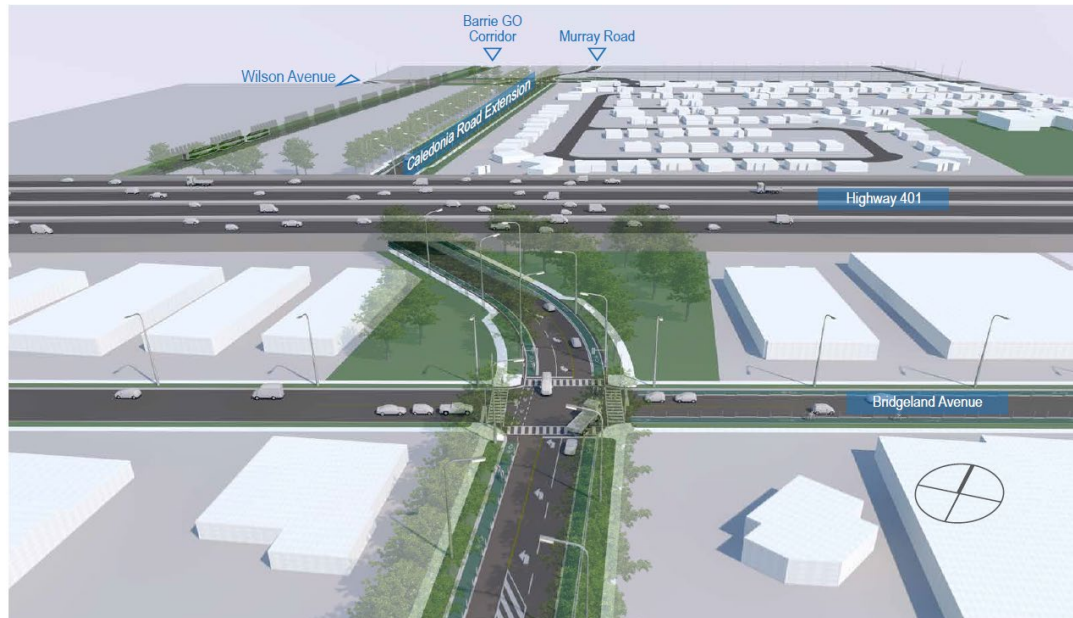


Figure 11-15. Conceptual Caledonia Road Extension Looking North from Bridgeland Avenue



### Solution 8: Modified On-Ramp Eastbound to Highway 401

Solution 8 aligns with the Lawrence Allen Secondary Plan policy and Transportation Master Plan. It is also compatible with Solution 16: Contra-flow southbound left-turn on Yorkdale Road, which will connect directly to the modified on-ramp. The ramp realignment will benefit expansion of the Baycrest Park and accommodate the City's proposed Varna Road extension. **Figure 11-16** illustrates a conceptual design of the modified on-ramp as well as connections to Solution 16 and Solution 34 and relation to the recommended switchback ramp (Solution 24).

**Figure 11-16. Conceptual Design of Modified On-Ramp**

