

# Evaluation Summary for Billy Bishop Way Alternative Designs

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Downsview Major Streets Phases 3-4  
Environmental Assessment

Stage 2 Public Consultation

June 2026



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# 1. Purpose of the Evaluation Summary

This document is supplementary material for the Stage #2 Public Consultation on the Downsview Major Streets Phases 3-4 Environmental Assessment (EA) study.

It documents the Alternative Design Concepts for Billy Bishop Way, the evaluation framework, scoring results against the final evaluation criteria, and provides a summary of the evaluation and key decision points on how each preferred Alternative Design Concept was selected. Full evaluation details will be included in the final report.

For more information on the project overall and details on the evaluation of Alternative Design Concepts for the other major streets, please visit the project website at [www.toronto.ca/DownsviewEA](http://www.toronto.ca/DownsviewEA).

## 2. Evaluation Framework

The evaluation framework for the Downsview Major Streets Phases 3-4 EA study consists of five main categories, each with related criteria and considerations. The draft evaluation criteria were presented during the first public consultation stage in June 2025 and were then refined based on feedback received. The final evaluation criteria are presented in Table 1 through Table 5.

**Table 1. Evaluation Criteria – Category 1: Connectivity and Technical Viability**

<b>Criteria</b>	<b>Considerations</b>
Mobility network performance and traffic impacts	<ul style="list-style-type: none"> <li>• Geometric designs and lane configurations that meet acceptable traffic operations while also balancing safety of all road users.</li> <li>• Impacts to bus operations, bus delay, passenger delay and travel times, and transit impacts in a mixed traffic condition.</li> <li>• Traffic impacts to adjacent neighbourhoods.</li> </ul>
Connections to existing and planned transportation	<ul style="list-style-type: none"> <li>• Logical continuity of existing and planned streets, active transportation, and transit infrastructure to support connectivity and efficiency of networks.</li> <li>• Transit network and providing opportunities for transit expansion, routes and access.</li> </ul>
Feasibility and constructability	<ul style="list-style-type: none"> <li>• Key technical challenges and construction complexity (e.g. grading, staging, construction impacts).</li> </ul>
<b>Prioritize multi-modal/non-auto travel and safety</b>	<ul style="list-style-type: none"> <li>• Creation of urban streets that promote roadway safety through design and physical elements.</li> <li>• Safety and comfort for vulnerable road users. Includes sufficient widths to accommodate various design users (e.g. cargo bikes, electric bikes, electric scooters, etc.); separation of uses and conflict points.</li> <li>• Accessibility and all ages and abilities requirements and best practices.</li> <li>• Alignment with City Transportation policies, standards and guidelines.</li> </ul>
<b>Stormwater management and green infrastructure (GI)</b>	<ul style="list-style-type: none"> <li>• Opportunities to implement GI that achieves the most co-benefits (e.g. increases biodiversity, addresses urban heat island, enhances air quality, etc.) over traditional stormwater management strategies, with a priority on GI that requires less maintenance and upkeep.</li> <li>• Area for GI to meet stormwater management modelling requirements.</li> <li>• Potential for integration with landscaping and plantings.</li> </ul>
Utility impacts	<ul style="list-style-type: none"> <li>• Utility impacts due to servicing expansion, road widening and green infrastructure.</li> </ul>
Metrolinx and rail coordination	<ul style="list-style-type: none"> <li>• Aligns with Metrolinx design standards and guidelines, allowing for easier Metrolinx approvals.</li> <li>• Impacts to the rail corridor and rail operations.</li> <li>• Opportunities for future plans for the rail corridor crossing.</li> </ul>

**Table 2. Evaluation Criteria – Category 2: Socio-Economic Environment**

<b>Criteria</b>	<b>Considerations</b>
Construction impacts	<ul style="list-style-type: none"> <li>• Temporary construction impacts on surrounding areas such as noise, dust, duration of construction, particularly to any sensitive uses.</li> <li>• Impacts to private/commercial accesses during construction.</li> </ul>
Streetscaping and community benefits	<ul style="list-style-type: none"> <li>• Streets as public spaces that contribute to street vibrancy, sense of place, and well being.</li> <li>• Opportunities for public open spaces/gathering spaces within the road ROW.</li> </ul>
Integration with surrounding uses	<ul style="list-style-type: none"> <li>• Impacts on adjacent uses and suitability to existing/planned uses.</li> </ul>
<b>Aligns with Downsview Secondary Plan (DSP) and District Planning</b>	<ul style="list-style-type: none"> <li>• Alignment with Downsview Secondary Plan.</li> <li>• Street design supports existing and proposed adjacent land uses and the vision of each District, including development potential.</li> <li>• Alignment with right-sizing ROW principles for the Downsview area.</li> </ul>
Noise impacts	<ul style="list-style-type: none"> <li>• Impacts to existing and future sensitive areas including residential and institutional uses.</li> <li>• Complexity of noise mitigation measures (if required).</li> </ul>
Air quality impacts	<ul style="list-style-type: none"> <li>• Impacts to existing and future sensitive areas including residential and institutional uses.</li> <li>• Space dedicated towards street trees to potentially improve air quality.</li> </ul>
<b>Property impacts</b>	<ul style="list-style-type: none"> <li>• Property impacts due to servicing expansion and road widening.</li> <li>• Impacts to existing accesses and driveways.</li> </ul>

**Table 3. Evaluation Criteria – Category 3: Natural Environment**

<b>Criteria</b>	<b>Considerations</b>
Natural environmental features	<ul style="list-style-type: none"> <li>• Extent of potential impacts to natural environmental features, including wildlife, SAR, habitat, woodlands, water features, etc.</li> <li>• Opportunity to create or improve natural environmental areas including for trees, vegetation, and wildlife habitat.</li> </ul>
Street trees	<ul style="list-style-type: none"> <li>• Impacts to existing trees.</li> <li>• Opportunity to create a comfortable street canopy that supports street tree health.</li> </ul>
Environmental sustainability and resilience	<ul style="list-style-type: none"> <li>• Alignment with City Green Streets standards and guidelines and TransformTO strategies.</li> <li>• Climate change resiliency through managing stormwater sustainably and resistance to extreme weather events.</li> <li>• Reduction in greenhouse gases.</li> </ul>
<b>Inclusion of environmental input from Indigenous perspectives</b>	<ul style="list-style-type: none"> <li>• Potential impacts to plant species of Indigenous interest, which have significance for medicinal, cultural and crafting purposes.</li> <li>• Opportunities for renaturalization / replanting of native species of Indigenous interest.</li> <li>• Opportunities for the natural environment to deliver cultural and socio-economic benefits from an indigenous perspective.</li> </ul>

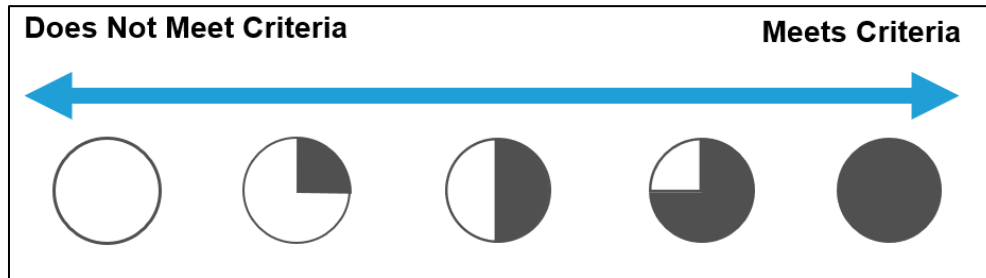
**Table 4. Evaluation Criteria – Category 4: Cultural Environment**

<b>Criteria</b>	<b>Considerations</b>
Built cultural heritage resources	<ul style="list-style-type: none"> <li>• Impacts on built heritage resources (i.e. avoid, modify, relocate or demolish and commemorate).</li> </ul>
Archaeological resources	<ul style="list-style-type: none"> <li>• Extent of impacts in areas of archaeological potential.</li> </ul>
Impacts on Aboriginal and Treaty Rights and use of Land / Resources for Traditional purposes	<ul style="list-style-type: none"> <li>• Enables and supports a culture of environmental stewardship and cultural uses of the land.</li> <li>• Opportunities to mitigate impacts and accommodate Indigenous values such as through renaturalization, commemoration, or inclusion through art, design, etc.</li> </ul>

**Table 5. Evaluation Criteria – Category 5: Costs**

<b>Criteria</b>	<b>Considerations</b>
Costs (e.g., capital costs, operational costs, maintenance costs)	<ul style="list-style-type: none"> <li>• Capital costs.</li> <li>• Operational costs (i.e. TTC surface routes).</li> <li>• Maintenance costs (i.e. degree of maintenance requirements, training requirements).</li> </ul>
Property costs	<ul style="list-style-type: none"> <li>• Land acquisition costs.</li> </ul>

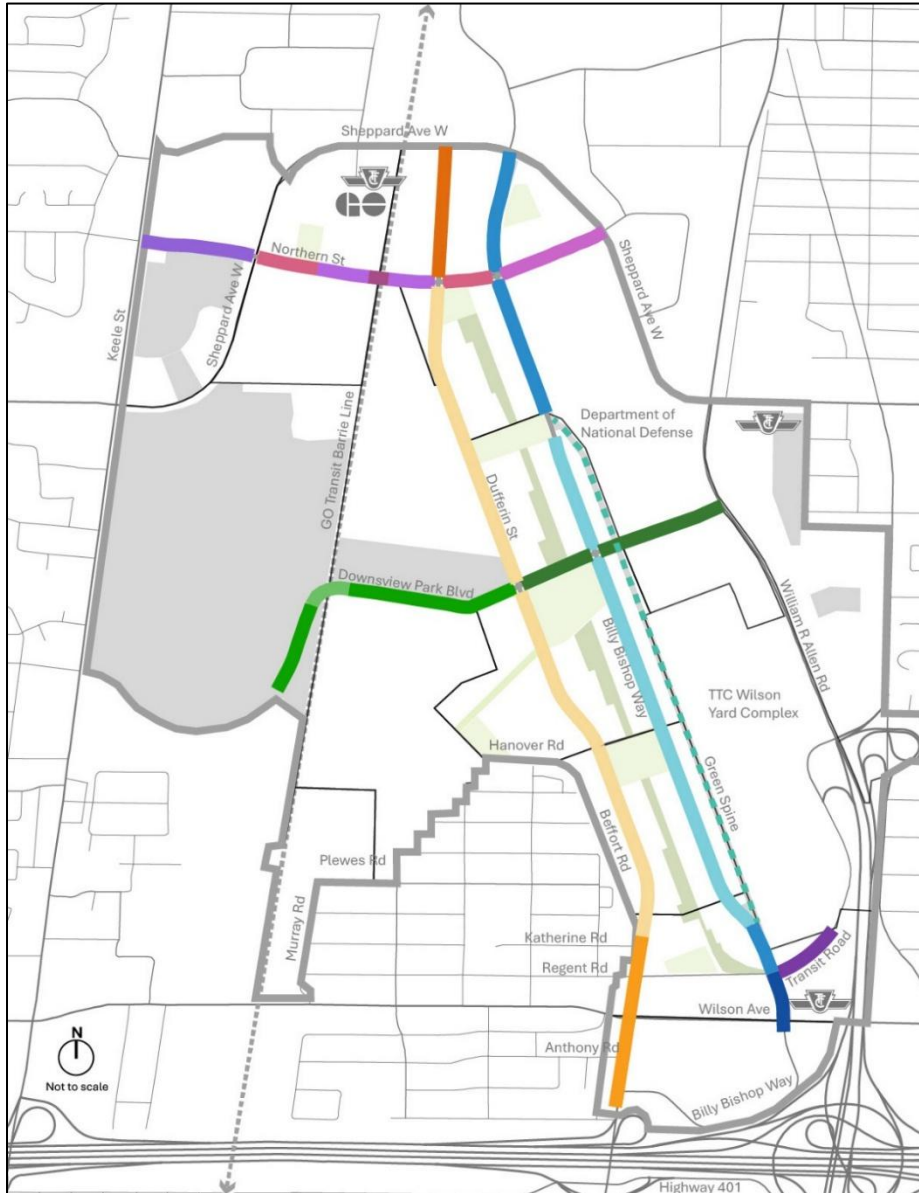
Each alternative was evaluated using the 5-level “circle” sliding scale, as shown graphically in Figure 1. A level 1 on the scale, i.e., an empty circle, indicates that the alternative does not meet criteria. A level 5 on the scale, i.e., a full circle, indicates the alternative best meets the criteria. Criteria bolded in black represent the most significant criteria within their category and are weighted more strongly as part of the evaluation.



**Figure 1. Evaluation Criteria Rating System**

### 3. Development of Alternative Design Concepts

Phase 3 of the EA process involves identifying and evaluating Alternative Design Concepts to recommend a preferred design concept. The Major Streets are separated into distinct segments to allow for more detailed and context-specific evaluations (Figure 2). Alternative Design Concepts are identified and evaluated for each segment.

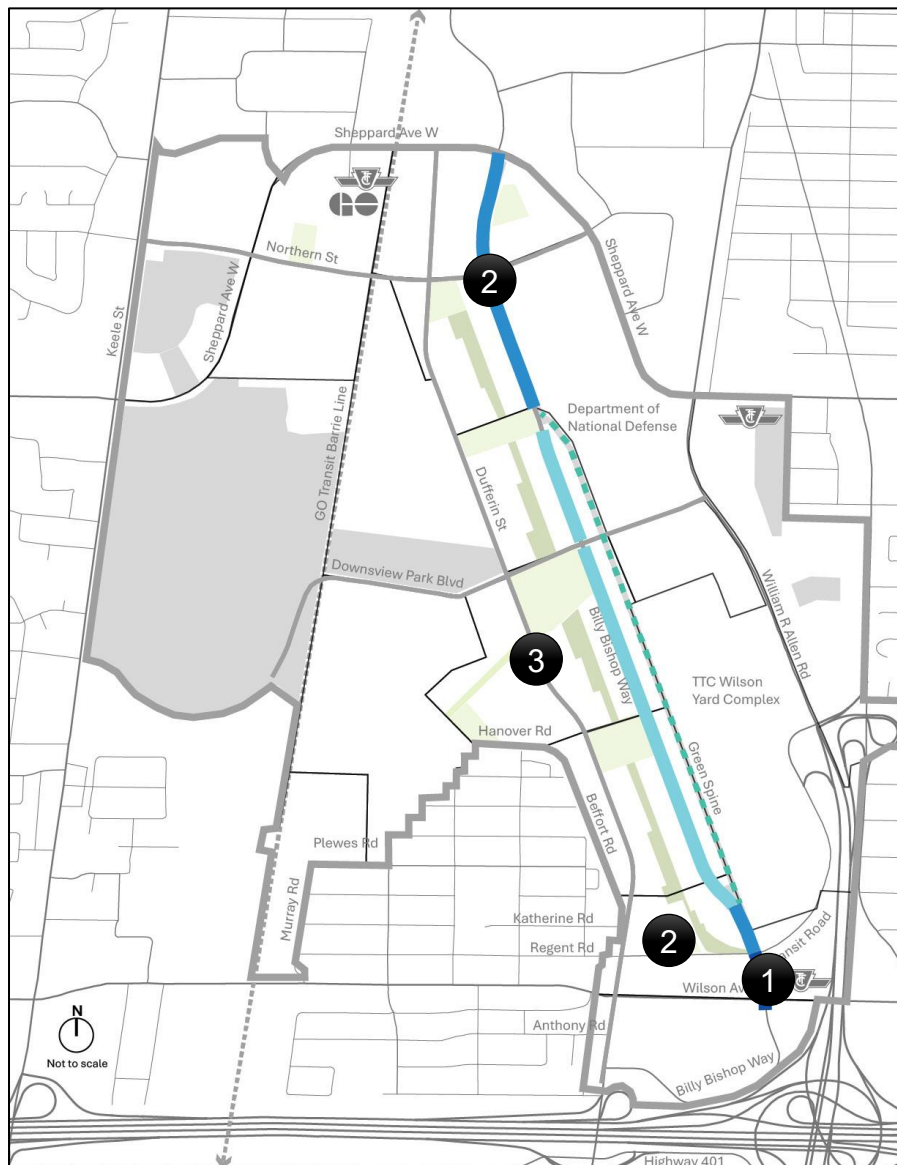


**Figure 2. Street Segments Key Plan**

## 4. Billy Bishop Way – Alternative Design Concepts

This document focuses on the evaluation of Alternative Design Concepts for Billy Bishop Way. Billy Bishop Way was identified in the Master Environmental Servicing Plan (MESP) as a north-south Major Street. It extends the existing Billy Bishop Way from Wilson Avenue on the south to Chesswood Drive on the north. Billy Bishop Way was assessed using the following distinct segments as shown in Figure 3:

1. Wilson Avenue to Transit Road
2. With Green Spine
3. Without Green Spine



**Figure 3. Billy Bishop Way Segment Key Plan**

#### 4.1. Billy Bishop Way (Wilson Avenue to Transit Road)

This segment of Billy Bishop Way extends for approximately 150m from Wilson Avenue to Transit Road (Figure 4).



Figure 4. Billy Bishop Way (Wilson Avenue to Transit Road)

### 4.1.1. Alternative Design Concepts

Three cross-section options were assessed for this segment (refer to Figure 5 through Figure 7 below):

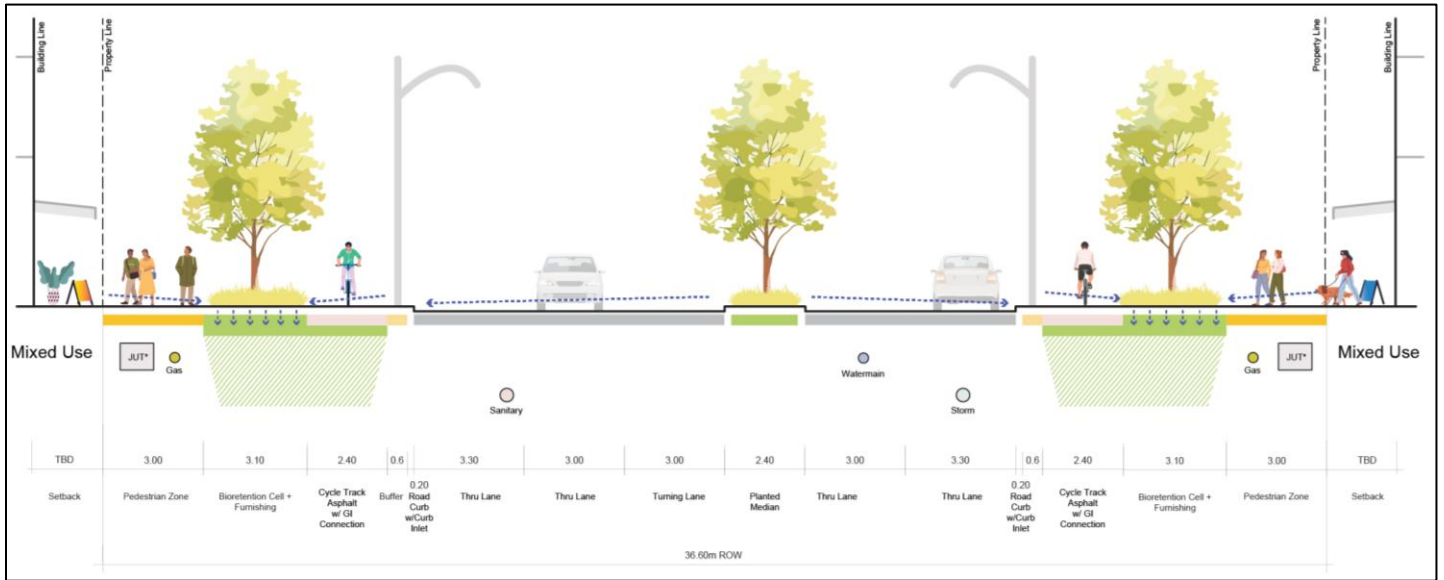


Figure 5. Billy Bishop Way (Wilson Avenue to Transit Road) Cross-Section – Option 1

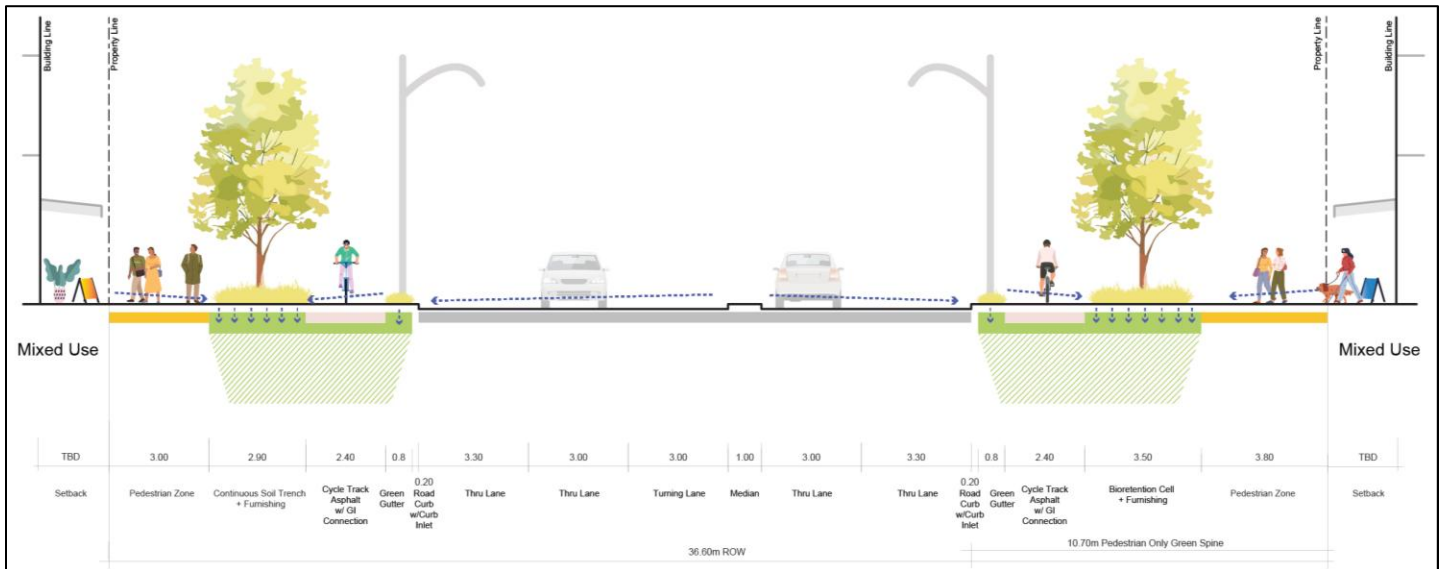
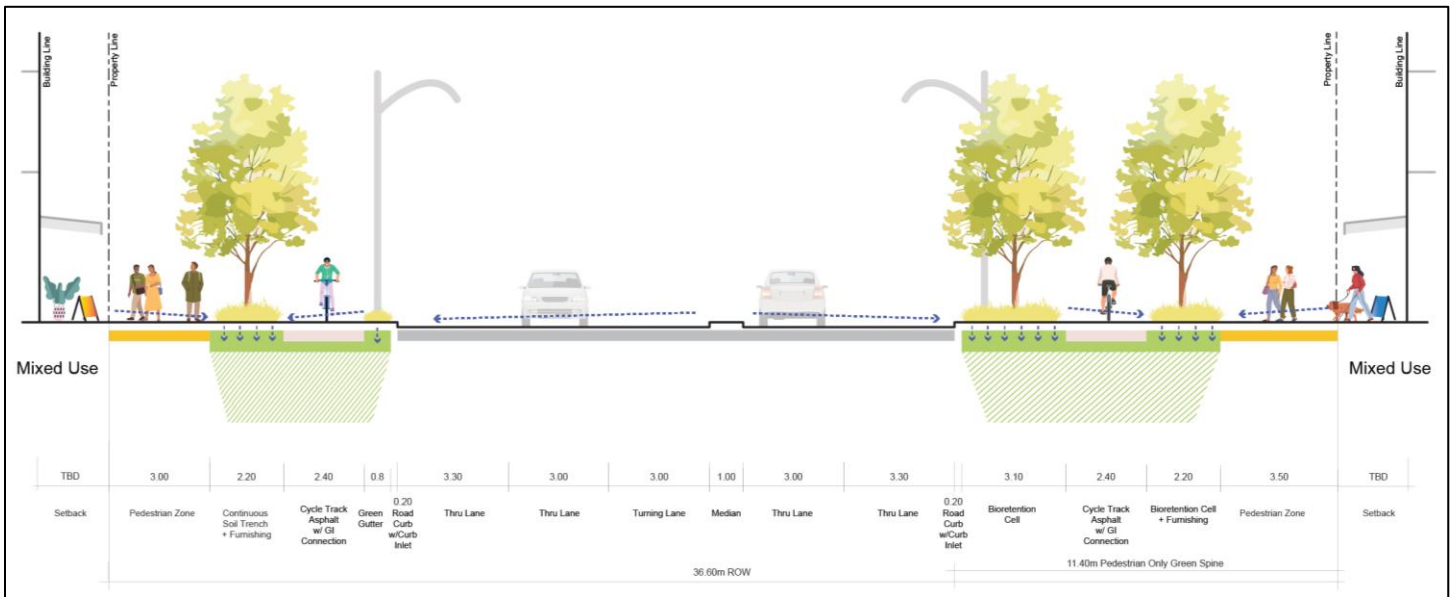


Figure 6. Billy Bishop Way (Wilson Avenue to Transit Road) Cross-Section – Option 2



**Figure 7. Billy Bishop Way (Wilson Avenue to Transit Road) Cross-Section – Option 3**

Table 6 below describes key components of each cross-section option.

**Table 6. Cross-Section Options for Billy Bishop Way (Wilson Avenue to Transit Road)**

Option	Right of Way Width	Vehicle Lanes	West Boulevard	East Boulevard
1	36.6m	<ul style="list-style-type: none"> <li>• Four general purpose lanes (3.0m through and 3.3m curbside)</li> <li>• 2.4m planted median</li> <li>• One left turn lane (3.0m)</li> </ul>	<ul style="list-style-type: none"> <li>• 3.0m pedestrian clearway</li> <li>• 2.4m cycle track</li> <li>• 3.1m green infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• 3.0m pedestrian clearway</li> <li>• 2.4m cycle track</li> <li>• 3.1m green infrastructure</li> </ul>
2	36.6m	<ul style="list-style-type: none"> <li>• Four general purpose lanes (3.0m through and 3.3m curbside)</li> <li>• 1.0m median</li> <li>• One left turn lane (3.0m)</li> </ul>	<ul style="list-style-type: none"> <li>• 3.0m pedestrian clearway</li> <li>• 2.4m cycle track</li> <li>• 2.9m green infrastructure</li> </ul>	<p>Green Spine:</p> <ul style="list-style-type: none"> <li>• 3.8m pedestrian clearway</li> <li>• 2.4m cycle track</li> <li>• 3.5m green infrastructure</li> </ul>
3	36.6m	<ul style="list-style-type: none"> <li>• Four general purpose lanes (3.0m through and 3.3m curbside)</li> <li>• 1.0m median</li> <li>• One left turn lane (3.0m)</li> </ul>	<ul style="list-style-type: none"> <li>• 3.0m pedestrian clearway</li> <li>• 2.4m cycle track</li> <li>• 2.2m green infrastructure</li> </ul>	<p>Green Spine:</p> <ul style="list-style-type: none"> <li>• 3.5m pedestrian clearway</li> <li>• 2.4m cycle track</li> <li>• 3.1m and 2.2m green infrastructure</li> </ul>

## 4.1.2. Evaluation Summary

Table 7 summarizes the evaluation results for the three cross-section options for Billy Bishop Way (Wilson Avenue to Transit Road).

**Table 7. Billy Bishop Way (Wilson Avenue to Transit Road) Evaluation Summary**

Category	Weight	Option 1 4 lanes, 36.6m ROW	Option 2 4 lanes, 36.6m ROW	Option 3 4 lanes, 36.6m ROW
Category 1: Connectivity and Technical Viability	High	●	◐	◐
Category 2: Socio-Economic Environment	High	◐	●	●
Category 3: Natural Environment	Medium	●	◐	◐
Category 4: Cultural Environment	Medium	●	●	●
Category 5: Costs	Medium	●	●	●
<b>Overall</b>		●	◐	◐
		<b>Preferred</b>		

### Key Considerations for Preferred Alternative Design Option 1:

- The 5-lane configuration (four through lanes and one turning lane) provides necessary traffic capacity, which is expected to be high in this segment. More bus traffic is also expected due to adjacency to Wilson Station.
- Option 1 has a wider planted median of 2.4m which provides increased safety benefits by managing vehicle speeds, reducing head on collisions and providing strong pedestrian refuge and reduced/fewer conflicts. The 2.4m planted median could also provide additional stormwater management as well as enhance aesthetics.
- The 3.1m bioretention cells support stormwater management functions. The green infrastructure also provides separation from the cycle track and the pedestrian zone.
- Pedestrian (3.0m) and cycling (2.4m) widths on both sides of the road provide a comfortable and accessible environment for all users. Wider facilities are warranted due to proximity to Wilson Station.

## 4.2. Billy Bishop Way (with Green Spine)

This segment of Billy Bishop Way extends for approximately 920m from Sheppard Avenue West southerly to the northern split of the Green Spine and approximately 190m from Transit Road northerly to the southern split of the Green Spine (Figure 8).



Figure 8. Billy Bishop Way (With Green Spine)

## 4.2.1. Alternative Design Concepts

Three cross-section options were assessed for this segment (refer to Figure 9 through Figure 11 below):

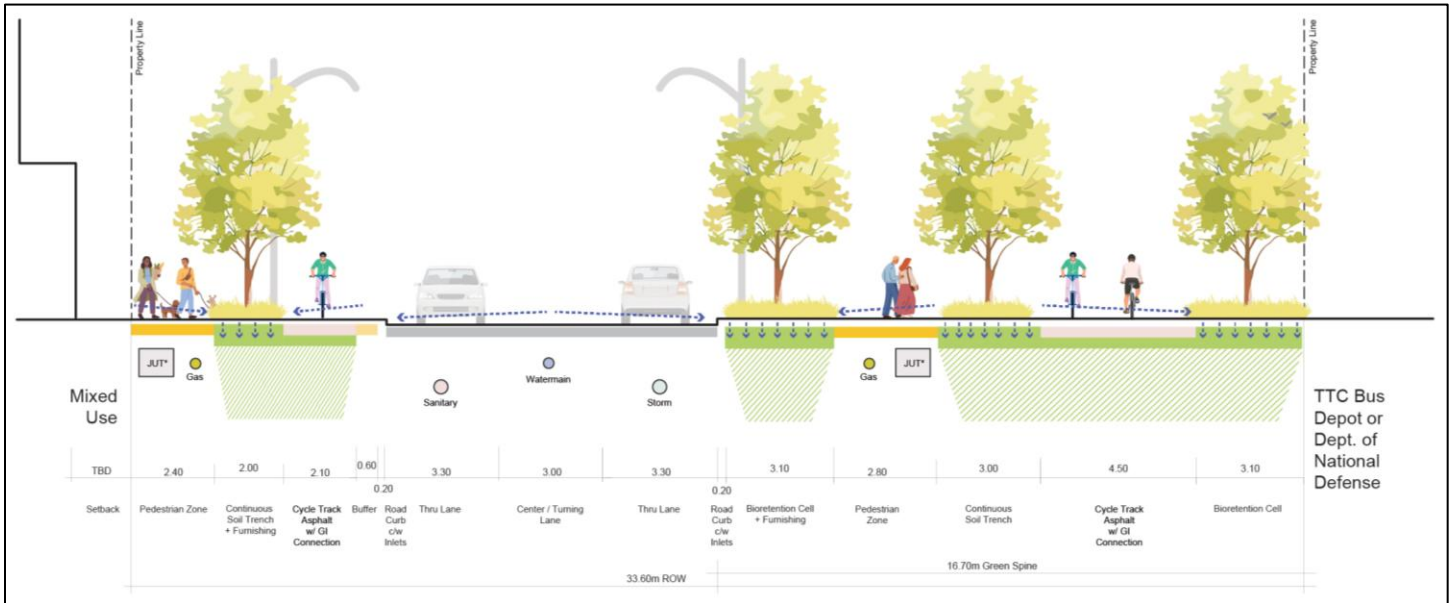


Figure 9. Billy Bishop Way (with Green Spine) Cross-Section – Option 1

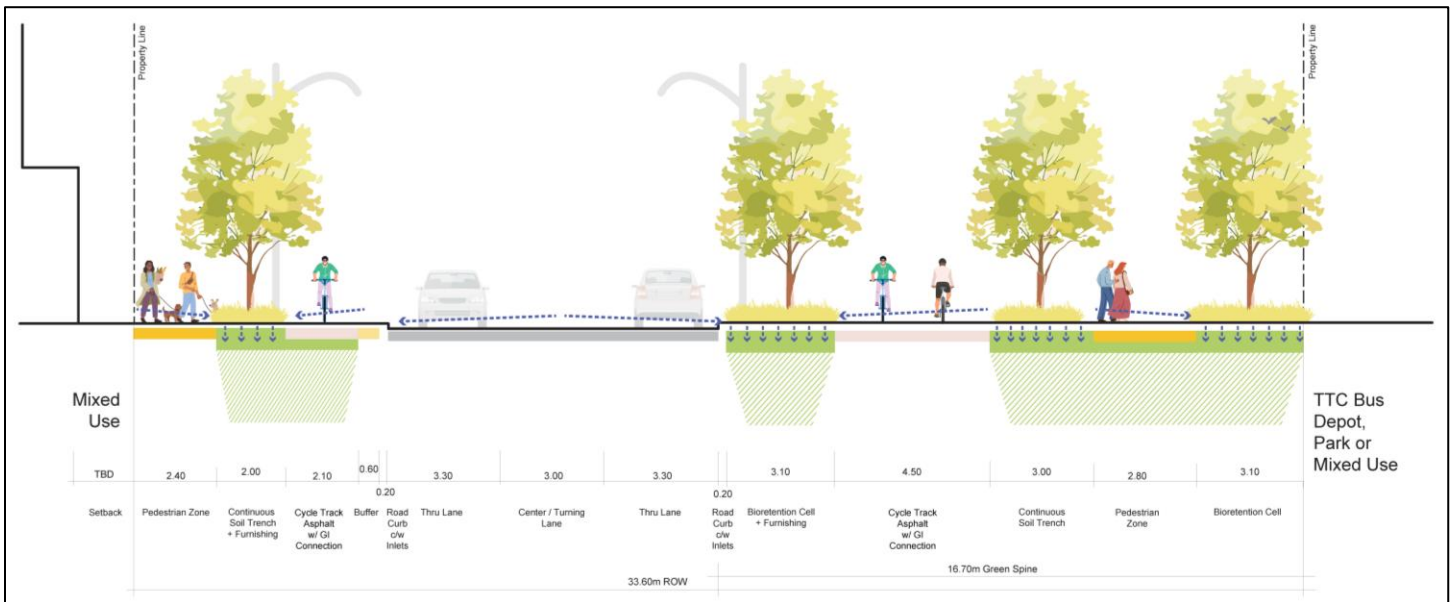
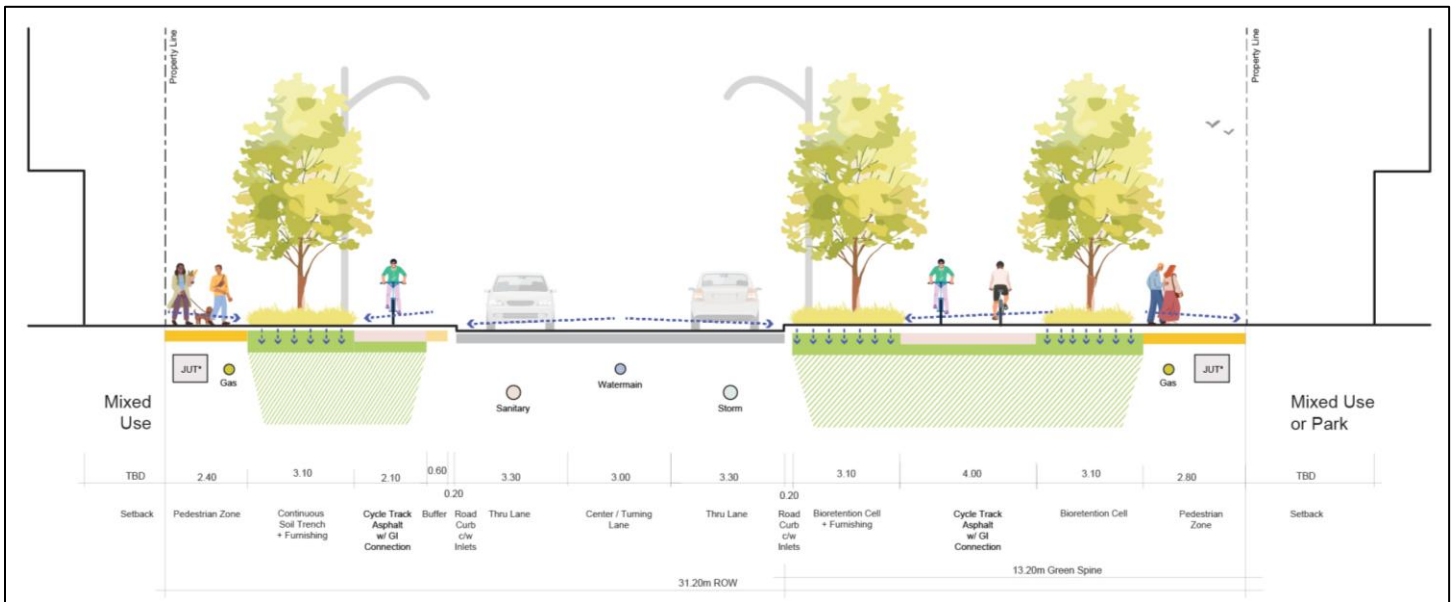


Figure 10. Billy Bishop Way (with Green Spine) Cross-Section – Option 2



**Figure 11. Billy Bishop Way (with Green Spine) Cross-Section – Option 3**

Table 8 below describes key components of each cross-section option.

**Table 8. Cross-Section Options for Billy Bishop Way (with Green Spine)**

Option	Right of Way Width	Vehicle Lanes	West Boulevard	East Boulevard (Green Spine)
1	33.6m	<ul style="list-style-type: none"> <li>Two general purpose through lanes (3.3m)</li> <li>One center turning lane (3.0m)</li> </ul>	<ul style="list-style-type: none"> <li>2.4m pedestrian clearway</li> <li>2.1m cycle track</li> <li>2.0m green infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>2.8m pedestrian clearway</li> <li>4.5m cycle track (on the outside of the ROW)</li> <li>3.1m, 3.0m, and 3.1m green infrastructure</li> </ul>
2	33.6m	<ul style="list-style-type: none"> <li>Two general purpose through lanes (3.3m)</li> <li>One center turning lane (3.0m)</li> </ul>	<ul style="list-style-type: none"> <li>2.4m pedestrian clearway</li> <li>2.1m cycle track</li> <li>2.0m green infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>2.8m pedestrian clearway</li> <li>4.5m cycle track (on the inside of the ROW)</li> <li>3.1m, 3.0m, and 3.1m green infrastructure</li> </ul>
3	31.2m	<ul style="list-style-type: none"> <li>Two general purpose through lanes (3.3m)</li> <li>One center turning lane (3.0m)</li> </ul>	<ul style="list-style-type: none"> <li>2.4m pedestrian clearway</li> <li>2.1m cycle track</li> <li>3.1m green infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>2.8m pedestrian clearway</li> <li>4.0m cycle track</li> <li>Two 3.1m green infrastructure</li> </ul>

## 4.2.2. Evaluation Summary

Table 9 summarizes the evaluation results for the three cross-section options for Billy Bishop Way (with Green Spine).

**Table 9. Billy Bishop Way (with Green Spine) Evaluation Summary**

Category	Weight	Option 1 3 lanes, 33.6m ROW	Option 2 3 lanes, 33.6m ROW	Option 3 3 lanes, 31.2m ROW
Category 1: Connectivity and Technical Viability	High	●	●	●
Category 2: Socio-Economic Environment	High	●	◐	◑
Category 3: Natural Environment	Medium	◑	◑	◑
Category 4: Cultural Environment	Medium	●	●	●
Category 5: Costs	Medium	●	●	●
<b>Overall</b>		●	●	●
		<b>Preferred</b>		<b>Preferred</b>

### Key Considerations for Preferred Alternative Design Option 1 and 3:

- Option 1 is recommended south of Northern Street and north of Transit Road, where adjacent uses are less active/urban i.e., adjacent to Department of National Defense and TTC Yard lands. In these areas, a wider Green Spine (16.7m) is more appropriate and the cycle track is preferred on the outside of the ROW to reduce pedestrian conflicts and transition easier into the Green Spine where it is away from the road. Proper transition points between Options 1 and 3 will have to be determined through detailed design.
- Option 3 is recommended north of Northern Street where adjacent uses are more active/urban and with more pedestrians interfacing with adjacent active ground floor uses. As such the cycle track is preferred adjacent to the roadway to avoid conflicts with pedestrians. A narrower Green Spine (13.2m) is also more appropriate for urban conditions. Proper transition points between Options 1 and 3 will have to be determined through detailed design.
- Given the redundancy of north/south active transportation routes within the Downsview area (Dufferin Street Extension, The Runway, Billy Bishop Way Extension, and Green Spine), proposed narrower active transportation facilities are appropriate in the west boulevard.

- The recommendation of both options allows for a street that better suits the surrounding context.

### 4.3. Billy Bishop Way (without Green Spine)

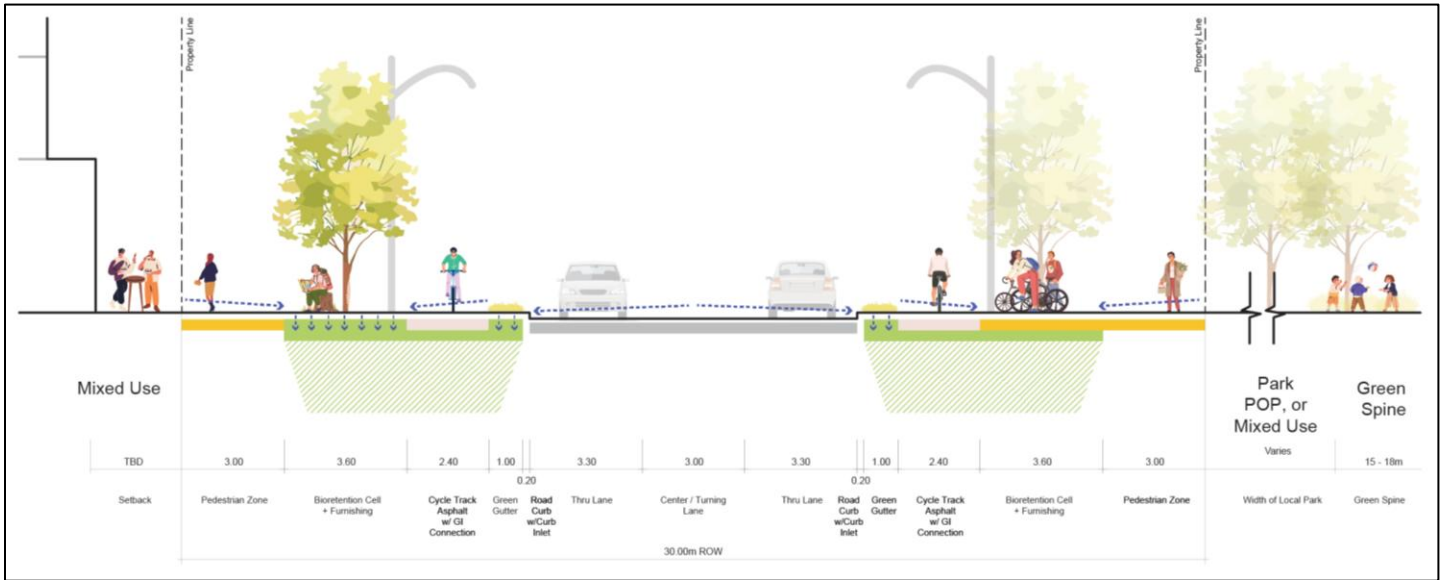
This segment of Billy Bishop Way extends for approximately 1.75km where the Green Spine splits away from the Billy Bishop Way right-of-way (Figure 12).



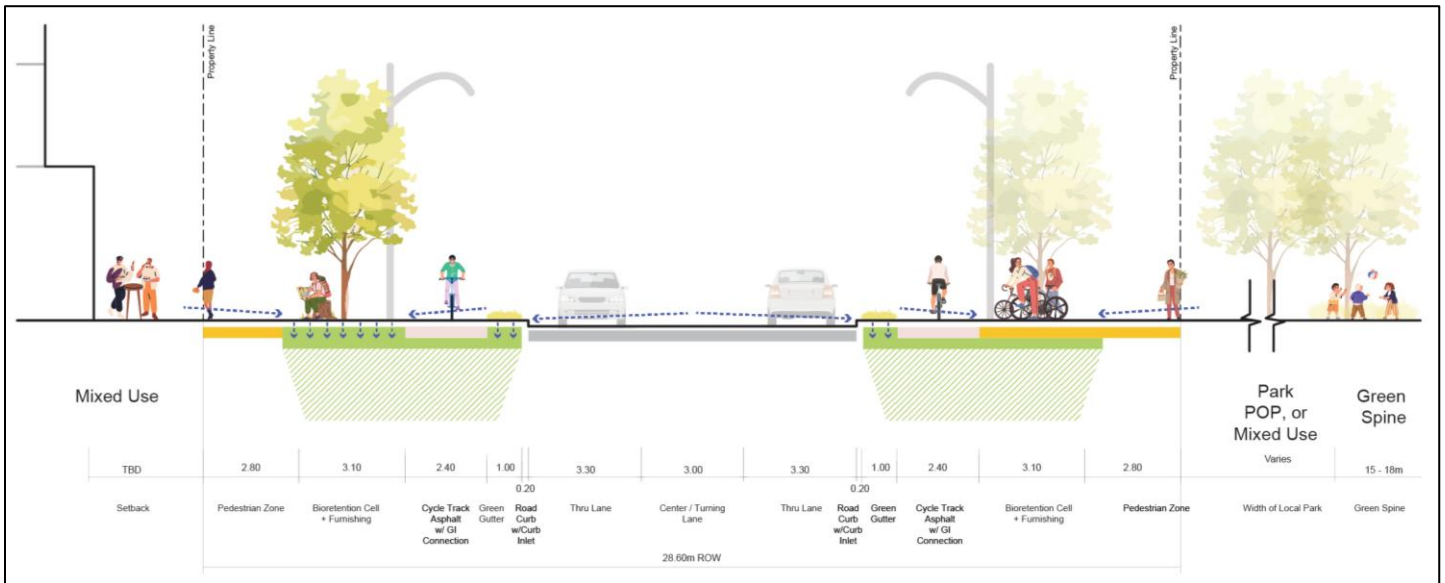
Figure 12. Billy Bishop Way (without Green Spine)

### 4.3.1. Alternative Design Concepts

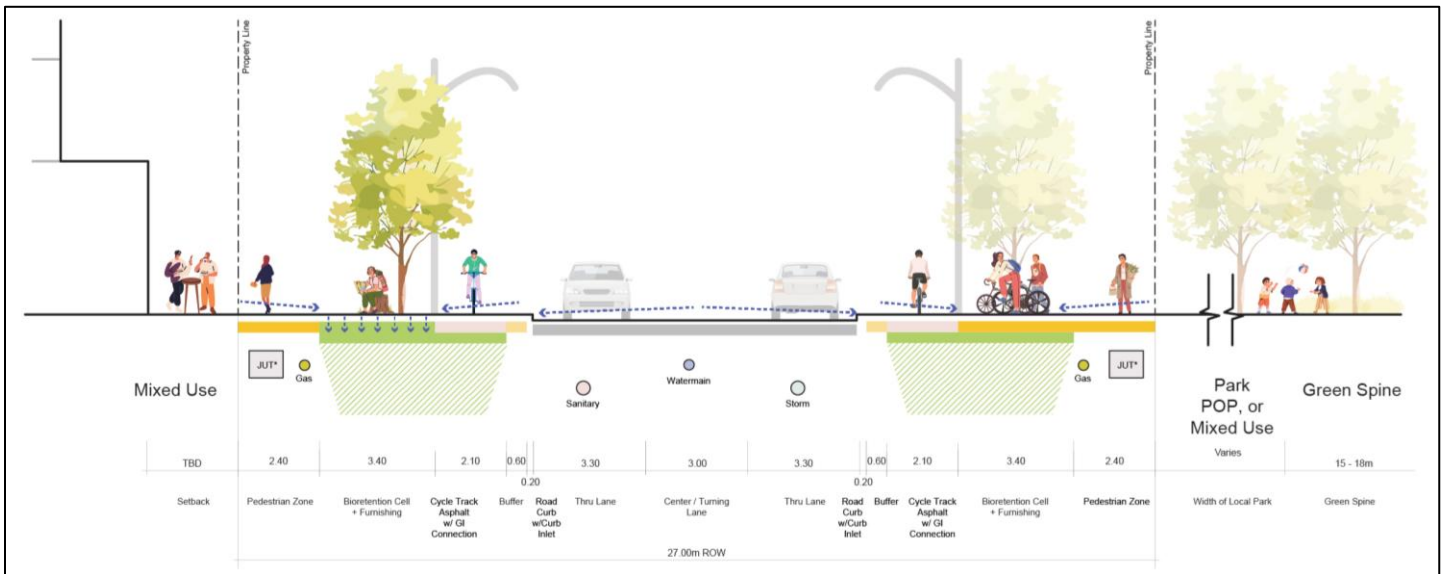
Three cross-section options were assessed for this segment (refer to Figure 13 through Figure 15 below):



**Figure 13. Billy Bishop Way (without Green Spine) Cross-Section – Option 1**



**Figure 14. Billy Bishop Way (without Green Spine) Cross-Section – Option 2**



**Figure 15. Billy Bishop Way (without Green Spine) Cross-Section – Option 3**

Table 10 below describes key components of each cross-section option.



















**Table 10. Cross-Section Options for Billy Bishop Way (With Green Spine)**

Option	Right of Way Width	Vehicle Lanes	Pedestrian Clearway (Both Sides)	Cycle Track (Both Sides)	Green Infrastructure and Furnishing Zone (Both Sides)
1	30.0m	<ul style="list-style-type: none"> <li>Two general purpose through lanes (3.3m)</li> <li>One center turning lane (3.0m)</li> </ul>	3.0m	2.4m	3.6m
2	28.6m	<ul style="list-style-type: none"> <li>Two general purpose through lanes (3.3m)</li> <li>One center turning lane (3.0m)</li> </ul>	2.8m	2.4m	3.1m
3	27.0m	<ul style="list-style-type: none"> <li>Two general purpose through lanes (3.3m)</li> <li>One center turning lane (3.0m)</li> </ul>	2.4m	2.1m	3.4m

### 4.3.2. Evaluation Summary

Table 11 summarizes the evaluation results for the three cross-section options for Billy Bishop Way (without Green Spine).

**Table 11. Billy Bishop Way (without Green Spine) Evaluation Summary**

Category	Weight	Option 1 3 lanes, 30.0m ROW	Option 2 3 lanes, 28.6m ROW	Option 3 3 lanes, 27.0m ROW
Category 1: Connectivity and Technical Viability	High			
Category 2: Socio-Economic Environment	High			
Category 3: Natural Environment	Medium			
Category 4: Cultural Environment	Medium			
Category 5: Costs	Medium			
<b>Overall</b>				
				<b>Preferred</b>

#### Key Considerations for Preferred Alternative Design Option 3:

- It best meets the needs of transportation and servicing requirements while also limiting encroachment onto developable lands. A narrower right-of-way supports better development blocks between The Runway, Billy Bishop Way, and the Green Spine.
- Given the redundancy of north/south active transportation routes within the Downsview area (Dufferin Street Extension, Runway, Billy Bishop Way Extension, and Green Spine), proposed narrower active transportation facilities are appropriate.
- Option 3 has the lowest anticipated capital costs.