

# Master Environmental Servicing Plan (MESP) Evaluation Booklet

The MESP Evaluation Booklet is to be reviewed along with the Information Boards presented at the May 30 to June 3, 2023 Open House.





# **East/West Street Network Evaluation**Short-List of Northern East/West Street Options

The MESP evaluates **five East-West street options** and **four North-South street options** to improve connections through Downsview. The five East-West street options are made up of the "Northern" and "Southern" sections shown below. Through careful and thorough evaluation, two East-West and two North-South street options are selected as the 'preferred' network.

Category	Weight	Option A: Underpass North of Depot	Option B: Underpass through Depot	
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Overall Evaluation		NOT PREFERRED  ✓ Avoids impacts to Depot Building  × Results in poor development blocks beside Downsview Park GO / Subway Station  × Provides less development density near transit  × Provides uneven spacing of rail crossings  × Limits ability to create a logical street network and intersections  ✓ Minimizes impacts to terrestrial and wildlife resources  × Does not provide natural connection to William Baker Woodlot	PREFERRED  X Requires removal of a portion of the Depot Building  ✓ Provides better street and block structure  ✓ Optimizes development potential near transit  ✓ Provides an opportunity to reuse and maintain Depot Building attributes  ✓ Provides more even spacing of rail crossings  ✓ Optimizes potential for a logical street network and intersections  ✓ Minimizes impacts to terrestrial and wildlife resources  ✓ Creates natural connection to existing William Baker Woodlot	











## **East/West Street Network Evaluation**

#### Short-List of Southern East/West Street Options

Category	Weight	Option G: Overpass- connects to Mound	Option H1: Overpass	Option H2: Underpass
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Overall Evalua	ation	<ul> <li>NOT PREFERRED</li> <li>Results in difficult naturalized connection with overpass</li> <li>Creates greater challenges for active transportation with overpass</li> <li>Creates grading challenges to connect to future potential land uses</li> <li>Has greater servicing challenges</li> <li>Has lower capital cost</li> </ul>	<ul> <li>NOT PREFERRED</li> <li>Avoids property impacts on Downsview Park or the Parks Commons</li> <li>Difficult naturalized connections with overpass</li> <li>Creates greater challenges for active transportation with overpass</li> <li>Does not accommodate conveyance of stormwater / Blue Green Infrastructure</li> <li>Has greater servicing challenges</li> <li>Creates grading challenges to connect future potential land uses</li> <li>Has lower capital cost</li> </ul>	<ul> <li>✓ Better naturalized connection with underpass</li> <li>✓ Accommodates stormwater</li> </ul>

Does Not Meet Criteria





### **North/South Street Network Evaluation**

#### Short-List of North/South Street Options

Category	Weight	Option C + F: Crossing Streets	Option D + G: Parallel Streets	
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Overall Evaluation		<ul> <li>NOT PREFERRED</li> <li>✓ Provides direct connection between Dufferin Street from south of Wilson Avenue to Chesswood Drive north of Sheppard Avenue</li> <li>× Crosses the Planned Runway Open Space</li> <li>× Results in more challenging street and block layout</li> <li>× Results in greater grading requirements</li> <li>× Impacts the continuity of the heritage attributes of the Runaway</li> <li>✓ Has limited impacts to existing terrestrial and wildlife habitat</li> </ul>	PREFERRED  × Does not provide a direct connection between Dufferin from south of Wilson to Chesswood Drive north of Sheppard Avenue  ✓ Avoids crossing of the Planned Runway Open Space  ✓ Supports logical street and block layout  ✓ Maintains the heritage attributes of the Runaway  ✓ Promotes balanced access to parks and natural/open spaces  ✓ Simplifies grading requirements  ✓ Has limited impacts to existing terrestrial and wildlife habitat	













Meets Criteria



# **Cycling and Pedestrian Rail Crossings**

#### Short-List Evaluation of the Mound Crossing

Category	Weight	Option C1: Do Nothing	Option C2: Underpass (Crosses Under the Railway)	C3: Overpass (Crosses Over the Railway)
Connectivity and Technical Viability	High	0		
Social Environment	High	0		
Natural Environment	Medium			
Cultural Environment	Medium	N/A	N/A	N/A
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Overall Evalu	ation	NOT PREFERRED  × While Do Nothing minimizes direct impacts to the environment and has no cost, this alternative does not provide a separate crossing and connection to Downsview Park for pedestrians and cyclists	<ul> <li>NOT PREFERRED</li> <li>✓ Provides cyclist/pedestrian crossing</li> <li>× Has significant grade changes with connecting to the Mound</li> <li>× Requires use of elevators and stairs due to grade changes</li> <li>× Requires greater earthworks</li> <li>✓ Has greater disturbance to existing wildlife and wildlife habitat</li> </ul>	PREFERRED  ✓ Provides cyclist/pedestrian crossing ✓ Provides direction connection to top of the Mound ✓ Minimizes grading and earthworks ✓ Has minimal impacts to natural environment

Does Not Meet Criteria









# Cycling and Pedestrian Rail Crossings Short-List Evaluation of the Downsview Park Bridge Crossing

Category	Weight	Option D1: Do Nothing	Option D2: Underpass (Crosses Under the Railway)	Option D3: Overpass (Crosses Over the Railway)
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium	N/A	N/A	N/A
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Overall Evaluation		<ul> <li>NOT PREFERRED</li> <li>While Do Nothing minimizes direct impacts to the environment and has no cost, this alternative does not provide a separate crossing and connection to Downsview Park for pedestrians and cyclists</li> </ul>	NOT PREFERRED  ✓ Provides cyclist/pedestrian crossing  × Has significant grade changes by connecting to an elevated area (small mound) in Downsview Park  × Requires use of elevators and stairs due to grade changes  × Requires greater earthworks  × Has greater disturbance to existing wildlife and wildlife habitat  × Has higher costs	PREFERRED (to be carried forward to future design phases)  ✓ Provides cyclist/pedestrian crossing ✓ Creates a viewpoint from top of overpass. ✓ Minimizes grading and earthworks. ✓ Has minimal impacts to the natural environment ✓ Has lower costs The landing site on Downsview Park to be further evaluated in future design phases.











Long-List Evaluation of the Water Infrastructure Network

Option 1: Do Nothing	Option 2: Expand/Enhance Existing System	Option 3: Implement Water Reduction Measures	Option 4: Limit Community Growth
This option contemplates no changes to the water infrastructure network. This is not technically viable and is set aside.	Analyze options for expanding and enhancing the existing system to meet the demands generated by development in the Update Downsview Secondary Plan	Explore and analyze options to implement water reduction measures throughout the existing and new water infrastructure network.	Limit community growth to the available capacity of the existing water distribution network. This is not good planning nor in line with the priorities of the City of Toronto. This option is set aside.
SCREENED OUT	CARRIED FORWARD TO SHORT- LIST EVALUATION	CARRIED FORWARD TO FUTURE DESIGN PHASES AS PART OF OPTION 2	SCREENED OUT



**Does Not** 





Short-List Evaluation of the Water Infrastructure Network within the Secondary Plan Area

Category Weight Option WS#2C: Two Parallel Main Feeds		Option WS#2C: Two Parallel Main Feeds	Option WS#2D: One Main Feed	
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Key Findings		PREFERRED  ✓ Offers a more resilient, connected and a flexible network  ✓ Accommodates the planned growth and development  ✓ Avoids impacts to existing neighbourhoods  ✓ Minimizes impacts to natural environment  ✓ Avoids impacts to archaeological and heritage resources  ✓ Has greater flexibility to accommodate phasing  ✓ Has similar capital costs to WS#2B  ✓ Has greater potential to mitigate system issues.	NOT PREFERRED  ✓ Accommodates the planned growth and development  × Has less operational flexibility with one main feed.  ✓ Avoids impacts to existing neighbourhoods  ✓ Minimizes impacts to natural environment  ✓ Avoids impacts to archaeological and heritage resources  × Less conducive to phased implementation  ✓ Has similar capital costs to WS#2A  × Limited interconnections making a less resilient network	



















Adjustments to Water Pressure in District Boundaries

The City of Toronto is currently undertaking capital upgrades to the water infrastructure network to improve water pressures in the Downsview Area, specifically in Pressure District 5. Any improvements to the existing water infrastructure network outside of the Secondary Plan boundary will be presented at Public Meeting #3 anticipated in the Fall.

Category	Weight	Option WS#2A: No Further Adjustment to PD 5/6 Boundary	Option WS#2B: Extend PD5/6 Further South)	
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Key Findings		<ul> <li>NOT PREFERRED</li> <li>★ This option does not consider the scale of development proposed within the Downsview Area.</li> <li>★ This option is likely to result in lower pressures near PD5/6 boundary. May need additional infrastructure to improve pressure conditions.</li> <li>★ Proposed development on adjacent neighbourhoods will impact system performance in the Downsview Area</li> <li>★ Limited increase in the operational and capital costs.</li> </ul>	PREFERRED  ✓ This option accounts for the future growth within Downsview Area and thus proposes further refinement to consider the latest development proposals.  ✓ Improved pressure conditions within the Downsview Area  ✓ Limit/Minimize impacts from proposed development on adjacent neighbourhoods  ✓ Marginal increase in operational and capital costs.	







Short-List Evaluation of the Sanitary Infrastructure Network Within the Secondary Plan Area (1 of 2)

Category	Weight	Option WW#2A: Maximize Flow to KRS	Option WW#2C: Optimize Flow to KRS
Connectivity and Technical Viability	High		
Social Environment	High		
Natural Environment	Medium		
Cultural Environment	Medium		
Environmental Sustainability and Resilience	High		
Economic Sustainability	Medium		
Key Findings		NOT PREFERRED  ✓ Requires no off-site improvements as flows directed to planned KRS  × Maximizes length/depth of new infrastructure required to direct flows towards KRS. May require additional infrastructure (i.e. pumping) to accommodate grading/depth.  ✓ Has minimal impact to the natural environment  ✓ Avoids impact to archaeological and heritage resources  ✓ Has higher upfront costs to support phasing	PREFERRED  ✓ Utilizes available residual capacities in existing network  ✓ Uses already planned upgrades to existing network.  ✓ Limits off-site improvements  ✓ Optimizes tributary area/length of required infrastructure to direct proposed flows towards KRS  ✓ Has minimal impact to the natural environment  ✓ Avoid impacts to archaeological and heritage resources  ✓ Optimizes upfront costs to support phasing

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**Does Not** 





Short-List Evaluation of the Sanitary Infrastructure Network Within the Secondary Plan Area (2 of 2)

Category	Weight	Option WW#2D: Minimize Flow to Shaft MT08	Option WW#2E: Optimize Flow to Shaft MT08	
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High		•	
Economic Sustainability	Medium			
Key Findings		NOT PREFERRED  ✓ Supports planned development  × Has limited flexibility to support phasing  ✓ Minimizes impacts to existing neighbourhoods  ✓ Has minimal impacts to natural environment  ✓ Avoids impacts to archaeological and heritage resources  × Has higher capital costs	PREFERRED  ✓ Balances construction between north and south areas and supports planned development  ✓ Has greater flexibility to support phasing  ✓ Minimizes impacts to existing neighbourhoods  ✓ Has minimal impacts to natural environment  ✓ Avoids impacts to archaeological and heritage resources  ✓ Has lower capital costs	







**Meet Criteria** 

#### Water and Sanitary Infrastructure Network Evaluation

Evaluation of the Connection to Keele Sanitary Relief Sewer

Category	Weighting	Option WW#2F: Direct Through  Downsview Park	Option WW#2G: Follow Downsview Park Blvd	Option WW#2H: Hybrid
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium		•	
Environmental Sustainability and Resilience	High	•		
Economic Sustainability	Medium			
Key Findings		PREFERRED  ✓ Has shortest infrastructure length and shallowest depth.  ✓ Avoids impacts to uses within Downsview Park  ✓ Has minimal impacts to existing Stanley Green neighbourhood.  ✓ Has least construction complexity (only requires 2 drop shafts)  × Requires an easement through the park  ✓ Has minimal impacts to natural environment  ✓ Avoids impacts to archaeological and heritage resources  ✓ Has lower capital costs  ✓ Requires less maintenance	Downsview Park.  × Has significant impacts to existing Stanley Greene neighborhood.  × Has highest construction complexity (due to radius of Downsview Park Boulevard)  ✓ Avoids the need for an easement.  ✓ Has minimal impacts to natural environment  ✓ Avoids impacts archaeological and heritage resources  × Has highest capital costs  × Has highest maintenance	<ul> <li>NOT PREFERRED</li> <li>★ Has greater infrastructure length and depth</li> <li>★ Has potential conflicts with use in Downsview Park</li> <li>★ Has some impacts to Stanley Green neighborhood.</li> <li>★ Has greater construction complexity compared to Option WW#2F</li> <li>★ Requires an easement through the park</li> <li>★ Has minimal impacts to natural environment</li> <li>★ Avoids impacts to archaeological and heritage resources</li> <li>★ Has higher capital costs compared to Option WW#2F</li> <li>★ Has higher maintenance requirements compared to Option WW#2F</li> </ul>

Criteria



## Stormwater Infrastructure Network **Evaluation**

Long-List

Option 1: Do Nothing	Option 2: Implement a Grey Infrastructure Only Stormwater Network	Option 3: Implement both Grey and Green Infrastructure in a parallel and redundant system	Option 4: Implement a fully integrated and decentralized stormwater management system	Option 5: Limit Community Growth
Strategy suggests no changes to the drainage of the site or the stormwater infrastructure network. This is not technically viable and is set aside.	Strategy will meet requirements of the WWFMG and Design Criteria primarily through grey infrastructure methods only.	Meets requirements of the WWFMG and Design Criteria through grey infrastructure, with green infrastructure implemented as a parallel system at private development, POPS and streets	Meets WWFMG and Design Criteria through a combination of green and grey infrastructure. Green Infrastructure will be implemented at private development, POPS, streets, and public parks.	Limit community growth to the available capacity of the existing stormwater infrastructure network. This is not technically viable given the scale of proposed development and is set aside.
SCREENED OUT	CARRIED FORWARD TO SHORT-LIST EVALUATION	CARRIED FORWARD TO SHORT-LIST EVALUATION	CARRIED FORWARD TO SHORT-LIST EVALUATION	SCREENED OUT



**Does Not** 





## Stormwater Infrastructure Network **Evaluation**

**Short-List** 

Category	Weight	Option 2: Grey Infrastructure Only	Option 3: Parallel Grey and Green in a parallel redundant system	Option 4: Integrated decentralized system
Connectivity and Technical Viability	High			
Social Environment	High			
Natural Environment	Medium			
Cultural Environment	Medium			
Environmental Sustainability and Resilience	High			
Economic Sustainability	Medium			
Key Find	dings	NOT PREFERRED  ✓ Supports planned development  × Requires End-of-Pipe facilities in early phases to support future development.  × Has minimal flexibility in achieving the WWFMG requirements  × Has the lowest potential to provide additional wildlife habitat and promote biodiversity  × Has minimal flexibility to achieve the WWFMG's under climate change  ✓ Requires no offsite improvements  ✓ Has no impacts to archaeological or heritage resources	early phases to support future development.	biodiversity













# Review of Existing Environmental Conditions

Natural heritage features within the Secondary Plan are concentrated in two areas: Downsview Park and the William Baker District in the Northwest corner of the Area. The remaining vegetated areas in the study area are limited to blocks of mowed/manicured lawn which generally has poor value as wildlife habitat due to low cover, low habitat complexity, and poor foraging habitat quality.

Area Description		Description
	Downsview Park	Downsview Park contains deciduous forests, woodlands, and meadows, including a tallgrass prairie restoration project area. There is also a watercourse flowing from east to west through Downsview Park.
	William Baker	William Baker contains deciduous forest. This combination of habitats provides a variety of habitat types in a protected space that is expected to support a wider variety of wildlife species, including birds, reptiles, arthropods and mammals.



