

**Square One Drive Extension Municipal Class Environmental Assessment
Environmental Study Report**

Appendix M Design Criteria

Appendix M DESIGN CRITERIA

CITY OF MISSISSAUGA
 Square One Drive Extension
 Class Environmental Assessment Study

ROADWAY DESIGN CRITERIA

Criteria	Existing Standard	Proposed Standard	Reference/Notes
Classification	Minor Collector UCU50 (assumed)	Minor Collector UCU50	TAC Table 1.3.2.1
Design Speed	-	50km/h	City Std.2211.010 TAC Table 1.3.2.1
Posted Speed	30 km/h	40 km/h	
Right-of-Way	24m	24m	City Std. 2211.100
Horizontal Curve (R)	-	150m Min.	City Std.2211.010
Stopping Distance	90m	90m	City Std.2211.010 TAC Table 2.1.3.2
Vertical Curve (K)			
Crest	11	11	City Std.2211.020
Sag	13	13	City Std.2211.030
Grades			
Maximum	6.0%	6.0%	City Std.2211.010
Minimum	0.5%	0.5%	City Std.2211.010
Cross-fall			
Roadway	2.0%	2.0%	City Std. 2211.130
Concrete Splash Pad	2.0%	2.0%	City Std. 2211.130
Sidewalk/Multi-Use Pathway	2.0%	2.0%	City Std. 2211.130, 2240.051
Minimum Tangent Length for Intersection Approaches	45m	45m	City Std. 2211.010

Lane Width			
Through Lanes	3.5m-3.7m	3.35m-3.7m	City Std. 2211.100
Right Turn Lane	3.5m-3.7m	3.35m	TAC Section 2.2.3.2
Left Turn Lane	3.0m-3.7m	3.35m	TAC Section 2.2.3.2
Left Turn Lane, Adjacent to Raised Median	3.0m-3.7m	-	TAC Section 2.2.3.2
Dual Left Turn Lane	3.8m-4.0m	-	TAC Section 2.2.3.2
Bidirectional Left Turn Lane	3.5m-4.25m	-	TAC Section 2.2.3.2
Curb and Gutter Width	0.50m	0.50m	City Std. 2230.010
Splash Pad Width	0.75m	0.50m Min.	City Std. 2240.041
Sidewalk Width	1.3m-1.8m	2.0m-3.2m	City Std. 2240.011
Multi-Use Pathway	1.8m – 2.0m	3.5m	City Std. 2240.051

ROUNDAABOUT DESIGN CRITERIA
 Rathburn Road / Square One Drive

Parameter	NCHRP Guide Line	Design Parameter
Design Vehicle for Circulatory Lanes	B-12	B-12
Design Vehicle for Truck Apron	WB-20	WB-20
Design Vehicle for Fastest Path	P	P
Inscribed Circle Diameter (m)	46m	46m
Maximum Design Speed for Entering (km/h)	40-50	40
Minimum Stopping Sight Distance (m)	46m	46m
Circulatory Roadway Width (m)	8.5m-9.8	9.0m
Entry Width for Multi-Lane Roundabout (m)	7.3m-9.1m	7.5m-8.2m
Truck Aprons (m)	1-4.6m	6.5m
Min. Width of Splitter Island (m)	1.8m	1.9m