

CITY OF BURLINGTON

GEOMETRIC DESIGN GUIDELINES FOR ROADWAYS

GUIDELINES FOR INTERSECTION CURB RADII

STREET TYPES	RESIDENTIAL (m)		INDUSTRIAL (m)
	INBOUND	OUTBOUND	
a) Local to Local	6	6	10
Local to Collector	8	6	10
Local to Arterial	11	8	12
b) Collector to Collector	8	8	12
Collector to Arterial	*	*	*

(* See s-108 and S-109 for Specific Radii at Arterial Intersections)

NOTE:

1) Bus Routes require a minimum R.T. radius of 11m and the street must be designed to collector standards.

2) Intersection angles shall be between 75-105 degrees and have been assumed in generating these guidelines.

c) Arterial to Arterial intersections require special consideration for traffic signal placement and pedestrian islands etc.

* These guidelines present desirable standards particularly for new design. It is recognized that in certain special circumstances such as in the case of existing limited right-of-ways, these guidelines may not be attainable.

GUIDELINES FOR HORIZONTAL ALIGNMENT (CENTERLINE RADII)

STREET TYPE	NO. OF LANES	DESIGN SPEED km/hr	R Min. (m) without super elev.	S Max. (%)	R Min. (m) with super elev.
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URBAN:

Local	2	N/A	N/A	not permitted	-----
Collector or Arterial	2 or 3	50	125	2	110
		60	175	2	160
		70	260	2	230
		80	315	2	280
Collector or Arterial	4,5, or more	70	360	3	250
		80	360	3	300

NOTE: These radii have been calculated using the formula:

$$R = \frac{V^2}{127(e + f)}$$

where

R = centreline radius in metres

V = vehicle speed in km/hr

e = superelevation (S max as noted)

f = maximum safe side friction as per

Table B3.2 of R.T.A.C.

* In certain instances the centreline radii may need to be reduced, however this will require detailed analysis of design speeds, posted speeds, sight distance etc.

Rural: Refer to R.T.A.C Guidelines.

On all streets types where superelevation is permitted, a normal gutter shall be required on the elevated side of the roadway. This requirement may be waived if the boulevards on the elevated side of the roadway must be reverse graded to match the surrounding grade.