

3.11 SMALL CORNER RADII

OBJECTIVES

- To slow turning movements at junctions to assist pedestrians when crossing, and to provide greater safety for cyclists (see Diagram 3.11.1)

SPEED REDUCTION RATING "B"

Rating "B" for turning movements only.

DESIGN FEATURES

The design should be appropriate to the classification of the streets involved. Ramped corners can be used to slow cars while still allowing access by large vehicles.

APPLICATION

Useful at all junctions within "living" and "mixed priority" areas where turning movements would otherwise be too fast. Small radii are not necessary where slow speeds are achieved by other means, or where the footway is set away from the corner.

DIMENSIONS

Suggested maximum kerb radii (m) if footways and corners are adjacent.

Road class	Local	Collector	Mixed
Local	2		
Collector	2	3	
Mixed	3	4	6
Traffic	4	6	8



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14: Excessive corner radii encourage speeding and are hazardous for pedestrians. (Photo: T. Pharoah)

15: Small radii at corners allow pedestrians to cross conveniently. In this example, dropped kerbs are also provided. Battersea, London. (Photo: T. Pharoah)

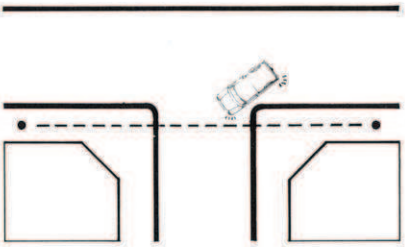
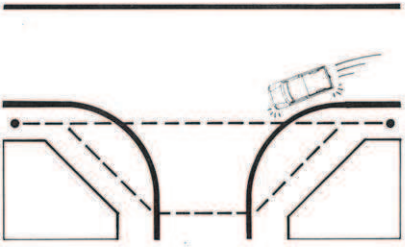
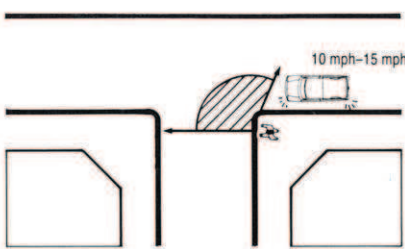
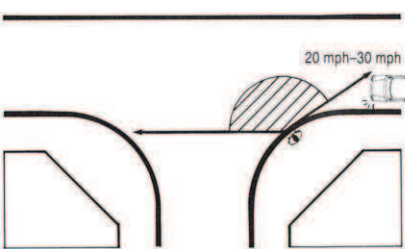
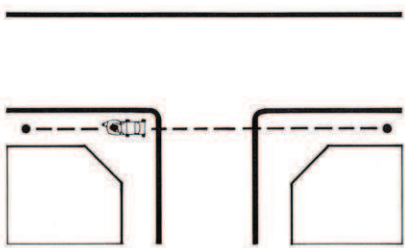
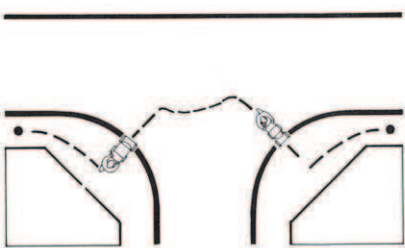
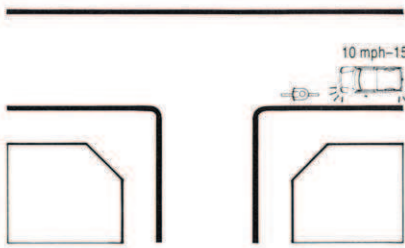
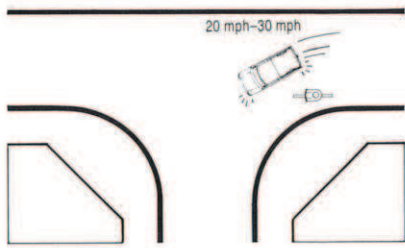
SMALL RADIUS (eg. 1 metre)	LARGE RADIUS (eg. 7 metres)
 <ul style="list-style-type: none"> - Pedestrian desire line [---] is uninterrupted - Vehicles turn slowly [10 mph-15 mph in second gear] 	 <ul style="list-style-type: none"> - Pedestrian desire line involves longer crossing distance - Short crossing distance involves detour - Vehicles turn fast [20 mph-30 mph in third gear]
 <ul style="list-style-type: none"> - Pedestrian does not have to look far behind to check for turning vehicles - Pedestrian can normally establish right of way because vehicles turn slowly 	 <ul style="list-style-type: none"> - Pedestrian must look far behind to check for fast turning vehicles - Pedestrian cannot normally establish right of way against fast turning vehicles
 <ul style="list-style-type: none"> - Kerbs at right angles to pedestrian desire line - Especially convenient for prams buggies and trolleys 	 <ul style="list-style-type: none"> - Kerbs askew to pedestrian desire line - Especially difficult for prams buggies and trolleys
 <ul style="list-style-type: none"> - Cycle and car speeds compatible 	 <ul style="list-style-type: none"> - Danger from fast turning vehicles cutting across slower cyclist

DIAGRAM 3.11.1 EFFECTS OF CORNER RADII ON PEDESTRIANS AND CYCLISTS

SUPPORTING MEASURES

Bollards can prevent overrunning of footway at corners. Dimensions can be relaxed if speeds are slowed by ramped junctions or other means. Ramped corners may be appropriate in “mixed priority” and “traffic” areas. Central islands may be needed in mouth of junction to prevent vehicles taking a “racing line”.

POSITIVE FACTORS

- Helps pedestrians to establish right of way over turning vehicles at junctions
- Easier to ensure that footway meets carriageway at 90 degrees at junctions
- Reduces danger of cyclists being “cut across” by turning vehicles

NEGATIVE FACTORS

- More difficult access for large vehicles limits radii reduction in some circumstances



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16/17: Large corner radii cause particular inconvenience for people with prams, wheelchairs, etc. (Photos: T. Pharoah)