

3.10 ROUNDABOUTS

OBJECTIVES

- Speed reduction
- Smoothing traffic flow and reducing vehicle conflicts

SPEED REDUCTION RATING “B”

Rating is in comparison with previously unimpeded speed (e.g. as at a priority intersection).

DESIGN FEATURES

Speed reduction results from the creation of a lateral shift in the carriageway, and priority to traffic from the off-side. Visual appearance in sensitive environments needs careful consideration. The surround to the central island of a small roundabout can be hardened to allow overrun by large vehicles.



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11: Roundabouts can be useful at more important junctions, but pedestrians and cyclists need special consideration. Oer Erckenschwick, Germany. (Photo: T. Pharoah)

12: Roundabouts can cause discomfort for bus passengers. Rennes, France. (Photo: T. Pharoah)

APPLICATION

The design and appearance of conventional roundabouts tends to limit their use to “traffic” areas where they can reduce accidents and smooth traffic flow. Mini roundabouts are often used on distributor and collector roads within residential areas. They may be useful in 20 mph zones where there are low volumes of pedestrians and cyclists.

DIMENSIONS

Advice on the design and dimensions of roundabouts is given in “Roads and Traffic in Urban Areas” (page 339). Within 20 mph streets, multi-lane roundabouts are inappropriate.

SUPPORTING MEASURES

The design should incorporate planting and other features to soften the appearance. Separate provision for pedestrians and cyclists is usually required. Further speed reduction measures may be required in 20 mph areas.

13: A ramped area around the central island can reduce speeds while allowing occasional long vehicles to "trail" over it. Here the area is paved with granite and marked by a 25mm kerb upstand. A working antique lighting column stands in the island as a feature only. Sheffield. (Photo: K. Platt)



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POSITIVE FACTORS

- Smooth flow of traffic (less braking and acceleration) where traffic flows are moderate
- All turning movements possible
- Properly designed they will reduce traffic speeds and alert drivers to their surroundings

NEGATIVE FACTORS

- Relatively high space requirements
- Danger and/or inconvenience for pedestrians and cyclists
- Uncomfortable for bus passengers
- Often considered unsightly