



Image source: Safe System Solutions Pty Ltd

## FACTSHEET 6

# ROUNDBABOUTS

A roundabout is a safer form of intersection control compared to most other types. Roundabouts are an effective method of reducing both the likelihood and severity of crashes. Roundabouts provide a reduced number of conflict points, lower relative impact speeds and more favourable impact angles when compared with other layouts. Options to manage approach speeds at roundabouts include reverse horizontal curves (conventional design) and raised platforms (compact roundabout).

### Application

Roundabouts should be the preferred type of regional and remote intersection where feasible with design features allowing for speed dissipation and enhancing visibility of vulnerable road users.

Roundabouts have the potential to provide the greatest benefit at intersections where most traffic is through or right turning traffic.

### Implementation considerations

- Design should consider the perception of the roundabout at night in remote areas where the provision of street lighting is not practical. Also consider solar-powered lighting.
- Swept path requirements of larger design vehicles (e.g. road trains) may affect the roundabout geometry. Mountable encroachment areas may be required in such instances.
- Design may need to consider cyclist and pedestrian demands at the roundabout.
- A compact roundabout may be suitable where a lower cost treatment is sought or where topography or site constraints result in a conventional roundabout not being feasible. Also consider generation of nuisance noise and that the use of multiple approach lanes requires specific consideration.

### Safe system category

Primary

### Target road user groups

Passenger Vehicles, Motorcyclists, Heavy Vehicles

### Effectiveness

High (60% CRF or more)

### Target crash type

Intersection

### Indicative cost

\$0.5 M - \$6 M+ per site

The cost of a compact roundabout is typically expected to be less than a conventional design including reverse horizontal curves.

Local roundabouts may be achieved at low-cost utilising pre-cast islands within available pavement.

Also consider in-situ and spike-down options as they can also be cost effective.



Before



After



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