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FACTSHEET 3

SHOULDER SEALING

A sealed shoulder is a road shoulder with a sprayed seal or asphalt surface. Shoulder sealing is a common method for reducing the likelihood of road-departure crashes by providing additional road seal beyond the travel lane to allow vehicle recovery in a “drift-off” scenario.

Application

It is good practice to provide a sealed shoulder to all sealed roads, regardless of traffic volume. In addition to reducing the likelihood of lane departure crashes, sealed shoulders may also:

- Provide an all-weather stopping area clear of the traffic lane
- Reduce the frequency and scale of maintenance activities, particularly for edge breakage and edge drop-off
- Improve pavement resilience by minimising water infiltration to the pavement and subgrade
- Allow passing of a vehicle that is turning from the road
- Provide manoeuvre capability where sight distance is restricted

A range of factors should be considered in selecting a sealed shoulder width. Typical widths for sealed shoulder range from 0.5 m to 3.0 m, however, there is evidence that safety does not improve significantly for shoulder widths over 1.5 to 2.0 m.

Implementation considerations

- Funding limitations often affect the provision of sealed shoulders over long distances. A 1.0 m sealed shoulder width is often adopted on regional roads. This width provides a level of benefit while allowing increased length of deployment.
- Design should consider use of Audio Tactile Line Marking in conjunction with shoulder sealing.
- Design should consider the volume and type of heavy vehicles on a road. Multi-combination vehicles have an increased tendency to track outside of traffic lanes. In such cases, inadequate sealed shoulder width may contribute to vehicle loss of control.

Safe system category

Supporting

Effectiveness

Moderate (25-40% CRF)

Target road user groups

Passenger Vehicles, Motorcyclists,
Heavy Vehicles

Target crash type

Lane departure

Indicative cost

Highly variable. The cost of shoulder sealing is dependent on the presence and condition of the existing road formation and pavement.



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