

# **SECTION – B**

## **INDUSTRIAL AND COMMERCIAL ESTATE ROADS STANDARDS**

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# INDUSTRIAL AND COMMERCIAL ESTATE ROADS STANDARDS

## 1. Design Philosophy

- 1.1. Industrial and commercial estate roads must be designed specifically to cater for use by large commercial vehicles. In this respect the Freight Transport Association Guide will be heavily relied upon for information regarding vehicle length, width, height, fully laden weight, turning circles and manoeuvring capabilities.
- 1.2. Industrial and commercial estate roads must also be designed with peak hour vehicle flows and with pedestrians in mind. The vehicle speeds must also be minimised wherever possible to produce safe roads. In order to reduce reversing movements for heavy goods vehicles, turning circles are preferred to reverse turns.

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## 2. Road Hierarchy and Standards

- 2.1. The road hierarchy falls into two categories which are Approach Roads and Access Roads.
- 2.2. Industrial and Commercial Estate roads should include provisions for pedestrians and cyclists in accordance with guidance contained in Section A paragraph 4.5 & 4.6.
- 2.3. Table 3 shows the standard design criteria for Commercial and Industrial Estate Roads.

	<b>Approach Road</b>	<b>Access Road</b>
Design Speed (mph)	30	25
Minimum Carriageway width (m)	7.3	6.5
Minimum Centre Line Radius(m)	70	50
Maximum Gradient (%)	10 (1 in 10)	12 (1 in 8)
Minimum Adjacent Junction Spacing(m)	60	30
Minimum Opposite Junction Spacing(m)	30	25
Minimum Kerb Radius at Junction(m)	15	15
Minimum 'X' Distance at Junction (m)	2.4	2.4
Minimum Forward Stopping Sight Distance (m)	40	40

**TABLE 3**

## 2.4 Carriageway Widths on Bends

Allowance must be made on tight bends for increase in the width of the paths described by vehicles when turning. The width of the road will therefore depend on the radius of the bend and the length of the vehicle.

Throughout commercial and industrial developments, swept paths will be required to ensure that road widths and widening on bends is sufficient to allow for the passing of heavy goods vehicles.

The safety margins shall be:-

7.3m wide carriageway, 1.1 metres between opposing directions and 0.5 metres from the kerb.

6.5m wide carriageway, 0.7 metres between opposing directions and 0.3 metres from the kerb.

The safety margins shall be maintained at all times.

- 2.5 Turning Areas. A turning area must be provided at the end of every Cul-de-sac and at other locations where large vehicles might otherwise be expected to reverse more than a short distance. Turning areas must be able to accommodate the turning manoeuvres of large vehicles. They shall be laid out in accordance with the standard details. Turning circles are preferred.

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## **3 Highway Construction**

### **3.1 Carriageway**

See standard details

Bituminous mixtures shall be produced in plants that are registered to the BS EN ISO 9001 'Sector Scheme 14 for the Production of Asphalt Mixes.

Bituminous mixtures shall be laid by contractors registered to and operating in compliance with the 'Sector Scheme 16 for the Laying of Asphalt Mixes.

All mixtures supplied in accordance with BS EN 13108 shall be CE marked.

### **3.2 Footway and Footway Vehicular Crossovers.**

Refer Standard Details

### **3.3 Vision Areas, Margins and Road Islands.**

As per footway construction. Refer to Section G - Standard Details

### **3.4 Vehicular Crossover**

Refer to Section G - Standard Details

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## **4 Highway Drainage**

4.1 The criteria for highway drainage is the same as that set out for residential estate roads, please refer to Section A – Residential, Section 8. Further information is shown in the Section G - Standard Details.

4.2 Where highways drainage systems discharge to soakaways catchpits shall be used throughout the system in lieu of manholes.

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## 5 Parking

- 5.1 Parking requirements are assessed according to land use and the type of development. The Rhondda Cynon Taf Local Development Plan Supplementary Planning Guidance: Delivering Design and Placemaking: Access, Circulation & Parking requirements 2010 which sets out required standards - Please see link below. The advice given in the publication will assist developers, consultants, and builders, in the preparation and submission of planning applications. It will also achieve a common approach to the provision of vehicle parking facilities, associated with the new development and change of use.  
<http://www.rhondda-cynon-taf.gov.uk/stellent/groups/Public/documents/RelatedDocuments/029808.pdf>
- 5.2 Parking areas and loading bays shall be designed in such a manner as to allow for the manoeuvring of vehicles within the curtilage of the site and facilitate access and egress onto a public highway in forward gear.
- 5.3 Where the carriageway is widened to provide on street parking lay-bys forming part of potential adopted highway, a commuted sum for future maintenance will be required. Refer to Section D – Commuted Sums.

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## 6 Gate Accesses

All gates leading into adjoining industrial units shall only open away from the back of the adjoining highway and where possible should be set back 12m.

Security gates or barriers that are predominantly closed and need to be opened for every vehicle shall, where possible, be set back 20 metres from the edge of the adjoining highway.

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## 7 Miscellaneous

For any item not mentioned in this section, refer to Section A – Residential Roads, Footpaths and Cycleway Standards, as the same criteria will apply.

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