

3.16 NARROW CARRIAGEWAYS

OBJECTIVES

- To emphasize low speed and priority to pedestrians and cyclists
- To discourage overtaking
- To reduce the width of carriageway which pedestrians have to cross
- To create space for non-traffic activities
- To reduce “optical width” (see 3.15)
- To provide defined on-street parking and loading space



24



25

DESIGN FEATURES

Although wide carriageways tend to encourage speeding, reducing carriageway width is not a reliable or sufficient speed reduction measure in urban streets. Nevertheless, if speeds are reduced by other means, then carriageways can usually be reduced in width thus releasing space for other purposes. Access requirements to individual properties need careful consideration. In most urban streets, large vehicles account for a very small proportion of traffic and need not therefore dictate the overall layout.



26

24: A main traffic street reduces from four lanes to two, making crossing easier for pedestrians. Textured paving is used to help those with a visual handicap at the approach to dropped kerbs. Camden, London. (Photo: T. Pharoah)

25: Narrow carriageways are sufficient in quiet residential streets. Here this has been achieved by the use of tree planting in the former carriageway to define parking bays. Nijmegen, Netherlands. (Photo: T. Pharoah)

26: Dual carriageway with parking lane, “shared” cycle lane, and narrow driving lane. Large vehicles cannot pass cyclists, so traffic is usually slowed to the pace of cyclists. Outer ring road, Eindhoven, Netherlands. (Photo: T. Pharoah)

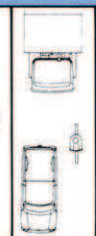









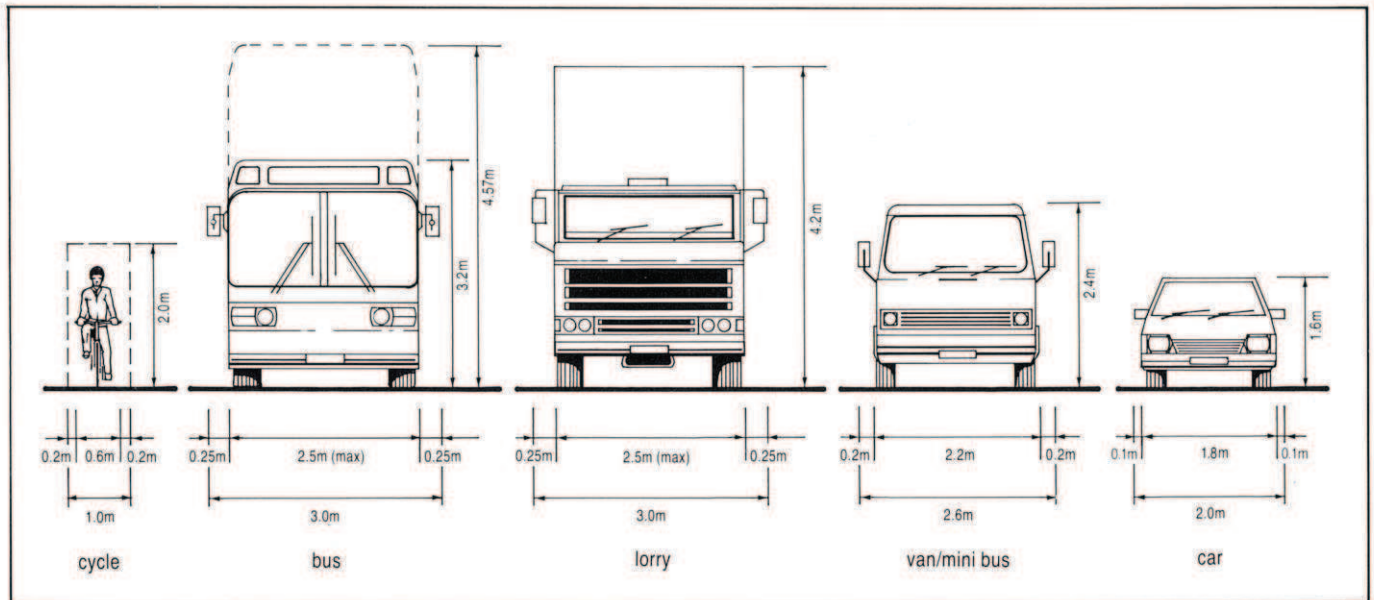
20 mph STREETS		30 mph STREETS			
One-Way ≤ 1000 vph HGV/Bus ≤ 5% Cycles Cat: L C M	3.25m		One-Way Any volume HGV/Bus ≤ 10% Cycles separate Cat: M	3.25m	
Two-Way ≤ 500 vph HGV/Bus ≤ 5% Cycles Cat: L	4.5m		One-Way ≥ 500 vph HGV/Bus ≤ 10% Cycles Cat: M T	4.0m	
Two-Way 500-1000 vph HGV/Bus ≤ 5% Cycles Cat: C M	5.0m		Two-Way ≤ 1000 vph HGV/Bus ≤ 5% Cycles separate Cat: M	5.5m	
Two-Way 500-1000 vph HGV/Bus ≤ 10% Cycles separate Cat: C M	5.5m		Two-Way ≥ 1000 vph HGV/Bus ≤ 5% Cycles separate Cat: M T	6.5m	
Two-Way 500-1000 vph HGV/Bus ≤ 10% Cycles Cat: C M	6.5m		Two-Way ≥ 1000 vph HGV/Bus (any percentage) Cycles Cat: M T	7.3m	
KEY: L Local streets C Collector streets M Mixed priority streets T Traffic priority roads					

DIAGRAM 3.16.1 CARRIAGEWAY WIDTHS IN TRAFFIC CALMED STREETS



Space for passing			
20 mph areas	Between cycles – motor vehicles	0.4m	30 mph areas
	Between motor vehicles	0.25m–0.3m	Between all vehicles
			0.75m–1.0m

DIAGRAM 3.16.2 BASIC DIMENSIONS FOR DETERMINING CARRIAGEWAY WIDTH

APPLICATION

Excessive carriageway width is best avoided on all roads in built-up areas, but narrow carriageways are especially valuable where extra space is required for pedestrians, cyclists and for frontage activities.

DIMENSIONS

Carriageway width and layout should be determined by a range of factors. Key factors will be the road classification and intended speed, the presence or otherwise of cycles,

lorries and buses, traffic volume, visual appearance and environment. Widths can be further reduced when “occasional strips” are used (see 3.17). Appropriate dimensions are set out in Diagrams 3.16.1 and 3.16.2.

SUPPORTING MEASURES

Narrow carriageways benefit from combination with measures to reduce optical width (see 3.15) and to interrupt long views (see 3.8).

POSITIVE FACTORS

- Applicable to all urban roads
- Allows reclamation of space for other uses

NEGATIVE FACTORS

- Potential for conflict between motor vehicles and cyclists, unless separate provision is made for the latter
- Reduced width when a vehicle breaks down and for certain maintenance operations