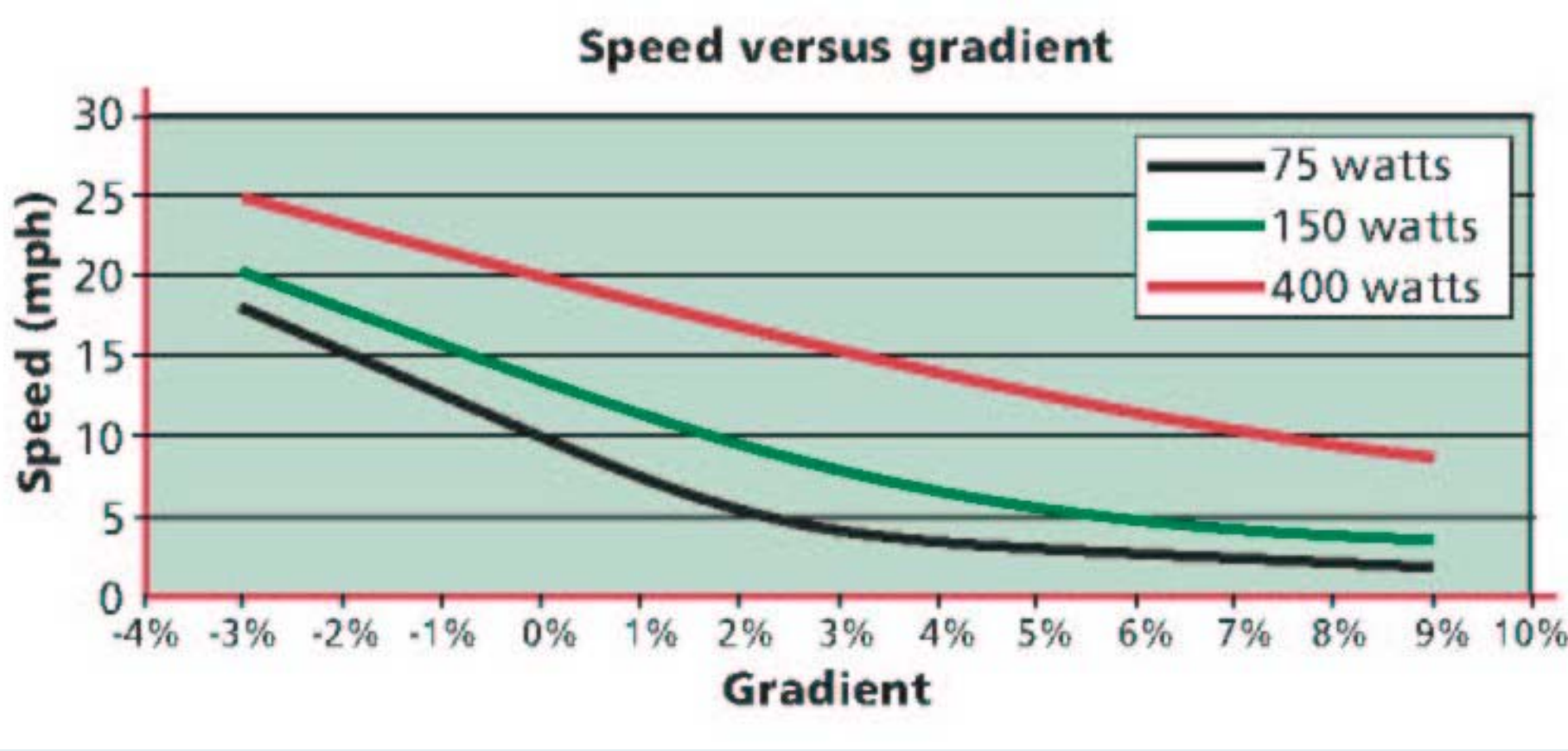
Making Lancashire cycle-friendly

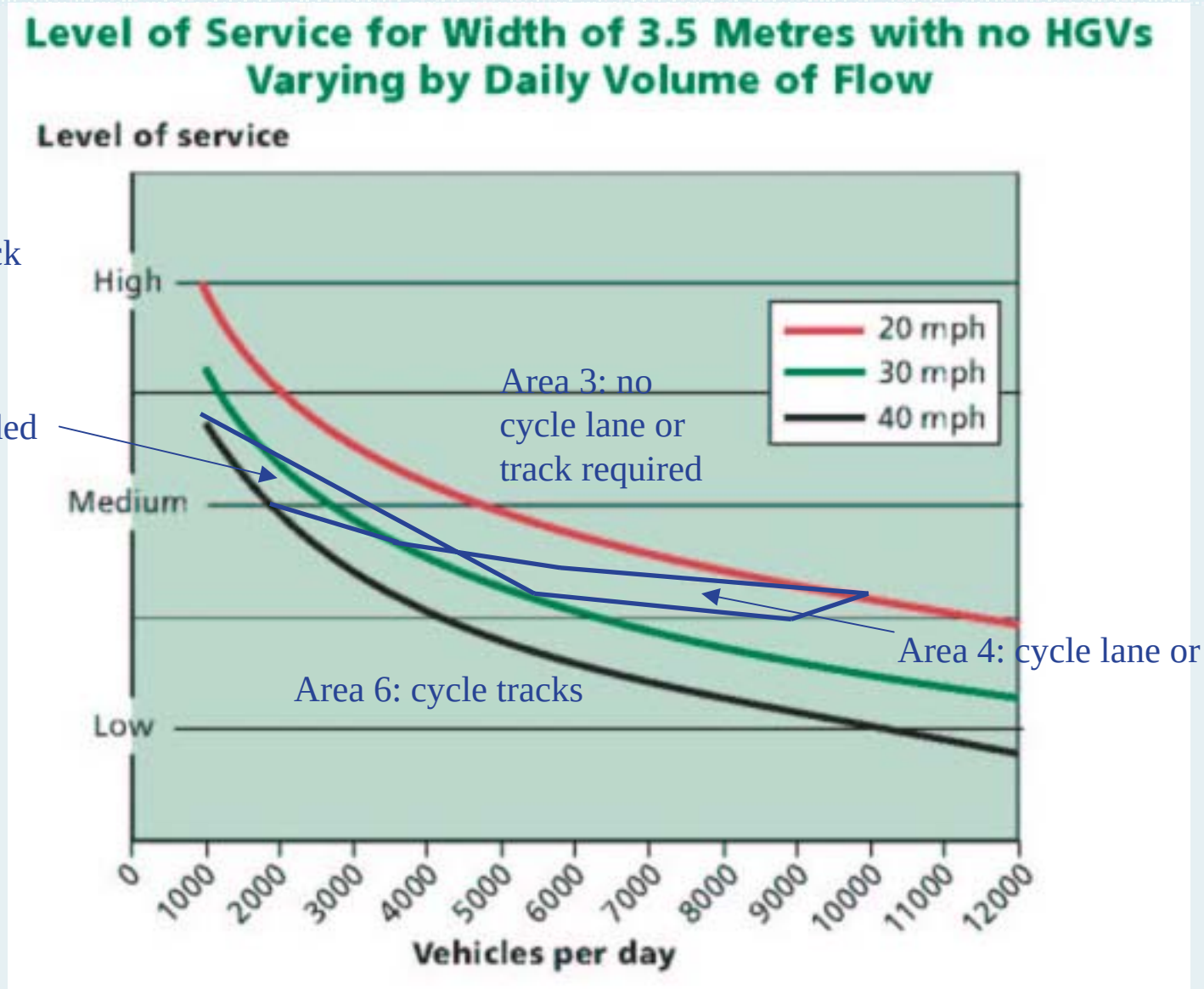
A code for planning, designing and maintaining roads and tracks for cyclists

The fundamentals

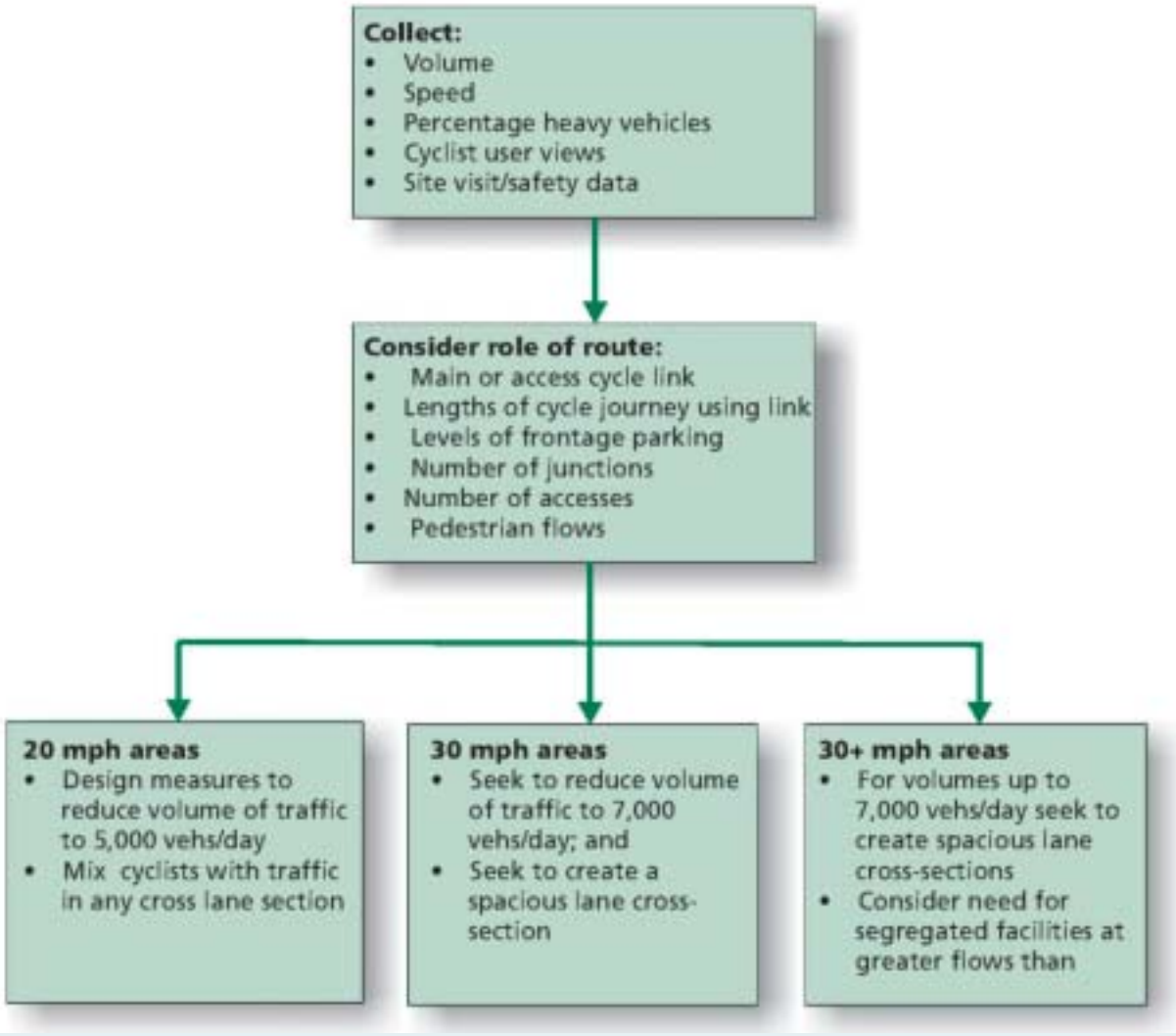
- The bicycle is a vehicle.
- Ensure competitive advantage for cycle traffic is maximised.
- Know when to provide remedial facilities
- Main networks and linking networks

- **Maximise**:
- Advantage to cycling;
- The speed range over which it is comfortable to cycle;
- Accessibility for a cyclist using the network; and
- Integration with public transport.
- **Minimise**:
- Journey times;
- The number of stops required;
- The number of give ways required;
- The gradient required to ascend and descend; and
- Obstacles and barriers along a route.


Speed versus gradient
Speed (mph)
30
25
20
15
10
5
0
-4%
-3%
-2%
-1%
0%
1%
2%
3%
4%
5%
6%
7%
8%
9%
10%
Gradient
75 watts
150 watts
400 watts

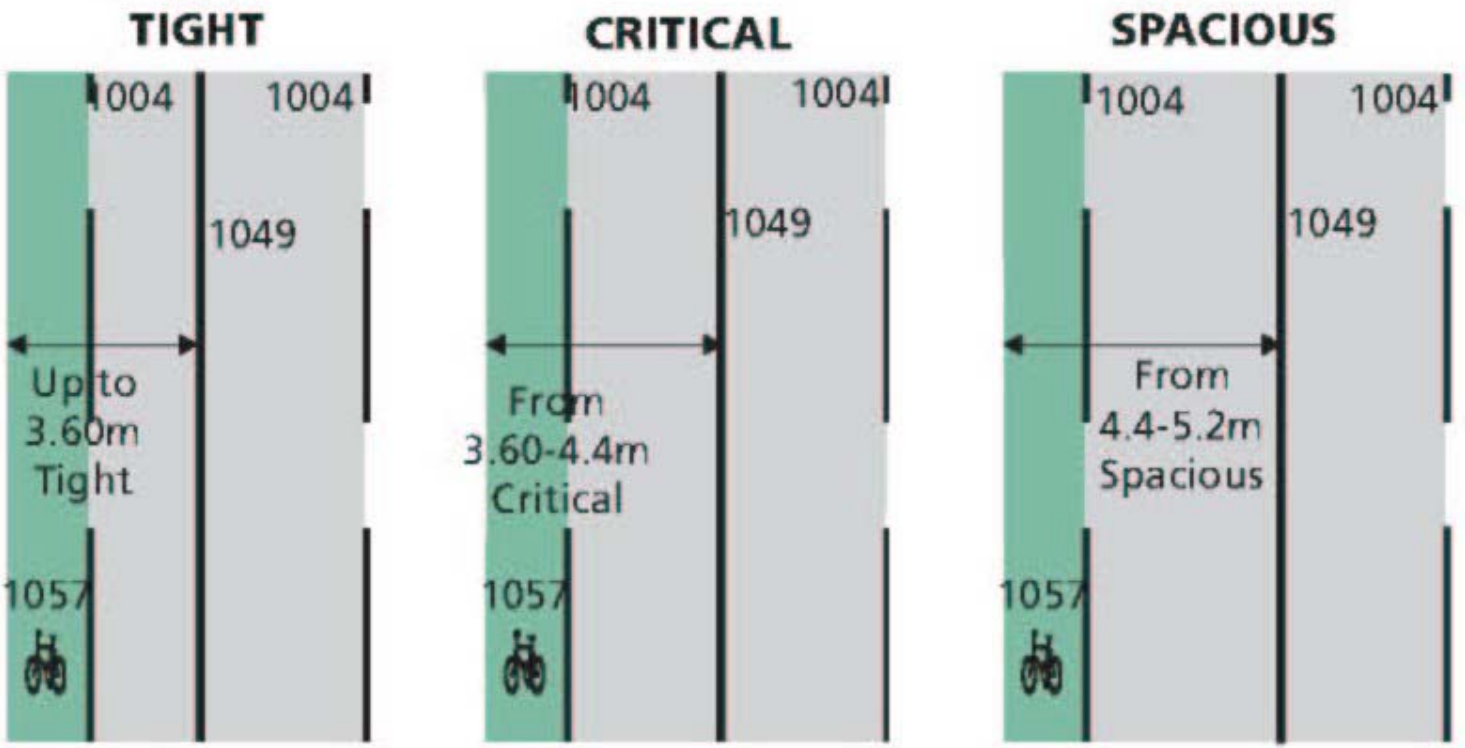

Level of Service for Width of 3.5 Metres with no HGVs Varying by Daily Volume of Flow
Level of service
High
Medium
Low
20 mph
30 mph
40 mph
Area 5: track desirable, mixed OK, lanes not recommended
Area 3: no cycle lane or track required
Area 4: cycle lane or track
Area 6: cycle tracks
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11000
12000
Vehicles per day

Flow Diagram



Design Speed kph	40	30	20
(Design Speed mph	25	19	12)
Stopping Sight Distance (m)	64	40	22
Minimum horizontal radius (m)	70	39	17
Vertical curve Crest K value	9.1	8.2	3.4
Full overtaking sight distance (m)	217	156	94

Note: Assumes co-efficient of friction of 0.18. Superelevation will not significantly affect these radii and hence camber for drainage should determine the crossfall.



Notes

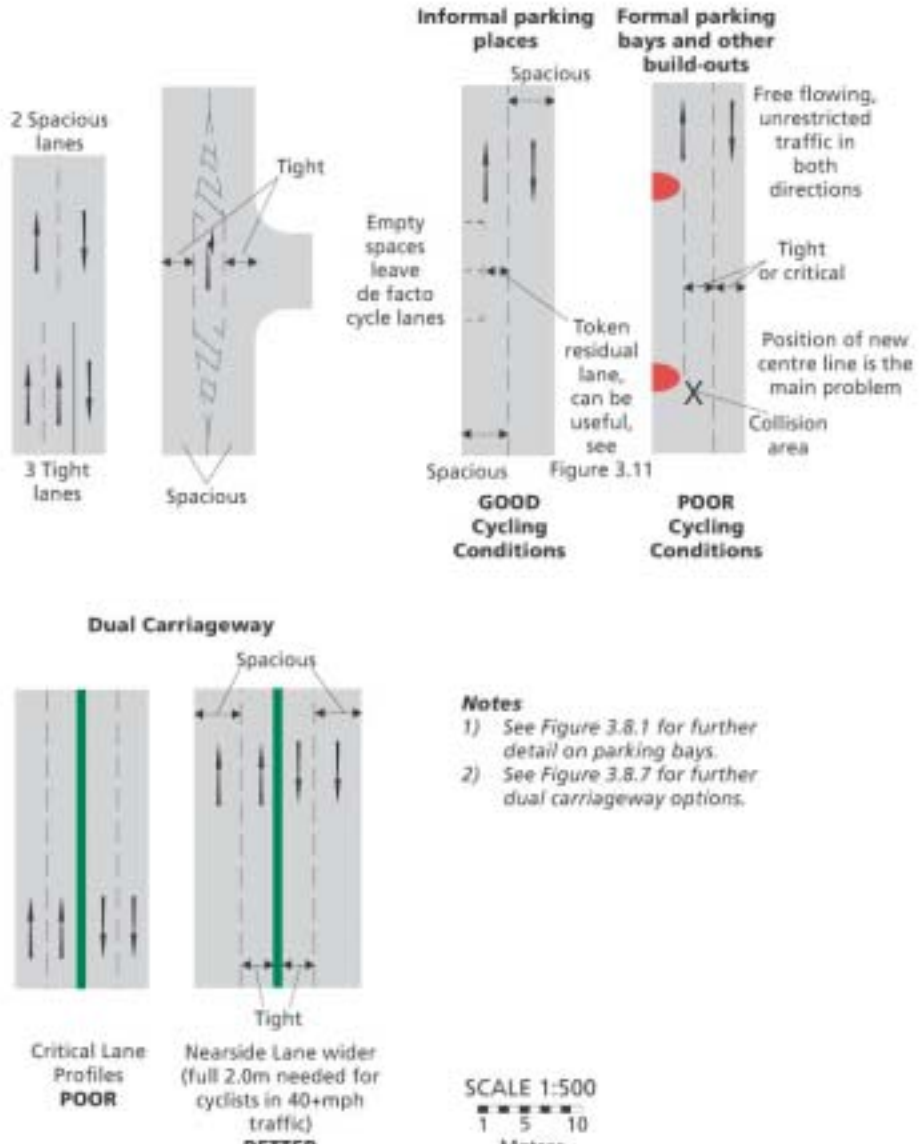
1.) For all widths of bus lane, where there are good reasons to do so, either a full cycle lane or just cycle logos may be added to the nearside

SCALE 1:200

1 2 3 4 5

Metres

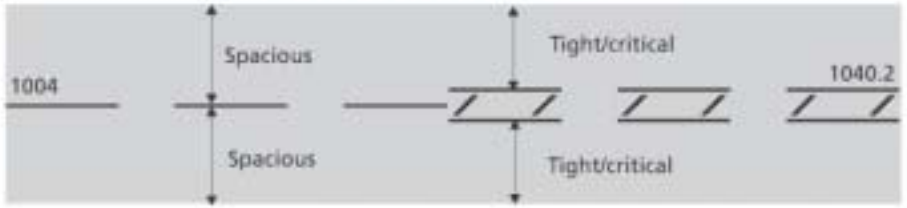
Figure 4.1.6 Cross-section examples

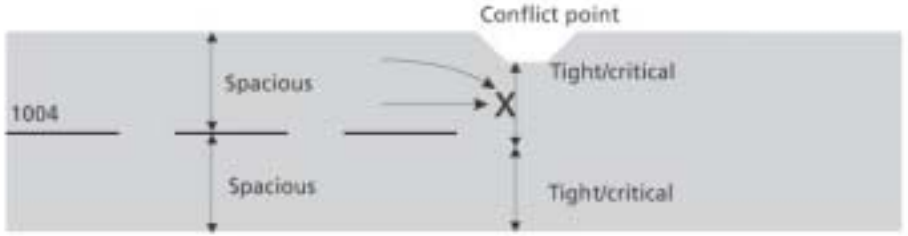


Notes

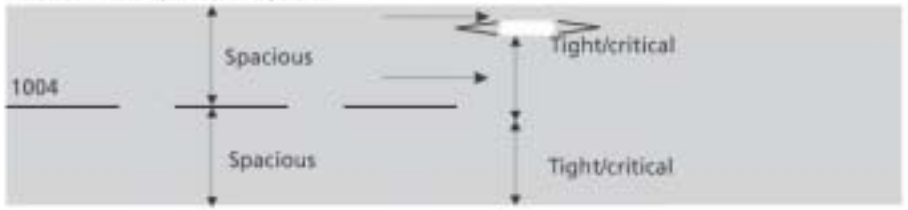
1) *See Figure 3.8.1 for further detail on parking bays.*
2) *See Figure 3.8.7 for further dual carriageway options.*

Figure 4.1.7 Features that create tight or critical cross-sections





Possible remedy; a cycle bypass:



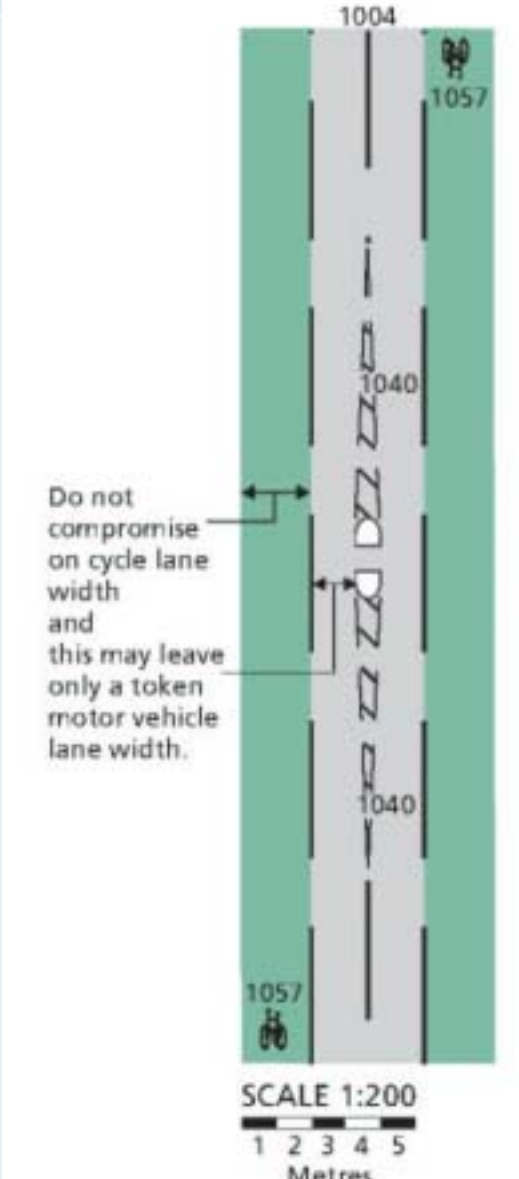
Notes

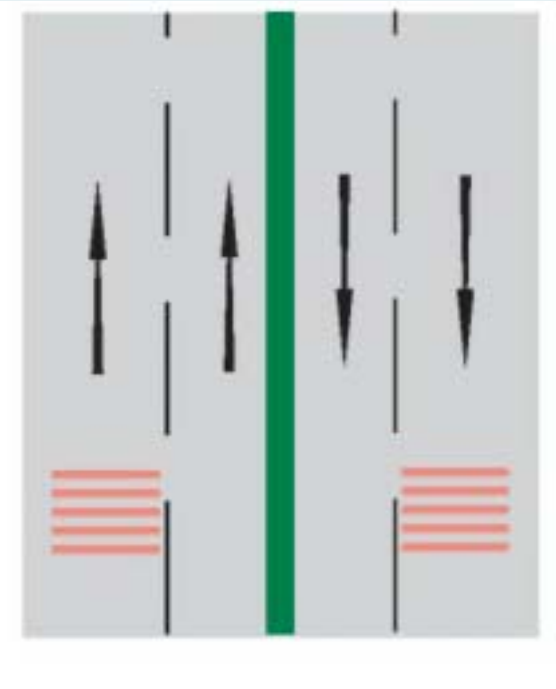
1) *If it creates a tight or critical profile, central hatching should only be used where traffic flows are light.*
2) *The remedy of a bypass may or may not be feasible, depending on the purpose of the build-out.*
3) *Sweeping the carriageway adjacent to the build-out will be a problem.*
4) *Using the footway is a possible solution but only if tapers both vertically and horizontally are acceptable, see Figures 4.2.1 and 4.2.2.*
5) *It is always better to avoid a pinch point.*

SCALE 1:200

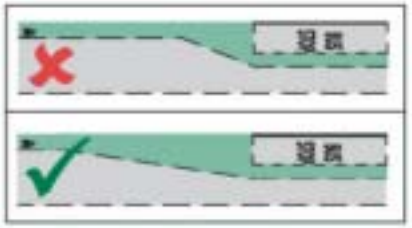
1 2 3 4 5

Metres


1004
1057
1040
Do not compromise on cycle lane width and this may leave only a token motor vehicle lane width.
1040
1057
SCALE 1:200
1 2 3 4 5
Metres



Tapers

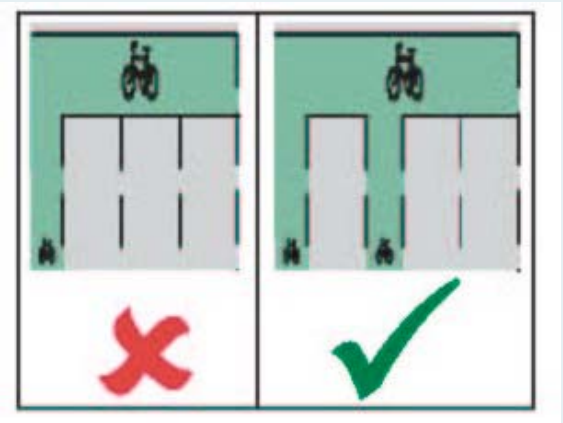


SCALE 1:500

1 5 10

Metres

Speed	Change in direction taper
96kph / 60mph	1:50
50kph / 30mph	1:20
40 kph / 25 mph	1:9
30 kph / 19 mph	1:7
20 kph / 12 mph	1:4



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