

The designer should check that the forward visibility using the minimum stopping sight distance stated below is maintained.

Design speed (km/h)	Minimum horizontal radius (m)	Minimum Stopping Sight Distance (m)
40 (to be used where downhill gradient >3%)	40	47
30 (standard design speed for links)	25	31
20 (for upward gradients >3% with one-way flow, shared use and routes with higher flows)	15	17
10 (at junctions only but to be avoided)	4	7

- 5.2.9. Only when access control is required and unavoidable, bollards may be considered. Spacing of bollards on cycle routes should maintain a minimum of 1.5m clear gap between the bollards to accommodate the full range of cycle types ensuring routes are accessible to all cycle users. Bollards to be in accordance with Standard Detail HCC11/C/135. A-frame & K-frame barriers shall not be used on cycle tracks. Refer also to 5.8.6 regarding the use of staggered barriers.

Cycle lanes

- 5.2.10. Cycle lanes (1-way flow) should have a desirable minimum width of 2.0m. The absolute minimum width shall be 1.5m at constraints.
- 5.2.11. Designers should take account of the potential loss of usable lane width due to drainage gullies (as people cycling will avoid overrunning gully gratings).

Shared use facilities

- 5.2.12. Within Hampshire, the LTN 1/20 approach is followed with shared use facilities regarded as a last resort.
- 5.2.13. Where existing Highway constraints prevent a segregated route from being provided, shared use facilities may be considered, such as:
- Alongside interurban and arterial roads where there are few pedestrians.
 - In situations where a length of shared use may be acceptable to achieve continuity of a cycle route.
 - In situations where the majority of cycle and pedestrian flows occur at different times.

- 5.2.14. The minimum widths for shared use facilities shall be as detailed in the table below. Where possible, particularly at locations with high Place function, greater widths should be provided to reduce conflict between cyclist and pedestrians. Shared use facilities shall not be used on routes carrying more than 300 pedestrians in any one hour period. See also 5.2.7 regarding additional widths required to maintain the effective width.

Cycle flows	Minimum width
Up to 300 cyclist per hour	3.0m
Over 300 cyclist per hour	4.5m

5.3. Safety margins

- 5.3.1. On walking/wheeling routes, a separation of 1.5m should be provided when the route is next to a road with a speed limit above 40mph.
- 5.3.2. For cycle tracks and/or shared use paths, the desirable minimum margins in the following table should be provided depending on the adjacent road speed limit, as required in LTN1/20. The absolute minimum safety margins shall be provided.

Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

The use of other highway features/element such as swales, landscaping /tree planting, cycle parking arrangements can provide this required separation and also help prevent parking on footway/cycle track routes without the need to resort to hard engineering features such as bollards.

- 5.3.3. Safety margin may also be formed using the following (in order of preference):
- Soft safety margin – An area of grass verge between the edge of the carriageway and the cycle track. Due to the difficulties of maintaining a narrow grass strip, the minimum soft verge width shall be 1.0m. A soft safety margin is the preferred option in rural locations.
 - Hard safety margin – The same surfacing material as the adjacent footway/cycle track and delineate the margin by a continuous white line. However, an edge of carriageway line shall also be provided in the carriageway channel to avoid the risk of motorists mistaking the