

5.0 Designs for specific manoeuvres

This section provides advice on providing for cycle track crossing points of major and minor roads and also suggests methods for assisting cyclists who wish to make a right turn (see 5.4)

Information regarding priority and signal controlled arrangements is provided in Section 6.0

5.1 Design Principles

- Cyclists should be within the normal field of vision for drivers. 'Designs that place the cyclist in front of and reasonably close to the driver tend to be safer' (IHT 1997)
- Free flowing arrangements including segregated left turn lanes and merge lanes can be particularly hazardous for cyclists

5.2 Cycle Track Crossings at Level Crossings

- These require special attention and early discussion with the railway infrastructure company and the HMRI is required
- Any traffic signs and road /footway markings over the crossing will need to be authorised in a revised Level Crossing Order

5.3 Cycle Provision Where a Main Road Crosses a Minor Road

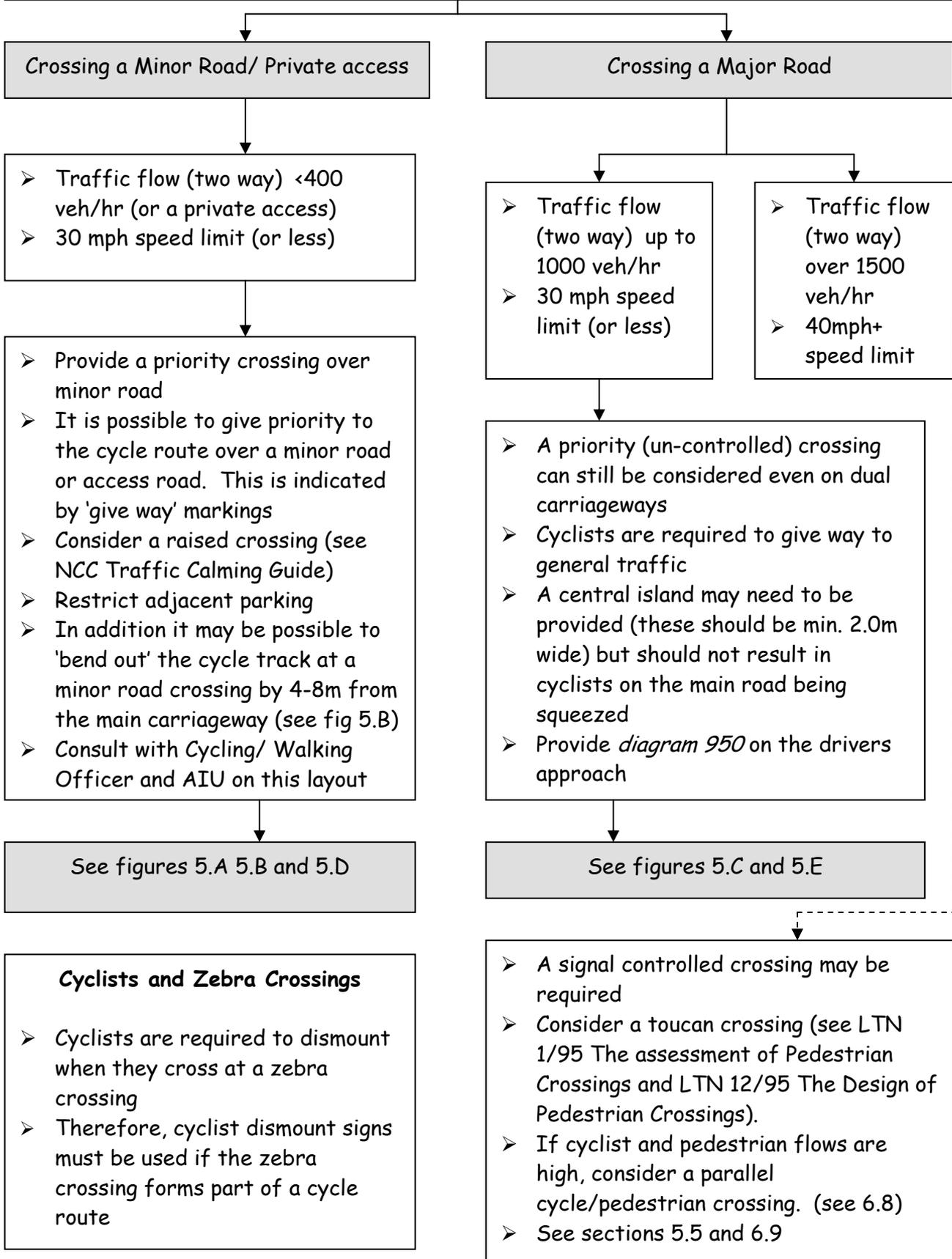
- Red surfacing can be used across the junctions of minor roads (note: the picture does not show a cycle lane)
- This can help to raise driver awareness of the presence of cyclists
- This is a low cost method of raising the profile of cyclists on a road, when it is considered that a full cycle lane is not required



Photo 5.1

Enhancing the presence of cyclists at side road junctions

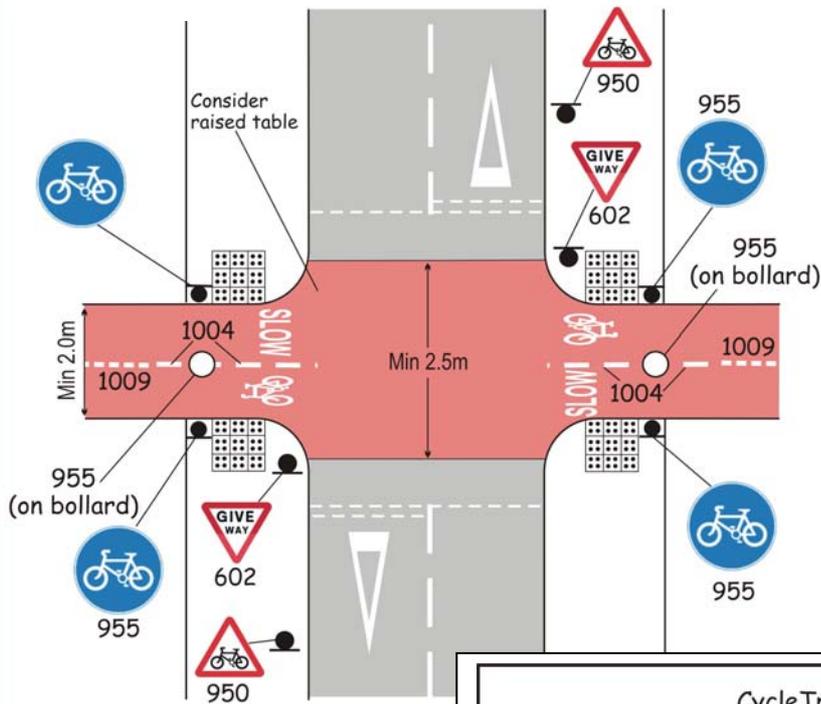
5.4 Cycle Track - Advisory Crossings



Adapted from Local Transport Note 1/86

Figure 5.A

**Cycle Track Priority Crossing
General Traffic Gives Way**



In Figure 5.A

- Cyclists are afforded priority across a minor road in this arrangement
- Remember that the same priority is not given to pedestrians
- Where cycling is two-way, separate each movement with a white line on each approach to the crossing
- Ensure drivers have good visibility of cyclists
- A raised crossing may be provided - see the NCC Traffic Calming Guide

Figure 5.B

**CycleTrack Priority Crossing
"Bending Out" at Minor Road
or Access Road**

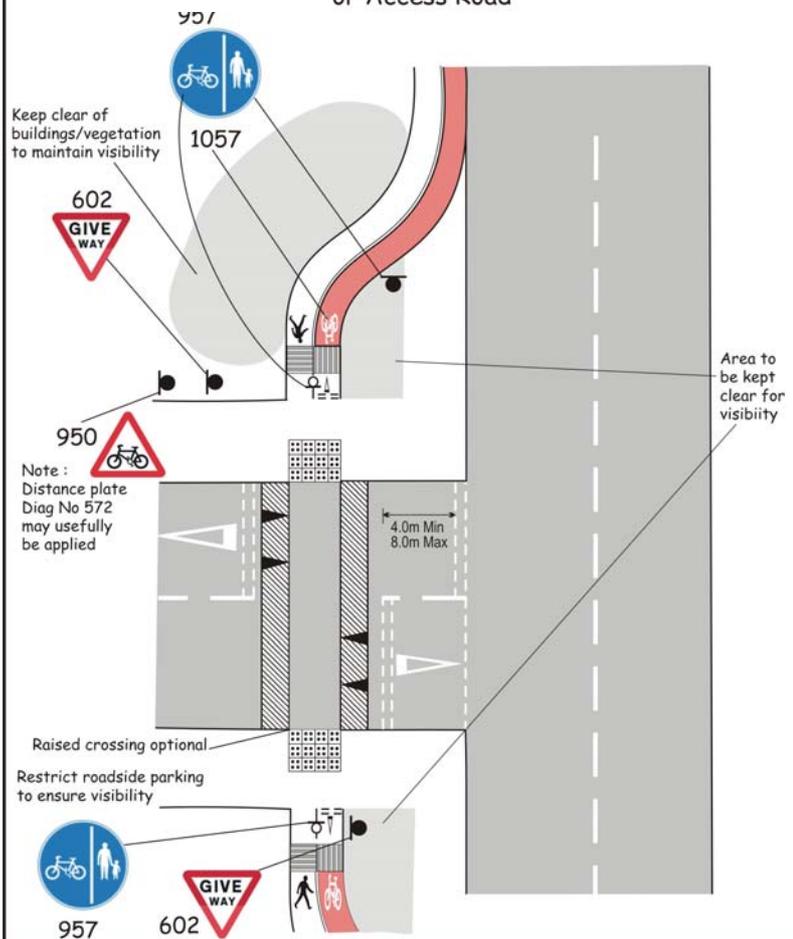


Photo 5.2

Photo 5.2 and 5.3, examples of cycle track crossings of minor roads

Photos 5.2 and 5.3 Courtesy CTC



Photo 5.3

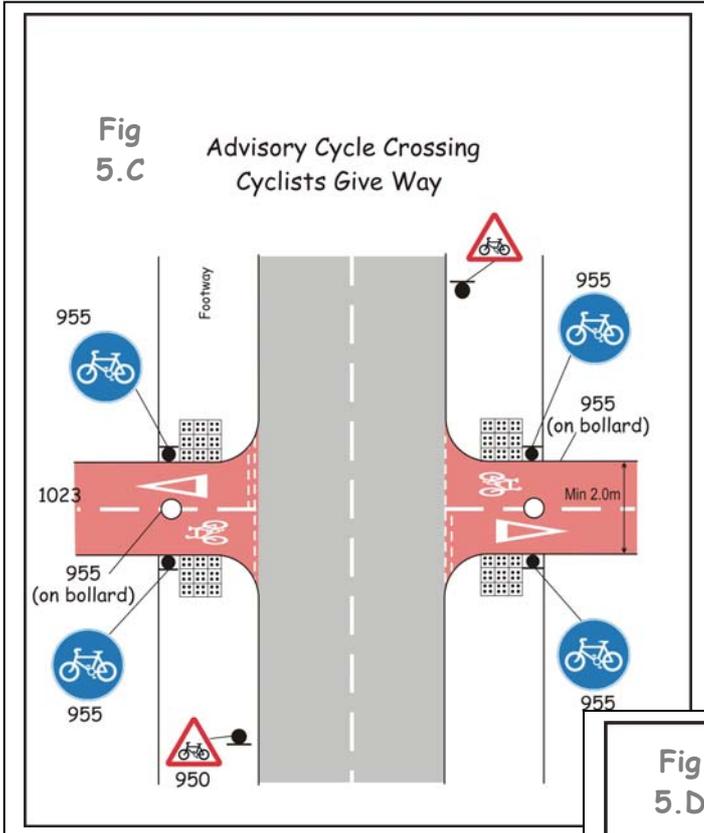


Photo 5.4
 Cyclists give way at a side road junction

Note: Narrowing the entrance to side roads (or the 'mouth' of the junction) can be beneficial for both cyclists and pedestrians

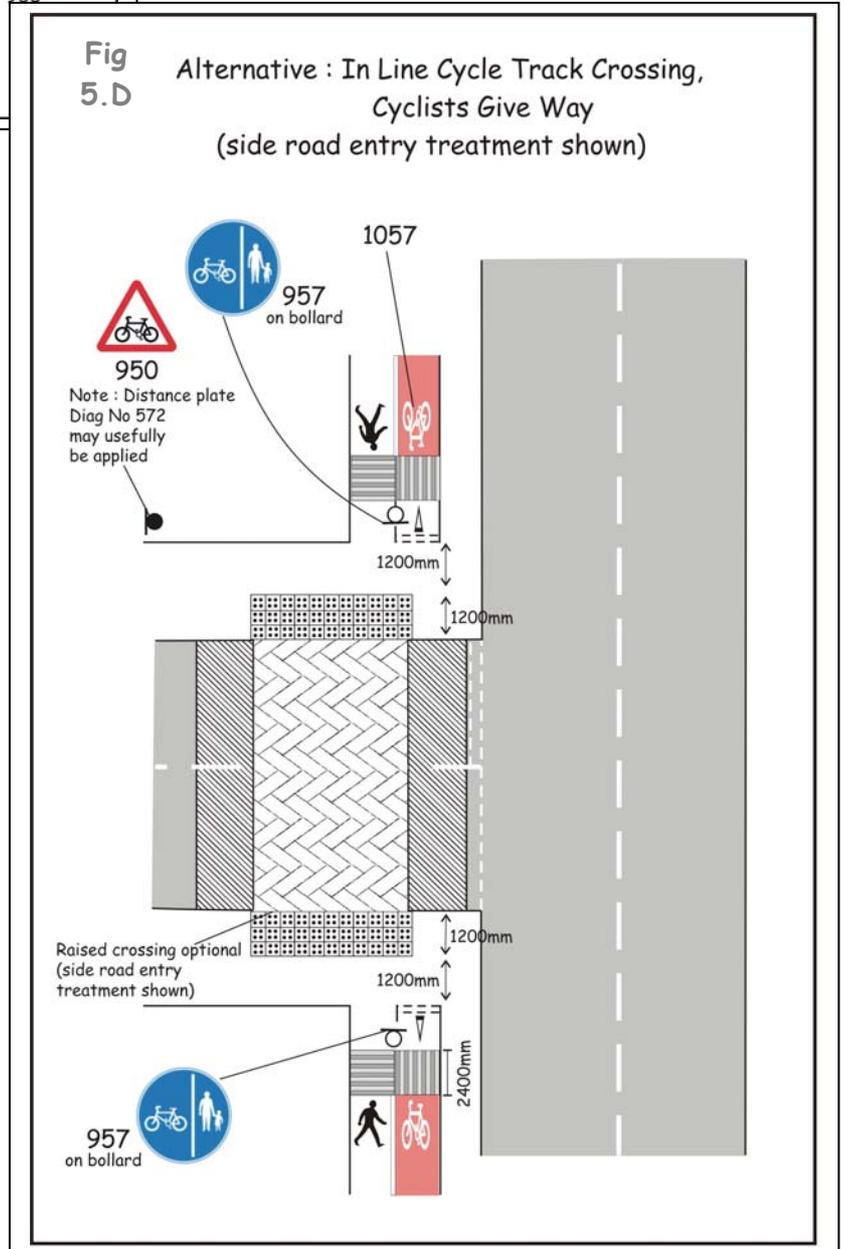
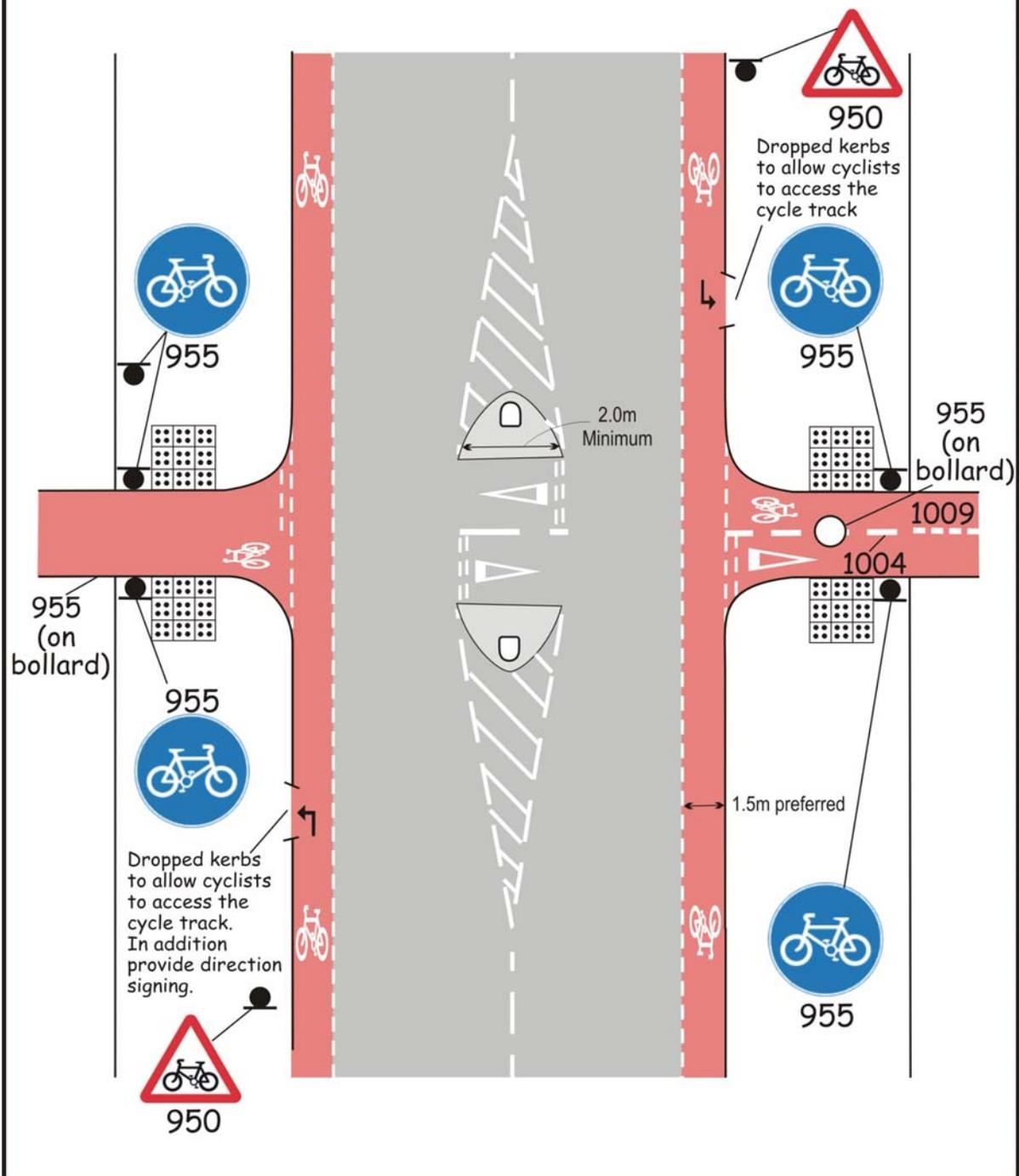


Figure 5.E

Uncontrolled Cycle Crossing at Widened Central Island



Refuge Island Dimensions:

- Width: Minimum 2.0m
- Length: 3.0m to 5.0m. (Min 2.5m if no beacon pole)
- The route through the island should be flush with the carriageway
- Remember not to squeeze cyclists who remain on the main road.

5.5

Providing for Right Turning Cyclists

Right turns from major roads can be particularly problematic for cyclists, primarily due to the difficulty of needing to look over their shoulder for gaps in traffic, and maintaining a straight riding line at the same time

The following measures can be employed to make right turns safer

Jug Handle/ 'G' Shaped Turns

- These can be provided at priority crossings, toucans or at signal controlled junctions
- Cyclists are directed away from the ahead travel (usually onto the footway) and then cross the main road at right angles. This gives the cyclist the benefit of being able to view oncoming traffic (which would have been behind them) and also makes the cyclist more visible to general traffic
- They can also be used to return cyclists to the carriageway when there is no other method of providing a feature to 'rejoin' them
- See photos 5.5 and 5.7

Toucan Crossing

- Direct cyclists off the carriageway and onto a shared use footway to crossover at a toucan crossing or a parallel crossing
- Use dropped kerbs

Splitter Island for a Cycle Only Turn

- Provide a short cycle lane right turn pocket, which can be protected by a traffic island (see photo 5.6)
- Can be used where traffic speeds are 40mph or below
- Can be used for allowing cycles to turn into a cycle only gap/street or track



Photo 5.6



Photo 5.5

Photos 5.5 and 5.7 show jug handled turn arrangements

Photo 5.6 shows a cycle only turn protected by a splitter island
All Courtesy CTC



Photo 5.7

5.6

Joining and Leaving the Carriageway

Cyclists should be provided with a facility that allows them to join or leave the carriageway safely and with minimal fuss:

- Ensure that lamp columns or sign/ signal poles do not obstruct the manoeuvre
- Provide a cycle logo (diagram 1057) with direction arrow on the carriageway to direct cyclists up onto shared use footways/cycleways
- 3 dropped kerbs minimum should be used at points where cyclists rejoin carriageway



Photo 5.8 Shared use cycle track joining a cycle lane. Note use of hatching to push vehicles out and protect cyclists.



Photo 5.9 Rejoining the carriageway via a build-out.
Courtesy Alex Sully

Provide a flush (or 6mm) kerb at side road crossing points on a cycle track/ footway or where cyclists join/leave a segregated cycle track. If cyclists are to join/leave midway on cycle track/footway that is not segregated then provide a battered kerb (see Fig 5F and photo 5.12) this will allow visually impaired people to detect the kerb edge and prevent them joining the carriageway.

- Be careful not to rejoin cyclists near to junctions or onto manhole/drainage covers which could be slippery when wet. Ensure that grates are placed perpendicular to the direction of travel along the edge of carriageways. Provide suitable gullies to deal with localised drainage issues.
- Consider the provision of a build-out (photo 5.9) or hatch markings (photo 5.8) to protect cyclists from traffic as they rejoin the carriageway
- Give-way markings (and 'Slow' markings) can be used to reduce cyclists speeds as they rejoin the carriageway.



Photo 5.10 Joining a cycle lane with bollard for added protection. *Courtesy CTC*



Photo 5.11 Cycle lane leaving the carriageway to join a cycle track on a segregated footway.

Figure 5.F

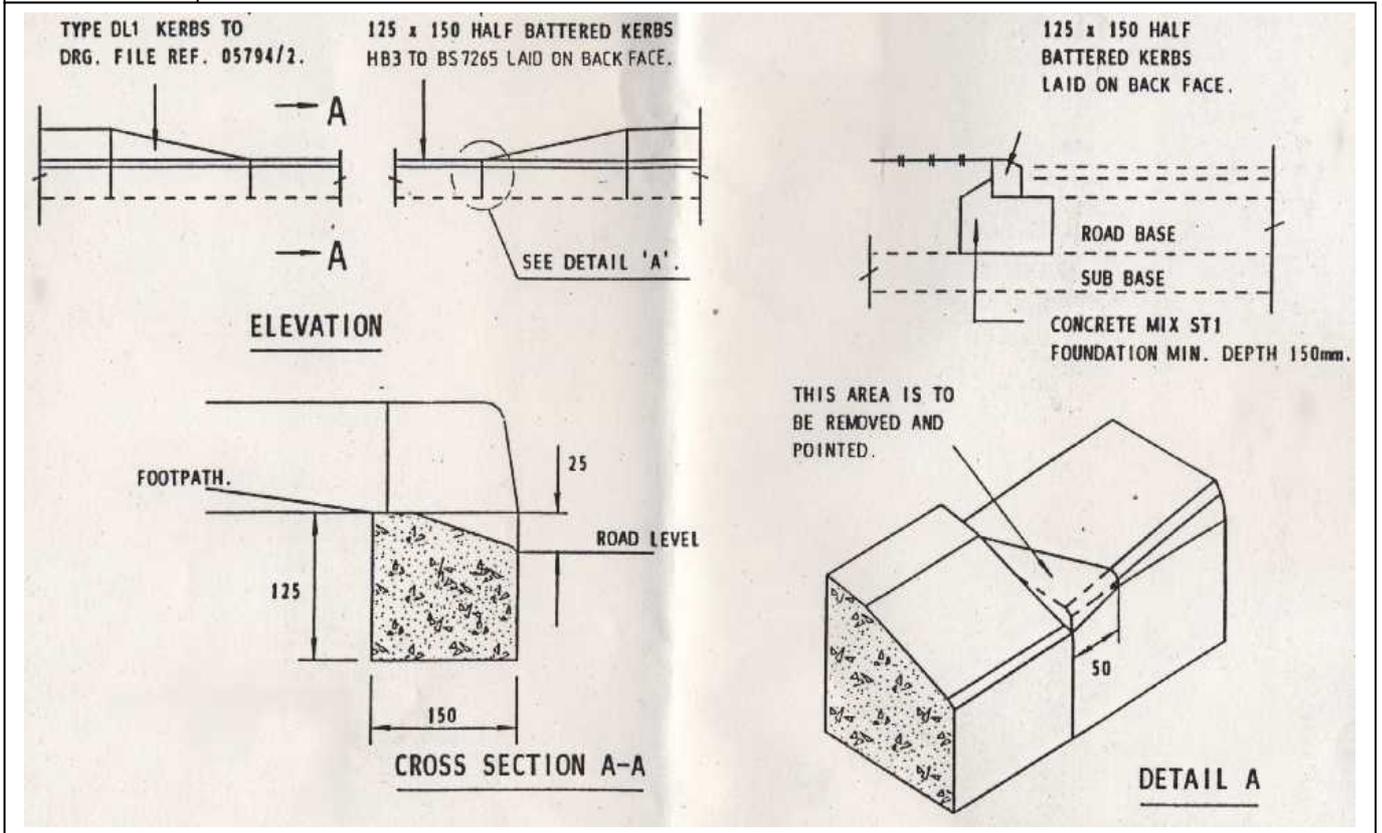


Photo 4.12 Detail of kerb layout for transition between carriageway and cycle track