

B.05 Footway Crossings and Tactile Paving

Key Principle

Where cycle tracks cross footways to reach the carriageway, blind and partially sighted pedestrians should be warned by means of corduroy paving. Ladder tactile paving should not be placed in the path of a turning cyclist. The length of ladder paving should be kept to a minimum (800mm) wherever possible (see also [B06 Flush Kerbs](#) and [B07 Cycle Track Junctions](#)).

Design Guidance

Cycle tracks and footways – Tactile paving provision

Most cycle tracks will meet a carriageway at some point, often by crossing a footway. In many cases cycle tracks will also join or intersect with other cycle tracks or footpaths. In order to assist blind and partially sighted pedestrians, tactile paving is used at these locations to alert them to these features and indicate where they should and should not go to avoid conflict with cyclists. *Guidance on the Use of Tactile paving Surfaces*, DETR 1998 provides advice on tactile paving to be used for many of the possible arrangements. However, it does not cover situations where a cycle track, meeting a road at right-angles, needs to cross a footway to join or cross that road.

It is not practicable here to cover every possible combination where this happens but Drawings Nos 1 to 4 (Appendix A) in this guidance address the key situations. The designer should be able to use these to work out what would be required for situations not specifically covered. The drawings do not show the only way of doing things. For example, Drawing No 1 shows a cycle track segregated from the footpath by a level difference, joining the main road just like any other side road. However, the designer may decide to bring the track up to footpath level before it meets the footway and then use the arrangements at the kerb as indicated in the other drawings.

Almost all people who are registered blind are able to see to some extent. It is for this reason that there are different colours for blister paving depending on whether the crossing is controlled or not (red or buff respectively).

Tramline paving should be specified with caution. The DETR guidance document suggests that it be laid for a distance of 2.4m but this can cause problems for cyclists when wet. If the alignment is such that cyclists need to turn while still on the tramline paving, they may lose control. If in doubt, the length of tramline paving should be reduced or repositioned to prevent this arising. Where tramline paving is shortened to 800mm, a typical bicycle will only have one wheel on the pattern at any one time. This reduces the likelihood of the cyclist losing control, while the paving is still capable of capturing the footfall of someone with impaired sight.

Tactile paving should be planned with care. Its implementation should not be seen as the default option, particularly in complicated situations. If not done properly, it may simply lead to confusion. Omitting some of the paving after due local consultation may be better than trying to include every relevant pattern.

This is especially true for corduroy paving which tends to get over-used. Corduroy is meant to alert sight-impaired users to a number of hazards. In the

context of cycle tracks, it indicates the boundary between a footway or footpath and a shared use area. Corduroy paving is shown in Drawing Nos 3 to 4 but it is often omitted to avoid confusion. Note that the corduroy pattern is not the same as the ladder/tramline pattern (ladder paving is tramline turned through 90°).

Tactile paving in general, and corduroy in particular, should only be introduced where broad local consultation has determined the need for it at any given location. This is for a number of reasons;-

- Over-use of tactile paving can produce conflicting and/or confusing messages
- Tactile paving can cause difficulties for wheelchair users and other people of impaired mobility. A balance needs to be struck between the different users' needs,
- Tactile paving can be unsightly. It is also a waste of resources when introduced where it is not needed or where it would be counter-productive.

Drawing No 1

This shows an adjacent-use cycle track segregated from a footpath running alongside it by a difference in level. The track then crosses a footway before joining (or crossing) the road. As drawn, the cycle track has been treated as a conventional side road with pedestrian crossing points located away from the radiused kerbs. As with all side road crossings, simply dropping the radiused section of the kerb should be avoided whenever possible as this may cause visually impaired people to stray into the main road. An alternative arrangement would be to bring the cycle track up to footway level and into a shared area. The road crossing can then be effected as shown in Drawing Nos 2, 3 or 4.

Drawing No 2

In this drawing, the cycle track and the footpath lead to a shared area before it crosses the road. The corners where the track/path meets the footway should be chamfered (or radiused) as indicated. Corduroy paving can be used to denote the boundary between the footway and the shared area but see above.

Drawing No 3

This drawing shows a cycle track crossing the road on a flat-topped hump where crossing cyclists have priority over road traffic. Cycle symbols and direction arrows on the road hump have been omitted for clarity.

If cyclists are obliged to give way before crossing the carriageway, the arrangement is similar except that all give-way markings are omitted (give-way markings can only be provided on a cycle track where it terminates at the carriageway boundary or where the track meets another track).

A full width flat-topped hump will require the inclusion of a drainage detail on at least one side of the hump. Two gully gratings are shown but these are only necessary if the hump is located in a dip. Gully slots should be aligned perpendicular to the road centre line to avoid presenting a hazard to cyclists travelling along the road.

Note that where crossing cyclists have priority, traffic on the road is only obliged in law to give way to cyclists (give-way markings only apply to vehicular traffic). In practice, motorists generally treat pedestrians using these crossings as they would those on a zebra crossing.

Drawing No 4

The example illustrated here shows corduroy paving on just one approach to the Toucan. Situations like this may give rise to confusion amongst sight-impaired users unless they have been properly briefed on the facility and its layout. As with all of the illustrated examples, this information is best disseminated through local consultation.

Dropped kerbs are shown before and after the Toucan. These permit cyclists to leave or join the carriageway without having to use the dropped kerb of the crossing itself. The dropped kerb to the left of the drawing is particularly useful for cyclists on the carriageway who want use the Toucan to cross it in order to join a cycle track on the other side. Designers often ignore these movements with the result that cyclists wishing to make them have no option but to cycle through the waiting area of the crossing.

Most sight-impaired people can perceive the differences in colour used to denote whether the crossing is controlled or not (see paragraph 20.03). For this reason, red material should not be used directly adjacent to the red blister paving as this will make it harder to distinguish. Where it is unavoidable, a contrasting border should be provided around the blister paving - a border 150mm wide should suffice. This solution is, however, likely to be visually intrusive so the need for such a border should be avoided as far as is practicable. (For the same reason, a buff colour should not be used in the vicinity of an uncontrolled crossing.)

Publications

[Guidance on the Use of Tactile paving Surfaces](#) (pdf – 750kb), DfT 1998

[Inclusive Mobility A guide to Best Practise on Access to Pedestrian and Transport Infrastructure](#) DfT 2002

[Manual for Streets](#), DfT (Summer 2006 Draft)

[LTN 2/08 Cycle Infrastructure Design](#) DfT 2008

[Shared Surface Street Design Research Project](#) Guide Dogs 2006

[London Cycling Design Standards – A guide to the design of a better cycling environment](#) (Sections 3.4, 3.5, and 3.6) TfL 2005

Lancashire - The Cyclists' County ([part 1](#), [part 2](#)) – creating pleasant road conditions Lancashire County Council, 2005 – Section 3

[CTC Benchmarking](#) – Best practice case studies

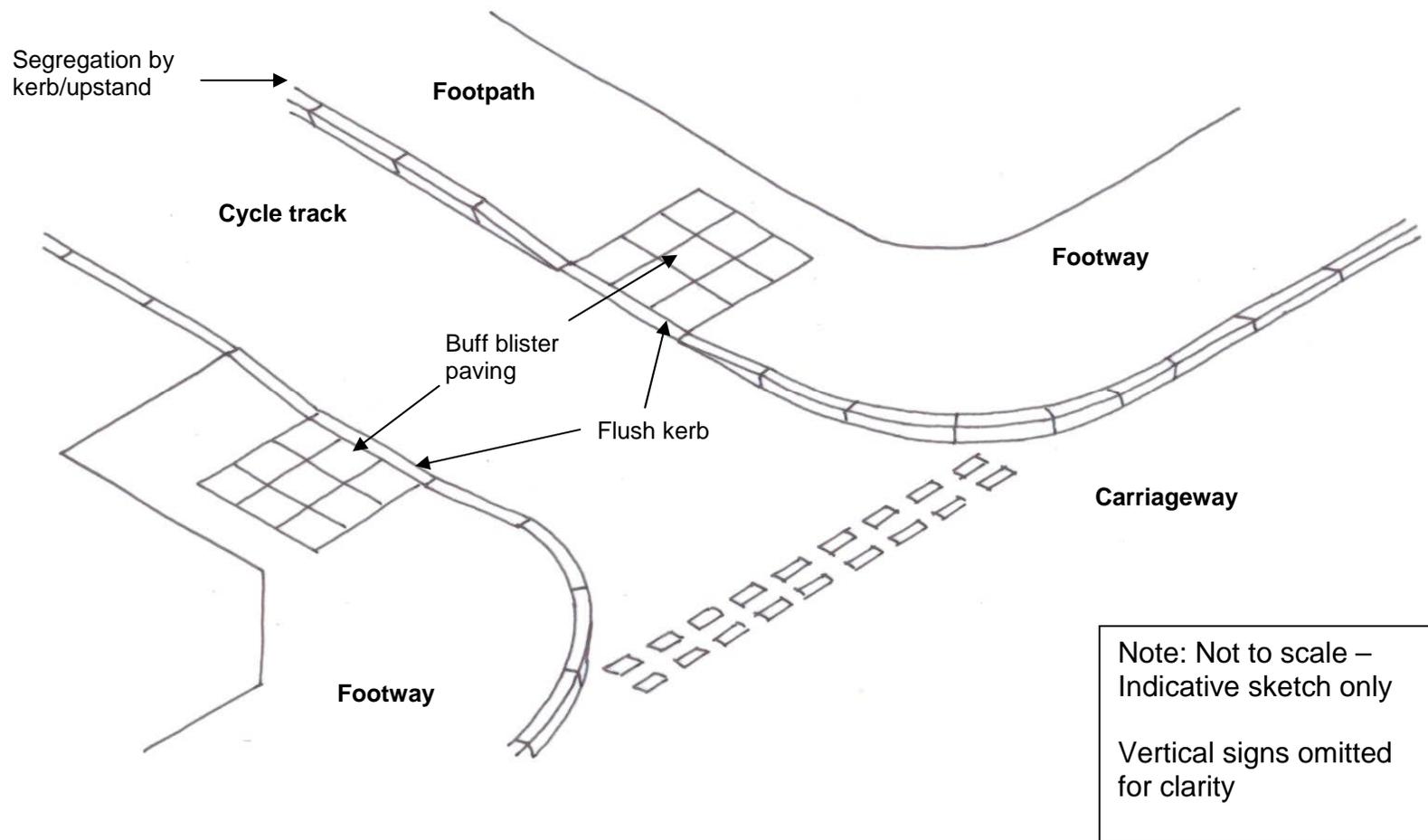
Other references

TAL 4/90 *Tactile Markings for Segregated Shared Use by Cyclists and Pedestrians*
DoT

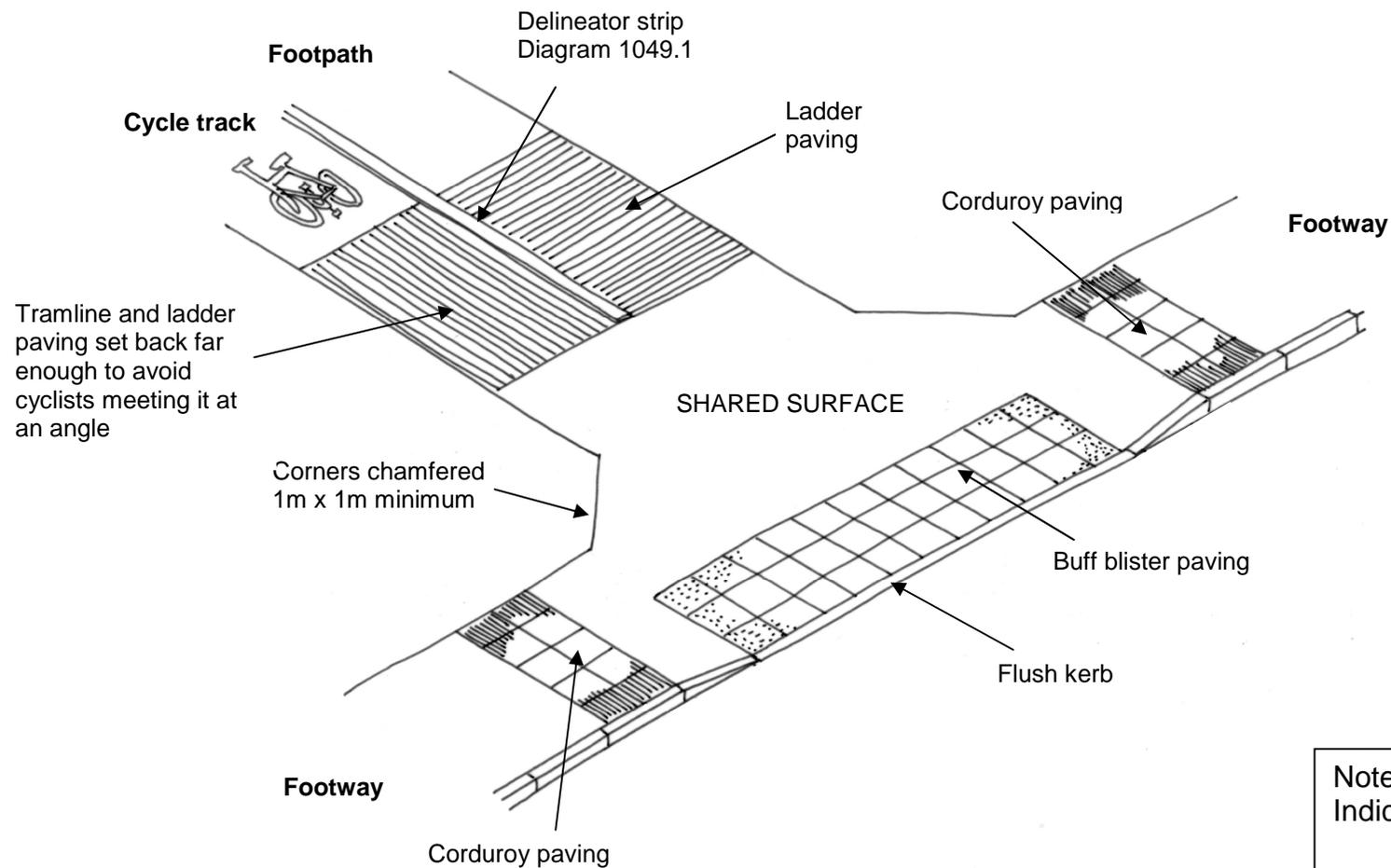
[National Cycle Network - Guidelines and Practical details](#), Issue 2 Sustrans 1997

[Cycle Friendly Infrastructure - Guidelines for Planning and Design](#) Bicycle
Association et al 1996

Appendix A



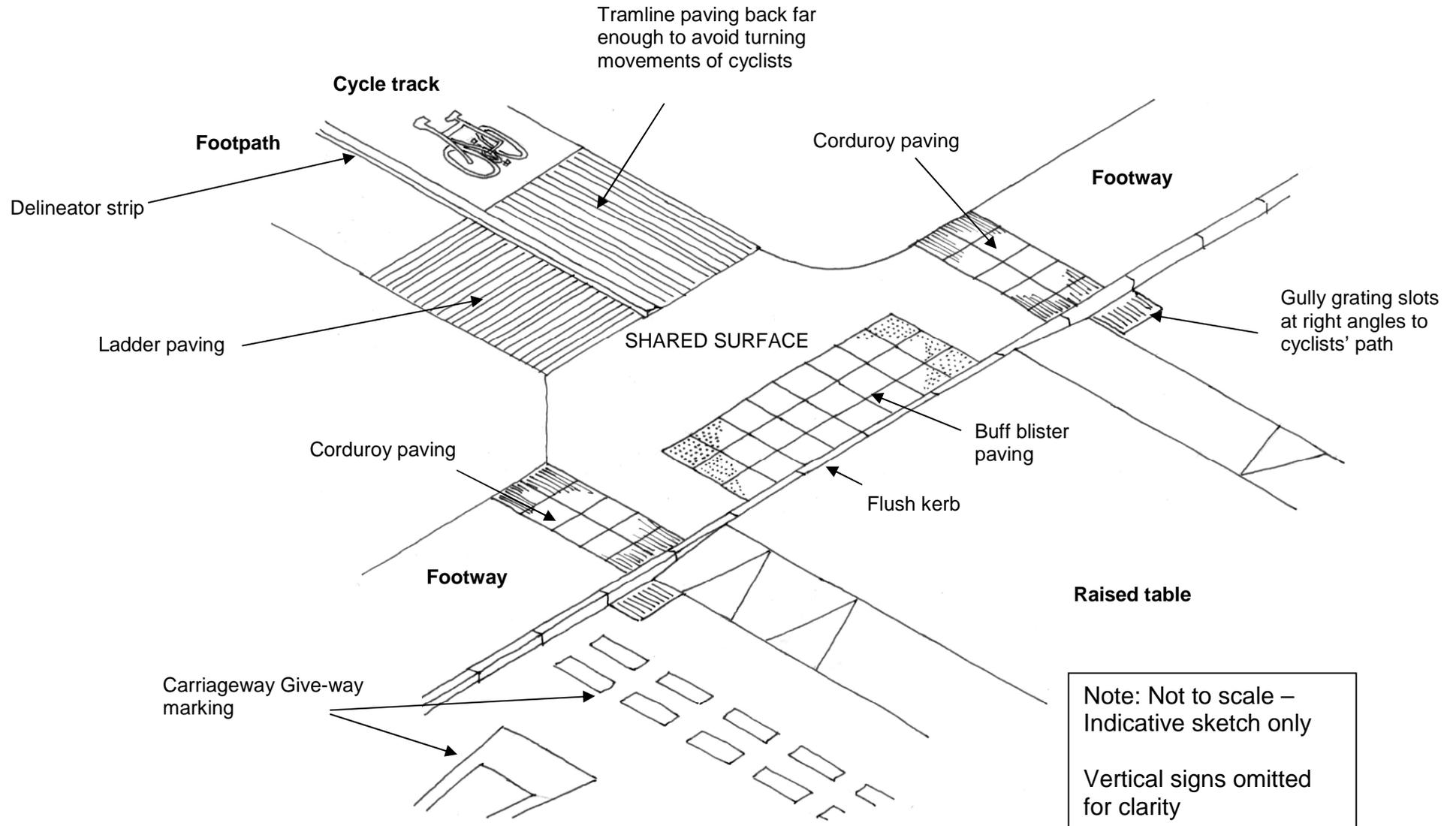
Drawing No 1: Cycle track crossing the line of a footway - track segregated from footpath by level difference



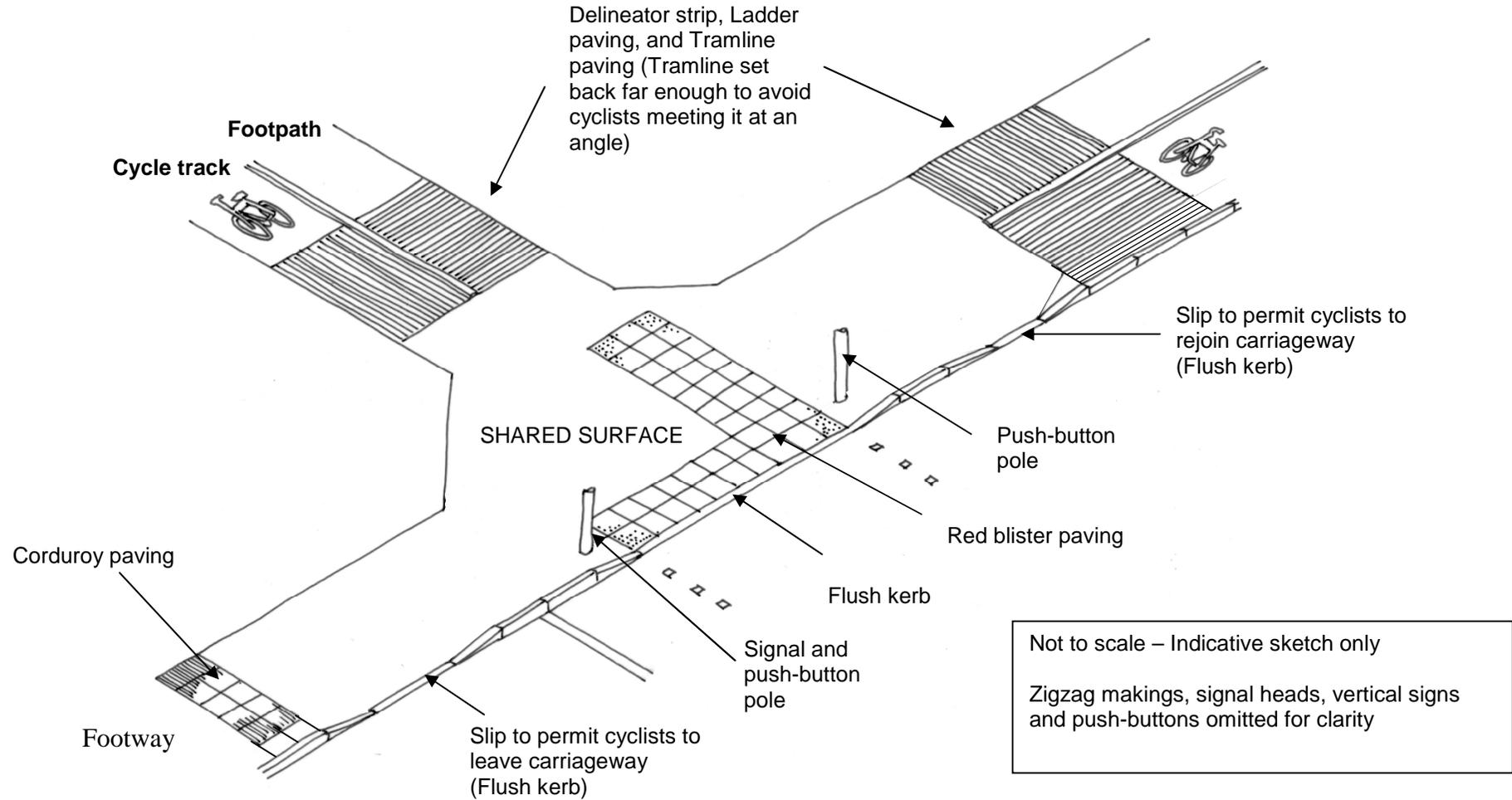
Note: Not to scale –
Indicative sketch only

Vertical signs omitted
for clarity

Drawing No 2: Cycle Track crossing a Footway – Cycle track segregated from footpath by white line



Drawing No 3: Cycle track crossing footway and road - flat-topped road hump



Drawing No 4: Cycle track crossing footway and road - Toucan