DESIGN SHEET CSRC 11: CONSTRUCTION

This Design Sheet is to be read with Design Sheet CSRC 00.

Continuous footway construction

A. The continuous footway should be laid on a constant gradient between the tactile paving areas. The adjacent side road carriageway levels may therefore need to be adjusted locally to suit.

B. Continuous footways shall have strengthened construction in the areas defined by the layouts below, achieved by building up bituminous layers on the underlying carriageway.

C. Construction of the continuous footway is similar to that of a flat top road hump – bituminous layers typically overlaid on full carriageway construction – and should be designed and constructed to be at least as robust, taking account of traffic turning and channelisation.

D. Materials and construction of the continuous footway shall be as required by the HCC Place & Movement Planning & Design Guide Part 4 Chapter 08 Speed Management Features, except where specified otherwise on this Design Sheet. Where specialised paving is required in a Conservation Area it must be suitable for use in a carriageway.

E. All bituminous materials shall be machine laid where possible.

F. The surfacing of continuous footways should be visually indistinguishable from the footways on either side that it connects but it must provide adequate skid resistance in both wet and dry conditions. It should normally be AC6 25mm thick AC6 with 75 pen binder.

G. Binder Course up to 75mm thick and any Regulating Course should be AC20, although variations may be required.

H. Foundation should be full depth construction as for the rest of the side road, to top of binder course.

I. The construction of the side road for the first 10m from the continuous footway should be assessed and strengthened as necessary to ensure it is adequate for the impact of vehicles leaving the ramp, taking account of the mix of vehicles.

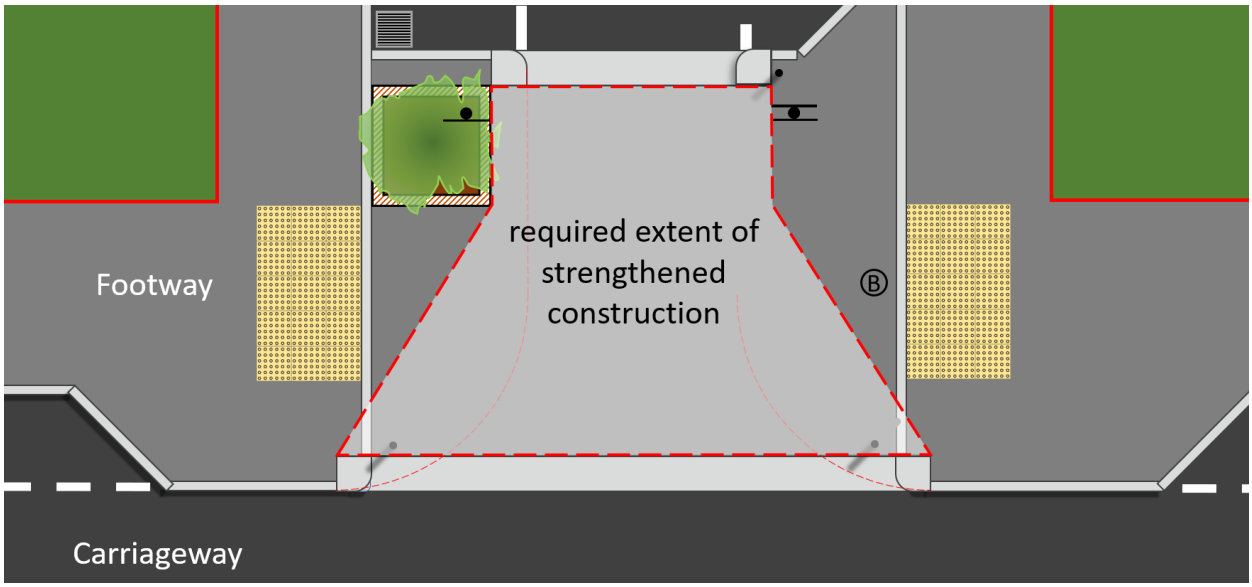
Drainage and Utilities

J. Ironwork within the continuous footway shall be suitable for use in carriageway.

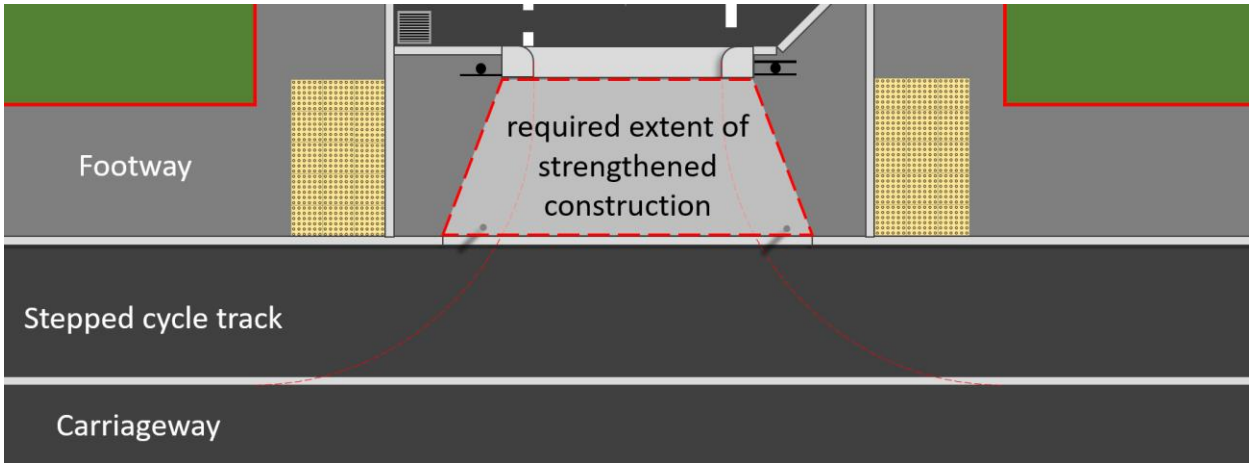
K. Utilities beneath the continuous footway shall be laid at depths suitable for carriageway plus the continuous footway height.

L. The layout may require one or more new gullies. The initial survey should ensure that all existing gullies and kerb outlets work and there is no drainage issue.

Required extent of strengthened footway construction for CSRC 01 and CSRC 02



Required extent of strengthened footway construction for CSRC 06 and CSRC 07



Ramps

Dutch-style entrance kerbs should normally be used (as indicated on other CSRC Design Sheets) and not asphalt ramps. In the exceptional situation where the minor road has a 30mph speed limit the ramp facing the minor road shall be constructed as for a flat top road hump (see HCC standard detail drawing).

Entrance Kerbs

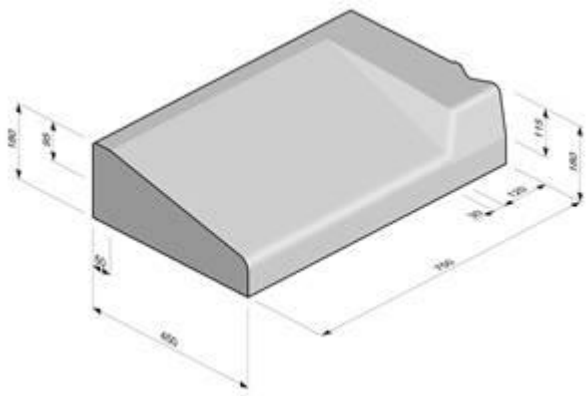
Entrance kerbs are heavy and must be machine laid. They should be constructed in accordance with the manufacturer's instructions, subject to any requirements below.

Entrance kerbs should incorporate:

- Ramp height: 90mm to 100mm
- Ramp length: 450mm (facing major road), 450mm (facing minor road).
- End unit kerb profile compatible with the adjacent kerb[1] (typically HB2 laid to HCC standards) and incorporating a profile facing the ramp half battered similar to HB2 profile or quadrant style (vertical face).

Note that ramps and therefore continuous footways are unsuitable where the minor road would carry buses or more than occasional HGVs.

Typical Entrance Kerb end unit (half battered style). Image courtesy Hardscape.



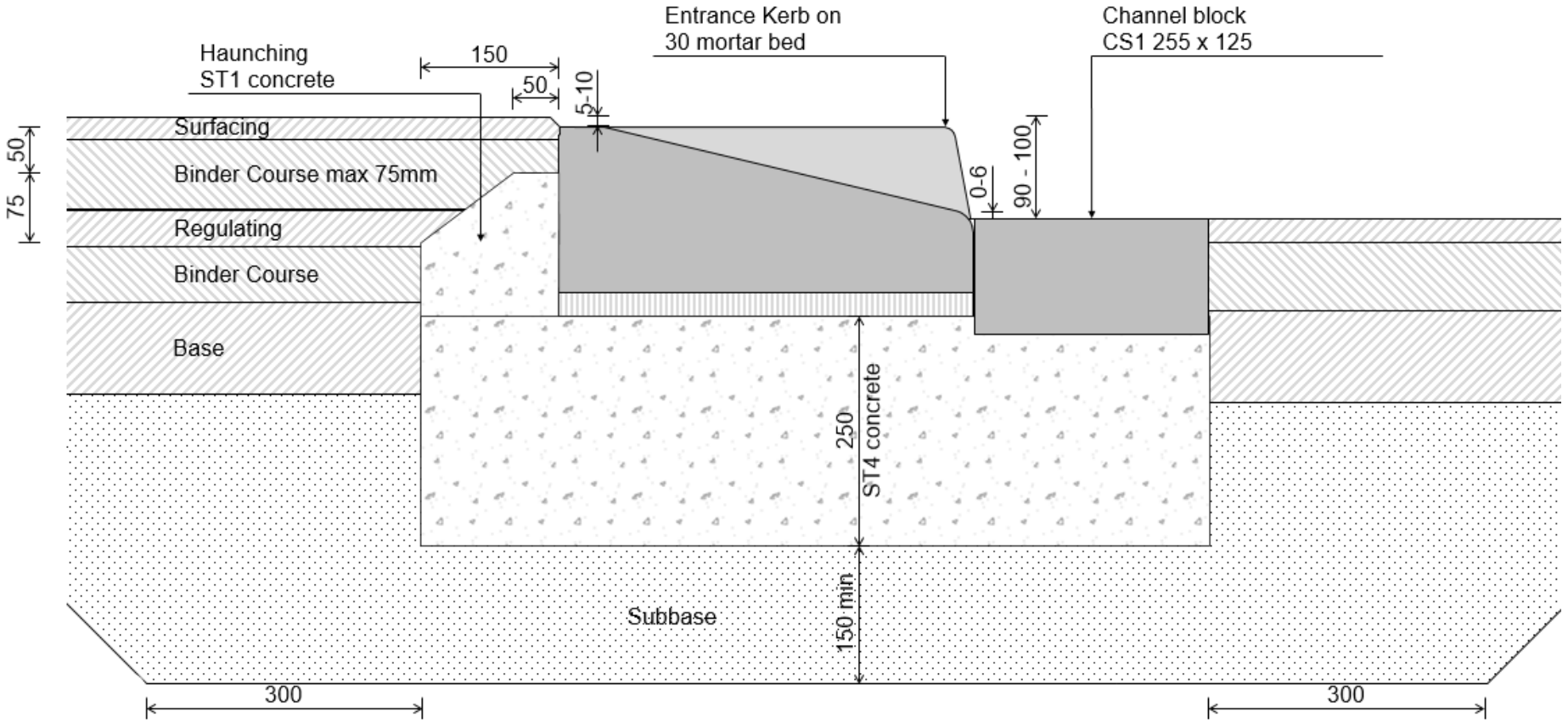
[1] Dutch style entrance kerbs such as shown have a different face profile from HB2 kerbs. Depending on the location, the difference may be considered insignificant, or a transition kerb may be required. Many Netherlands manufactured Entry Kerbs and kerbs feature a nib and groove where they join: the nib must be removed and the groove concrete filled where they abut UK profile kerbs.

Entrance kerb construction requirements

Entrance kerbs should be constructed as shown below.

Measures should be incorporated so that excavations for underground utilities will not require any of the entrance kerb to be removed. For example, concrete bed additional thickness and/or reinforcement, ducting or similar for underground utilities. a

Cross section of Dutch-style entrance kerb construction



Bollards

Bollards shall

1. be cylindrical steel, root fixed or removable. They may be cast iron in Conservation Areas or where required for aesthetic reasons.
2. extend at least 1000mm above ground level and feature a tonal/colour contrasting band (preferably reflective) to assist people who are visually impaired.
3. Incorporate ‘anti-ram’ features including an extended root. Stainless steel bollards may also be filled with concrete