

DS.205

Dropped kerbs

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1 Introduction

1.1 Notes

- a. This standard explains requirements about the use and design of dropped kerbs at the edges of footways. These are primarily provided to create level access to the carriageway at pedestrian crossings.

1.2 Discussion

- a. Drop kerbs provide level access for pedestrians between the footway and carriageway, overcoming the step often created by the kerb edge. They are mainly introduced for this purpose at pedestrian crossing points as it can be difficult for mobility impaired people and anyone pushing prams or buggies to mount up stand kerbs. However, they may also be provided to:
 - i. To help with service access (for example - wheeling large refuse bins between the footway and carriageway).
 - ii. To allow access for pedal cyclists to and from cycle tracks on the footway or on footpaths.
- b. Because of the absence of a kerb up stand at dropped kerbs, tactile warning surfaces generally need to be provided at their base to alert visually impaired pedestrians (who generally rely on kerbs for navigation) that they are about to leave the footway.

2 Requirements

2.1 Use requirements

Note: See standard DS.206 about the frequency of pedestrian crossing facilities along links and the proximity of controlled and uncontrolled pedestrian crossing facilities to junctions.

- a. Dropped kerbs should provided at all controlled and uncontrolled pedestrian crossing points that are marked with blister tactile warning surfaces when these are not located beside raised tables (or other features that provide for the carriageway to be at the same level

as the footway).

- b. Dropped kerbs may be provided for service purposes to allow bins, cages, and other heavy wheeled items to be trafficked between the footway and carriageway. It will need to be demonstrated that other nearby facilities could not be used that would create less potential confusion for visually impaired pedestrians.
- c. Dropped kerbs should be provided where cyclists require access to cycle tracks on footways or footpaths. However, where flows are exceptional and the cycle track meets the footway at right angles then vehicle crossing details may sometimes be more appropriate. That appropriate will be determined on a case specific basis.

2.2 Design requirements

Detail to be used

- a. Table 1 below explains which sort of detail should be used when dropped kerbs are provided for different purposes. The use of any other detail will be need agreement to a level 1 departure.

Purpose	Detail type
Pedestrian crossing	Flared (where kerb height >60mm) Quadrant (where kerb height <60mm) See note.
Service access	Flared (where kerb height >60mm) Quadrant (where kerb height <60mm). See note.
Pedal cyclist access	Quadrant

Notes

Only permitted where the length of the kerb return is less than 0.8m and where minimum plateau widths to the top of the ramp are achieved (see Table 2). In addition, the detail used along a given section of street should be consistent. As such, this detail should not be used when most others dropped kerbs along a street would be flared.

Table 1 – Types of dropped kerb details to be used in different circumstances

Length of ramp (along street)

- b. The length of ramps should be the same as that permitted for the areas of tactile surfacing that must be used to their base. See ‘h-i’ and standard DS.207 for further information.

Gradients

- c. Table 2 below explains the ramp gradients that should be used when dropped kerbs are provided for different purposes.

Purpose	Ramp gradient
Pedestrian crossing	Maximum 1:12 (see note 1)
Service access	1:6-1:10
Pedal cyclist access	1:5-1:6 (see note 2)

Notes

1. Where generous plateau widths can be achieved at the top of the ramp then the ramp gradient should be made as shallow as possible.
2. Gradients should be made as steep as possible within these limits to slow cyclists before crossing the footway. This will also assist with minimising the intrusion of the ramp into the footway. However, care should be exercised not to create lengthy kerb returns that may serve to create trip hazards. This may occur where the kerb height that needs to be traversed is significant (such that the ramp needs to go back for some distance) or where the footway is somewhat narrow (such that pedestrians are more likely to walk towards the front of footway where they could encounter longer kerb returns).

Table 2 – Ramp gradients to be used in different circumstances

- d. Where flared details are used then the maximum gradient of the flares (measured along the carriageway) should be 1:11.

Plateau to top of ramp

- e. A level plateau should be provided to the top of the ramp to allow for passing by the feature. The minimum width of this plateau for various specification areas should be as per Table 3:

Specification area	Existing streets and spaces	New streets and spaces
Global centre	4m	4m
Town Centre	4m	4m
Heritage	2.4m	2.4m
Village	2.4m	2.4m
Docks	2.4m	2.4m
General	2.4m	2.4m

Table 3 – Minimum plateau widths at top of ramp

- f. Where new dropped kerbs are to be introduced on existing streets then (where necessary) footways should be widened so that the plateau widths in ‘e’ can be met. Any requests for a departure to not do so and to use alternative dropped kerb details will need to demonstrate that widening is not feasible owing to restrictions on street width or engineering constraints.

Note: In some instances, widening of the footway may be necessary in order to provide sufficient visibility of crossing points beyond kerb side parking else to prevent vehicles from parking in front of a dropped kerb. See DS.114 and DS.118 for further information.

- g. Where a dropped kerb provides a crossing point for pedestrians then the minimum width of the kerb should be 100mm to provide clearance between the carriageway and blister tactile waiting area.

Use of dropper kerb units

- h. Where flared details are used then droppers kerbs should be created from specially cut natural stone units that have a flat horizontal base, sloped top (to the required gradient) and vertical sides. Standard rectangular kerbs set on a sloped bedding should not be used (see note).

Note: This invariably results in very wide joints and awkward construction details, whilst necessary gradients are seldom achieved.

Tactile surfacing

- i. Where a dropped kerb provides a crossing point for pedestrians then tactile blister surfacing must be provided as per the requirements of standard DS.207.

Note: This requires there to be a receiving area of blister tactile on the other side of the carriageway.