

# VEHICLE CROSSING and ACCESS RAMP SPECIFICATION

## For the construction of a Vehicle Crossing or Access Ramp over Footways or Verges Section 184, Highways Act 1980

1. Minimum widths:
  - a. Minimum crossing width for a vehicle crossing to be 2.7m.
  - b. Minimum crossing width for an access ramp (for a wheelchair or mobility scooter etc) to be 1.2m.
2. Gates and boundary lines: Where gates are to be provided these should open inwards. If the surfacing material of the drive and footway are similar then a boundary line is required, eg concrete edgings.
3. Dropper kerbs:
  - a. Dropped kerbs for vehicle crossings to have a minimum upstand of 25mm, unless otherwise agreed with Devon County Council (DCC), to minimise surface water egress.
  - b. Dropped kerbs for access ramps kerbs should be flush with the carriageway for ease of use, unless otherwise agreed with DCC, for instance to minimise surface water egress and ponding.
  - c. Dropper kerbs to be used to taper into existing kerbing, maximum slope 1:12. but for access ramps 1:20 is ideal.
  - d. If the kerb radius is less than 12m then the appropriate radius kerbs will be used.
4. Gradients:
  - a. Maximum slope of crossing between the carriageway and the entrance should be 1:12 for vehicle crossings and 1:20 for access ramps, unless otherwise agreed with DCC.
  - b. Maximum slope of the crossfall on the footway is 1:40 but less is preferable.
5. Surface Water Drainage:
  - a. If the driveway slopes towards the carriageway then drainage must be provided to prevent surface water flowing on to the public highway, for which planning permission will be required if connected to the existing or new drainage system. If constructed from permeable materials, then planning permission may not be necessary.
  - b. If the driveway is to be a gravel finish then a gravel trap will be required within the property boundary to prevent gravel from migrating onto the public highway.  
A gravel trap can consist of a 300mm wide strip of concrete at a gradient sufficient to create a vertical lip of 25mm or more on the driveway side. This reduces the likelihood of gravel being tracked out onto the public footway.
  - c. The property owner must maintain gravel traps and surface water drainage so that it continues to be effective.

6. Materials:
  - a. All construction materials must conform with current national specifications.
  - b. Surface courses must not contain limestone aggregate.
  - c. Construction materials should match the existing footpath (except paving slabs) and kerbing unless otherwise agreed by DCC.
  - d. Crossings should be edged with 50 x 150mm precast concrete edgings when adjacent to a verge.
  
7. Kerbs:
  - a. Kerbs to be laid on a wet concrete bed 100mm thick with 225mm thick concrete backing to within 30mm of the top of the kerb.
  - b. Edgings to be laid on 100mm concrete base with 100mm thick surround front and back to within 30mm of the top of the edging.
  - c. All concrete to be Grade ST1 BS8500-1:2015.
  - d. Natural stone kerbs must be reused with similar concrete bed and backing to the PCC kerbs.
  
8. Utility Services:
  - a. If utility services are uncovered during excavation then the relevant company must be contacted and protection agreed.
  - b. Under no circumstances should any pipe, cable or duct etc. be left in bound materials.
  
9. **Light Duty Crossing** – the following types of construction are suitable for access to a single residential property for cars and light vans (if larger vehicles are likely to be used or the crossing will serve 3 or more properties then the heavy duty type should be provided):
  - a) **Bituminous**
    - 30mm thickness of AC 6 dense surf 100/150 MCHW clause 909 53 PSV
    - Tack coat between surface/binder course and on all vertical faces
    - 70mm thickness of AC 20 dense bin 100/150 MCHW clause 906
    - 150mm thickness of Granular Sub Base MCHW clause 803 on a pre-compacted formation
  
  - b) **Block Paving**
    - 80mm thick block pavers with a minimum PPTV of 45
    - 50mm of clean naturally occurring silica sand with rounded or sub rounded particles MCHW clause 1107
    - 150mm thickness of Granular Sub Base MCHW clause 803 on a pre-compacted formation
  
  - c) **Concrete**
    - 100mm thickness of PAV 1 concrete BS8500-1:2015
    - Waterproof membrane
    - 100mm thickness of Granular Sub Base MCHW clause 803 on a pre-compacted formation

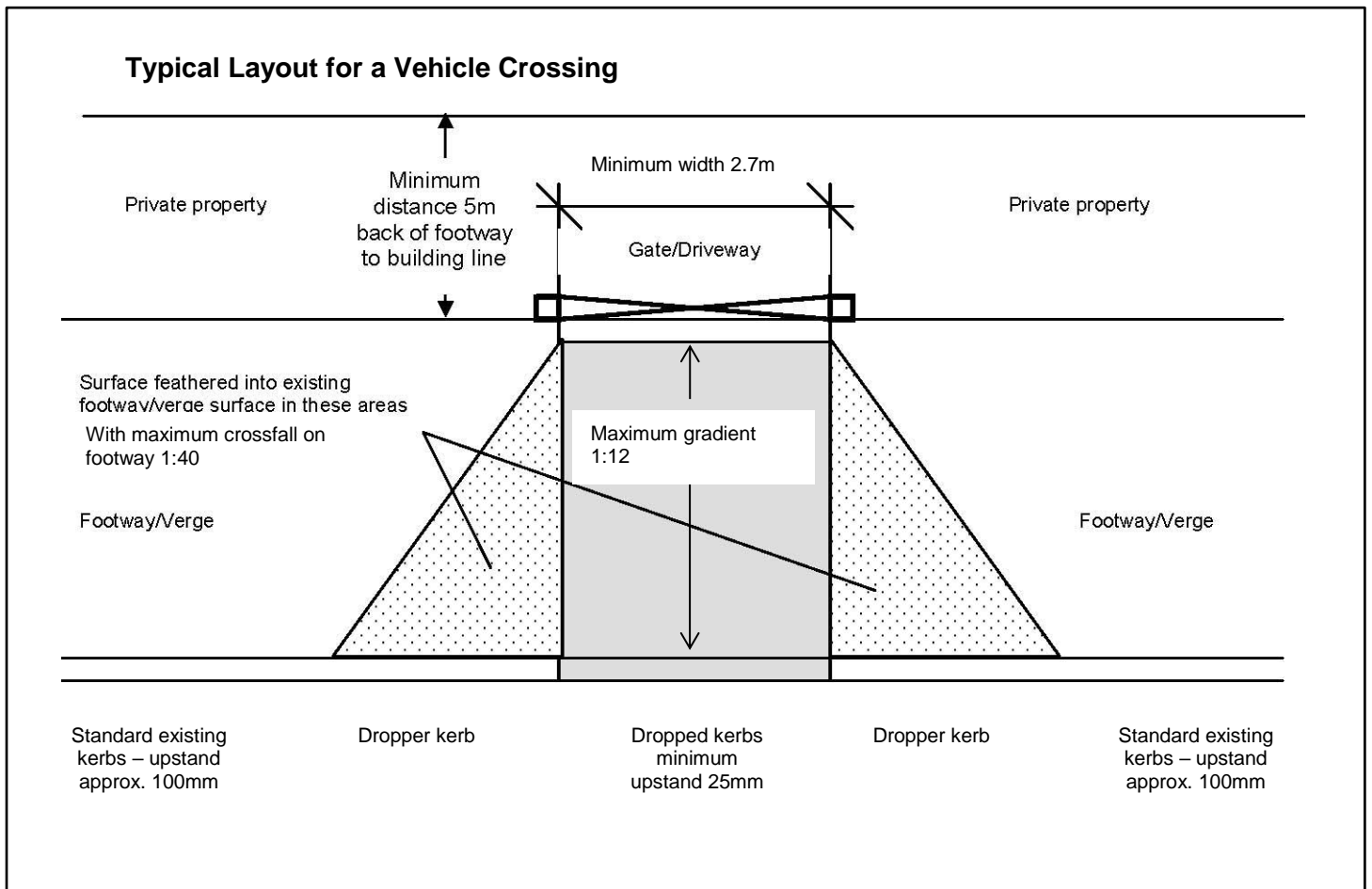
10. **Heavy Duty Crossing** – the following type of construction is suitable for access to commercial and other private properties for vehicles in excess of 5 tonnes unladen weight and up to a maximum of 20 tonnes laden weight plus access to 3 or more properties ( for vehicle crossings in excess of this weight please contact the Neighbourhood Engineer for an **Industrial** specification).

**a) Concrete (Heavy Duty Crossings)**

- 150mm thickness of PAV 1 concrete BS8500-1:2015 with one layer of B283 mesh reinforcement to BS 4483 in the bottom of the slab with 50mm of cover
- Waterproof membrane
- 150mm thickness of Granular Sub Base MCHW clause 803 on a pre-compacted formation

**b) Bituminous (Heavy Duty Crossings)**

- 30mm thickness of AC 6 dense surf 700/100 MCHW clause 909 53 PSV
- 70mm thickness of AC 20 dense bin 70/100 MCHW clause 906
- 100mm thickness of AC 32 dense base 70/100 MCHW clause 906
- Tack coat between all bituminous bound layers and all vertical faces
- 150mm thickness of Granular Sub Base MCHW clause 803 on a pre-compacted formation



## Typical Layout for an Access Ramp for a Wheelchair or Mobility Scooter

