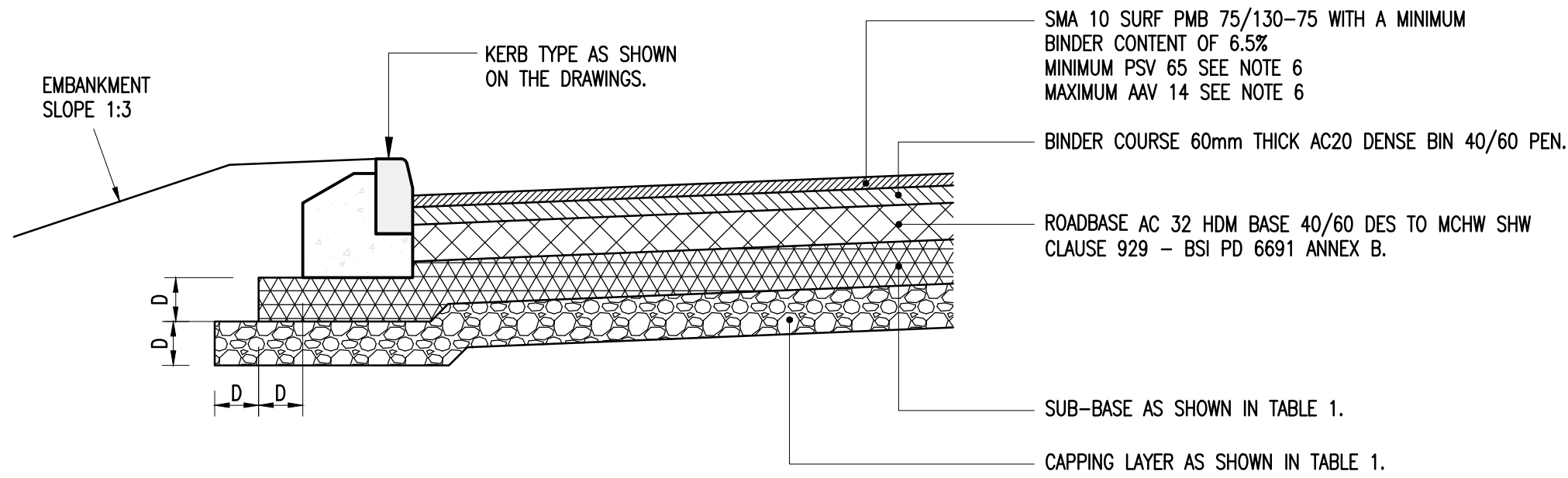
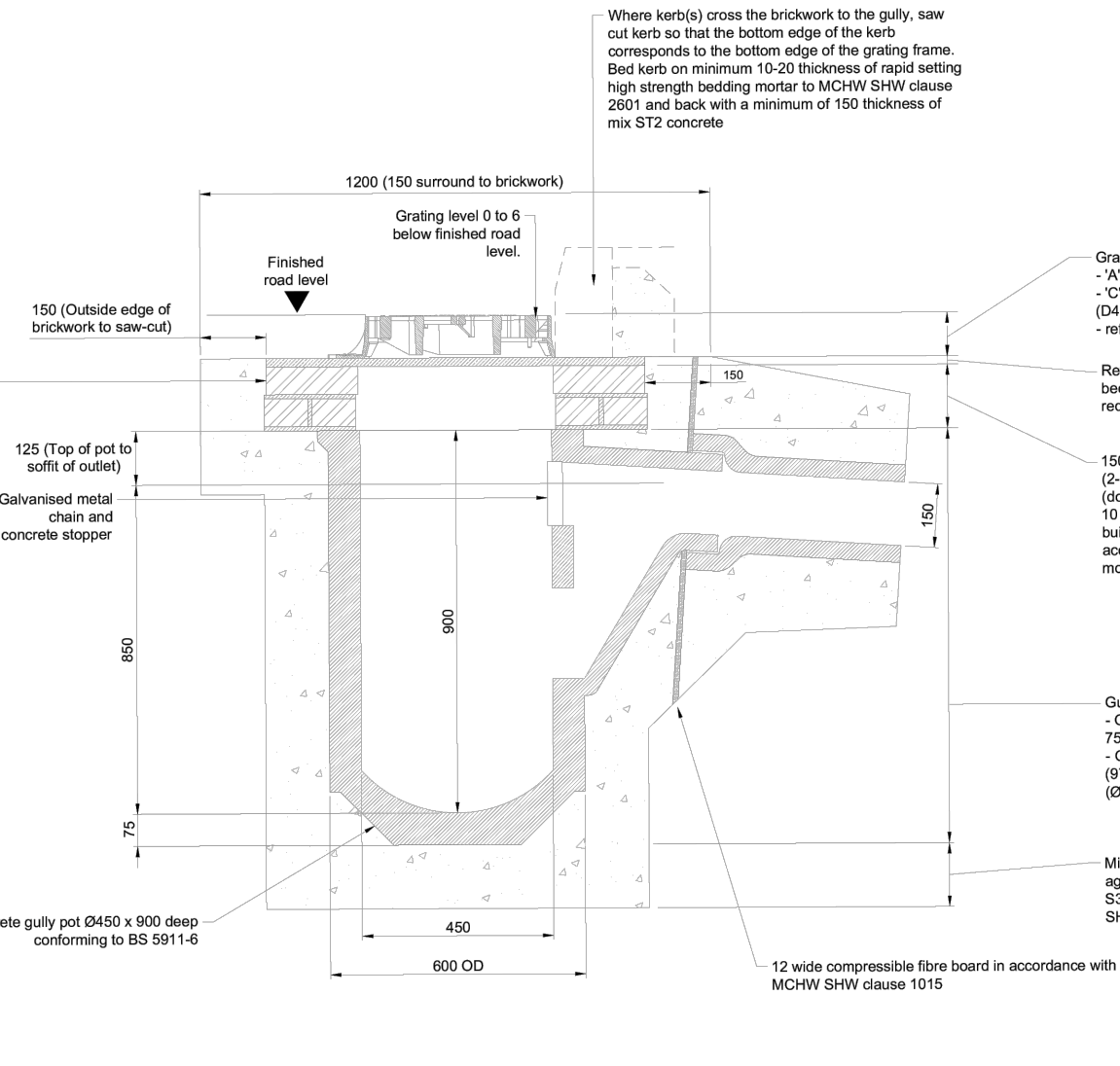
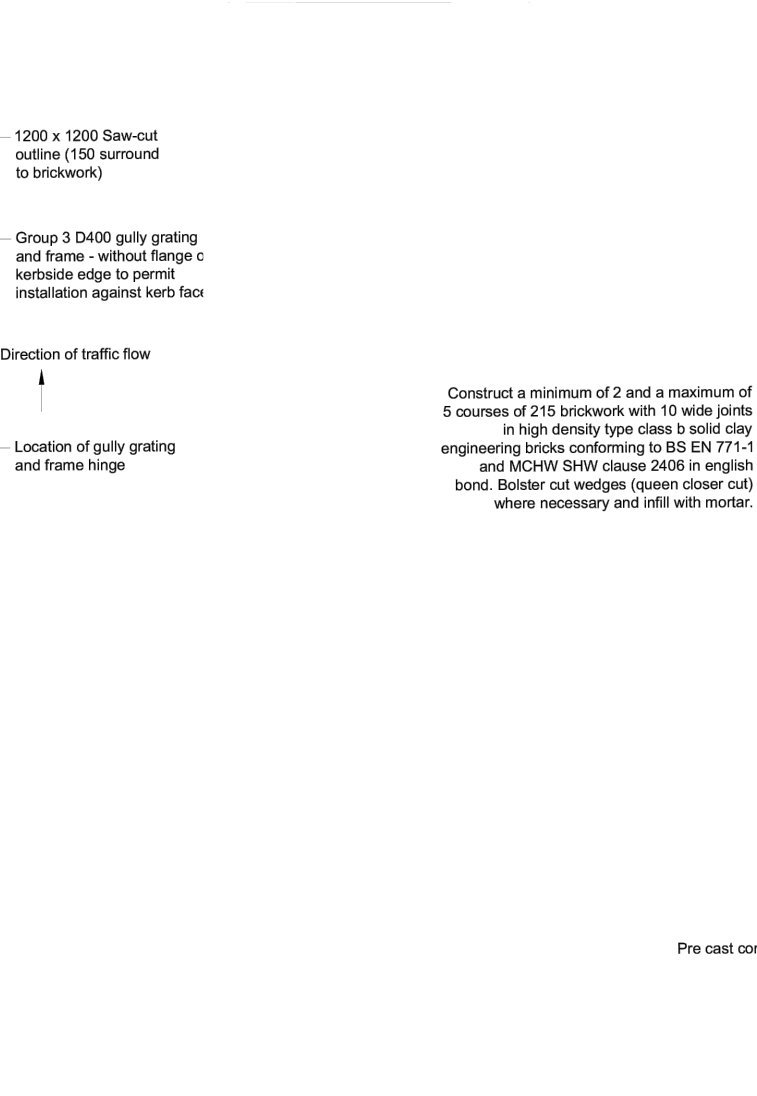
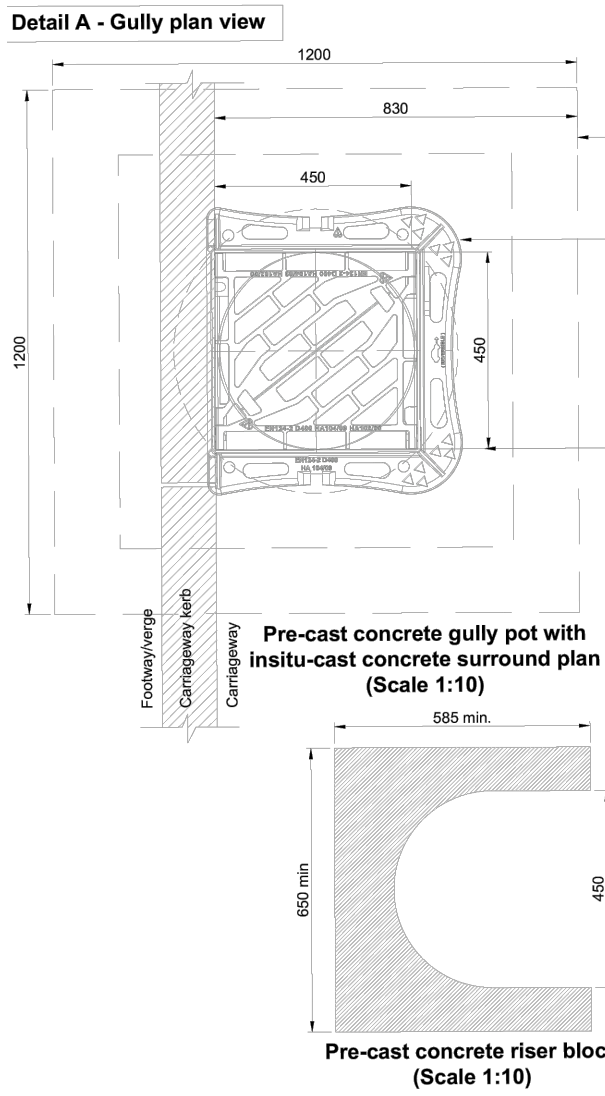




| Table 1 - SUB-BASE AND CAPPING LAYER THICKNESSES |                                                  |                 |                              |     |                         |
|--------------------------------------------------|--------------------------------------------------|-----------------|------------------------------|-----|-------------------------|
| SUBGRADE CBR                                     | EQUIVALENT DESIGN SUBGRADE SURFACE MODULUS (MPa) | FOUNDATION TYPE | CAPPING LAYER THICKNESS (mm) |     | SUB-BASE THICKNESS (mm) |
| >15%                                             | 100                                              | 2               | 150                          | and | 150                     |
| >10 - 15%                                        | 75                                               | 2               | 200                          | and | 150                     |
| 5 - 10%                                          | 50                                               | 2               | 250                          | and | 200                     |
| >2.5 - 5%                                        | 30                                               | 2               | 420                          | and | 250                     |
| <2.5%                                            | -                                                |                 | Refer to note 3 and 4        |     |                         |

NOTES

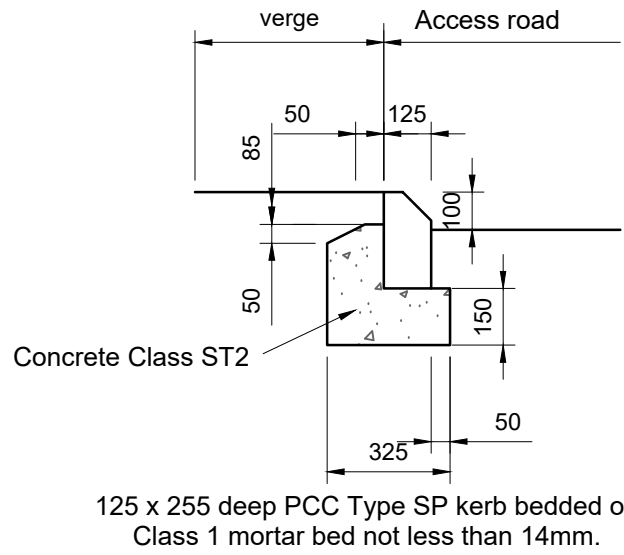
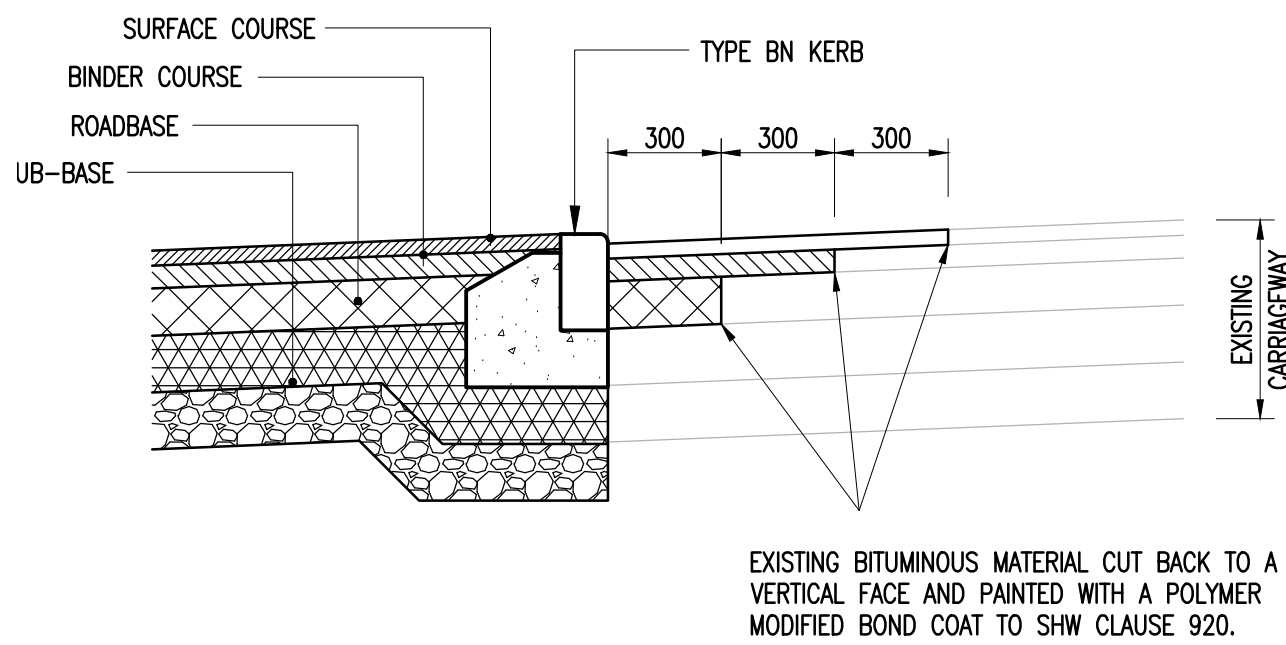
- CAPPING LAYERS TO MCHW CLAUSE 613 TYPES 6F1, 6F2, 6F4 AND 6F5.
- SUB-BASE LAYERS TO MCHW CLAUSES 803, 804, 805 AND 806.



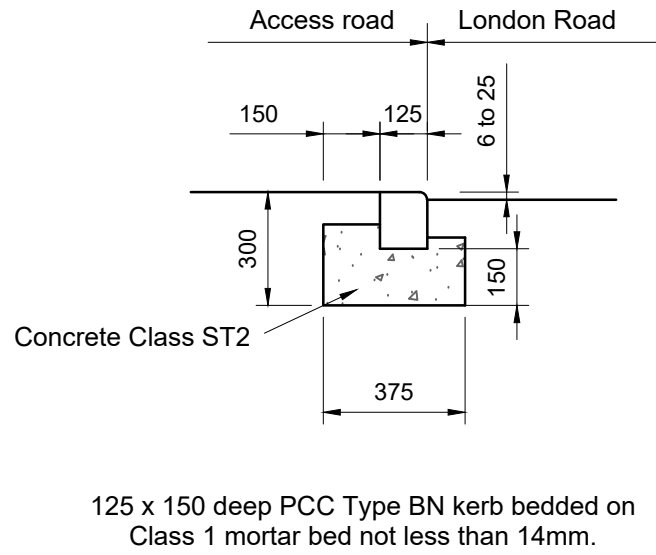
1. All dimensions are in millimetres unless stated otherwise.
2. Wiltshire Council's adoptable highways drainage guidance provides advice to developers wishing to offer drainage infrastructure for adoption. Where there is a conflict between information recorded on the standard details and the guidance document, the developer shall seek confirmation for which standard or guidance to apply to their design.
3. All in-situ concrete shall be class ST4 to MCHW SHW clause 2602, with a slump class of S3.
4. All cement used for in-situ concrete shall be sulfate resisting portland cement to BS 8500-2, table 1.
5. Where gullies are located in the carriageway, patterns with diagonal slots shall face as indicated on detail A - gully plan view. Where gullies are located in a footway/cycleway etc., a cross-hatch pattern with square slots must be used.
6. Unless stated otherwise all gully gratings and frames to have a 450 x 450 clear opening and to be 'hinged' heavy duty ductile iron minimum grade D400 in accordance with BS EN 124 - group 3/4 and CD 534 - refer to detail E.
7. Gratings shall be hinged as shown on detail A.
8. Frames shall be bedded on a minimum 10-20 thick rapid setting, high strength bedding mortar. Covers and frames may be trafficked when a minimum compressive strength of 20 N/mm<sup>2</sup> is achieved within 2 hours. Rapid setting, high strength bedding mortar specification is to be approved by Wiltshire Council.
9. Frames shall be set to the crossfall and profile of the carriageway, the top of the grating shall be 0 to 6 below channel level.
10. Brickwork shall be English bond and comprise of class B solid clay engineering bricks in accordance with BS EN 771-1 and MCHW SHW clause 2406 bedded on a gauged class 1.3:1 building sand and cement mortar in accordance with MCHW SHW clause 2402 mortar designation (i).
11. Adjustments to frames shall meet the following requirements:-
- Not exceeding 25 - rapid setting high strength bedding mortar only
  - Between 25 and 75 - Slate or tile 150 wide bedded in 1:0.25:3 cement/sand mortar fair faced internally and played externally
  - Between 75 and 150 - 215 Class B solid engineering bricks bonded and bedded in 1:0.25:3 cement/sand mortar pointed with flush joints
  - Rapid setting high strength bedding mortar to be used in all carriageway locations where grating and frame levels are adjusted. Concrete risers shall also be considered.
12. Precast concrete square or U shaped risers that comply with BS EN 1917 and BS 5911-3 may be used as an alternative to bricks and require approval by Wiltshire Council.
13. Pipes and couplings - Pipe joints shall be mechanically flexible joints to MCHW SHW clause 504.

Trapped Pre-Cast Concrete Road Gully

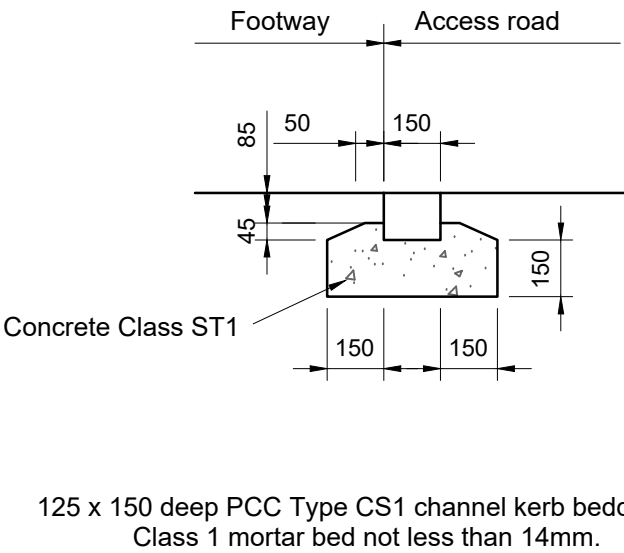
New Full Depth Carriageway Construction



45° Splayed Kerb Type SP



Bull Nosed Kerb As Dropped Kerb



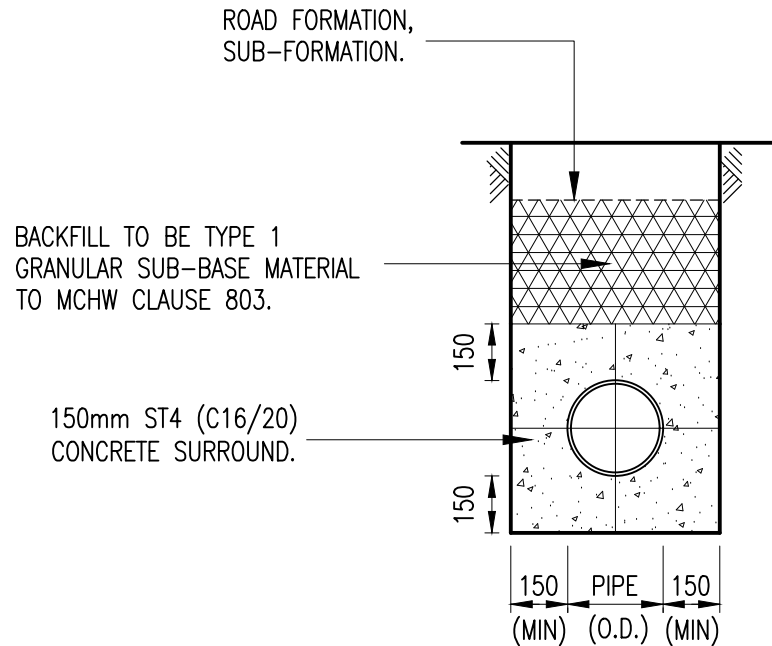
CS1 Channel At Back Of Footway  
(Laid Flush)

Precast Concrete Kerbs Notes

- Kerbs to be butt jointed. Where kerb alignments incur 'minor open joint tapers' between formed surfaces mortar jointing shall be used as directed by engineer.
- All full length precast kerbs are to be mechanically handled.
- All precast concrete kerbs shall be to BS EN 1340 and laid to BS 7533-6.
- All kerbs bed and backing to be Concrete Class ST1 (C6/8), well compacted. Unless otherwise stated this shall be a minimum bed thickness of 150mm.
- The minimum length of any cut kerb shall be 450mm (half kerb).
- The correct radius kerbs shall be used for all radii of 12m or less. For radii between 12m and 20m, 600mm long straight units shall be used.
- Suitable transitions kerbs shall be used for all drop kerb and upstand variation locations.
- Kerb up-stands are denoted on relevant engineering drawings.
- Mortar shall comply with SHW Clause 24014 designation (i).

| Table 2 - Requirements for initial texture depth of SMA PMB surface course |                          |                                 |                      |                                                     |
|----------------------------------------------------------------------------|--------------------------|---------------------------------|----------------------|-----------------------------------------------------|
| Road Type                                                                  | Posted speed limit (mph) | Average per 1,000m section (mm) |                      | Average for a set of 10 measurements (minimum) (mm) |
|                                                                            |                          | Minimum initial (mm)            | Maximum initial (mm) |                                                     |
| AR2A <sup>new</sup> v1 (SMA 14 PMB)                                        | > / = 50mph              | 1.0                             | 1.5                  | 0.9                                                 |
| AR1B & AR2B (SMA 10 PMB)                                                   | > / = 40mph              | 0.8                             | 1.3                  | 0.7                                                 |

| Table 3 - Retained Surface Macrotexture Requirements for SMA PMB surface course |                                 |
|---------------------------------------------------------------------------------|---------------------------------|
| Road Type                                                                       | Average per 1,000m section (mm) |
|                                                                                 | 0.9                             |
| AR2A <sup>new</sup> v1 (SMA 14 PMB)                                             | 0.9                             |
| AR1B & AR2B (SMA 10 PMB)                                                        | 0.6                             |



Concrete Bedding Detail  
(For All Gully Connections)

NOTES:

- This drawing is based on a topographical survey undertaken by AC Surveys, dated 30/01/2024 and provided to TPA as AutoCAD file reference '3572-03 RedBarn roads'.
- The extent of adopted highway has been taken from a 1:6,000 scale Ordnance Survey based highway record plan received from Wiltshire Council dated 03/05/2022 and is indicative only.
- Where a CBR value is less than 2.5% options for improvement of the subgrade must be included in the design. Options for improvement of the subgrade include excavation and replacing between 500 to 1000 of the soft subgrade with granular fill, mechanical stabilisation (geogrids and/or geotextiles) and soil stabilisation. Following ground improvement works, the CBR test shall be undertaken again, a minimum of 2.5% is required prior to placing road pavement foundation layers using the guidance layer thickness in table 2.
- Geogrid ground reinforcement will not be permitted where this conflicts with proposed or existing underground service utilities within the road pavement. A separate service utilities corridor within the verge, footway or adjacent land shall be included in the scheme proposal. The designer or developer shall submit the service utilities design for diversion, protection and new services, this shall form part of the technical approval.
- Construction traffic in standard axes shall be calculated using information from the construction programme and commercial vehicle classes set out in CD224, this shall be submitted to Wiltshire Council for review. Where construction traffic is anticipated to exceed 1000 standard axes e.g. for a haul road, the design layer thickness shall be assessed for suitability to CD225 and LR1132. Main construction access routes into and through new developments used as haul roads that form part of the proposed adoptable road network shall be constructed up to the top of binder course layer prior to commencing construction of other infrastructure, including but not limited to residential housing and commercial buildings. Where these haul routes exceed 1000m in length these shall also be constructed up to the top of binder course layer prior to commencing the next section of road. Road type and surface treatment options.
- SMA PMB surface course materials shall conform with the binder grade, binder content and texture depth properties listed on this drawing. A product specification with the following performance characteristics shall be submitted to Wiltshire Council for approval:-

  - Durability - initial macrotexture depth = See table 2 for requirements
  - Durability - Trafficked (2 years after opening) macrotexture depth = See table 3 for requirements
  - Resistance to permanent deformation (WTS<sub>max</sub>) to PD 6691 table D.2 = Minimum Class 1
  - Sensitivity to water (ITS<sub>max</sub>) > / = 70
  - Visual Inspection
    - At Opening = Good or Excellent
    - 24 months after opening to traffic = Good or Excellent

- Case studies and example sites for verification are required. A minimum 5 year guarantee shall be included.
- SMA 10 PMB shall be used for the following highway features:
  - Circularity at roundabout junctions
  - Bends < 250m radius
  - Junctions where turning radius movements are < 250m

|     |          |                                     |          |            |             |
|-----|----------|-------------------------------------|----------|------------|-------------|
| C   | 22/04/25 | Updated sub-base and capping notes. | KVT      | AG         | JD          |
| B   | 20/04/24 | Updated based on comments.          | KVT      | AG         | JD          |
| A   | 31/03/24 | Updated based on comments.          | KVT      | AG         | JD          |
| Rev | Date     | Details                             | Drawn By | Checked By | Approved By |

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CLIENT:  
**EDEN RB SOLAR LTD**

PROJECT:  
**RED BARN SOLAR FARM,  
CHIPPENHAM**

TITLE:  
**A350 Eastern Land Parcel -  
Site Access Sections, Surface  
Contours and Setting Out**

STATUS:  
**FOR APPROVAL**

|                     |                    |               |                |                 |
|---------------------|--------------------|---------------|----------------|-----------------|
| SCALE:<br>As Shown  | DATE:<br>22.10.25  | DRAWN:<br>PSW | CHECKED:<br>AG | APPROVED:<br>JD |
| JOB NO:<br>2508-038 | DRAWING NO:<br>H14 |               | REVISION:<br>C |                 |