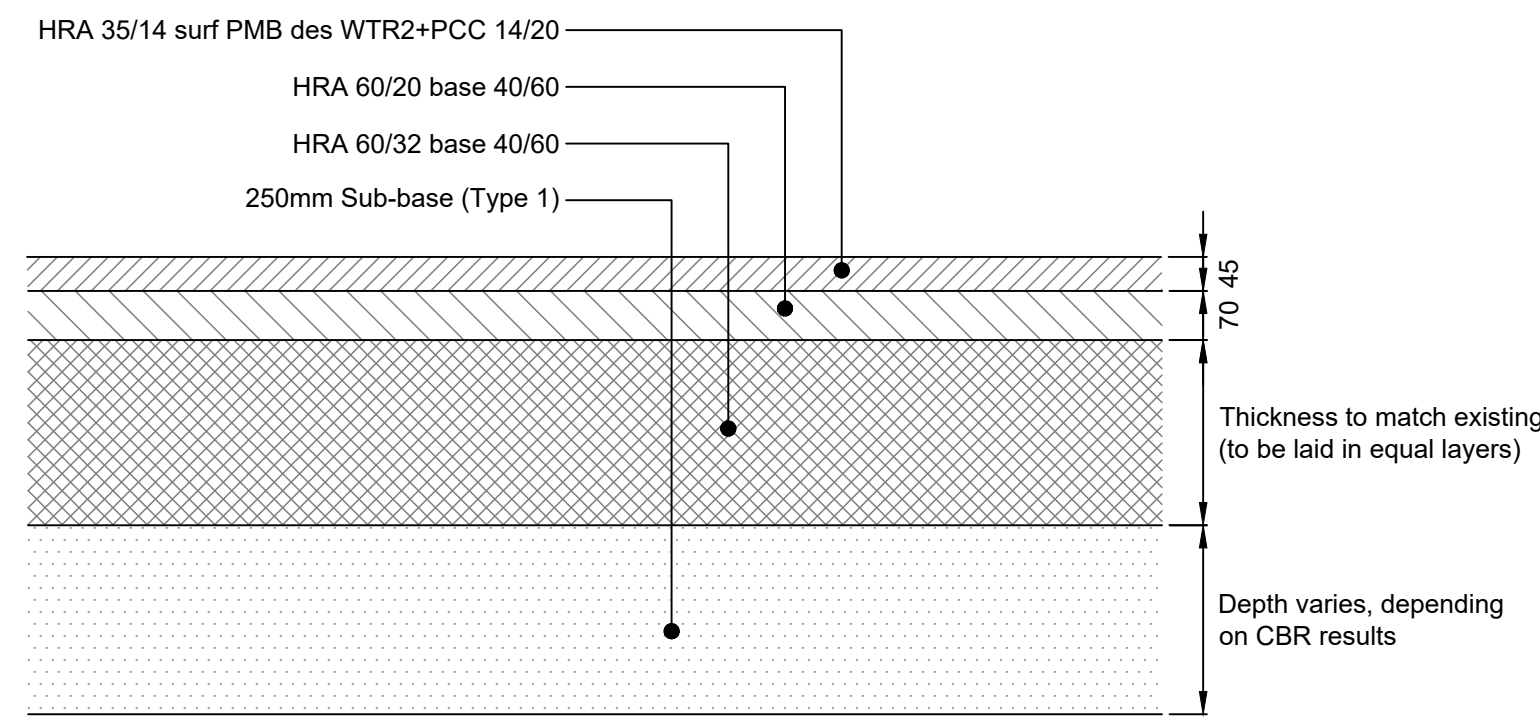
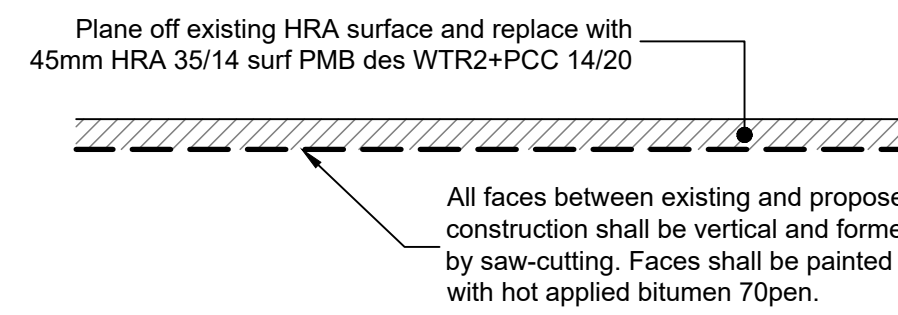


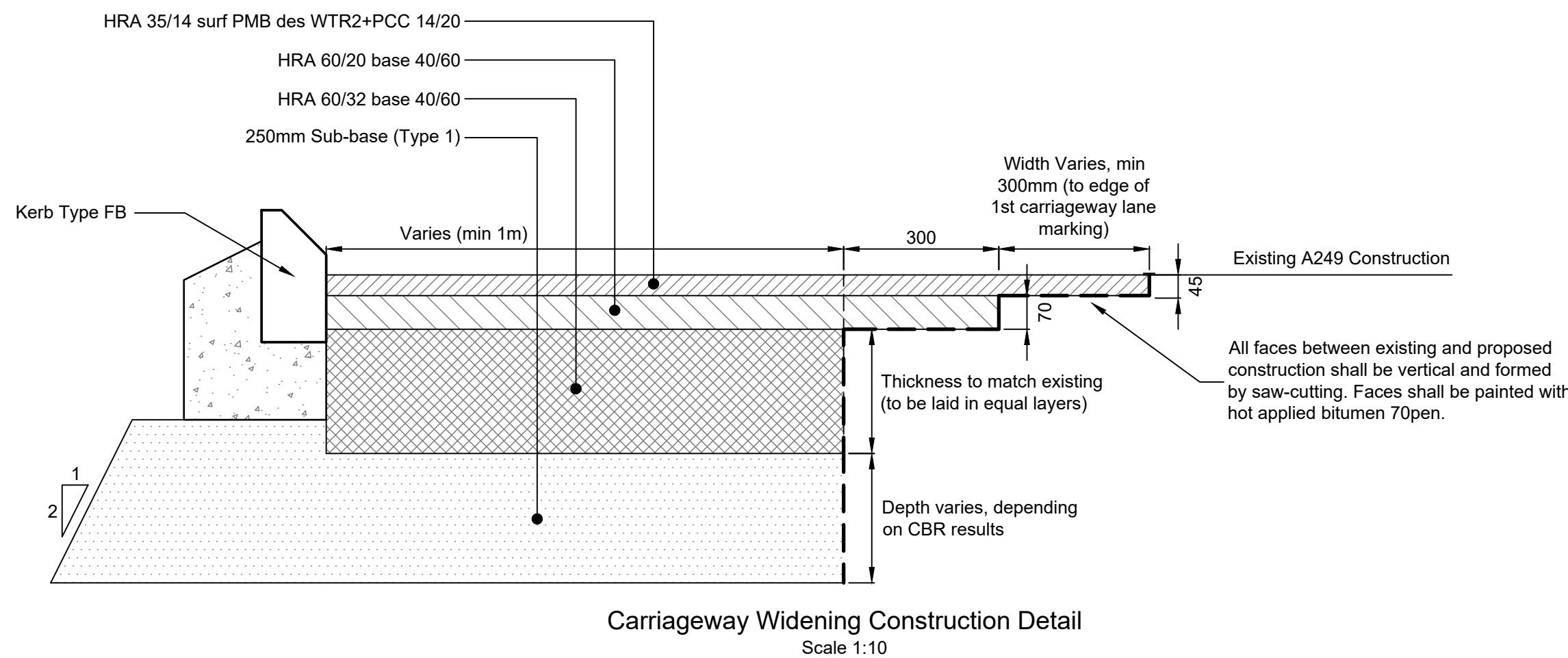
Foundation detail for FB - Full Battered Kerb
Scale 1:10



Carriageway Construction Detail
Scale 1:10



Carriageway Overlay Construction Detail
Scale 1:10



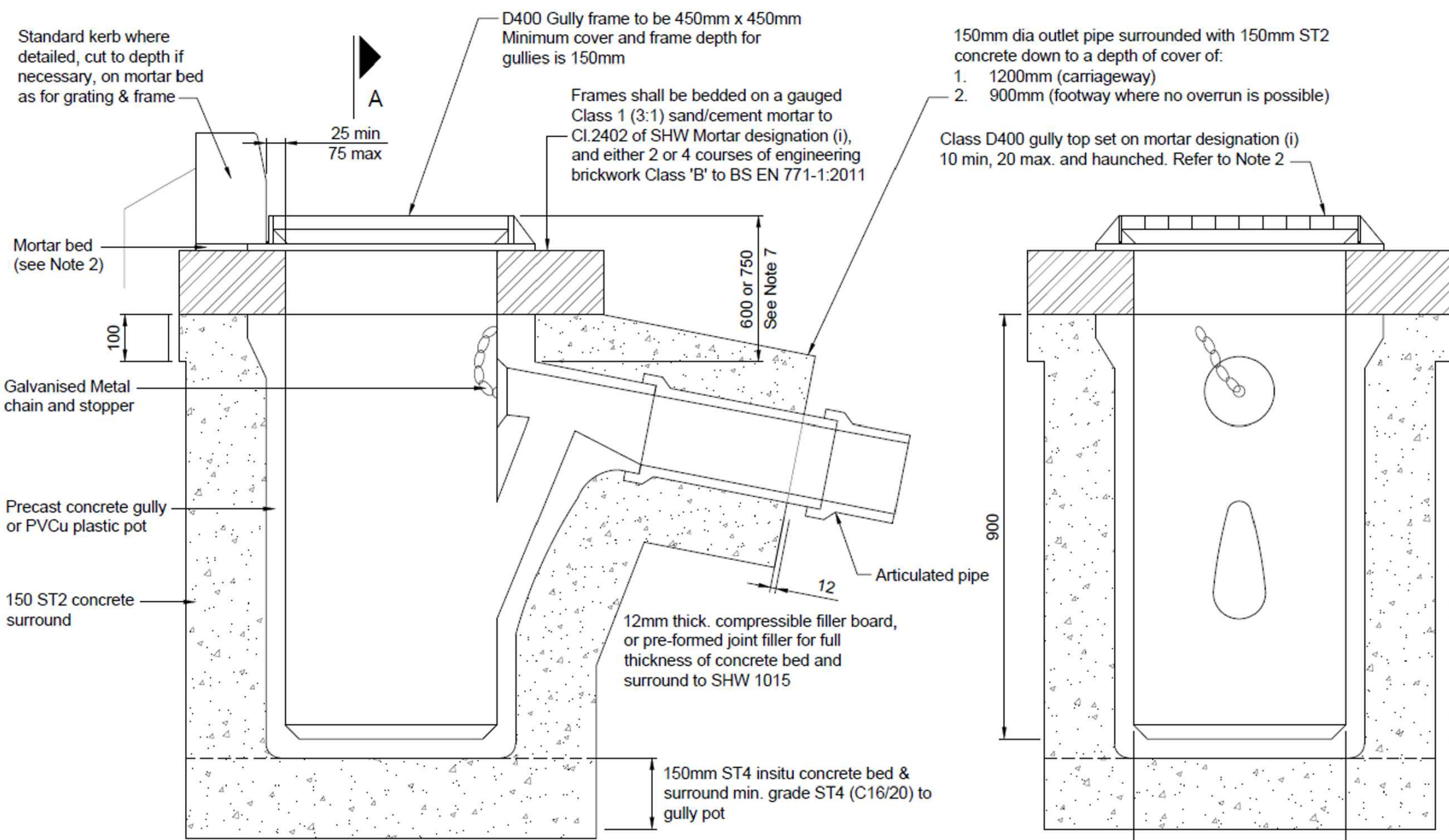
Carriageway Widening Construction Detail
Scale 1:10

LDR - Local Distributor Road
MAR/CL - Major Access Road/Country Lane
MIR/HZ - Minor Access Road/Homezone (through road)
MIW/HZ - Minor Access Way/Homezone (cul de sac)
SAW/MC - Shared Access Way/Mews Court

Table B	Sub-Base only option			
Plasticity Index above zero?	If Yes, use a Construction CBR of $+2\%$ If No, test for Construction CBR			
Construction CBR (%)	≤ 2	2 to 3	3 to 5	5+
Minimum geotextile layer required?	Yes	Yes	No	No
Road Type Definition				
MAR/CL & MIR/HZ	Use Table C	450mm	370mm	270mm
MIW/HZ & SAW/MC	530mm	370mm	260mm	250mm

Table C	Sub-Base + Capping Layer option		
Plasticity Index above zero?	If Yes, use a Construction CBR of $+2\%$ If No, test for Construction CBR		
Construction CBR (%)	≤ 2	2 to 3	3+
Minimum geotextile layer required?	Yes	Yes	No
Sub-base thickness	250mm of sub-base and one Capping Layer thickness as per Table B		
Road Type Def			
MAR/CL & MIR/HZ	300mm	440mm	320mm
MIW/HZ & SAW/MC	300mm	150mm	150mm

Alternative gully pot.
PVCu plastic pots (BBA Approved) to CP312, of the dimensions below, may only be used at the discretion of KCC. The typical details of this type of gully installation shall incorporate suitable provisions to prevent the pots floating and distorting when the concrete is placed and compacted. The installation shall be in accordance with the BBA approval certificate requirements.



TRAPPED GULLY SHOWN
(DETAIL FOR UNTRAPPED GULLY SIMILAR EXCEPT FOR POT)

- Note
- All dimensions are in millimetres.
 - Frames shall be bedded on a gauged Class 1 (3:1) sand/cement mortar to CI 2402 of SHW Mortar Designation (i), and either 2 or 4 courses of engineering brickwork Class 'B' to BS EN 771-1:2011
 - 900 x 450mm trapped precast concrete gully pots to BS 5911-6.
 - One-sixteenth circle bends may be used to correct pipe alignment between gully and carrier pipe (not more than three per gully).
 - Direction of outfall of gully is as shown on layout drawings.
 - Gully frame to be set 0 to 6mm lower and in the same plane as adjacent surfaces.
 - Minimum depth from top of gully top to top of outlet shall be:-
750mm under carriageway
600mm elsewhere
 - For details of gully pot, see Appendix 51.
 - For details of type of gully pot, see Gully Schedule in Appendix 51.
 - Gully pots used in the carriageway shall be precast concrete using Sulphate Resistant Cement (SRC) in accordance with BS 5911 part 230, 2004.
 - All ironwork shall carry a BSI kite mark.
 - All gully grating and frames to be 'hinged' heavy duty ductile iron, minimum grade D400 in accordance with BS EN124:1994 and Section 508 of the SHW.
 - Selection of gully grating type shall be to suit the application area, i.e. carriageway, footway/cycleway.

Surface water pipes:
Permitted type as follows:
Clay: (100 dia - 1200 dia)
All pipe shall be Vitreous Clayware to BS EN 295-1:1991

UPVC: (100 dia - 1100 dia)
All pipes shall be to BS EN 1401-1:1998
All pipes shall be ribbed 'twin wall' to provide a suitable networks (pipes & couplings)

Concrete: (300 dia min)
All pipes shall be made with Sulphate resistant Cement to BS 5911-1:2001
• ALL jointing and installation shall be undertaken to manufacturer specification.
• ALL material shall be BBA certified

Material Testing Requirements



All tests are to be undertaken by an independent testing laboratory that holds UKAS accreditation specific to each of the tests that they are required to undertake. Results must be issued to the KCC agreements team in a timely manner so as not to jeopardise successive layers/processes or works adoption. Additional testing not mentioned here may be required at the discretion of KCC. **Any works failing to meet the relevant test approval criteria may be condemned as substandard.**

- Formation/Sub-Formation**
- **CBR testing and Plasticity Index** to establish construction & capping layer thickness required.
- Capping layer**
- **Stiffness modulus test** (by portable dynamic plate) of 60MPa maintained until carriageway construction is complete. Tests shall be carried out every 10m of carriageway.
 - **Grading Analysis and Moisture Content** to check compliance with material specification.
- Sub-base**
- Granular Type 1 material**
- **Nuclear density test** to check compaction carried out every 20m of carriageway. The material shall achieve at least 95% density when compacted, measured in-situ using a calibrated nuclear density meter. Recent Target Density figure to be used, obtained from supplier.
 - **Stiffness modulus test** (by portable dynamic plate) of 100MPa maintained until carriageway construction is complete. Tests shall be carried out every 20m of carriageway.
 - **Grading Analysis and Moisture Content** to check compliance with material specification.
 - **Layer shall be dipped** by the KCC representative to achieve within +10/-30mm of finished layer level.
- HBM - note: laying must satisfy all normal temperature requirements for a cement bound material.**
- **7 & 28 day cube strength** from material at source & of delivered material. Sampling every 200 tonnes.
 - **Stiffness modulus test** (by portable dynamic plate) carried out every 20m of carriageway, on same day of laying, and again 24hrs later.
 - **Layer shall be dipped** by the agreements project manager to achieve within +10/-30mm of finished layer level.
- Flexible Carriageway**
- **Air temperatures must be 5°C (min) and rising** throughout laying. This is due to the multiple weather-related variables that can adversely impact the layer's integrity (e.g. wind speed, air & ground temperatures, frost etc).
 - **A maximum of one course shall be laid in any one day** to provide assurance that the material has sufficiently cooled/cured, and to avoid rutting, in order to maintain the integrity of the material for the length of its lifespan.
- Base Course - note: manhole chambers are to be plated at subbase level unless agreed otherwise.**
- **Layer shall be dipped** by the agreements project manager to achieve within ±15/-15mm of finished layer level.
 - **Grading analysis and binder content** to be tested in the laboratory (one sample every 200 tonnes)
 - **Nuclear Density test** to check compaction shall be carried out every 20m of carriageway, 93% Coarse Macadam, 95% Rolled Asphalt. A sample must be taken for laboratory testing.
 - **Material delivery, laying and rolling temperature records**
- Binder Course**
- **Layer shall be dipped** by the agreements project manager to achieve within +0/-15mm of finished layer level.
 - **Grading analysis and binder content** to be tested in the laboratory (one sample every 200 tonnes)
 - **Nuclear Density test** to check compaction if layer thickness 60mm or above, shall be carried out every 20m of carriageway. A sample must be taken for laboratory testing.
 - **Material delivery, laying and rolling temperature records**
- Surface Course - STRICTLY NO OVERBANDING**
- **Layer shall be dipped** by the agreements project manager to achieve within +6/-0mm of finished layer level.
 - **Grading analysis and binder content** to be tested in the laboratory (one sample every 60 tonnes)
 - **Texture depth** to be carried out on SMA and HRA surface course materials
 - **Material delivery, laying and rolling temperature records**
 - **Rolling straight edge** may be required on local distributor / major access roads to check surface regularity.
- Flexible Footways & Cycleways - STRICTLY NO OVERBANDING**
- **Air temperatures must be 5°C (min) and rising** throughout laying.
 - **Layers shall be dipped** by the agreements project manager [+10/-30mm (subbase) and +0/-6mm (binder)]
 - **Grading analysis and binder content and material delivery, laying & rolling temperature records**

November 2020

Notes

Do not scale this drawing

This drawing shall be read in conjunction with all other relevant Engineering, Architectural, Landscaping details, drawings and specifications and all relevant Highway Authority Plans.

REVISION	A	Amendments following comments from KCC	JCB	MT
		AMENDMENT	DRN	CHK

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CLIENT	D. Body Developments		
PROJECT	Scammell Lodge Farm, Maidstone		
TITLE	A249 Access Improvements Standard Construction Details		

DRAWN BY	JCB	DESIGN BY	JCB	CHK BY	MT
DATE	24/01/23	DRAWING No.	5362 / 1006	REV No.	A
SCALE	As Shown @ A1				