

1. Permeable block paving construction shall be carried out in accordance with BS7533: Part 3: 2005 'Code of practice for laying precast concrete paving blocks and clay pavers for flexible pavements.'

3. The open graded sub-base for permeable pavements shall comply with LCC Briefing Note 2/2014 Appendix 1. Sub-base shall be made and constructed using unbound mixtures complying with BS EN 13285, the requirement categories in Table 8 / 1 and the remaining Clauses within the Briefing Note.

4. Table 8 / 1: Mixture and Grading Requirement Categories for Unbound Mixtures for Sub-base

Unbound Mixture	8.1 / 803
Clause	BS EN 12385 Categories for unbound mixture properties
Standard	
Mixture requirement category	
- Designation	0 / 40
- Maximum fines	UF ₅
- Oversize	OC ₃₀
Grading requirement category	
- Overall grading	G ₀

6. The laying course material should comply with the requirements of a material of type 2/6.3 Gc 80/20 according to BS EN 13242:2002. 'Aggregates for unbound and hydraulically bound materials for use in civil engineering works and road construction,' particle sizes are predominantly in the range of 2mm to 6.3mm. The typical particle size distribution limits for laying course material are as follows:

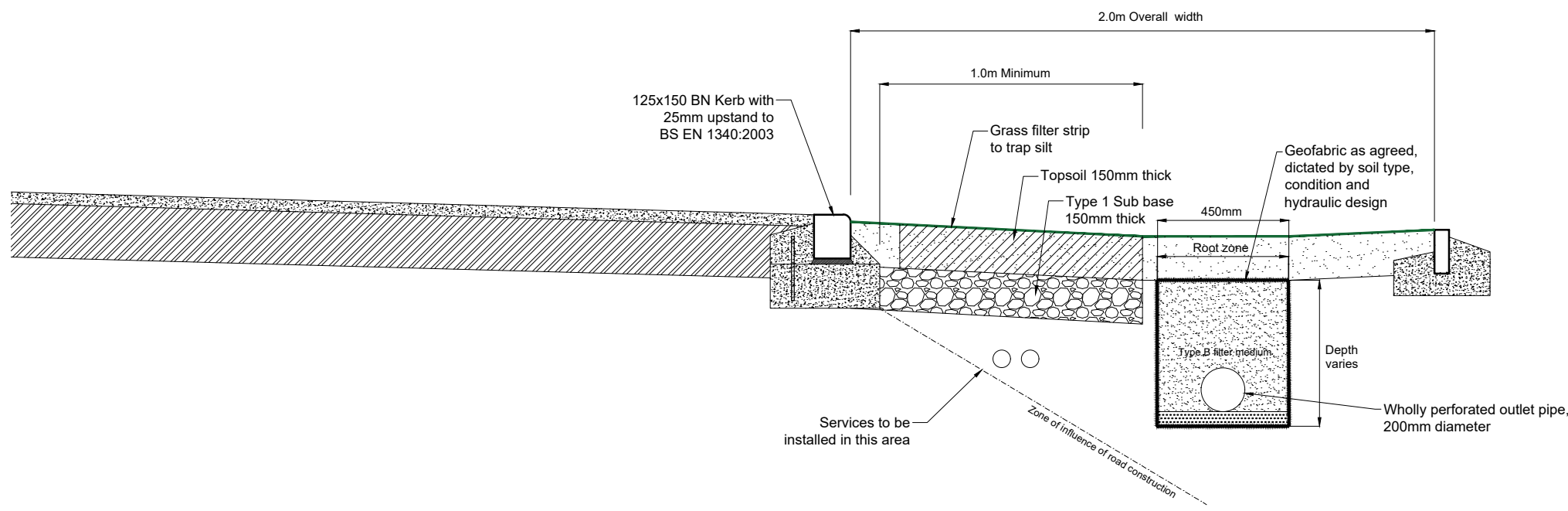
BS Sieve size (mm)	Percentage Passing (5)
14	100
10	98-100
6.3	80-99
2.0	0-20
1.0	0-5

8. Pre-cast concrete paving blocks shall comply with BSEN1338:2003 – 'Concrete paving blocks – Requirements and test methods' BSI 2003, and be suitable for permeable pavement. The concrete blocks shall have the physical properties as follows:

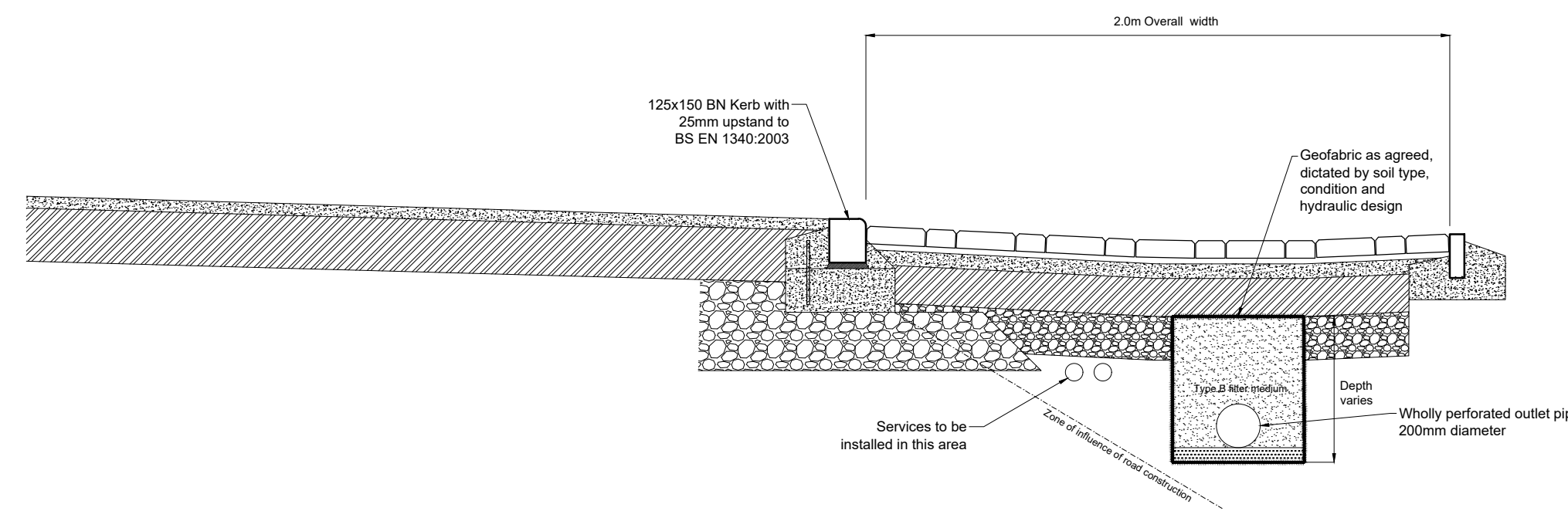
Tensile Splitting Strengths & Failure Level	Abrasion	Skid/Slip (pendulum value)	Freeze/Thaw (kg/m ²)
No block shall have a tensile strength less than 3.6MPa for a failure load less than 250 N/mm	less than or equal to 20	45 min	less than or equal to 1.0

9. Where pavements are constructed on sub-grades that have volume change potential and where roots vegetation penetrate below the pavement formation, there is a risk that movement may occur resulting in deformation being evident in the surface, particularly during prolonged periods of dry weather. To reduce this risk, the thickness of the sub-base shall be increased.

10. Wherever adoptable block-paving is to be within 10m of planted or existing trees. Root barriers to be installed from the ground surface to a depth of 1m at the edge of the adoptable highway. Where trees are to be planted within the adoptable highway within 10m of adoptable block-paving (outside plots 113-115) the root barrier to be installed at the road construction depth of 1m. Root barrier to be Green-Tech Root Barrier 360 or similar



SECTION THROUGH FILTER DRAIN - VERGE



SECTION THROUGH FILTER DRAIN - DRIVEWAY

BLOCK PAVERS:
80mm thick 100 x 200mm pre-cast concrete paving blocks suitable for permeable pavements with 6mm jointing. A herringbone laying pattern should be used and the colour of blocks is to be agreed with Lincolnshire County Council.

LAYING COURSE:
50mm laying course of 6mm Open Graded Crushed Rock.

DENSE BITUMEN BASE:
130mm of 20mm dense bitumen macadam (DBM) if used as a temporary road surface for construction traffic. If the permeable pavement is to be trafficked during the construction phase, a DBM course may be installed. For final construction, the DBM course should be cored using a pattern of 75mm diameter holes through a 750mm orthogonal grid, prior to installing the block pavers and laying course.

THE DBM IS IN ADDITION TO THE UNBOUND SUB-BASE

PERMEABLE SUB-BASE:
150mm sub-base of Type 3 Open Graded Aggregate. Thickness of sub-base is dependant upon the CBR of the sub-grade determined on site - see chart. Type 3 mixture and grading requirements table shown below.

Rev	Description	Date	Drawn Checked

N/A Section 104 N/A Section 38 N/A Section 278

FOR INFORMATION



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Highway Construction Details -Sheet 2 of 2

Drawing Number:
E3991/781

Client Reference

Scale: NTS @ A1
NTS @ A3

Designed By:	Drawn By:
Date:	JMW Date: 01.11.2019

Drawn By:
JMW
Date:
01.11.19

Checked By _____

Date: _____



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