NOTES:

D1-FILTER DRAINS

GENERAL NOTES

1. These notes are to be read in conjunction with Drg No ***SD/500/2***.
2. All dimensions are in millimetres.
3. BC = Outside diameter
4. Minimum trench width X = BC + 300mm or 600mm whichever is the greater for drains not exceeding 1.5m depth.

   X = BC + 450mm for drains exceeding 1.5m depth.
5. The bedding or filter material up to the level 300mm above the top of the pipe barrel shall be placed in layers not more than 150mm thickness and shall be carefully compacted for the full width of the trench with hand tools. The remaining filter material shall be deposited in layers each not exceeding 225mm loose depth and each compacted in accordance with Table 6/4 Method 3, 'Specification for Highway Works'.
6. Dimension Y : (a) In rock or mixed soils containing rock bands, boulders, large flints or stones or other irregular hard spots. Y = 200mm minimum under barrels and sockets.

   (b) In soils that permit an even trench bottom Y = 100mm minimum under barrels and 50mm under sockets.
7. Pipes to be laid with slots or perforations upwards where a concrete bed is used.
8. For narrow filter drains required to be curved < 40m radius some pipe materials will be unsuitable as the pipe lengths are too long.
9. Trench sheeting should be removed as the bed surround and backfill are placed to ensure the trench is filled and compacted to the full width.

MATERIALS

10. Pipes for filter drains shall be to clause 501 unless superseded by the following:-

    Concrete pipes to BS 5911-1 and BS EN 1916
    Clay and perforated clay pipes to BS 65 and BS EN 295
    Asbestos cement pipes to BS EN 588-1
    Porous concrete pipes to BS 5911-1 and BS EN 1916
    Perforated UPVC 100 - 400mm nominal diameter pipes to BS EN 1401-1
11. Pipe bedding and 20mm clean filter material shall be a granular material having a grading within the limits of Table 1 below.

TABLE 1

BS SIEVE SIZE	PERCENTAGE BY WEIGHT PASSING				
	20mm CLEAN	TYPE B	PIPE BEDDING		
			< 140 dia	140-400 dia	> 400 dia
63mm	-	100	-	-	-
37.5mm	100	85-100	-	-	100
20mm	85-100	0-25	-	100	85-100
14mm	-	-	100	85-100	-
10mm	0-25	0-5	85-100	0-50	0-25
5mm	0-5	-	0-25	0-10	0-10
2.36mm	-	-	0-5	-	-

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Leicestershire County Council
ENVIRONMENT AND TRANSPORT DEPARTMENT

TITLE:
GROUP D1 FILTER DRAINS
DRAINAGE NOTES

DRAWING NUMBER	DATE
SD/500/01	APRIL 2024
AUTOCAD REF	SCALE
K:\GENERAL\D9997STDDRG\STD DRGS 2015	NOT TO SCALE

Rev	Date	Notes on Revision
0	01.04.2024	Supersedes Dwg. SD/5/1 - September 2002