

SEWERS AND DRAINS

NOTES:

GENERAL NOTES

1. These notes are to be read in conjunction with Drg Nos SD/5/4.
2. All dimensions are in metres unless otherwise stated.
3. BC = Outside diameter DC = Inside diameter
4. Type B and A beds are to be used with rigid pipes.
5. Type E and Q beds are to be used with flexible pipes.
6. The minimum trench widths apply on and below a line 300mm above the top of pipe. The maximum trench widths apply throughout the entire depth of trench. Widening of the trench or benching of the trench sides will only be permitted with written approval from the Engineer.
7. The concrete bed or surround may extend to the sides of the trench or be of minimum width. Selected backfill is to be used to fill any voids so formed.
8. The bedding and surround up to the level 300mm above the top of the barrel shall be placed equally on both sides of the pipe in layers not exceeding 150mm thick and carefully compacted for the full width of the trench with hand tools.
9. The backfill material shall be deposited in layers not exceeding 150mm thick and compacted as specified in Clause 612 using, unless other compacting equipment is required or agreed, power rammers or vibrating plate compactors.
10. 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.
11. Dimension
 - (a) In rock or mixed soils containing rock bands, boulders, large flints or stones or other irregular hard spots that result in an uneven trench bottom $Y = \frac{BC}{4}$ with 200mm minimum under barrels and sockets.
 - (b) In soils that permit an even trench bottom $Y = \frac{BC}{6}$ with 100mm minimum under barrels and 50mm minimum under sockets.
12. Selected fill shall be acceptable material Class 8 as described in Table 6/1 and in compliance with the Series 600. The soluble sulphur content of the fill material shall not exceed the values given in Clause 601 of the Specification.
13. Under carriageway pavements the selected fill and backfill up to formation level shall consist of Type 1 sub-base material.
14. All drains and sewers shall have watertight flexible joints.

15. Pipe bedding material shall be a granular material having a grading within the limits of Table 2 below.

TABLE 2

BS SIEVE SIZE	% PASSING/PIPE SIZES (mm)			
	> 1350 dia	> 600 dia	> 300 dia	> 150 dia
63mm	100	-	-	-
37.5mm	85-100	100	-	-
20mm	0-25	85-100	100	-
14mm	-	-	85-100	100
10mm	0-5	0-25	0-50	85-100
5mm	-	0-5	0-10	0-25
2.36mm	-	-	-	0-5

16. Compressible filler shall consist of bitumen impregnated insulating board to BS 1142 : Part 3 or similar. The thickness shall be as Table 3 below.

TABLE 3

PIPE DIAMETER (D)	THICKNESS OF FILLER
< 450	18
450-1200	36
> 1200	54

