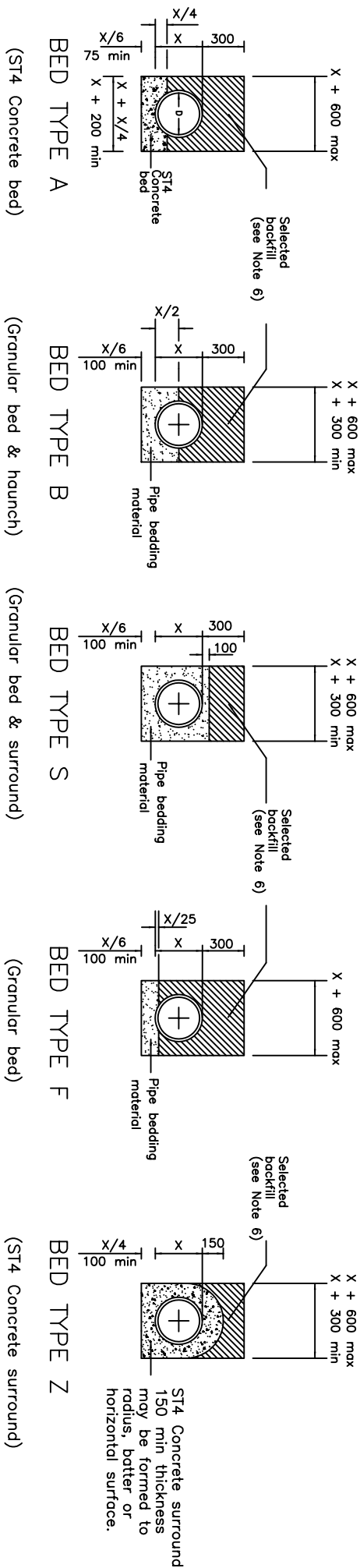


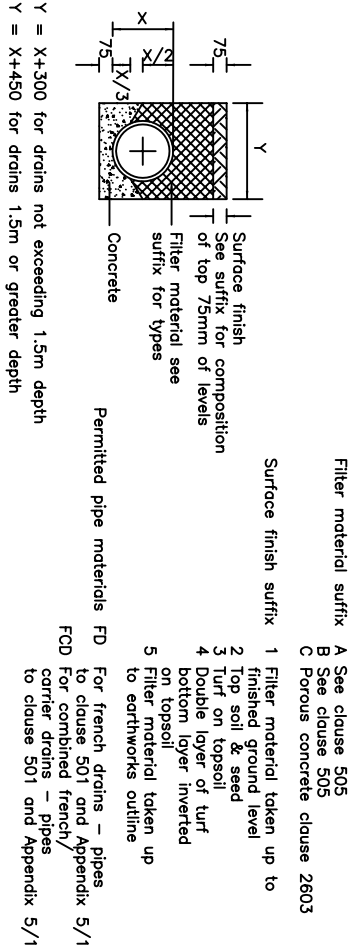
SEWERS AND DRAINS

PIPE DIA	D	DESIGN GROUP	SUFFIX (OPTIONAL)
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FILTER DRAINS

PIPE DIA	FD	FILTER MATERIAL	SURFACE FINISH
	FCD		



NOTES

- GENERAL REQUIREMENTS FOR SEWERS AND DRAINS (INCLUDING CULVERTS AND STRUCTURES)
1. WHERE DIRECTED BY THE ENGINEER OR REQUIRED BY THE CONTRACT, DRAINAGE WORKS WHICH ARE FOR CARRYING OR DIVERTING THE MAIN DRAINAGE OF THE SURROUNDING AREAS SHALL BE CONSTRUCTED PRIOR TO THE GENERAL EARTHWORKS. EXCEPT WHERE SO DIRECTED OR REQUIRED DRAINS OR SEWERS SHALL ONLY BE LAID IN OR UNDER EMBANKMENTS WHEN THE EMBANKMENT HAS BEEN FORMED AND COMPACTED TO FORMATION LEVEL, OR TO A DEPTH WHICH WILL GIVE A MINIMUM COVER OF 0.9m TO THE PIPES, WHICHEVER IS THE LOWER. THIS SHALL BE THE "PERMITTED INSTALLATION LEVEL". THE DATUM FOR THE PURPOSE OF MEASUREMENT OF DRAINS, SEWERS AND DUCTS.
2. WHERE A PIPE IS REQUIRED TO ONE OF THE PERMITTED DESIGN GROUPS 1 TO 18 AND THE GROUP REFERENCE INCLUDES A SUFFIX, THE FOLLOWING SHALL APPLY:--
 - "F" = FOL
 - "S" = SULPHATE BEARING SOILS
 - A) DESIGN GROUPS INCLUDING THE "F" OR "FS":--
 - (i) CLAY PIPES CLASSIFIED "SURFACE WATER" SHALL NOT BE USED
 - (ii) PITCH FIBRE PIPES SHALL NOT BE USED
 - B) DESIGN GROUPS INCLUDING THE SUFFIX "S" OR "FS":--
 - (i) ALL CONCRETE IN BEDDING, BACKFILLING ETC.:- AND ALL CONCRETE PIPES AND FITTINGS TO BE MADE USING CEMENT OF THE SULPHATE RESISTING TYPE ONLY.
 - (ii) ASBESTOS CEMENT PIPES TO BE BITUMEN COATED INTERNALLY AND EXTERNALLY
3. CORRUGATED METAL PIPES ARE ONLY PERMITTED FOR USE AS FILTER DRAINS
4. ALL CONNECTIONS TO EXISTING PIPES TO BE MADE WITH PURPOSE MADE JUNCTIONS AND SADDLES (WHERE PERMITTED. SEE DETAIL BCD/510C) AND 150mm CONCRETE SURROUND
5. ALL JUNCTIONS IN NEW PIPES SHALL BE PURPOSE MADE JUNCTIONS WITH 150mm ST4 CONCRETE SURROUND
6. WHERE THE DESIGN GROUP INCLUDES THE SUFFIX "G" BACKFILL TO TRENCHES SHALL BE GRANULAR FILL CLASS 1A.