

COMPRESSIBLE BOARD OR PREFORMED JOINT FILLER FOR FULL THICKNESS OF CONCRETE BED OR SURROUND

JOINTS REQUIRED AT 5m INTERVALS MAX.

COMPRESSIBLE FILLER IS TO BE USED AT PIPE JOINTS IN CONCRETE PROTECTION TO PIPES. FILLER TO BE USED CAN BE HYDROCELL BY FOSROC, OR APPROVED BITUMEN IMPREGNATED INSULATING BOARD TO B.S. 1142 PART 3. THE COMPRESSIBLE MATERIAL SHALL BE CUT TO MATCH THE PIPELINE SHAPE AND MUST EXTEND THROUGH THE FULL HEIGHT OF THE CONCRETE.

FLEXIBLE PIPE JOINT @ MAXIMUM 3 PIPE LENGTHS & IN ACCORDANCE WITH PIPE MANUFACTURERS INSTRUCTIONS.

COMPRESSIBLE FILLER FOR PIPE JOINTS		
NOMINAL PIPE DIA	HYDROCELL	Bitumen Impregnated Board
100 - 300	15mm	18mm
350 - 450	20mm	24mm
465 - 750	35mm	36mm

BS EN 1610:1997 Annex B Table B.15 Coarse Aggregate - Pipe Bedding									
Sieve Size (mm)	Percentage by mass passing BS sieves for nominal sizes					Single-sized Aggregate (mm)			
	Graded Aggregate (mm)	20 to 5	14 to 5	40	20	14	10		
50.0	100	-----	-----	100	-----	-----	-----		
37.5	90 - 100	100	-----	85 - 100	100	-----	-----		
20.0	35 - 70	90 - 100	100	0 - 25	85 - 100	100	-----		
14.0	-----	-----	90 - 100	-----	85 - 100	100	-----		
10.0	10 - 40	30 - 60	50 - 85	0 - 5	0 - 25	0 - 50	85 - 100		
5.0	0 - 5	0 - 10	0 - 10	-----	0 - 5	0 - 10	0 - 25		
2.36	-----	-----	-----	-----	-----	0 - 5	0 - 5		

RIGID PIPES BEDDING GRADING

BASED ON BS EN 1610 : 1997 TABLE B.15
FOR RIGID PIPES THE BEDDING SHOULD BE SINGLE SIZE MATERIAL OR GRADED MATERIAL FROM 5MM UP TO A MAX SIZE OF 10MM FOR 100MM PIPES; 14MM FOR 150MM PIPES; 20MM FOR 225MM TO 600MM PIPES; 40MM FOR OVER 675MM PIPES

SELECTED AS DUG MATERIAL IN NON TRAFFICKED AREAS, M.O.T. TYPE 1 IN HIGHWAYS.

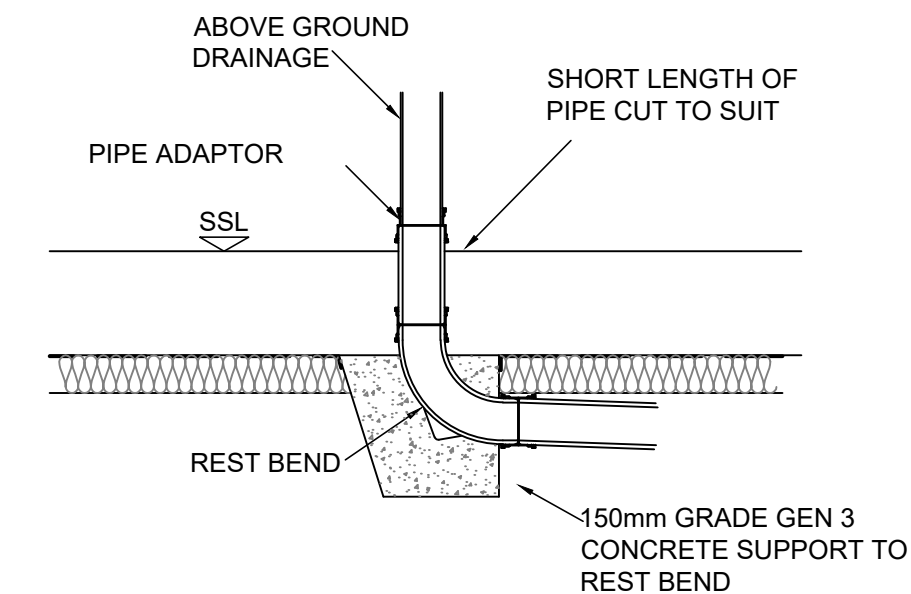
SELECTED AS DUG MATERIAL. REFER TO STANDARD NOTES DRAWING FOR CLASSIFICATION OF 'AS DUG' MATERIAL

FOR GRANULAR BEDDING REFER TO TABLE
Y VALUE (BELOW PIPE):
HARD SPOTS/IRREGULAR TRENCH BOTTOM BC/4 (200mm MIN)
EVEN TRENCH BOTTOM BC/6 (100mm MIN)

BC = OUTSIDE DIAMETER

PIPE BEDDING CLASS B

BEDDING FACTOR 1.9



TYPICAL DETAIL OF CONNECTION OF INTERNAL DRAINAGE TO BELOW GROUND DRAINAGE

BACKFILL OPTIONS ABOVE THE MODULAR UNIT FOR FIRST 100mm :

- MIN 100mm THICK SELECTED EXCAVATED MATERIAL IF SEEN SUITABLE BY THE SITE ENGINEER.
- 100 mm THICK COARSE SAND OR CLASS 6H SELECTED GRANULAR MATERIAL.
- BACKERBOARD HD (IS A PREMOULDED BOARD FOR USE AS PROTECTION AGAINST BACKFILL)

BACKFILL MATERIAL WITHIN 300mm OF THE TANK TO BE FREE FROM PARTICLES EXCEEDING 40mm IN DIAMETER, IN ACCORDANCE WITH CLASS 8 MATERIAL TO SERIES 600, VOLUME 1, MCHW, BACKFILLING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S GUIDANCE.

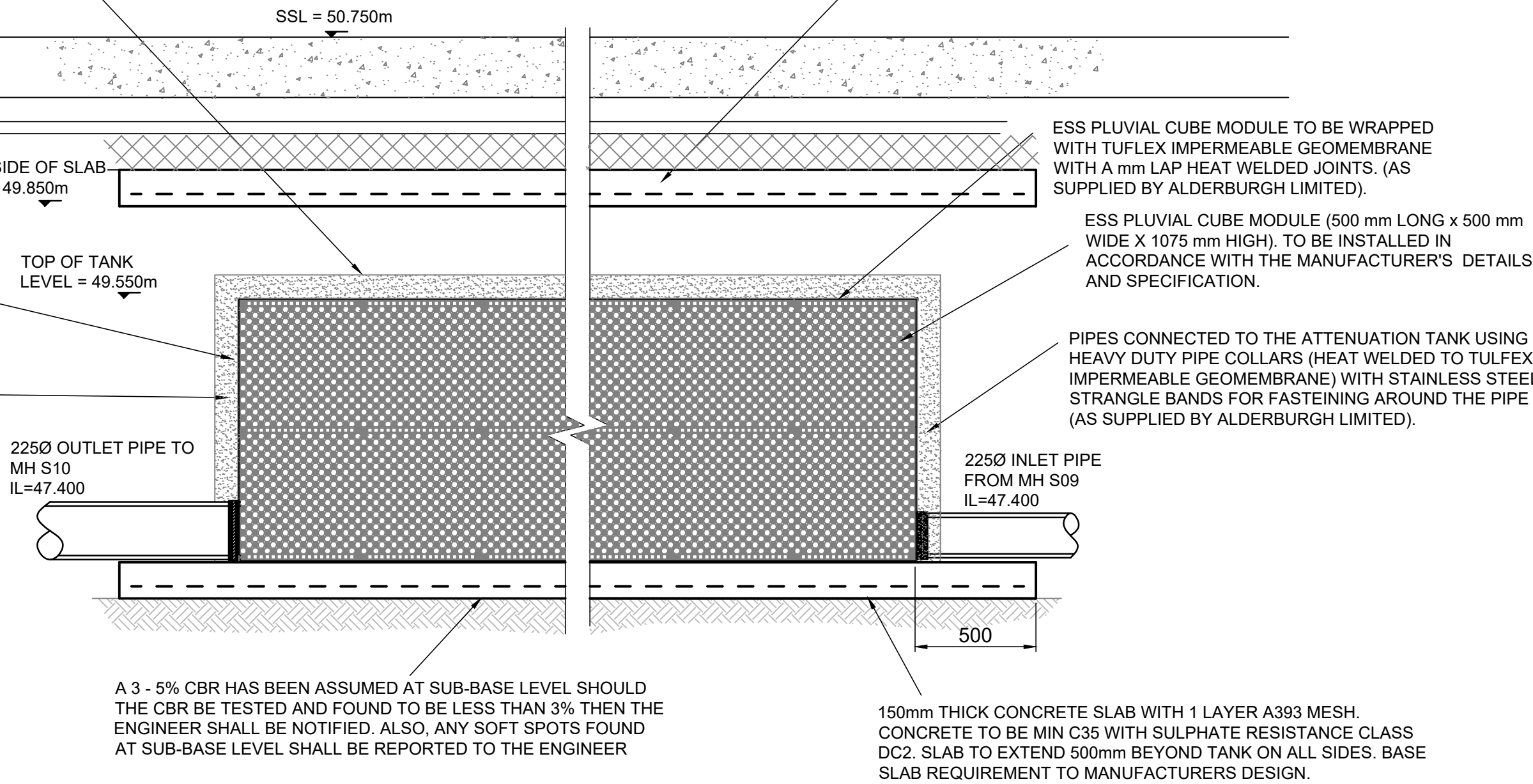
TO PROTECT THE WATERPROOF TUFLEX GEOMEMBRANE DURING BACKFILLING OPERATION, OVERLAY THE TOP AND SIDES WITH GEOTEX 300 PP NEEDLE PUNCHED NON-WOVEN PROTECTION GEOTEXTILE WITH A LAPPED JOINTS (AS SUPPLIED BY ALDERBURGH LIMITED).

WHERE SURCHARGING IN THE TEMPORARY CASE IS LIKELY TO OCCUR TEMPORARY WORKS DESIGNER MAY OPT TO SUBSTITUTE BACKFILL MATERIAL FOR 300mm THK ST1 LEAN MIX CONCRETE.

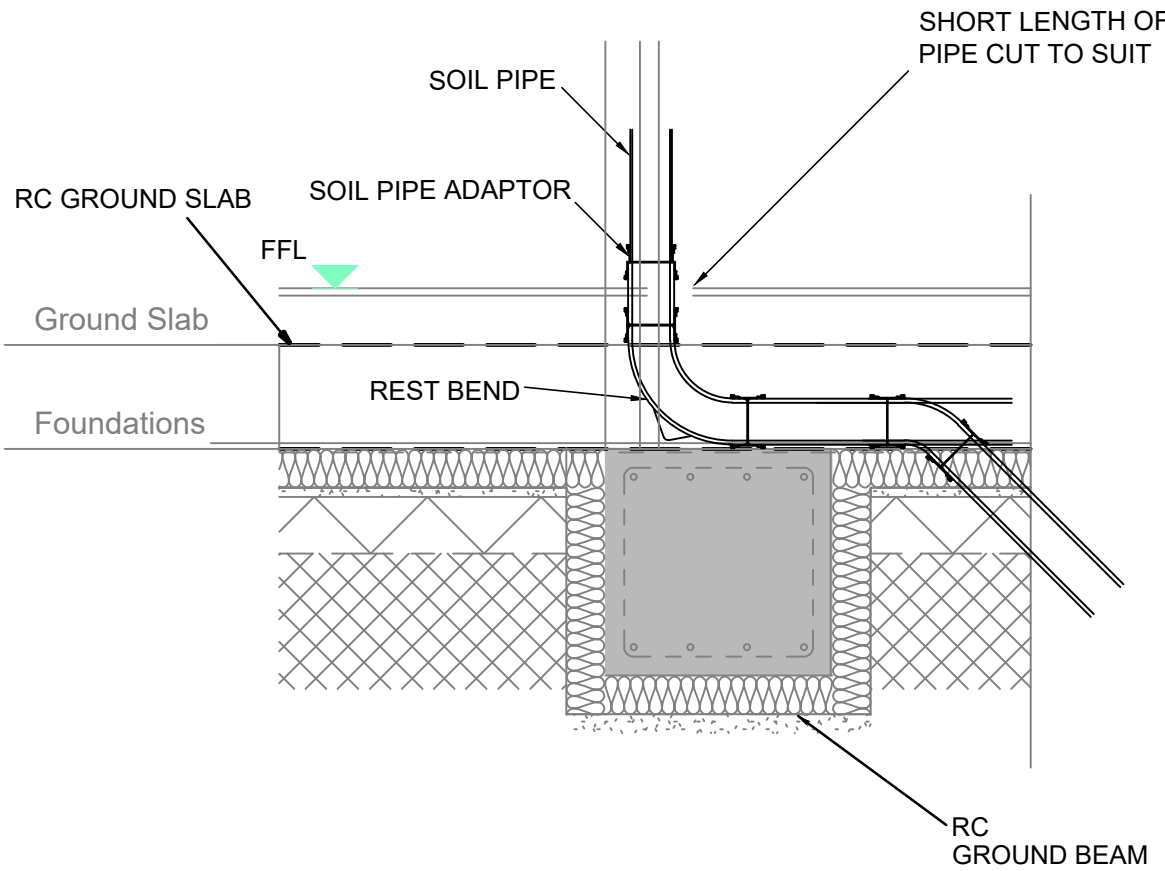
OTHERWISE BACKFILL OPTIONS AROUND THE SIDES OF MODULAR UNIT MAY BE:

- 100mm THICK SELECTED EXCAVATED MATERIAL IF SEEN SUITABLE BY THE SITE ENGINEER.
- BACKERBOARD HD (IS A PREMOULDED BOARD FOR USE AS PROTECTION AGAINST BACKFILL)

INLET/OUTLET PIPES MUST BE SUPPORTED WITH CONCRETE TO PROTECT IT DURING BACKFILLING

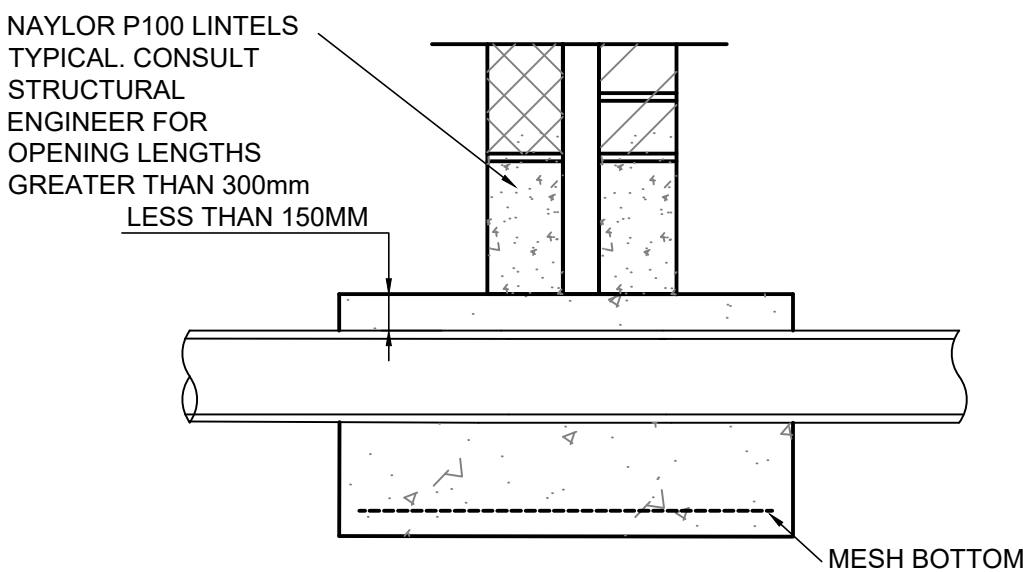


TYPICAL DETAILS OF ATTENUATION TANK BASED ON ALDERBURGH PLUVIAL CUBE MODULE UNITS



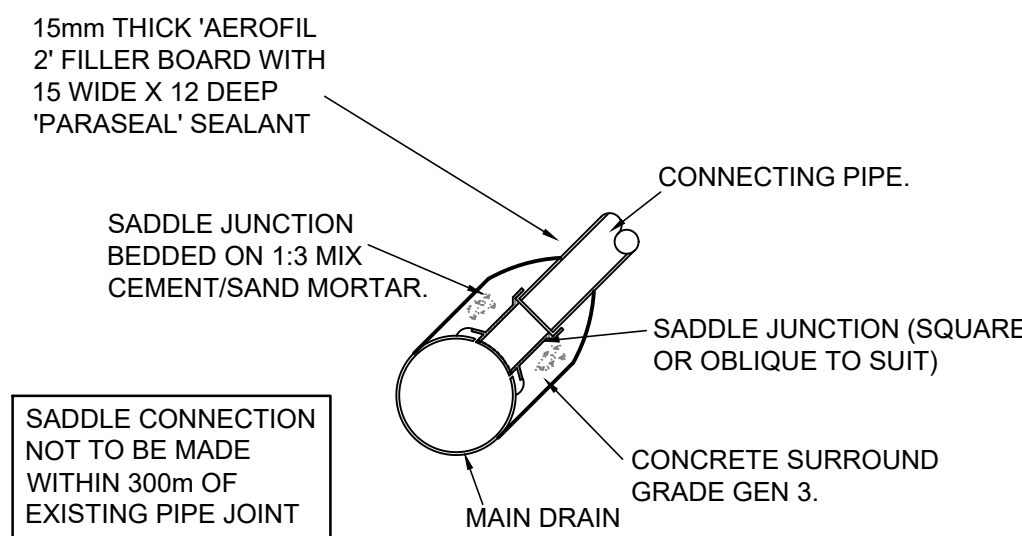
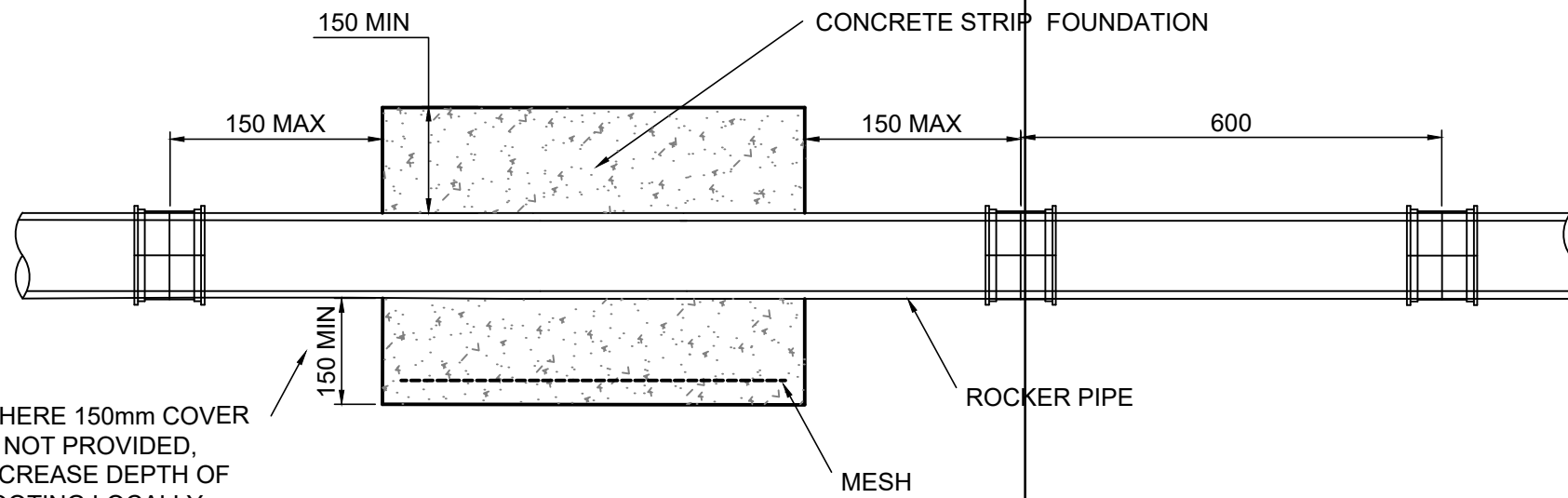
TYPICAL FOUNDATION PENETRATION DETAIL WITH INSUFFICIENT TOP COVER

1:10



TYPICAL FOUNDATION PENETRATION DETAIL

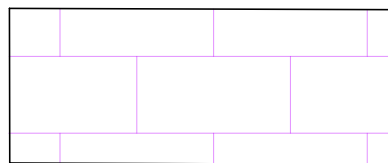
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SADDLE CONNECTION DETAIL

(DIAMETER OF MAIN DRAIN TO BE A MINIMUM OF DOUBLE THE SIZE OF THE CONNECTING PIPE. IN ALL OTHER CASES A PRE-FORMED JUNCTION IS TO BE USED.)

PERMEABLE BLOCK PAVING



80mm THK PERMEABLE BLOCKS (SPECIFICATION TBC BY LANDSCAPE ARCHITECT)

50mm 6-2mm COARSE GRIT LAYING COURSE BS 7533-13:2009

250mm CLEAN 4-20mm COURSE GRADED AGGREGATE TO BS13242:2002, SUBJECT TO CBR OF 5% OR GREATER.

PERMEABLE GEOTEXTILE TO BS7533-13:2009

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P03	PERMEABLE PAVING ADDED	28.01.22	AS	ED
P02	UPDATED TANK INFORMATION	03.11.21	AS	ED
P01	PRELIMINARY ISSUE	09.07.21	AS	ED
REV	DESCRIPTION	DATE	BY	CHKD

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IN ASSOCIATION WITH:

PROJECT:

GOULDEN STREET

TITLE:

DRAINAGE DETAILS
SHEET 2

ENG/TECH:	CSE:	ICSE:	SCALE:	1:100	@	A1
AS	ED	ED	STATUS ISSUE:	09.07.21		

STATUS:

PRELIMINARY

"UNLESS ISSUED FOR CONSTRUCTION - WORKS AT CLIENT/CONTRACTORS RISK"

SUITABILITY: S0 - Initial Status or WIP

PROJECT:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5015327	RDG	XX	XX	DR	C	0101
						P03