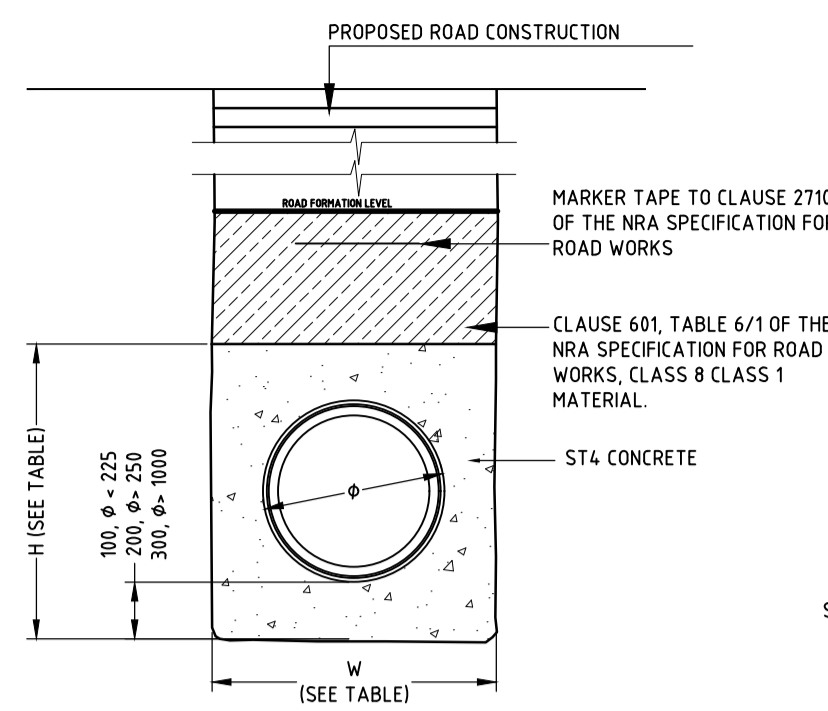


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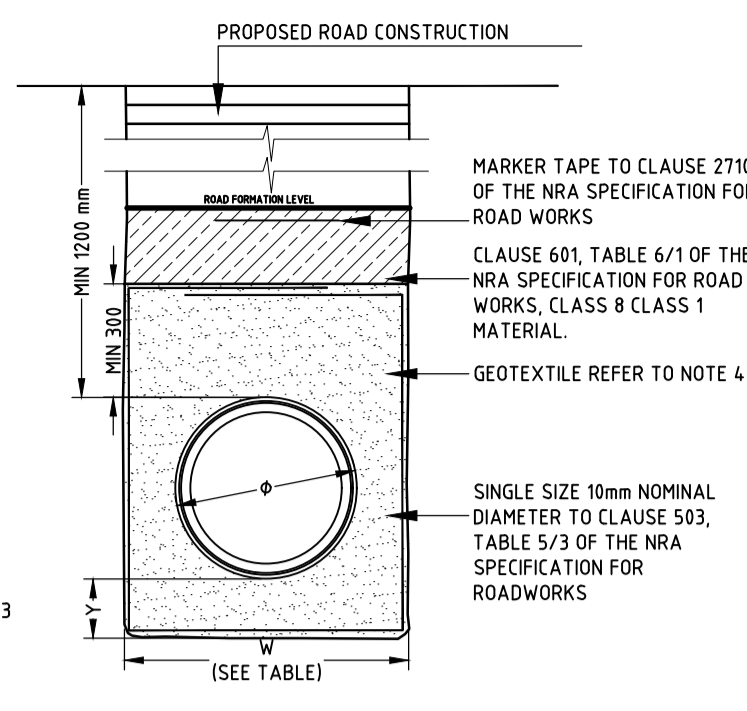
NOTES:

1. ALL HOUSE DRAINS TO BE 150mmØ
2. LOCAL DRAINS TO RUN AT A GRADIENT OF 1/40 UNLESS OTHERWISE NOTED.
3. DOUBLE GULLIES TO BE PROVIDED AT ALL ROAD SAG CURVES & CUL DE SACS WHERE INDICATED. SEPARATE CONNECTIONS 150mm DIA. SHALL BE PROVIDED FOR EACH GULLY. NO GULLY SHALL BE MORE THAN 10m FROM A SURFACE WATER CONNECTION.
4. HOUSE DRAINS SHALL NOT PASS THROUGH A PROPERTY THEY DO NOT SERVE.
5. MANHOLES ON HOUSE DRAIN RUNS SHALL BE LOCATED IN PRIVATE PROPERTY IN ALL CASES.
6. FOR SEWER LONG SECTIONS SEE DRAWING No. 138 SERIES
7. FOR ROAD CONSTRUCTION DETAILS SEE DRG No. 151.
8. FOR MANHOLE DETAILS SEE DRG No. 152.
9. FOR PIPE BEDDING DETAILS SEE DRG No. 153.
10. ALL PIPES WHEN ARE TO BE TAKEN IN CHARGE BY THE LOCAL AUTHORITY ARE TO BE CONCRETE PIPES COMPLYING WITH I.S. 6 & I.S. 166 OR B.S. 5911.

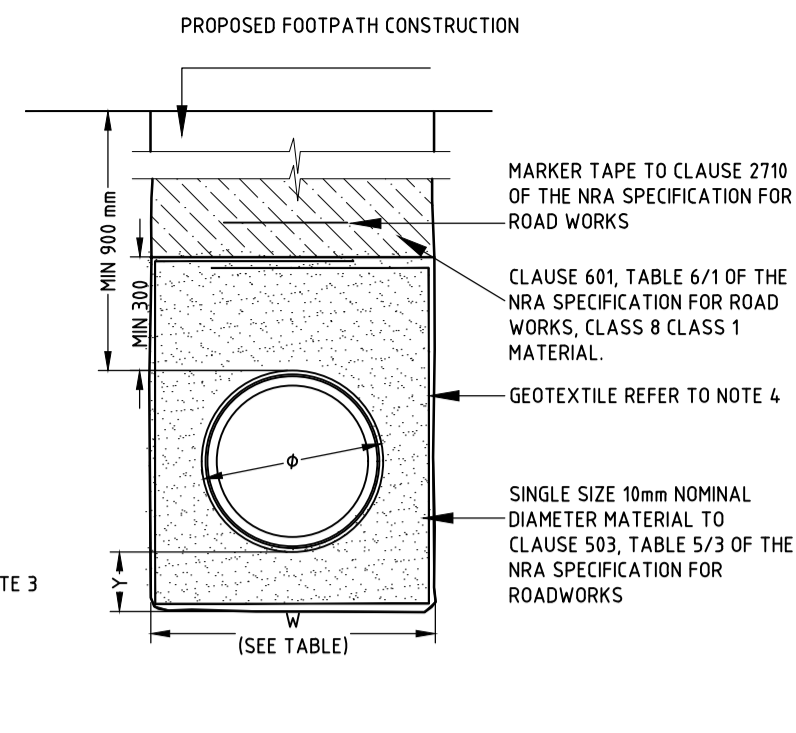
PIPE Ø (mm)	TRENCH WIDTH W (mm)	CONCRETE SURROUND H (mm)
80	500	400
100	500	400
150	600	450
200	600	450
250	750	650
300	750	650
350	750	750
400	900	850
450	900	850
500	1000	850
1050	2200	1600
1200	2400	1750



WATERMAIN CONCRETE BED & SURROUND
FOR USE IN TRAFFICKED AREAS MINIMUM COVER 0.9m



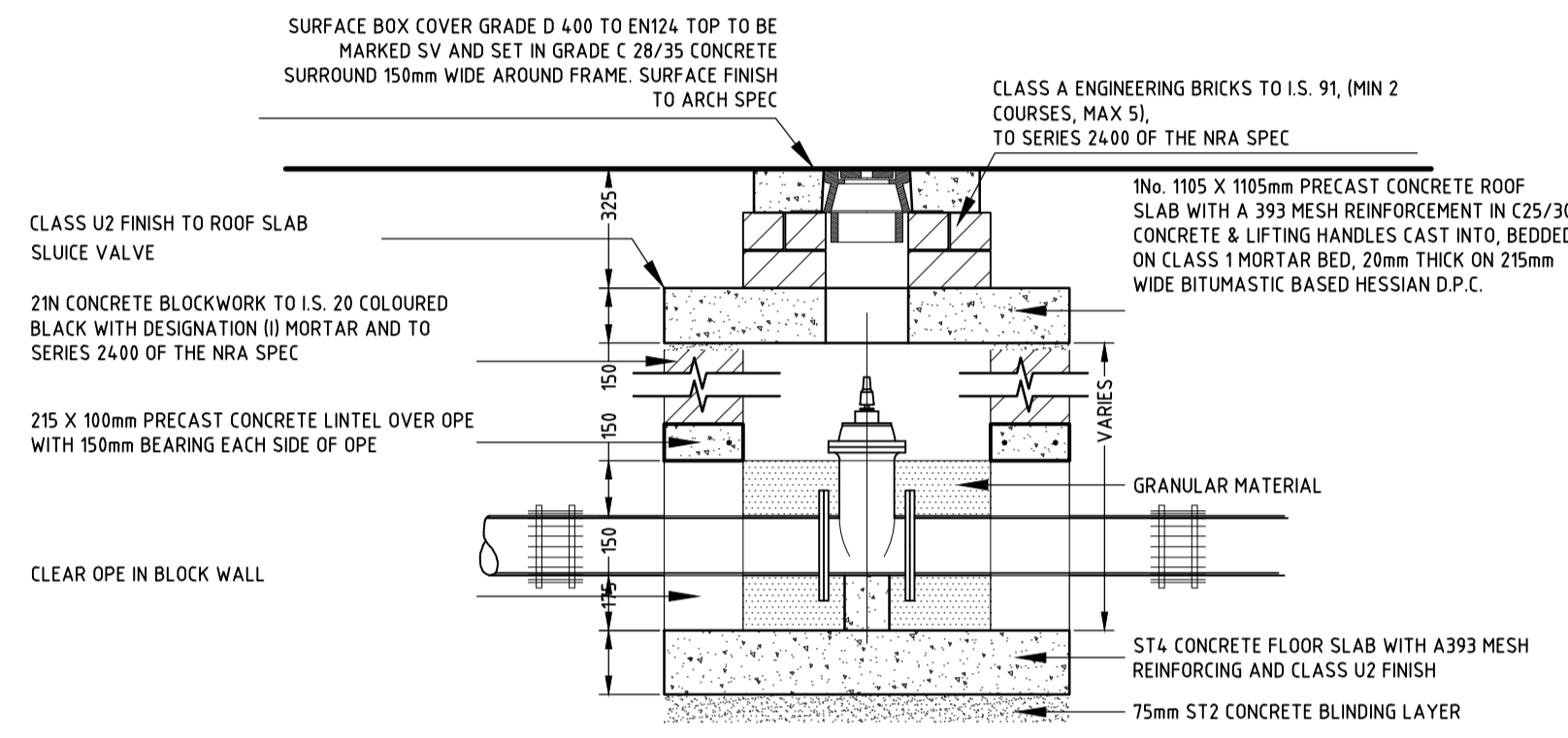
WATERMAIN TRENCH AND BEDDING DETAILS
FOR USE IN TRAFFICKED AREAS WITH MINIMUM COVER 1.2m



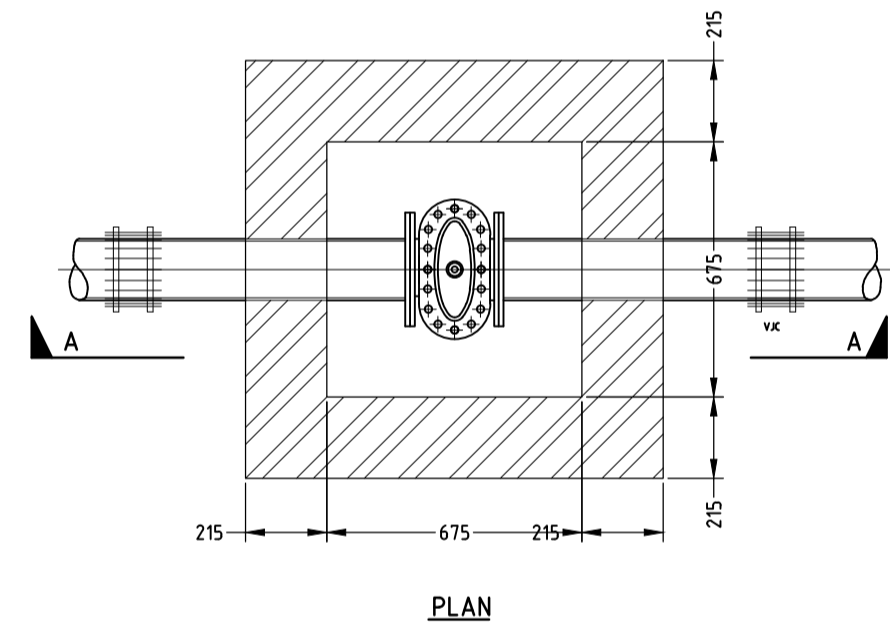
WATERMAIN TRENCH AND BEDDING DETAILS
FOR USE IN NON TRAFFICKED AREAS MINIMUM COVER 0.9m

- NOTES:**
1. TRENCH SIDES SHALL BE VERTICAL FROM BOTTOM OF TRENCH TO AT LEAST 300mm OVER CROWN OF PIPE WHERE THE DEPTH OF COVER OVER THE PIPE BARREL EXCEEDS 2100mm THE LEVEL TO A HEIGHT OF 300mm OVER PIPE BARREL. TRENCH WIDTH SHALL BE RESTRICTED TO 2100 FROM FORMATION.
 2. SAND PIPE BEDDING LAYING AND SURROUND SHALL COMPLY WITH CLAUSE 503 OF THE NRA SPECIFICATION FOR ROADWORKS.
 3. DIMENSION 'Y' SHALL BE 0.074 WITH A MINIMUM OF 200mm DEPTH FOR PIPELINES IN ROCK 150mm DEPTH FOR PIPELINES IN UNIFORM SOILS AND DEPTH TO BE MAINTAINED UNDER PIPE SOCKETS.
 4. IN WET FINE-GRAINED SOILS THE MIGRATION OF FINE SOIL PARTICLES INTO THE VOIDS OF THE BEDDING IS TO BE MINIMISED BY SURROUNDING THE GRANULAR MATERIAL WITH A GEOTEXTILE FILTER, COMPLYING WITH CLAUSE 517 OF THE NRA SPECIFICATION FOR ROAD WORKS.
 5. TRENCH FILL MATERIAL SHALL COMPLY WITH CLAUSE 601, TABLE 6/1 OF THE NRA SPECIFICATION FOR ROAD WORKS AND SHALL BE READILY COMPACTABLE MATERIAL FREE FROM TREE ROOTS, VEGETABLE MATTER, BUILDING RUBBISH, FROZEN SOIL, CLAY LUMPS EXCEEDING 75mm AND STONE EXCEEDING 25mm NOMINAL DIAMETER.
 6. BEDDING MATERIAL FROM TRENCH FORMATION TO PIPE CROWN LEVEL SHALL BE WELL COMPACTED IN 150mm LAYERS. BEDDING MATERIAL FROM PIPE CROWN TO 300mm ABOVE CROWN SHALL BE LIGHTLY COMPACTED BY HAND IN 75mm LAYERS.
 7. THIS DRAWING IS COPYRIGHT AND IS NOT TO BE COPIED OR REPRODUCED IN PART OR IN WHOLE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEERS.

SLUICE VALVE DETAILS

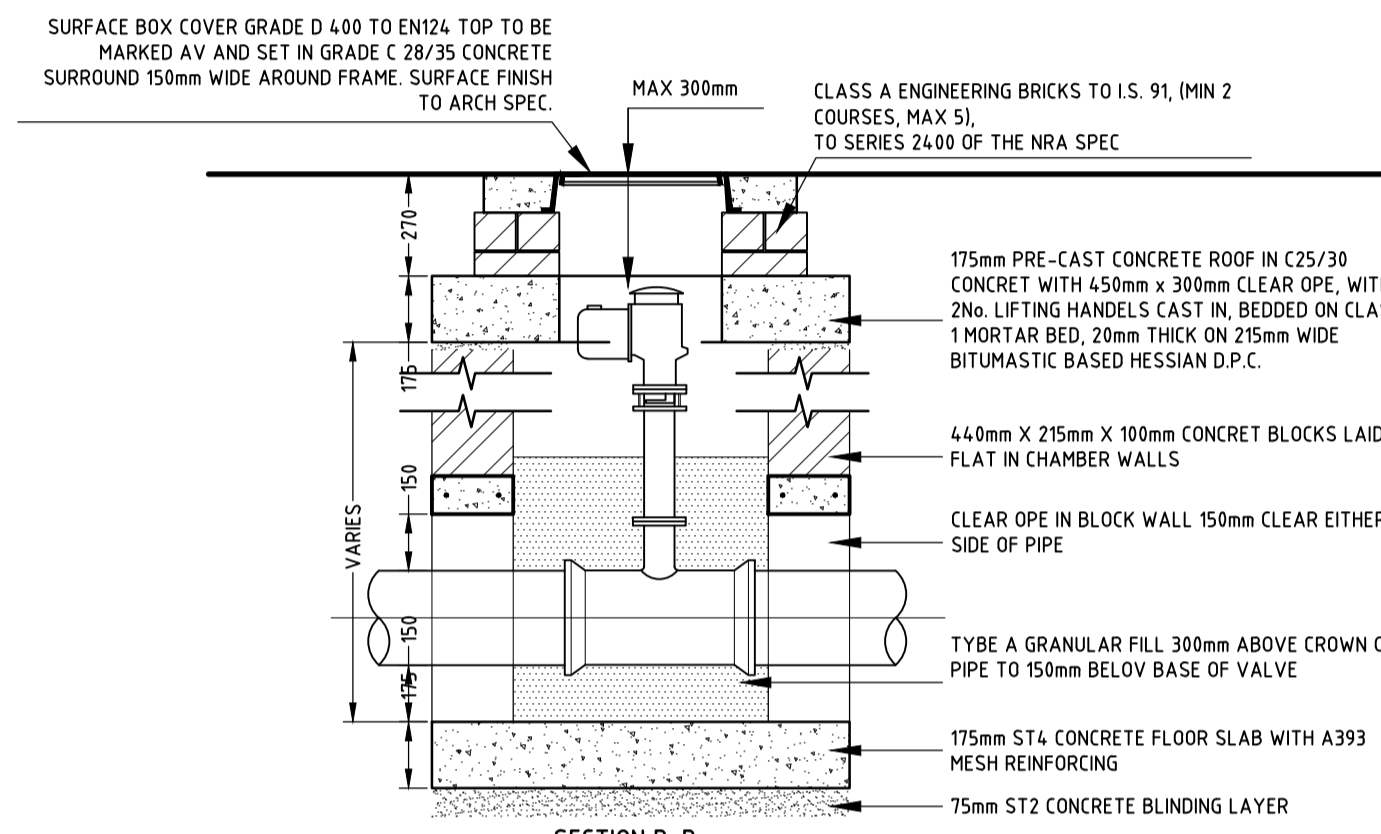


SECTION A-A

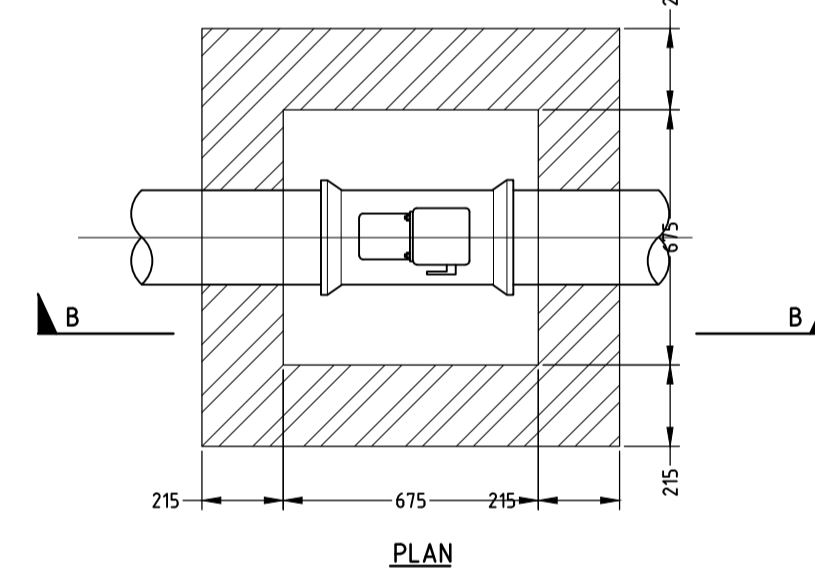


PLAN

AIR VALVE DETAILS

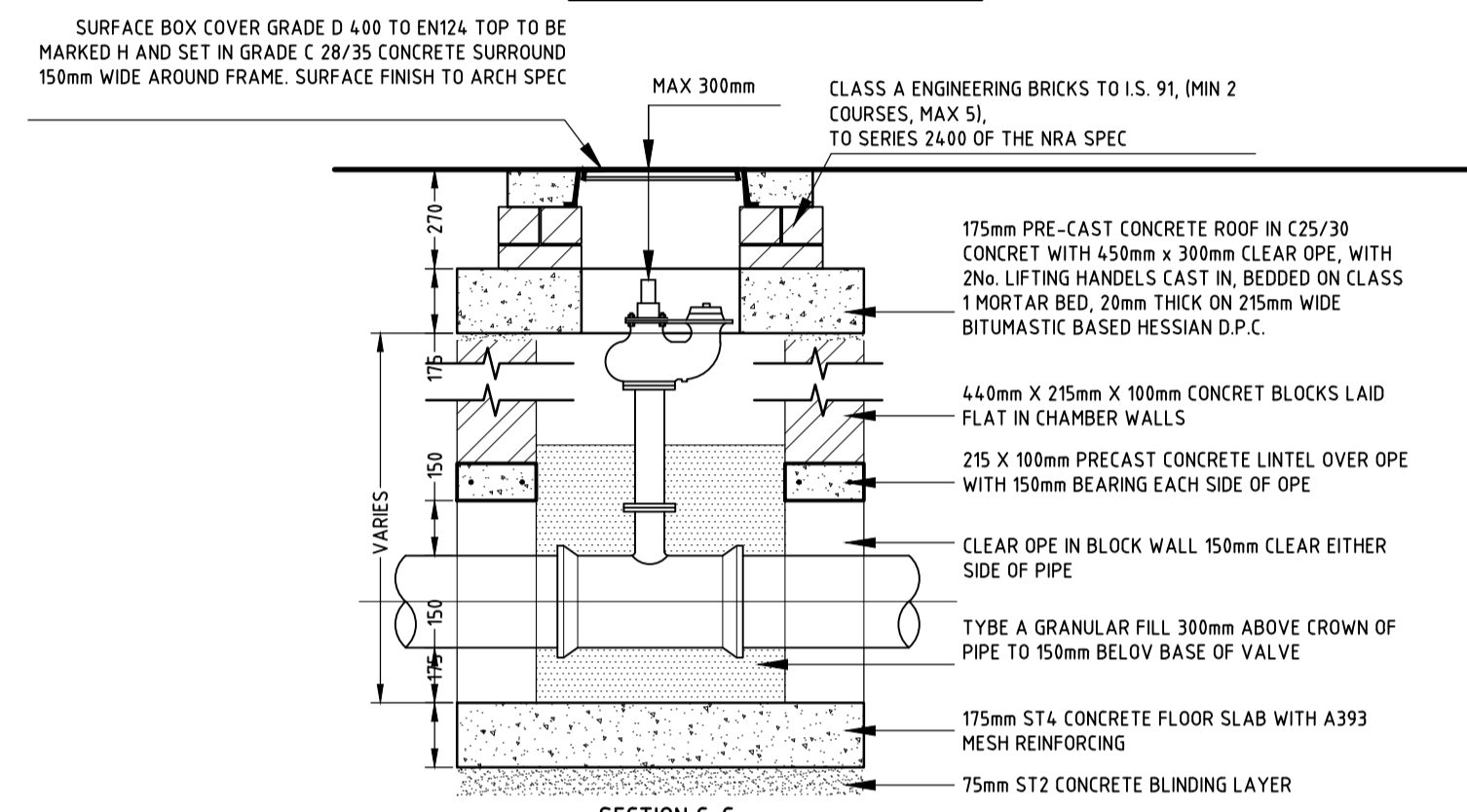


SECTION B-B

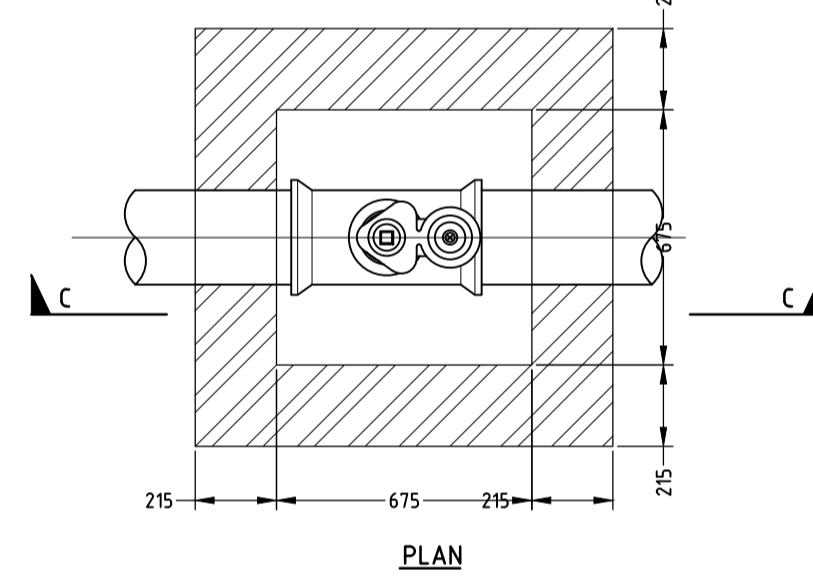


PLAN

HYDRANT DETAILS

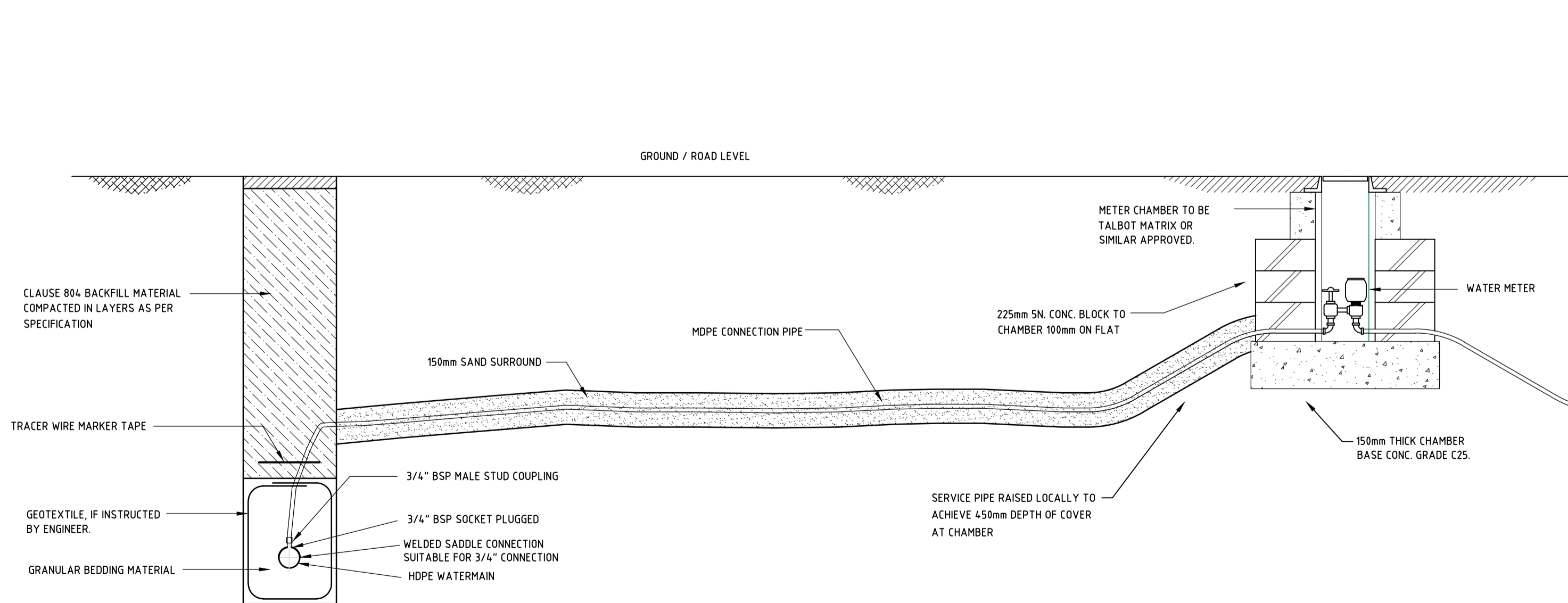


SECTION C-C

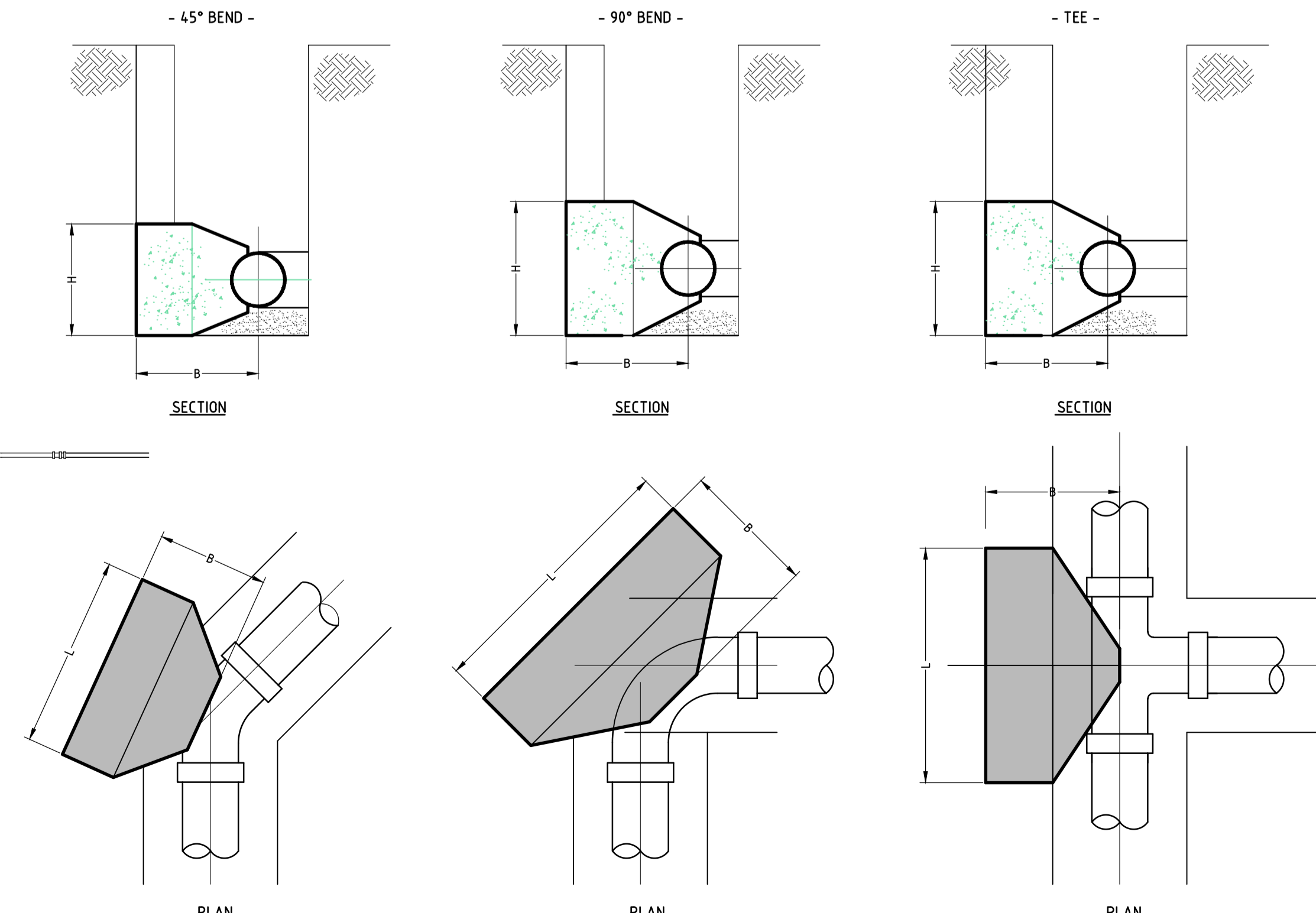


PLAN

NOT TO BE USED FOR CONSTRUCTION



DOMESTIC CONNECTION ARRANGEMENT



THRUST BLOCKS - TABLE OF DIMENSIONS

FITTING	DIMENSIONS (mm)		
	H	L	B
11.25° BEND	500	300	400
22.5° BEND	500	400	500
45° BEND	550	700	500
90° BEND	600	1100	700
TEE	600	800	700

REV	DATE	DESCRIPTION	BY/CHKD/APPD
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Client
TIPPERARY COUNTY COUNCIL

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Civil - Structural - Environmental
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Tel: +353 (0)61 576020 E-mail: info@phm.ie Web: www.phm.ie

RESIDENTIAL DEVELOPMENT AT BANSHA, CO. TIPPERARY WATERMAIN DETAILS

Drawn	Scale	Project Number	Rev
POR	AS SHOWN	109-70	~
Chd.	Date	Drawing Number	
POR	20/05/2020	171	A1
Apprd.	Status		
EOD	PLANNING D2		