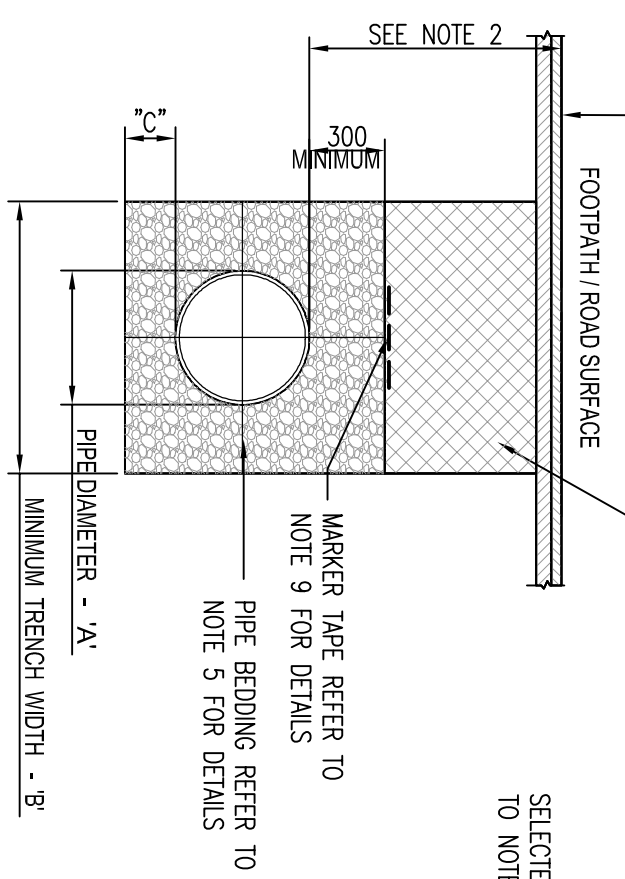


SEE NOTES 11&12
BACKFILL REFER TO NOTE 3 FOR DETAILS



PIPE BEDDING UNDER ROADWAY

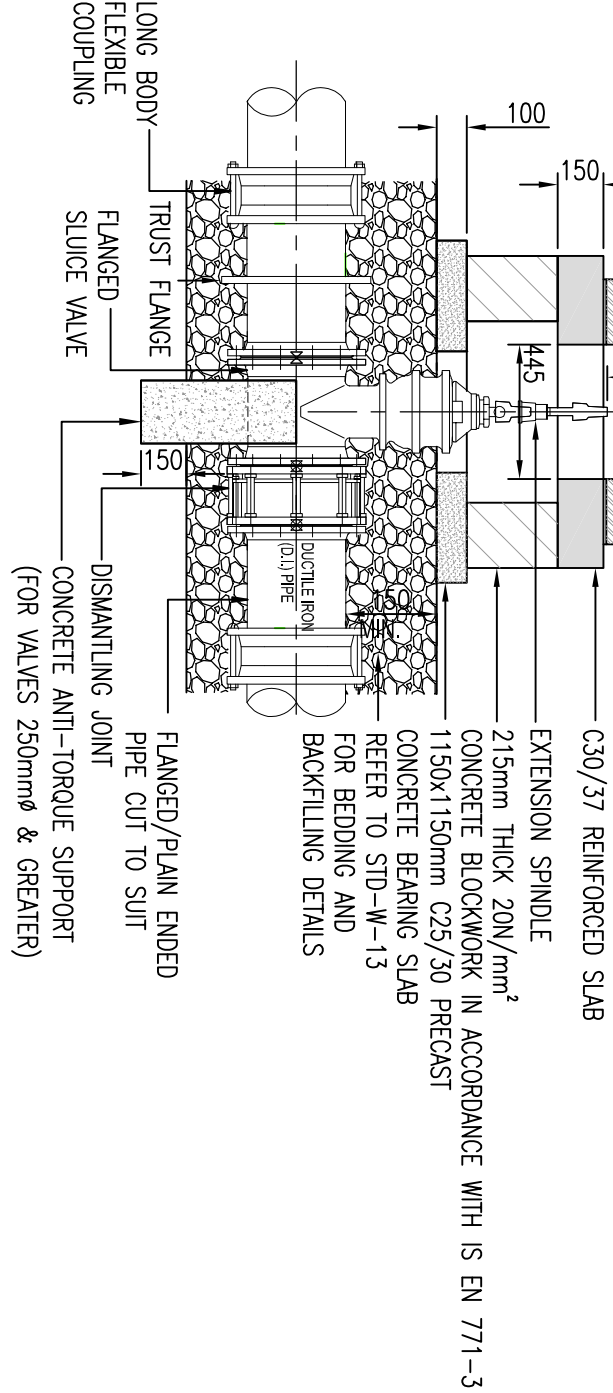
SLUICE VALVE NOTES:

1. ALL DIMENSIONS IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 AND BS 5834.
3. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.
4. SLUICE VALVES SHALL BE RESISTANT STAFFED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, IS EN 1072-1, IS EN 1074-2, OR EQUIVALENT EU SPECIFICATIONS.
5. ALL SLUICE VALVES SHALL BE ANTI-CORROSION COATING.
6. ALTERNATIVE PROPERLY MANUFACTURED CHAMBER UNITS OR HIGH DENSITY BLOCKWORK AT ALL LINES UNLESS OTHERWISE SPECIFIED.
7. ALL LINE UNLESS OTHERWISE SPECIFIED, AND CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE GRADE C30/37 WITH A MINIMUM THICKNESS OF 150mm.
8. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED GRADE C20/25 MATERIAL AS PER STD-W-13.
9. ALL UNITS SHOULD BE INTERLOCKING WHEN STACKED TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS.
10. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
11. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINCH WITH PROTECTIVE STAINLESS STEEL METAL BAND AROUND COVER IN GREEN AREAS.
12. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STD-W-28 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
13. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
14. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
15. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
16. 450x450mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE 'A' HEAVY DUTY COVER & FRAME & STAFFED 'SV' BEARING SLABS TO BE TO ROAD AUTHORITY'S REQUIREMENTS.
17. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
18. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY'S REQUIREMENTS.
19. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF 'GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS' BY THE DEPTH OF TRANSPORT, TOURISM&SPORT, OR TRANSPORT INFRASTRUCTURE RE-LAND REQUIREMENTS.

1 TO 2 COURSES OF CLASS B SOUND
EXTENDED BROADLY
SET IN LAD BOND
TO IS EN 998

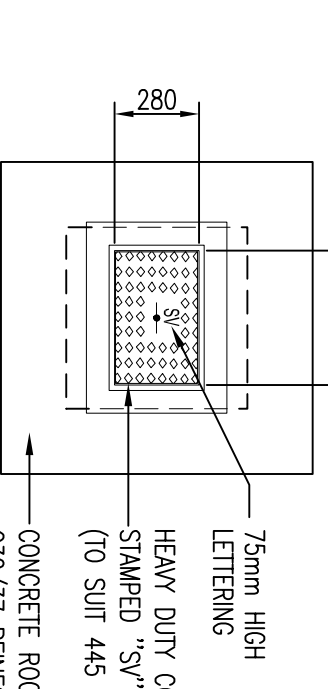
COVER TO BE SET IN CEMENTITIOUS
EXPOS RESIN/POLYESTER MORTAR
30N/mm²

▽ FTL



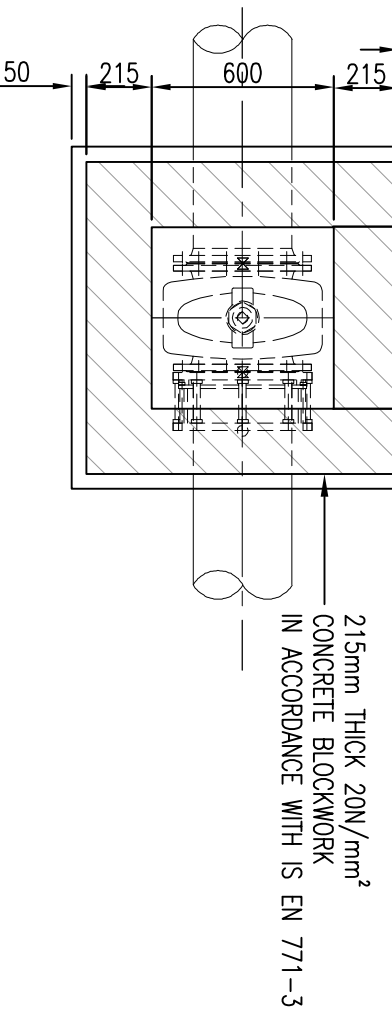
SLUICE VALVE CHAMBER

SECTION

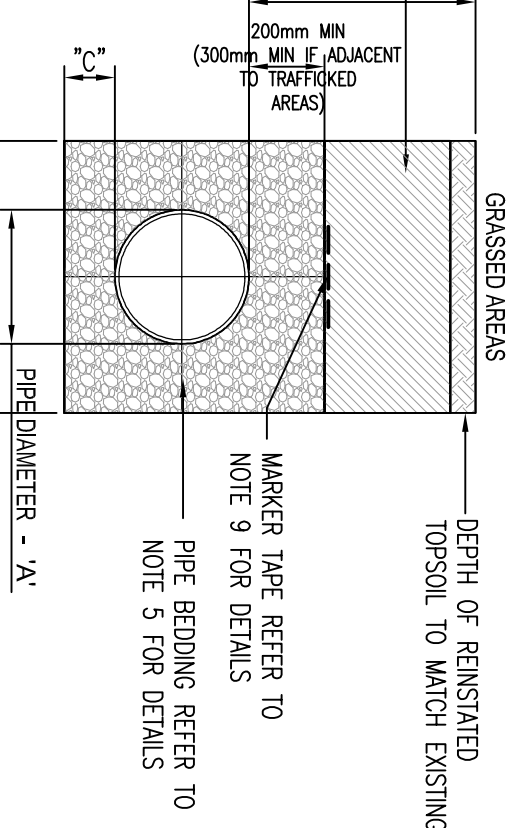


SLUICE VALVE CHAMBER

PLAN



FLOOR PLAN SLUICE VALVE CHAMBER (BLOCKWORK)



PIPE BEDDING UNDER OPEN SPACE

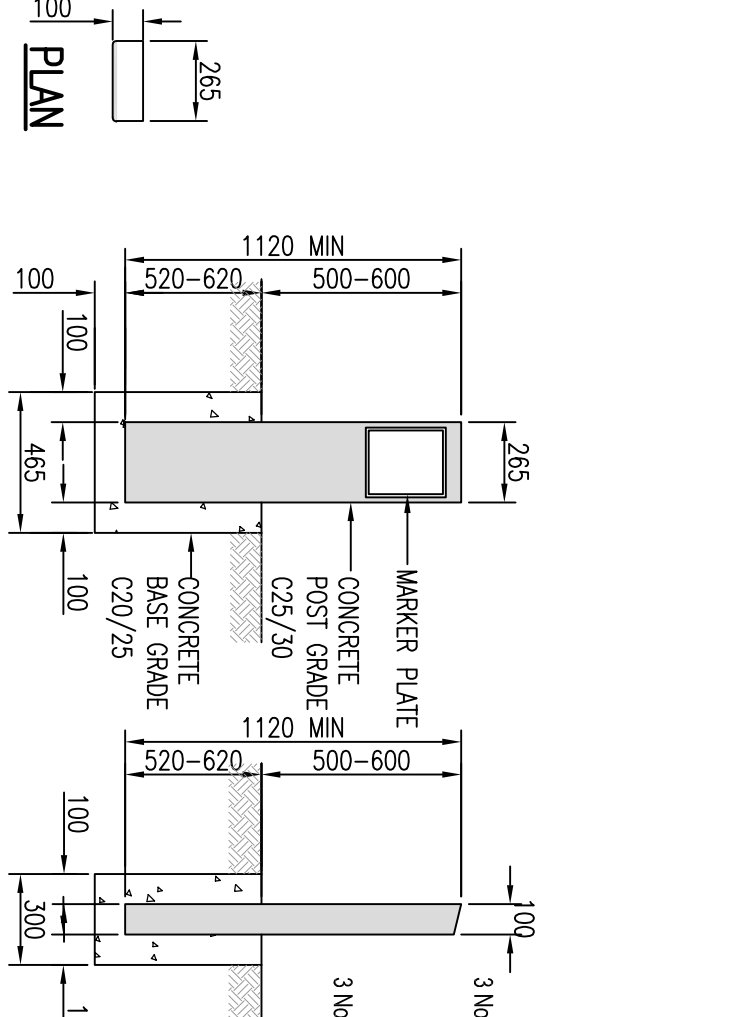
SPACE

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
< 80	SEE NOTE 10
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
< 200	150
> 250	200

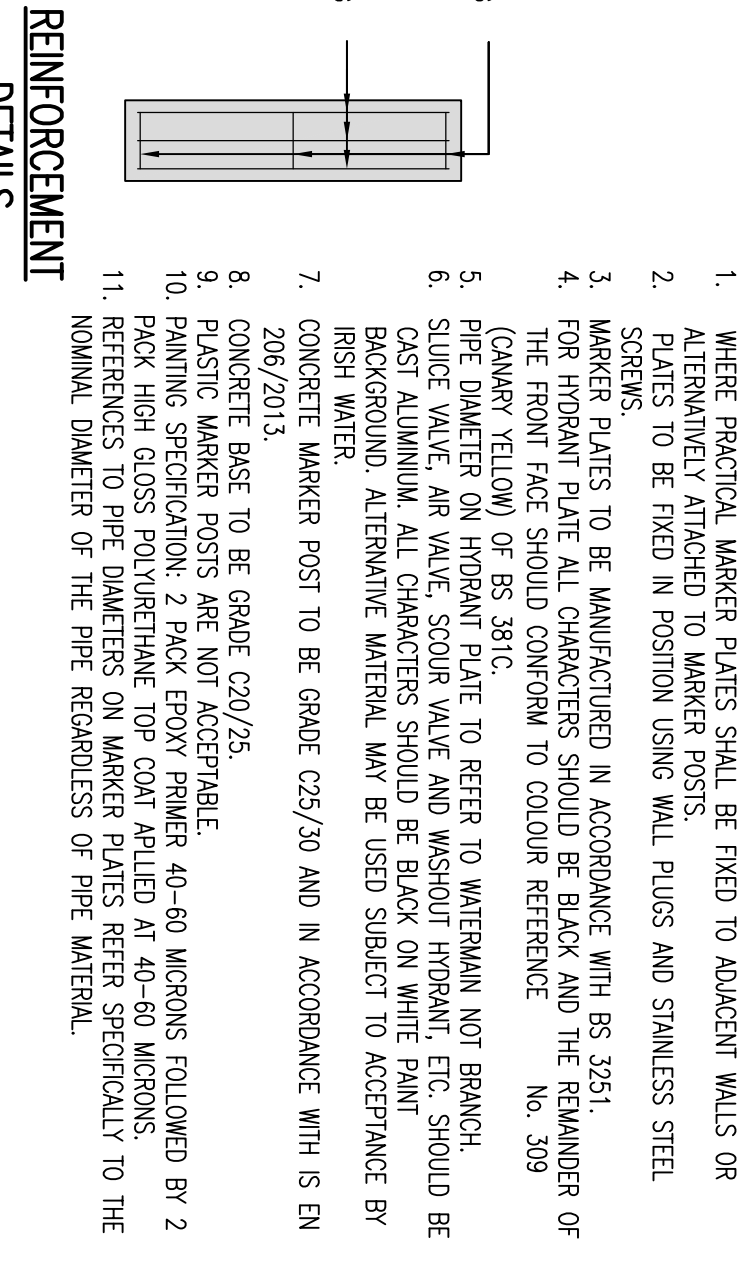
PIPE BEDDING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. THE PIPE IS TO BE LINED IN HOUSING EXISTING PIPES. GROUND BEHIND OF COVER AND/OR PIPE SHOULD BE REINFORCED WITH A MINIMUM OF 100mm COMPACTED GRADE C20/25 MATERIAL AS PER STD-W-13.
3. THE DESIRED COVER FOR A WATERMAIN SHOULD BE 1200mm, WHERE PRACTICABLE & SHOULD NOT EXCEED 3.0m. CLAYE BR/BSB MATERIAL IN ACCORDANCE WITH THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED WITHIN 300mm OF EXISTING ROADWORKS. CONCRETE PRODUCTS, CONCRETE STRUCTURES OR CONCRETE BLOCKWORK SHALL BE USED FOR ALL OTHER CASES. THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL BE USED FOR ALL OTHER CASES.
4. THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL BE USED FOR ALL OTHER CASES.
5. GRADED AGGREGATE OR DIRM SMOLE SHALL BE USED IN ACCORDANCE WITH BS 5100-2 AND BS 5100-3.
6. IN SHARP BENDING CONDITIONS (R/C < 2.0) THE AGGREGATE SHOULD BE ENCASED AND PROTECTED BY A MINIMUM OF 100mm OF CONCRETE.
7. THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL BE USED FOR ALL OTHER CASES.
8. THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL BE USED FOR ALL OTHER CASES.
9. THE NATIONAL ROAD AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL BE USED FOR ALL OTHER CASES.
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ELEVATION

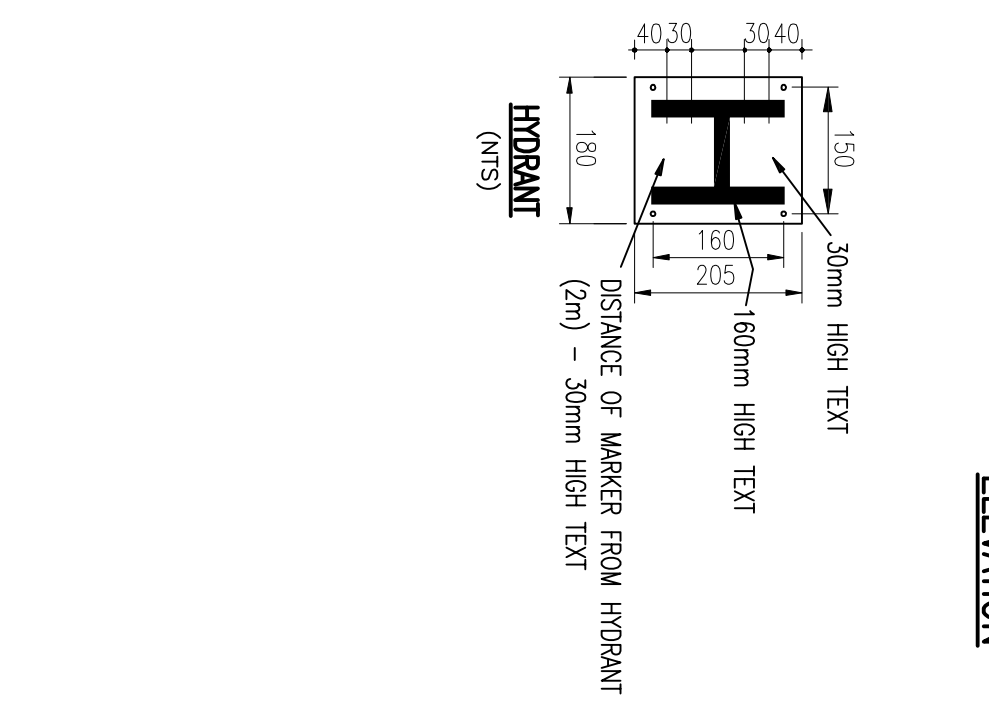
SECTION



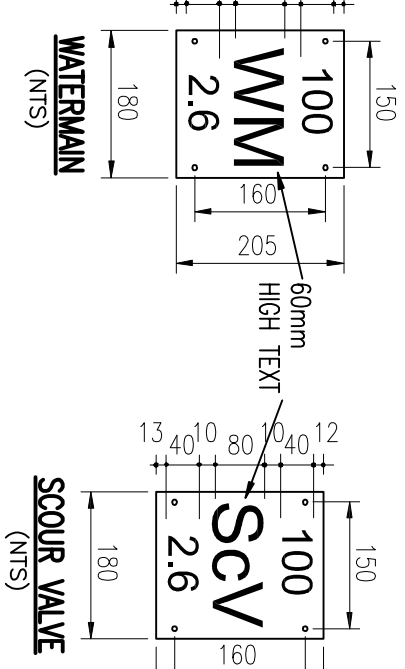
REINFORCEMENT DETAILS

MARKER PLATES NOTES

1. WHERE PRACTICAL MARKER PLATES SHALL BE FIXED TO ADJACENT WALLS OR FENCING ATTACHED TO MARKER POSTS.
2. MARKER PLATES TO BE FIXED IN POSITION USING WALL PLUGS AND STAINLESS STEEL SCREWS.
3. MARKER PLATES TO BE MANUFACTURED IN ACCORDANCE WITH BS 3251.
4. FOR HYDRANT PLATE ALL CHARACTERS SHOULD BE BLACK AND THE REMAINDER OF THE FRONT FACE SHOULD CONFORM TO COLOUR REFERENCE No. 309 (CANARY YELLOW) OF BS 381C.
5. PIPE DIAMETER ON HYDRANT PLATE TO REFER TO WATERMAIN NOT BRANCH.
6. SLUICE VALVE, AIR VALVE, SCOUR VALVE AND WASHOUT HYDRANT, ETC. SHOULD BE CAST ALUMINIUM. ALL CHARACTERS SHOULD BE BLACK ON WHITE PAINT BACKGROUND. ALTERNATIVE MATERIAL MAY BE USED SUBJECT TO ACCEPTANCE BY IRISH WATER.
7. CONCRETE MARKER POST TO BE GRADE C25/30 AND IN ACCORDANCE WITH IS EN 206/2013.
8. CONCRETE BASE TO BE GRADE C20/25.
9. PLASTIC MARKER POSTS ARE NOT ACCEPTABLE.
10. PAINTING SPECIFICATION: 2 PACK EPOXY PRIMER 40-60 MICRONS FOLLOWED BY 2 COATS OF 100% SOLIDS POLYURETHANE TOP COAT APPLIED AT 40-60 MICRONS.
11. REFERENCES TO PIPE DIAMETERS ON MARKER PLATES REFER SPECIFICALLY TO THE NOMINAL DIAMETER OF THE PIPE REGARDLESS OF PIPE MATERIAL.



HYDRANT



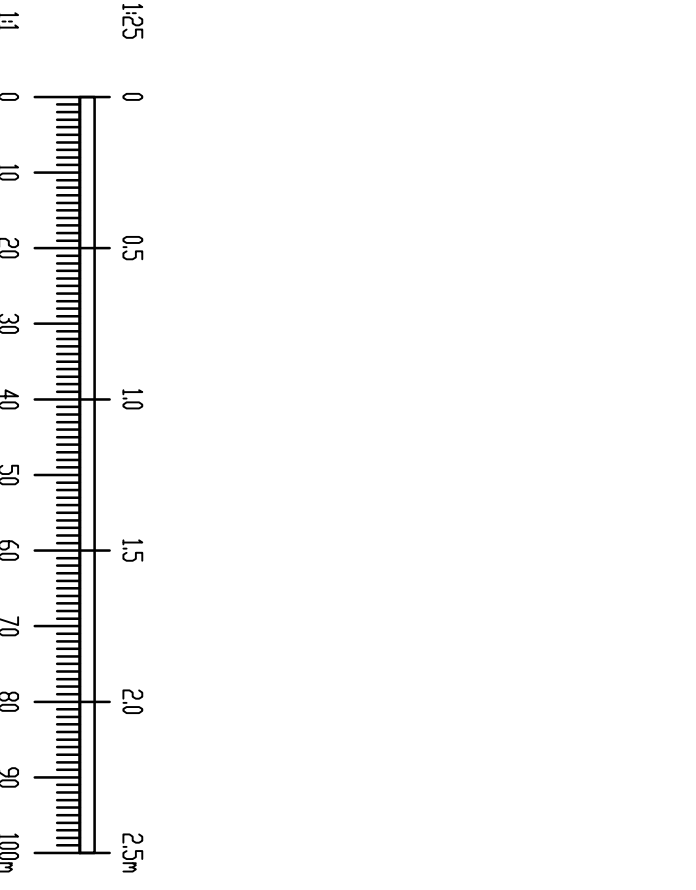
AIR VALVE

WATERMAIN

SCOUR VALVE

MARKER POST/PLATE DETAILS

- NOTES:
1. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 2. THIS DRAWING IS TO BE READ IN CONNECTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
 3. WATERMANS SHALL BE LAID IN ACCORDANCE WITH THE LOCAL AUTHORITY/IRISH WATER SPECIFICATION FOR THE LAYING OF NEW WATERMANS AND BY LINES WHICH OVER-RIDE THESE NOTES. THE CONSTRUCTION OF THE WATERMAIN SHALL BE IN ACCORDANCE WITH THE BEST CURRENT PRACTICE AND THE LATEST EDITIONS OF THE RELEVANT STANDARDS AND CODES OF PRACTICE.
 4. WATERMANS SHALL NOT BE LAID UNDER WALLS OR AREAS DESIGNATED FOR TREES/SHRUBS/TOWERS.
 5. PIPES SHALL BE HOPE (BLUE PIPE) UNLESS NOTED OTHERWISE BY AGREEMENT WITH THE LOCAL AUTHORITY. DUCTILE IRON PIPES SHALL BE USED UNDER ROADS OF CLASSIFICATION DISTRICT DISTRIBUTOR/UPWARDS UNLESS NOTED OTHERWISE.
 6. PIPES SHALL CONFORM TO THE UK WATER INDUSTRY SPECIFICATION OR EQUIVALENT EU SPECIFICATION.
 7. DUCTILE IRON (DI) PIPES SHALL CONFORM TO IS EN 545 AND SHALL HAVE MINIMUM C40 PRESSURE RATING. DUCTILE IRON FITTINGS SHALL HAVE 16 BAR RATING AT LEAST DI PIPENETWORK SHALL BE COATED INTERNALLY WITH A BUSH FURNACE CEMENT LINING WHICH COMPLIES WITH THE REQUIREMENTS OF BS 6920. EXTERNAL PROTECTION SHALL INCLUDE AN ALLOY OF ZINC AND ALUMINIUM WITH A MINIMUM 15% ALUMINIUM WITH OR WITHOUT OTHER MATERIALS HAVING A MASS OF 400g/m² COMPLETE WITH A FINISHING LAYER OF BLUE FUSION BONDED EXOAT IN ACCORDANCE WITH IS EN 148011.
 8. WATERMANS SHALL BE LAID UNDER FOOTPATHS PREFERABLY OR GRASS MARONS WHERE APPROPRIATE. NO PRE-CONDUIT CABLE OR OTHER SERVICE CABINET PIPES, JUNCTION BOXES OR CHAMBERS SHALL BE CONSTRUCTED OVER A WATERMAIN.
 9. THE MINIMUM COVER TO A WATERMAIN SHALL BE 750mm. THE MAXIMUM COVER SHALL BE 900mm UNLESS NOTED OTHERWISE.
 10. CONNECTIONS TO THE MAINS WHICH ARE THE PROPERTY OF THE IRISH WATER CAN BE MADE BY THE IRISH WATER ONLY. NO OTHER PERSON MAY INTERFERE IN ANY WAY WITH THESE MAINS. SUCH CONNECTIONS WILL BE MADE BY IRISH WATER AT THE EXPENSE OF THE PERSONS REQUESTING THEM. THE IRISH WATER SHALL NOT BE RESPONSIBLE FOR SUCH CONNECTIONS MUST BE LABELED WITH IRISH WATER BEFORE THE WORK IS UNDERTAKEN.
 11. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL WORKS ARE CONSTRUCTED IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS. THE CODE OF PRACTICE AND STANDARD DETAILS ARE AVAILABLE TO DOWNLOAD FROM THE IRISH WATER WEB SITE AT WWW.WATER.IE/CONNECTIONS/DEVELOPER-SERVICES/ WHERE THE DETAILS CONTAINED ON THIS DRAWING DIFFER FROM THE IRISH WATER CODE OF PRACTICE OR STANDARD DETAILS THIS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY. IRISH WATER STANDARDS WILL TAKE PRECEDENCE.



REV.	DATE	AMENDMENT	DRN	APPD
A	07/21	REVISED FOR FINAL SUBMISSION	PJD	MD

STATUS PLANNING

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Engineering Consultants
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CLIENT	KINNEST LTD.
ARCHITECT	CONROY CROWE KELLY ARCHITECTS
PROJECT	ALBURN, MALAHIDE, CO. DUBLIN

TITLE	WATERMAIN CONSTRUCTION DETAILS		
	SHEET 1 OF 4		
DRAWN	DESIGNED	APPROVED	DATE
PJD	MD	MD	APR 20
SCALE	JOB NO.	DRG. NO.	REVISION
1:25 @ A1	19-070	9310	1