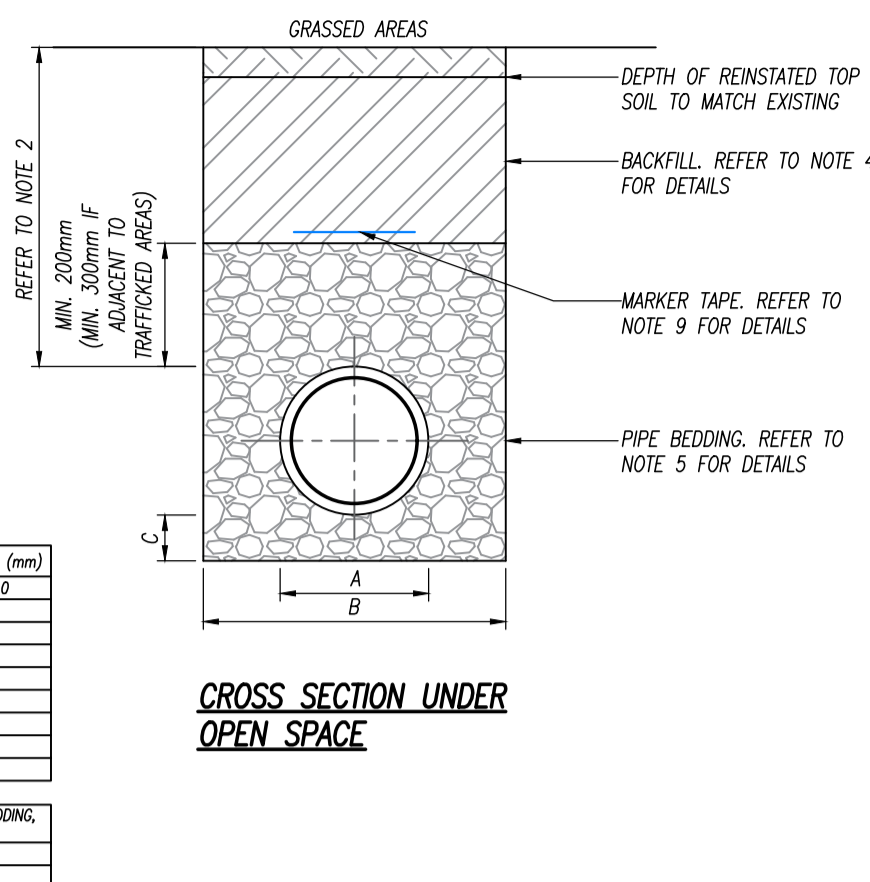


CROSS SECTION UNDER ROADWAYS/FOOTPATHS

PIPE BEDDING TYPICAL DETAIL

PIPE DIAMETER, A (mm)	TRENCH WIDTH, B (mm)
LESS THAN 80	SEE NOTE 10
100	500
150	600
200	600
250	750
300	750
350	750
400	800
450	800

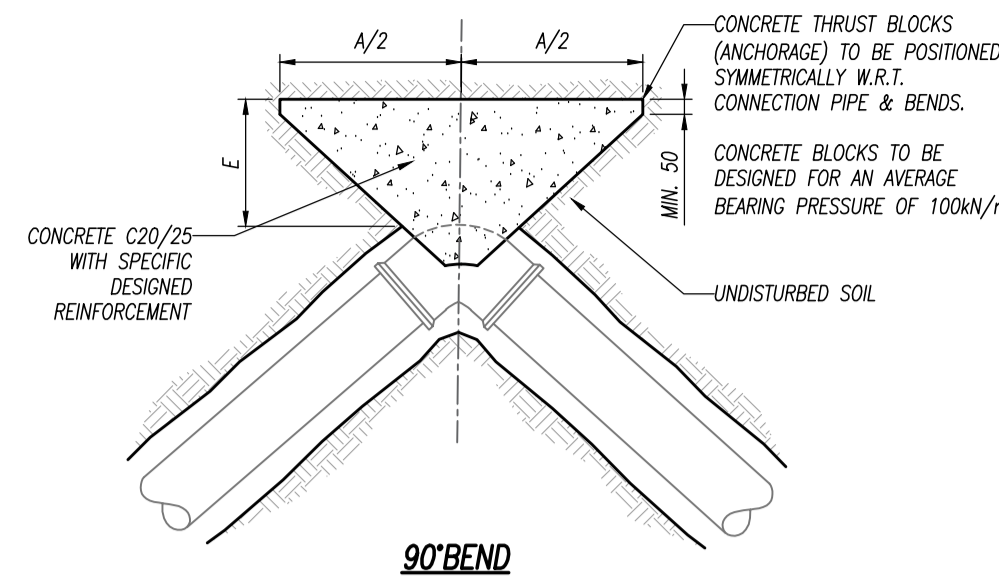
PIPE DIAMETER, A (mm)	DEPTH OF BEDDING, C (mm)
LESS THAN 200	150
MORE THAN 200	200



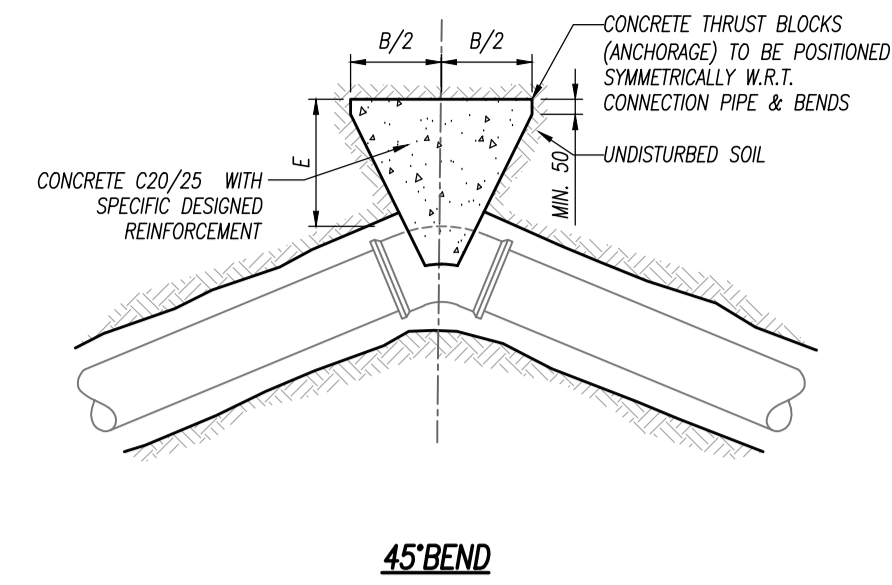
CROSS SECTION UNDER OPEN SPACE

PIPE BEDDING NOTES:

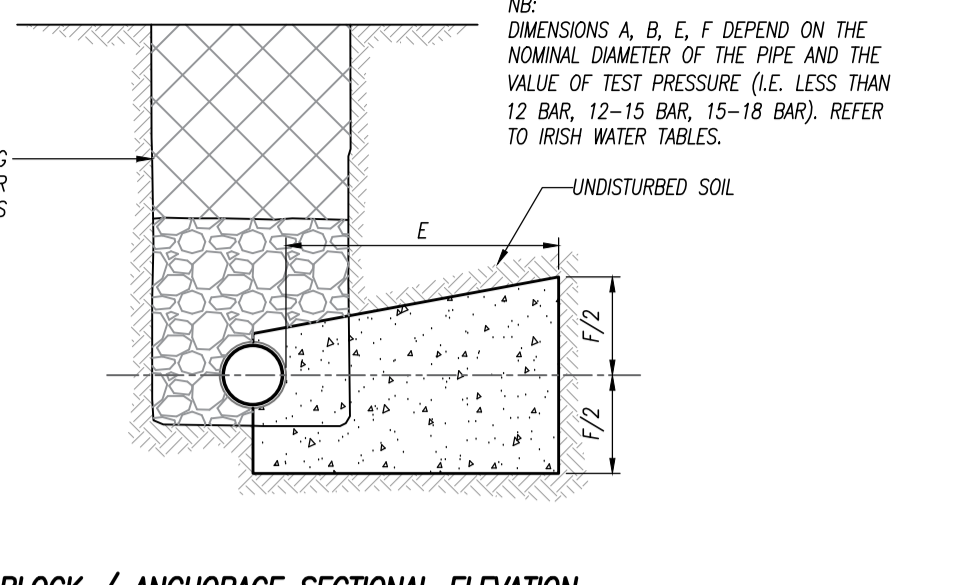
- ALL DIMENSIONS ARE IN MILLIMETERS (mm) U.N.O.
- THE MINIMUM DEPTH OF COVER FROM THE FINISHED GROUND LEVEL TO THE EXTERNAL CROWN OF THE PIPE SHALL BE 750mm FOR SERVICE CONNECTIONS, 900mm FOR WATER MAINS. MAXIMUM COVER SHOULD NOT EXCEED 1200mm WHERE PRACTICABLE.
- CLAUSE 808 MATERIAL COMPACTED AS PER CLAUSE 802, IN ACCORDANCE WITH NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS, TO BE USED WHERE WATER MAIN IS LOCATED IN ROADS, FOOTPATHS, WHEN NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY.
- SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUNDING MATERIAL SUBJECT TO APPROVAL OF IRISH WATER.
- PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IEN 4-08-01. GRANULAR MATERIAL SHALL BE 14mm TO 5mm GRADE.
- IN SOFT GROUND CONDITIONS (CBR<5%) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL SHALL REPLACE IT, WRAPPED IN GEOTEXILE WRAPPING. ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS (PIILING ETC) MAY BE REQUIRED WHERE DEPTH OF THE SOFT MATERIAL IS EXCESSIVE, SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING.
- PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY OTHER HARD OBJECT AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 808 MATERIAL IN ACCORDANCE WITH NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
- SHOULD MINIMUM COVER NOT BE ACHIEVABLE, CONCRETE C8/10 SHALL BE USED AS BACKFILL MATERIAL.
- MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12163. PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATED REINFORCED BAND BRACING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE LAID AT TOP OF PIPE BEDDING LAYER.
- TRENCH WIDTHS FOR PIPE SIZES LESS THAN 80mm MAY BE LESS THAN 500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY AND CONSTRUCTION ACCESS REQUIREMENTS.



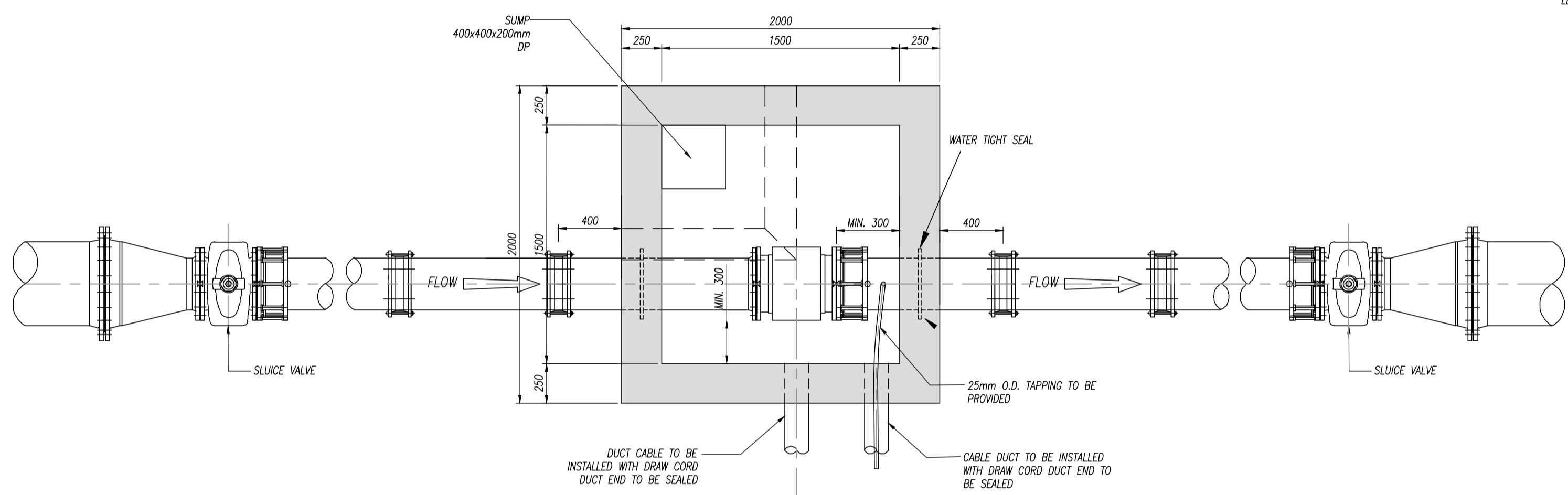
THRUST BLOCK / ANCHORAGE TYPICAL DETAIL



THRUST BLOCK / ANCHORAGE TYPICAL DETAIL

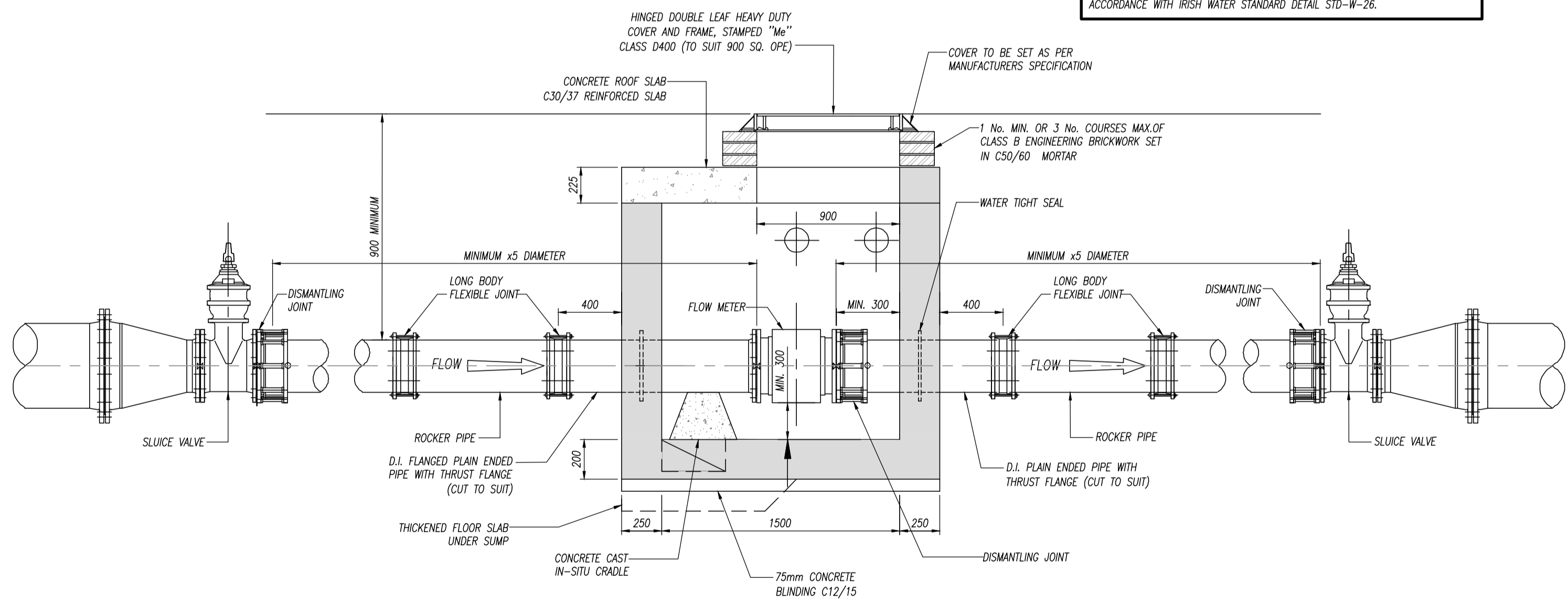


THRUST BLOCK / ANCHORAGE TYPICAL DETAIL

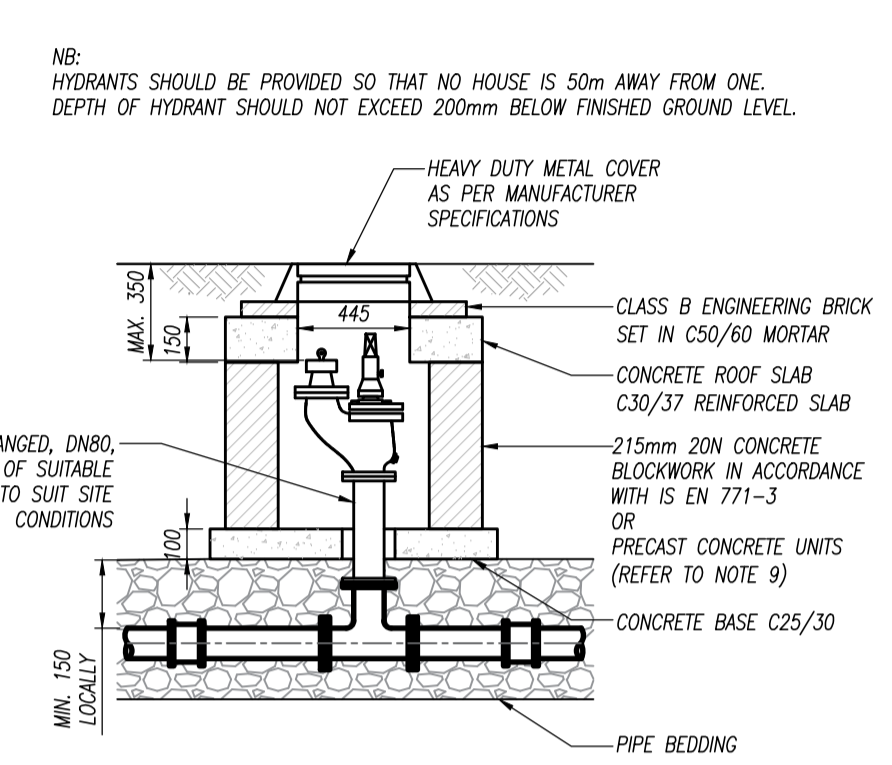


WATER METER CHAMBER TYPICAL DETAIL - PLAN VIEW

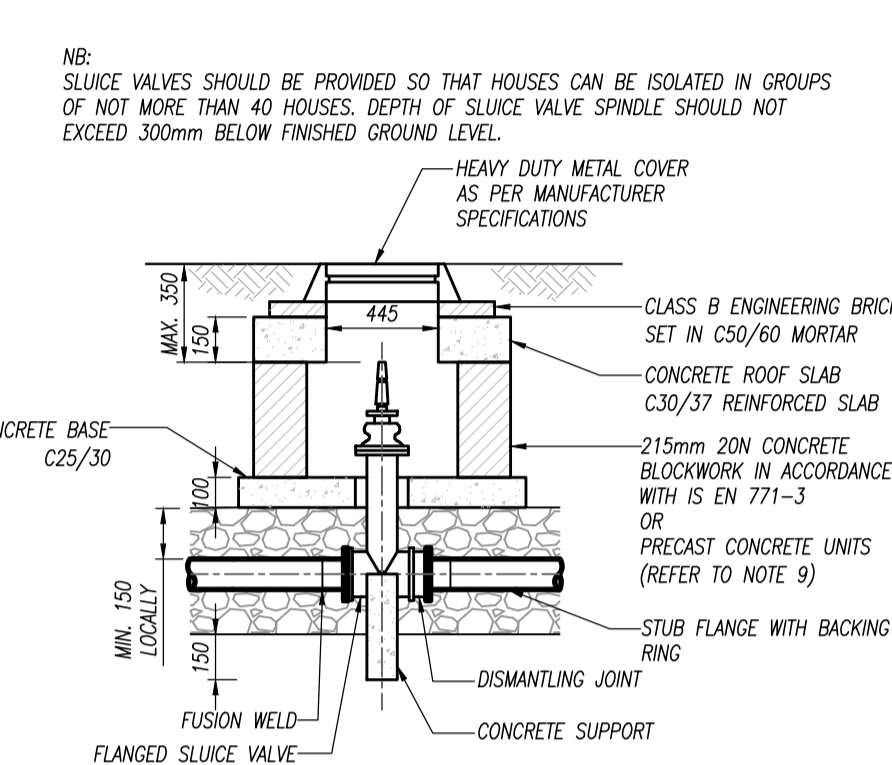
NB: SERVICE CONNECTION WITH METER CHAMBER TO BE PROVIDED TO EACH APARTMENT BLOCK. METER CHAMBER TO BE CONSTRUCTED AS INDICATED AND IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-W-26.



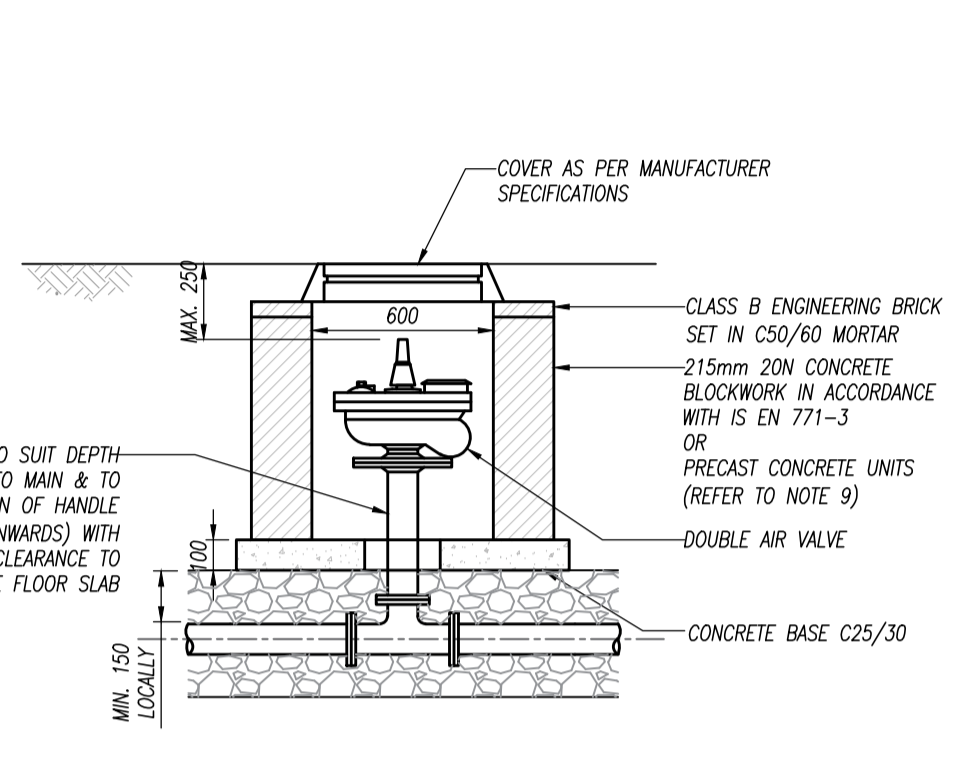
WATER METER CHAMBER TYPICAL DETAIL - SECTION



ON-LINE HYDRANT CHAMBER TYPICAL DETAIL

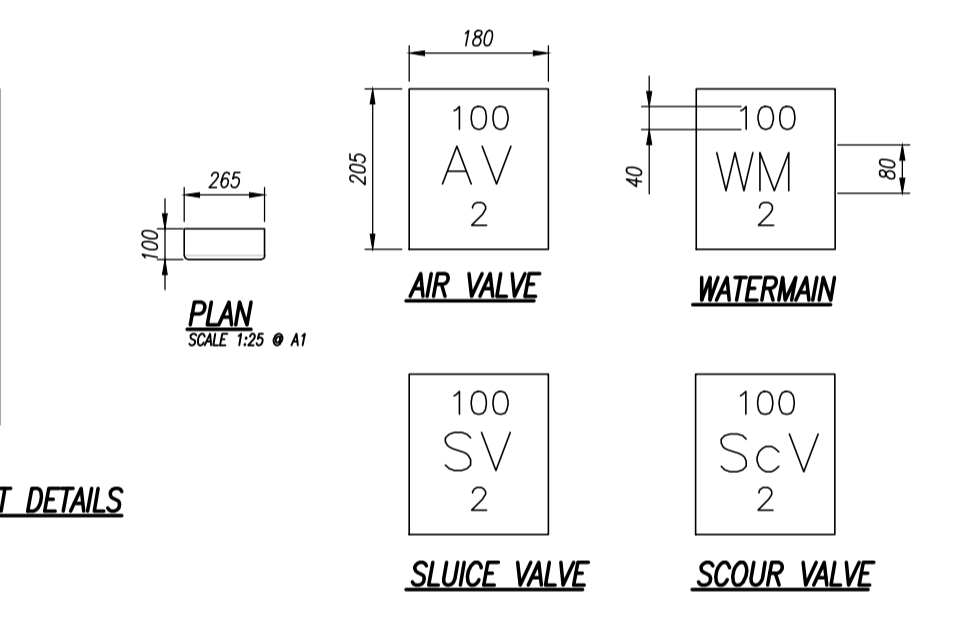
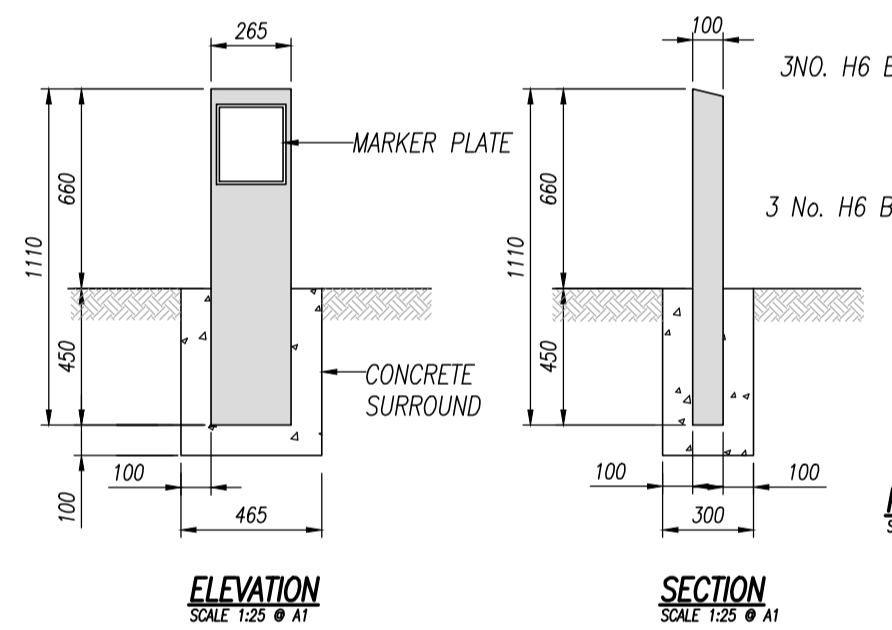


SLUICE VALVE CHAMBER TYPICAL DETAIL



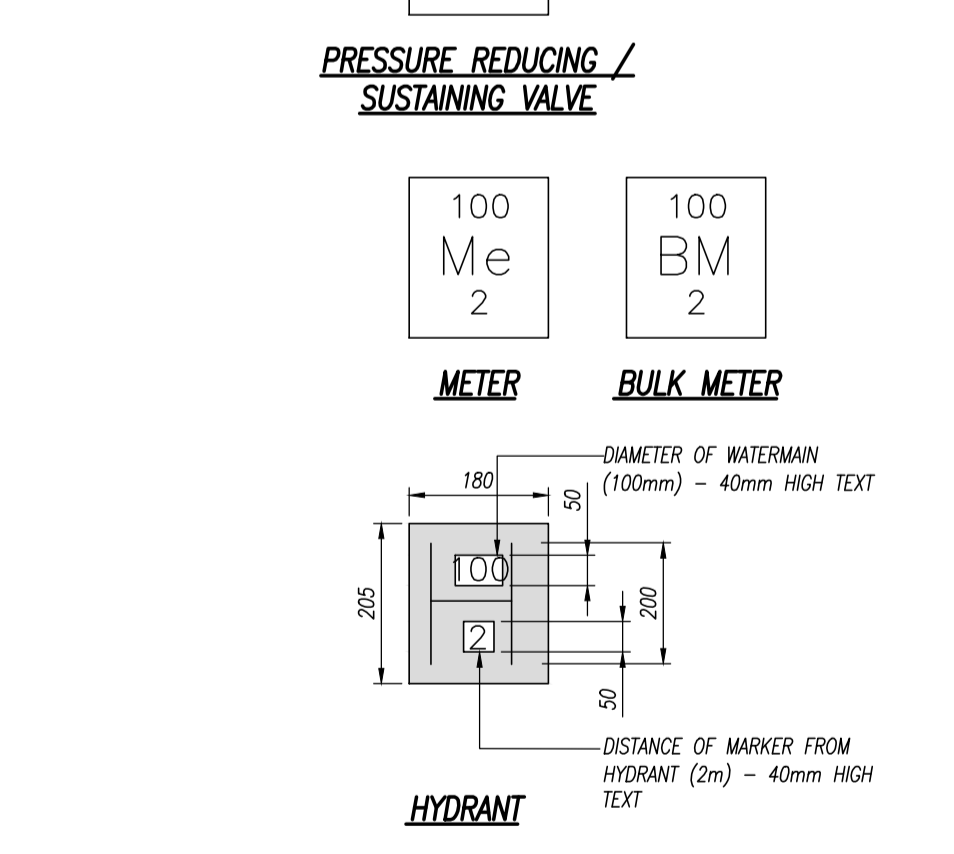
AIR VALVE CHAMBER TYPICAL DETAIL

- HYDRANT, SLUICE VALVE, AIR VALVE NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETERS (mm) U.N.O.
 - HYDRANT / SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. AIR VALVE CHAMBERS SHALL BE COVERED WITH APPROVED VENTILATED HEAVY DUTY METAL COVERS TO EN IS 124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND SUBJECTED TO APPROVAL OF IRISH WATER.
 - ALL HYDRANTS, SURFACE BOX FRAMES AND COVERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF IS EN 14339, IS EN 1074-6 & BS 750. FIRE HYDRANTS SHALL BE TYPE 2. THE HYDRANT INLET SHALL BE 80mm DIAMETER WITH PN16. SLUICE VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1 & 2, IS EN 1074-1 OR EQUIVALENT EU SPECIFICATIONS.
 - AIR VALVES SHALL HAVE BODIES AND COVERS OF CAST IRON TO BS EN 1563 WITH FLANGES DRILLED TO PN 16 IN ACCORDANCE WITH BS EN 1052. EACH VALVE SHALL HAVE A LARGE AND A SMALL AIR ESCAPE ORIFICE WITH AN ISOLATING VALVE. ALL HYDRANTS SHALL BE CLOCKWISE CLOSING.
 - ALL SLUICE VALVES SHALL BE ANTI-CLOCKWISE CLOSING.
 - SERVICE CONNECTIONS SHALL NOT BE PROVIDED WITHIN 2m OF THE AIR VALVE CONNECTION.
 - HYDRANT / SLUICE VALVE / AIR VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BRICKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL OF IRISH WATER.
 - CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MIN. OF 150mm COMPACTED CLAUSE 808 MATERIAL, IN ACCORDANCE WITH NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.
 - DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
 - 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STAINLESS STEEL METAL BAND AROUND COVERS IN GRASS AREAS.
 - ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
 - THE LOCATION OF THE AIR VALVE SHALL BE THE SUBJECT OF PARTICULAR AGREEMENT WITH IRISH WATER TO ENSURE THAT THE RISK OF CONTAMINATION THROUGH THE VALVE IS ELIMINATED.
 - ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.



MARKER PLATE NOTES:

- WHERE PRACTICAL MARKER PLATES SHALL BE FIXED TO ADJACENT WALLS OR ALTERNATIVELY ATTACHED TO MARKER POSTS.
- PLATES TO BE FIXED IN POSITION USING WALL PLUGS AND STAINLESS STEEL SCREWS.
- MARKER PLATES TO BE MANUFACTURED IN ACCORDANCE WITH BS 3251.
- 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.
- PIPE DIAMETER ON HYDRANT PLATE TO REFER TO WATERMAIN NOT BRANCH.
- SLUICE VALVE, AIR VALVE, SCOUR VALVE AND METER PLATES SHOULD BE CAST IRON. ALL CHARACTERS SHOULD BE BLACK ON WHITE PAINT BACKGROUND.
- CONCRETE SURROUND TO MARKER POST TO BE GRADE C25 / 30 AND IN ACCORDANCE WITH IS EN 206/2013.
- PLASTIC MARKER POSTS ARE NOT ACCEPTABLE.
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.



MARKER POST / PLATE TYPICAL DETAILS

- NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER APPROPRIATE DRAWINGS AND SPECIFICATIONS.
 - DO NOT SCALE, USED FIGURED DIMENSIONS ONLY.
 - ARCHITECTURAL LAYERS RECEIVED FROM MCCROSSAN O'ROURKE MANNING ARCHITECTS, AT GRANTHAM STREET, DUBLIN 8, DOB A497. TEL : 01 478 8700. EMAIL : arch@mcorm.ie
 - ALL WORKS TO COMPLY WITH THE IRISH WATER CODE OF PRACTICE FOR WATER INFRASTRUCTURE AND THE RELEVANT IRISH WATER STANDARD DETAILS.

STATUS	FOR PLANNING ONLY	CLIENT	KIMPTON VALE LTD
ARCHITECT	MCCROSSAN O'ROURKE MANNING ARCHITECTS	TITLE	STANDARD WATERMAIN DETAILS
REV. DATE	AMENDMENT	DRN APPD	SCALE AS SHOWN
AMT	DESIGNED AMT	APPROVED SMQ	DATE 16/09/2019
SCALE	JOB NO. 18-178	DRG. NO. P006	REVISION

PROJECT	WINDMILL, PORTERSTOWN, CLONSILLA, DUBLIN 15
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