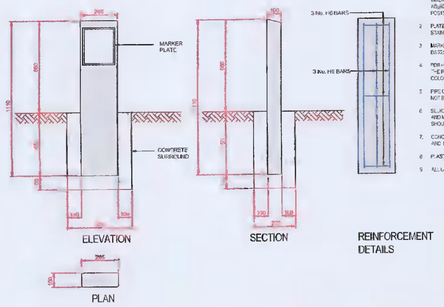
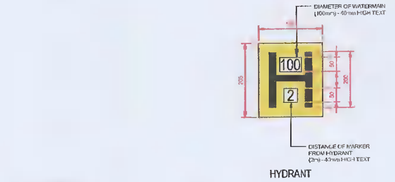
DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY ERRORS OR OMISSIONS

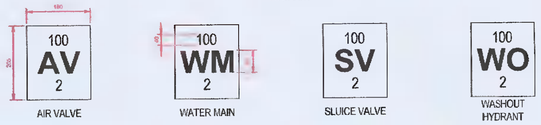
GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT'S & ENGINEER'S DRAWINGS AND SPECIFICATIONS.
2. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE
3. ALL FFL AND SSL TO BE CONFIRMED BY ARCHITECT
4. ALL DPC's, DPM's, RADON BARRIERS, INSULATION AND ALL WEATHERING DETAILS TO ARCHITECT'S DRAWINGS & SPECIFICATIONS
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER & ARCHITECT FOR RESOLUTION
6. REFER TO ARCHITECTURAL DRAWINGS FOR ALL SITE & APPLICATION BOUNDARIES



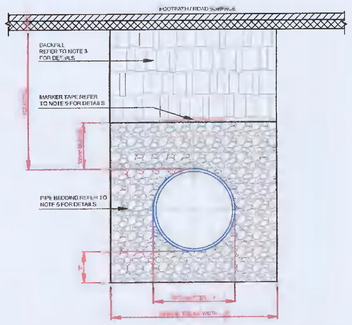
MARKER PLATES: MARKER PLATES SHALL BE FIXED TO ADJACENT WATERMAIN MARKER POSTS WITH ATTACHED TO MARKER POSTS.
2. PLATES TO BE FIXED IN POSITION USING WALL PLUGS AND STAINLESS STEEL SCREWS
3. MARKER PLATES TO BE MANUFACTURED IN ACCORDANCE WITH BS1134
4. FOR VERSANT PLATE ALL CHARACTERS SHALL BE BLACK AND THE REMAINDER OF THE SURFACE SHALL CONFORM TO COLOUR REFERENCE No 309 GRAMY YELLOW OF BS 381C.
5. PIPE DIAMETER ON HYDRANT PLATE TO REFER TO WATERMAIN NOT BRANCH.
6. SLUICE VALVE, AIR VALVE, SCOUR VALVE, WASHOUT HYDRANT MARKER PLATES SHALL BE DULL BLACK WITH A 1.5 MM WIDE WHITE BACKGROUND
7. CONCRETE SURROUND TO MARKER POST TO BE GRADE C25/30 AND IN ACCORDANCE WITH BS EN206-1.
8. PLASTIC MARKER POSTS ARE TO BE AS PER MCDERMOTT
9. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN206.

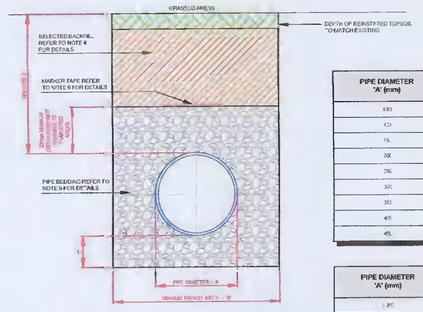




TYPICAL IRISH WATER DETAIL FOR MARKER POSTS / PLATES- NTS

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. 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 WATERMAINS GREATER EQPMM OF COVER AND/OR PIPE STRENGTH AND OR A HIGHER CLASS OF BEDDING SATISFACTORY TO BE RECORDED WHERE HIGH TRAFFIC LOADS ARE EXPECTED. THE MINIMUM COVER SHOULD NOT EXCEED 1.75m WHERE PRACTICABLE.
3. CLAUSE 804 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE WATER MAIN IS LOCATED UNDER ROADS, FOOTPATHS OR WITHIN THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED FACE OF THE ROADWAY. CLAUSE 804 IS TO BE COMPACTED AS PER CLAUSE 612 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.
4. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL, SUBJECT TO THE APPROVAL OF IRISH WATER.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-03-01 OR AS HIGH 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm GRADED
6. EXCAVATED MATERIAL SURPLUS TO BACKFILLING TO BE IN ACCORDANCE WITH "GOOD GROUND CONDITIONS.COM + S THE MATERIAL SHOULD BE EXCAVATED OUT AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEOTEXTILE WRAPPING. ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC, MAY BE REQUIRED WHERE THE DEPTH OF BOG MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORK.
7. PIPES SHALL NOT BE SUPPORTED ON STONES OR ROCKS. ORGANIC, HARD OBJECT AT ANY POINT ALONG THE TRENCH ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW INVERT OF PIPE AND BACKFILLED WITH THE VOID FILLED WITH GRANULAR MATERIAL TO THE TRENCH WITH THE VOID FILLED WITH GRANULAR MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
8. SHOULD MINIMUM COVER NOT BE ACHIEVABLE, CONCRETE GRADE C25/30 SHALL BE USED AS BACKFILL IN ACCORDANCE WITH BS EN 1994-1-1.
9. MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12613. PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATED A REINFORCED BAND BRACING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE LAID AT TOP OF PIPE BEDDING LAYER.
10. TRENCH WIDTHS FOR PIPE SIZES ABOVE MAY BE +500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

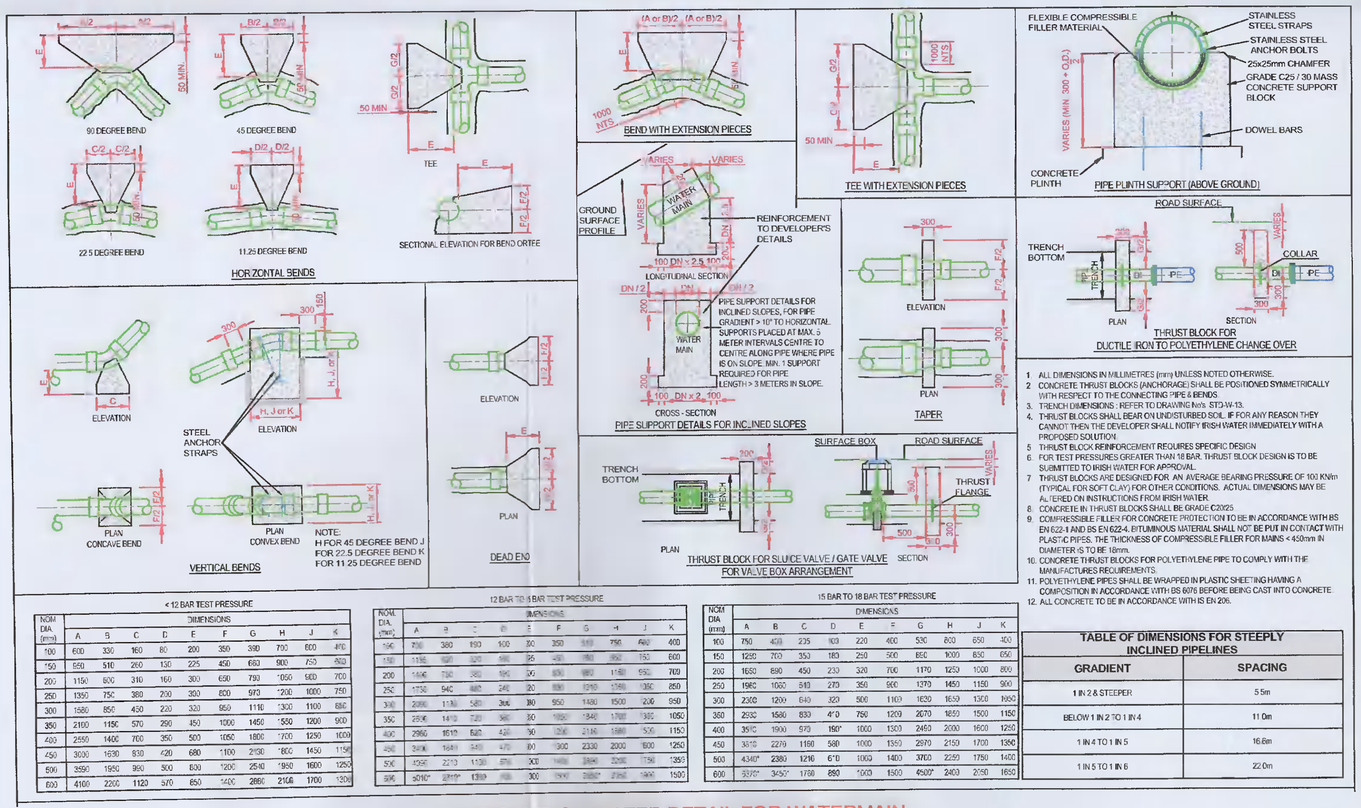




PIPE DIAMETER "A" (mm)	TRENCH WIDTH "D" (mm)
160	SHALL BE 10
170	570
180	630
200	630
250	750
300	750
350	750
400	930
450	930

PIPE DIAMETER "A" (mm)	DEPTH OF BEDDING "C" (mm)
160	150
250	300

TYPICAL IRISH WATER DETAIL FOR BACKFILLING AND BEDDING - NTS



1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. CONCRETE THRUST BLOCKS (ANCHORAGE) SHALL BE POSITIONED SYMMETRICALLY WITH RESPECT TO THE CONNECTING PIPE & BENDS.
3. TRENCH DIMENSIONS : REFER TO DRAWING No's. STD-W-13.
4. THRUST BLOCKS SHALL BEAR ON UNDISTURBED SOIL. IF FOR ANY REASON THEY CANNOT THEN THE DEVELOPER SHALL NOTIFY IRISH WATER IMMEDIATELY WITH A PROPOSED SOLUTION.
5. THRUST BLOCK REINFORCEMENT REQUIRES SPECIFIC DESIGN
6. FOR TEST PRESSURES GREATER THAN 16 BAR, THRUST BLOCK DESIGN IS TO BE SUBMITTED TO IRISH WATER FOR APPROVAL.
7. THRUST BLOCKS ARE DESIGNED FOR AN AVERAGE BEARING PRESSURE OF 100 KN/m (TYPICAL FOR SOFT CLAY) FOR OTHER CONDITIONS. ACTUAL DIMENSIONS MAY BE ALTERED ON INSTRUCTIONS FROM IRISH WATER.
8. CONCRETE IN THRUST BLOCKS SHALL BE GRADE C20/25
9. COMPRESSIBLE FILLER FOR CONCRETE PROTECTION TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PLASTIC PIPES. THE THICKNESS OF COMPRESSIBLE FILLER FOR MAINS < 450mm IN DIAMETER IS TO BE 10mm.
10. CONCRETE THRUST BLOCKS FOR POLYETHYLENE PIPE TO COMPLY WITH THE MANUFACTURES REQUIREMENTS.
11. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.

< 12 BAR TEST PRESSURE

NOM DIA (mm)	DIMENSIONS A	B	C	D	E	F	G	H	J	K
100	600	330	160	80	200	350	380	700	600	400
150	660	510	260	130	225	450	680	900	750	500
200	1150	600	310	160	300	650	790	1000	900	700
250	1350	750	380	200	350	800	970	1200	1000	750
300	1580	850	450	220	320	950	1110	1300	1100	800
350	2100	1150	570	290	450	1000	1450	1550	1200	900
400	2550	1400	700	350	500	1050	1800	1700	1250	1000
450	3030	1630	830	420	680	1100	2130	1800	1450	1150
500	3550	1950	960	500	600	1200	2540	1950	1600	1250
600	4100	2200	1120	570	650	1400	2880	2100	1700	1300

12 BAR TO 16 BAR TEST PRESSURE

NOM DIA (mm)	DIMENSIONS A	B	C	D	E	F	G	H	J	K
100	750	380	190	100	200	350	510	750	600	400
150	1155	595	320	165	225	450	780	950	750	500
200	1400	720	360	190	300	650	980	1150	950	700
250	1750	940	480	240	350	800	1240	1450	1200	850
300	2080	1130	580	300	380	950	1480	1500	1200	950
350	2500	1410	720	360	450	1050	1840	1700	1300	1050
400	2980	1615	820	420	500	1200	2180	1900	1500	1250
450	3500	1880	940	470	600	1300	2330	2000	1600	1250
500	4050	2210	1130	570	700	1400	2640	2200	1750	1350
600	5010*	2710*	1360	690	800	1500	2880*	2300	1900	1500

15 BAR TO 18 BAR TEST PRESSURE

NOM DIA (mm)	DIMENSIONS A	B	C	D	E	F	G	H	J	K
100	750	400	235	100	220	400	530	800	650	400
150	1295	700	350	180	250	500	850	1000	850	650
200	1650	890	450	230	320	700	1170	1250	1000	800
250	1980	1060	540	270	350	900	1370	1450	1150	900
300	2300	1200	640	320	500	1100	1630	1650	1300	1000
350	2930	1580	830	410	750	1200	2070	1850	1500	1150
400	3510	1900	970	490	1000	1300	2460	2000	1600	1250
450	3810	2270	1160	580	1000	1550	2970	2150	1700	1300
500	4340*	2380	1216	610	1000	1400	3700	2250	1750	1400
600	5370*	3450*	1760	880	1000	1500	4500*	2400	2050	1650

TABLE OF DIMENSIONS FOR STEEPLY INCLINED PIPELINES

GRADIENT	SPACING
1 IN 2 & STEEPER	5.5m
BELOW 1 IN 2 TO 1 IN 4	11.0m
1 IN 4 TO 1 IN 5	16.6m
1 IN 5 TO 1 IN 6	22.0m

TYPICAL IRISH WATER DETAIL FOR WATERMAIN THRUST AND SUPPORT BLOCKS - NTS

PLANNING ISSUE

Rev.	Note	Date	Drawn	Check
S4.P01	ISSUED FOR PLANNING	15.02.2022	TN	RK

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Client: DUBLIN & DUN LAOGHAIRE ETB

Project: LUCAN COMMUNITY COLLEGE

Drawing Title: TYPICAL WATERMAIN DETAILS SHEET 3 OF 3

Drawn By:	Checked By:	Approved By:	Date:	Scale:	Sheet Size:
IK	TN	DOB	SEPT '19	NTS	A1

Project Number:	Drawing Number:	Status Code:	Rev Number:
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