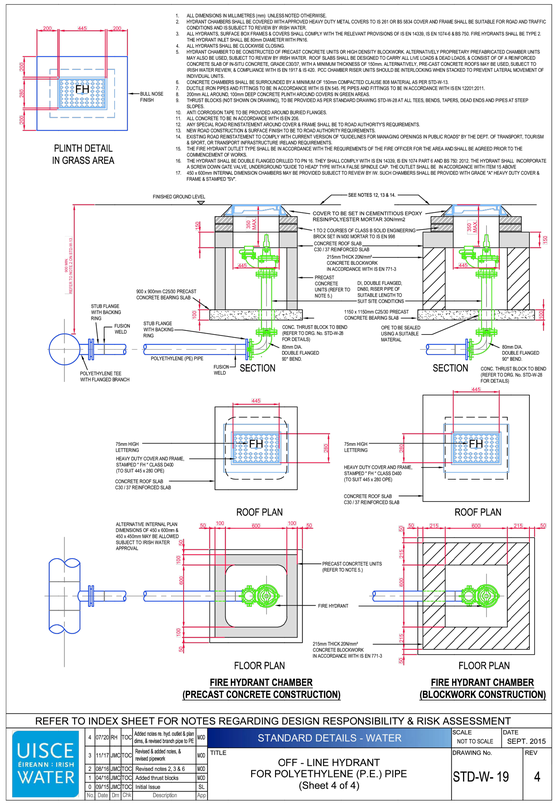


1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO BS 31 OR BS 5834 COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
3. ALL HYDRANTS SURFACE BOX FRAMES & COVERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 14339, BS EN 10744-8 &BS 750. FIRE HYDRANTS SHALL BE TYPE 2 THE HYDRANT INLET SHALL BE 50mm DIAMETER WITH BW16.
4. ALL HYDRANTS SHALL BE CLOCKWISE CLOSING.
5. HYDRANT CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK, ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY IRISH WATER. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS & DEAD LOADS, & CONSIST OF OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 150mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO REVIEW BY IRISH WATER & COMPLIANCE WITH BS EN 1917 & IS 420. PCC CHAMBER RISER UNITS SHALL BE INTERLOCKING WITH A TONGUE TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL UNITS.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 MATERIAL AS PER STD-W-13.
7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH BS EN 545. ALL PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201-2011.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 206.
12. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
13. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
14. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
15. THE FIRE HYDRANT OUTLET TYPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE OFFICER FOR THE AREA AND SHALL BE AGREED PRIOR TO THE COMMENCEMENT OF WORKS.
16. THE HYDRANT SHALL BE DOUBLE FLANGED DRILLED TO PN 16, THEY SHALL COMPLY WITH IS EN 14339, IS EN 1074 PART 6 AND BS TSO 3312. THE HYDRANT SHALL INCORPORATE A SCREW DOWN GATE VALVE, UNDERGROUND 'GUIDE TO HEAD' TYPE WITH A FALSE SPINDLE CAP. THE OUTLET SHALL BE IN ACCORDANCE WITH ITEM 15 ABOVE.
17. 400 x 400mm INTERNAL DIMENSION CHAMBERS MAY BE PROVIDED SUBJECT TO REVIEW BY IW. SUCH CHAMBERS SHALL BE PROVIDED WITH GRADE "A" HEAVY DUTY COVER & FRAME & STAMPED "SV".

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

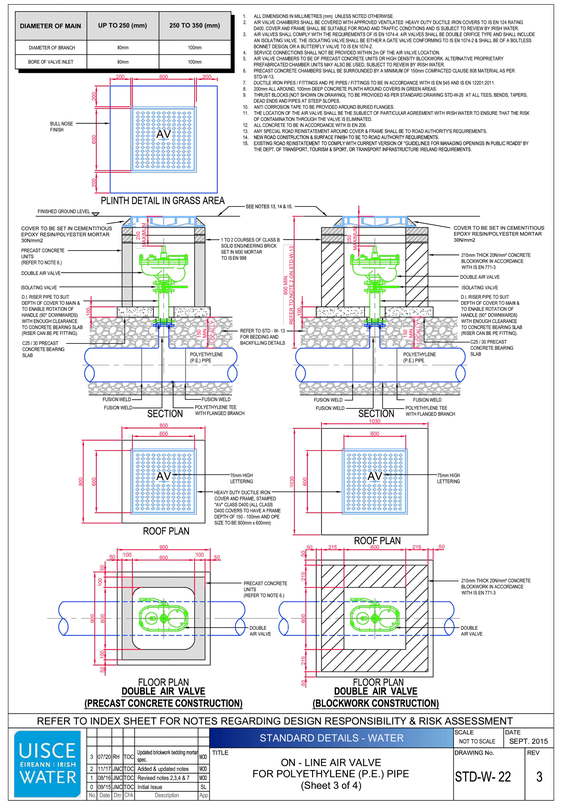
No	Date	Dn	Chk	Description	App
4	07/20	RH	TOC	Notes Updated, spool weights table included	WD
3	11/17	JMC	TOC	Revised table & added bore of hydrant	WD
2	09/16	JMC	TOC	Revised notes 2, 3 & 6	WD
1	04/16	JMC	TOC	Added thrust blocks	WD
0	09/15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER

SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: OFF - LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE (Sheet 4 of 4)

DRAWING No.: STD-W- 19 | REV: 4



DIAMETER OF MAIN	UP TO 250 (mm)	250 TO 350 (mm)
DIAMETER OF BRANCH	80mm	100mm
BORE OF VALVE INLET	80mm	100mm

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AIR VALVE CHAMBER SHALL BE COVERED WITH APPROVED VENTILATED HEAVY DUTY DUCTILE IRON COVERS TO IS EN 124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
3. AIR VALVES SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074-4. AIR VALVES SHALL BE DOUBLE ORIFICE TYPE AND SHALL INCLUDE AN ISOLATING VALVE. THE ISOLATING VALVE SHALL BE EITHER A GATE VALVE CONFORMING TO IS EN 1074-2 & SHALL BE C OF A BOLTLESS BONNET DESIGN, OR A BUTTERFLY VALVE TO IS EN 1074-2.
4. SERVICE CONNECTIONS SHALL NOT BE PROVIDED WITHIN 2m OF THE AIR VALVE LOCATION.
5. AIR VALVE CHAMBERS TO BE OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK, ALTERNATIVE PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY IRISH WATER.
6. AIR VALVE CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 MATERIAL AS PER STD-W-13.
7. DUCTILE IRON PIPES / FITTINGS AND PE PIPES / FITTINGS TO BE IN ACCORDANCE WITH IS EN 545 AND IS EN 12201:2011.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 206. FOR PARTICULAR AGREEMENT WITH IRISH WATER TO ENSURE THAT THE RISK OF CONTAMINATION THROUGH THE VALVE IS ELIMINATED.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 206.
13. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
14. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
15. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

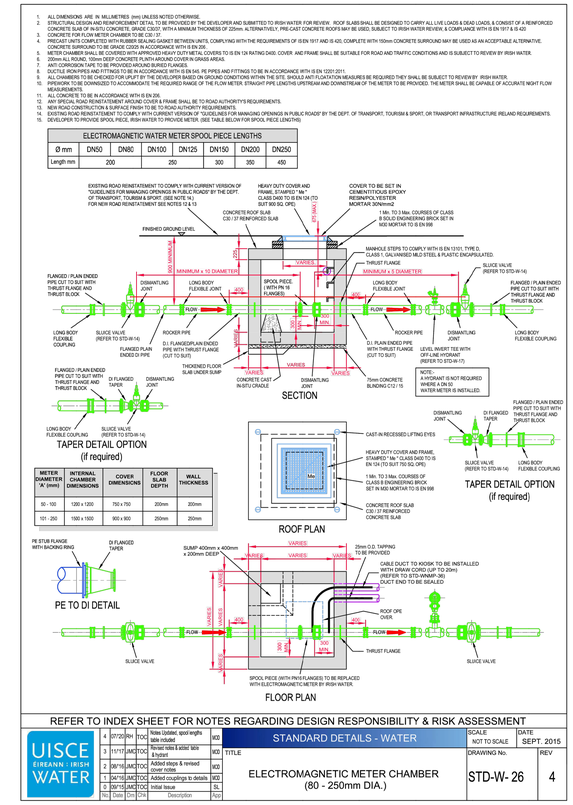
No	Date	Dn	Chk	Description	App
3	07/20	RH	TOC	Updated brickwork bedding mortar spec.	WD
2	11/17	JMC	TOC	Added & updated notes	WD
1	08/16	JMC	TOC	Revised notes 2,3,4 & 7	WD
0	09/15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER

SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: ON - LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE (Sheet 3 of 4)

DRAWING No.: STD-W- 22 | REV: 3



ELECTROMAGNETIC WATER METER SPOOL PIECE LENGTHS						
Ø mm	DN50	DN80	DN100	DN125	DN150	DN200	DN250
Length mm	200		250	300	350	450

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

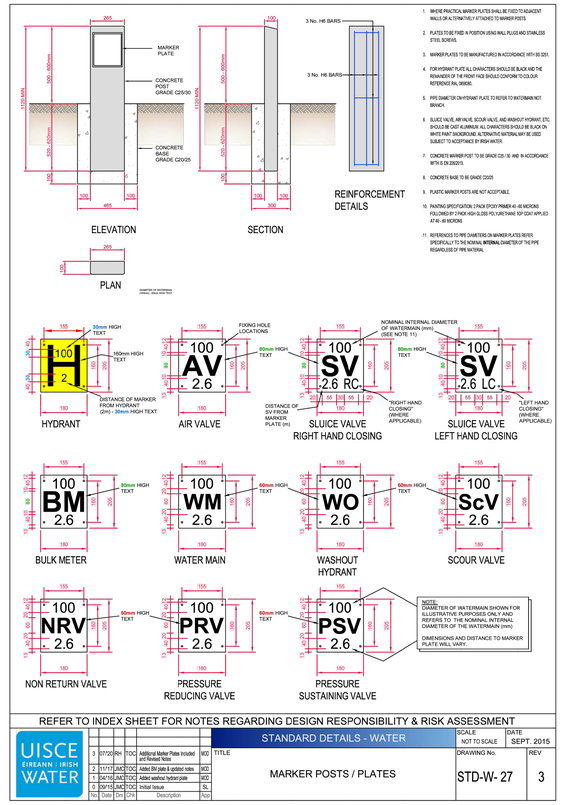
No	Date	Dn	Chk	Description	App
4	07/20	RH	TOC	Notes Updated, spool weights table included	WD
3	11/17	JMC	TOC	Revised table & added bore of hydrant	WD
2	09/16	JMC	TOC	Added shape & revised cover notes	WD
1	04/16	JMC	TOC	Added couplings to details	WD
0	09/15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER

SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: ELECTROMAGNETIC METER CHAMBER (80 - 250mm DIA.)

DRAWING No.: STD-W- 26 | REV: 4



1. WHERE PRACTICAL MARKER PLATES SHALL BE FIXED TO ADJACENT WALLS OR ALTERNATIVELY ATTACHED TO MARKER POSTS.
2. PLATES TO BE FIXED IN POSITION USING NAIL, 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 PLATE FACE SHOULD CONFORM TO COLOUR REFERENCE RAL 5B5B5.
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 HIGH VISIBLE GLOSS POLYURETHANE TOP COAT APPLIED AT 40 - 60 MICRONS
11. REFERENCED TO PIPE DIAMETERS ON MARKER PLATES REFER SPECIFICALLY TO THE NOMINAL INTERNAL DIAMETER OF THE PIPE REGARDLESS OF PIPE MATERIAL

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

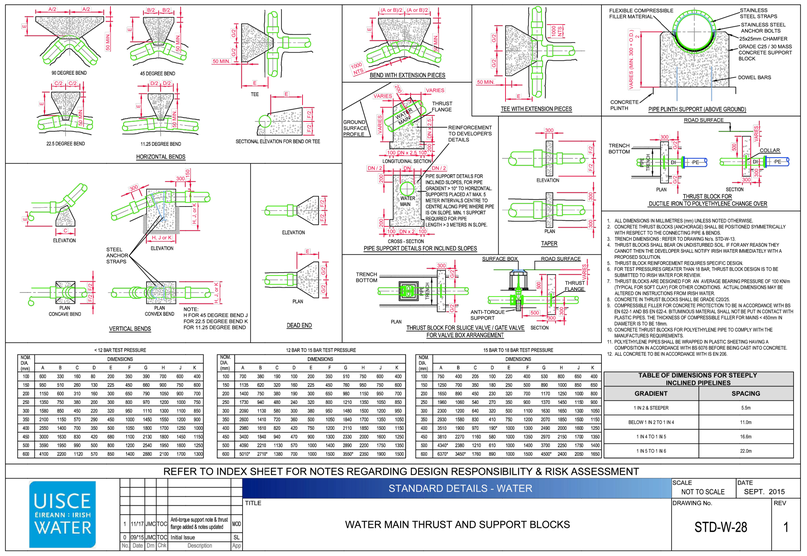
No	Date	Dn	Chk	Description	App
3	07/20	RH	TOC	Additional Marker Plates Included and Replaced Notes	WD
2	11/17	JMC	TOC	Added BM plate & updated notes	WD
1	04/16	JMC	TOC	Added washout hydrant plate	WD
0	09/15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER

SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: MARKER POSTS / PLATES

DRAWING No.: STD-W- 27 | REV: 3



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 VIEW TO REVISION.
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 REVIEW.
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. ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 206 / IS 456 / IS 12505.
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 19mm.
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	800	330	160	80	200	350	390	700	600	400
150	920	310	200	130	225	450	660	900	750	600
200	1150	600	310	160	300	650	790	1050	900	700
250	1350	750	360	200	300	800	970	1200	1050	750
300	1580	800	450	220	320	950	1110	1300	1100	850
350	2100	1150	570	290	450	1000	1450	1550	1200	900
400	2350	1400	750	350	500	1050	1800	1700	1250	1000
450	3000	1600	800	420	680	1100	2130	1800	1450	1150
500	3090	1980	960	500	800	1200	2545	1950	1650	1250
600	4100	2200	1120	570	850	1400	2880	2100	1700	1300

12 BAR TO 15 BAR TEST PRESSURE

NOM DIA (mm)	DIMENSIONS A	B	C	D	E	F	G	H	J	K
100	700	380	190	100	200	350	510	750	600	400
150	1135	620	320	160	225	400	760	950	750	600
200	1400	750	380	190	300	650	860	1100	850	700
250	1730	940	460	240	320	800	1210	1350	1000	850
300	2090	1135	580	300	380	950	1480	1500	1200	950
350	2600	1410	720	360	500	1050	1940	1700	1350	1050
400	2980	1618	820	420	750	1200	2110	1850	1500	1150
450	3400	1840	940	470	900	1300	2330	2000	1600	1250
500	4090	2218	1130	570	1000	1400	2990	2200	1750	1350
600	5010*	2718*	1380	700	1000	1500	3500*	2350	1900	1550

15 BAR TO 18 BAR TEST PRESSURE

NOM DIA (mm)	DIMENSIONS A	B	C	D	E	F	G	H	J	K
100	750	400	205	100	220	400	530	800	650	400
150	1250	700	350	180	250	520	890	1000	850	600
200	1600	890	450	230	320	700	1170	1250	1000	850
250	1960	1080	540	270	350	900	1370	1450	1150	950
300	2300	1200	640	320	500	1100	1630	1650	1300	1050
350	2930	1580	830	410	750	1200	2070	1850	1500	1150
400	3510	1900	970	190*	1000	1300	2490	2000	1650	1250
450	3810	2270	1180	580	1000	1350	2970	2150	1700	1350
500	4340*	2380	1210	610	1000	1400	3750	2250	1750	1400
600	6370*	3400*	1780	890	1000	1500	4000*	2400	2000	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

Standard Irish Water Detail References:

STD-W-01 Water Service Connection responsibility
STD-W-02 Typical Layout for Water Mains within developments
STD-W-03 Customer connection & boundary box
STD-W-05 General Pipe Connection
STD-W-07 General Pipe Connection
STD-W-13 Trench Backfill & Bedding
STD-W-15 Sluice valve for Polyethylene (P.E.) Pipe (<350mmØ)
STD-W-19 Off-line hydrant for Polyethylene (P.E.) Pipe
STD-W-22 On-line Air Valve for Polyethylene (P.E.) Pipe
STD-W-26 Meter chamber (≤300mm Ø)
STD-W-27 Marker posts/ Plates
STD-W-28 Water main thrust & support blocks

Refer to dwg no. 7114-0030 for plan layout

REFER TO INDEX SHEET FOR NOTES REGARDING DESIGN RESPONSIBILITY & RISK ASSESSMENT

UISCE ÉIREANN : IRISH WATER

No	Date	Dn	Chk	Description	App
1	11/17	JMC	TOC	Anti-torque support note & thrust flange added & notes updated	WD
0	09/15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WATER

SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: WATER MAIN THRUST AND SUPPORT BLOCKS

DRAWING No.: STD-W-28 | REV: 1

Joyce House
Barrack Square
Ballincollig
Cork
P31 KP84

021 4871781
info@dosa.ie
www.dosa.ie

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REV.	DRAWN	CHKD	APPRVD	DATE	DETAILS
B	G.S.	B.O'S	B.O'S	10.01.25	Issued for Planning
A	S.B.	B.O'S.	B.O'S.	04.10.24	Issued for information

CLIENT: Barrys Field Ltd.

PROJECT: Barry's Field, Douglas, Cork

DRAWING TITLE: Proposed Watermain Details (2 of 2)

SHEET: A1

SCALE: N.T.S.

PROJECT NO. 7114 _ DRAWING NO. 0036 _ STATUS/ISSUE B