NOTES:

1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.

2 THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE EXTERNAL CROWN OF THE PIPE SHALL BE 750mm FOR SERVICE CONNECTIONS, 900mm FOR WATER MAINS. GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR A HIGHER CLASS OF

BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICIPATED. THE MAXIMUM COVER SHOULD NOT EXCEED 1.2M WHERE PRACTICABLE.

3 CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE WATER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1M OF THE PAVED EDGE OF THE ROADWAY, CLAUSE 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE TRANSPORT INFRASTRUCTURE IRELAND

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 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm GRADED AGGREGATE OR 10mm SINGLE SIZED AGGREGATE IS EN 13242.

6 IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED OUT AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING, ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC. MAY BE REQUIRED WHERE THE DEPTH OF SOFT 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, OR ANY 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 804 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL

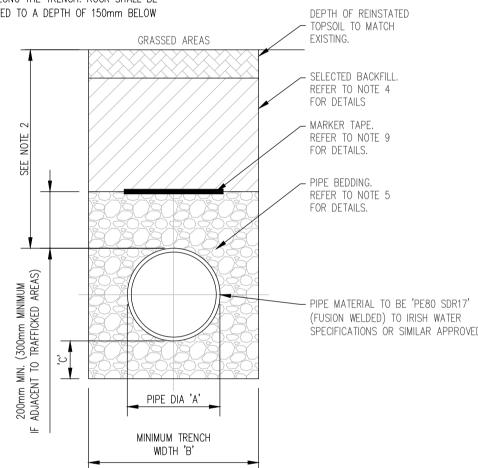
8 SHOULD MINIMUM COVER NOT BE ACHIEVABLE, CONCRETE GRADE C8/10 SHALL BE USED AS BACKFILL MATERIAL.

9 MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12163, PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATED A REINFORCED BAND BRACING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE

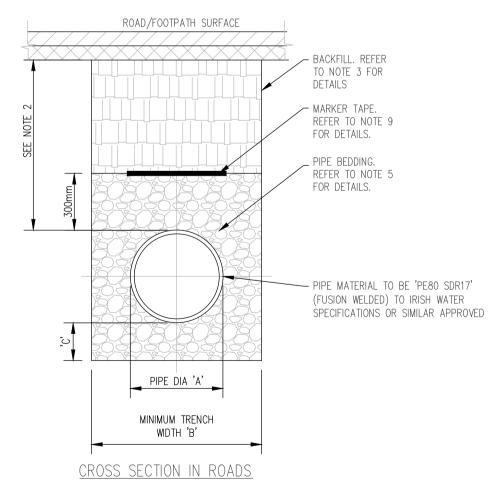
TO BE LAID AT TOP OF PIPE BEDDING LAYER. 10 TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

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

DEPTH OF REINSTATED - TOPSOIL TO MATCH



CROSS SECTION IN GRASSED AREAS



TRENCH BACKFILL AND BEDDING (STD - W - 13)

SCALE 1:20

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm)

ROCKER PIPE -

LONG BODY

LONG RODY

LONG BODY

FLEXIBLE COUPLING

FLEXIBLE COUPLING

FLEXIBLE COUPLING

UNLESS NOTED OTHERWISE.

2. STRUCTURAL DESIGN AND REINFORCEMENT DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.

3. CONCRETE FOR FLOW METER CHAMBER TO 7. ANTI CORROSION TAPE TO BE PROVIDED BE C30/37 AROUND BURIED FLANGES.

D.I. FLANGED PLAIN-

VALVE

DI FLANGED

DISMANTLING

ENDED PIPE WITH

THRUST FLANGE

(CUT TO SUIT)

400x400x200 _

DEEP SUMP

WATER TIGHT SEAL -

CAST IN RECESSED LIFTING _

HEAVY DUTY COVER AND FRAME. STAMPED "Me" CLASS D400 TO IS EN124 (TO SUIT 900 SQ. OPE) 1No. MIN. OR 3No. COURSES MAX. OF CLASS B ENGINEERING BRICKWORK SET IN C50/60 MORTAR

CONCRETE ROOF SLAB _

C30/37 REINFORCED

METER CHAMBER (<300mmø)

(STD - W - 26)

SCALE 1:20

CONCRETE SLAB

4. PRECAST METER CHAMBER(WITH CONCRETE 8. DUCTILE IRON PIPES AND FITTINGS TO BE IN SURROUND) MAY BE USED SUBJECT TO IRISH ACCORDANCE WITH IS EN545. PE PIPES AND WATER APPROVAL. 5. METER CHAMBER SHALL BE COVERED WITH

IS EN124 RATING D400. COVER AND FRAME BY THE DEVELOPER BASED ON GROUND SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO APPROVAL FROM IRISH WATER.

CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER. 6. 200mm ALL ROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE 10. PIPEWORK TO BE DOWNSIZED TO STAINLESS STEEL METAL BAND AROUND ACCOMMODATE THE REQUIRED RANGE OF COVER IN GRASS AREAS. THE FLOW METER. STRAIGHT PIPE LENGTHS

UPSTREAM AND DOWNSTREAM OF THE METER TO BE PROVIDED. IF THE METER IS NOT CAPABLE OF ACCURATE NIGHT FLOW MEASUREMENTS, A BY-PASS FLOW METER SHALL BE PROVIDED WITH APPROPRIATE

11. ALL CONCRETE TO BE IN ACCORDANCE WITH

FITTINGS TO BE IN ACCORDANCE WITH IS EN VALVES, FITTINGS AND PIPEWORK. 12201: 2011. APPROVED HEAVY DUTY METAL COVERS TO 9. ALL CHAMBERS TO BE CHECKED FOR UPLIFT IS EN206. HEAVY DUTY COVER AND FRAME SPECIFICATION STAMPED "Me" CLASS D400 TO IS -EN124 (TO SUIT 900 SQ. OPE) CONCRETE ROOF SLAB C30/37 REINFORCED SLAB

DISMANTLING JOINT —

REQUIRED)

SECTION

FLANGED PLAIN

ENDED DI PIPE

FLOW METER (WITH

25mm O.D. TAPPING

TO BE PROVIDED

10xPIPEØ MIN. FROM FLOW METER TO DISMANTLING JOINT (ENTRY)

5xPIPEØ MIN. FROM FLOW METER TO DISMANTLING JOINT (EXITING)

FLOOR PLAN

RESTRAINER IF REQUIRED)

PRESSURE TAPPING DUCT TO KIOSK TO BE INSTALLED WITH DRAW CORD(REFER TO-

STD-W-36) DUCT END TO BE SEALED

FLOW METER (WITH_ RESTRAINER IF

4. ALL SLUICE VALVES SHALL BE ANTI-CLOCKWISE CLOSING. - COVER TO BE SET AS PER MANUFACTURERS

-

DETAIL AS PER INLET

CONCRETE CAST

IN-SITU CRADLE

THICKENED FLOOR

SLAB UNDER SUMP

DETAIL AS PER INLET -

THRUST FLANGE -

CABLE DUCT TO KIOSK TO BE INSTALLED

₩ITH DRAW CORD (REFER TO STD-W-36)

DUCT END TO BE SEALED

(mm) UNLESS NOTED OTHERWISE. 2. SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834.

ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH 3. SLUICE VALVES SHALL BE RESILIENT SEATED

EQUIVALENT EU SPECIFICATIONS.

75mm CONCRETE

5. VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER. 6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.

7. DUCTILE IRON PIPES AND FITTINGS TO BE IN 1. 1 ALL DIMENSIONS ARE IN MILLIMETRES

PLINTH IN GRASSED AREAS

<u>SECTION</u>

ROOF PLAN

FLOOR PLAN

(PRECAST CONCRETE CONSTRUCTION)

SLUICE VALVE CHAMBER

(STD - W - 14)

GROUND

CLASS B ENGINEERING BRICK

SET IN C50/60 MORTAR

CONCRETE ROOF SLAB

C30/37 REINFORCED SLAB

CONCRETE BASE C25/30

LONG BODY -

CUT TO SUIT

FLEXIBLE COUPLING

FLANGED/PLAIN ENDED PIPE —/

FLANGED SLUICE VALVE -

HEAVY DUTY COVER AND

FRAME, STAMPED 'SV' CLASS

D400 (TO SUIT 445x280 OPE)

ACCORDANCE WITH IS EN 545. 8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STEEL

METAL BAND AROUND COVER IN GREEN COVER AND FRAME SHALL BE SUITABLE FOR 9. THRUST BLOCKS(NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND

BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES. AND SHALL COMPLY WITH BS 5163-1. BS 10. ANTICORROSION TAPE TO BE PROVIDED 5163-2, IS EN 1074-1, IS EN 1074-2, OR AROUND BURIED FLANGES.

11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 12. ALL THRUST FLANGES TO BE ADEQUATELY

NOT SHOWN FOR CLARITY

NOTES:

1. 1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.

2. HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER

3. 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.

DENSITY BLOCKWORK. ALTERNATIVELY

PROPRIETARY PREFABRICATED CHAMBER

UNITS MAY ALSO BE USED SUBJECT TO

GROUND

CLASS B ENGINEERING BRICK

SET IN C50/60 MORTAR

CONCRETE ROOF SLAB

RISER PIPE OF SUITABLE

HEAVY DUTY COVER-

AND FRAME, STAMPED

'FH' CLASS D400 (TO

SUIT 445x280 OPE)

DI DOUBLE FLANGED DN80, 50

CONCRETE BASE C25/30

C30/37 REINFORCED SLAB

LENGTH TO SUIT CONDITIONS

APPROVAL FROM IRISH WATER.

4. ALL HYDRANTS SHALL BE CLOCKWISE

RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS

STAINLESS STEEL

- COVER TO MANUFACTURERS

UNITS (REFER TO NOTE 5)

- REFER TO STD-W-13

FOR BEDDING DETAILS

➤ DISMANTLING JOINT

- CONCRETE SUPPORT

CONCRETE ROOF SLAB

C30/37 REINFORCED SLAB

- PRECAST CONCRETE UNITS

(REFER TO NOTE 5)

SPECIFICATION

EXTENSION SPINDLE

PRECAST CONCRETE

METAL BAND

6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER

7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.

AND FRAME SHALL BE SUITABLE FOR ROAD 8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STEEL

METAL BAND AROUND COVER IN GREEN 9. THRUST BLOCKS(NOT SHOWN ON DRAWING)

TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.

- STAINLESS STEEL

METAL BAND

_ COVER TO

MANUFACTURERS

SPECIFICATION

PRECAST CONCRETE

← REFER TO STD-W-13

FOR BEDDING DETAILS

─ DUCTILE IRON

SOCKETED

BRANCH

TEE WITH FLANGED

CONCRETE ROOF SLAB

C30/37 REINFORCED SLAB

PRECAST CONCRETE UNITS

(REFER TO NOTE 5)

UNITS (REFER TO NOTE 5)

10. ANTICORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.

5. VALVE CHAMBER TO BE CONSTRUCTED OF 11. ALL CONCRETE TO BE IN ACCORDANCE WITH PRECAST CONCRETE UNITS OR HIGH

200 445 200

PLINTH IN GRASSED AREAS

ROOF PLAN

FLOOR PLAN

(PRECAST CONCRETE CONSTRUCTION)

FIRE HYDRANT CHAMBER

(STD - W - 16) SCALE 1:20

NOTES:

1. 1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.

2. AIR VALVE CHAMBERS SHALL BE COVERED WITH APPROVED VENTILATED HEAVY DUTY METAL COVERS TO IS EN 124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH

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 A GATE VALVE CONFORMING TO IS EN 1074-2 AND

SHALL BE OF A BOLTLESS BONNET DESIGN 4. THE AIR VALVES SHALL OF BODIES AND COVERS OF CAST IRON TO BS EN 1563 WITH FLANGES DRILLED TO PN 16 IN ACCORDANCE WITH BS EN 1092. EACH VALVE SHALL HAVE A LARGE AND A SMALL VALVE.

5. SERVICE CONNECTIONS SHALL NOT BE PROVIDED WITHIN 2m OF THE AIR VALVE LOCATION

6. AIR VALVE CHAMBERS TO BE OF PRECAST CONCRETE UNITS OR HIGH DENSITY

PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO APPROVAL FROM

BLOCKWORK. ALTERNATIVE PROPRIETARY

PRECAST CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm

COMPACTED CLAUSE 808 MATERIAL AS PER

8. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.

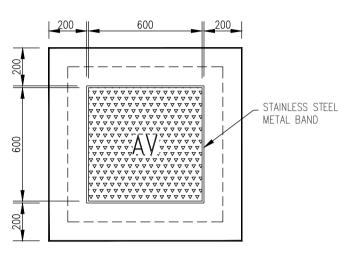
9. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STEEL METAL BAND AROUND COVER IN GREEN

10. THRUST BLOCKS(NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.

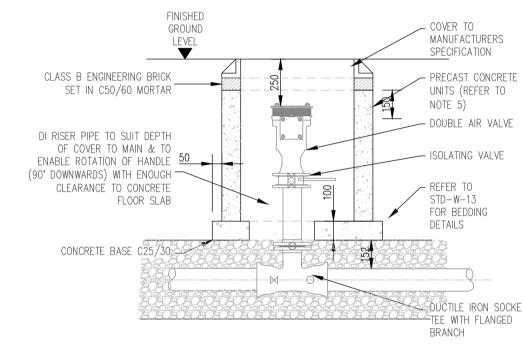
11. ANTICORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES. AIR ESCAPE ORIFICE WITH AN ISOLATING 12. THE LOCATION OF THE AIR VALVE SHALL BE THE SUBJECT OF PARTICULAR AGREEMENT WITH IRISH WATER TO ENSURE THAT THE RISK OF CONTAMINATION THROUGH THE

VALVE IS ELIMINATED;.

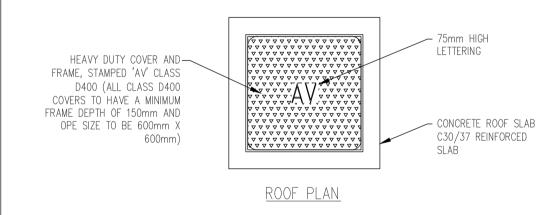
13. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206

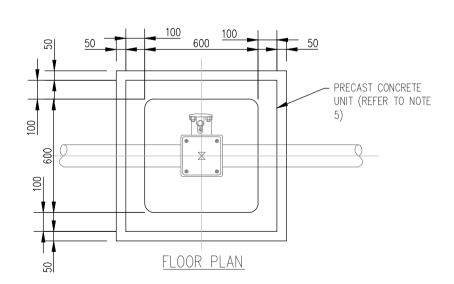


PLINTH IN GRASSED AREAS



<u>SECTION</u>





AIR VALVE CHAMBER (PRECAST CONCRETE CONSTRUCTION) (STD - W - 20)

PLANNING DRAWING.

NOT FOR CONSTRUCTION. ALL LEVELS GIVEN ARE RELATIVE TO ORDNANCE DATUM. THIS DRAWING HAS BEEN ISSUED FOR INFORMATION

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ROOF PLAN

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Darmody Architecture Development at Mill Road WATERMAIN DETAILS SHEET 1 OF 2

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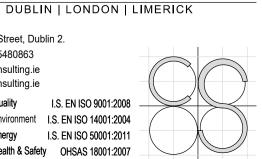
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