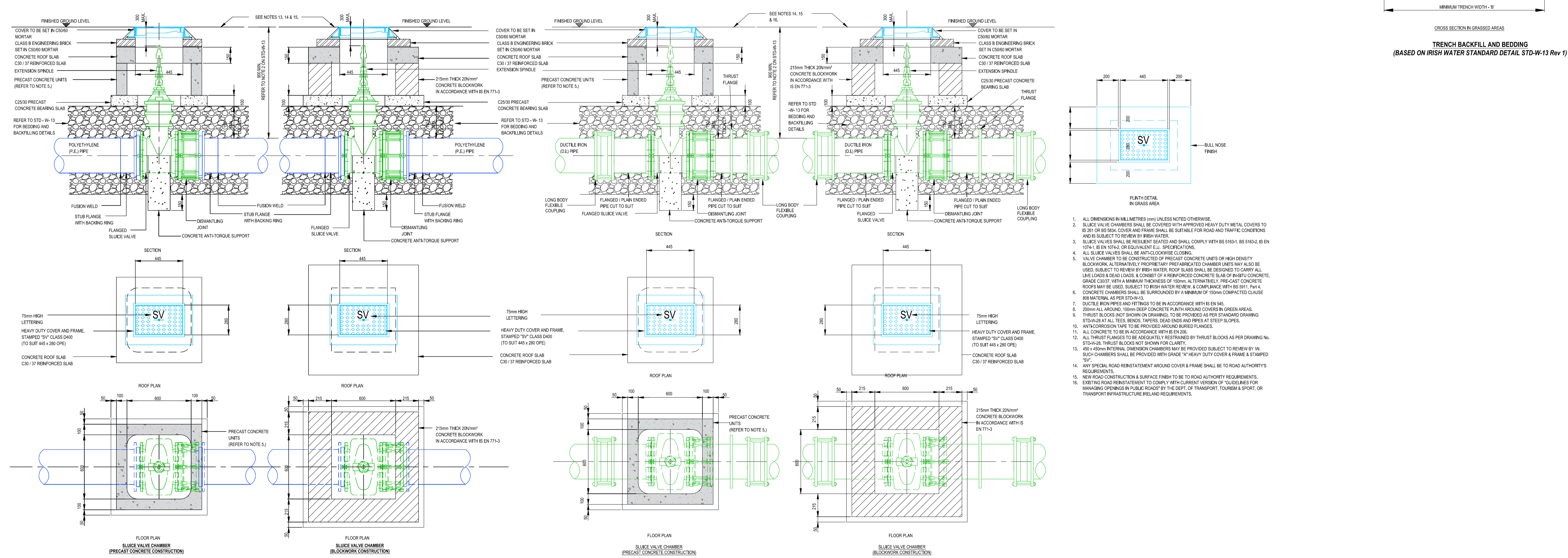


ON - LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE  
(BASED ON IRISH WATER STANDARD DETAIL STD-W-18 Rev 2)

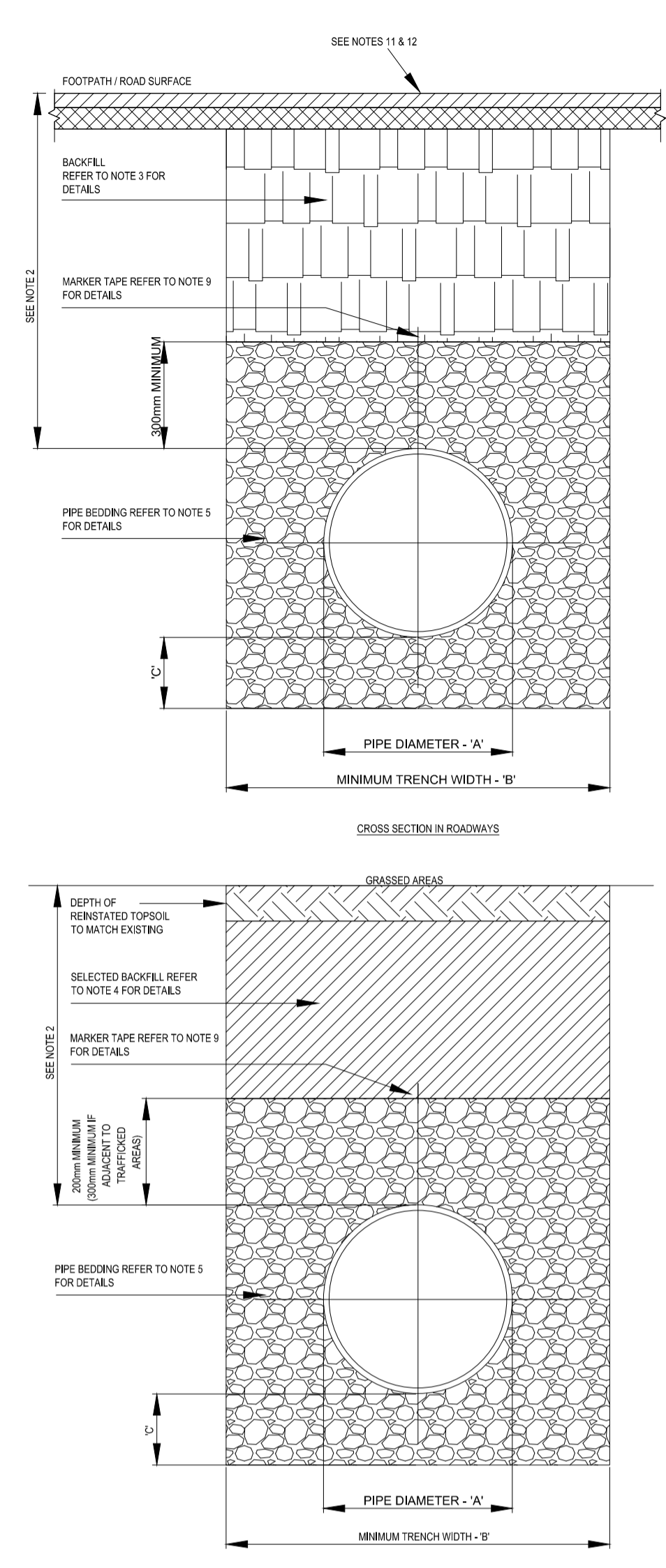
ON - LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE  
(BASED ON IRISH WATER STANDARD DETAIL STD-W-18 Rev 2)



SLUICE VALVE FOR POLYETHYLENE (P.E.) PIPE (< 350mm DIA.)  
(BASED ON IRISH WATER STANDARD DETAIL STD-W-15 Rev 2)

SLUICE VALVE FOR DUCTILE IRON (D.I.) PIPE (< 350mm DIA.)  
(BASED ON IRISH WATER STANDARD DETAIL STD-W-14 Rev 3)

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO BE 80 ON 80 BS 540 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 IS EN 14396, IS EN 10744 & BS 705. FIRE HYDRANTS SHALL BE TYPE 2, THE HYDRANT BULLET SHALL BE 80mm DIAMETER WITH P.W.M.
4. ALL HYDRANTS SHALL BE ANTI-CLOCKWISE CLOSING.
5. HYDRANT CHAMBERS 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 A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE GRADE C30/37 WITH A MINIMUM THICKNESS OF 150mm. ALTERNATIVELY, PRECAST CONCRETE ROOFS MAY BE USED, SUBJECT TO IRISH WATER REVIEW & COMPLIANCE WITH BS 9911, Part 4. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 8B MATERIAL AS PER STANDARD.
6. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545, PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH EN 12201/2011.
7. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. THRUST BLOCKS NOT SHOWN ON DRAWING, TO BE PROVIDED AS PER STANDARD DRAWING STD-W-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
10. ANY CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
12. NEW ROAD CONSTRUCTION SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
13. 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.



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 900mm WHERE THE PIPE IS TO BE LOCATED IN HOUSING ESTATE ROADS, GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADS ARE ANTICIPATED. THE DESIRABLE COVER FOR A WATERMAIN SHOULD BE 1200mm, WHERE PRACTICABLE & SHOULD NOT EXCEED 3.0m.
3. CLAUSE 8B (808 MATERIAL) IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE WATERMAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE HIGHEST AUTHORITY SPECIFICATION FOR ROADWORKS IS THE INNER EDGE OF THE ROADWAY. CLAUSE 8A (808) IS TO BE COMPACTED AS PER CLAUSE 8B OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS. CLAUSE 8B IS TO BE USED WITH 50mm OF CEMENT BOUND MATERIALS, CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS, OTHERWISE CLAUSE 8A (808) IS TO BE USED. ALTERNATIVELY BACKFILL MATERIAL TO THAT DESCRIBED ABOVE (CLAUSE 8A OR CLAUSE 8B) OF THE PIPE TRENCH WILL ONLY BE ALLOWED BY IRISH WATER WHERE THE ROAD AUTHORITY IN WRITSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES WRITTEN APPROVAL TO THE DEVELOPER TO USE SUCH MATERIAL.
4. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRASSLAND PIPE SURROUND MATERIALS SUBJECT TO REVIEW BY IRISH WATER. MATERIAL SHALL BE 14mm TO 5mm GRADED AGGREGATE OR 10mm SINGLE SIZED AGGREGATE TO BE IN PLACE.
5. IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED OUT AND DEPOSITED IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 8A (808 MATERIAL) IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEOTEXTILE WRAPPING, ALTERNATIVELY SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PLING 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.
6. 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 8B (808 MATERIAL) IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS.
7. TRENCH WIDTHS FOR PIPE SIZES 450mm MAY BE < 900mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
8. NEW ROAD CONSTRUCTION SURFACE FINISH TO BE TO ROAD AUTHORITY'S REQUIREMENTS.
9. 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.

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- NOTES:
1. Figured dimensions only to be taken from this drawing.
  2. All dimensions to be checked on site.
  3. All levels are in metres O.D. and are related to Ordnance datum at Malin.

DATA AND POWER HUB SERVICES LTD

PROJECT:  
GIS SUBSTATION COMPOUND AND TRANSFORMERS / MV SWITCH ROOM COMPOUND AT GRANGE CASTLE

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Drawn By:	SW	Date:	JAN 2021
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Approved By:	GF	Date:	JAN 2021
Internal Project Ref:	19229	Stage:	PLANNING
Drawing Title:	TYPICAL WATERMAIN DETAILS (SHEET 1)		

Scales: 1:50 @ A1  
Drawing No.: 19229-JBB-00-XX-DR-C-01505  
Rev: P01