

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

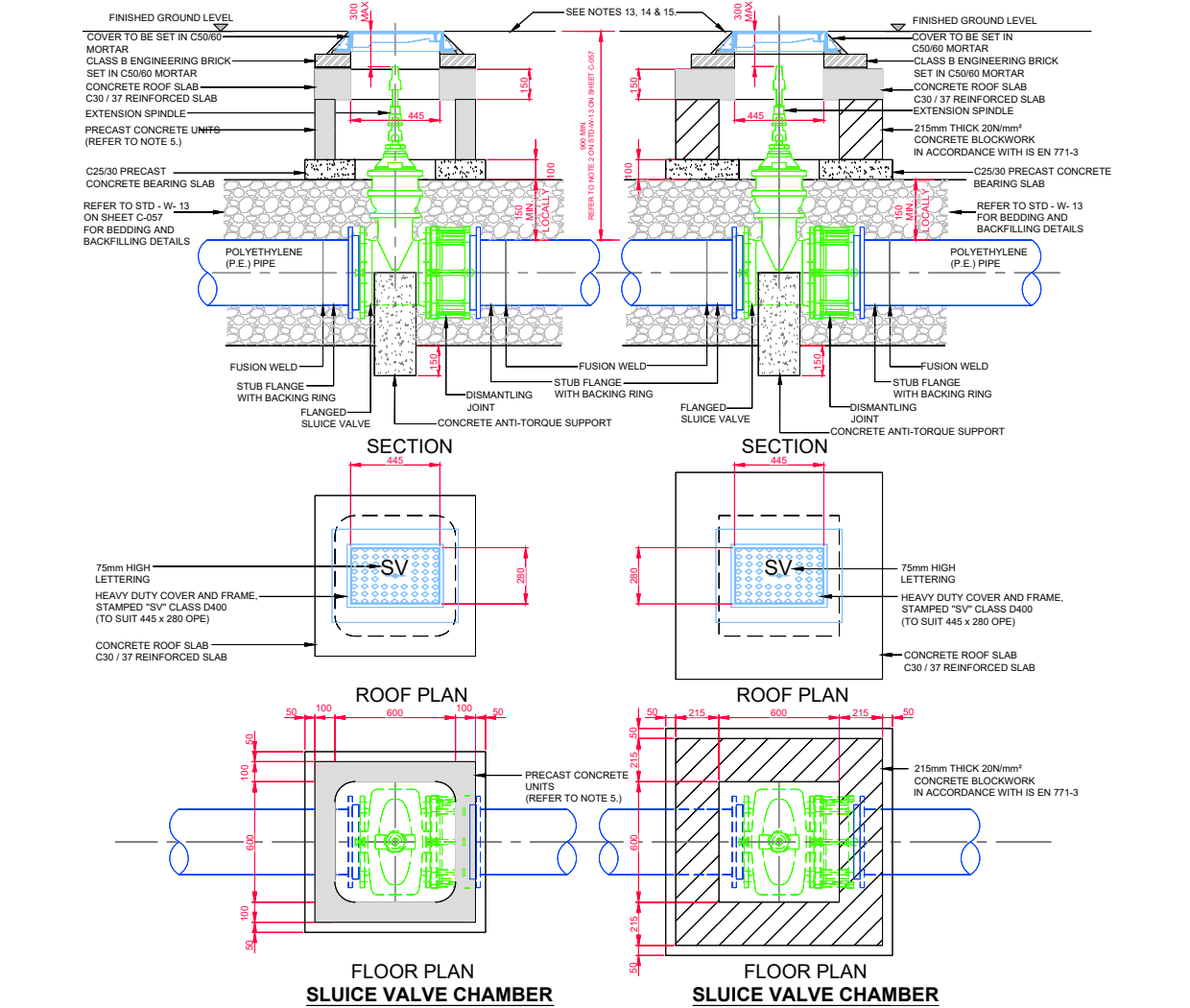
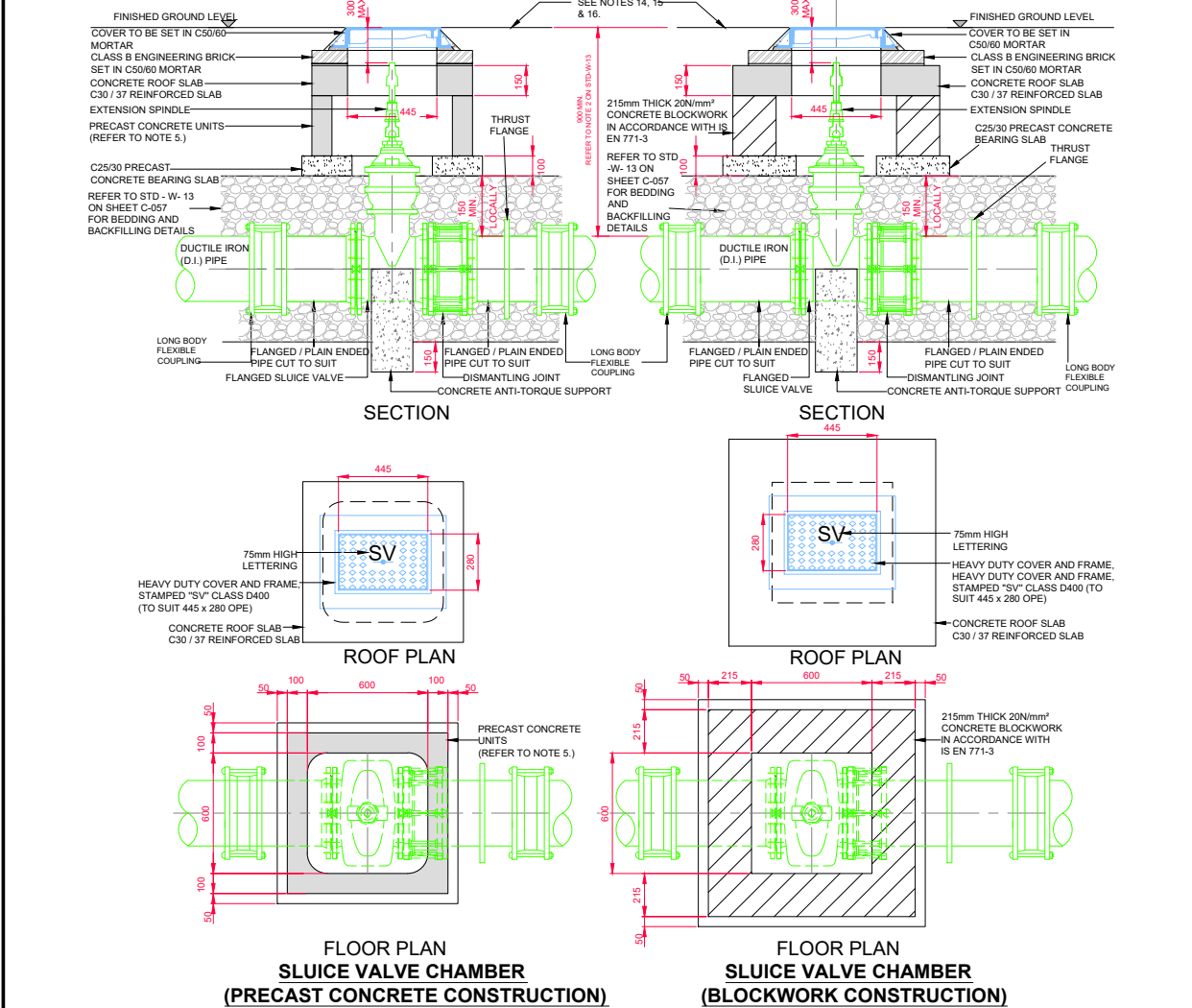
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤ 200	150
≥ 250	200

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- 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 A HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICIPATED. THE DESIRABLE COVER FOR A WATERMAIN SHOULD BE 1200mm, WHERE PRACTICABLE & SHOULD NOT EXCEED 3.0m.
- CLAUSE 804 / 808 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 IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 804 / 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. CLAUSE 808 IS TO BE USED WITHIN 500mm OF CEMENT BOUND MATERIALS, CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS. OTHERWISE CLAUSE 804 MAY BE USED. ALTERNATIVE BACKFILL MATERIAL TO THAT DESCRIBED ABOVE (CLAUSE 804 OR CLAUSE 808) OF THE PIPE TRENCH WILL ONLY BE ALLOWED BY IRISH WATER WHERE THE ROADS AUTHORITY IN WHOSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES WRITTEN APPROVAL TO THE DEVELOPER TO THE USE SUCH ALTERNATIVE MATERIAL.
- SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY IRISH WATER.

- 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 TO IS EN 12620.
- IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED OUT AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804 / 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY 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.
- 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 / 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
- SHOULD MINIMUM COVER NOT BE ACHIEVABLE, CONCRETE GRADE 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 A 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 ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
- NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY

- NOTES:**
- GENERAL NOTES:**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICE ENGINEERS DRAWINGS & SPECIFICATIONS.
  - ALL LEVELS ARE STRUCTURAL UNLESS NOTED OTHERWISE.
  - ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BUILDING REGULATIONS.
  - DO NOT SCALE - WORK TO FIGURE DIMENSIONS ONLY.

**IRISH WATER - STANDARD DETAILS - WATER TRENCH BACKFILL AND BEDDING - STD-W-13**  
NOT TO SCALE



- PLINTH DETAIL IN GRASS AREAS**
- ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
  - SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
  - SLUICE VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, IS EN 1074-1, IS EN 1074-2, OR EQUIVALENT E.U. SPECIFICATIONS.
  - ALL SLUICE VALVES SHALL BE ANTI-CLOCKWISE CLOSING.
  - VALVE 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 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 IRISH WATER REVIEW, & COMPLIANCE WITH BS 5911, Part 4.
  - CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
  - DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
  - 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
  - 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.
  - ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
  - ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
  - ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY.
  - 450 x 450mm 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".
  - ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
  - NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
  - 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.
- IRISH WATER - STANDARD DETAILS - WATER SLUICE VALVE FOR DUCTILE IRON (D.I.) PIPE (<350mm DIA.) (Sheet 1 of 2) - STD-W-14**  
NOT TO SCALE

- PLINTH DETAIL IN GRASS AREA**
- ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
  - SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY IRISH WATER.
  - SLUICE VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, IS EN 1074-1, IS EN 1074-2, OR EQUIVALENT E.U. SPECIFICATIONS.
  - ALL SLUICE VALVES SHALL BE ANTI-CLOCKWISE CLOSING.
  - VALVE 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 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 IRISH WATER REVIEW, & COMPLIANCE WITH BS 5911, Part 4.
  - CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
  - DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2011.
  - 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
  - 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.
  - ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
  - ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
  - 450 x 450mm 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".
  - ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
  - NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
  - 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.
- IRISH WATER - STANDARD DETAILS - WATER SLUICE VALVE FOR POLYETHYLENE (P.E.) PIPE (<350mm DIA.) (Sheet 2 of 2) - STD-W-15**  
NOT TO SCALE



Referenced Drawings	
Dwg No.	Dwg Title

Issue Register				
Rev.	Date	Description	Dwn.	Appr.
PL1	20.04.18	PLANNING ISSUE	EH	NP

Client: WATERFORD CITY AND COUNTY COUNCIL

Job Description: SOCIAL HOUSING PPP BUNDLE 2 SLIEVEKEALE, WATERFORD CITY

Status: PLANNING

Project No: 17KK007/SHEB2

Drawing Ref: SLI-C-056

Scale: A1 - N.T.S.

Date: 22.01.18

Drawn By: C.ZUCCO

Checked By: E.HOARE

Approved By: N.PATTERSON

