Wastewater Infrastructure Standard Details

Connections and Developer Services

Design and Construction Requirements for Self-Lay Developments

August 2025 (Revision 5)

Document CDS-5030-01

Uisce Éireann
Irish Water

Revision Log

Date	Details of Revision	Revision	Author	Approver
April 2016	General revisions	01	T'OC	M'OD
August 2016	General revisions & drawing added	02	TO'C	MO'D
December 2017	General revisions & drawing added	03	TO'C	MO'D
July 2020	General revisions & drawings added	04	TO'C	MO'D
August 2025	General revisions & drawings added	05	M McG	DP

Background

Technical Documentation has been developed by Uisce Éireann's Connections and Developer Services which outlines the requirements for wastewater services infrastructure within developments.

These Standard Details have been developed to outline to developers Uisce Éireann's requirements for the provision of wastewater infrastructure that is to be installed in developments and that would be connected to Uisce Éireann's networks and subsequently vested in Uisce Éireann.

The Standard Details outline design and construction requirements to ensure consistency in the provision of materials, equipment and workmanship, etc. They also provide the basis for developers' detailed design proposals for wastewater infrastructure, leading to the provision of infrastructure that is suitable for connection to Uisce Éireann's networks and easy operation and maintenance of the new infrastructure.

The Standard Details are based on best practice within the water industry. They take account of the experience of Local Authorities in the provision of these services to new developments. They have been successfully used by Uisce Éireann's own internal functions for a variety of projects and they are in line with water utility industry norms.

There are 59 No Standard Details dealing with wastewater infrastructure covering all aspects of such infrastructure.

These Standard Details are accompanied by a Design Risk Assessment (DRA) (document number IW-CDS-5030-02), which outlines the residual health and safety responsibilities of developers and their designers/contractors in the provision of such infrastructure.

The use of the Standard Details is mandatory in all new Uisce Éireann Connection Agreement Offers issued after 1st June 2016.

Index Sheet

Detail No.	Detail Title	Rev.
STD-WW-01	Wastewater service connection maintenance responsibility	3
STD-WW-02	Typical layout for sewer within new developments	2
STD-WW-03	Drain & service connection pipework	3
STD-WW-04	Typical sewer / service pipe connection	2
STD-WW-05	Typical service layout indicating separation distances	3
STD-WW-05A	Wastewater service connection vertical separation distances	0
STD-WW-06	Restrictions on wastewater infrastructure works adjacent to trees	2
STD-WW-06A	Restrictions on new trees/shrubs planting adjacent to sewers	2
STD-WW-07	Trench backfill & bedding	3
STD-WW-07A	Depth of cover requirements to wastewater pipes	0
STD-WW-08	Concrete protection slab, bed, haunch & surround to wastewater pipes	2
STD-WW-09	Blockwork manhole (<450mm dia.)	4
STD-WW-09A	Manhole access clear ope requirements	0
STD-WW-10	Pre-cast concrete manhole with cast in-situ base	4
STD-WW-10A	Pre-cast concrete manhole with pre-cast base	1
STD-WW-10B	Pre-cast concrete pumping station inlet manhole with cast in-situ concrete base	1
STD-WW-10C	Pre-cast concrete pumping station inlet manhole with precast concrete base	1
STD-WW-11	In-situ concrete manhole	4
STD-WW-11A	Cast in-situ concrete pumping station inlet manhole	1
STD-WW-12	Backdrop and cascade manholes	4
STD-WW-13	Private side inspection chamber	4
STD-WW-14	Thrust blocks for rising mains	3
STD-WW-15	Scour valve chamber (foul rising main ≤200mm dia.)	4
STD-WW-16	Sluice valve details for rising mains ductile iron (D.I.) pipe (≤200mm dia.) (sheet 1 of 2)	5
STD-WW-17	Sluice valve details for rising mains polyethylene (P.E.) pipe (≤200mm dia.) (sheet 2 of 2)	3
STD-WW-18	Air valve chamber (foul rising main ≤200mm dia.) Sheet 1 of 2	4
STD-WW-18A	Air valve chamber (foul rising main ≤200mm dia.) Sheet 2 of 2	0
STD-WW-19	Duct chamber	3
STD-WW-20	**DETAIL RETIRED**	
STD-WW-21	Typical ditch/stream crossing for gravity sewer (sheet 1 of 2)	3
STD-WW-22	Typical ditch/stream crossing for ductile iron rising main (sheet 2 of 2)	2
STD-WW-22A	Typical ditch/stream crossing for polyethylene rising main	0
STD-WW-23	**DETAIL RETIRED**	
STD-WW-24	Typical bridge crossing for rising main	2
STD-WW-24A	Typical culvert and services crossing details for rising main	0
STD-WW-25	Security gate & fencing palisade option (preferred)	0
STD-WW-25A	Security gate & fencing wire mesh option	3
STD-WW-26	Indicative pumping station site layout – access via lay-by	2
STD-WW-26A	Indicative pumping station site layout – direct access from public road	1
STD-WW-27	Flow meter & valve chamber (foul rising main ≤200mm dia.) cast In-situ concrete option	4
STD-WW-27A	Flow meter & valve chamber (foul rising main ≤200mm dia.) pre-cast concrete option	1
STD-WW-27B	**DETAIL RETIRED**	
STD-WW-27C	**DETAIL RETIRED**	
STD-WW-28	Cast in-situ Indicative submersible pumping station	3
STD-WW-28A	Indicative pre-cast concrete submersible pumping station with cast in-situ valve chamber	3
STD-WW-28B	Indicative alternative pre-cast concrete submersible pumping station and pre-cast valve chamber	1
STD-WW-29	Rising main discharge stand-off manhole	4
STD-WW-30	Type 1 Pumping station control kiosk	4
STD-WW-30A	Type 2 and Type 3 Pumping station control kiosk	1
STD-WW-31	Pumping station wet kiosk	4
STD-WW-31A	Pumping station wet kiosk water service connection arrangement	1
STD-WW-32	Hardstanding area pumping station (permeable & impermeable)	3
STD-WW-33	Lamp bollard & lamp standard	3
STD-WW-34	Vent stack	3
STD-WW-35	Rising main rodding chamber in-situ concrete option	1
STD-WW-35A	Rising main rodding chamber pre-cast concrete option	1

Standard Details Wastewater Networks

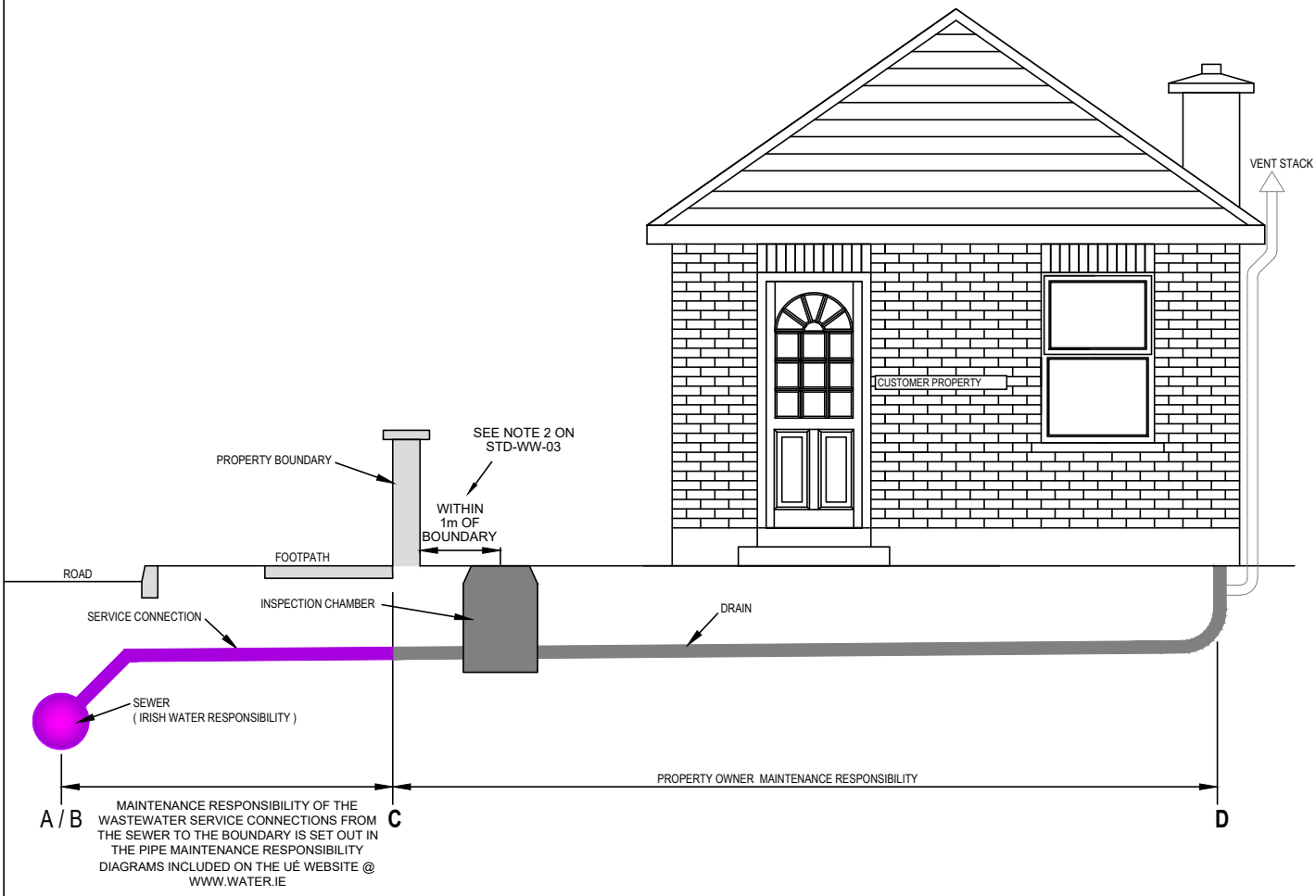
Detail No.	Detail Title	Rev.
STD-WW-36	Marker Posts / Plates	1
STD-WW-37	Section showing wastewater services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageway	0
STD-WW-38	Layout plan showing below ground services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageway	0
STD-WW-39	Section showing wastewater services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageway.	0
STD-WW-40	Layout plan showing below ground services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageway.	0
STD-WW-41	Typical shared rising main arrangement	0
STD-WW-42	Shared rising main chamber details	0

These Standard Details show the acceptable typical details and outline the minimum standards that are required by Uisce Éireann for the provision of wastewater pipes and related infrastructure which are to be connected to the Uisce Éireann Network. They shall be used in conjunction with the associated Code of Practice for Wastewater Infrastructure and Design Risk Assessments that have been developed which identify the risks that designers shall take into account in the detailed design of the wastewater pipes and related infrastructure to be connected to the Uisce Éireann Network. The pipes and related infrastructure to be put in place within developments shall comply fully with these Standard Details. Ultimate responsibility (including, but not limited to, any losses, costs, demands, damages, actions, expenses, negligence and claims) for the detailed design, construction and provision of such pipes and related infrastructure shall rest entirely with the Developer, his/her Designer(s), Contractor(s) or other connected party. Uisce Éireann assumes no responsibility for and gives no guarantees, undertakings or warranties in relation to the pipes and related infrastructure to be provided in accordance with these Standard Details.

These Standard Details shall be used in conjunction with current Uisce Éireann Codes of Practice CDS-5030-03, which will take precedence over the Standard Details.

These Standard Details may also be used for the installation of wastewater infrastructure for Asset Delivery Works & Capital Project Works Programmes at the discretion of Uisce Éireann.

August 2025



	MAINTENANCE RESPONSIBILITY
(A) SEWER	UISCE ÉIREANN
(B-C) SERVICE CONNECTION (INCLUDING SADDLE)	SEE NOTE ABOVE
INSPECTION CHAMBER	PROPERTY OWNER
(C-D) DRAIN	PROPERTY OWNER
INTERNAL PLUMBING	PROPERTY OWNER

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	B-C ownership revised	MOD
1	11/'17	JMC	TOC	Note reference added	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

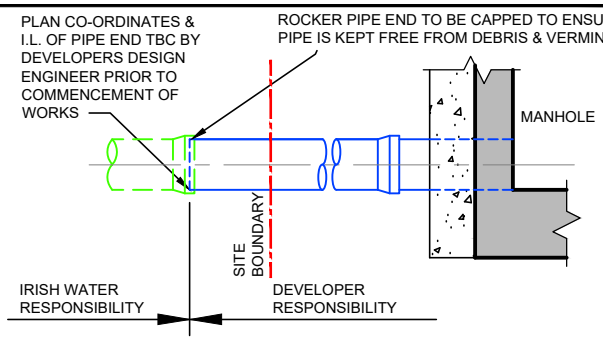
DATE: SEPT. 2015

TITLE: WASTEWATER SERVICE CONNECTION MAINTENANCE RESPONSIBILITY

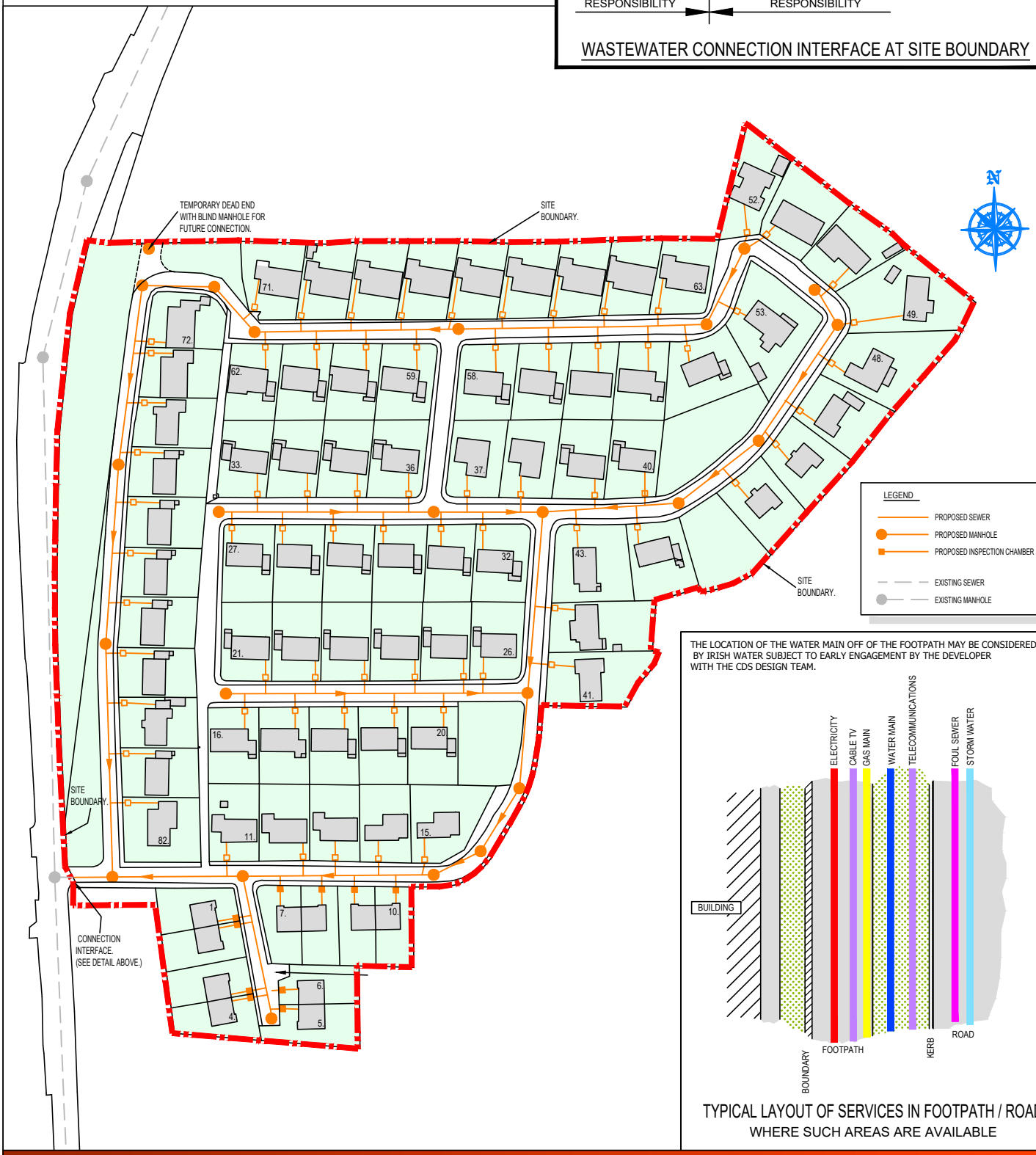
DRAWING No.: STD-WW-01

REV: 2

1. THE MINIMUM SIZE FOR A GRAVITY FOUL SERVICE CONNECTION SHALL BE 100mm DIAMETER.
2. THE MINIMUM SIZE OF GRAVITY FOUL SEWER SHALL BE 225mm DIAMETER IN GENERAL. GRAVITY SEWERS ON BRANCHES SERVING 20 OR LESS PROPERTIES TO BE 150mm DIAMETER SUBJECT TO AGREEMENT WITH UISCE ÉIREANN
3. THE MINIMUM SIZE FOR RISING MAINS SHALL NOT BE LESS THAN 80mm & THE DESIRED MINIMUM SIZE OF RISING MAIN SHALL BE 100mm DIAMETER.
4. EACH PROPERTY SHALL HAVE A SEPARATE WASTE WATER SERVICE CONNECTION. A CONNECTION SHALL NOT BE TAKEN FROM AN EXISTING SERVICE CONNECTION.
5. FOR SITES WITH HIGH DENSITY DEVELOPMENTS, EARLY ENGAGEMENT IS REQUIRED IN RELATION TO AGREEING A CO-ORDINATED UTILITY SERVICES LAYOUT PLAN TO ENSURE THAT THE REQUIRED SEPARATION DISTANCES ARE ACHIEVED BETWEEN THE VARIOUS SERVICES.



WASTEWATER CONNECTION INTERFACE AT SITE BOUNDARY



THE LOCATION OF THE WATER MAIN OFF OF THE FOOTPATH MAY BE CONSIDERED BY IRISH WATER SUBJECT TO EARLY ENGAGEMENT BY THE DEVELOPER WITH THE CDS DESIGN TEAM.

TYPICAL LAYOUT OF SERVICES IN FOOTPATH / ROAD WHERE SUCH AREAS ARE AVAILABLE

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Adjustments to Manhole Locations	DP
2	07/'20	RH	TOC	Connection Interface Detail added Dead end future connection shown Notes Updated.	MOD
1	11/'17	JMC	TOC	Updated Note 2	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

Uisce Éireann Irish Water

TITLE

TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENTS

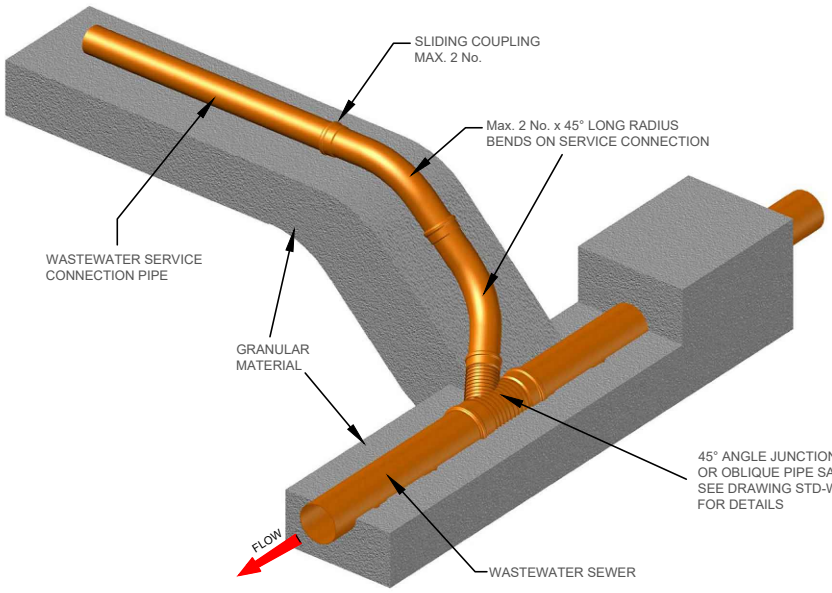
SCALE: NOT TO SCALE

DATE: SEPT. 2015

DRAWING No.: STD-WW-02

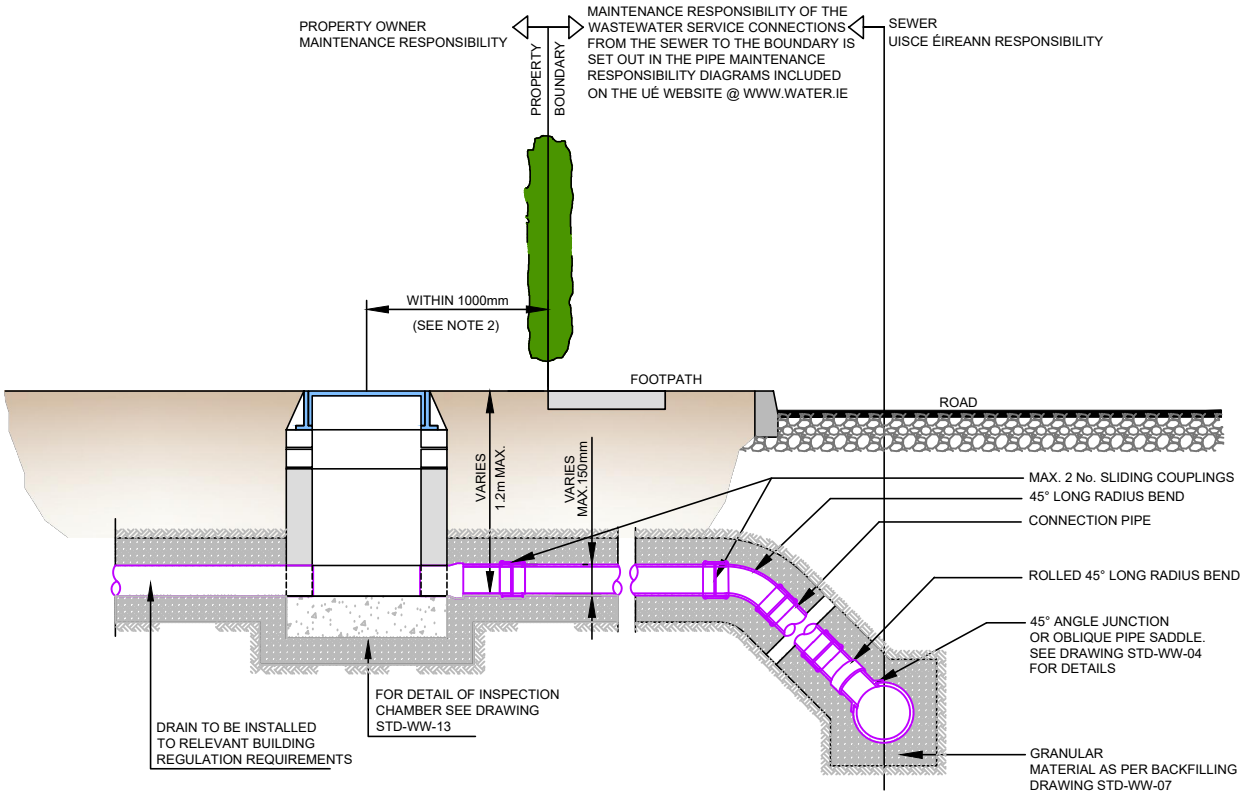
REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE, CONSULT WITH UISCE ÉIREANN ON ALTERNATIVE LOCATIONS.
3. Updated Notes



NOTE:
IN HIGH DENSITY DEVELOPMENTS I.E. **DUPLEX OR TERRACED HOUSING**, WASTEWATER DRAINS FROM A MAXIMUM OF TWO UNITS CAN BE COMBINED INTO ONE INSPECTION CHAMBER IN INSTANCES WHERE THERE ARE SPACE CONSTRAINTS.
FOR TRIPLEX HOUSING UNITS, WASTEWATER DRAINS FROM A MAXIMIMUM OF 3 UNITS CAN BE COMBINES INTO ONE INSPECTION CHAMBER WITH MINIMUM INTERNAL DIMENSIONS OF 600 x 600mm OR 600mm DIAMETER. A **150MM DIAMETER** OUTLET PIPE IS REQUIRED IN INSPECTION CHAMBERS SERVING DUPLEX AND TRIPLEX UNITS.

3D VIEW SHOWING SERVICE CONNECTION PIPEWORK



SECTION SHOWING DRAIN AND SERVICE CONNECTION PIPEWORK

PIPE SIZE (mm)	GRADIENT
100 - 150mm Ø	1:40 - 1:80

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Updated Notes	DP
2	07/'20	RH	TOC	Service connection responsibility revised Concrete surround at saddle removed 3D view added.	MOD
1	11/'17	JMC	TOC	Updated Notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE
DATE: SEPT. 2015

TITLE: DRAIN AND SERVICE CONNECTION PIPEWORK

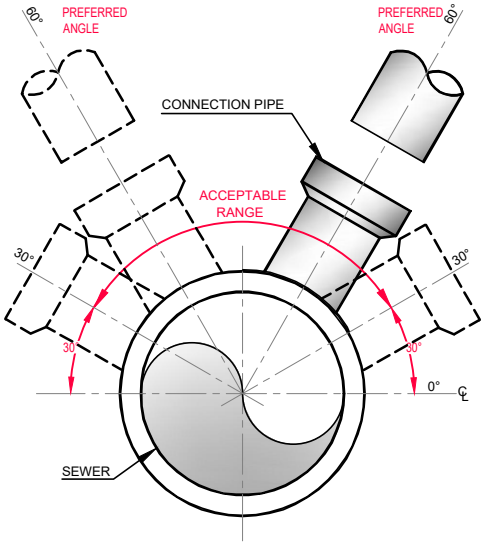
DRAWING No.: STD-WW-03
REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AS FAR AS PRACTICABLE, JUNCTIONS AND SERVICE CONNECTIONS SHALL BE BUILT IN FOR ALL PLANNED USERS WHEN THE SEWER IS BEING CONSTRUCTED. WHERE IT IS NECESSARY TO MAKE A POST-CONSTRUCTION CONNECTION THE DEVELOPER SHALL BRING THE SERVICE CONNECTION TO THE INSPECTION CHAMBER, INSTALL THE INSPECTION CHAMBER AND SEAL THE UPSTREAM END UNTIL THE CONNECTION IS REQUIRED.
3. THE VERTICAL ANGLE BETWEEN THE SERVICE CONNECTING PIPE AND THE HORIZONTAL SHALL BE WITHIN THE ACCEPTABLE RANGE OF 30° to 90°.
4. WHERE THE SERVICE PIPE CONNECTION WITHIN THE FOOTPRINT OF THE SELF LAY AGREEMENT IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER OF 300mm DIAMETER OR LESS, CONNECTIONS SHALL BE MADE USING 45° ANGLE JUNCTIONS.
5. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER GREATER THAN 300mm, THE FOLLOWING SHALL APPLY :

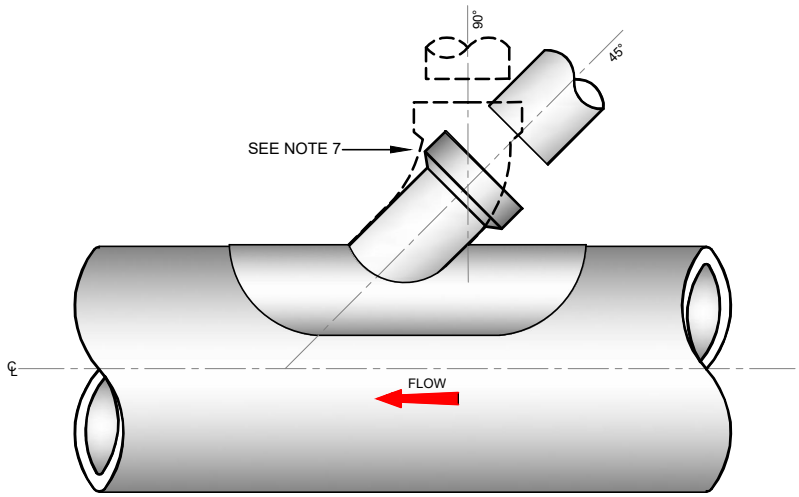
A. WHERE THE DIAMETER OF THE CONNECTING PIPE IS GREATER THAN HALF THE DIAMETER OF THE SEWER, AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO FORM THE CONNECTION POINT; OR,

B. WHERE THE DIAMETER OF THE CONNECTION PIPE IS LESS THAN OR EQUAL TO HALF THE DIAMETER OF THE SEWER, THEN THE CONNECTION SHALL BE MADE USING A PREFORMED Y-BRANCH FITTING WITH A 45 DEG. SLOW BEND TO FORM THE CONNECTION TO THE WORKS.

6. CONNECTION USING SADDLES MAY ONLY BE USED IN EXCEPTIONAL CIRCUMSTANCES AND ONLY TO WHERE THE CONNECTION IS TO AN EXISTING SEWER. CONNECTIONS MADE WITH SADDLE FITTINGS SHALL BE MADE BY CUTTING AND SAFELY REMOVING A CORE FROM THE PIPE AND JOINTING THE SADDLE FITTING TO THE PIPE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO ENSURE A WATERTIGHT JOINT. THE CONNECTING PIPE SHALL NOT PROTRUDE INTO THE SEWERS
7. THE USE OF 90° "Y"-BRANCH OR SADDLE CONNECTIONS TO THE SEWER MAY BE ALLOWED, PROVIDED THE SADDLE OR BRANCH INCORPORATES A SWEPT TEE CONNECTION TOWARDS THE DIRECTION OF FLOW OF THE SEWER.

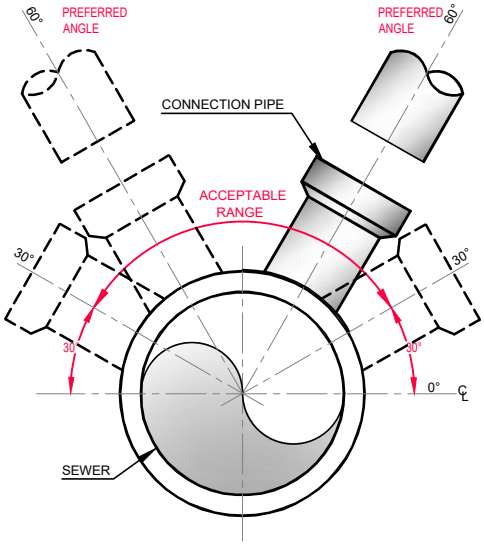


CROSS-SECTIONAL VIEW OF SEWER

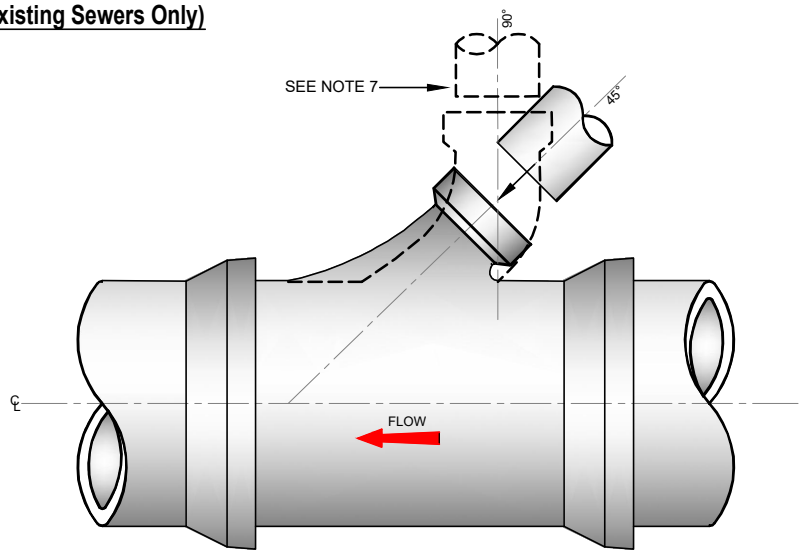


VIEW IN DIRECTION OF ARROW A

TYPICAL 45° SADDLE CONNECTION (Existing Sewers Only)



CROSS-SECTIONAL VIEW OF SEWER



VIEW IN DIRECTION OF ARROW A

45° "Y" BRANCH

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
2	07/'20	RH	TOC	Updated connection detail & notes	MOD
1	11/'17	JMC	TOC	Updated connection detail & notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

DATE: SEPT. 2015

TITLE: TYPICAL SEWER / SERVICE PIPE CONNECTION

DRAWING No.: STD-WW-04

REV: 2

1. SEPARATION DISTANCES BETWEEN SEWERS ASSOCIATED WITH THE WORKS FROM OTHER UTILITY PIPES AND ACCESSORIES SHALL BE IN ACCORDANCE WITH SECTION 3.5.9 TO 3.5.21 OF THE CODE OF PRACTICE. SEPARATION DISTANCES FOR ALL NEW INSTALLATIONS FROM EXISTING IRISH WATER PIPES SHALL BE AS OUTLINED IN SECTION 3.20 OF THE CODE OF PRACTICE.

2. SPECIFIC SEPARATION CLEARANCE DISTANCES IN EXCESS OF THESE MINIMA SHALL BE PROVIDED FOR SERVICES SUCH AS GAS, ELECTRICITY, FIBRE-OPTIC OR OIL FILLED CABLES AS THE CASE MAY BE. THE PARTICULAR UTILITY PROVIDERS SHALL BE CONSULTED TO DETERMINE THESE MINIMUM SEPARATION DISTANCES AND EVIDENCE OF THIS CONSULTATION, WITH THE SPECIFIED SEPARATION DISTANCES, SHALL BE PROVIDED TO UISCE ÉIREANN AT DESIGN STAGE.

3. NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN THE FOLLOWING DISTANCES FROM AN EXISTING WATER MAIN OR WASTEWATER RISING MAIN WHERE THE DEPTH OF THE EXISTING INFRASTRUCTURE DOES NOT EXCEED 1.5m:-

   HORIZONTAL
   1m AT EITHER SIDE OF AN EXISTING PIPE LESS THAN 200mm IN DIAMETER.
   2m AT EITHER SIDE OF AN EXISTING PIPE OF 200mm TO 350mm IN DIAMETER.
   5m AT EITHER SIDE OF AN EXISTING PIPE OF 350mm OR GREATER IN DIAMETER.

   WHERE DUCTS OR PIPES ARE TO BE LAID CLOSE TO AN EXISTING WATERMAIN OR SEWER IN THE OWNERSHIP OF UISCE ÉIREANN. NOTIFICATION IN WRITING SHALL BE PROVIDED A MINIMUM OF 10 DAYS AHEAD OF ADVANCEMENT OF THE WORK. THIS ALSO APPLIES WHERE THE DEPTH OF THE UISCE ÉIREANN WATERMAIN OR SEWER EXCEEDS 1.5m. IN ALL OF THESE INSTANCES, SPECIFIC WRITTEN APPROVAL WILL BE REQUIRED FROM UISCE ÉIREANN BEFORE PROCEEDING WITH THE WORK

   NOTIFICATION IN WRITING IS REQUIRED SHOULD WORKS BE WITHIN 1.5m DISTANCE OF A WASTEWATER SEWER.

   REQUIREMENTS SHALL ALSO APPLY TO TRIAL HOLES OR SLIT TRENCHES TO LOCATE THE MAIN OR GAIN GROUND INFO DATA.

   LARGER DIAMETERS >350mm DISTRIBUTION AND TRUNK MAINS, UISCE ÉIREANN MUST BE NOTIFIED AT LEAST 1 MONTH IN ADVANCE.

   DEVELOPERS SHALL ALSO COMPLY WITH ANY NOTIFICATION REQUIREMENTS OF OTHER UTILITY PROVIDERS (ESB, GAS MAIN, TELECOMMUNICATION ETC.).

4. DETAILED PROPOSALS, INCLUDING WORK METHOD STATEMENTS, INSURANCE CONFIRMATION AND DETAILS OF WORK COMPLETED OF A SIMILAR NATURE MUST BE SUBMITTED TO UISCE ÉIREANN FOR ITS CONSIDERATION BEFORE AGREEMENT WILL ISSUE. ALL SUCH WORKS IN THE VICINITY OF ARTERIAL WATER MAINS AND SEWERS (MAINS GREATER THAN 400mm) SHALL BE SUBJECT TO WRITTEN AGREEMENT WITH UISCE ÉIREANN BEFORE CONSTRUCTION COMMENCES ON SITE. THIS AGREEMENT SHALL ALSO INCLUDE ANY NECESSARY PROTECTION FOR WATER MAINS.

5. ANY DAMAGE SHALL BE NOTIFIED IMMEDIATELY TO UISCE ÉIREANN. THE PERSON WHO CAUSES THE DAMAGE TO A SEWER MAIN OR FITTING WILL BE DEEMED TO HAVE COMMITTED AN OFFENCE UNDER SECTION 45 OF THE WATER SERVICES ACT 2007.

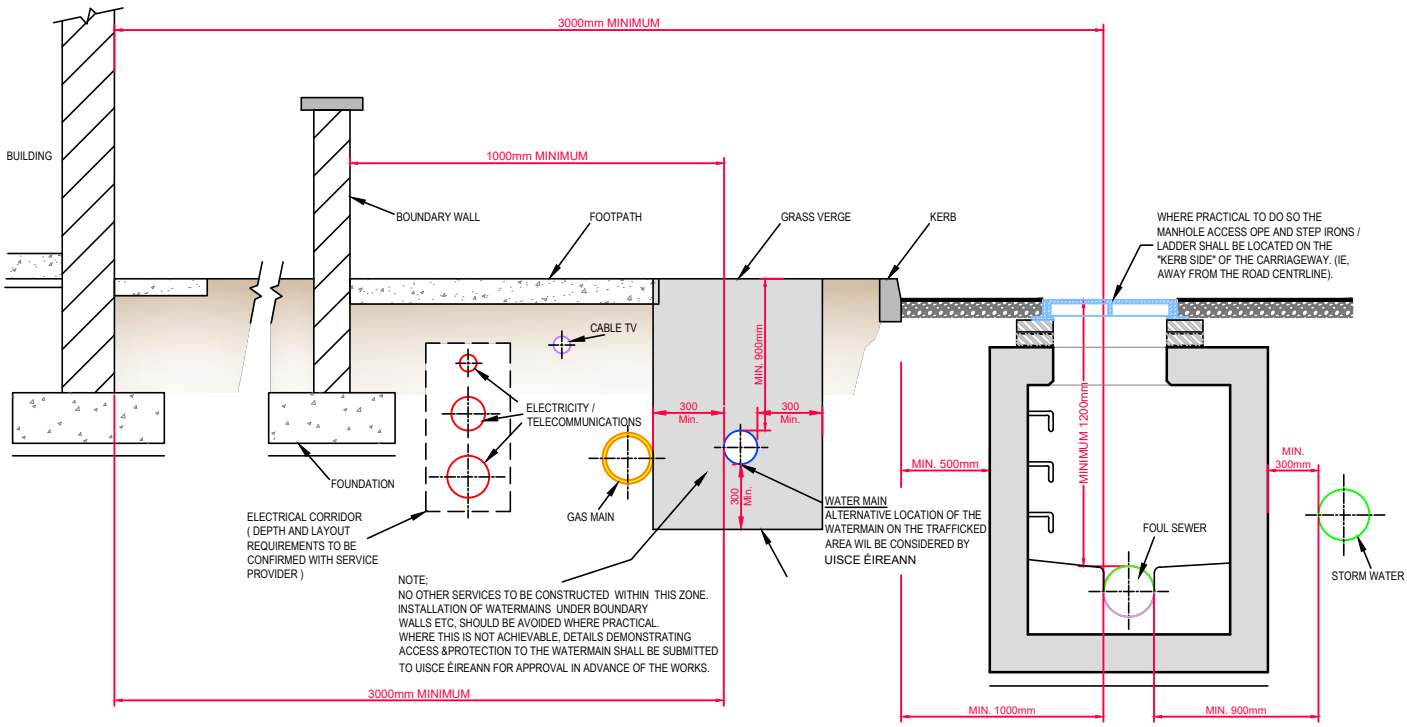
6. UNDER NO CIRCUMSTANCES WILL UISCE ÉIREANN ACCEPT SEWER MAIN INSTALLATIONS UNDER STRUCTURES, EXISTING OR PROPOSED, OR IN CLOSE PROXIMITY TO ANY EXISTING STRUCTURES OR FEATURES THAT WILL INHIBIT ACCESS FOR POST INSTALLATION MAINTENANCE AND ACCESS.

7. THE MINIMUM CLEAR HORIZONTAL DISTANCES SHOWN BELOW WILL BE INCREASED IF THE DEPTH OF THE SEWER EXCEEDS 3M OR IF THE DIAMETER IS GREATER THAN 375mm. THE MINIMUM CLEAR DISTANCES FOR PIPE DIAMETERS OF 450mm AND GREATER OR FOR DEPTHS EXCEEDING 4.0m SHALL BE BASED ON SPECIFIC CONSULTATION WITH UISCE ÉIREANN. THESE SEPARATION DISTANCES SHALL ALSO APPLY TO SEPARATION FROM EXISTING STRUCTURES, INCLUDING ATTENUATION TANKS AND SWALES.

8. THE EXTERNAL FACES OF MANHOLES SHALL BE AT LEAST 0.5m FROM THE EXTERNAL FACE OF THE KERB LINE.

9. THE EXTERNAL WALL OF THE SEWER IS TO BE AT LEAST 1.0m FROM THE EXTERNAL FACE OF THE KERB LINE.

10. WHERE DESIGN DEVIATES FROM TYPICAL DETAILS, THE LAYOUT SHALL BE SUBMITTED TO UISCE ÉIREANN FOR REVIEW AND AGREEMENT, WHICH IS TO BE OBTAINED IN WRITING BEFORE WORK COMMENCES..



NOTE:
THE EXTERNAL WALLS OF STAGGARED OR ADJACENT MANHOLES SHALL HAVE A MIN. 500mm SEPARATION DISTANCE TO ALLOW FOR COMPACTION OF BACKFILL MATERIAL BETWEEN THE STRUCTURES.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Separation distances to Watermain Clarified	DP
2	07/'20	RH	TOC	Separation distances to sewers added, updated notes	MOD
1	11/'17	JMC	TOC	Updated notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES

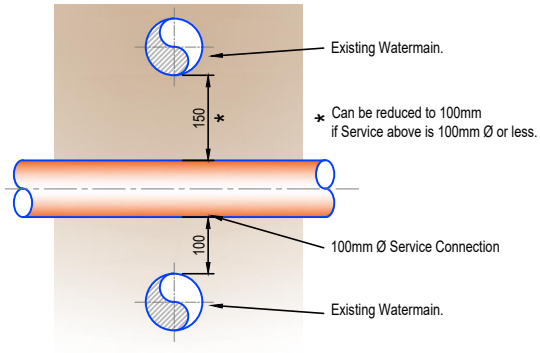
SCALE: NOT TO SCALE

DATE: SEPT. 2015

DRAWING No.: STD-WW-05

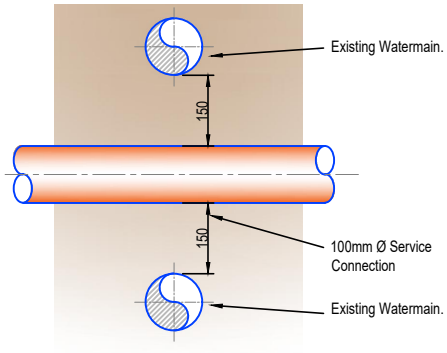
REV: 3

SERVICE CONNECTIONS



Vertical Separation required between 100mm Ø Service Connections and other Uisce Éireann Services at Crossings in Non-Trafficked Green Areas, Verges and Footpaths

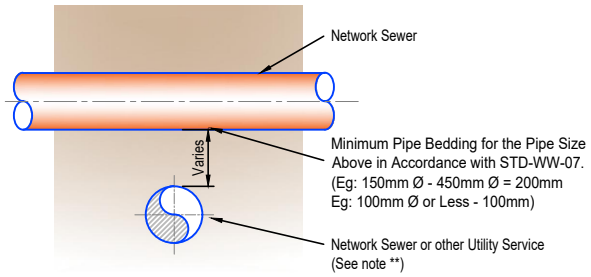
** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.



Vertical Separation required between 100mm Ø Service Connections and other Uisce Éireann Services at Crossings in Trafficked Areas/Roads

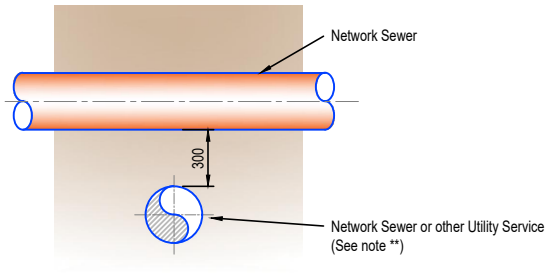
** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

NETWORK FOUL AND PIPE BELOW



Sewer Crossings (Foul & Storm). Minimum Pipe Bedding under Upper Pipe to be Achieved. Applies to Non-Trafficked Areas Only.

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.



Sewer Crossings (Foul & Storm). Minimum Pipe Bedding under Upper Pipe to be Achieved. Applies to Trafficked Areas.

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

	Separation distance between Service Connection above and Uisce Éireann pipe below.	Separation distance between Service Connection below and Uisce Éireann pipe above if pipe is 100mm Ø or less.	Separation distance between Service Connection below and pipe above if pipe exceeds 100mm Ø.	Separation distance between Network Sewer above and pipe below.	Separation distance between Network Sewer below and pipe above.
Non Trafficked Areas	100mm	100mm	150mm	Pipe bedding depth of the upper pipe.	Pipe bedding depth of the pipe below.
Trafficked Areas	150mm	150mm	150mm	300mm	300mm

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

METHOD STATEMENTS:
ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 5837 AND INFORMED BY NJUG VOLUME 4

PRECAUTION AREA:

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS AGREED WITH UISCE ÉIREANN.

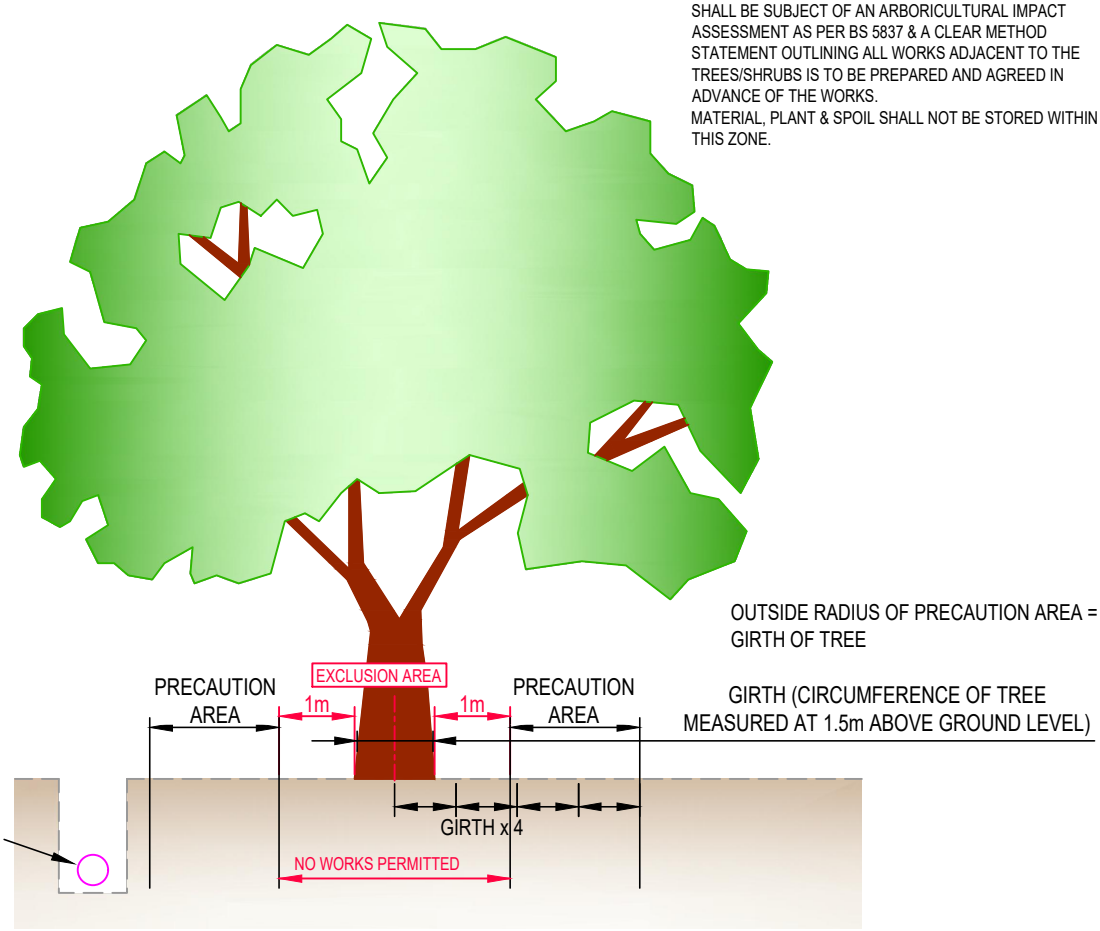
WORKS WITHIN THE PRECAUTION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST. WORKS SHALL BE SUBJECT OF A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS WHICH IS TO BE PREPARED & AGREED IN ADVANCE OF THE WORKS.

MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.

EXCLUSION AREA:

WORKS IN THIS AREA ARE TO BE AVOIDED, UNLESS ABSOLUTELY NECESSARY & AGREED WITH UISCE ÉIREANN.

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS NECESSARY AND NO OTHER OPTIONS AVAILABLE. WORKS WITHIN THE EXCLUSION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST AND AGREED WITH UISCE ÉIREANN. WORKS SHALL BE SUBJECT OF AN ARBORICULTURAL IMPACT ASSESSMENT AS PER BS 5837 & A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS IS TO BE PREPARED AND AGREED IN ADVANCE OF THE WORKS.
MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.



PREVENTION MEASURES REQUIRED IN LINE WITH LANDSCAPING DESIGN & SPECIAL PROTECTION REQUIRED. (e.g. BY USE OF APPROPRIATE BARRIERS, HIGH PERFORMANCE JOINTS, OR BY USE OF POLYETHYLENE WITH WELDED JOINTS). THE LANDSCAPE DESIGN AND DETAILS OF THE SPECAIL PROTECTION MEASURES MUST BE AGREED WITH UISCE ÉIREANN.

EXISTING PLANTING:

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

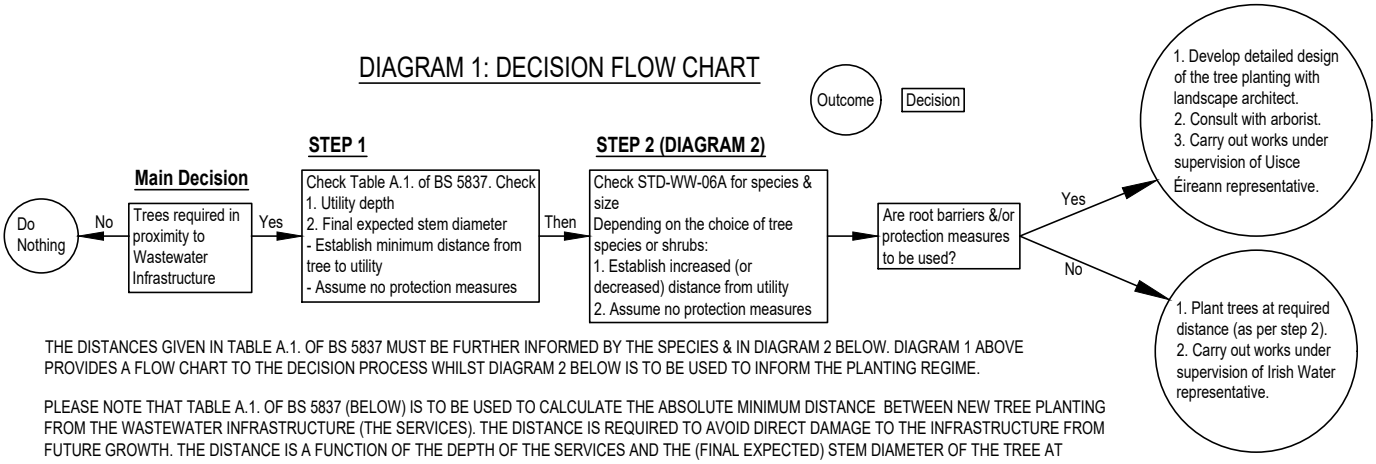
No.	Date	Drn	Chk	Description	App
2	11/'17	JMC	TOC	Revised to suit ILI recommendations	MOD
1	08/'16	JMC	TOC	Added new section & notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

TITLE: RESTRICTIONS ON WASTEWATER INFRASTRUCTURE WORKS ADJACENT TO TREES

SCALE: NOT TO SCALE
DATE: SEPT. 2015
DRAWING No.: STD-WW-06
REV: 2

DIAGRAM 1: DECISION FLOW CHART



THE DISTANCES GIVEN IN TABLE A.1. OF BS 5837 MUST BE FURTHER INFORMED BY THE SPECIES & IN DIAGRAM 2 BELOW. DIAGRAM 1 ABOVE PROVIDES A FLOW CHART TO THE DECISION PROCESS WHILST DIAGRAM 2 BELOW IS TO BE USED TO INFORM THE PLANTING REGIME.

PLEASE NOTE THAT TABLE A.1. OF BS 5837 (BELOW) IS TO BE USED TO CALCULATE THE ABSOLUTE MINIMUM DISTANCE BETWEEN NEW TREE PLANTING FROM THE WASTEWATER INFRASTRUCTURE (THE SERVICES). THE DISTANCE IS REQUIRED TO AVOID DIRECT DAMAGE TO THE INFRASTRUCTURE FROM FUTURE GROWTH. THE DISTANCE IS A FUNCTION OF THE DEPTH OF THE SERVICES AND THE (FINAL EXPECTED) STEM DIAMETER OF THE TREE AT MATURITY (i.e. FINAL EXPECTED GROWTH).

TABLE A.1: ABSOLUTE MINIMUM PLANTING SEPARATION DISTANCES FOR DIFFERENT SPECIES WITHOUT BARRIER PROTECTION

TABLE A.1. BS 5837	Minimum distance between young trees or new planting & structures, in metres (m)		
	Final stem dia. < 300mm	Final stem dia. 300mm to 600mm	Final stem dia. > 600mm
Services			
< 1m deep	0.5	1.5	3.0
> 1m deep	--	1.0	2.0

THUS FOR EXAMPLE:
- FOR A SERVICE LESS THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.5m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.
- FOR A SERVICE GREATER THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.0m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.

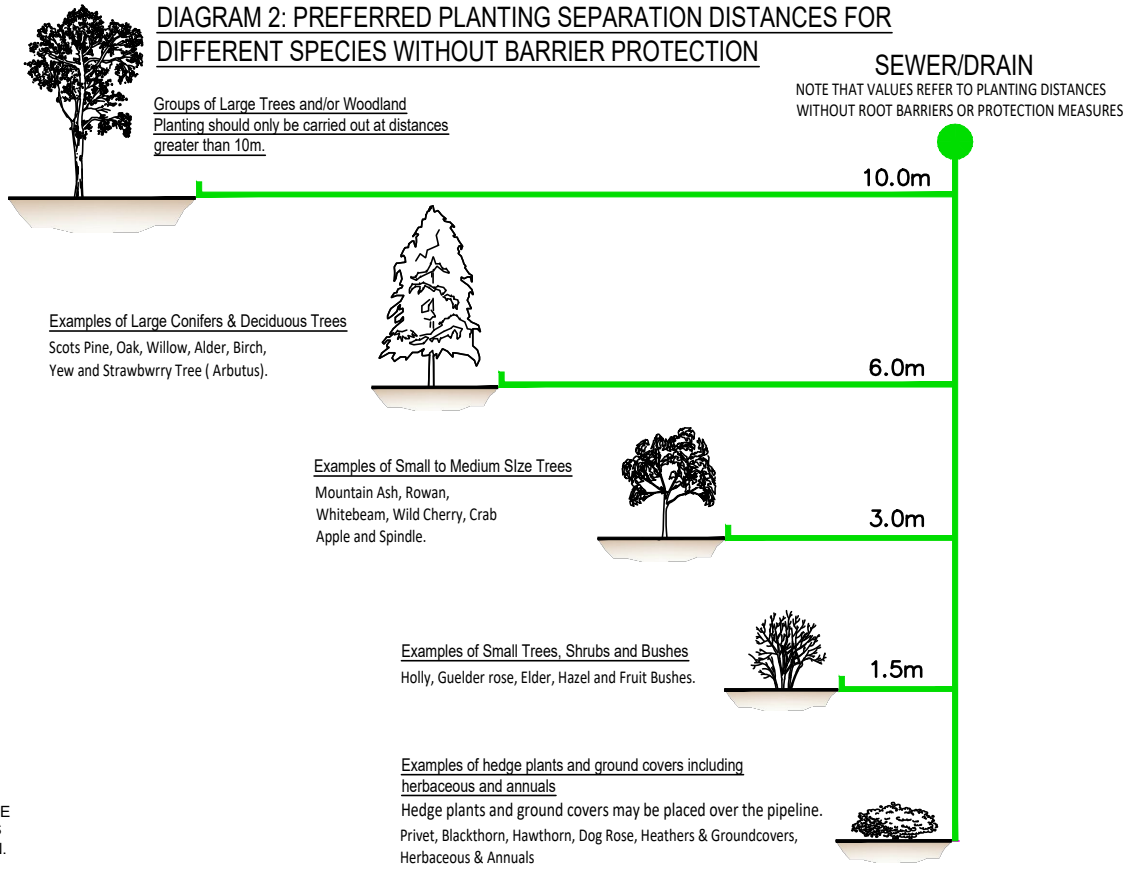
NOTE: RESTRICTIONS RELATE TO INFRASTRUCTURE WITHOUT ROOT INTRUSION PROTECTION.

THE DESIGN OF LANDSCAPING SHALL BE UNDERTAKEN IN CONJUNCTION WITH THE DESIGN OF WASTEWATER INFRASTRUCTURE, ETC. THE TREE/BUSH/SHRUB SHALL NOT BE LOCATED CLOSER TO THE WASTEWATER INFRASTRUCTURE THAN INDICATED ABOVE, EXCEPT WHERE SPECIAL PROTECTION MEASURES ARE PROVIDED. WHERE THERE IS A RISK OF TREE/ROOT INTRUSION, THE WASTEWATER INFRASTRUCTURE SHALL BE RESISTANT TO TREE ROOT INGRESS (e.g. BY USE OF APPROPRIATE BARRIERS, HIGH PERFORMANCE JOINTS, OR BY USE OF POLYETHYLENE WITH WELDED JOINTS FOR RISING MAINS). THE LANDSCAPE DESIGN AND DETAILS OF THE SPECIAL PROTECTION MEASURES MUST BE AGREED WITH UISCE ÉIREANN

A TREE SHALL NOT BE PLANTED DIRECTLY OVER WASTEWATER INFRASTRUCTURE WHERE EXCAVATION OF THE INFRASTRUCTURE WOULD REQUIRE REMOVAL OF THE TREE UNLESS SUCH PLANTING IS AGREED WITH UISCE ÉIREANN AND IN GENERAL ONLY SHALLOW ROOTING SHRUBS SHALL BE PLANTED CLOSE TO WASTEWATER INFRASTRUCTURE.

PLEASE ENSURE THAT THESE DISTANCES ARE ADHERED TO IN ORDER TO PROTECT THE TREES FROM ANY FUTURE MAINTENANCE. REFERENCE SHOULD ALSO BE MADE TO BS 5837, BS 8545 AND THE NJUG GUIDELINES VOLUME 4 FOR FURTHER INFORMATION.

DIAGRAM 2: PREFERRED PLANTING SEPARATION DISTANCES FOR DIFFERENT SPECIES WITHOUT BARRIER PROTECTION



NOTE:
OTHER SPECIES NOT NAMED TO BE PLANTED TO THE SAME SPACINGS DEPENDING ON ROOT FORMATION.

CONNECTIONS AND DEVELOPER SERVICES

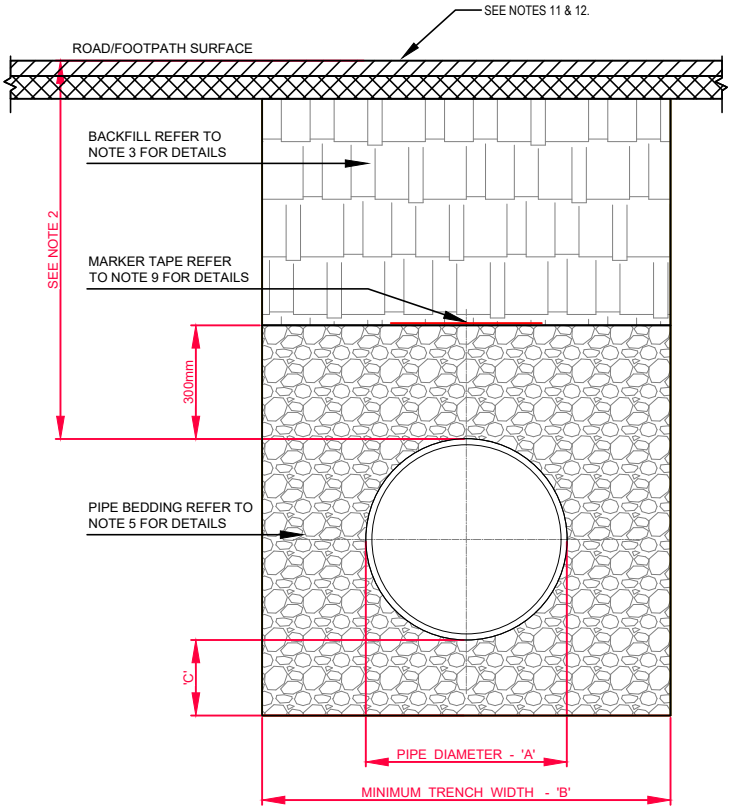
STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
2	08/'25	RH	M McG	Indigenous Species Referenced	DP
1	07/'20	RH	TOC	Text Revised	MOD
0	11/'17	JMC	TOC	Initial Issue	MOD

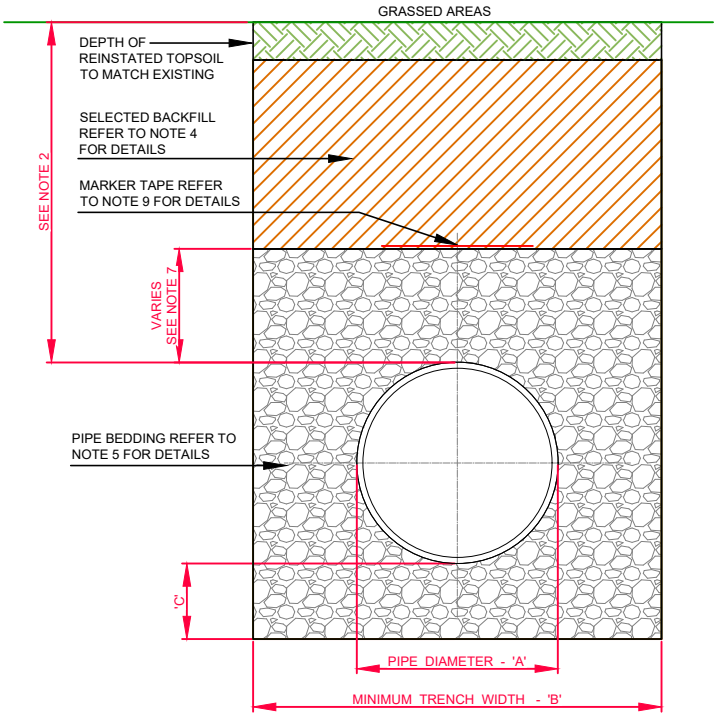
SCALE: NOT TO SCALE
DATE: JUL. 2017

TITLE
RESTRICTIONS ON NEW TREES / SHRUBS PLANTING ADJACENT TO SEWERS

DRAWING No.: STD-WW-06A
REV: 2



CROSS SECTION IN ROADS



CROSS SECTION IN GRASSED AREAS

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES **WITHOUT PROTECTION** SHOULD BE AS FOLLOWS:

A) GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS - DEPTH NOT LESS THAN 0.5 M. (THIS WOULD NORMALLY RELATE TO DRAINS IN PRIVATE PROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS).

B) DRIVEWAYS, FOOTWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.75 M.

C) DRIVEWAYS, FOOTWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 0.9 M.

D) DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.

E) AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9 M.

F) OTHER ROADWAYS, HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES - DEPTH NOT LESS THAN 1.2m.

3. CLAUSE 804 / 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE SEWER 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 TRANSPORT INFRASTRUCTURE IRELAND 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 UISCE ÉIREANN WHERE THE ROADS AUTHORITY IN WHOSE FUNCTIONAL AREA THE DEVELOPMENT IS LOCATED, PROVIDES **WRITTEN APPROVAL** TO THE DEVELOPER TO THE USE SUCH ALTERNATIVE MATERIAL EVIDENCE OF THIS WRITTEN APPROVAL TO BE PROVIDED TO UISCE ÉIREANN IN ADVANCE OF THE COMMENCEMENT OF WORKS.
4. SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF "ACCEPTABLE MATERIAL" AS OUTLINED ON CLAUSE 601 OF THE TII SPECIFICATION FOR ROADWORKS, TABLE 6/1,CLASS 8,CLASS 2. MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY UISCE ÉIREANN.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01. THE PIPE BEDDING GRANULAR MATERIAL SHALL BE 14mm TO 5mm (⅜ ³⁄₁₆) GRADED AGGREGATE OR 10mm (⅜ ⅛) SINGLE SIZED AGGREGATE TO IS EN 13242. CONCRETE BED, HAUNCH, & SURROUND, WHERE REQUIRED, SHALL BE TO STD-WW-08.
6. IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804 / 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 UISCE ÉIREANN BEFORE ADVANCING WITH THE WORK.
7. IN GREEN FIELD AREAS, TYPE B BACKFILL (SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF "ACCEPTABLE MATERIAL" AS OUTLINED ON CLAUSE 601 OF THE TII SPECIFICATION FOR ROADWORKS, TABLE 6/1,CLASS 8,CLASS 2.) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE CASE OF RIGID PIPES. A GRANULAR SURROUND OF A MINIMUM, DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE IS REQUIRED FOR FLEXIBLE PIPES AND TYPE B MATERIAL MAY BE USED AS BACKFILL ABOVE THIS. ALL RISING MAINS IN GREENFIELD AREAS SHALL HAVE A MINIMUM COVER OF 300mm OF GRANULAR MATERIAL ABOVE THE EXTERNAL CROWN OF THE PIPE.
8. PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECTS 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 TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
9. NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT THE TOP OF PIPE BEDDING LAYER FOR SEWERS AND RISING MAINS. IT SHOULD RUN CONTINUOUSLY AROUND MANHOLES. IN THE CASE OF NON METAL PIPE MATERIAL, THE MARKER TAPE SHOULD INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS AND TERMINATED AT THE WASTE WATER PUMPING STATION (IF PROVIDED) AND THE DISCHARGE MANHOLE.
10. TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. ALL TEMPORARY AND PERMANENT 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.

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
≤ 80 RISING MAIN	SEE NOTE 10.
100	500
150 - 200	600
>200 - 350	750
>350 - 450	900

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤100	100
150 - 450	200

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Minor Edits to Notes	DP
2	07/'20	RH	TOC	Modified trench width table Minor edit to note 5 Note 9 revised re marker tape	MOD
1	11/'17	JMC	TOC	Updated & Added Notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

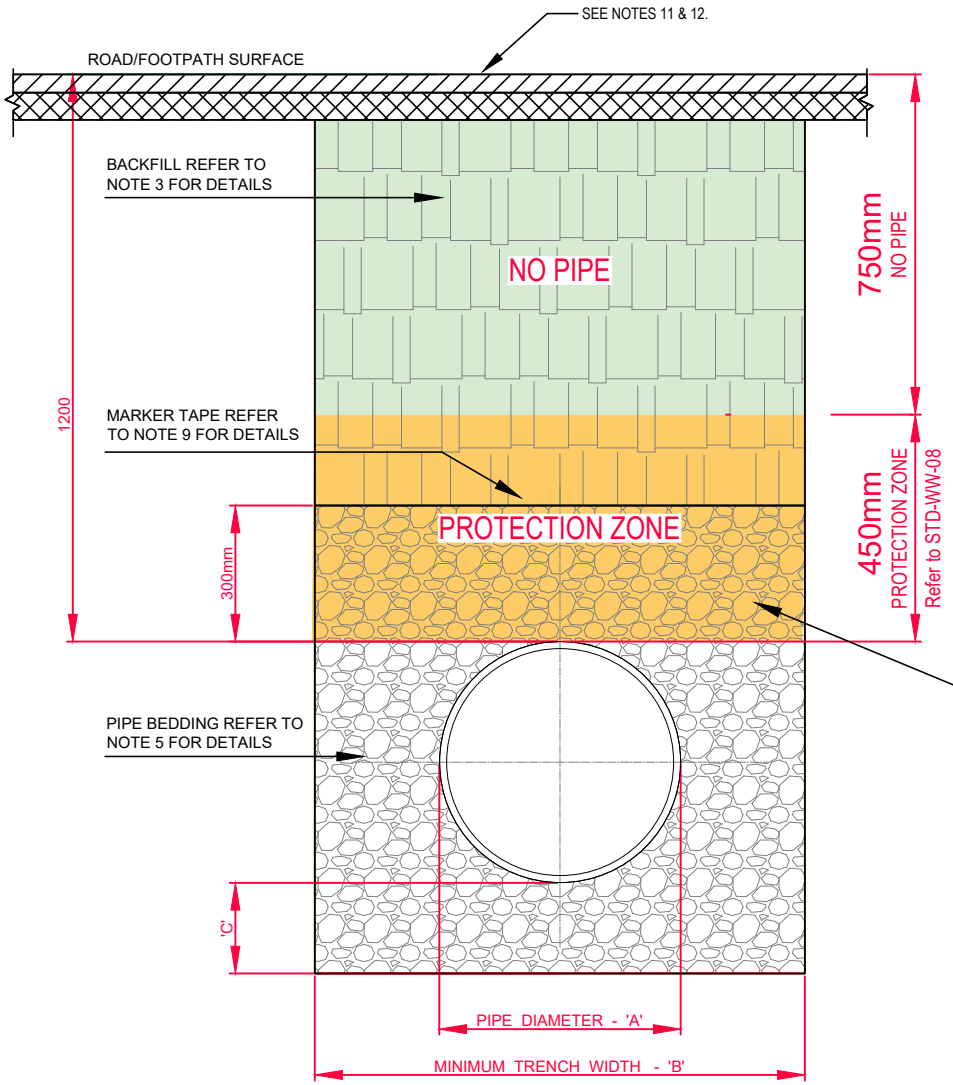
TITLE: TRENCH BACKFILL AND BEDDING

SCALE: NOT TO SCALE

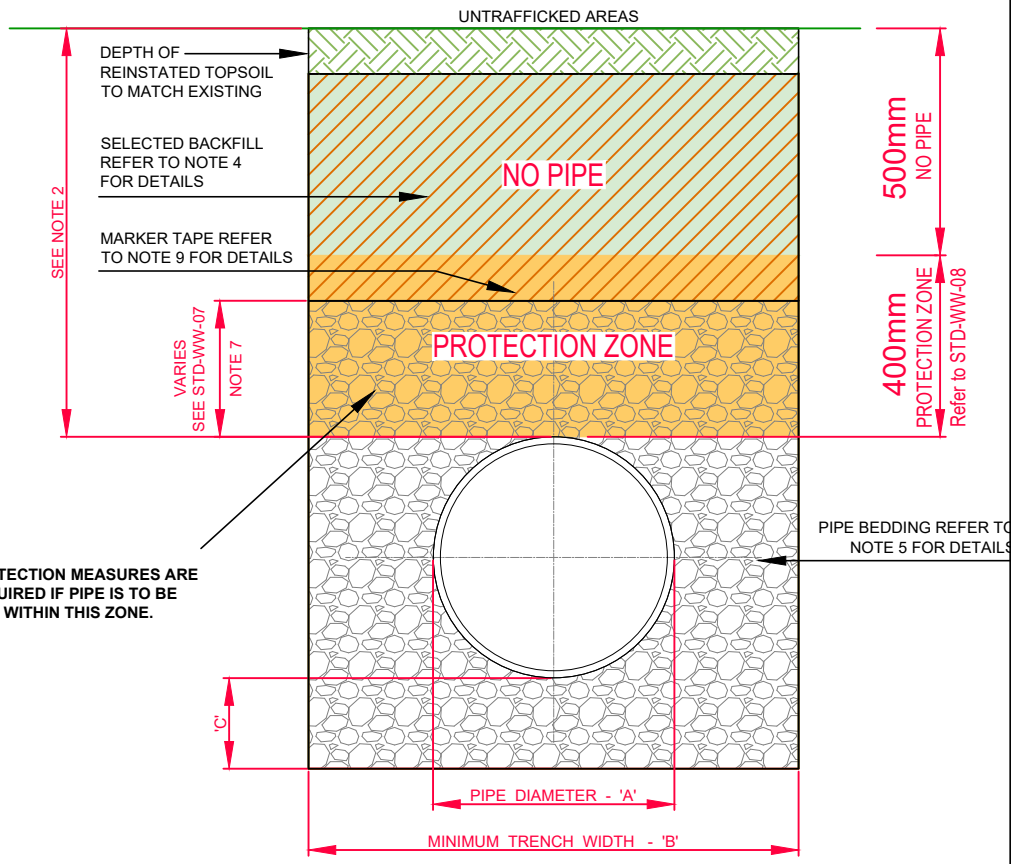
DATE: SEPT. 2015

DRAWING No.: STD-WW-07

REV: 3



CROSS SECTION IN TRAFFICKED AREAS



CROSS SECTION IN UNTRAFFICKED AREAS

1. Refer to STD-WW-07 for pipe bedding details.
2. Refer to STD-WW-08 for pipe protection details

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

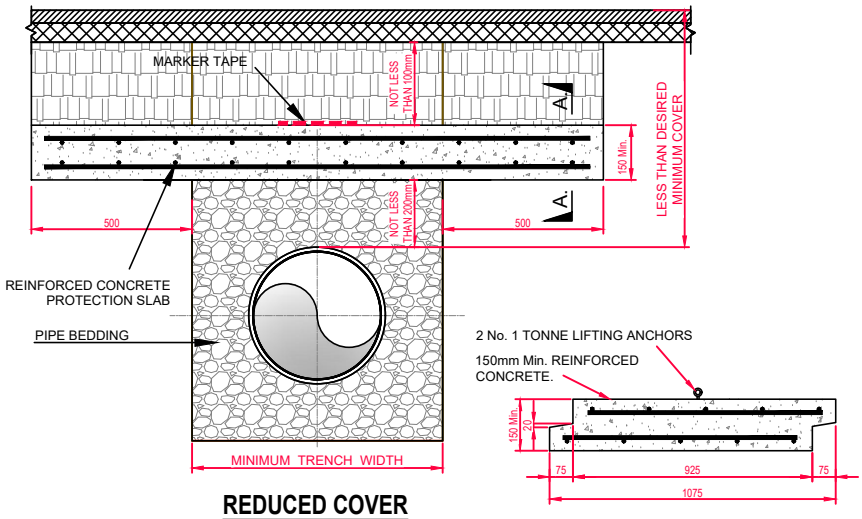
No.	Date	Drn	Chk	Description	App
0	08/'25	RH	M McG	Initial Issue	DP

SCALE	DATE
NOT TO SCALE	AUG. 2025

TITLE

DEPTH OF COVER REQUIREMENTS TO WASTEWATER PIPES

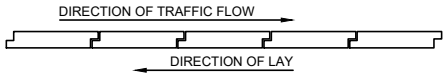
DRAWING No.	REV
STD-WW-07A	0



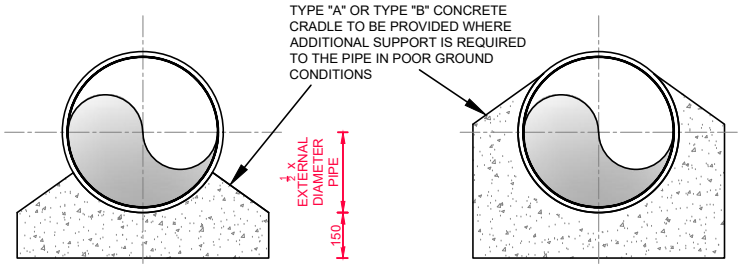
REDUCED COVER PROTECTION SLAB DETAIL

SECTION A-A

1. FOR ANY SLABBING WORKS TO BE CARRIED OUT WITHIN THE VICINITY OF THE PIPELINE, A METHOD STATEMENT IS TO BE SUBMITTED FOR REVIEW BY UISCE ÉIREANN.
2. MARKER TAPE TO BE PLACED ABOVE THE SLAB AND ALONG THE DIRECTION OF THE PIPELINE
3. CONCRETE TO BE GRADE C30/35
4. MINIMUM COVER TO STEEL REINFORCEMENT =40mm
5. SLABS TO BE DESIGNED FOR USE UNDER A HB25 LOAD IN ACCORDANCE WITH BS5400-2. DESIGN TO BE SUBMITTED TO UISCE ÉIREANN FOR ASSESSMENT PRIOR TO INSTALLATION.
6. THE SOIL ON WHICH THE SLAB RESTS MUST HAVE A CBR OF 4% OR GREATER. WHERE THE CBR IS LESS THAN 4% THE MATERIAL SHALL BE REMOVED AND REPLACED WITH IMPORTED GRANULAR MATERIAL AS APPROVED BY UISCE ÉIREANN.
7. IF DIRECTION OF PIPELINE AND DIRECTION OF TRAFFIC FLOW ARE PARALLEL, THE DIRECTION OF LAY OF THE SLAB IS TO BE AGAINST THE DIRECTION OF TRAFFIC FLOW.

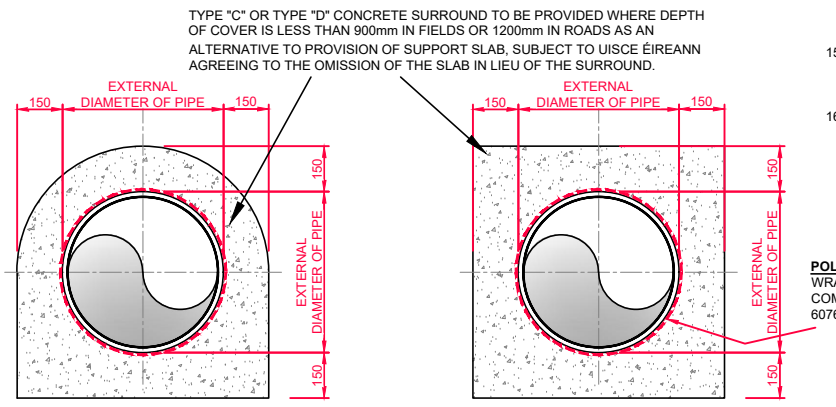


8. IF PIPELINE PROTECTION SLAB IS TO BE USED SOLELY FOR IMPACT PROTECTION & OVERALL DEPTH OF COVER IS GREATER THAN 1.2m, THE DISTANCE BETWEEN UNDERSIDE OF SLAB & TOP OF PIPE MAY BE INCREASED AFTER CONSULTATION WITH UISCE ÉIREANN.



TYPE 'A' (BED)

TYPE 'B' (HAUNCH)

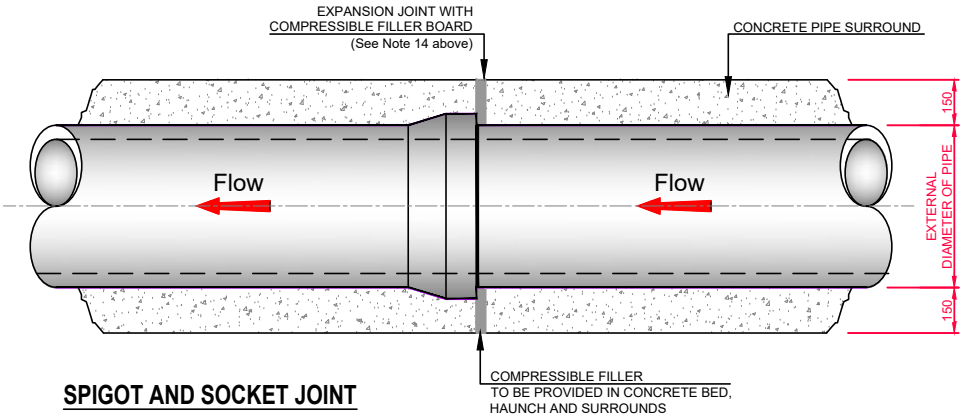


TYPE 'C' (SURROUND)

TYPE 'D' (SURROUND)

9. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
10. CONCRETE BED AND HAUNCHES MAY BE REQUIRED TO PROVIDE ADDITIONAL SUPPORT IN POOR GROUND CONDITIONS. PROPOSALS TO BE PROVIDED TO UISCE ÉIREANN WITH GEOTECHNICAL REPORT SUPPORTING THEIR USE.
11. CONCRETE SURROUNDS SHALL HAVE A MINIMUM THICKNESS OF 150mm WITH AN ABSOLUTE MINIMUM DEPTH OF COVER ABOVE THE EXTERNAL CROWN OF THE PIPE OF 750mm.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE GRADE C16/20 TO IS EN206
13. THE HAUNCHES AND SURROUNDS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH CAST FINISH.
14. EXPANSION JOINTS IN THE CONCRETE SHALL BE PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR PIPE FLEXIBILITY, COMPRESSIBLE FILLER BOARD TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4, AND TO BE 18mm THICK.
15. POLYETHYLENE AND uPVC PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
16. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES.

POLYETHYLENE AND uPVC PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.



SPIGOT AND SOCKET JOINT

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
2	08/'25	RH	M McG	Protection slab detail edited, concrete surround dimensions updated	DP
1	07/'20	RH	TOC	Protection slab detail added and notes updated, title updated.	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

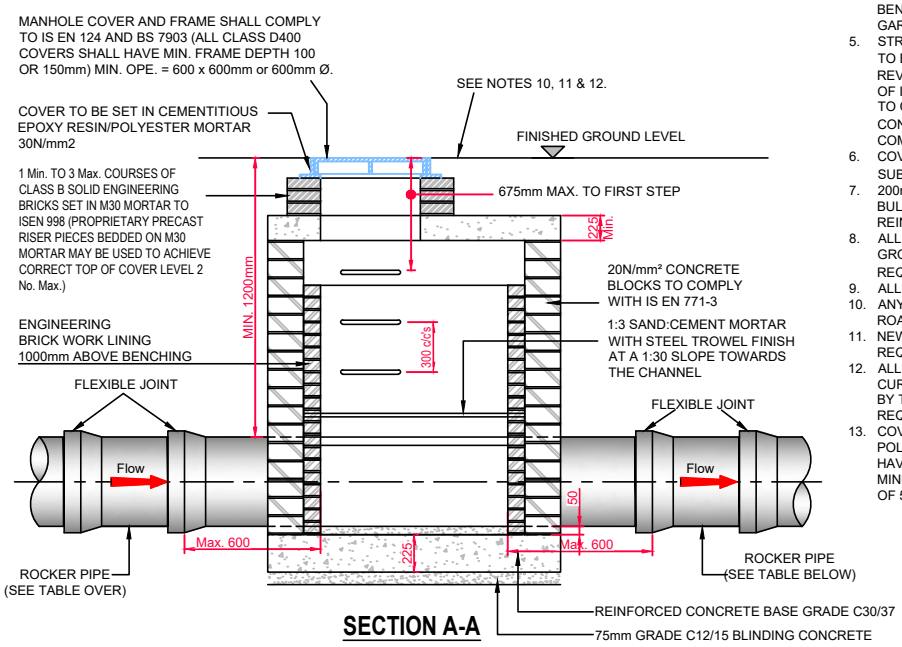
DATE: SEPT. 2015

TITLE: CONCRETE PROTECTION SLAB, BED, HAUNCH, AND SURROUND, TO WASTEWATER PIPES

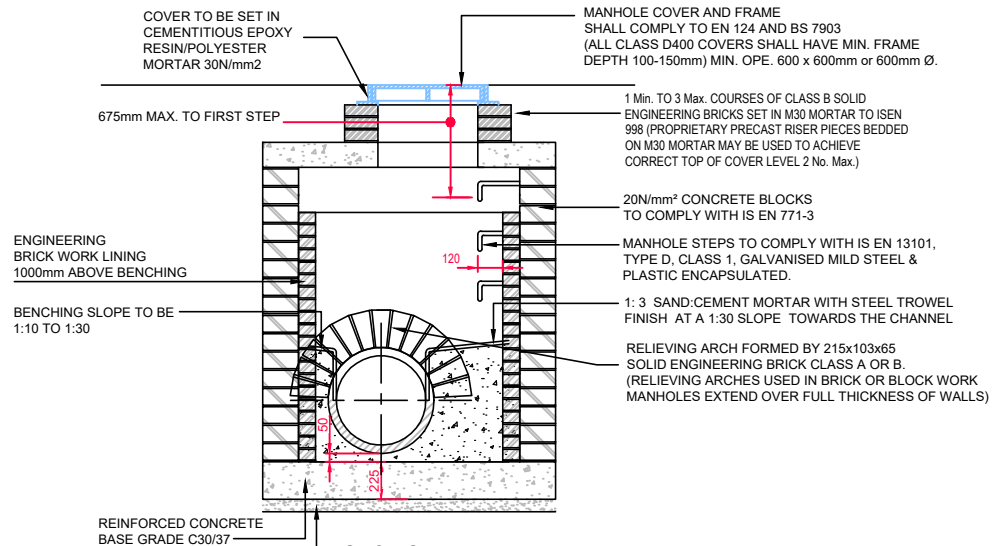
DRAWING No.: STD-WW-08

REV: 2

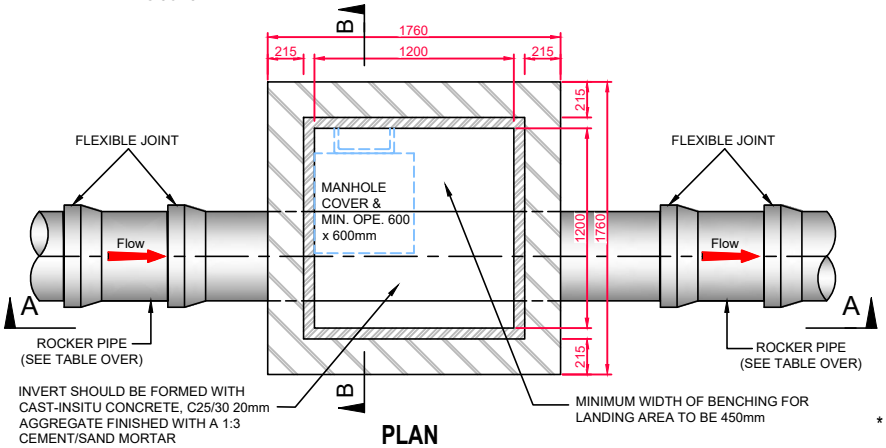
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SOLID BLOCKWORK TO BE OF HIGH STRENGTH (20N/mm²) TO IS EN 771. BLOCKWORK TO BE SET IN M20 MORTAR TO IS EN 998.
3. MAXIMUM DEPTH OF BLOCK WORK MANHOLE IS 1.20m (THE USE OF BLOCK WORK IN DEEPER MANHOLES WILL BE CONSIDERED BUT SUCH USE WILL REQUIRE DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW).
4. WALLS TO BE FLUSH POINTED AND NOT PLASTERED INTERNALLY, INTERNAL LINING OF ENGINEERING BRICK TO IS EN 771-1 TO A HEIGHT OF 1m ABOVE BENCHING. ENGINEERING BRICK TO BE BONDED TO BLOCKWORK USING ENGLISH GARDEN WALL BOND.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS FOR ROOF AND BASE SLABS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLIANCE WITH IS EN 1917 AND IS 420.
6. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW FROM UISCE ÉIREANN.
7. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
8. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
10. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
13. COVERS SHALL BE SET WITH RAPID HARDENING CEMENTITIOUS, EPOXY RESIN OR POLYESTER RESIN MORTAR FOR SETTING MANHOLE COVERS & FRAMES, & SHALL HAVE A MINIMUM WORKING TIME OF 15 MINUTES. THE MORTAR SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 30N/mm² & A MINIMUM TENSILE STRENGTH OF 5N/mm² WITHIN 3 HOURS OF MIXING.



SECTION A-A



SECTION B-B



PLAN

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	**ROCKER PIPE LENGTH (mm)**
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Revised note 12 Minor Dimensional Edits	DP
3	07/'20	RH	TOC	Bedding Mortar notes revised & notes updated	MOD
2	11/'17	JMC	TOC	Added rocker pipe table, added & updated notes	MOD
1	08/'16	JMC	TOC	Added steps & revised access ope & cover notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

Uisce Éireann Irish Water

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

DATE: SEPT. 2015

TITLE: BLOCKWORK MANHOLE (< 450mm DIA.)

DRAWING No.: STD-WW-09

REV: 4

STEP IRONS

MANHOLES 3.0m OR LESS FROM COVER TO SOFFIT OF PIPE.

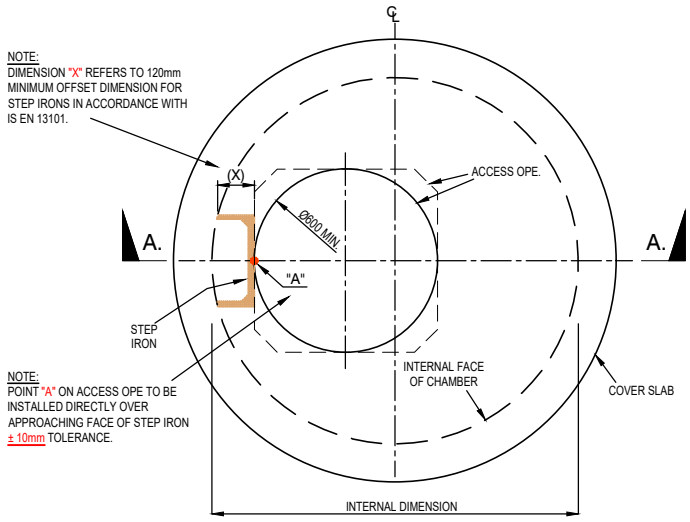
1. MANHOLE STEPS IRONS TO COMPLY WITH IS EN 13101, TYPE D, CLASS 1, GALVANISED MILD STEEL & PLASTIC ENCAPSULATED. STEPS ARE REQUIRED IN MANHOLES WITH A GROUND TO PIPE SOFFIT DEPTH OF LESS THAN 3.0m.

ACCESS LADDERS

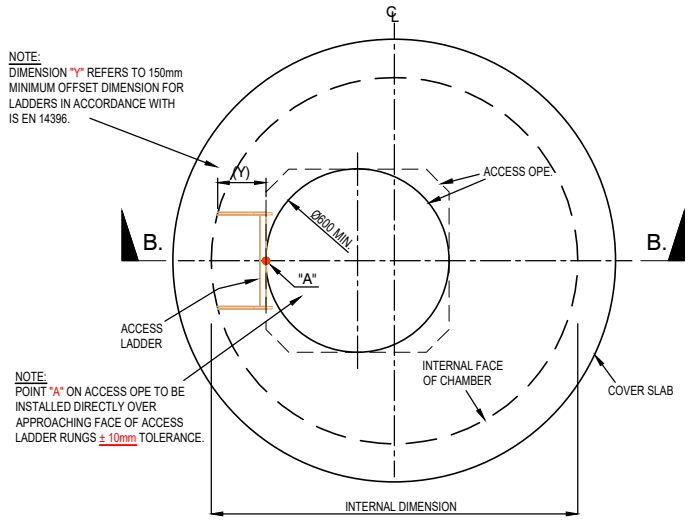
MANHOLES 3.0m - 6.0m FROM COVER TO SOFFIT OF PIPE.

2. MANHOLE LADDERS ARE REQUIRED FOR MANHOLES WITH A DEPTH IN EXCESS OF 3.0m & LADDERS ARE TO COMPLY WITH IS EN 14396.

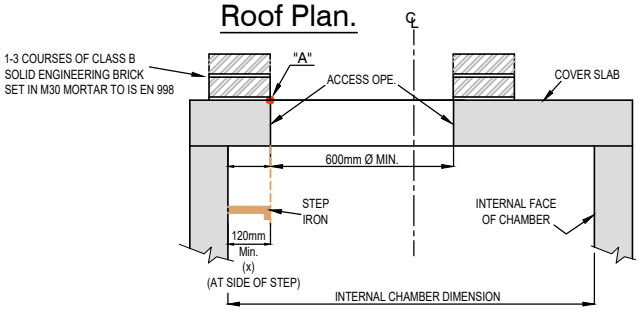
3. FOR MANHOLES GREATER THAN 6.0m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED AND SUBMITTED TO UISCE EIREANN DESIGN TEAM FOR REVIEW/APPROVAL.



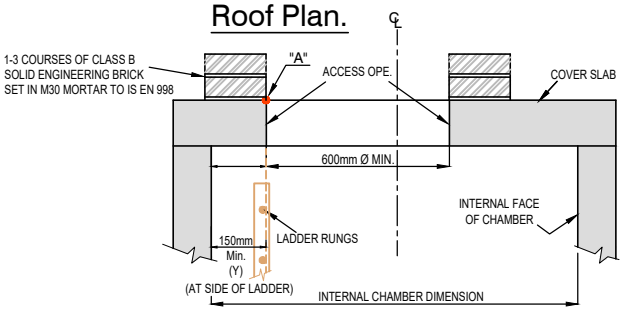
Roof Plan.



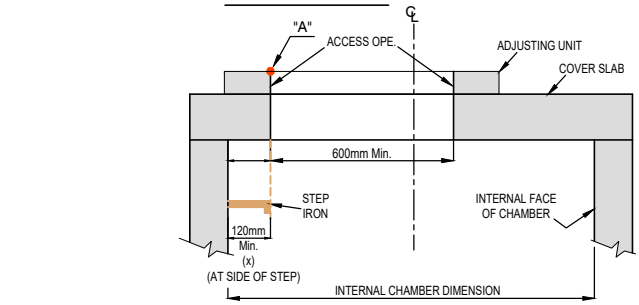
Roof Plan.



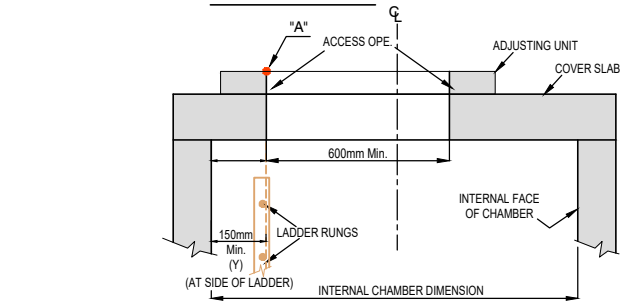
Section A-A.



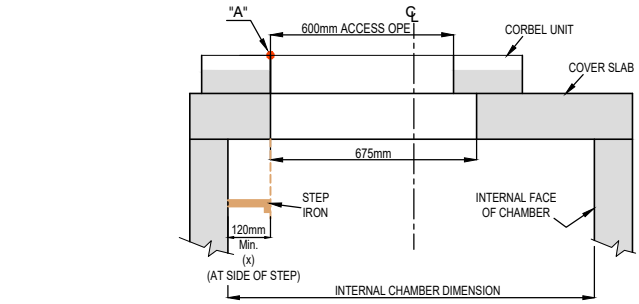
Section B-B.



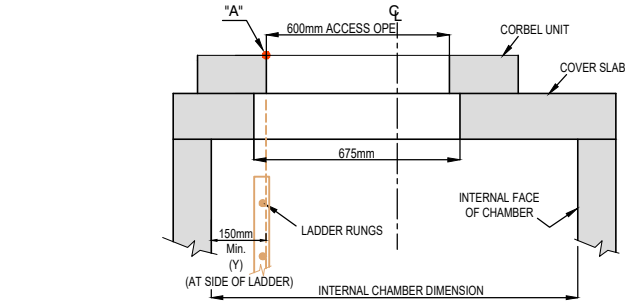
Section A-A. - Adjusting Unit



Section B-B. - Adjusting Unit.



Section A-A. - Corbel Slab.



Section B-B. - Corbel Slab.

NOTE:-

- ACCESS TO MANHOLES IS REGARDED AS CONFINED SPACE ACCESS AND SHALL BE SUBJECT TO A SAFETY ACCESS PLAN AND COMPLY WITH THE HSA "CODE OF PRACTICE FOR WORKING IN CONFINED SPACES".
- THE MANHOLE COMPONENTS, INCLUDING COVER SLAB, SHOULD BE DELIVERED TO SITE CAPABLE OF BEING INSTALLED TO ACHIEVE A 600mm MINIMUM ACCESS CLEAR OF RUNGS AND LADDERS IN ALL DIRECTIONS
- WHERE PRACTICAL TO DO SO THE MANHOLE ACCESS OPE AND STEP IRONS / LADDER SHALL BE LOCATED ON THE "KERB SIDE" OF THE CARRIAGEWAY. (IE, AWAY FROM THE ROAD CENTRLINE).

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
0	08/25	RH	M McG	Initial Issue	DP

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

DATE: AUG. - 2025

TITLE

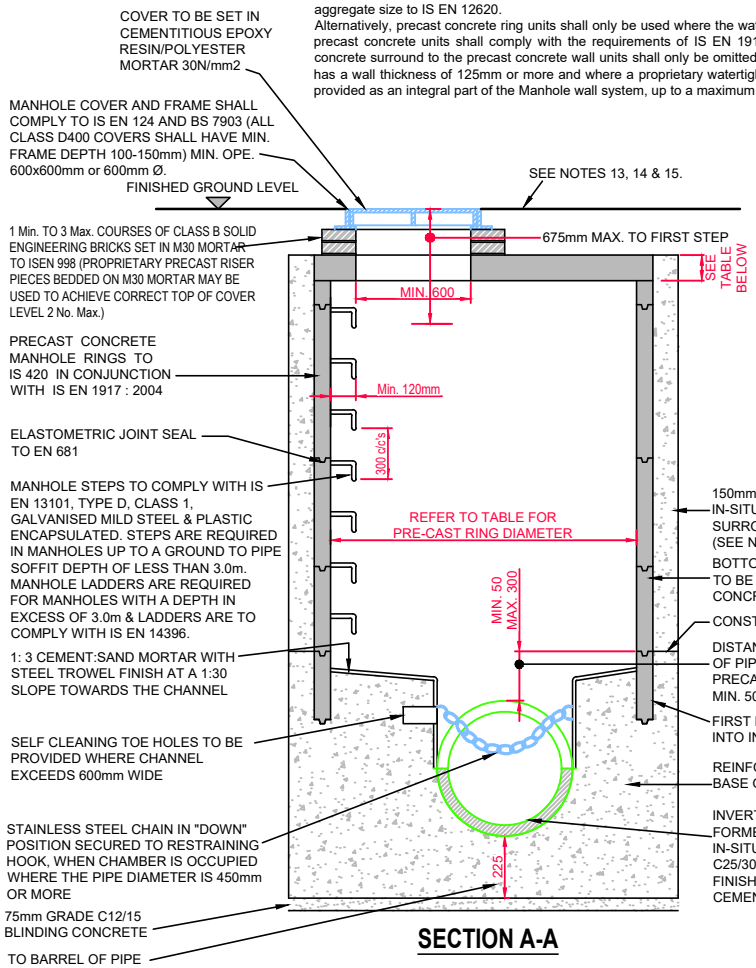
MANHOLE ACCESS
CLEAR OPE REQUIREMENTS

DRAWING No.: STD-WW-09A

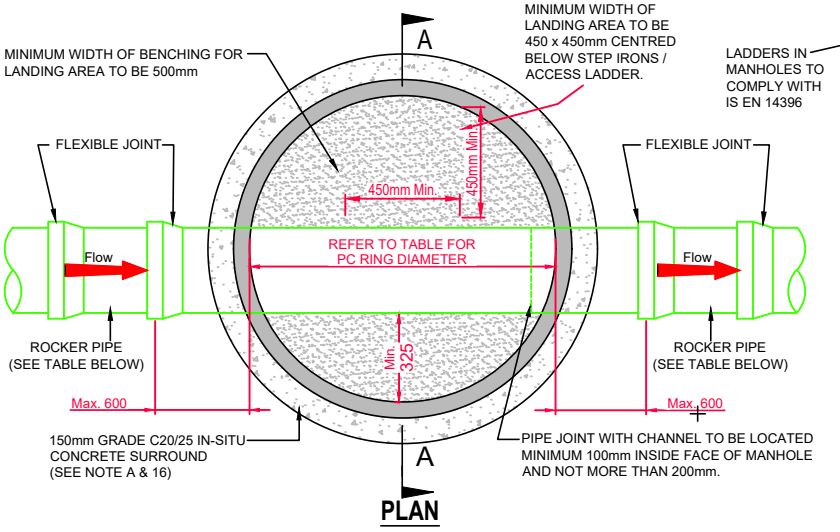
REV: 0

NOTE A:
In areas where a High Water Table or Variable water Table is present, Precast Concrete Ring Units which conform to IS EN 1917 and IS 420 may be used in lieu of cast-in-situ concrete. The precast concrete wall units shall be a minimum of 125mm in thickness complete with a proprietary watertight sealing system provided as an integral part of the Manhole wall system and shall be surrounded with at least a 150mm thickness of C30/37 to IS EN 206, 20mm aggregate size to IS EN 12620.
Alternatively, precast concrete ring units shall only be used where the water table is low. The precast concrete units shall comply with the requirements of IS EN 1917 and IS 420, The concrete surround to the precast concrete wall units shall only be omitted if the Manhole ring has a wall thickness of 125mm or more and where a proprietary watertight sealing system is provided as an integral part of the Manhole wall system, up to a maximum depth of 4.0m.

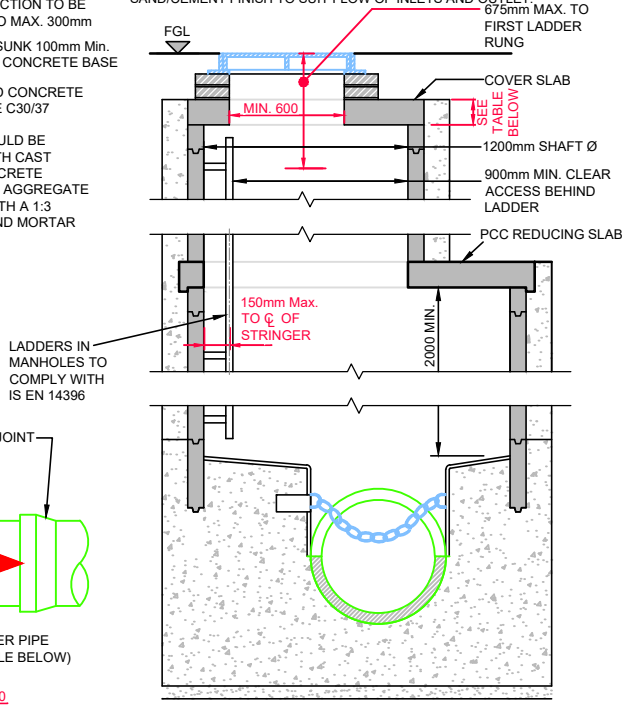
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420.
3. THICKER MANHOLE BASES REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
4. APPROVED PRE-CAST CONCRETE BASES MAY BE USED INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLYING WITH ISEN 1719 AND IS 420.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
6. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW.
7. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLIANCE WITH IS EN 1917.
8. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
10. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
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. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
15. IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
16. PROPRIETARY WATERTIGHT PCC MANHOLE RING SYSTEMS WITH A WALL THICKNESS > 125mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUND WATER LEVEL AT THE MANHOLE BEING LOW, & SUBJECT TO REVIEW BY UISCE ÉIREANN. REFER ALSO TO **NOTE A.**
17. THE INTERNAL MANHOLE DIAMETERS SHOWN IN THE TABLE BELOW ARE MINIMUM DIMENSIONS AND WILL INCREASE DEPENDING ON THE NUMBER AND DIAMETER OF ADDITIONAL INLETS AND FINISHED WITH A 1:3 SAND/CEMENT FINISH TO SUIT FLOW OF INLETS AND OUTLET.



SECTION A-A



PLAN



MANHOLE DETAIL > 3m & < 6m GROUND TO SOFFIT DEPTH

(NOTE: ON MANHOLES <1.5mØ, REDUCING SLAB NOT TO BE USED & PCC RINGS TO CONTINUE UP TO COVER SLAB)

MINIMUM MANHOLE DIAMETERS

DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)	MIN. PRECAST ROOF SLAB EFFECTIVE THICKNESS (mm)	MIN. IN-SITU ROOF SLAB THICKNESS (mm)
LESS THAN 375	1200	160	225
375 TO 450	1350	160	225
500 TO 750 *	1500	170	225

ROCKER PIPE LENGTH

PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750 *	1000
GREATER THAN 750 *	1250

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Revisions to notes Landing Area Defined	DP
3	07/'20	RH	TOC	Notes Updated	MOD
2	11/'17	JMC	TOC	Added rocker pipe table, deep manhole detail, added & updated notes	MOD
1	08/'16	JMC	TOC	Added steps & revised access ope & cover notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

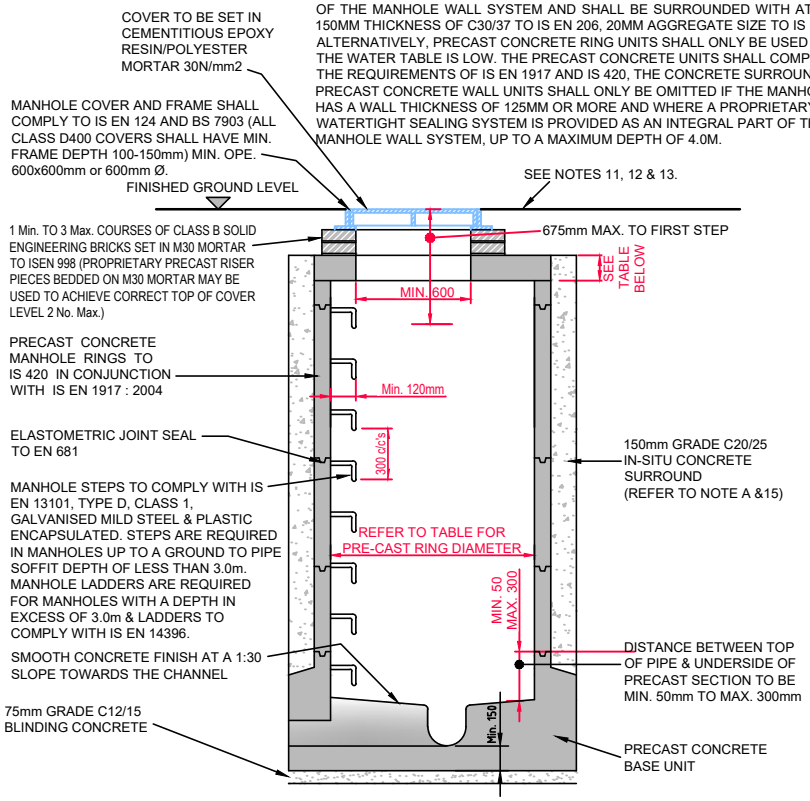
SCALE: NOT TO SCALE | DATE: SEPT. 2015

TITLE: PRE-CAST CONCRETE MANHOLE WITH CAST IN-SITU BASE

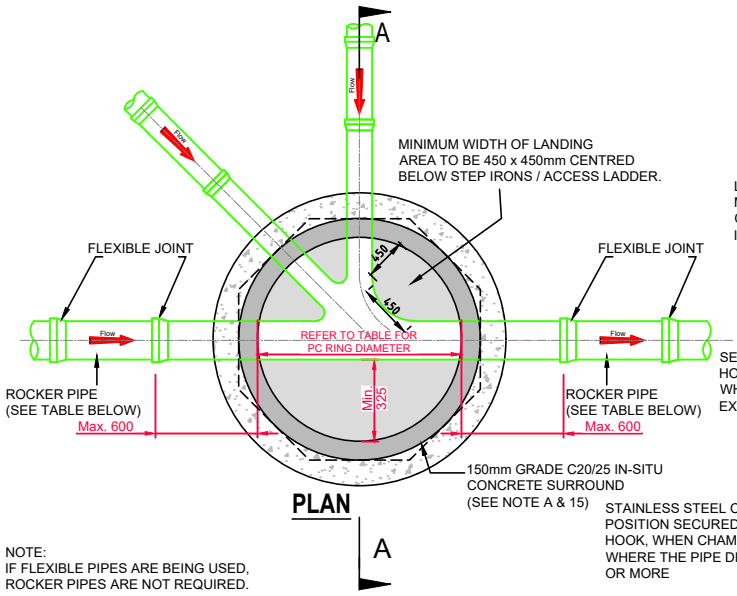
DRAWING No.: STD-WW-10 | REV: 4

NOTE A:
IN AREAS WHERE A HIGH WATER TABLE OR VARIABLE WATER TABLE IS PRESENT, PRECAST CONCRETE RING UNITS WHICH CONFORM TO IS EN 1917 AND IS 420 MAY BE USED IN LIEU OF CAST-IN-SITU CONCRETE. THE PRECAST CONCRETE WALL UNITS SHALL BE A MINIMUM OF 125MM IN THICKNESS COMPLETE WITH A PROPRIETARY WATERTIGHT SEALING SYSTEM PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM AND SHALL BE SURROUNDED WITH AT LEAST A 150MM THICKNESS OF C30/37 TO IS EN 206, 20MM AGGREGATE SIZE TO IS EN 12620. ALTERNATIVELY, PRECAST CONCRETE RING UNITS SHALL ONLY BE USED WHERE THE WATER TABLE IS LOW. THE PRECAST CONCRETE UNITS SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1917 AND IS 420, THE CONCRETE SURROUND TO THE PRECAST CONCRETE WALL UNITS SHALL ONLY BE OMITTED IF THE MANHOLE RING HAS A WALL THICKNESS OF 125MM OR MORE AND WHERE A PROPRIETARY WATERTIGHT SEALING SYSTEM IS PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM, UP TO A MAXIMUM DEPTH OF 4.0M.

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420.
3. PRE-CAST CONCRETE BASE INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO UISCE ÉIREANN REVIEW ANDCOMPLYING WITH ISEN 1917 & IS 420.
4. IN SITUATIONS WHERE P.C.C. MANHOLE BASES HAVE REDUNDANT CHANNELS, THESE SHALL BE PLUGGED AND FILLED BY SCABBLING, AND INFILLED WITH GRADE C20/25 CONCRETE TO MATCH EXISTING BASE AND BENCHED TO SUIT FLOW WITHIN THE MANHOLE BASE..
5. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW.
6. PRE-CAST CONCRETE ROOF SLABS TO BE USED SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLIANCE WITH IS 420.
7. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
8. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS..
9. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
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. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
14. IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
15. PROPRIETARY WATERTIGHT PCC MANHOLE RING SYSTEMS WITH A WALL THICKNESS > 125mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUND WATER LEVEL AT THE MANHOLE BEING LOW, & SUBJECT TO REVIEW BY UISCE ÉIREANN. REFER ALSO TO **NOTE A.**
16. THE INTERNAL MANHOLE DIAMETERS SHOWN IN THE TABLE BELOW ARE MINIMUM DIMENSIONS AND WILL INCREASE DEPENDING ON THE NUMBER AND DIAMETER OF ADDITIONAL INLETS AND FINISHED WITH A 1:3 SAND/CEMENT FINISH TO SUIT FLOW OF INLETS AND OUTLET.

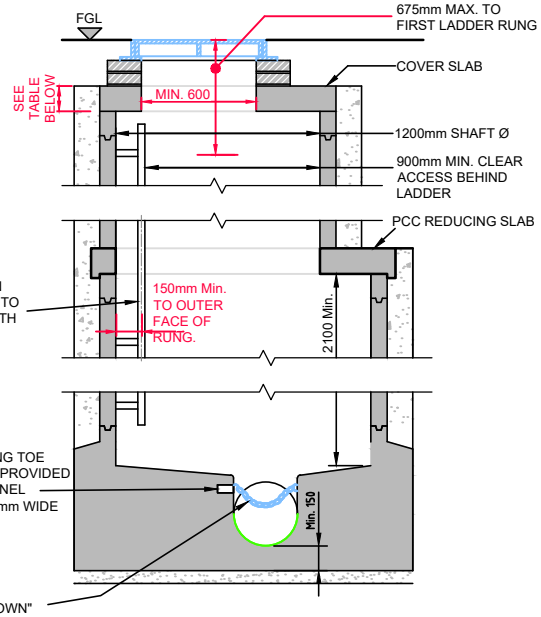


SECTION A-A



PLAN

NOTE:
IF FLEXIBLE PIPES ARE BEING USED, ROCKER PIPES ARE NOT REQUIRED.



MANHOLE DETAIL > 3m & < 6m GROUND TO SOFFIT DEPTH

(NOTE: ON MANHOLES <1.5mØ, REDUCING SLAB NOT TO BE USED & PCC RINGS TO CONTINUE UP TO COVER SLAB)

MINIMUM MANHOLE DIAMETERS			
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)	MIN. PRECAST ROOF SLAB EFFECTIVE THICKNESS (mm)	MIN. IN-SITU ROOF SLAB THICKNESS (mm)
LESS THAN 375	1200	160	225
375 TO 450	1350	160	225
500 TO 750	1500	170	225

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Revisions to notes Redundant Channel Removed	DP
0	07/'20	RH	TOC	Initial Issue	MOD

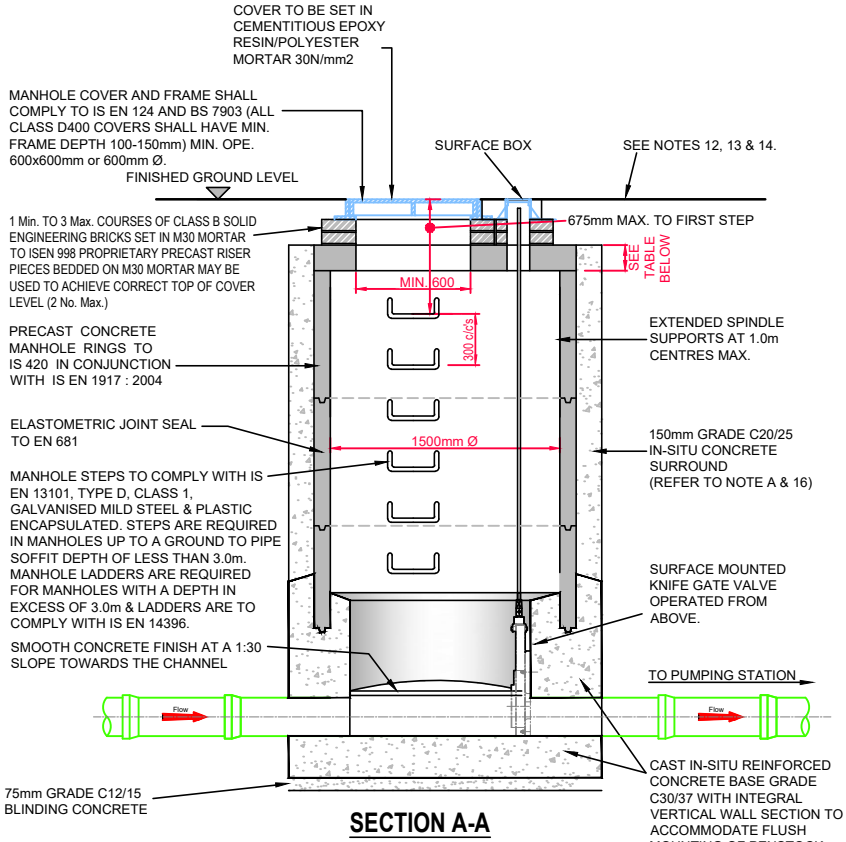
STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE
DATE: SEPT. 2015

TITLE

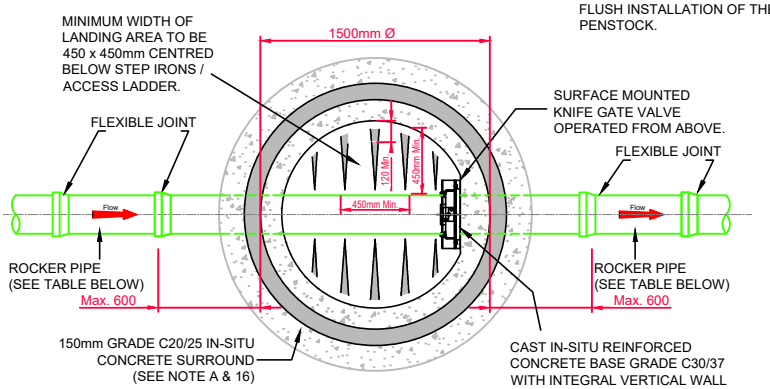
PRE-CAST CONCRETE MANHOLE WITH PRECAST BASE.

DRAWING No.: STD-WW-10A
REV: 1



SECTION A-A

NOTE:
A PRECAST BASE ALTERNATIVE IS ACCEPTABLE PROVIDED THAT A VERTICAL INTERNAL FACE IS INCORPORATED TO FACILITATE THE FLUSH INSTALLATION OF THE PENSTOCK.



PLAN

NOTE:
IF FLEXIBLE PIPES ARE BEING USED, ROCKER PIPES ARE NOT REQUIRED.

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420.
3. THICKER MANHOLE BASES REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
4. APPROVED PRE-CAST CONCRETE BASES MAY BE USED INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLYING WITH ISEN 1917 & IS 420. REFER TO STD-WW-10C
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
6. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW.
7. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLIANCE WITH IS EN 1917.
8. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS..
10. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
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. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
15. IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
16. PROPRIETARY WATERTIGHT PCC MANHOLE RING SYSTEMS WITH A WALL THICKNESS > 125mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUND WATER LEVEL AT THE MANHOLE BEING LOW, & SUBJECT TO REVIEW BY UISCE ÉIREANN. REFER ALSO TO **NOTE A.**
17. THE INTERNAL MANHOLE DIAMETERS SHOWN IN THE TABLE BELOW ARE MINIMUM DIMENSIONS AND WILL INCREASE DEPENDING ON THE NUMBER AND DIAMETER OF ADDITIONAL INLETS AND FINISHED WITH A 1:3 SAND/CEMENT FINISH TO SUIT FLOW OF INLETS AND OUTLET.

NOTE A:
IN AREAS WHERE A HIGH WATER TABLE OR VARIABLE WATER TABLE IS PRESENT, PRECAST CONCRETE RING UNITS WHICH CONFORM TO IS EN 1917 AND IS 420 MAY BE USED IN LIEU OF CAST-IN-SITU CONCRETE. THE PRECAST CONCRETE WALL UNITS SHALL BE A MINIMUM OF 125MM IN THICKNESS COMPLETE WITH A PROPRIETARY WATERTIGHT SEALING SYSTEM PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM AND SHALL BE SURROUNDED WITH AT LEAST A 150MM THICKNESS OF C30/37 TO IS EN 206, 20MM AGGREGATE SIZE TO IS EN 12620.
ALTERNATIVELY, PRECAST CONCRETE RING UNITS SHALL ONLY BE USED WHERE THE WATER TABLE IS LOW. THE PRECAST CONCRETE UNITS SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1917 AND IS 420, THE CONCRETE SURROUND TO THE PRECAST CONCRETE WALL UNITS SHALL ONLY BE OMITTED IF THE MANHOLE RING HAS A WALL THICKNESS OF 125MM OR MORE AND WHERE A PROPRIETARY WATERTIGHT SEALING SYSTEM IS PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM, UP TO A MAXIMUM DEPTH OF 4.0M.

MINIMUM MANHOLE DIAMETERS			
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)	MIN. PRECAST ROOF SLAB EFFECTIVE THICKNESS (mm)	MIN. IN-SITU ROOF SLAB THICKNESS (mm)
UP TO 750	1500	170	225

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

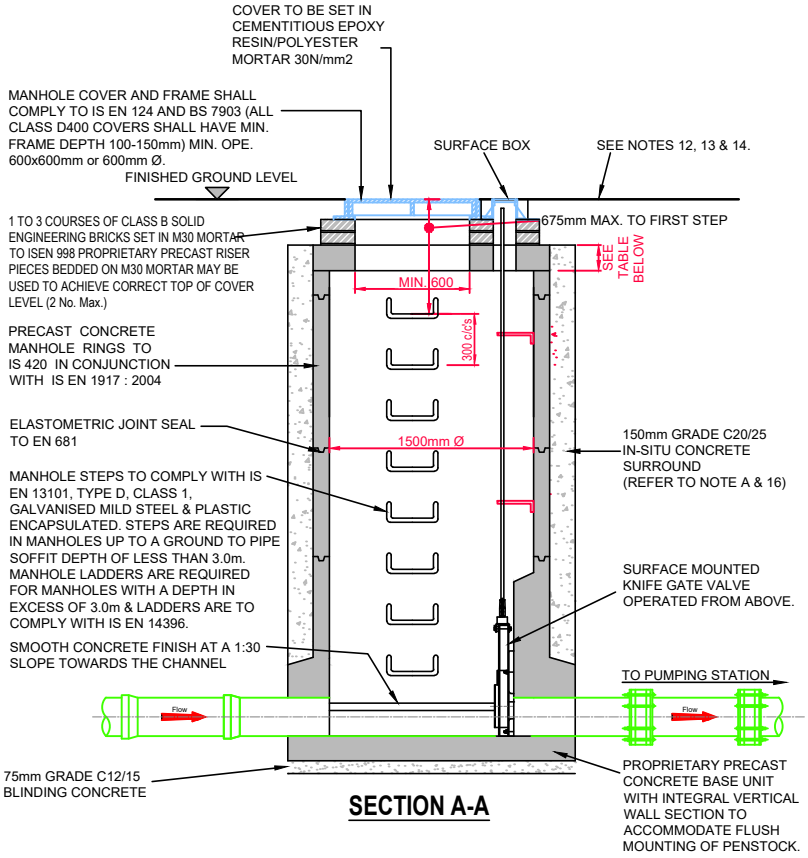
No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Revisions to Notes Chamber Dimensions Updated	DP
0	07/'20	RH	TOC	Initial Issue	MOD

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE
DATE: SEPT. 2015

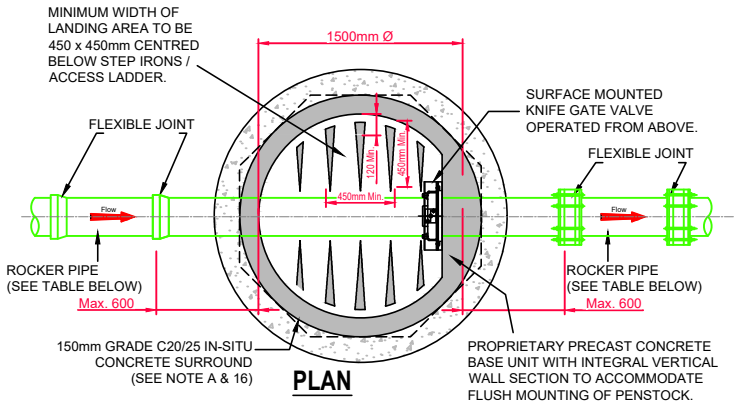
TITLE
PRE-CAST CONCRETE PUMPING STATION INLET MANHOLE. WITH CAST IN SITU CONCRETE BASE

DRAWING No.: STD-WW-10B
REV: 1



SECTION A-A

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420.
3. THICKER MANHOLE BASES REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
4. APPROVED PRE-CAST CONCRETE BASES MAY BE USED INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLYING WITH ISEN 1917 & IS 420.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
6. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW.
7. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO UISCE ÉIREANN REVIEW AND COMPLIANCE WITH IS EN 1917.
8. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS..
10. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
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. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
15. IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
16. PROPRIETARY WATERTIGHT PCC MANHOLE RING SYSTEMS WITH A WALL THICKNESS > 125mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUND WATER LEVEL AT THE MANHOLE BEING LOW, & SUBJECT TO REVIEW BY UISCE ÉIREANN. REFER ALSO TO **NOTE A.**
17. THE INTERNAL MANHOLE DIAMETERS SHOWN IN THE TABLE BELOW ARE MINIMUM DIMENSIONS AND WILL INCREASE DEPENDING ON THE NUMBER AND DIAMETER OF ADDITIONAL INLETS.
18. IN SITUATIONS WHERE P.C.C. MANHOLE BASES HAVE REDUNDANT CHANNELS, THESE SHALL BE PLUGGED AND FILLED BY SCABBLING, AND INFILLED WITH GRADE C20/25 CONCRETE TO MATCH EXISTING BASE AND BENCHED TO SUIT FLOW WITHIN THE MANHOLE BASE.



PLAN

NOTE A:
IN AREAS WHERE A HIGH WATER TABLE OR VARIABLE WATER TABLE IS PRESENT, PRECAST CONCRETE RING UNITS WHICH CONFORM TO IS EN 1917 AND IS 420 MAY BE USED IN LIEU OF CAST-IN-SITU CONCRETE. THE PRECAST CONCRETE WALL UNITS SHALL BE A MINIMUM OF 125MM IN THICKNESS COMPLETE WITH A PROPRIETARY WATERTIGHT SEALING SYSTEM PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM AND SHALL BE SURROUNDED WITH AT LEAST A 150MM THICKNESS OF C30/37 TO IS EN 206, 20MM AGGREGATE SIZE TO IS EN 12620.
ALTERNATIVELY, PRECAST CONCRETE RING UNITS SHALL ONLY BE USED WHERE THE WATER TABLE IS LOW. THE PRECAST CONCRETE UNITS SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1917 AND IS 420, THE CONCRETE SURROUND TO THE PRECAST CONCRETE WALL UNITS SHALL ONLY BE OMITTED IF THE MANHOLE RING HAS A WALL THICKNESS OF 125MM OR MORE AND WHERE A PROPRIETARY WATERTIGHT SEALING SYSTEM IS PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM, UP TO A MAXIMUM DEPTH OF 4.0M.

MINIMUM MANHOLE DIAMETERS			
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)	MIN. PRECAST ROOF SLAB EFFECTIVE THICKNESS (mm)	MIN. IN-SITU ROOF SLAB THICKNESS (mm)
UP TO 750	1500	170	225

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

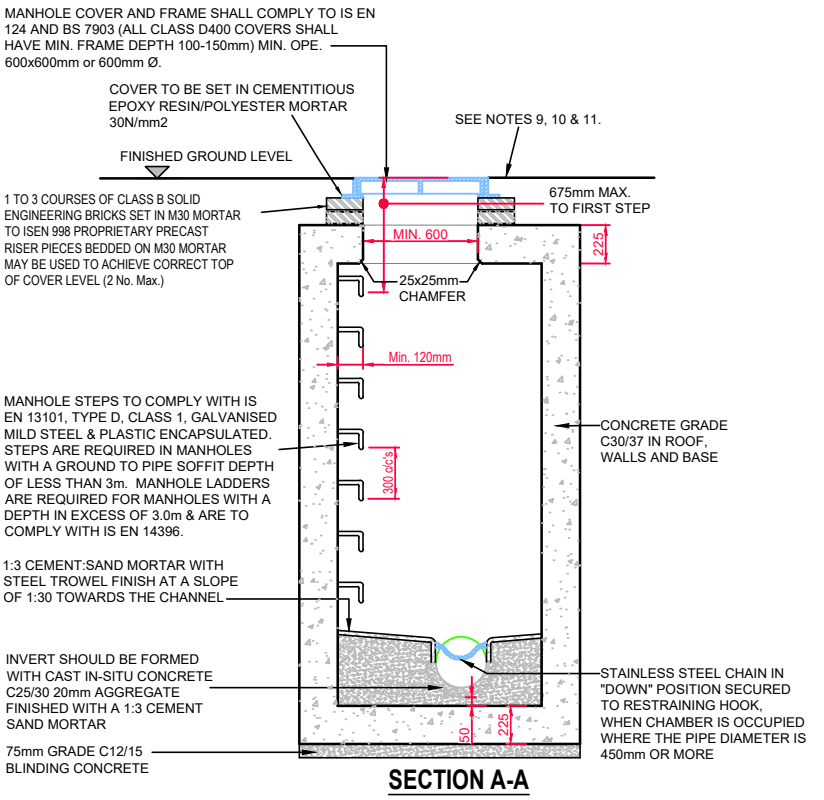
No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Revisions to Notes Chamber Dimensions Updated	DP
0	07/'20	RH	TOC	Initial Issue	MOD

STANDARD DETAILS - WASTEWATER

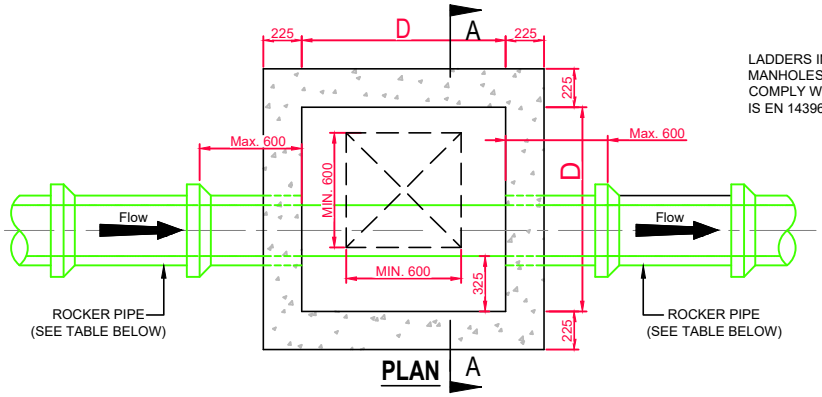
SCALE: NOT TO SCALE
DATE: SEPT. 2015

TITLE
PRE-CAST CONCRETE PUMPING STATION INLET MANHOLE. WITH PRE-CAST CONCRETE BASE

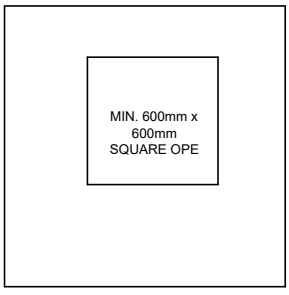
DRAWING No. STD-WW-10C
REV 1



SECTION A-A

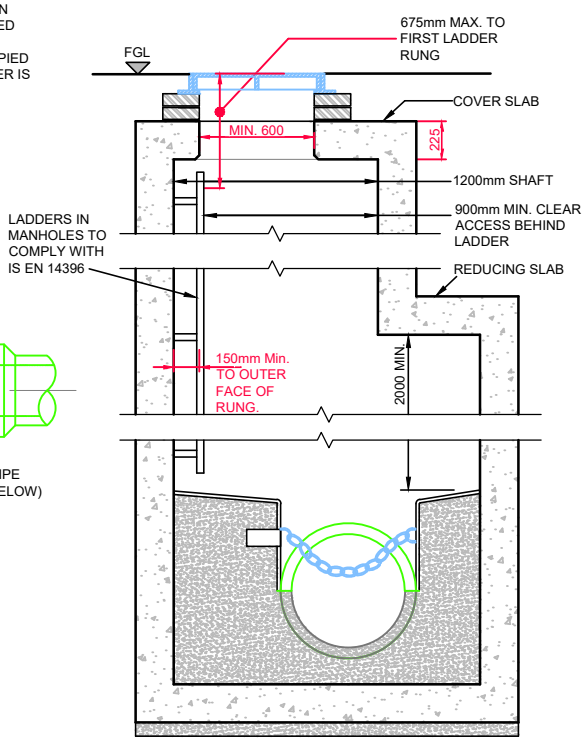


PLAN



ROOF PLAN

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. IN-SITU MANHOLES TO HAVE A MINIMUM WALL AND FLOOR THICKNESS OF 225mm FOR MANHOLE DEPTHS UP TO 3.0m AND 300mm OR MORE WHEN THE MANHOLE DEPTH EXCEEDS 3.0m.
3. STRUCTURAL DESIGN & REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO UISCE ÉIREANN APPROVAL AND COMPLIANCE WITH IS 420.
4. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW.
5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
7. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
8. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
9. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
10. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
11. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
12. IF DEPTH FROM GROUND TO PIPE SOFFIT EXCEEDS 6m, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
13. THE INTERNAL MANHOLE DIMENSIONS SHOWN IN THE TABLE BELOW ARE MINIMUM DIMENSIONS AND WILL INCREASE DEPENDING ON THE NUMBER AND DIAMETER OF ADDITIONAL INLETS AND FINISHED WITH A 1:3 SAND/CEMENT FINISH TO SUIT FLOW OF INLETS AND OUTLET.



MANHOLE DETAIL > 3m & < 6m GROUND TO PIPE SOFFIT DEPTH

(NOTE: ON MANHOLES <1.5m SHAFT DIMENSION, REDUCING SLAB NOT TO BE USED & SHAFT TO CONTINUE UP TO COVER SLAB)

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	**ROCKER PIPE LENGTH (mm)**
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

MINIMUM MANHOLE DIMENSION "D"	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	**INTERNAL DIMENSION OF MANHOLE (mm)**
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Step Iron and Ladder Offset revised	DP
3	07/'20	RH	TOC	Notes Updated	MOD
2	11/'17	JMC	TOC	Added rocker pipe table, deep manhole detail, added & updated notes.	MOD
1	08/'16	JMC	TOC	Added steps & revised access ope & cover notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

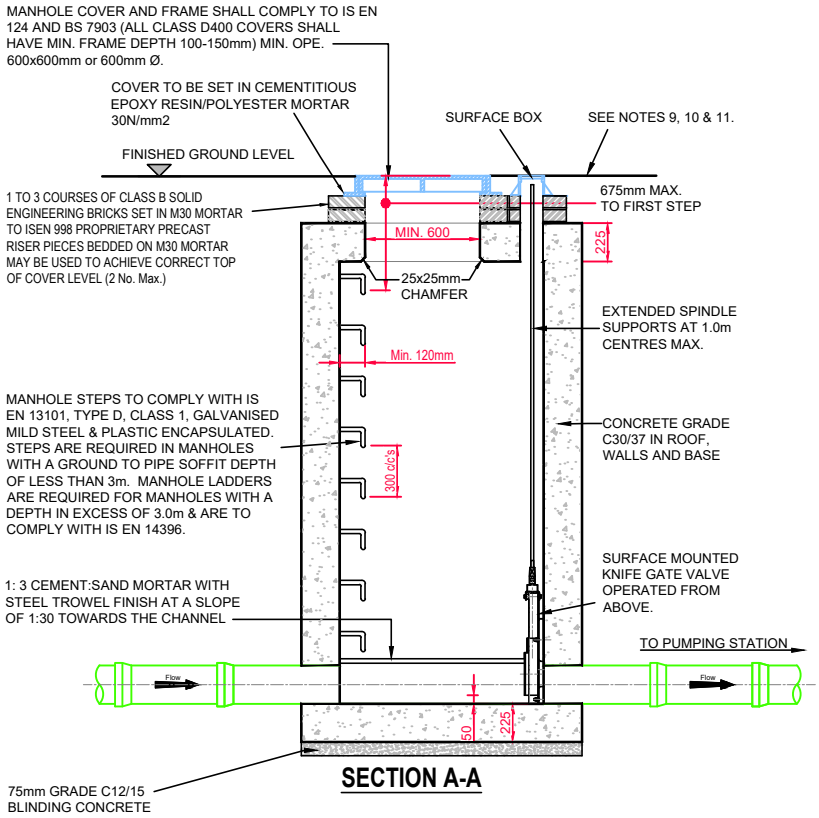
SCALE: NOT TO SCALE

DATE: SEPT. 2015

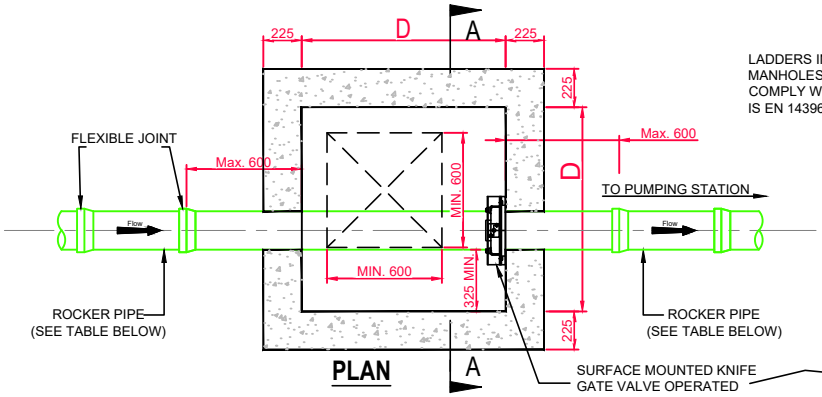
TITLE: IN-SITU CONCRETE MANHOLE

DRAWING No.: STD-WW-11

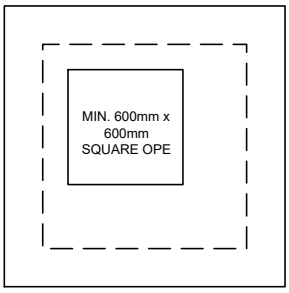
REV: 4



SECTION A-A

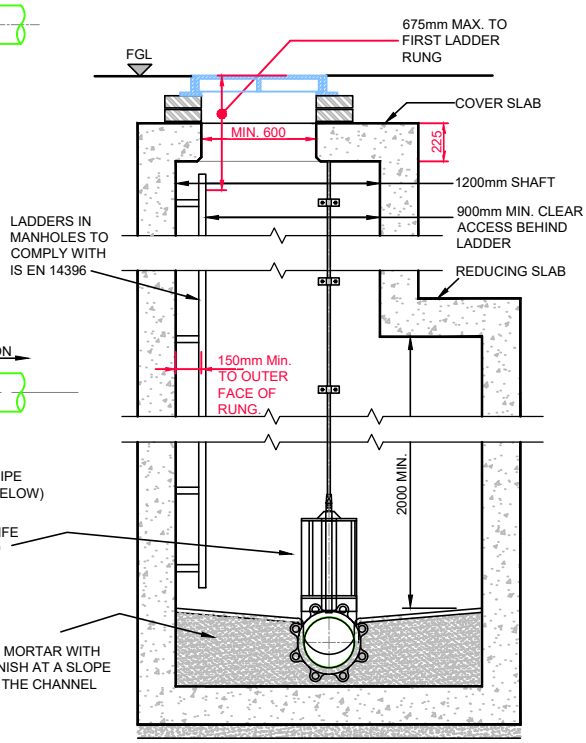


PLAN



ROOF PLAN

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. IN-SITU MANHOLES TO HAVE A MINIMUM WALL AND FLOOR THICKNESS OF 225mm FOR MANHOLE DEPTHS UP TO 3.0m AND 300mm OR MORE WHEN THE MANHOLE DEPTH EXCEEDS 3.0m.
3. STRUCTURAL DESIGN & REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO UISCE ÉIREANN APPROVAL AND COMPLIANCE WITH IS 420.
4. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO UISCE ÉIREANN REVIEW.
5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
7. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
8. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
9. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
10. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
11. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
12. IF DEPTH FROM GROUND TO PIPE SOFFIT EXCEEDS 6m, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
13. THE INTERNAL MANHOLE DIMENSIONS SHOWN IN THE TABLE BELOW ARE MINIMUM DIMENSIONS AND WILL INCREASE DEPENDING ON THE NUMBER AND DIAMETER OF ADDITIONAL INLETS.



MANHOLE DETAIL > 3m & < 6m GROUND TO PIPE SOFFIT DEPTH

(NOTE: ON MANHOLES <1.5m SHAFT DIMENSION, REDUCING SLAB NOT TO BE USED & SHAFT TO CONTINUE UP TO COVER SLAB)

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	**ROCKER PIPE LENGTH (mm)**
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

MINIMUM MANHOLE DIMENSION "D"	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	**INTERNAL DIMENSION OF MANHOLE (mm)**
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Step Iron and Ladder Offset Revised	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

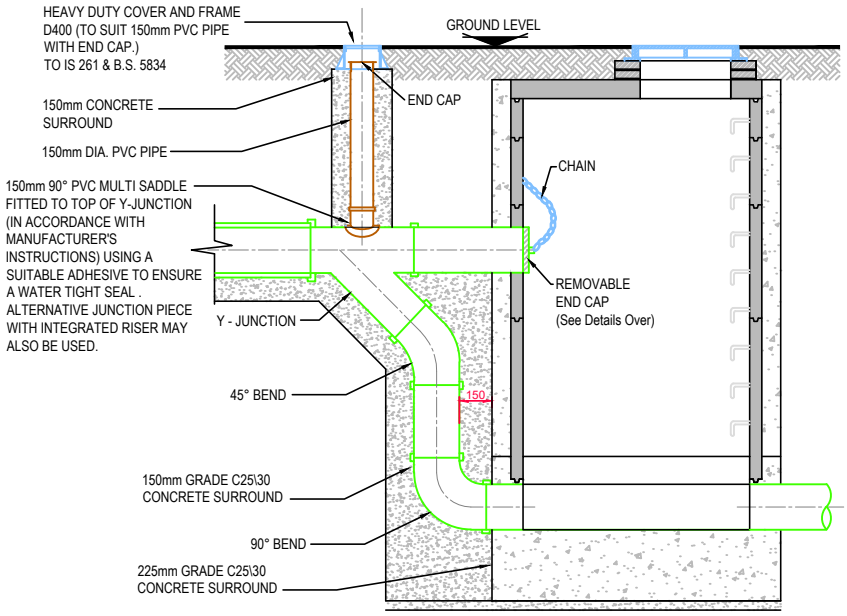
DATE: APR. 2020

TITLE

CAST IN-SITU CONCRETE PUMPING STATION INLET MANHOLE.

DRAWING No.: STD-WW-11A

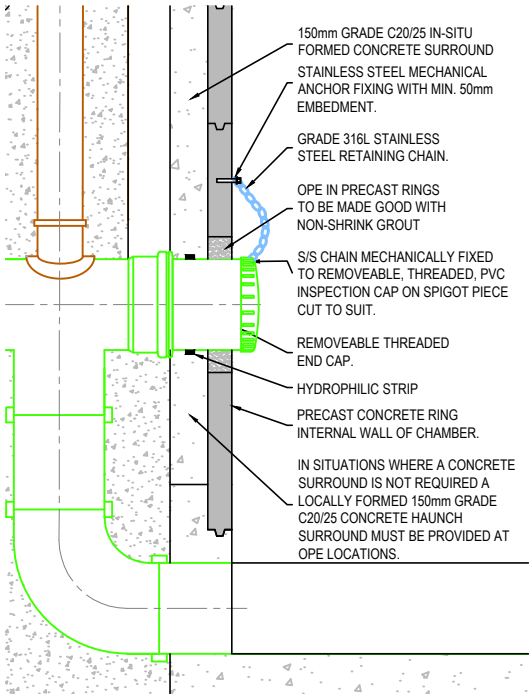
REV: 1



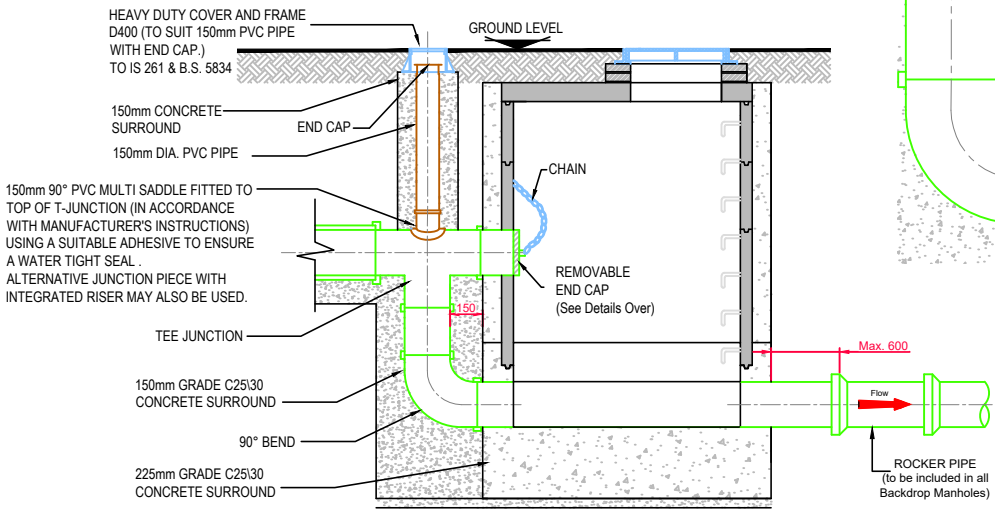
TYPE No. 1

150mm - 450mm DIA. (INCL.) DROP GREATER THAN 1700mm & LESS THAN 2300mm
500mm - 900mm DIA. (INCL.) DROP GREATER THAN 2300mm & LESS THAN 3000mm

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. RODDING EYE VERTICAL PIPE SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 AND BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY UISCE ÉIREANN.
3. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
4. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
5. MANHOLE DETAILS TO BE IN ACCORDANCE WITH STD-WW-09, 10, 10A AND 11
6. ALL BACKDROPS SHOULD TERMINATE AT THEIR LOWER END WITH A BEND INTO THE MAIN CHANNEL TO ENSURE THE DISCHARGE IS 45° OR LESS ON PLAN.
7. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.



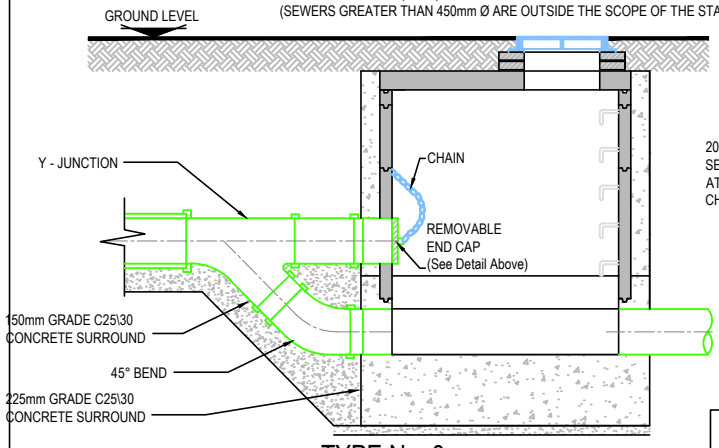
Rodding Eye End Cap Detail



TYPE No. 2

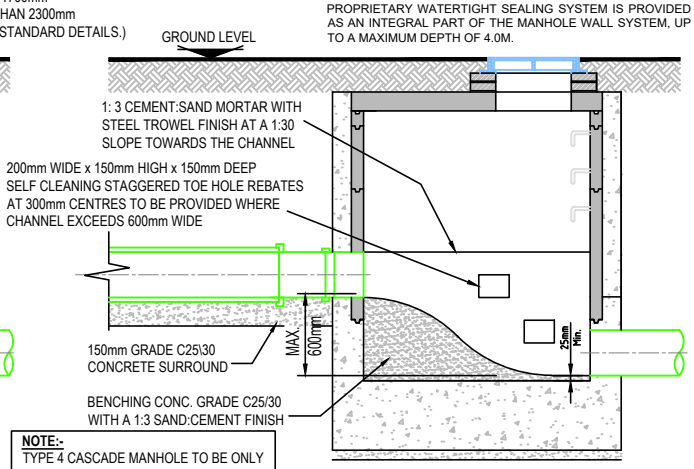
150mm - 450mm DIA. (INCL.) DROP GREATER THAN 900 AND LESS THAN 1700mm
*500mm - 900mm DIA. (INCL.) DROP GREATER THAN 1300mm AND LESS THAN 2300mm
(SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS.)

NOTE A:
IN AREAS WHERE A HIGH WATER TABLE OR VARIABLE WATER TABLE IS PRESENT, PRECAST CONCRETE RING UNITS WHICH CONFORM TO IS EN 1917 AND IS 420 MAY BE USED IN LIEU OF CAST-IN-SITU CONCRETE. THE PRECAST CONCRETE WALL UNITS SHALL BE A MINIMUM OF 125MM IN THICKNESS COMPLETE WITH A PROPRIETARY WATERTIGHT SEALING SYSTEM PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM AND SHALL BE SURROUNDED WITH AT LEAST A 150MM THICKNESS OF C30/37 TO IS EN 206, 20MM AGGREGATE SIZE TO IS EN 12620.
ALTERNATIVELY, PRECAST CONCRETE RING UNITS SHALL ONLY BE USED WHERE THE WATER TABLE IS LOW. THE PRECAST CONCRETE UNITS SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1917 AND IS 420, THE CONCRETE SURROUND TO THE PRECAST CONCRETE WALL UNITS SHALL ONLY BE OMITTED IF THE MANHOLE RING HAS A WALL THICKNESS OF 125MM OR MORE AND WHERE A PROPRIETARY WATERTIGHT SEALING SYSTEM IS PROVIDED AS AN INTEGRAL PART OF THE MANHOLE WALL SYSTEM, UP TO A MAXIMUM DEPTH OF 4.0M.



TYPE No. 3

150mm - 450mm DIA. (INCL.) DROP GREATER THAN 600mm AND LESS THAN 900m
*500mm - 900mm DIA. (INCL.) DROP GREATER THAN 600mm AND LESS THAN 1300mm
(SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS.)



NOTE:-
TYPE 4 CASCADE MANHOLE TO BE ONLY USED FOLLOWING PRIOR AGRREEMENT WITH UISCE ÉIREANN FIELD ENGINEER.

TYPE No. 4 CASCADE MANHOLE

150mm - 450mm DIA. (INCL.) DROP LESS THAN 600mm
*500mm - 900mm DIA. (INCL.) DROP LESS THAN 600mm
(SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS.)

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

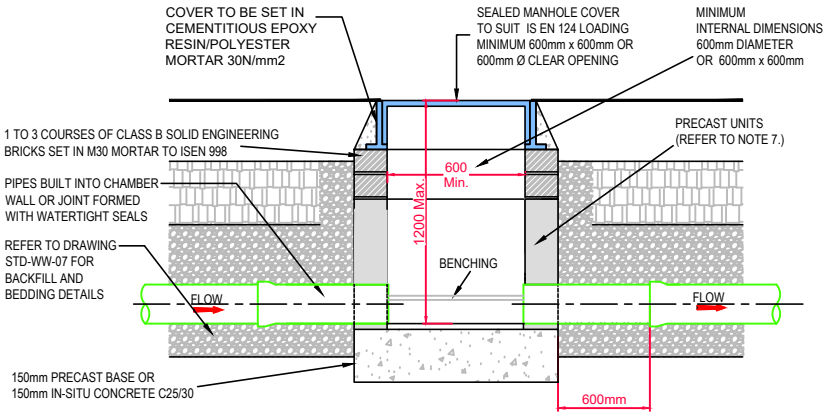
No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Revisions to notes	DP
3	07/'20	RH	TOC	Cascade manholeType 4 added, end cap detail added, notes updated, title updated	MOD
2	11/'17	JMC	TOC	Updated notes	MOD
1	08/'16	JMC	TOC	Added steps	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

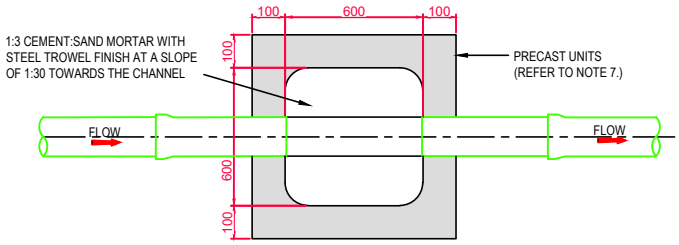
SCALE: NOT TO SCALE
DATE: SEPT. 2015

TITLE: BACKDROP AND CASCADE MANHOLES

DRAWING No.: STD-WW-12
REV: 4



SECTION

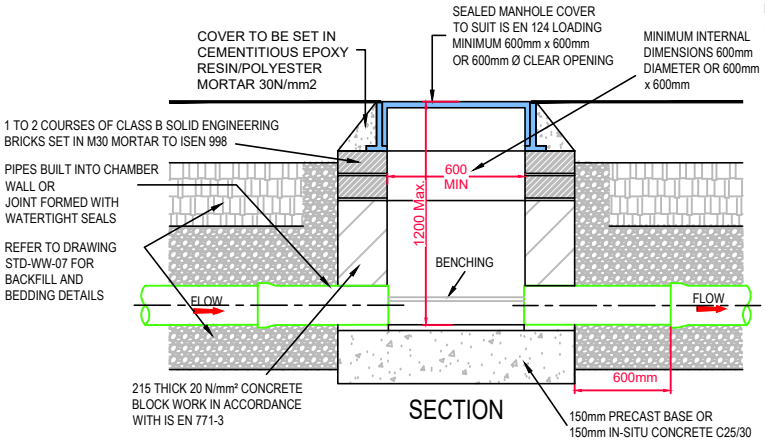


FLOOR PLAN

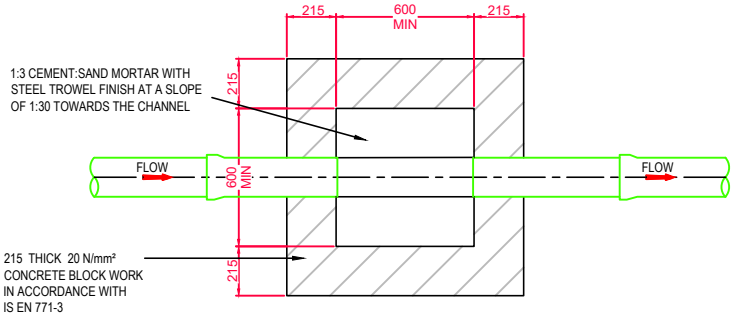
INSPECTION CHAMBER (PRECAST CONCRETE CONSTRUCTION)

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE, CONSULT WITH UISCE ÉIREANN ON ALTERNATIVE LOCATIONS.
3. SERVICE CONNECTION FROM PUBLIC SEWER TO PROPERTY BOUNDARY IS A PUBLIC ASSET. PIPE UPSTREAM OF THE PROPERTY BOUNDARY IS A PRIVATE DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS.
4. ACCESS POINTS SHOULD BE LOCATED SO THAT THEY ARE ACCESSIBLE AND APPARENT TO THE MAINTAINER AT ALL TIMES FOR USE. THEY SHOULD AVOID REAR GARDENS OR ENCLOSED LOCATIONS AND SHOULD NEVER BE OVERLAIN WITH SURFACE DRESSING, TOPSOIL, ETC.
5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
7. PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO REVIEW BY UISCE ÉIREANN - SEE DETAIL BELOW.
8. CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 OR CLAUSE 808 MATERIAL AS PER STD-WW-07.
9. MAXIMUM DEPTH FROM COVER LEVEL TO INVERT OF PIPE = 1.2m. INTERNAL DIMENSIONS GREATER THAN 600 x 600mm OR 600mm Ø REQUIRED WHERE DEPTH EXCEEDS 1.2m - CONSULT WITH UISCE ÉIREANN.
10. SMALLER INSPECTION CHAMBERS WITH INTERNAL DIMENSIONS OF 450mm Ø OR 450 X 450mm MAY BE PERMITTED SUBJECT TO APPROVAL BY UISCE ÉIREANN WHERE CONFINED PHYSICAL CONDITIONS EXIST.
11. PREFABRICATED UNITS SHOULD HAVE WATER TIGHT JOINTS AND SHOULD BE INTERLOCKING TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL SECTIONS OF THE UNIT
12. 300mm Min. CLEAR SEPARATION DISTANCE TO BE MAINTAINED BETWEEN ADJACENT INSPECTION CHAMBERS.
13. MULTI-WAY BASES WILL BE ACCEPTED TO SERVE DUPLEX OR TRIPLEX UNITS ONLY AND SHALL HAVE A 150MM Ø OUTLET.

NOTE:
THE USE OF BRICK/PAVIOUR INFILL RECESSED TRAY ACCESS COVERS IS NOT PERMITTED .

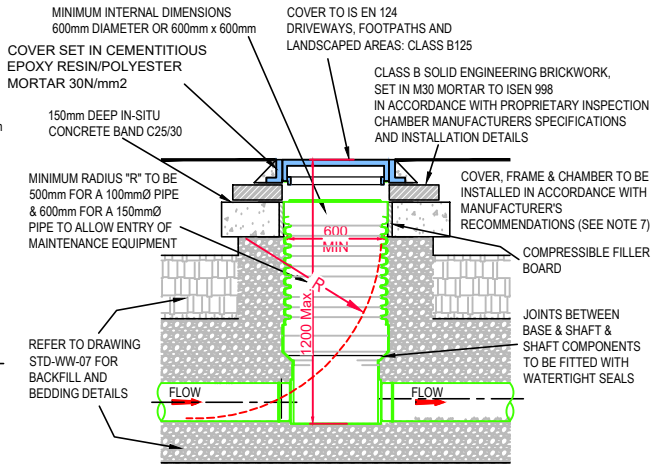


SECTION



FLOOR PLAN

INSPECTION CHAMBER (BLOCK WORK CONSTRUCTION)



SECTION

150mm Min. CONCRETE SURROUND REQUIRED TO PROPRIETARY INSPECTION CHAMBERS IN LOCATED IN DRIVEWAYS OR WHERE VEHICULAR LOADING MAY OCCUR.

"HOMOGENOUS SYSTEM" OF UNIFORM STRUCTURE AND INTERNAL DIMENSIONS THROUGHOUT BY SAME PROPRIETARY INSPECTION CHAMBER MANUFACTURER TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND INSTALLATION DETAILS

PROPRIETARY INSPECTION CHAMBER to EN13598-2 (FLEXIBLE MATERIAL, SUBJECT TO PRIOR UISCE ÉIREANN APPROVAL)

(MAXIMUM DEPTH FROM COVER LEVEL TO INVERT OF PIPE: 1.2m)

NOTE:
IN HIGH DENSITY DEVELOPMENTS I.E. **DUPLEX OR TERRACED HOUSING**, WASTEWATER DRAINS FROM A MAXIMUM OF TWO UNITS CAN BE COMBINED INTO ONE INSPECTION CHAMBER IN INSTANCES WHERE THERE ARE SPACE CONSTRAINTS.
FOR TRIPLEX HOUSING UNITS, WASTEWATER DRAINS FROM A MAXIMUM OF 3 UNITS CAN BE COMBINES INTO ONE INSPECTION CHAMBER WITH MINIMUM INTERNAL DIMENSIONS OF 600 x 600mm OR 600mm DIAMETER.
A 150MM DIAMETER OUTLET PIPE IS REQUIRED IN INSPECTION CHAMBERS SERVING DUPLEX AND TRIPLEX UNITS.

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Benching Added, Notes Updated	DP
3	07/'20	RH	TOC	Added Flexible Material I.C. Detail, Updated Notes	MOD
2	11/'17	JMC	TOC	Updated notes	MOD
1	08/'16	JMC	TOC	Added Cl. 808 to note 8	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

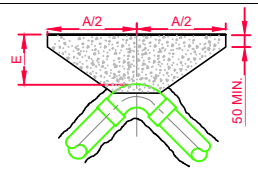
TITLE: PRIVATE SIDE INSPECTION CHAMBER

SCALE: NOT TO SCALE

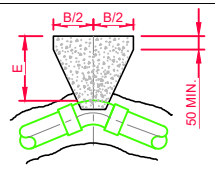
DATE: SEPT. 2015

DRAWING No.: STD-WW-13

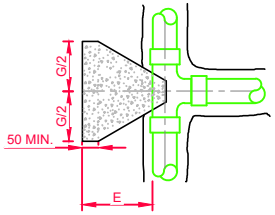
REV: 4



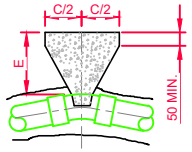
90 DEGREE BEND



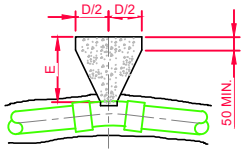
45 DEGREE BEND



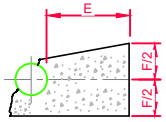
TEE



22.5 DEGREE BEND

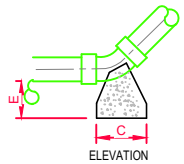


11.25 DEGREE BEND

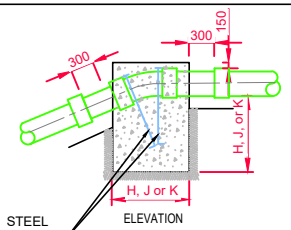


SECTIONAL ELEVATION FOR BEND OR TEE

HORIZONTAL BENDS



ELEVATION



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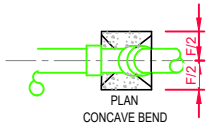
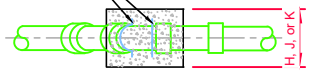


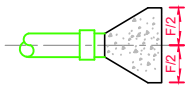
PLAN
CONCAVE BEND



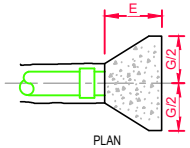
PLAN
CONVEX BEND

NOTE:
H FOR 45 DEGREE BEND J
FOR 22.5 DEGREE BEND K
FOR 11.25 DEGREE BEND

VERTICAL BENDS

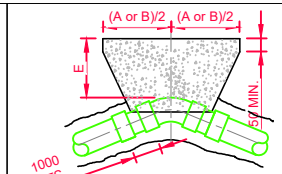


ELEVATION

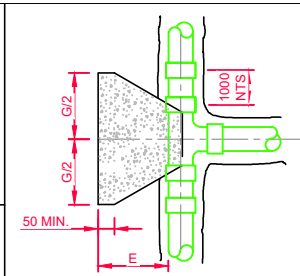


PLAN
DEAD END

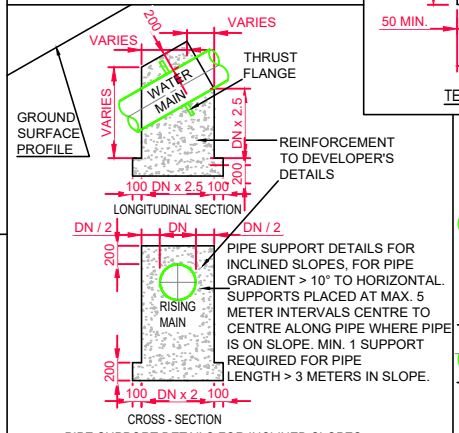
DEAD END



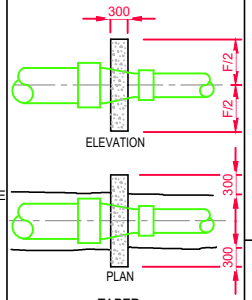
BEND WITH EXTENSION PIECES



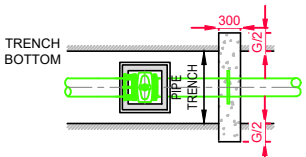
TEE WITH EXTENSION PIECES



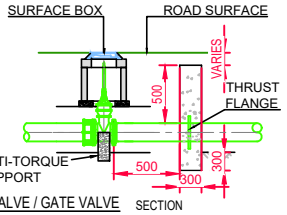
PIPE SUPPORT DETAILS FOR INCLINED SLOPES



TAPER

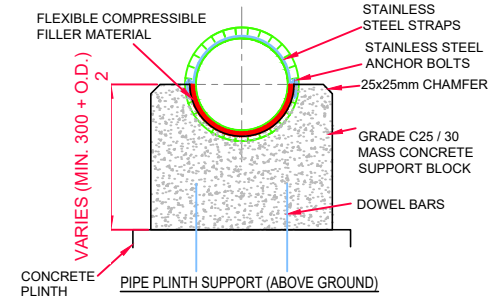


PLAN

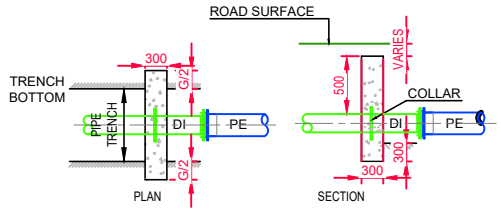


SECTION

THRUST BLOCK FOR SLUICE VALVE / GATE VALVE
FOR VALVE BOX ARRANGEMENT



PIPE PLINTH SUPPORT (ABOVE GROUND)



PLAN

SECTION

THRUST BLOCK FOR
DUCTILE IRON TO POLYETHYLENE CHANGE OVER

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-WW-07.
4. THRUST BLOCKS SHALL BEAR ON UNDISTURBED SOIL. IF FOR ANY REASON THEY CANNOT THEN THE DEVELOPER SHALL NOTIFY UISCE ÉIREANN IMMEDIATELY WITH A PROPOSED SOLUTION.
5. THRUST BLOCK REINFORCEMENT REQUIRES SPECIFIC DESIGN.
6. FOR TEST PRESSURES GREATER THAN 18 BAR, THRUST BLOCK DESIGN IS TO BE SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
7. THRUST BLOCKS ARE DESIGNED FOR AN AVERAGE BEARING PRESSURE OF 100 KN/m (TYPICAL FOR SOFT CLAY). FOR OTHER/ADVERSE SOIL CONDITIONS, ACTUAL DIMENSIONS MAY BE ALTERED SUBJECT TO THE DEVELOPER SUBMITTING AN ALTERNATIVE DESIGN TO UISCE ÉIREANN FOR REVIEW AND APPROVAL.
8. CONCRETE IN THRUST BLOCKS SHALL BE GRADE C20/25 IN ACCORDANCE WITH IS EN 206.
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 18mm.
10. CONCRETE THRUST BLOCKS FOR POLYETHYLENE PIPE TO COMPLY WITH THE MANUFACTURER'S REQUIREMENTS.
11. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.

< 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	390	700	600	400
150	950	510	260	130	225	450	660	900	750	600
200	1150	600	310	160	300	650	790	1050	900	700
250	1350	750	380	200	300	800	970	1200	1000	750
300	1580	850	450	220	320	950	1110	1300	1100	850
350	2100	1150	570	290	450	1000	1450	1550	1200	900
400	2550	1400	700	350	500	1050	1800	1700	1250	1000
450	3000	1630	830	420	680	1100	2130	1800	1450	1150
500	3590	1950	990	500	800	1200	2540	1950	1600	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	450	760	950	750	600
200	1400	750	380	190	300	650	980	1150	950	700
250	1730	940	480	240	320	800	1210	1350	1050	850
300	2090	1130	580	300	380	950	1480	1500	1200	950
350	2600	1410	720	360	500	1050	1840	1700	1350	1050
400	2980	1610	820	420	750	1200	2110	1850	1500	1150
450	3400	1840	940	470	900	1300	2330	2000	1600	1250
500	4090	2210	1130	570	1000	1400	2890	2200	1750	1350
600	5010*	2710*	1380	700	1000	1500	3550*	2350	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	205	100	220	400	530	800	650	400
150	1250	700	350	180	250	500	890	1000	850	650
200	1650	890	450	230	320	700	1170	1250	1000	800
250	1960	1060	540	270	350	900	1370	1450	1150	900
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	1600	1250
450	3810	2270	1160	580	1000	1350	2970	2150	1700	1350
500	4340*	2380	1210	610	1000	1400	3700	2250	1750	1400
600	6370*	3450*	1760	890	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

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	04/'25	RH	M McG	Notes Updated	DP
2	07/'20	RH	TOC	Notes Updated	MOD
1	11/'17	JMC	TOC	Anti-torque support note & thrust flange added & note 6 updated	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

DATE: SEPT. 2015

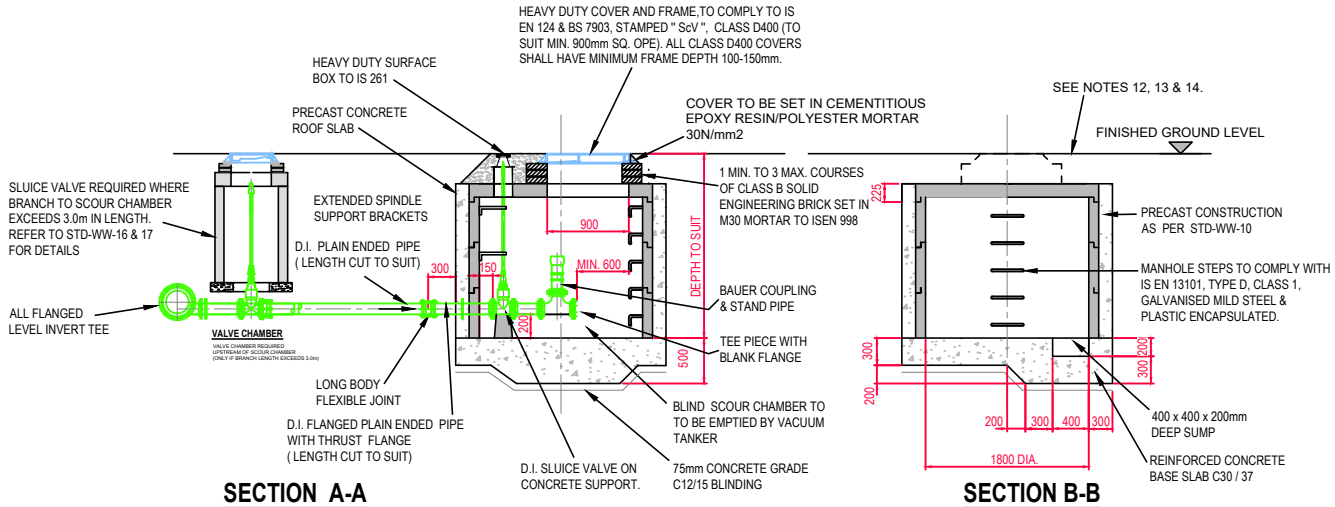
TITLE

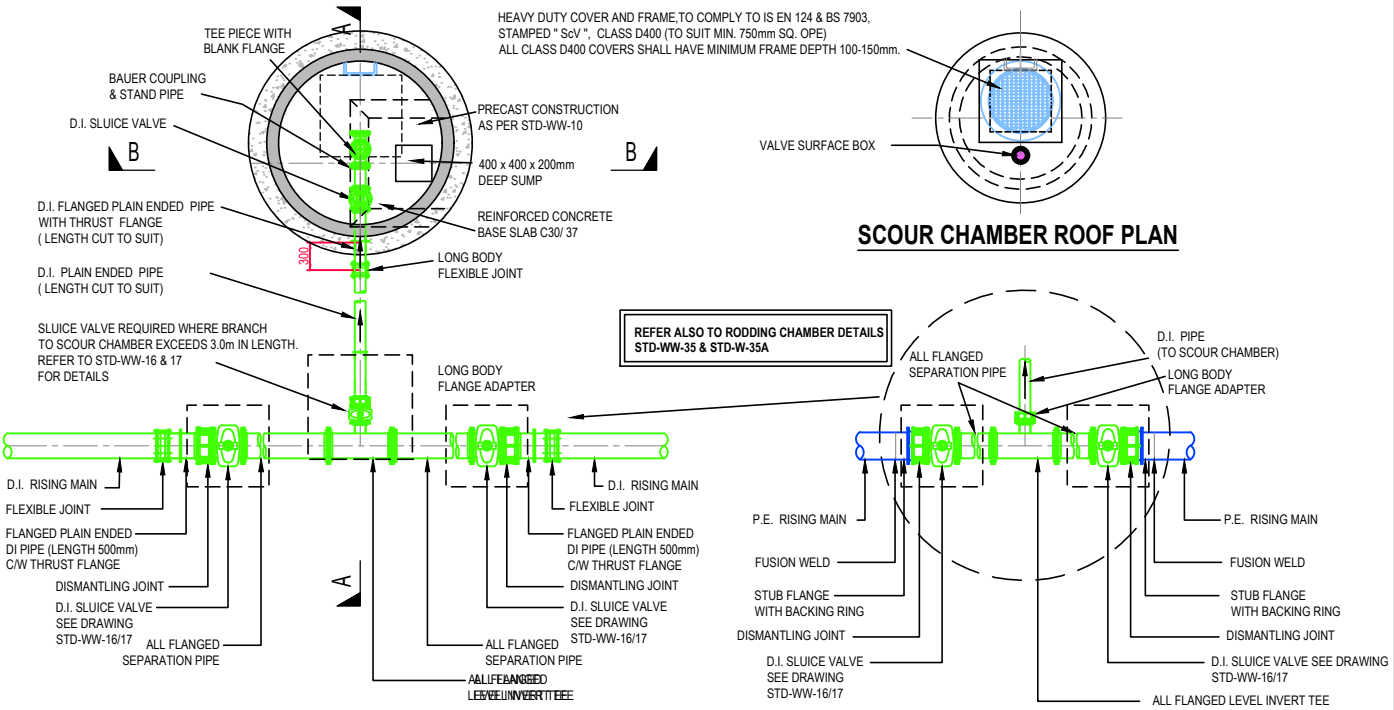
THRUST BLOCKS
FOR RISING MAINS

DRAWING No.: STD-WW- 14

REV: 3

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. VALVE SURFACE BOX TO BE IN ACCORDANCE WITH IS 261 OR BS 5834. SCOUR CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS EN 124 RATING D400. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
3. SLUICE VALVES SHALL BE DOUBLE FLANGED WITH DUCTILE IRON RESILIENT SEAL GATE VALVES, SUITABLE FOR USE IN RISING MAINS. THEY SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074 AND THEY SHALL HAVE THE APPROPRIATE CE MARKING.
4. SCOUR CHAMBER TO BE IN ACCORDANCE WITH BS EN 1992-3.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. 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 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, & COMPLIANCE WITH BS 5911 Part 4.
6. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
7. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
8. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
10. ALL DUCTILE IRON PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
11. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
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. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
15. SCOUR VALVE REQUIRED ONLY AT LOW POINTS FOR UNDULATING RISING MAINS.





PIPE DIAMETER (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS
80 - 100	1800mm Ø	900 x 900mm

DIAMETER OF RISING MAIN (mm)	DIAMETER OF SCOUR (mm)
80	80
100 to 200	100

CONNECTIONS AND DEVELOPER SERVICES

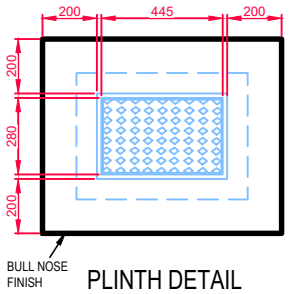
No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Bauer Valve Included, Chamber Dims Increased, Notes Revised	DP
3	07/'20	RH	TOC	Manhole cover and brick coursing notes revised & added notes	MOD
2	11/'17	JMC	TOC	Revised & added notes	MOD
1	08/'16	JMC	TOC	Added steps, revised note 2, dims, cover & ope notes.	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE | DATE: SEPT. 2015

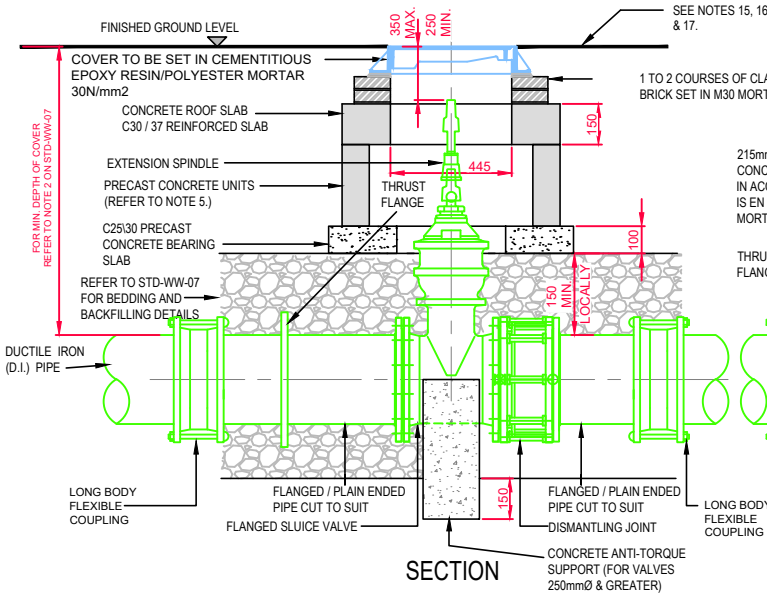
TITLE: SCOUR VALVE CHAMBER FOUL RISING MAIN (≤ 200mm DIA.)

DRAWING No.: STD-WW-15 | REV: 4

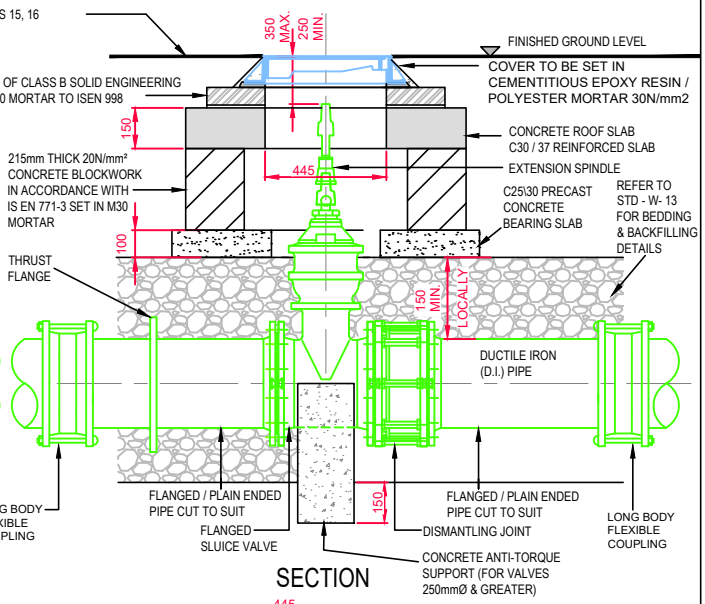


PLINTH DETAIL IN GRASS AREAS

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 AND BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY UISCE ÉIREANN.
3. SLUICE VALVES SHALL BE DOUBLE FLANGED WITH DUCTILE IRON RESILIENT SEAL GATE VALVES, SUITABLE FOR USE IN RISING MAINS. THEY SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074 AND THEY SHALL HAVE THE APPROPRIATE CE MARKINGS.
4. ALL SLUICE VALVES SHALL BE CLOCKWISE CLOSING.
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 REVIEW BY UISCE ÉIREANN. 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 UISCE ÉIREANN REVIEW, & COMPLIANCE WITH BS 5911, Part 4.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-WW-07.
7. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
8. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
9. PE PIPES TO BE IN ACCORDANCE WITH IS EN 12201 : 2011.
10. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
11. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
12. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
13. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
14. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-WW-14. THRUST BLOCKS NOT SHOWN FOR CLARITY.
15. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
16. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
17. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



SECTION



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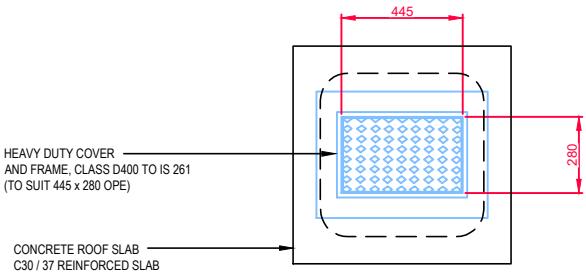
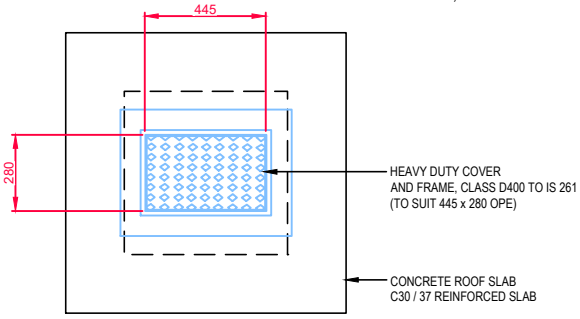
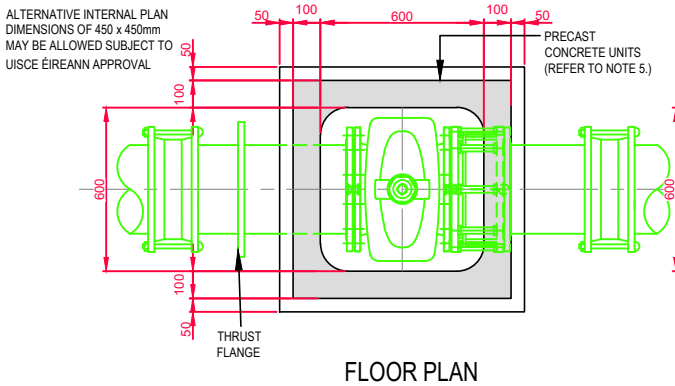


ROOF PLAN

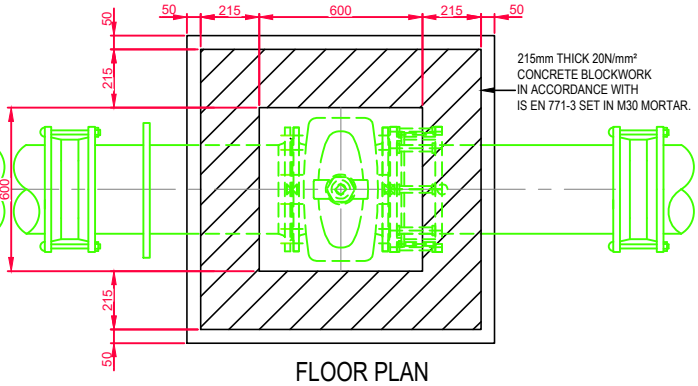


ROOF PLAN



FLOOR PLAN

SLUICE VALVE CHAMBER (PRECAST CONCRETE CONSTRUCTION)



FLOOR PLAN

SLUICE VALVE CHAMBER (BLOCKWORK CONSTRUCTION)

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
5	08/'25	RH	MMcG	Revised Notes	DP
4	07/'20	RH	TOC	Updated anti-torque support note, brickwork bedding mortar spec added, relocated thrust flange.	MOD
3	11/'17	JMC	TOC	Revised & Added Notes	MOD
2	08/'16	JMC	TOC	Revised note 6 (Cl. 808)	MOD
1	04/'16	JMC	TOC	Flexible couplings shown	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

Uisce Éireann Irish Water

STANDARD DETAILS - WASTEWATER

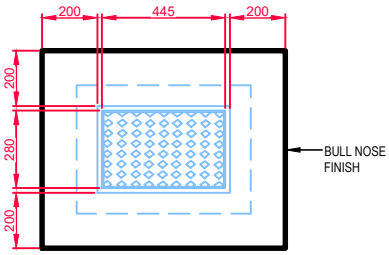
SCALE: NOT TO SCALE

DATE: SEPT. 2015

TITLE: SLUICE VALVE DETAILS FOR RISING MAINS DUCTILE IRON (D.I.) PIPE (≤ 200mm DIA.) (Sheet 1 of 2)

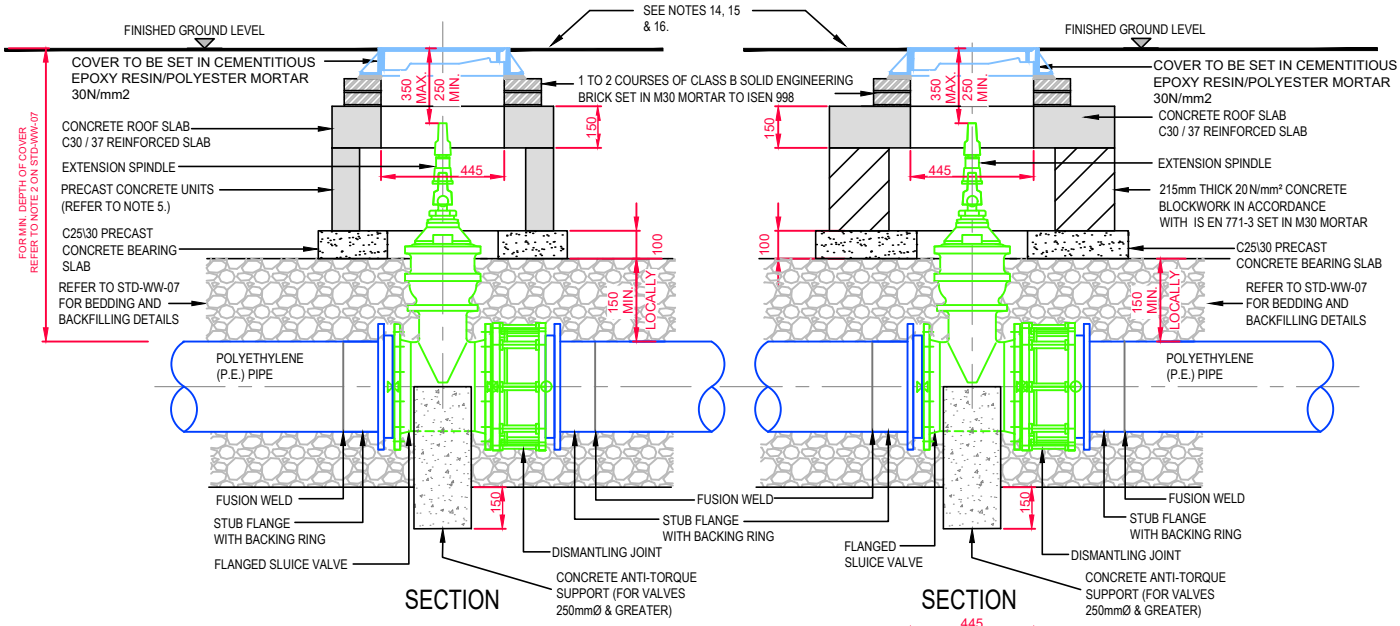
DRAWING No.: STD-WW-16

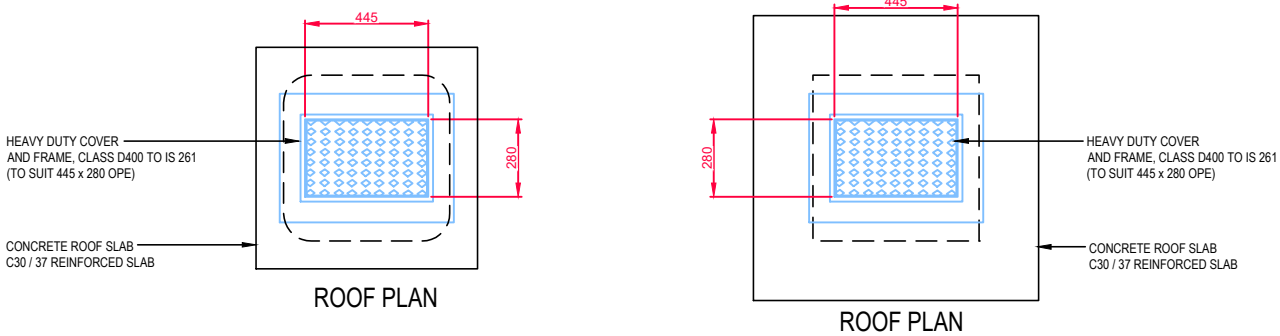
REV: 5

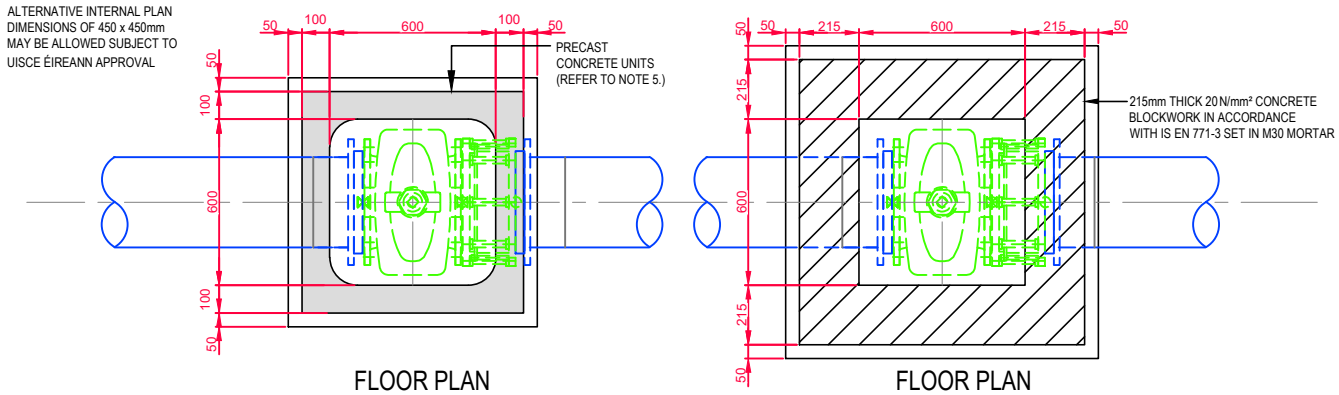


PLINTH DETAIL

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SLUICE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 AND BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO REVIEW BY UISCE ÉIREANN.
3. SLUICE VALVES SHALL BE DOUBLE FLANGED WITH DUCTILE IRON RESILIENT SEAL GATE VALVES, SUITABLE FOR USE IN RISING MAINS. THEY SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074 AND THEY SHALL HAVE THE APPROPRIATE CE MARKINGS.
4. ALL SLUICE VALVES SHALL BE CLOCKWISE CLOSING.
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 REVIEW BY UISCE ÉIREANN. 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 UISCE ÉIREANN REVIEW, & COMPLIANCE WITH BS 5911, Part 4.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-WW-07.
7. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
8. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
9. PE PIPES TO BE IN ACCORDANCE WITH IS EN 12201 : 2011.
10. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
11. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
12. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
13. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
14. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
15. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
16. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.







SLUICE VALVE CHAMBER (PRECAST CONCRETE CONSTRUCTION)

SLUICE VALVE CHAMBER (BLOCKWORK CONSTRUCTION)

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	MMcG	Revised Notes	DP
3	07/'20	RH	TOC	Updated anti-torque support note, brickwork bedding mortar spec and added plan dimensions note	MOD
2	11/'17	JMC	TOC	Revised & Added Notes	MOD
1	08/'16	JMC	TOC	Revised note 6 (Cl. 808)	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

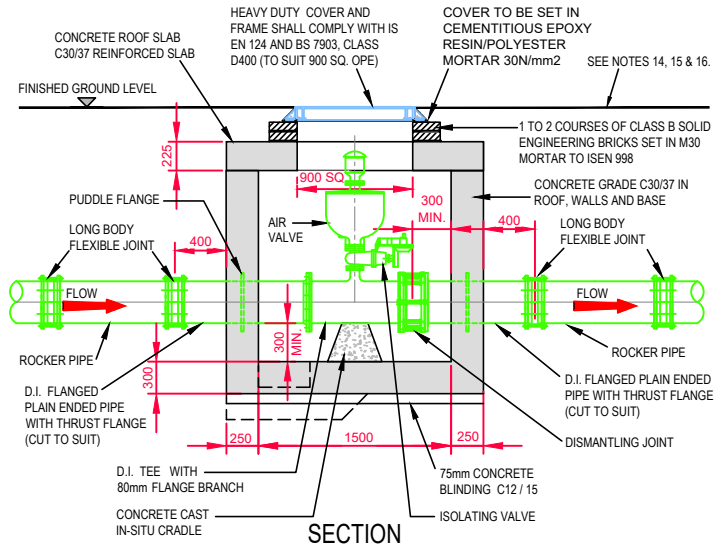
DATE: SEPT. 2015

TITLE: SLUICE VALVE DETAILS FOR RISING MAINS POLYETHYLENE (P.E.) PIPE (≤ 200mm DIA.) (Sheet 2 of 2)

DRAWING No.: STD-WW-17

REV: 4

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. VENTILATION STACK TO BE PROVIDED IN ODOUR SENSITIVE AREAS AND ODOUR TREATMENT UNIT MAY BE REQUIRED DEPENDING ON LOCATION.
3. ISOLATING VALVE TO BE IN ACCORDANCE WITH IS EN 1074-2.
4. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. 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 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, & COMPLIANCE WITH IS 420 & ISEN 1917.
5. DOUBLE AIR VALVE CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY VENTILATED METAL COVER TO IS EN 124 RATING D400. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
7. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
8. PRE-CAST UNITS MAY BE USED SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. ANTI CORROSION TAPE TO BE PROVIDED AROUND ALL BURIED FLANGES.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
11. ALL DUCTILE IRON PIPE WORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
12. ALL PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201: 2011.
13. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
14. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
15. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
16. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



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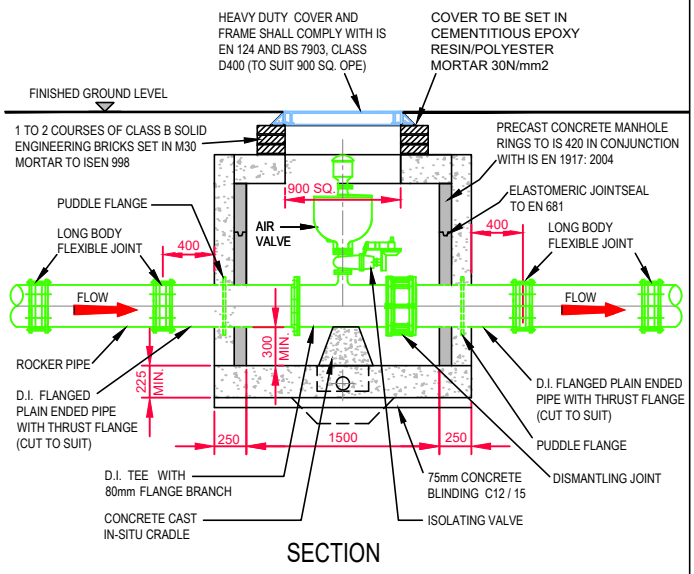
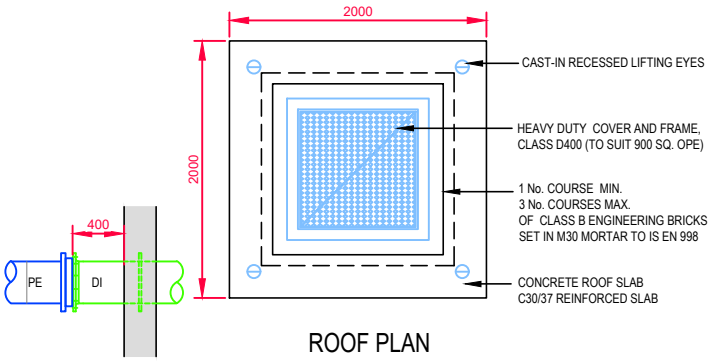
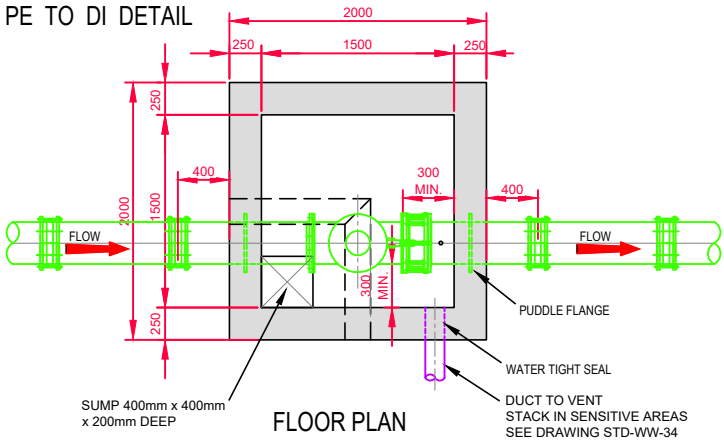


SECTION

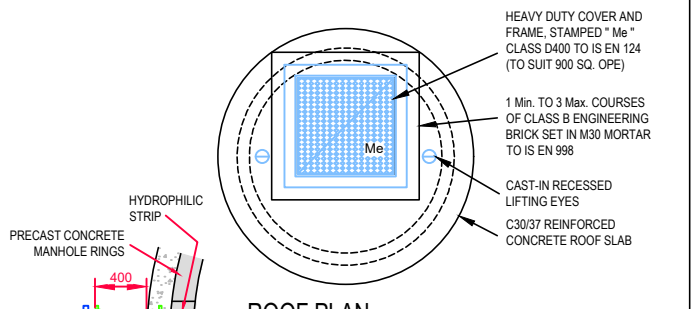


ROOF PLAN

PE TO DI DETAIL

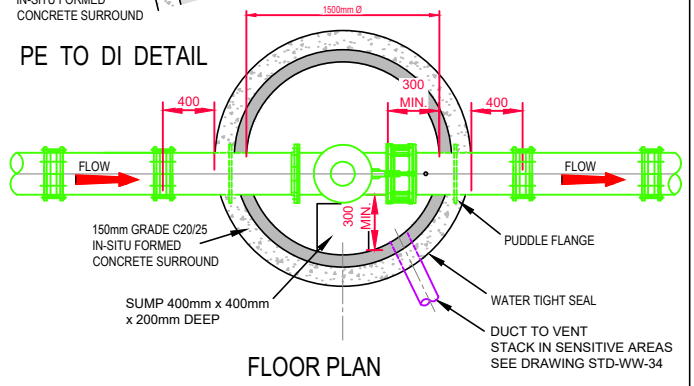


FLOOR PLAN



ROOF PLAN

PE TO DI DETAIL



FLOOR PLAN

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Added notes - re sump	DP
3	07/'20	RH	TOC	Updated notes, revised brickwork mortar bedding notes, precast option added.	MOD
2	11/'17	JMC	TOC	Revised & added notes	MOD
1	08/'16	JMC	TOC	Revised note 5 & cover notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

TITLE

AIR VALVE CHAMBER
(FOUL RISING MAIN ≤ 200mm DIA.)
SHEET 1 OF 2

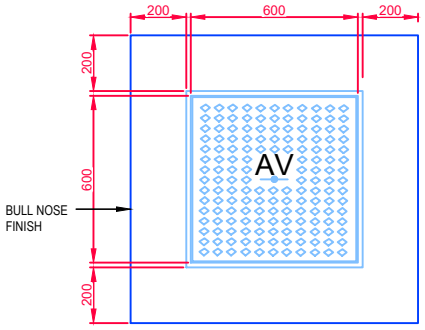
SCALE: NOT TO SCALE

DATE: SEPT. 2015

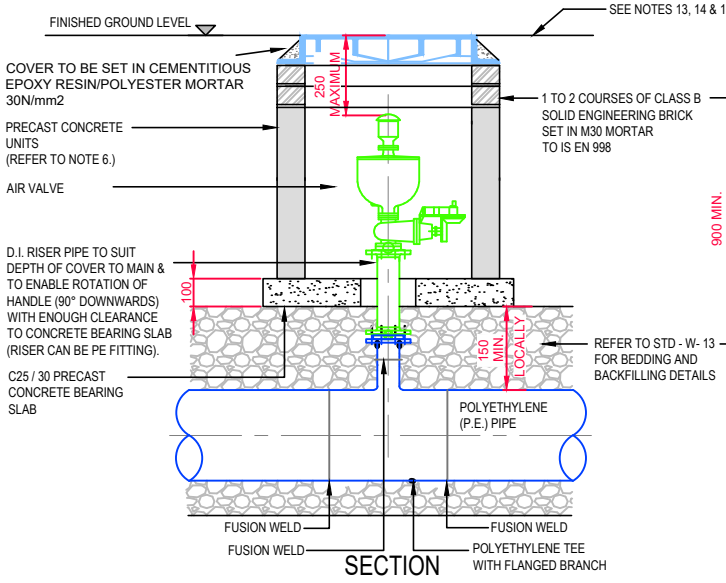
DRAWING No.: STD-WW-18

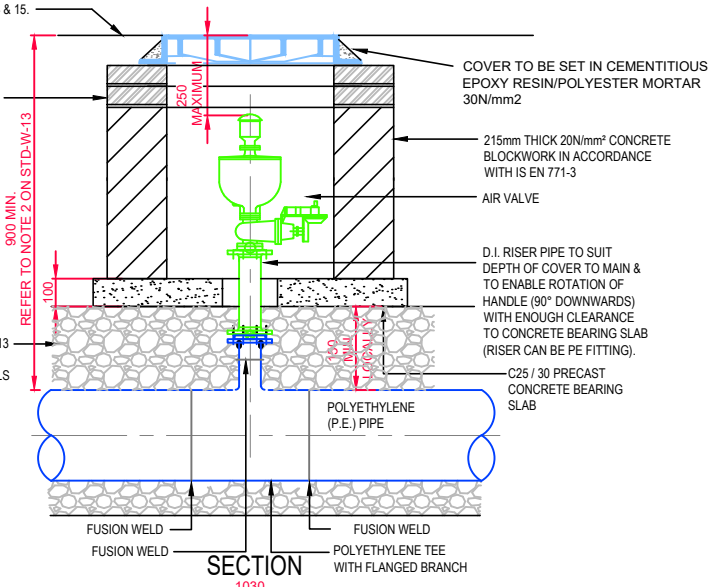
REV: 4

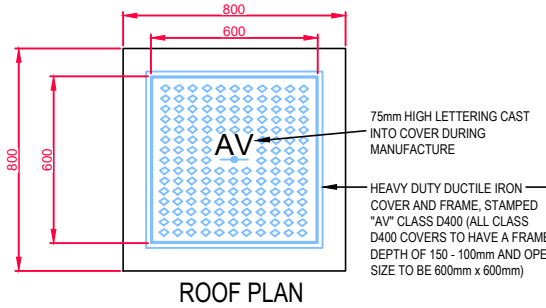
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. VENTILATION STACK TO BE PROVIDED IN ODOUR SENSITIVE AREAS AND ODOUR TREATMENT UNIT MAY BE REQUIRED DEPENDING ON LOCATION.
3. ISOLATING VALVE TO BE IN ACCORDANCE WITH IS EN 1074-2.
4. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. 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 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, & COMPLIANCE WITH IS 420 & ISEN 1917.
5. DOUBLE AIR VALVE CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY VENTILATED METAL COVER TO IS EN 124 RATING D400. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. 200mm ALL AROUND x 100mm DEEP, C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND TO BE PROVIDED COMPLETE WITH MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
7. THRUST BLOCKS (NOT SHOWN ON DRAWING), TO BE PROVIDED AS PER STANDARD DRAWING STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
8. PRE-CAST UNITS MAY BE USED SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. ANTI CORROSION TAPE TO BE PROVIDED AROUND ALL BURIED FLANGES.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
11. ALL DUCTILE IRON PIPE WORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
12. ALL PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201: 2011.
13. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
14. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
15. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
16. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



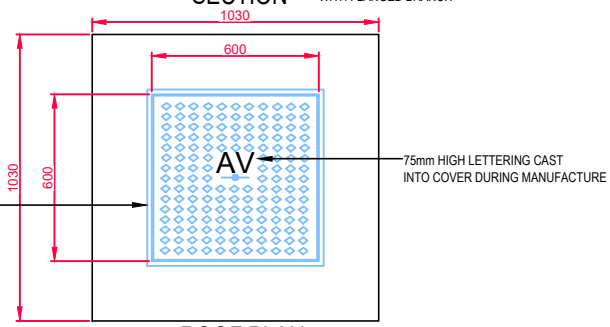
PLINTH DETAIL IN GRASS AREA



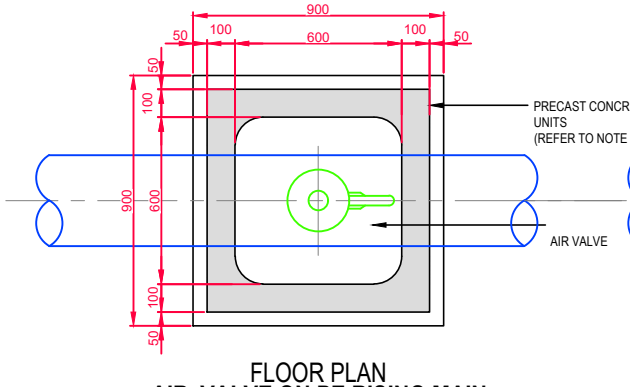




ROOF PLAN

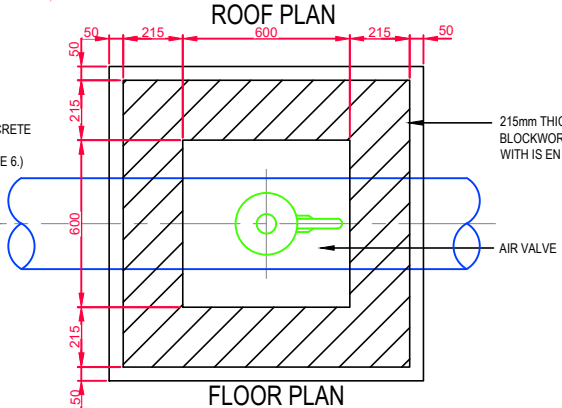


ROOF PLAN



FLOOR PLAN

AIR VALVE ON PE RISING MAIN (PRECAST CONCRETE CONSTRUCTION)



FLOOR PLAN

AIR VALVE ON PE RISING MAIN (BLOCKWORK CONSTRUCTION)

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
0	08/'25	RH	M McG	Initial Issue	DP

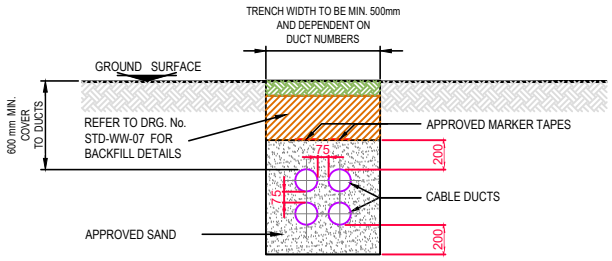
STANDARD DETAILS - WASTEWATER

SCALE	DATE
NOT TO SCALE	AUG. 2025

TITLE

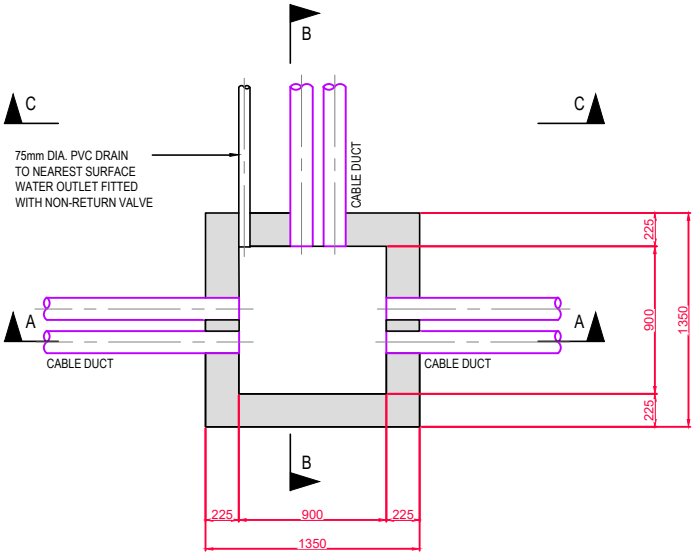
AIR VALVE CHAMBER
(FOUL RISING MAIN ≤ 200mm DIA.)
SHEET 2 OF 2

DRAWING No.	REV
STD-WW-18A	0

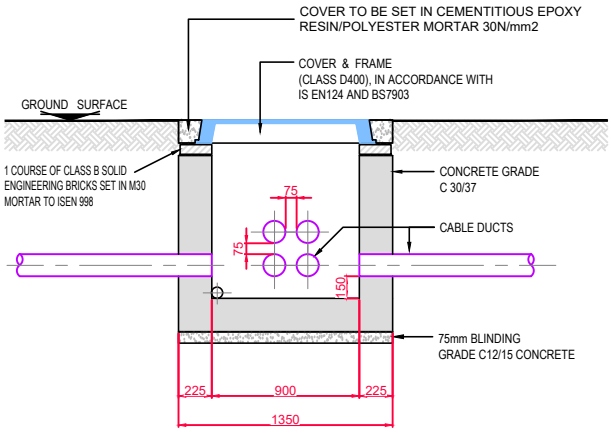


SECTION C - C

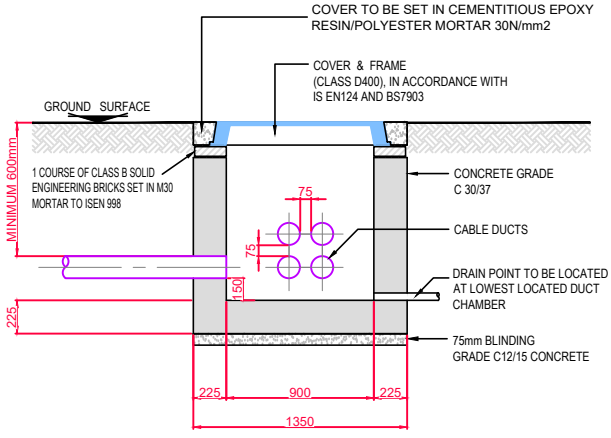
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
3. DUCT ARRANGEMENT MAY VARY DEPENDING ON REQUIREMENTS.
4. CABLE DUCTS TO BE IN ACCORDANCE WITH IS EN 61386-24. DUCTS FOR ESB USE TO BE IN ACCORDANCE WITH ESB SPECIFICATION ESBN 16113 AND IS 370 COLOUR CODE.
5. PROPRIETARY DUCT CHAMBER MAY BE USED SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. LONG RADIUS BENDS MAY BE USED FOR CHANGES IN DIRECTION OF UP TO 45° DUCT CHAMBERS SHALL BE PROVIDED FOR ALL BENDS GREATER THAN 45°.
7. DUCT CHAMBERS TO BE LOCATED AT 50m INTERVALS MAXIMUM.
8. APPROPRIATE MARKER TAPE SHALL BE LAID 200mm ABOVE THE EXTERNAL CROWN OF THE DUCT AND SHOULD INCORPORATE REINFORCED TRACING WIRE. TRACING WIRES SHALL BE CONNECTED ACROSS CHAMBERS. ELECTRICAL MARKER TAPE TO BE USED IN ACCORDANCE WITH ESB SPECIFICATION.
9. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
11. ALL DUCTING TO BE INSTALLED WITH DRAW CORDS/ROPES, TO ALLOW THE PULL THROUGH OF CABLES.
12. CABLE DUCT INTERFACE WITH CHAMBER WALL TO BE SEALED TO PREVENT INGRESS OF GROUNDWATER TO CHAMBER.
13. DRAIN POINT TO BE PROVIDED FROM LOWEST LOCATED DUCT CHAMBER



PLAN



SECTION A - A



SECTION B - B

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Included drain point, updated cover bedding spec / brickwork notes and updated notes	MOD
2	11/'17	JMC	TOC	Revised notes	MOD
1	08/'16	JMC	TOC	Revised notes to cover	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

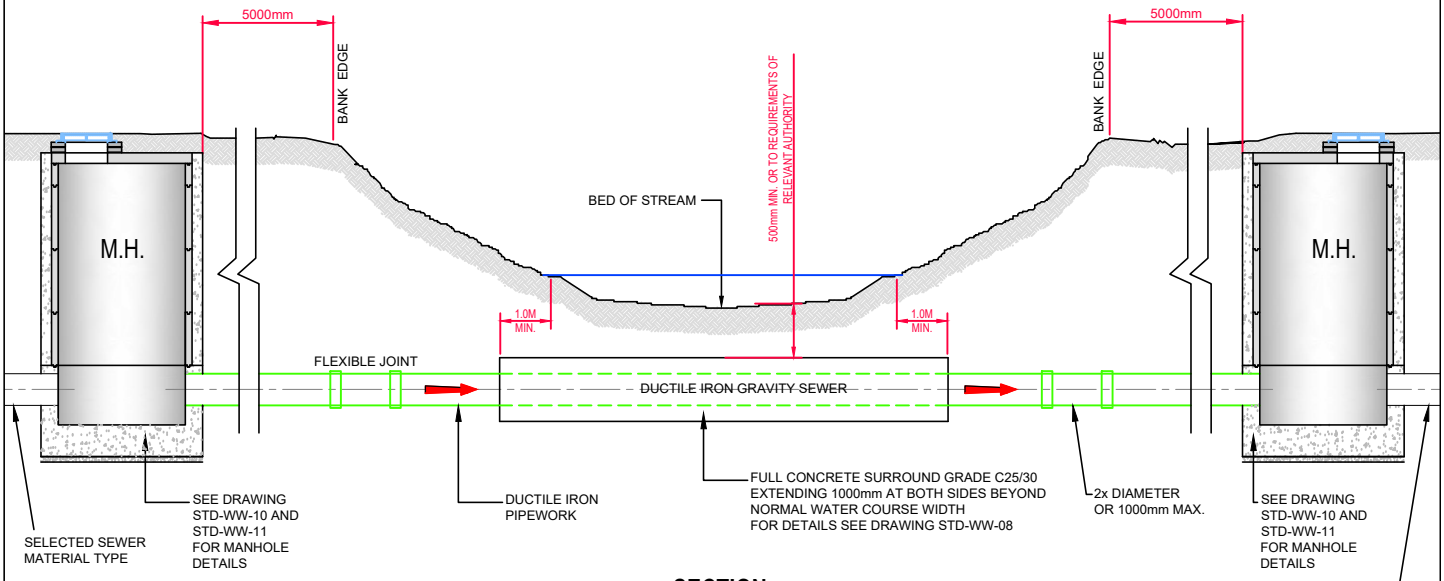
DATE: SEPT. 2015

TITLE: DUCT CHAMBER

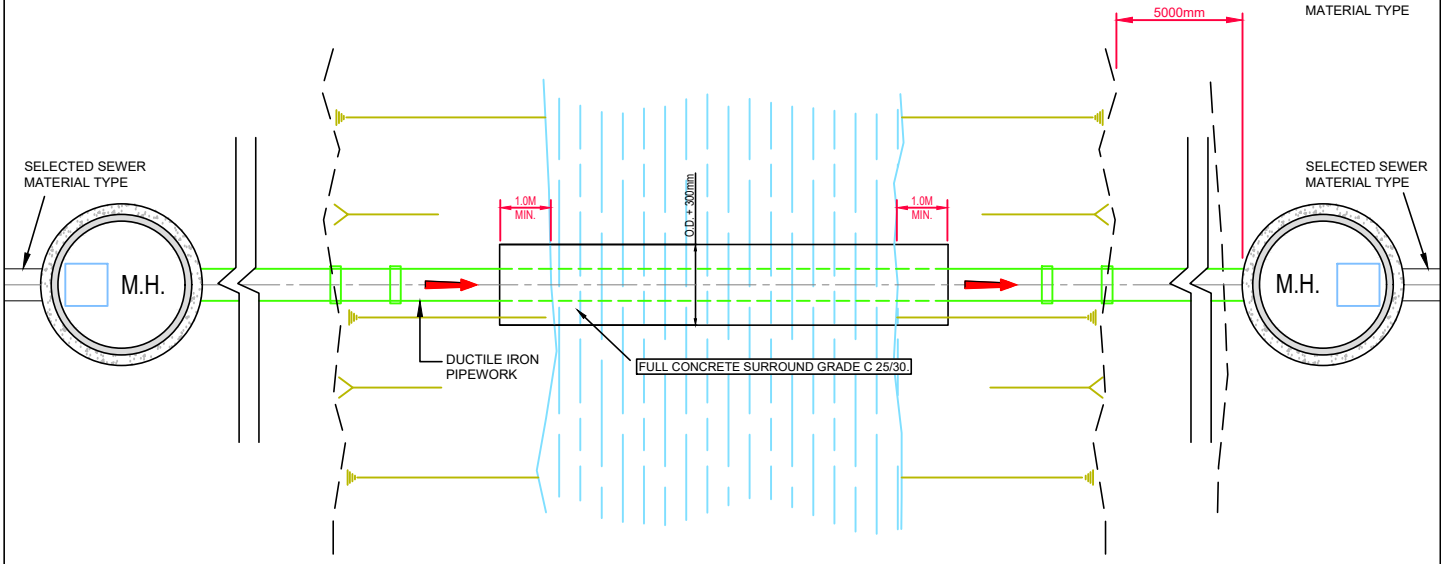
DRAWING No.: STD-WW-19

REV: 3

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. O.D. REFERS TO OUTSIDE DIAMETER OF PIPES OR COLLARS.
3. TWO FLEXIBLE JOINTS SHALL BE PROVIDED WITHIN A DISTANCE OF 1000mm OR 2x DIAMETER OF PIPE (WHICHEVER IS THE GREATER) FROM BOTH ENDS OF CONCRETE SURROUND.
4. ALL DUCTILE IRON PIPE WORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
5. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
6. ALL MANHOLES TO BE LOCATED A MINIMUM OF 5000mm FROM THE BANK EDGE TO ALLOW FOR FUTURE ACCESS.
7. BACKFILL AND REINSTATEMENT OF THE RIVER BED AND BANK TO BE SUBJECT TO AGREEMENT WITH RELEVANT AUTHORITY & UISCE ÉIREANN.
8. PIPE BETWEEN MANHOLES AT DITCH / STREAM CROSSING TO BE DUCTILE IRON.



SECTION



PLAN

NOTE:-
THE DEVELOPER SHALL SUBMIT DESIGN AND CONSTRUCTION DETAILS TO UISCE ÉIREANN FOR APPROVAL PRIOR TO COMMENCEMENT OF THE WORKS.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	MMcG	Dims & Notes Added, MH Base Adjusted	DP
2	07/'20	RH	TOC	Pipe materials noted, notes added	MOD
1	11/'17	JMC	TOC	Updated pipe depth dimension	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE

TYPICAL DITCH / STREAM CROSSING FOR GRAVITY SEWER (Sheet 1 of 2)

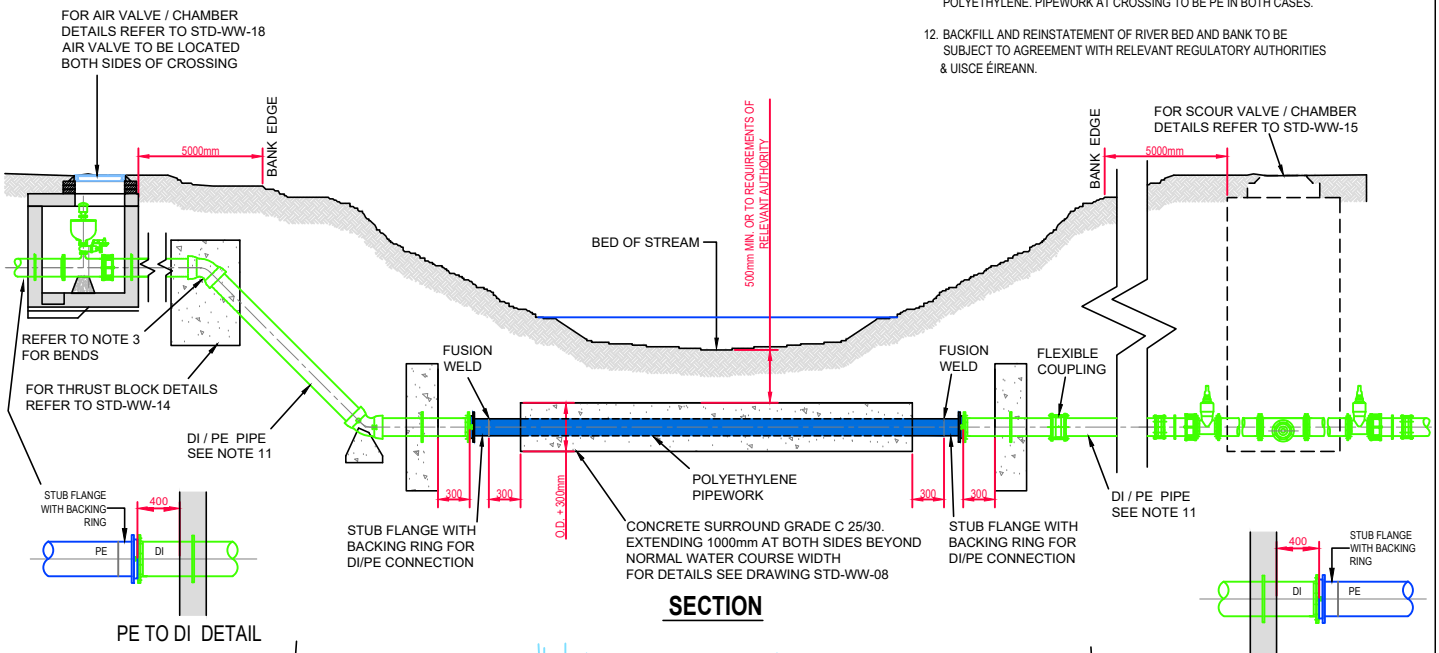
SCALE: NOT TO SCALE

DATE: SEPT. 2015

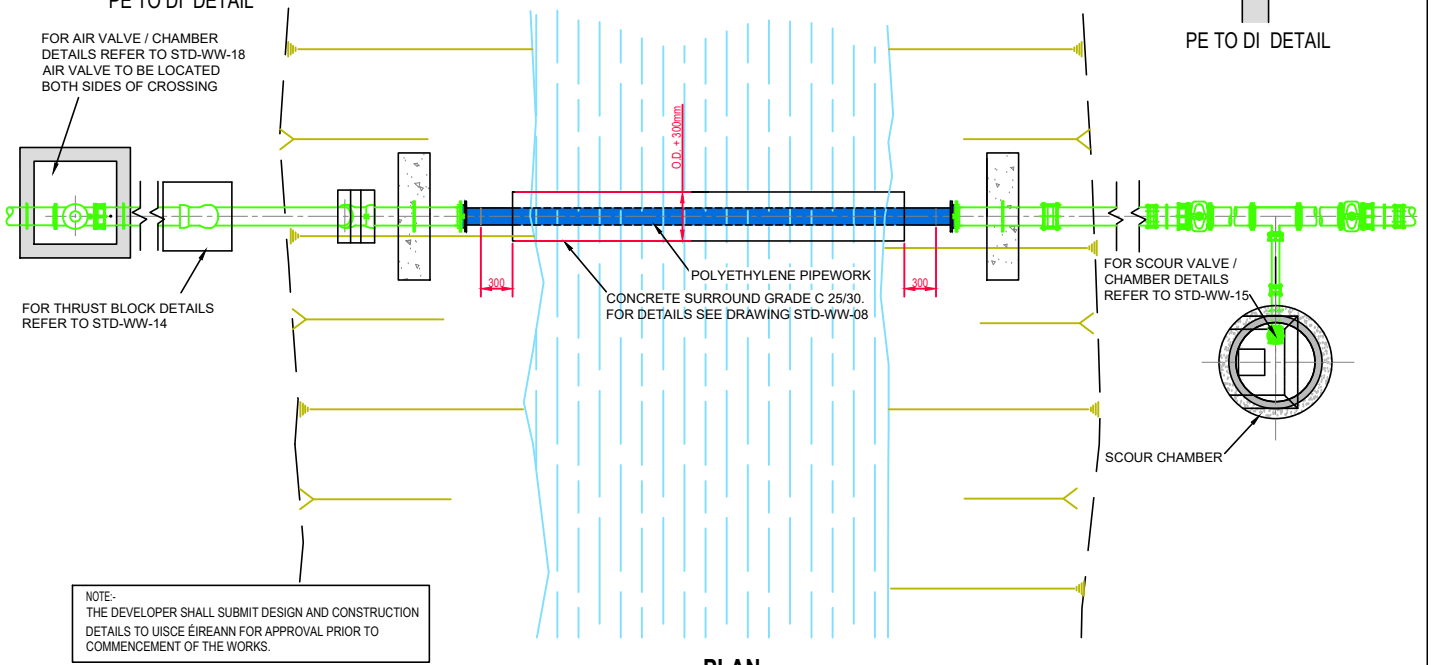
DRAWING No.: STD-WW-21

REV: 3

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. O.D. REFERS TO OUTSIDE DIAMETER OF PIPES OR COLLARS.
3. BENDS AT RESPECTIVE CROSSINGS SHALL BE INDICATED ON THE LONGITUDINAL SECTION DRAWING.
4. PIPEWORK THROUGH CROSSING TO BE POLYETHYLENE & JOINED USING BUTT FUSION WELDING.
5. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
6. THRUST BLOCKS TO BE PROVIDED AS PER STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
7. ALL DUCTILE IRON PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
8. ALL PE PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201 : 2011.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
10. ALL MANHOLES TO BE LOCATED A MINIMUM OF 5000mm FROM THE BANK EDGE TO ALLOW FOR FUTURE ACCESS. MANHOLE LOCATIONS MUST BE REVIEWED BY UISCE ÉIREANN & READILY ACCESSIBLE BY ALL OPERATION & MAINTENANCE EQUIPMENT, INCLUDING A VACUUM TANKER.
11. PIPEWORK OF RISING MAIN CAN BE EITHER DUCTILE IRON OR POLYETHYLENE. PIPEWORK AT CROSSING TO BE PE IN BOTH CASES.
12. BACKFILL AND REINSTATEMENT OF RIVER BED AND BANK TO BE SUBJECT TO AGREEMENT WITH RELEVANT REGULATORY AUTHORITIES & UISCE ÉIREANN.



SECTION



PLAN

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	MMcG	Notes added	DP
2	07/'20	RH	TOC	PE details added, notes added	MOD
1	11/'17	JMC	TOC	Updated pipe depth dimension & note 10 revised	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

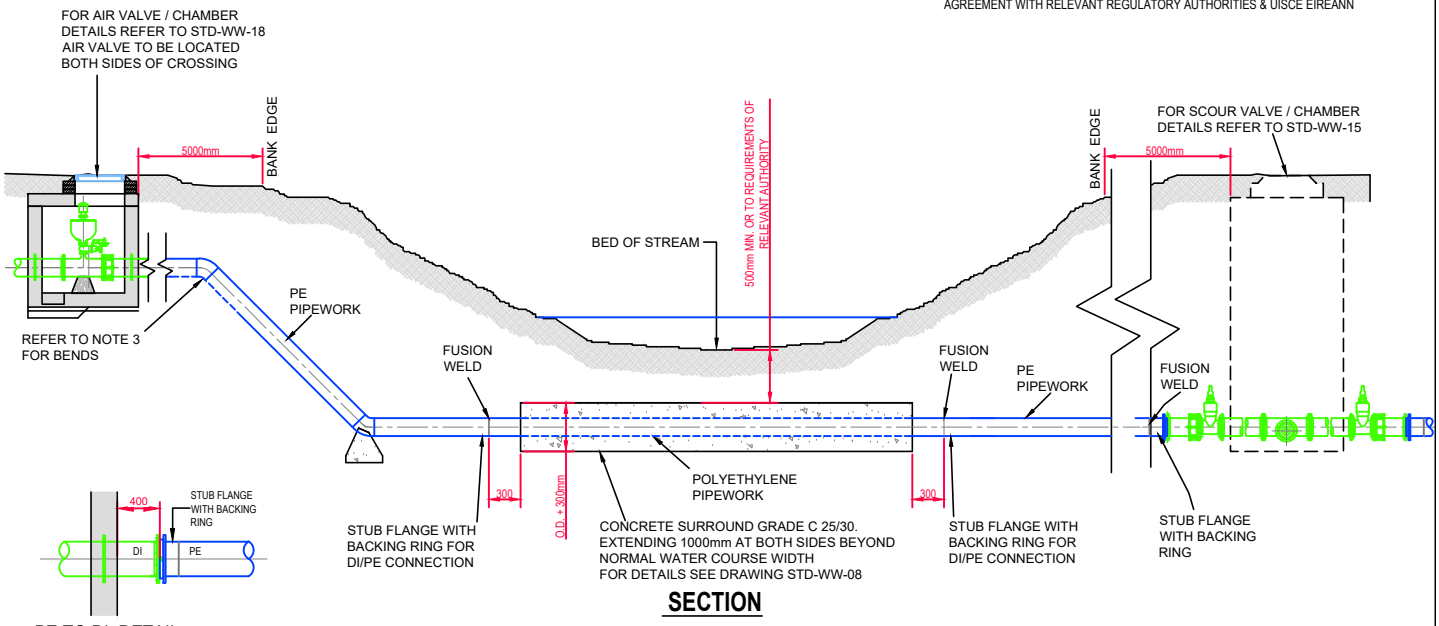
TITLE

TYPICAL DITCH / STREAM CROSSING FOR RISING MAIN (Sheet 2 of 2)

SCALE	DATE
NOT TO SCALE	SEPT. 2015

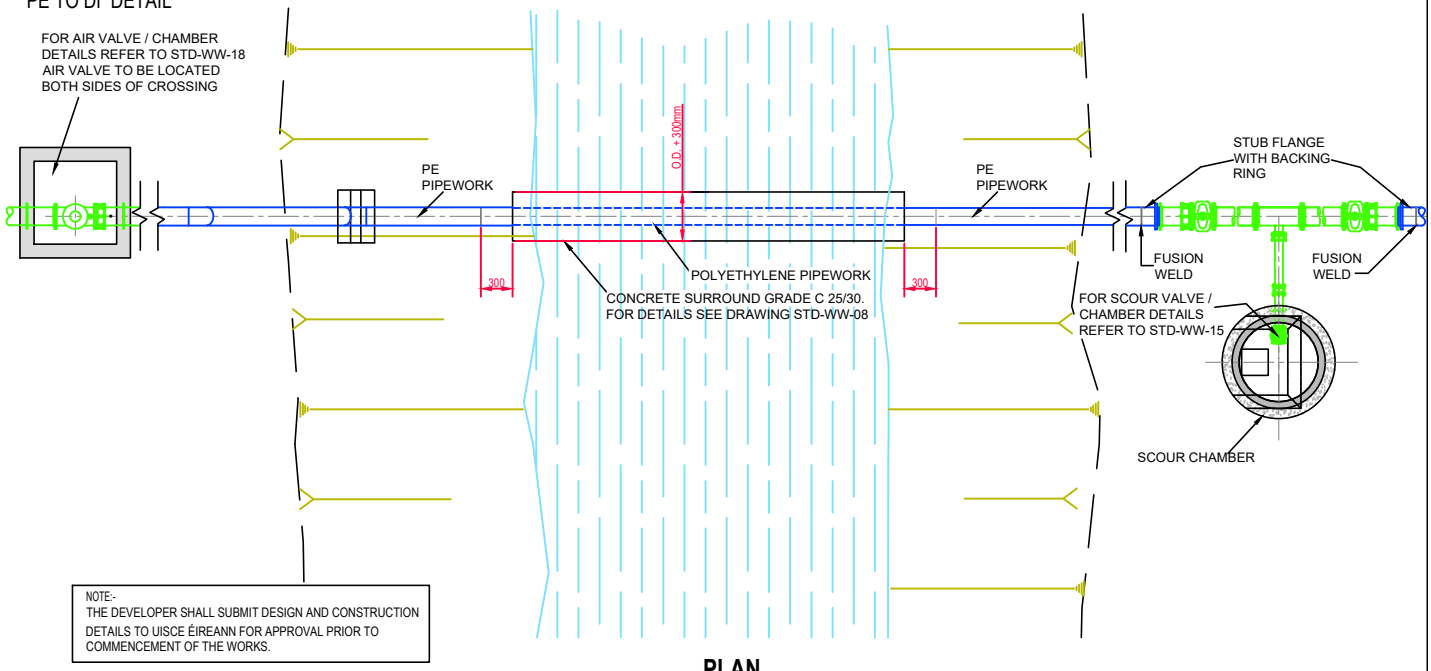
DRAWING No.	REV
STD-WW-22	3

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. O.D. REFERS TO OUTSIDE DIAMETER OF PIPES OR COLLARS.
3. BENDS AT RESPECTIVE CROSSINGS SHALL BE INDICATED ON THE LONGITUDINAL SECTION DRAWING.
4. PIPEWORK THROUGH CROSSING TO BE POLYETHYLENE & JOINED USING BUTT FUSION WELDING.
5. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
6. THRUST BLOCKS TO BE PROVIDED AS PER STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
7. ALL DUCTILE IRON PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
8. ALL PE PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201 : 2011.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
10. ALL MANHOLES TO BE LOCATED A MINIMUM OF 5000mm FROM THE BANK EDGE TO ALLOW FOR FUTURE ACCESS. MANHOLE LOCATIONS MUST BE REVIEWED BY UISCE ÉIREANN & READILY ACCESSIBLE BY ALL OPERATION & MAINTENANCE EQUIPMENT, INCLUDING A VACUUM TANKER.
11. BACKFILL AND REINSTATEMENT OF RIVER BED AND BANK TO BE SUBJECT TO AGREEMENT WITH RELEVANT REGULATORY AUTHORITIES & UISCE ÉIREANN



SECTION

PE TO DI DETAIL



NOTE:-
THE DEVELOPER SHALL SUBMIT DESIGN AND CONSTRUCTION DETAILS TO UISCE ÉIREANN FOR APPROVAL PRIOR TO COMMENCEMENT OF THE WORKS.

PLAN

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

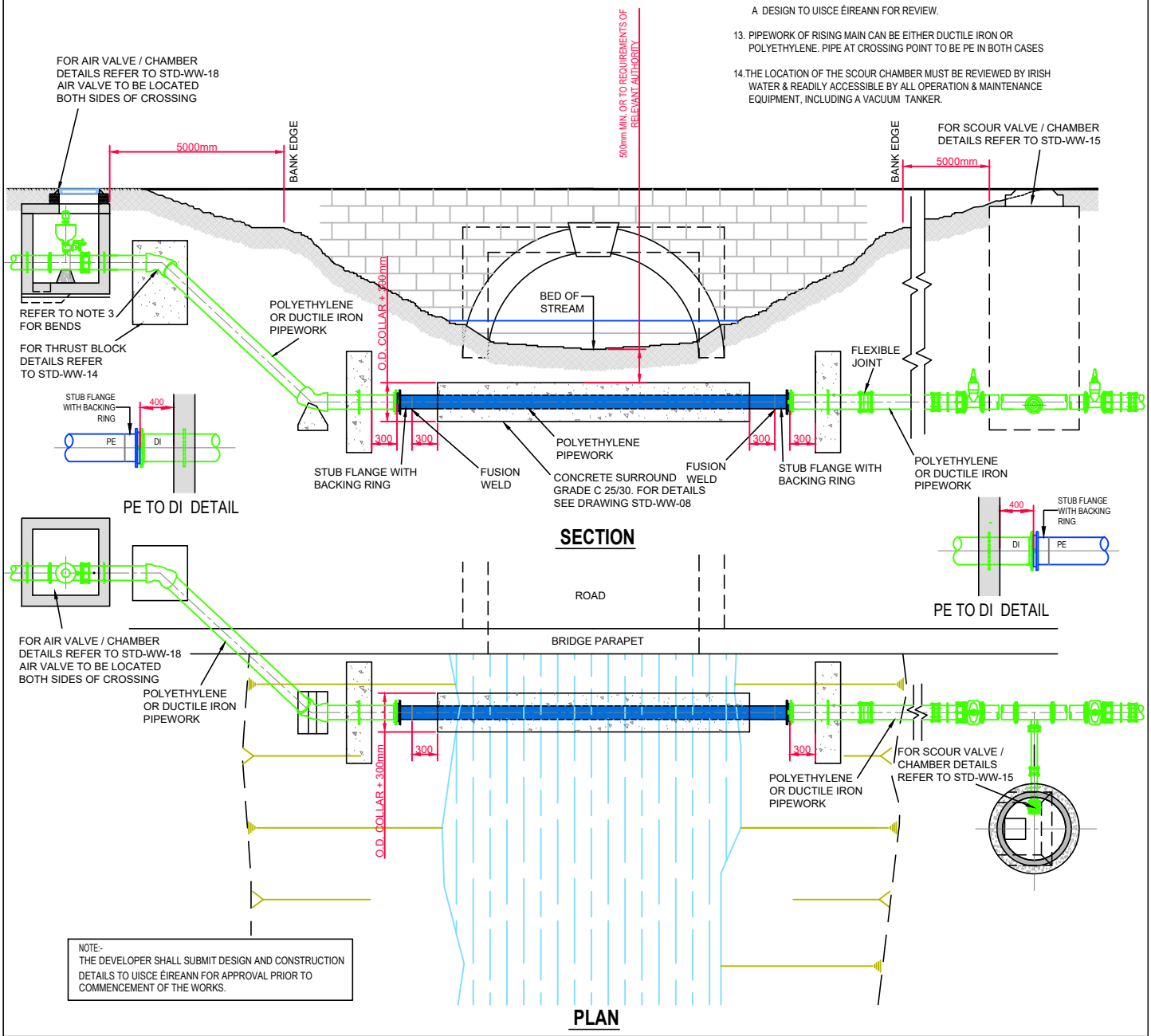
No.	Date	Drn	Chk	Description	App
1	08/'25	RH	MMcG	Notes added	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE
DATE: SEPT. 2015

TITLE: TYPICAL DITCH / STREAM CROSSING FOR POLYETHYLENE RISING MAIN

DRAWING No.: STD-WW-22A
REV: 1

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. O.D. REFERS TO OUTSIDE DIAMETER OF PIPES OR COLLARS.
3. BENDS AT RESPECTIVE CROSSINGS SHALL BE INDICATED ON THE LONGITUDINAL SECTION DRAWING.
4. PIPEWORK THROUGH CROSSING TO BE POLYETHYLENE & JOINED USING BUTT FUSION WELDING.
5. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
6. THRUST BLOCKS TO BE PROVIDED AS PER STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
7. ALL DUCTILE IRON PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
8. ALL PE PIPEWORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201 : 2011.
9. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
10. ALL MANHOLES TO BE LOCATED A MINIMUM OF 5000mm FROM THE BANK EDGE TO ALLOW FOR FUTURE ACCESS.
11. BACKFILL AND REINSTATEMENT REQUIREMENTS OF THE RIVER BED AND BANK IS SUBJECT TO AGREEMENT WITH RELEVANT REGULATORY AUTHORITIES & UISCE ÉIREANN.
12. THE DEVELOPER IS TO SEEK ADVICE FROM UISCE ÉIREANN AS TO WHETHER A DUPLICATE RISING MAIN IS TO BE PROVIDED THROUGH THE BRIDGE CROSSING. IF NECESSARY THE DEVELOPER WILL SUBMIT A DESIGN TO UISCE ÉIREANN FOR REVIEW.
13. PIPEWORK OF RISING MAIN CAN BE EITHER DUCTILE IRON OR POLYETHYLENE. PIPE AT CROSSING POINT TO BE PE IN BOTH CASES
14. THE LOCATION OF THE SCOUR CHAMBER MUST BE REVIEWED BY IRISH WATER & READILY ACCESSIBLE BY ALL OPERATION & MAINTENANCE EQUIPMENT, INCLUDING A VACUUM TANKER.



NOTE:-
THE DEVELOPER SHALL SUBMIT DESIGN AND CONSTRUCTION DETAILS TO UISCE ÉIREANN FOR APPROVAL PRIOR TO COMMENCEMENT OF THE WORKS.

CONNECTIONS AND DEVELOPER SERVICES

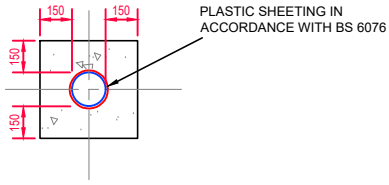
STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	MMcG	Notes added	DP
2	07/'20	RH	TOC	PE details added	MOD
1	11/'17	JMC	TOC	Updated pipe depth dimension & revised notes	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE
DATE: SEPT. 2015

TITLE
TYPICAL
BRIDGE CROSSING FOR RISING MAIN

DRAWING No. STD-WW-24
REV 3

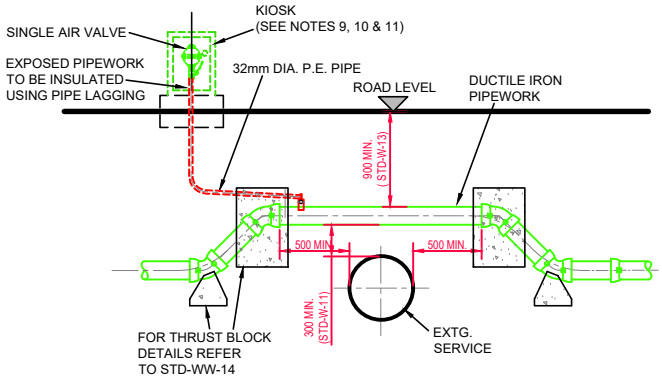


CROSS SECTION
(CONCRETE SURROUND)

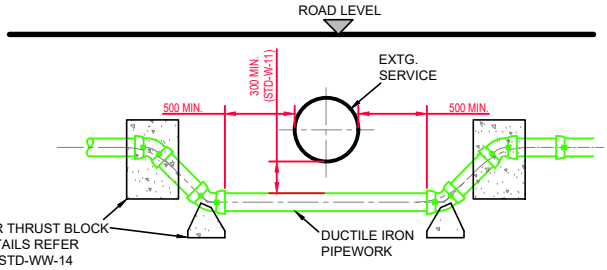
1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. O.D. REFERS TO OUTSIDE DIAMETER OF PIPES OR COLLARS.
3. BENDS AT RESPECTIVE CROSSINGS SHALL BE INDICATED ON THE LONGITUDINAL SECTION DRAWING.
4. PIPEWORK AT CROSSING POINT TO BE DUCTILE IRON TO IS EN 598.
5. THRUST BLOCKS TO BE PROVIDED AS PER STD-WW-14 AT ALL TEES, BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
6. THE DEVELOPER IS TO SEEK ADVICE FROM UISCE ÉIREANN AS TO WHETHER A DUPLICATE MAIN IS TO BE PROVIDED AT THE CROSSING. IF NECESSARY THE DEVELOPER IS TO SUBMIT A DESIGN TO UISCE ÉIREANN FOR REVIEW.
7. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
8. ALL DUCTILE IRON PIPEWORK TO BE IN ACCORDANCE WITH IS EN 598. ALL POLYETHYLENE PIPEWORK TO BE IN ACCORDANCE WITH IS EN 12201.
9. THE QUALITY OF THE KIOSK CONSTRUCTION SHALL ENSURE THAT THE FOLLOWING IS ACHIEVED:

   A) A THERMAL TRANSMITTANCE OF 1.5W PER m² K.
   B) A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES.

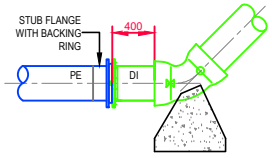
10. KIOSK (MIN. 600 HIGH x 450 WIDE x 300mm DEEP) TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED STEEL (MIN. 3mm THICKNESS) TO BS EN 1461. STAINLESS STEEL MAY BE USED AS AN ALTERNATIVE KIOSK MATERIAL, PARTICULARLY IN SEVERE ENVIRONMENTS, SUBJECT TO AGREEMENT WITH UISCE ÉIREANN. COLOUR TO BE HOLLY GREEN BS 4800 14 C 39, TO HAVE HINGED, LOCKABLE ACCESS DOOR (HINGES AND LOCKS TO BE STAINLESS STEEL).
11. THE KIOSK SHALL BE LOCATED OFF THE FOOTPATH SO AS NOT TO IMPEDE PEDESTRIANS AND POSITIONED SO AS TO FACILITATE SAFE ACCESS FOR MAINTENANCE PERSONNEL.
12. AIR VALVE TAPPING TO BE LOCATED AT HIGHEST POINT OF CROSSING.



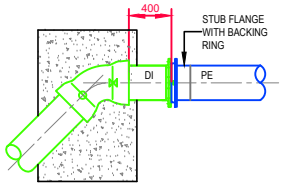
DETAIL 1
(RISING MAIN CROSSING
OVER EXISTING SERVICES)



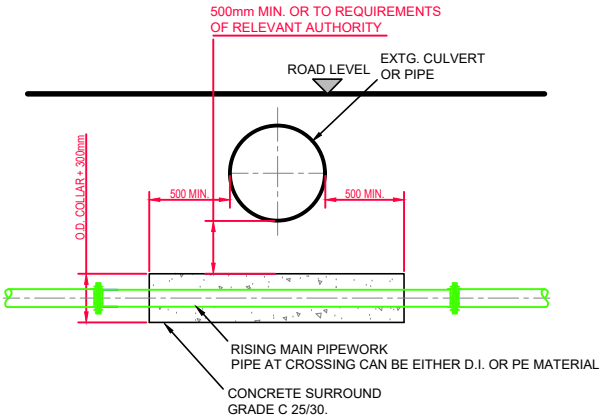
DETAIL 2
(RISING MAIN CROSSING
UNDER EXISTING SERVICES)



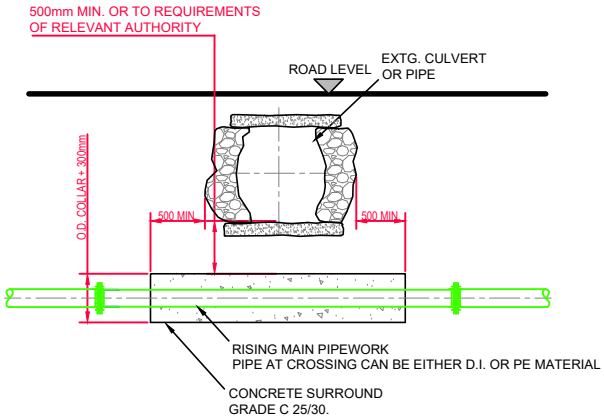
PE TO DI DETAIL



PE TO DI DETAIL



DETAIL 3
(RISING MAIN CROSSING UNDER
EXTG. SERVICE / CULVERT / PIPE)



DETAIL 4
(RISING MAIN CROSSING
UNDER EXTG. CULVERT)

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

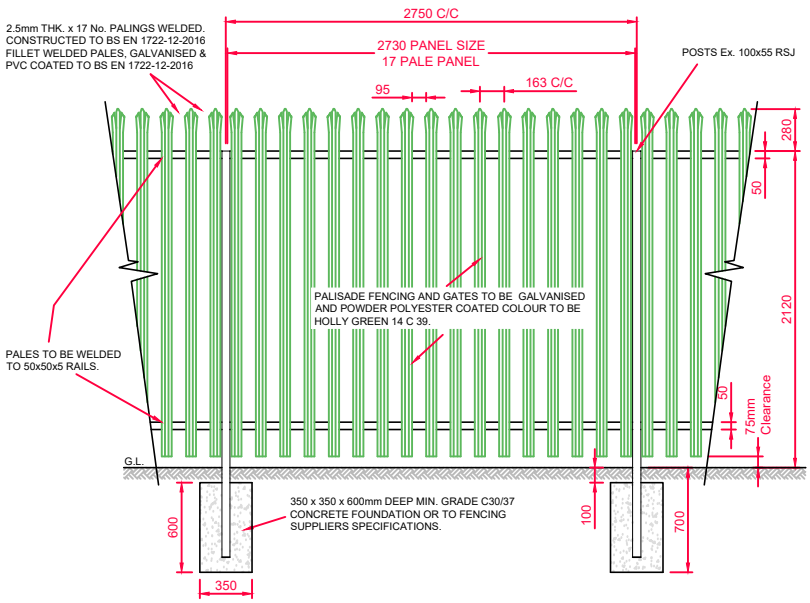
No.	Date	Drn	Chk	Description	App
0	07/'20	RH	TOC	Initial Issue	MOD

STANDARD DETAILS - WASTEWATER

TITLE
TYPICAL CULVERT & SERVICES CROSSING
DETAILS FOR RISING MAIN

SCALE	DATE
NOT TO SCALE	SEPT. 2015

DRAWING No.	REV
STD-WW-24A	0



PANEL - ELEVATION

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SECURITY FENCING SHALL COMPRISE 2.4m HIGH, CORROSION RESISTANT MILD STEEL FENCING, GALVANISED AND PLASTIC COATED FINISHED, WITH SIMILAR TYPE ACCESS GATES.
3. THE ACCESS GATES SHALL BE OF SUFFICIENT WIDTH TO ACCOMMODATE MAINTENANCE VEHICLES, TANKERS, ETC. THE SECURITY GATES SHALL BE PROVIDED WITH SLIDE BOLTS, SHOOTING BOLTS AND PADLOCKS. IF OPENING OUTWARDS, THE ACCESS GATES SHALL BE SET BACK FROM PARKING AND ACCESS AREAS BY THE WIDTH OF THE LEAF OF THE GATE.
4. BOLTS - UNLESS TAMPER RESISTANT FIXINGS ARE USED, ALL BOLTS TO THE ACCESS GATES & FENCING SHALL BE BURRED OVER.
5. GATE HINGES SHALL BE DESIGNED SO THAT IT IS IMPOSSIBLE TO REMOVE THE GATE BY LIFTING WHEN IT IS IN A CLOSED & LOCKED POSITION. DROP BOLTS SHALL BE FITTED TO EACH GATE LEAF IN SUCH A WAY THAT THEY CANNOT BE REMOVED BUT ALLOW THE GATE TO BE SECURED IN BOTH THE OPEN & CLOSED POSITION.
6. THE SECURITY RATING SHALL BE EITHER BASIC +, ENHANCED OR ENHANCED +. THE FENCE STANDARD WILL BE BASED ON THE SECURITY RATING OF THE SITE & IS TO BE AGREED WITH UISCE ÉIREANN.
7. CORNER BRACING AND POST DETAIL TO MANUFACTURER'S SPECIFICATION.
8. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
9. ALL FENCE MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH IS EN 1722-14 : 2006.
10. DIMENSIONS OF GATE PILLARS, GATE FRAME, FENCE PILLARS, FENCE RUNNERS, DIAGONALS, ETC. TO BE TO MANUFACTURER'S SPECIFICATION.
11. FENCE/GATE DESIGN AND DETAILS TO BE PROVIDED TO UISCE ÉIREANN FOR REVIEW/ VETTING BEFORE MANUFACTURE.
12. PEDESTRIAN GATE SHALL BE PROVIDED IF DEEMED NECESSARY BY UISCE ÉIREANN.
13. COLOUR TO BE HOLLY GREEN 14 C 39 IN ACCORDANCE WITH BS 4800:2011.
14. A 300mm WIDE x 150mm DEEP CONCRETE SILL (IF REQUIRED BY UISCE ÉIREANN) GRADE C20/25 CONCRETE SHALL BE PROVIDED TO UISCE ÉIREANN REQUIREMENTS (ENHANCED + SECURITY RATING ONLY).
15. THE GATES SHALL HAVE THE FOLLOWING SECURITY FEATURES:

a. GATE LOCKING MECHANISM SHALL INCLUDE A SHROUD COVER PROTECTING THE PADLOCK FROM ATTACK AND THE SLIP BOLT SHALL BE OF HIGH CARBON STEEL -TECHNICAL SPECIFICATION TO BE INCLUDED IN THE DESIGN SUBMISSION FOR REVIEW / VETTING BEFORE MANUFACTURE.

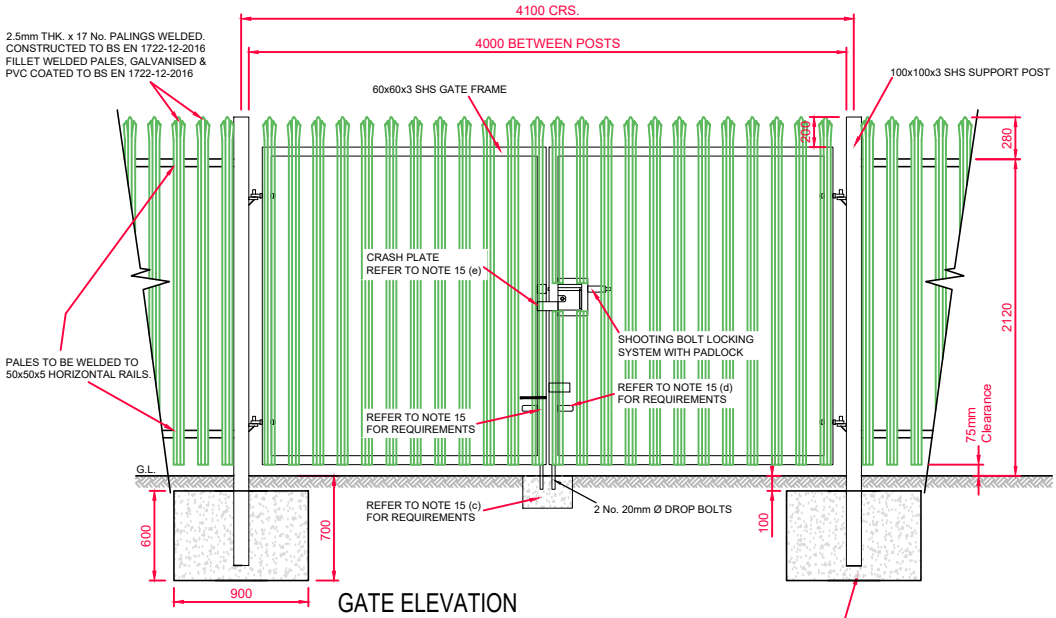
b. DROP BOLTS SHALL BE FITTED TO EACH GATE LEAF IN SUCH A WAY THAT THEY CANNOT BE REMOVED BUT ALLOW THE GATE TO BE SECURED IN BOTH THE OPEN POSITION, AND USING ONE OF THE DROP BOLTS TO LOCK IN A CLOSED POSITION.

c. DROP BOLTS SHALL BE A MINIMUM OF 650MM IN LENGTH WITH 50MM CONTAINED IN A STEEL RETAINER IMBEDDED IN CONCRETE, PROTECTING AGAINST FORCED ATTACK OF THE GATE.

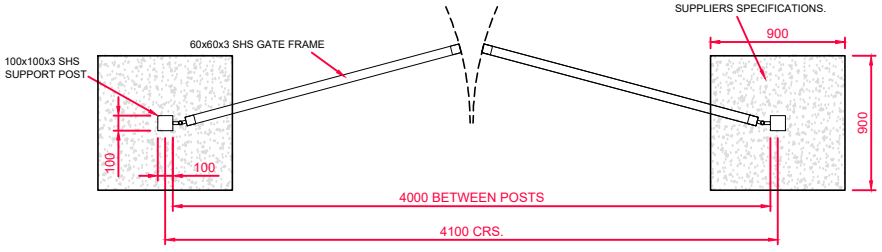
d. THE DESIGN SHALL INCLUDE A METAL STAY ATTACHED TO THE LEAF 2 TO PREVENT THE DROP BOLT FROM BEING ACTIVATED ON LEAF 1 WHILE THE GATE IS IN A LOCKED POSITION AND TO ENSURE THAT THE GATE CANNOT BE LOCKED BY AN OPERATOR UNLESS A DROP BOLT IS ENGAGED IN A RECEIVER.

e. A CRASH PLATE SHALL BE INSTALLED ON LEAF 1 TO PREVENT LEAF 2 FROM SWINGING PASSED THE CLOSE POINT OF THE GATE. THE CRASH PLATE SHALL IN ADDITION BE INSTALLED SUCH THAT IT PROVIDES RESTRICTED ACCESS TO THE SLIDE BOLT, IMPEDING ATTEMPTS OF CUTTING OF SAME.

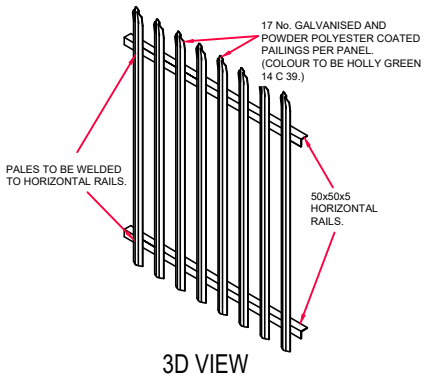
f. BRACKETS ATTACHING FENCE PANELS TO FENCE POST TO BE CONSTRUCTED OF 5MM STEEL WITH TAMPER PROOF CONNECTIONS



GATE ELEVATION



PLAN



3D VIEW

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

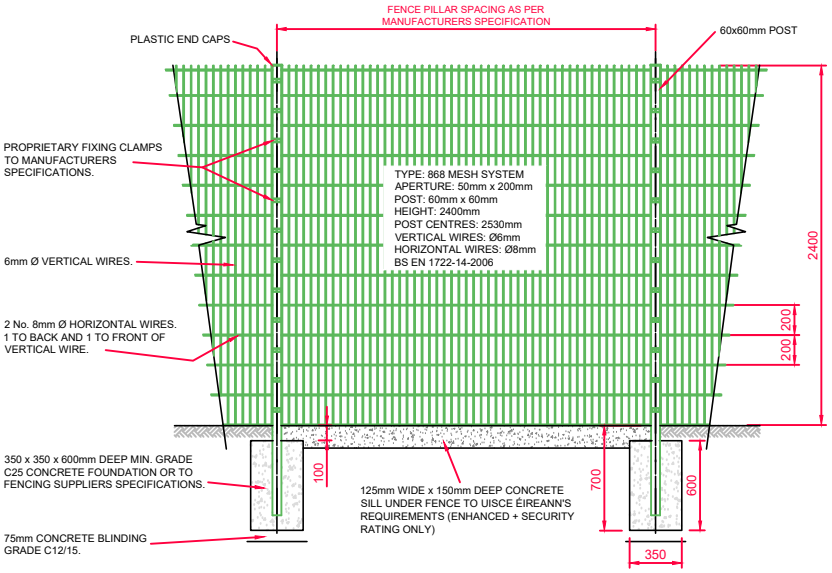
DATE: SEPT. 2019

TITLE

SECURITY GATE AND FENCING
PALISADE OPTION (PREFERRED)

DRAWING No.: STD-WW-25

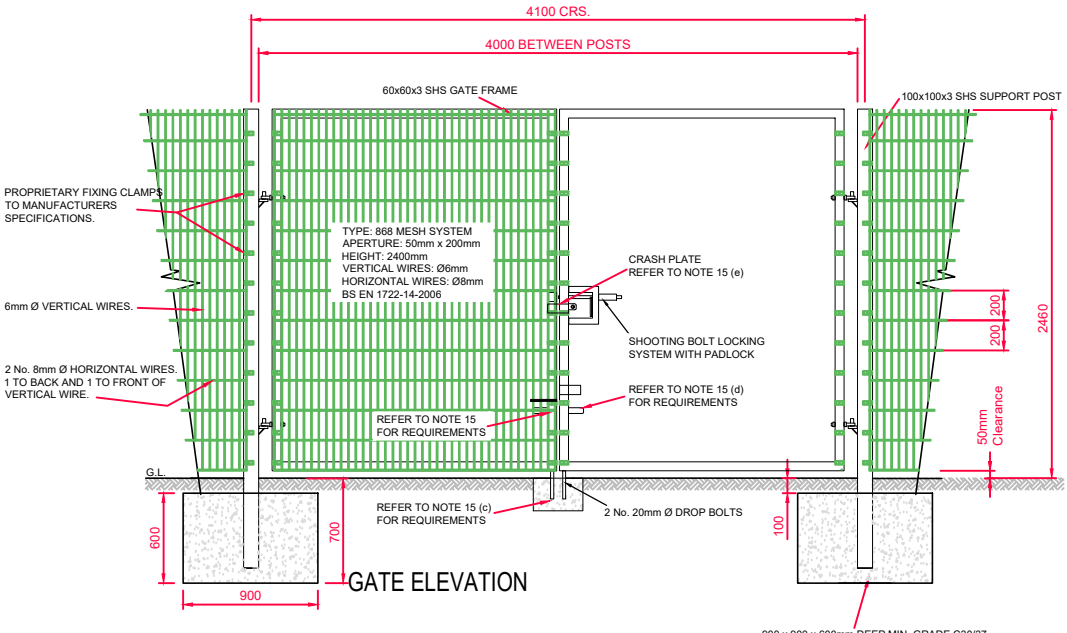
REV: 0

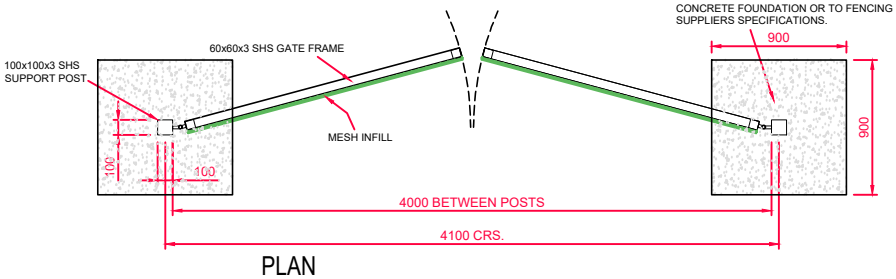


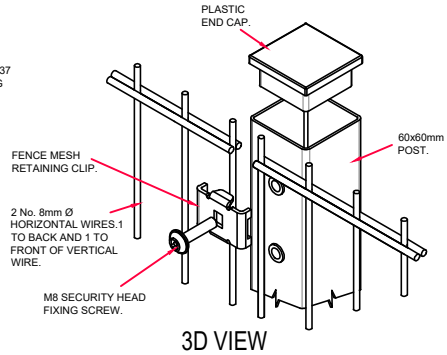
1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SECURITY FENCING SHALL COMPRISE 2.4m HIGH, CORROSION RESISTANT MILD STEEL FENCING, GALVANISED AND PLASTIC COATED FINISHED, WITH SIMILAR TYPE ACCESS GATES.
3. THE ACCESS GATES SHALL BE OF SUFFICIENT WIDTH TO ACCOMMODATE MAINTENANCE VEHICLES, TANKERS, ETC. THE SECURITY GATES SHALL BE PROVIDED WITH SLIDE BOLTS, SHOOTING BOLTS AND PADLOCKS. IF OPENING OUTWARDS, THE ACCESS GATES SHALL BE SET BACK FROM PARKING AND ACCESS AREAS BY THE WIDTH OF THE LEAF OF THE GATE.
4. BOLTS - UNLESS TAMPER RESISTANT FIXINGS ARE USED, ALL BOLTS TO THE ACCESS GATES & FENCING SHALL BE BURRED OVER.
5. GATE HINGES SHALL BE DESIGNED SO THAT IT IS IMPOSSIBLE TO REMOVE THE GATE BY LIFTING WHEN IT IS IN A CLOSED & LOCKED POSITION. DROP BOLTS SHALL BE FITTED TO EACH GATE LEAF IN SUCH A WAY THAT THEY CANNOT BE REMOVED BUT ALLOW THE GATE TO BE SECURED IN BOTH THE OPEN & CLOSED POSITION.
6. THE SECURITY RATING SHALL BE EITHER BASIC +, ENHANCED OR ENHANCED +. THE FENCE STANDARD WILL BE BASED ON THE SECURITY RATING OF THE SITE & IS TO BE AGREED WITH UISCE ÉIREANN.
7. CORNER BRACING AND POST DETAIL TO MANUFACTURER'S SPECIFICATION.
8. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
9. ALL FENCE MATERIALS AND WORKMANSHIP TO BE IN ACCORDANCE WITH IS EN 1722-14 : 2006.
10. DIMENSIONS OF GATE PILLARS, GATE FRAME, FENCE PILLARS, FENCE RUNNERS, DIAGONALS, ETC. TO BE TO MANUFACTURER'S SPECIFICATION.
11. FENCE/GATE DESIGN AND DETAILS TO BE PROVIDED TO UISCE ÉIREANN FOR REVIEW/ VETTING BEFORE MANUFACTURE.
12. PEDESTRIAN GATE SHALL BE PROVIDED IF DEEMED NECESSARY BY UISCE ÉIREANN.
13. COLOUR TO BE HOLLY GREEN 14 C 39 IN ACCORDANCE WITH BS 4800:2011.
14. A 300mm WIDE x 150mm DEEP CONCRETE SILL (IF REQUIRED BY UISCE ÉIREANN) GRADE C20/25 CONCRETE SHALL BE PROVIDED TO UISCE ÉIREANN REQUIREMENTS (ENHANCED + SECURITY RATING ONLY).
15. THE GATES SHALL HAVE THE FOLLOWING SECURITY FEATURES:

a. GATE LOCKING MECHANISM SHALL INCLUDE A SHROUD COVER PROTECTING THE PADLOCK FROM ATTACK AND THE SLIP BOLT SHALL BE OF HIGH CARBON STEEL -TECHNICAL SPECIFICATION TO BE INCLUDED IN THE TENDER SUBMISSION FOR REVIEW / VETTING BEFORE MANUFACTURE.
b. DROP BOLTS SHALL BE FITTED TO EACH GATE LEAF IN SUCH A WAY THAT THEY CANNOT BE REMOVED BUT ALLOW THE GATE TO BE SECURED IN BOTH THE OPEN POSITION, AND USING ONE OF THE DROP BOLTS TO LOCK IN A CLOSED POSITION.
c. DROP BOLTS SHALL BE A MINIMUM OF 650MM IN LENGTH WITH 50MM CONTAINED IN A STEEL RETAINER IMBEDDED IN CONCRETE, PROTECTING AGAINST FORCED ATTACK OF THE GATE.
d. THE DESIGN SHALL INCLUDE A METAL STAY ATTACHED TO THE LEAF 2 TO PREVENT THE DROP BOLT FROM BEING ACTIVATED ON LEAF 1 WHILE THE GATE IS IN A LOCKED POSITION AND TO ENSURE THAT THE GATE CANNOT BE LOCKED BY AN OPERATOR UNLESS A DROP BOLT IS ENGAGED IN A RECEIVER.
e. A CRASH PLATE SHALL BE INSTALLED ON LEAF 1 TO PREVENT LEAF 2 FROM SWINGING PASSED THE CLOSE POINT OF THE GATE. THE CRASH PLATE SHALL IN ADDITION BE INSTALLED SUCH THAT IT PROVIDES RESTRICTED ACCESS TO THE SLIDE BOLT, IMPEDING ATTEMPTS OF CUTTING OF SAME.
f. BRACKETS ATTACHING FENCE PANELS TO FENCE POST TO BE CONSTRUCTED OF 5MM STEEL WITH TAMPER PROOF CONNECTIONS

SECURITY RATING	MESH SPACING A x B	BAR THICKNESS	HEIGHT	ADDITIONAL FEATURES
BASIC +	200 x 50	Type: 868	2.4m	ANTI-CLIMB
ENHANCED	200 x 50	Type: 868	2.4m	ANTI-CLIMB
ENHANCED +	200 x 50	Type: 868	2.4m	ANTI-CLIMB & ANTI-BURROW







CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Infill mesh updated	MOD
2	11/'17	JMC	TOC	Fencing table updated	MOD
1	08/'16	JMC	TOC	Revised notes & table	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

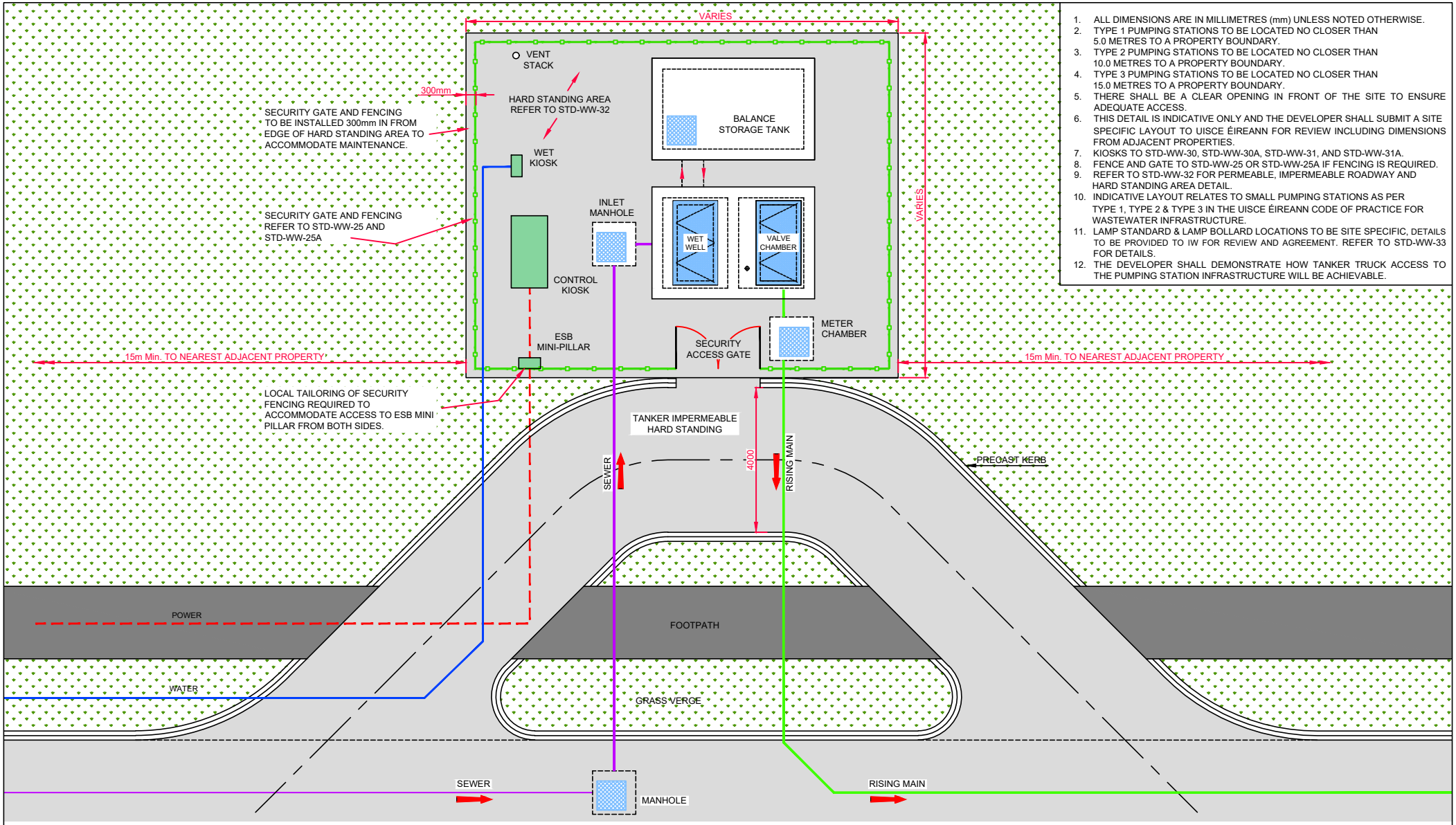
DATE: SEPT. 2015

TITLE

SECURITY GATE AND FENCING WIRE MESH OPTION

DRAWING No.: STD-WW-25A

REV: 3



1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. TYPE 1 PUMPING STATIONS TO BE LOCATED NO CLOSER THAN 5.0 METRES TO A PROPERTY BOUNDARY.
3. TYPE 2 PUMPING STATIONS TO BE LOCATED NO CLOSER THAN 10.0 METRES TO A PROPERTY BOUNDARY.
4. TYPE 3 PUMPING STATIONS TO BE LOCATED NO CLOSER THAN 15.0 METRES TO A PROPERTY BOUNDARY.
5. THERE SHALL BE A CLEAR OPENING IN FRONT OF THE SITE TO ENSURE ADEQUATE ACCESS.
6. THIS DETAIL IS INDICATIVE ONLY AND THE DEVELOPER SHALL SUBMIT A SITE SPECIFIC LAYOUT TO UISCE ÉIREANN FOR REVIEW INCLUDING DIMENSIONS FROM ADJACENT PROPERTIES.
7. KIOSKS TO STD-WW-30, STD-WW-30A, STD-WW-31, AND STD-WW-31A.
8. FENCE AND GATE TO STD-WW-25 OR STD-WW-25A IF FENCING IS REQUIRED.
9. REFER TO STD-WW-32 FOR PERMEABLE, IMPERMEABLE ROADWAY AND HARD STANDING AREA DETAIL.
10. INDICATIVE LAYOUT RELATES TO SMALL PUMPING STATIONS AS PER TYPE 1, TYPE 2 & TYPE 3 IN THE UISCE ÉIREANN CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
11. LAMP STANDARD & LAMP BOLLARD LOCATIONS TO BE SITE SPECIFIC, DETAILS TO BE PROVIDED TO IW FOR REVIEW AND AGREEMENT. REFER TO STD-WW-33 FOR DETAILS.
12. THE DEVELOPER SHALL DEMONSTRATE HOW TANKER TRUCK ACCESS TO THE PUMPING STATION INFRASTRUCTURE WILL BE ACHIEVABLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
2	12/'23	RH	M McG	Security Fencing & Notes Added Revisions to Notes	DP
1	07/'20	RH	TOC	Site Layout Modified	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

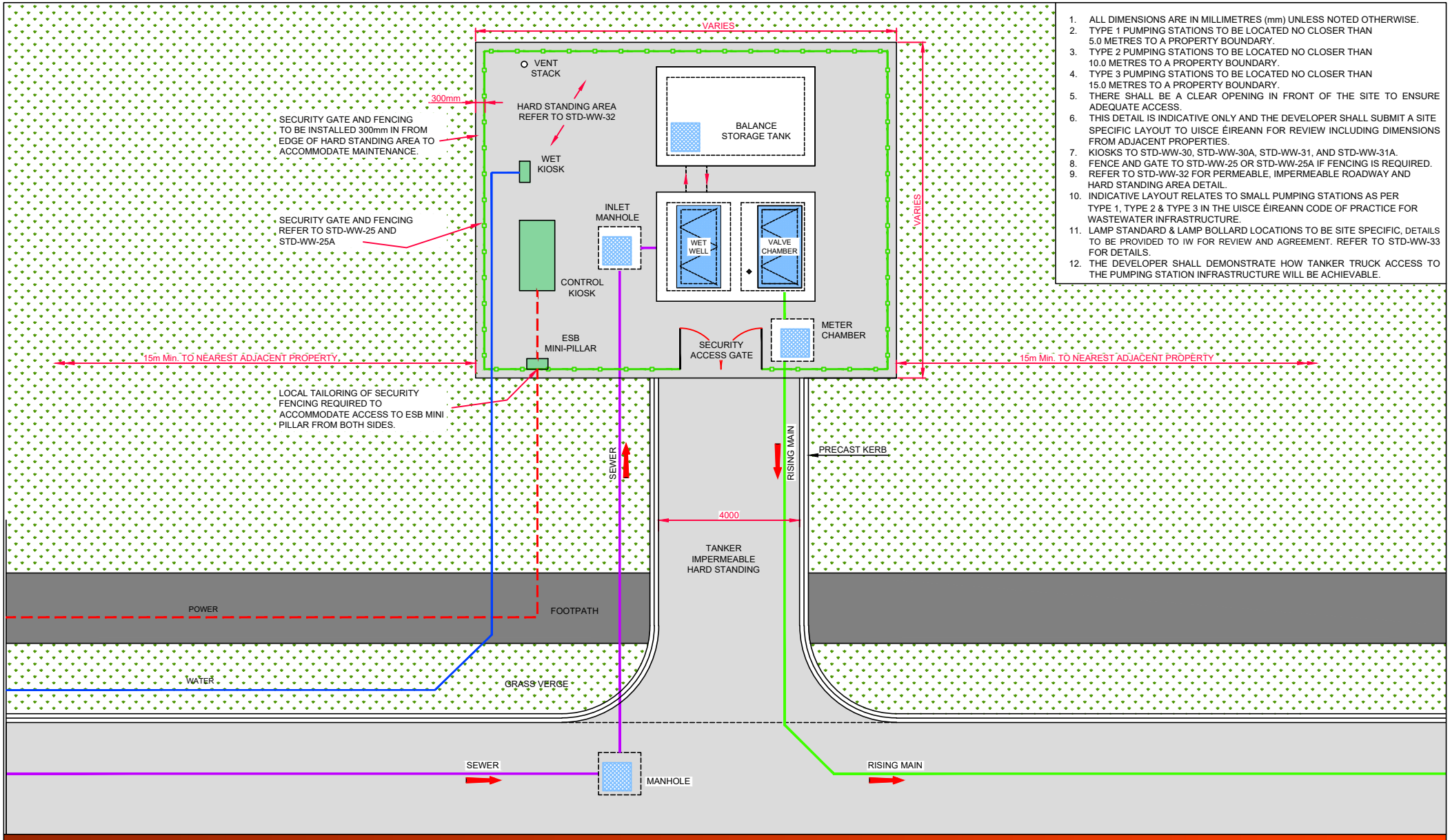
DATE: SEPT. 2015

TITLE

INDICATIVE PUMPING STATION SITE LAYOUT
ACCESS VIA LAY-BY

DRAWING No.: STD-WW- 26

REV: 2



1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. TYPE 1 PUMPING STATIONS TO BE LOCATED NO CLOSER THAN 5.0 METRES TO A PROPERTY BOUNDARY.
3. TYPE 2 PUMPING STATIONS TO BE LOCATED NO CLOSER THAN 10.0 METRES TO A PROPERTY BOUNDARY.
4. TYPE 3 PUMPING STATIONS TO BE LOCATED NO CLOSER THAN 15.0 METRES TO A PROPERTY BOUNDARY.
5. THERE SHALL BE A CLEAR OPENING IN FRONT OF THE SITE TO ENSURE ADEQUATE ACCESS.
6. THIS DETAIL IS INDICATIVE ONLY AND THE DEVELOPER SHALL SUBMIT A SITE SPECIFIC LAYOUT TO UISCE ÉIREANN FOR REVIEW INCLUDING DIMENSIONS FROM ADJACENT PROPERTIES.
7. KIOSKS TO STD-WW-30, STD-WW-30A, STD-WW-31, AND STD-WW-31A.
8. FENCE AND GATE TO STD-WW-25 OR STD-WW-25A IF FENCING IS REQUIRED.
9. REFER TO STD-WW-32 FOR PERMEABLE, IMPERMEABLE ROADWAY AND HARD STANDING AREA DETAIL.
10. INDICATIVE LAYOUT RELATES TO SMALL PUMPING STATIONS AS PER TYPE 1, TYPE 2 & TYPE 3 IN THE UISCE ÉIREANN CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
11. LAMP STANDARD & LAMP BOLLARD LOCATIONS TO BE SITE SPECIFIC, DETAILS TO BE PROVIDED TO IW FOR REVIEW AND AGREEMENT. REFER TO STD-WW-33 FOR DETAILS.
12. THE DEVELOPER SHALL DEMONSTRATE HOW TANKER TRUCK ACCESS TO THE PUMPING STATION INFRASTRUCTURE WILL BE ACHIEVABLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
1	12/'23	RH	M McG	Security Fencing & Notes Added Revisions to Notes	DP
0	07/'20	RH	TOC	Initial Issue	MOD

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

DATE: SEPT. 2015

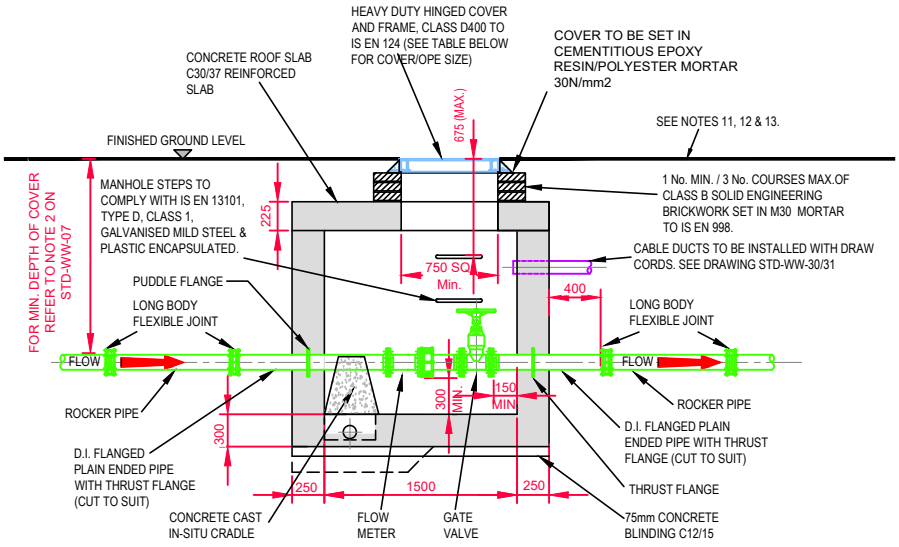
TITLE

INDICATIVE PUMPING STATION SITE LAYOUT
DIRECT ACCESS FROM PUBLIC ROAD

DRAWING No.: STD-WW-26A

REV: 1

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS SHALL BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. 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 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, & COMPLIANCE WITH IS420 & ISEN 1917.
3. METER CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL HINGED COVER TO IS EN 124 RATING D400. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
4. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
5. PRECAST UNITS COMPLETED WITH RUBBER SEALING GASKET BETWEEN UNITS, COMPLYING WITH THE REQUIREMENTS OF IS EN 1917 AND IS 420, COMPLETE WITH 150mm CONCRETE SURROUND MAY BE USED AS AN ACCEPTABLE ALTERNATIVE. CONCRETE SURROUND TO BE GRADE C20/25 IN ACCORDANCE WITH IS EN 206. (REFER TO STD-WW-27B & STD-WW-27C) DEVELOPER SHALL PROVIDE DETAILS TO UISCE ÉIREANN FOR REVIEW.
6. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2011.
7. ANTI CORROSION TAPE TO BE PROVIDED AROUND ALL BURIED FLANGES.
8. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. FLOW METERS REQUIRE A MINIMUM LENGTH OF PIPE ON EACH SIDE OF THE VALVE TO BE COMPLETELY FREE OF FITTINGS, VALVES, REDUCER ETC. AS PER THE MANUFACTURERS INSTRUCTIONS.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
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. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



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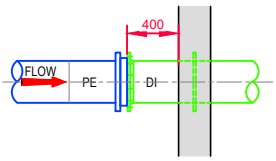
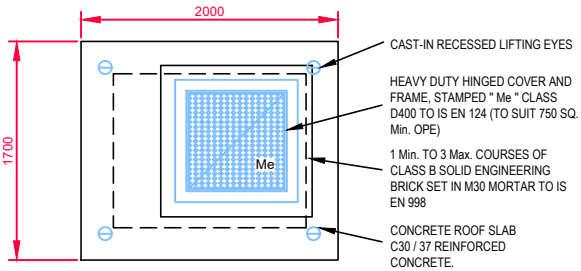
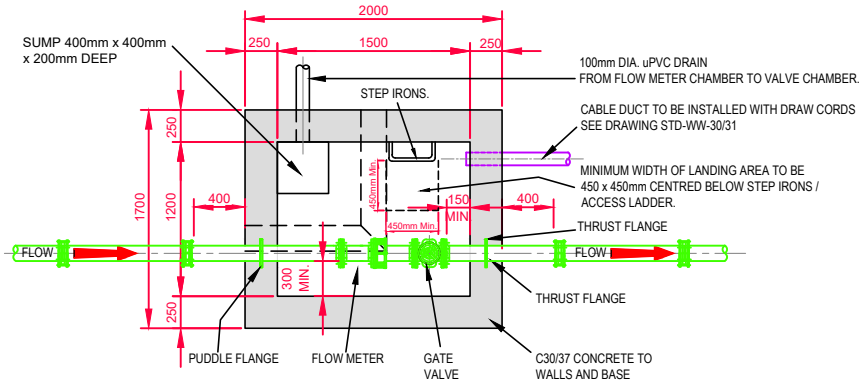


PE TO DI DETAIL



ROOF PLAN

METER DIAMETER 'A' (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS
80 - 100	1200 x 1500	750 x 750
101 - 200	1500 x 1500	900 x 900



FLOOR PLAN

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Detail Revised and Minor Revisions to notes	DP
3	07/'20	RH	TOC	Revised and Notes Added	MOD
2	11/'17	RH	TOC	Revised and Notes Added	MOD
1	08/'16	RH	TOC	Added Steps, revised cover notes and note 3	MOD
0	09/'15	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

DATE: SEPT. 2015

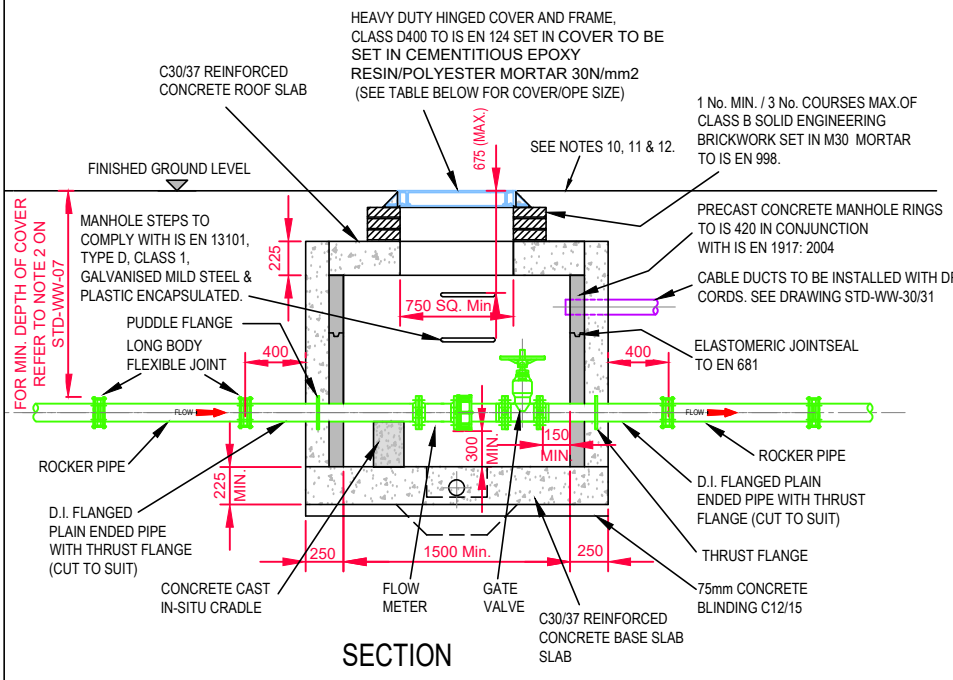
TITLE

FLOW METER & VALVE CHAMBER
(FOUL RISING MAIN ≤200mm DIA.)
CAST IN-SITU CONCRETE OPTION

DRAWING No.: STD-WW- 27

REV: 4

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS SHALL BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW. 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 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, DEVELOPER SHALL SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH IS420 & ISEN 1917 IN RESPECT TO ALL PRECAST UNITS.
3. METER CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL HINGED COVER TO IS EN 124 RATING D400. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
4. 200mm ALL AROUND, 100mm DEEP C20/25 CONCRETE PLINTH COMPLETE WITH BULL NOSE FINISH AND MILD STEEL REINFORCEMENT LINK AROUND COVERS IN GREEN AREAS.
5. PRECAST UNITS COMPLETED WITH RUBBER SEALING GASKET BETWEEN UNITS, COMPLYING WITH THE REQUIREMENTS OF IS EN 1917 AND IS 420, COMPLETE WITH 150mm CONCRETE SURROUND MAY BE USED AS AN ACCEPTABLE ALTERNATIVE. CONCRETE SURROUND TO BE GRADE C20/25 IN ACCORDANCE WITH IS EN 206.
6. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2011.
7. ANTI CORROSION TAPE TO BE PROVIDED AROUND ALL BURIED FLANGES.
8. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. FLOW METERS REQUIRE A MINIMUM LENGTH OF PIPE ON EACH SIDE OF THE VALVE TO BE COMPLETELY FREE OF FITTINGS, VALVES, REDUCER ETC. AS PER THE MANUFACTURERS INSTRUCTIONS.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
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. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



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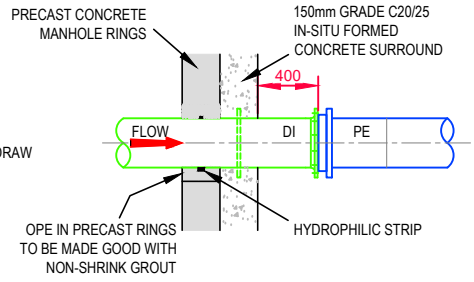
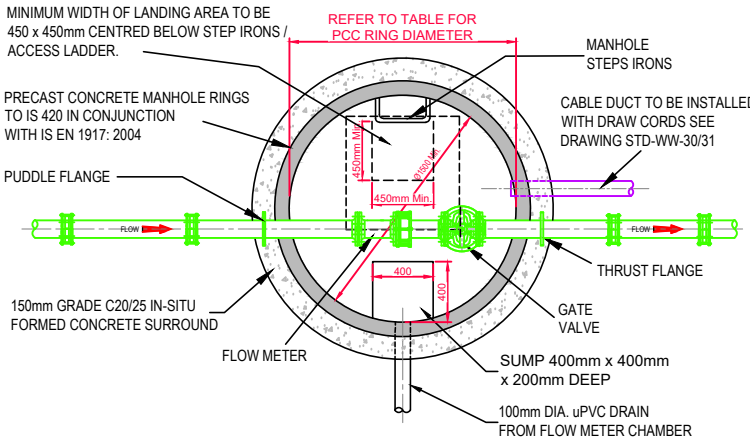
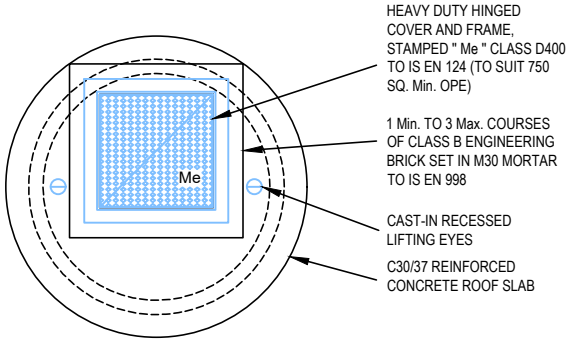


PE TO DI DETAIL

METER DIAMETER 'A' (mm)	INTERNAL CHAMBER DIAMETER	COVER DIMENSIONS
80-150	1500mm Ø	750 x 750
200	1800mm Ø	900 x 900



FLOOR PLAN



ROOF PLAN

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Detail Revised & Minor Revisions to Notes	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

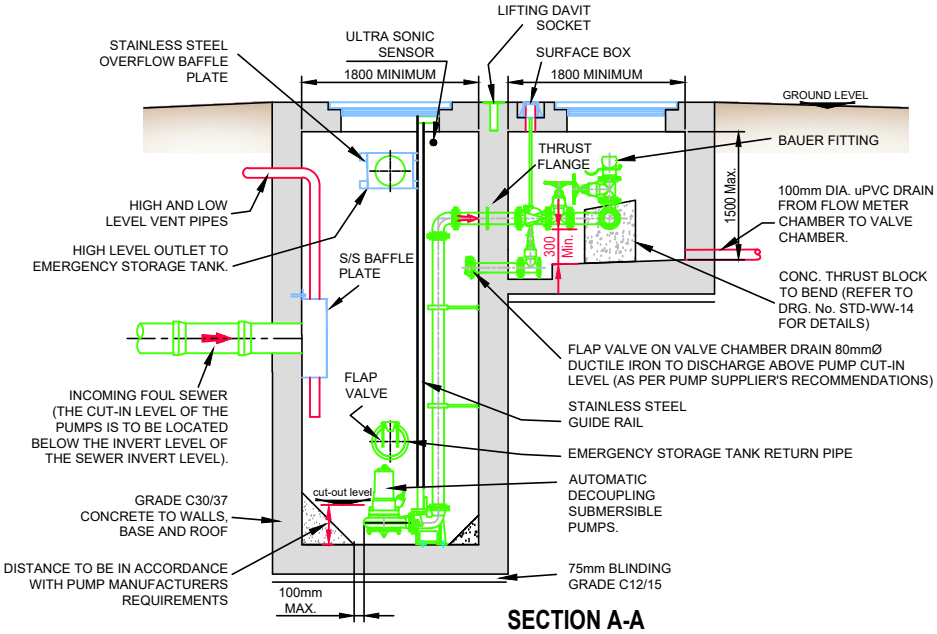
DATE: SEPT. 2015

TITLE: FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200mm DIA.) PRECAST CONCRETE OPTION

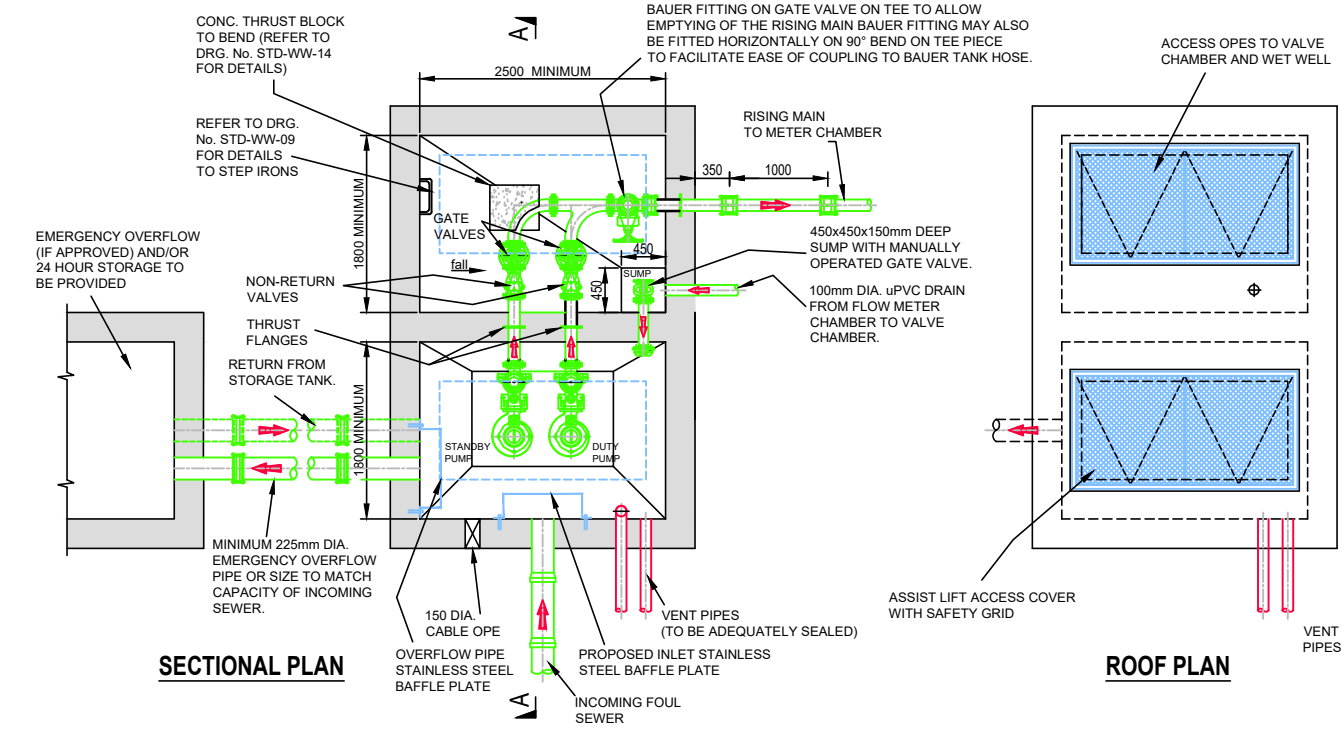
DRAWING No.: STD-WW-27A

REV: 1

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PUMPS SHALL BE INSTALLED TO UISCE ÉIREANN REQUIREMENTS. REFER TO PART 5 OF THE CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE .
3. ALL DUCTILE IRON PIPE WORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
4. PRE-CAST CONCRETE CHAMBERS MAY BE USED SUBJECT TO REVIEW BY UISCE ÉIREANN. REFER TO DRG. No. WW-28A FOR DETAILS.
5. ALL GATE VALVES TO BE CLOCKWISE CLOSING.
6. WET WELL TO BE IN ACCORDANCE WITH BS EN 1992-3. EUROCODE 2 - DESIGN OF CONCRETE STRUCTURES - PART 3: LIQUID RETAINING AND CONTAINMENT STRUCTURES, TIGHTNESS CLASS 2
7. COVERS TO BE SIZED TO ALLOW ADEQUATE SPACE FOR PUMP REMOVAL MINIMUM 1400 x 800mm.
8. CHAMBER ACCESS COVERS WITH A CLEAR OPENING EXCEEDING 1m SHALL CONFORM TO BS 9124.
9. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS SHALL BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IW FOR REVIEW WALL THICKNESS AND REINFORCEMENT SHALL BE SELECTED BASED ON SITE SPECIFIC DESIGN. 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 225mm.
10. THE PUMPING STATION SHOULD NOT BE LOCATED IN AREAS THAT ARE SUSCEPTIBLE TO FLOODING AT MORE THAN A 1:30 YEAR RECURRENCE. THE PUMPING STATION FACILITY SHALL BE DESIGNED FOR INUNDATION. THE FINISHED SLAB LEVEL SHALL BE POSITIONED ABOVE THE 1:100 YEAR FLOOD LEVEL. ALL ELECTRICAL CONTROL EQUIPMENT SHALL BE IP RATED AND POSITIONED ABOVE 1:200 YEAR FLOOD LEVEL.
11. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN. DEVELOPER SHALL SUBMIT SITE SPECIFIC ANTI-FLOATATION CALCULATIONS AND MEASURES PROPOSED IN RESPECT OF PUMP STATION STRUCTURES, AND TO TAKE INTO ACCOUNT CONDITIONS DURING ON-SITE TESTING OF STRUCTURES
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
13. THIS DRAWING IS INDICATIVE ONLY AND THE DEVELOPER SHALL SUBMIT A SITE SPECIFIC LAYOUT TO UISCE ÉIREANN FOR REVIEW.
14. VENTILATION STACK TO BE PROVIDED IN SENSITIVE AREAS.
15. EMERGENCY WASTEWATER BALANCE STORAGE CAPACITY SHALL BE PROVIDED AT THE PUMP STATION IN ACCORDANCE WITH CLAUSE 5.11 OF THE CODE OF PRACTICE.
16. EMERGENCY OVERFLOW SHALL ONLY BE PROVIDED SUBJECT TO APPROVAL FROM THE RELEVANT REGULATORY AUTHORITIES. THE DEVELOPER SHALL PROVIDE THE REQUISITE CONSENTS FROM THE RELEVANT AUTHORITIES IN THE DESIGN SUBMISSION
17. SURGE EQUIPMENT TO BE PROVIDED IF DEEMED NECESSARY.
18. INDICATIVE LAYOUT RELATES TO SMALL PUMPING STATIONS AS PER TYPE 1, TYPE 2 & TYPE 3 IN THE UISCE ÉIREANN CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.



SECTION A-A



SECTIONAL PLAN

ROOF PLAN

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
3	07/'20	RH	TOC	Pumping Station layout modified	MOD
2	11/'17	JMC	TOC	Revised notes 2,4,9 & 11	MOD
1	08/'16	JMC	TOC	Revised note 4, incoming sewer note & added thrust block & step irons to valve chamber	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

DATE: SEPT. 2015

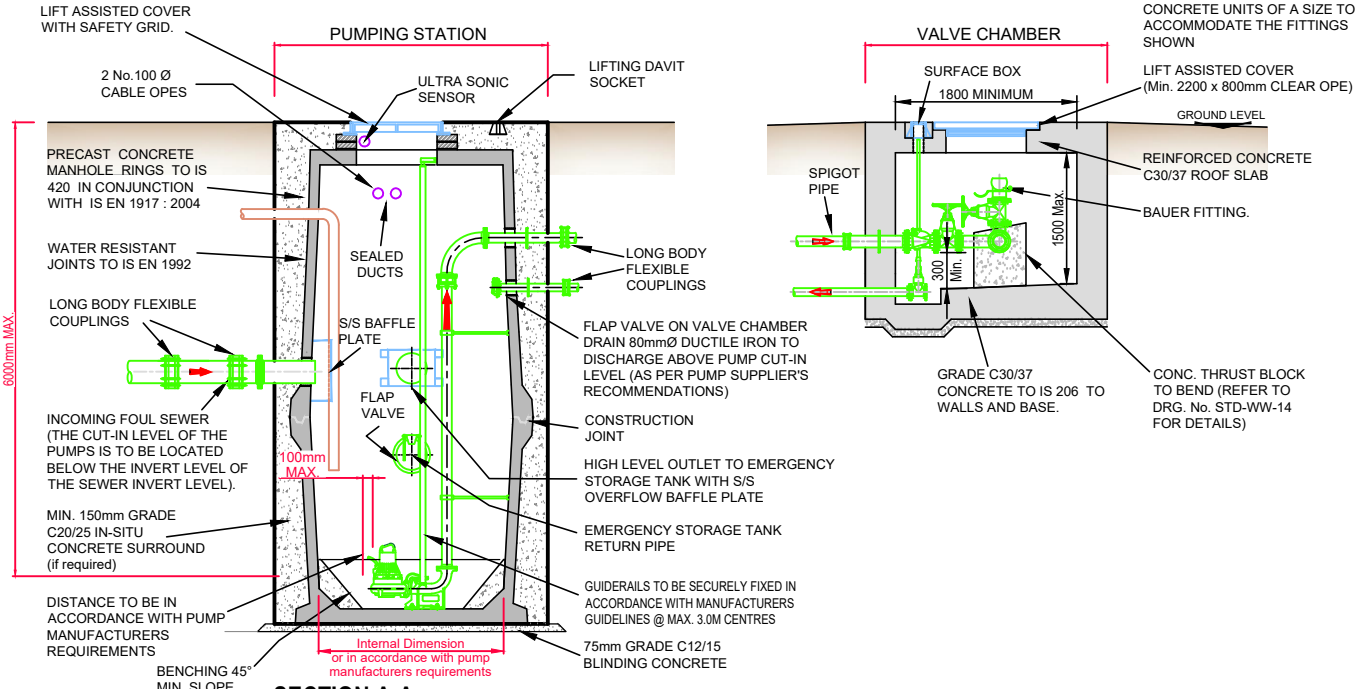
TITLE

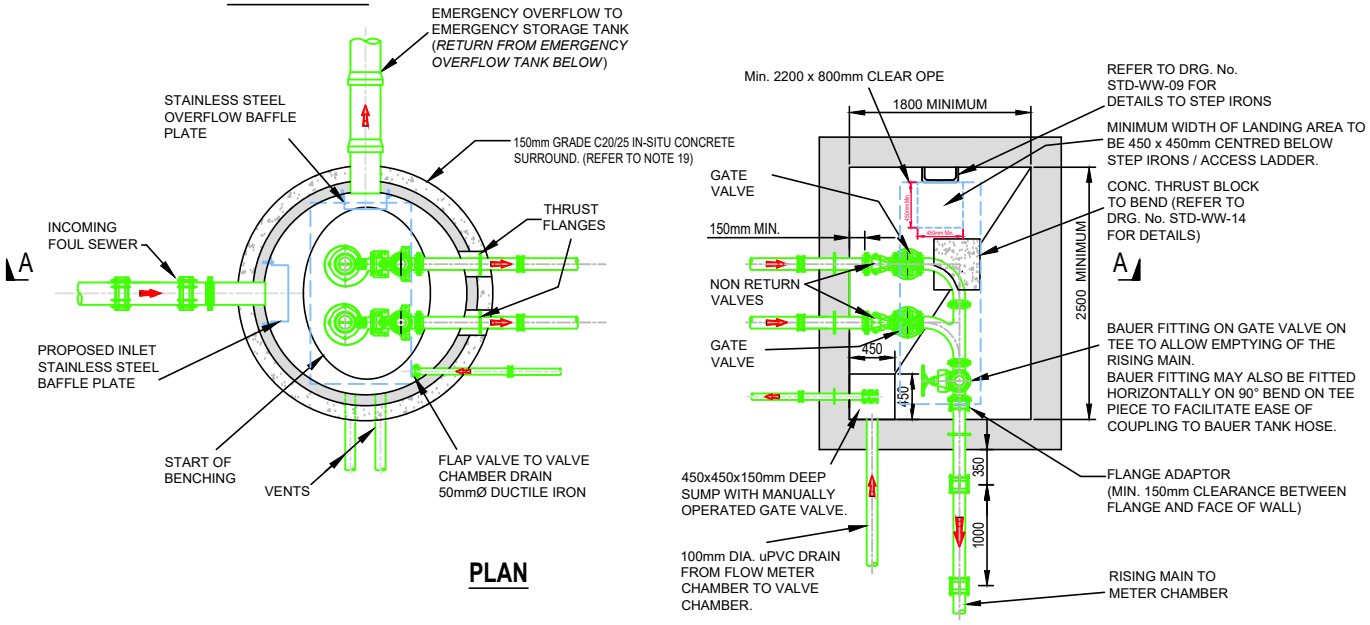
CAST IN-SITU
INDICATIVE SUBMERSIBLE PUMPING STATION

DRAWING No.: STD-WW-28

REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PUMPS SHALL BE INSTALLED TO UISCE ÉIREANN REQUIREMENTS. REFER TO PART 5 OF THE CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE .
3. ALL DUCTILE IRON PIPE WORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
4. PRE-CAST CONCRETE CHAMBERS MAY BE USED SUBJECT TO REVIEW BY UISCE ÉIREANN.
5. ALL GATE VALVES TO BE CLOCKWISE CLOSING.
6. THE.COMPOSITE WET WELL STRUCTURE COMPRISING PRECAST CONCRETE MANHOLE UNITS AND STRUCTURAL CONCRETE SURROUND SHALL BE DESIGNED IN ACCORDANCE WITH IS EN 1992-3 - EUROCODE 2 - DESIGN OF CONCRETE STRUCTURES - PART 3: LIQUID RETAINING AND CONTAINMENT STRUCTURES TIGHTNESS CLASS 2
7. COVERS TO BE SIZED TO ALLOW ADEQUATE SPACE FOR PUMP REMOVAL MINIMUM 1400 x 800mm.
8. CHAMBER ACCESS COVERS WITH A CLEAR OPENING EXCEEDING 1m SHALL CONFORM TO BS 9124.
9. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS AND DEAD LOADS, CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 225MM, STRUCTURAL DESIGN AND REINFORCEMENT DETAILS SHALL BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IW FOR REVIEW, ALTERNATIVELY PRE-CAST CONCRETE ROOFS IN COMPLIANCE WITH IS 420 MAY BE USED SUBJECT TO UISCE ÉIREANN REVIEW
10. THE PUMPING STATION SHOULD NOT BE LOCATED IN AREAS THAT ARE SUSCEPTIBLE TO FLOODING AT MORE THAN A 1:30 YEAR RECURRENCE. THE PUMPING STATION FACILITY SHALL BE DESIGNED FOR INUNDATION. THE FINISHED SLAB LEVEL SHALL BE POSITIONED ABOVE THE 1:100 YEAR FLOOD LEVEL. ALL ELECTRICAL CONTROL EQUIPMENT SHALL BE IP RATED AND POSITIONED ABOVE 1:200 YEAR FLOOD LEVEL. THE DEVELOPER SHALL SUBMIT NECESSARY FLOOD RISK DOCUMENTATION IN RESPECT OF THESE ISSUES.
11. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN. THE DEVELOPER SHALL SUBMIT SITE SPECIFIC ANTI-FLOATATION CALCULATIONS AND MEASURES PROPOSED IN RESPECT OF PUMP STATION STRUCTURES, AND TO TAKE INTO ACCOUNT CONDITIONS DURING ON-SITE TESTING OF STRUCTURES
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
13. THIS DRAWING IS INDICATIVE ONLY AND THE DEVELOPER SHALL SUBMIT A SITE SPECIFIC LAYOUT TO UISCE ÉIREANN FOR REVIEW.
14. VENTILATION STACK TO BE PROVIDED IN SENSITIVE AREAS.
15. EMERGENCY WASTEWATER BALANCE STORAGE CAPACITY SHALL BE PROVIDED AT THE PUMP STATION IN ACCORDANCE WITH CLAUSE 5.11 OF THE CODE OF PRACTICE.
16. EMERGENCY OVERFLOW SHALL ONLY BE PROVIDED SUBJECT TO APPROVAL FROM THE RELEVANT REGULATORY AUTHORITIES, THE DEVELOPER SHALL PROVIDE THE REQUISITE CONSENTS FROM THE RELEVANT AUTHORITIES IN THE DESIGN SUBMISSION.
17. SURGE EQUIPMENT TO BE PROVIDED IF DEEMED NECESSARY.
18. INDICATIVE LAYOUT RELATES TO SMALL PUMPING STATIONS AS PER THE UISCE ÉIREANN CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
19. PROPRIETARY WATERTIGHT PRE-CAST CONCRETE SYSTEMS IN ACCORDANCE WITH IS EN 1992-3 TIGHTNESS CLASS 2, SHALL BE USED SUBJECT TO IW APPROVAL. DEVELOPER SHALL PROVIDE DETAILS TO UISCE ÉIREANN FOR REVIEW. CONCRETE SURROUND, C30/35 CONCRETE TO IS 206, SHALL BE PROVIDED TO ANY JOINTS WITHIN THE PRECAST CONCRETE UNIT..
20. IN-SITU CONCRETE SURROUND TO PCC MANHOLE UNITS TO BE INCREASED IN THICKNESS FOR PUMPING STATIONS >3.0m DEEP TO DESIGNERS REQUIREMENTS. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.





CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Minor Revisions to notes, Precast Pumping Station Altered	DP
2	07/'20	RH	TOC	Valve chamber modified, lifting davit removed, title updated	MOD
1	11/'17	JMC	TOC	Revised notes 2,4,9 & 11	MOD
0	08/'16	JMC	TOC	Initial Issue	MOD

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

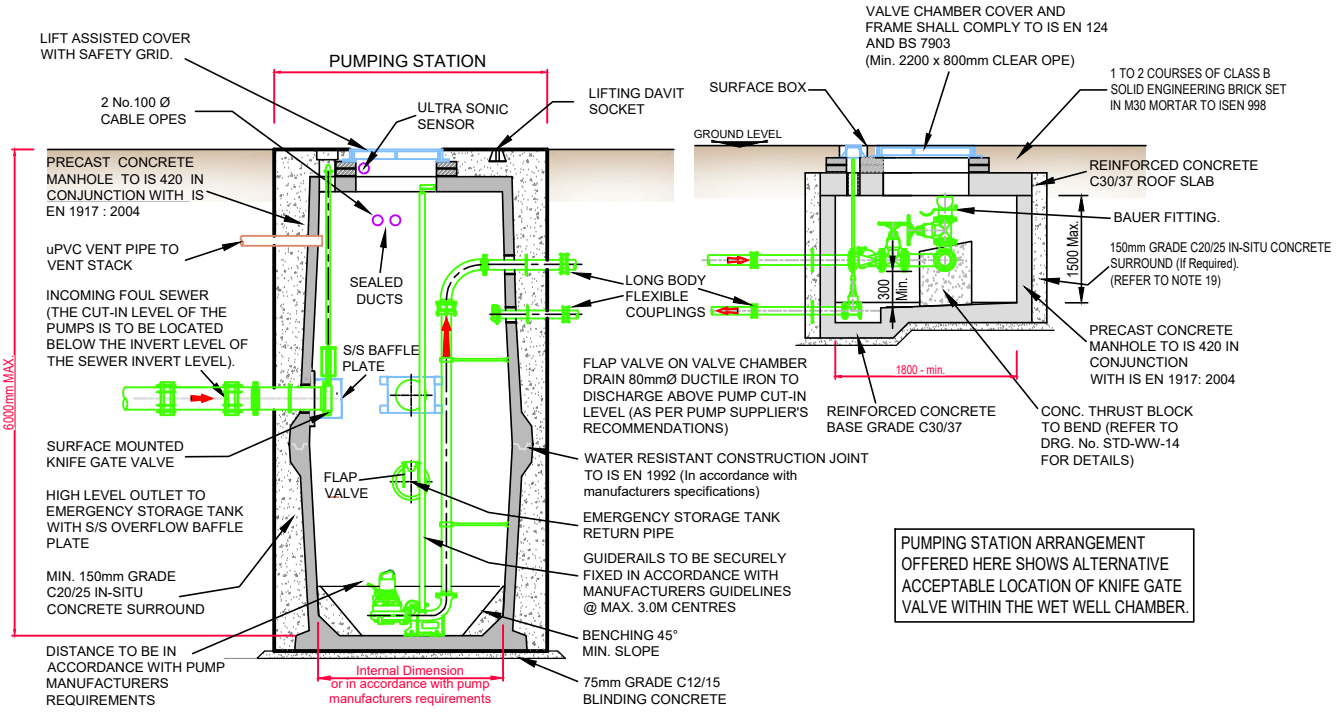
DATE: JUL. 2016

TITLE: INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION WITH CAST IN-SITU VALVE CHAMBER

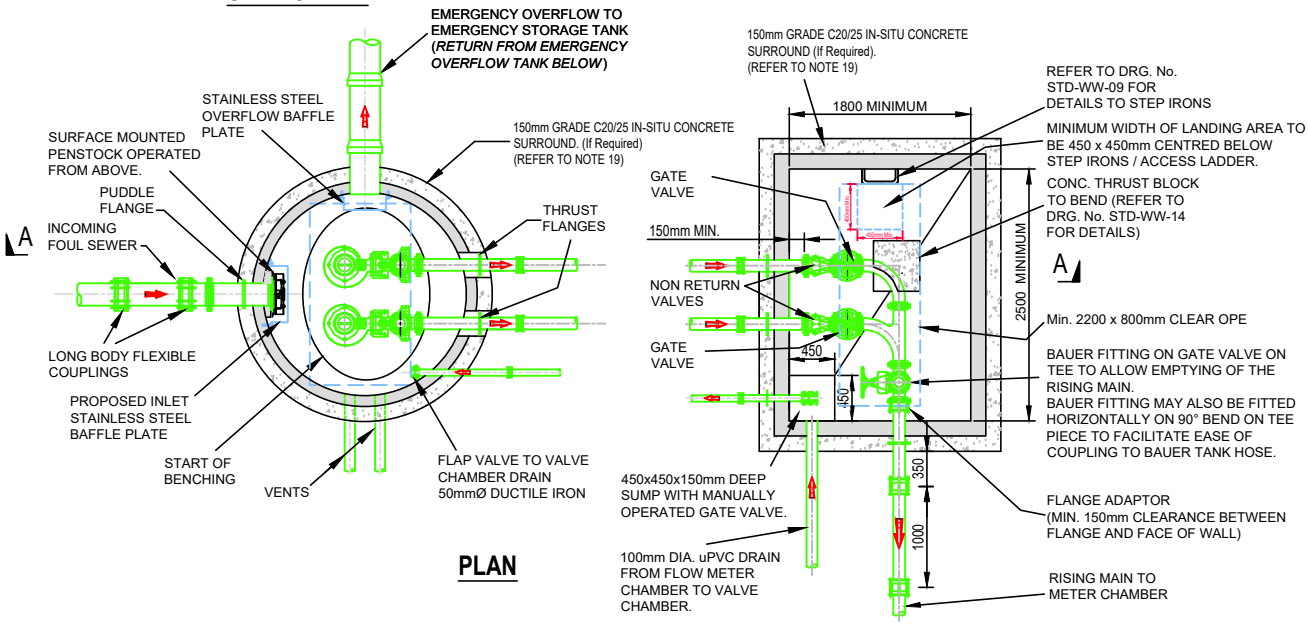
DRAWING No.: STD-WW-28A

REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PUMPS SHALL BE INSTALLED TO UISCE ÉIREANN REQUIREMENTS. REFER TO PART 5 OF THE CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE .
3. ALL DUCTILE IRON PIPE WORK AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 598.
4. PRE-CAST CONCRETE CHAMBERS MAY BE USED SUBJECT TO REVIEW BY UISCE ÉIREANN.
5. ALL GATE VALVES TO BE CLOCKWISE CLOSING.
6. THE.COMPOSITE WET WELL STRUCTURE COMPRISING PRECAST CONCRETE MANHOLE UNITS AND STRUCTURAL CONCRETE SURROUND SHALL BE DESIGNED IN ACCORDANCE WITH IS EN 1992-3 - EUROCODE 2 - DESIGN OF CONCRETE STRUCTURES - PART 3: LIQUID RETAINING AND CONTAINMENT STRUCTURES TIGHTNESS CLASS 2
7. COVERS TO BE SIZED TO ALLOW ADEQUATE SPACE FOR PUMP REMOVAL MINIMUM 1400 x 800mm.
8. CHAMBER ACCESS COVERS WITH A CLEAR OPENING EXCEEDING 1m SHALL CONFORM TO BS 9124.
9. ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE LOADS AND DEAD LOADS, CONSIST OF A REINFORCED CONCRETE SLAB OF IN-SITU CONCRETE, GRADE C30/37, WITH A MINIMUM THICKNESS OF 225MM, STRUCTURAL DESIGN AND REINFORCEMENT DETAILS SHALL BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IW FOR REVIEW, ALTERNATIVELY PRE-CAST CONCRETE ROOFS IN COMPLIANCE WITH IS 420 MAY BE USED SUBJECT TO UISCE ÉIREANN REVIEW
10. THE PUMPING STATION SHOULD NOT BE LOCATED IN AREAS THAT ARE SUSCEPTIBLE TO FLOODING AT MORE THAN A 1:30 YEAR RECURRENCE. THE PUMPING STATION FACILITY SHALL BE DESIGNED FOR INUNDATION. THE FINISHED SLAB LEVEL SHALL BE POSITIONED ABOVE THE 1:100 YEAR FLOOD LEVEL. ALL ELECTRICAL CONTROL EQUIPMENT SHALL BE IP RATED AND POSITIONED ABOVE 1:200 YEAR FLOOD LEVEL. THE DEVELOPER SHALL SUBMIT NECESSARY FLOOD RISK DOCUMENTATION IN RESPECT OF THESE ISSUES.
11. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI-FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN. THE DEVELOPER SHALL SUBMIT SITE SPECIFIC ANTI-FLOATATION CALCULATIONS AND MEASURES PROPOSED IN RESPECT OF PUMP STATION STRUCTURES, AND TO TAKE INTO ACCOUNT CONDITIONS DURING ON-SITE TESTING OF STRUCTURES
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
13. THIS DRAWING IS INDICATIVE ONLY AND THE DEVELOPER SHALL SUBMIT A SITE SPECIFIC LAYOUT TO UISCE ÉIREANN FOR REVIEW.
14. VENTILATION STACK TO BE PROVIDED IN SENSITIVE AREAS.
15. EMERGENCY WASTEWATER BALANCE STORAGE CAPACITY SHALL BE PROVIDED AT THE PUMP STATION IN ACCORDANCE WITH CLAUSE 5.11 OF THE CODE OF PRACTICE.
16. EMERGENCY OVERFLOW SHALL ONLY BE PROVIDED SUBJECT TO APPROVAL FROM THE RELEVANT REGULATORY AUTHORITIES, THE DEVELOPER SHALL PROVIDE THE REQUISITE CONSENTS FROM THE RELEVANT AUTHORITIES IN THE DESIGN SUBMISSION.
17. SURGE EQUIPMENT TO BE PROVIDED IF DEEMED NECESSARY.
18. INDICATIVE LAYOUT RELATES TO SMALL PUMPING STATIONS AS PER THE UISCE ÉIREANN CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE.
19. PROPRIETARY WATERTIGHT PRE-CAST CONCRETE SYSTEMS IN ACCORDANCE WITH IS EN 1992-3 TIGHTNESS CLASS 2, SHALL BE USED SUBJECT TO IW APPROVAL. DEVELOPER SHALL PROVIDE DETAILS TO UISCE ÉIREANN FOR REVIEW. CONCRETE SURROUND, C30/35 CONCRETE TO IS 206, SHALL BE PROVIDED TO ANY JOINTS WITHIN THE PRECAST CONCRETE UNIT.
20. IN-SITU CONCRETE SURROUND TO PCC MANHOLE UNITS TO BE INCREASED IN THICKNESS FOR PUMPING STATIONS >3.0m DEEP TO DESIGNERS REQUIREMENTS. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.



SECTION A-A



PLAN

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Revisions to notes, Precast Pumping Station & Valve Chamber Altered	DP
0	07/'20	RH	TOC	Initial Issue	MOD

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

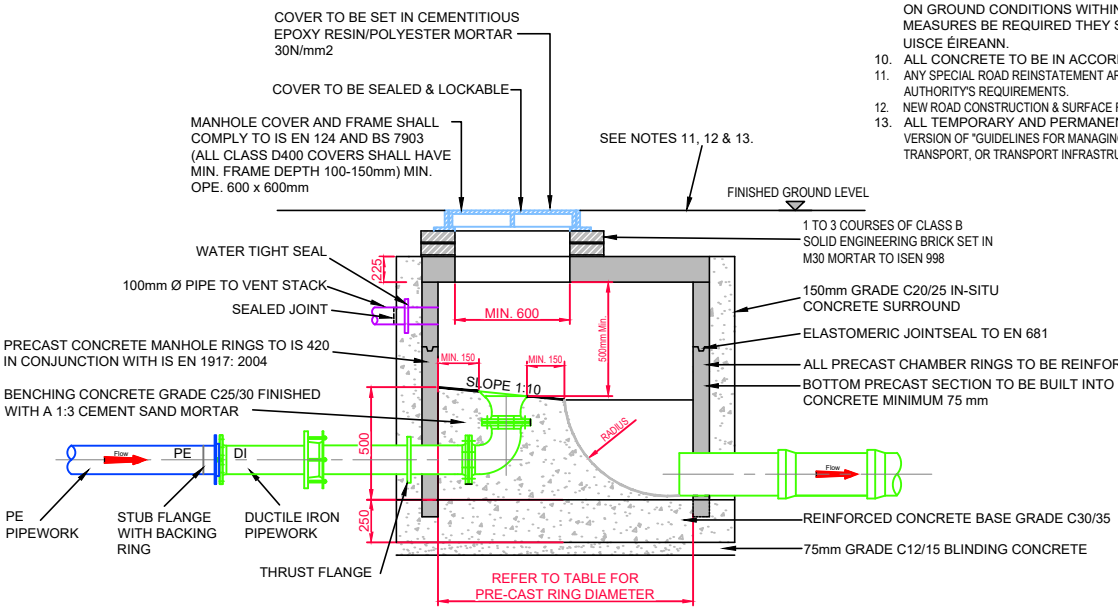
DATE: JUL. 2016

TITLE: INDICATIVE ALTERNATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION AND PRECAST VALVE CHAMBER

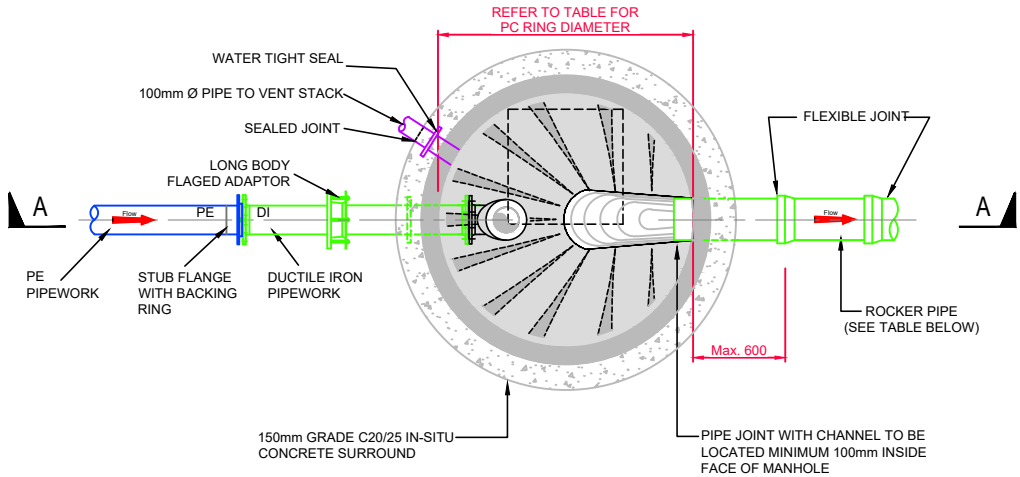
DRAWING No.: STD-WW-28B

REV: 1

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420.
3. THICKER MANHOLE BASES REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
4. CAST IN-SITU CONCRETE BASE, GRADE C30/35 CONCRETE TO IS EN 206 INCORPORATING CHANNEL BENCHING ETC.
5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
6. MANHOLE ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE AND DEAD LOADS, AND CONSIST OF C30/35 CONCRETE, TO IE EN 206, WITH A MINIMUM THICKNESS OF 225MM. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO IW REVIEW, DEVELOPER SHALL SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH IS420 & ISEN 1917 IN RESPECT ALL PRECAST UNITS
7. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
9. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
10. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
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. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



SECTION A-A



PLAN

MINIMUM MANHOLE DIAMETERS	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	**INTERNAL DIAMETER OF MANHOLE (mm)**
LESS THAN 150	1500

ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	**ROCKER PIPE LENGTH (mm)**
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250

* SEWERS GREATER THAN 450mm Ø ARE OUTSIDE THE SCOPE OF THE STANDARD DETAILS. LARGER MANHOLE SIZE OF THESE CHAMBERS MAY BE REQUIRED DUE TO MULTIPLE PIPES WITHIN MANHOLE.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Rising Main Pipe Material Included, notes revised.	DP
3	07/'20	RH	TOC	Benching Shown on Plan. brickwork bedding spec. updated	MOD
2	11/'17	JMC	TOC	Added rocker pipe table, added & updated notes.	MOD
1	08/'16	JMC	TOC	Revised cover note & access ope dim.	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

TITLE: RISING MAIN DISCHARGE STAND OFF MANHOLE

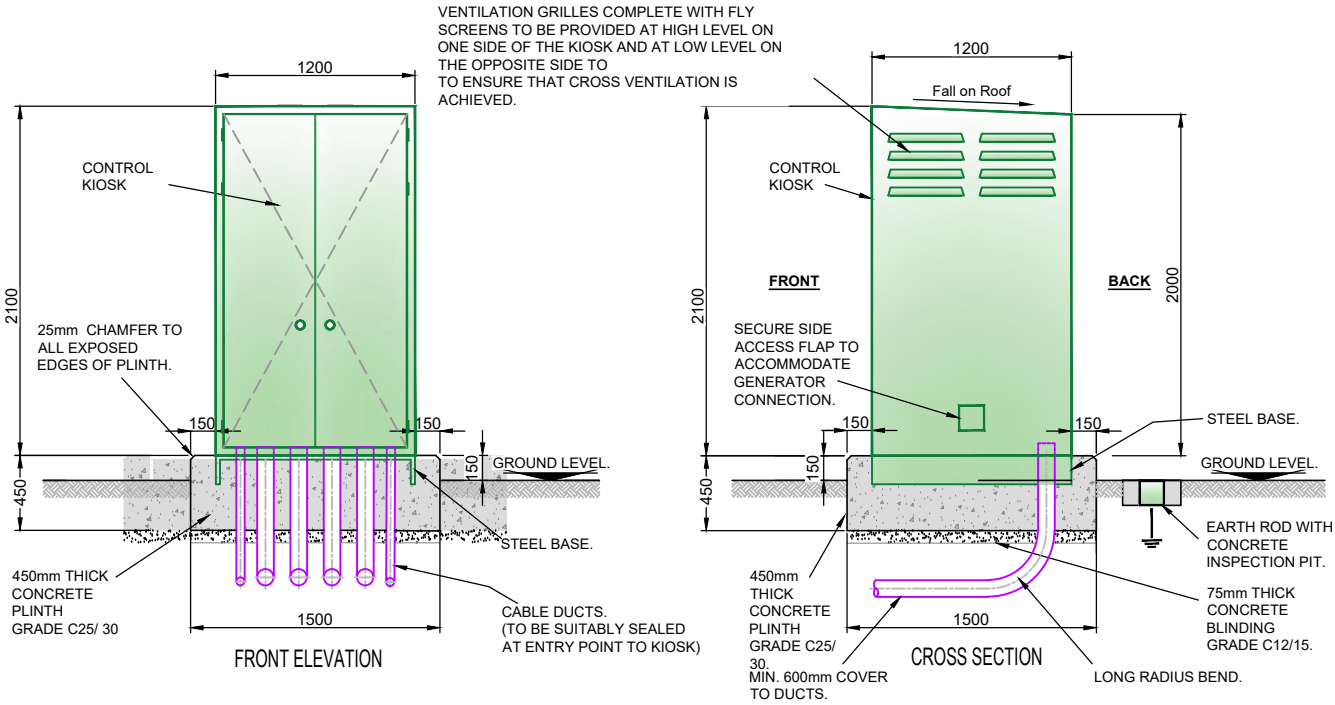
SCALE: NOT TO SCALE

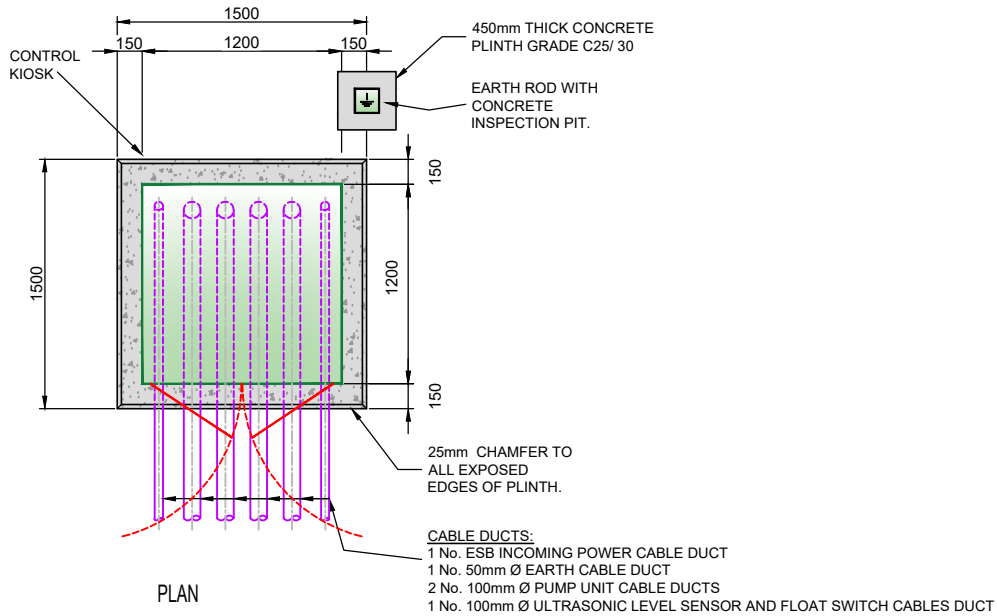
DATE: SEPT. 2015

DRAWING No.: STD-WW-29

REV: 4

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. KIOSKS TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE (MINIMUM 3mm THICKNESS) TO BS EN 1461. STAINLESS STEEL MAY BE USED AS AN ALTERNATIVE KIOSK MATERIAL, PARTICULARLY IN SEVERE ENVIRONMENTS, SUBJECT TO AGREEMENT WITH UISCE ÉIREANN.
3. COLOUR TO BE HOLLY GREEN BS 4800 14 C39. INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY UISCE ÉIREANN.
4. THE QUALITY OF KIOSK CONSTRUCTION SHALL ENSURE THAT THE FOLLOWING IS ACHIEVED:
   A) A THERMAL TRANSMITTANCE OF 1.5W PER m²K
   B) A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES.
   C) AN IP RATING OF IP55 OR EQUIVALENT.
5. KIOSK TO HAVE SINGLE OR DOUBLE STEEL/GRP DOORS WITH MULTIPLE LOCKS TO LPS 1175 SR2 OR EN 1627. MINIMUM DOUBLE LOCKS WITH BOLTS THAT ENGAGE INTO THE SILL & HEADER AS WELL AS BETWEEN THE TWO LEAVES OR LEAF & FRAME. LEADING EDGE OF LEAVES TO HAVE EITHER REBATED EDGES OR FITTED WITH ASTRAGALS.
6. KIOSK TO BE BOLTED TO THE PLINTH THROUGH A BOTTOM FLANGE WITH GALVANISED MILD STEEL OR STAINLESS STEEL ANCHOR BOLTS.
7. THE BOTTOM FLANGE SHALL BE SEATED ON A NEOPRENE GASKET AND SEALED WITH MASTIC.
8. REAR WALL SHALL BE REINFORCED WITH STAINLESS STEEL SECTIONS TO WHICH A MARINE PLY WOOD , 18mm THICK BOARD IS FIXED.
9. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ULTIMATE SIZING OF THE KIOSK TO ENSURE ADEQUATE SPACE REQUIREMENTS.
10. TELEMETRY DUCTING TO BE IN ACCORDANCE WITH BS 4660 AND BS EN 1401.
11. ELECTRICAL REQUIREMENTS TO BE IN ACCORDANCE WITH ESB SPECIFICATION.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
13. WATER TIGHT SEALS ARE TO BE PROVIDED WHERE DUCTING ENTERS DUCT CHAMBERS AND KIOSKS. ALL DUCTING TO BE INSTALLED WITH DRAW CORDS.
14. THE KIOSK SHALL NOT BE LOCATED IN AREAS THAT ARE SUSCEPTIBLE TO FLOODING AT A FREQUENCY OF MORE THAN 1:30 YEARS RECURRENCE. THE KIOSK FACILITY SHOULD BE DESIGNED FOR INUNDATION. THE FINISHED SLAB LEVEL SHOULD BE POSITIONED ABOVE THE 1:100 YEARS FLOOD LEVEL. ALL ELECTRICAL CONTROL EQUIPMENT SHALL BE WATER RESISTANT AND POSITIONED ABOVE THE 1:200 YEAR FLOOD LEVEL.
15. ALL DIMENSIONS ARE MINIMUM DIMENSIONS AND MAY VARY TO SUIT THE KIOSK REQUIREMENT.
16. ALTERNATIVE BLOCKWORK STRUCTURE WITH CONCRETE ROOF TO BE PROVIDED IF REQUIRED BY PLANNING PERMISSION OR TO INCREASE SECURITY IN ACCORDANCE WITH CLAUSE 5.22 OF THE CODE OF PRACTICE.
17. DOOR LEAVES TO BE FITTED WITH ANTI-SLAM STAY HOLDS
18. MINIMUM KIOSK DIMENSIONS DETAILED BELOW, KIOSK TO BE SIZED TO ADEQUATELY ACCOMMODATE ALL ELECTRICAL CONTROL EQUIPMENT IN ACCORDANCE WITH PUMPING STATION REQUIREMENTS.





CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Notes & Kiosk Height Updated Side Flap & Earth Rod Included	DP
3	12/'23	RH	TOC	Modified Telemetry Control Kiosk Dimensions	MOD
2	11/'17	JMC	TOC	Updated note 9	MOD
1	08/'16	JMC	TOC	Added note 5 (Kiosk Doors)	MOD
0	07/'20	JMC	TOC	Initial Issue	MOD

Uisce Éireann Irish Water

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

DATE: SEPT. 2019

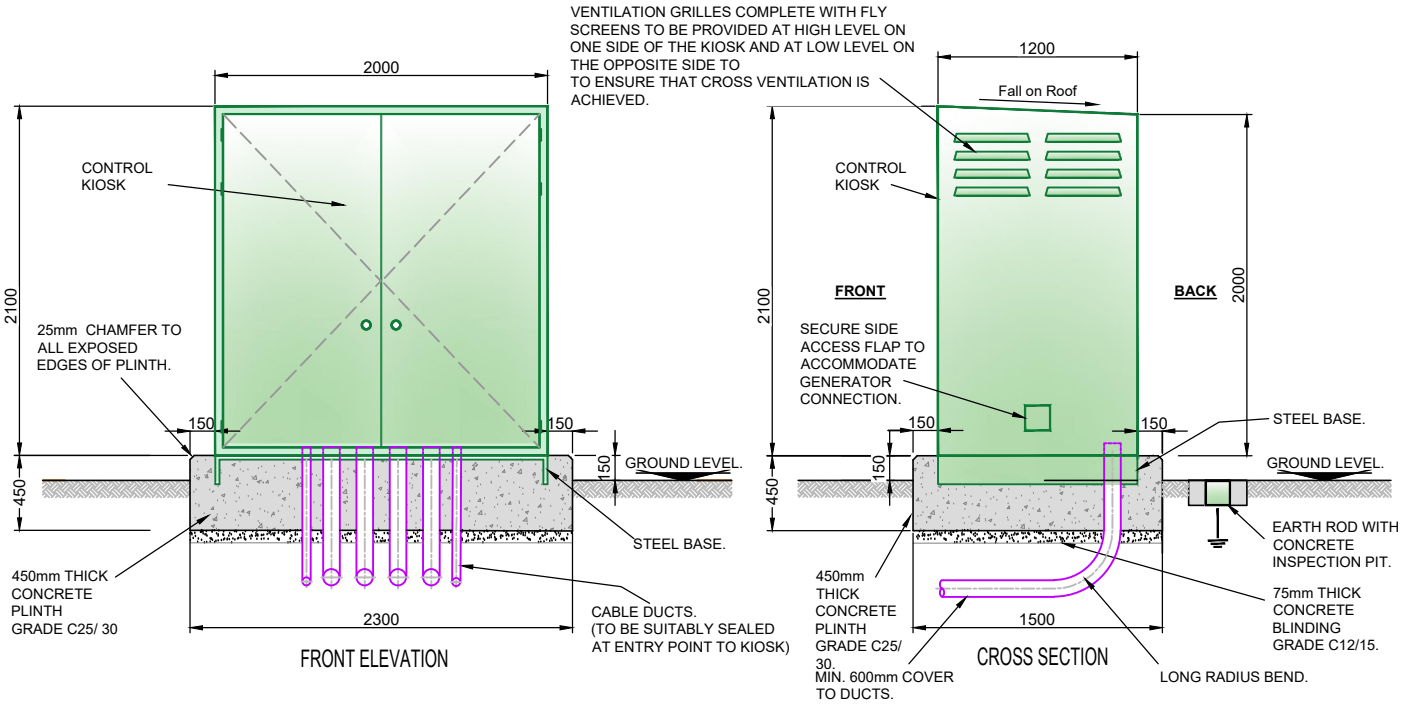
TITLE

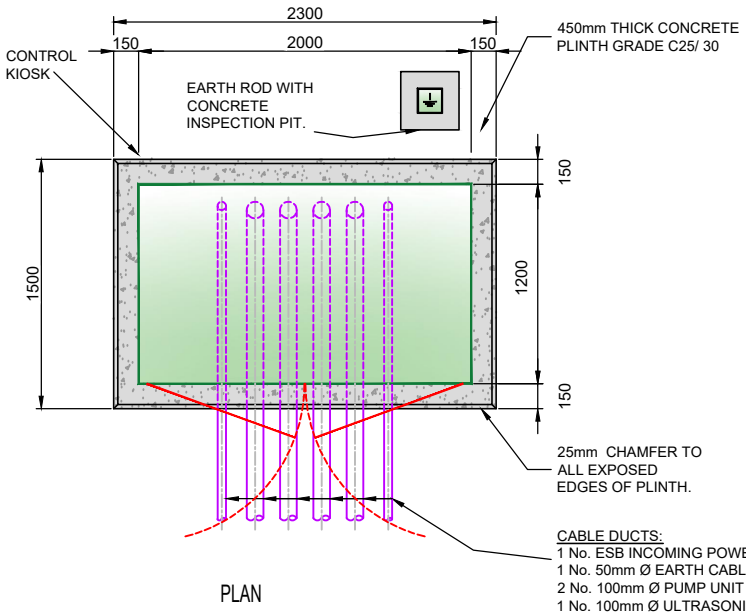
TYPE 1 PUMPING STATION CONTROL KIOSK

DRAWING No. STD-WW- 30

REV 4

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. KIOSKS TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE (MINIMUM 3mm THICKNESS) TO BS EN 1461. STAINLESS STEEL MAY BE USED AS AN ALTERNATIVE KIOSK MATERIAL, PARTICULARLY IN SEVERE ENVIRONMENTS, SUBJECT TO AGREEMENT WITH UISCE ÉIREANN.
3. COLOUR TO BE HOLLY GREEN BS 4800 14 C39. INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY UISCE ÉIREANN.
4. THE QUALITY OF KIOSK CONSTRUCTION SHALL ENSURE THAT THE FOLLOWING IS ACHIEVED:
   A) A THERMAL TRANSMITTANCE OF 1.5W PER m²K
   B) A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES.
   C) AN IP RATING OF IP55 OR EQUIVALENT.
5. KIOSK TO HAVE SINGLE OR DOUBLE STEEL/GRP DOORS WITH MULTIPLE LOCKS TO LPS 1175 SR2 OR EN 1627. MINIMUM DOUBLE LOCKS WITH BOLTS THAT ENGAGE INTO THE SILL & HEADER AS WELL AS BETWEEN THE TWO LEAVES OR LEAF & FRAME. LEADING EDGE OF LEAVES TO HAVE EITHER REBATED EDGES OR FITTED WITH ASTRAGALS.
6. KIOSK TO BE BOLTED TO THE PLINTH THROUGH A BOTTOM FLANGE WITH GALVANISED MILD STEEL OR STAINLESS STEEL ANCHOR BOLTS.
7. THE BOTTOM FLANGE SHALL BE SEATED ON A NEOPRENE GASKET AND SEALED WITH MASTIC.
8. REAR WALL SHALL BE REINFORCED WITH STAINLESS STEEL SECTIONS TO WHICH A MARINE PLY WOOD , 18mm THICK BOARD IS FIXED.
9. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ULTIMATE SIZING OF THE KIOSK TO ENSURE ADEQUATE SPACE REQUIREMENTS.
10. TELEMETRY DUCTING TO BE IN ACCORDANCE WITH BS 4660 AND BS EN 1401.
11. ELECTRICAL REQUIREMENTS TO BE IN ACCORDANCE WITH ESB SPECIFICATION.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
13. WATER TIGHT SEALS ARE TO BE PROVIDED WHERE DUCTING ENTERS DUCT CHAMBERS AND KIOSKS. ALL DUCTING TO BE INSTALLED WITH DRAW CORDS.
14. THE KIOSK SHALL NOT BE LOCATED IN AREAS THAT ARE SUSCEPTIBLE TO FLOODING AT A FREQUENCY OF MORE THAN 1:30 YEARS RECURRENCE. THE KIOSK FACILITY SHOULD BE DESIGNED FOR INUNDATION. THE FINISHED SLAB LEVEL SHOULD BE POSITIONED ABOVE THE 1:100 YEARS FLOOD LEVEL. ALL ELECTRICAL CONTROL EQUIPMENT SHALL BE WATER RESISTANT AND POSITIONED ABOVE THE 1:200 YEAR FLOOD LEVEL.
15. ALL DIMENSIONS ARE MINIMUM DIMENSIONS AND MAY VARY TO SUIT THE KIOSK REQUIREMENT.
16. ALTERNATIVE BLOCKWORK STRUCTURE WITH CONCRETE ROOF TO BE PROVIDED IF REQUIRED BY PLANNING PERMISSION OR TO INCREASE SECURITY IN ACCORDANCE WITH CLAUSE 5.22 OF THE CODE OF PRACTICE.
17. DOOR LEAVES TO BE FITTED WITH ANTI-SLAM STAY HOLDS
18. MINIMUM KIOSK DIMENSIONS DETAILED BELOW, KIOSK TO BE SIZED TO ADEQUATELY ACCOMMODATE ALL ELECTRICAL CONTROL EQUIPMENT IN ACCORDANCE WITH PUMPING STATION REQUIREMENTS.





CABLE DUCTS:
1 No. ESB INCOMING POWER CABLE DUCT
1 No. 50mm Ø EARTH CABLE DUCT
2 No. 100mm Ø PUMP UNIT CABLE DUCTS
1 No. 100mm Ø ULTRASONIC LEVEL SENSOR AND FLOAT SWITCH CABLES DUCT
1 No. 100mm Ø FLOW METER SENSOR CABLE DUCT

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

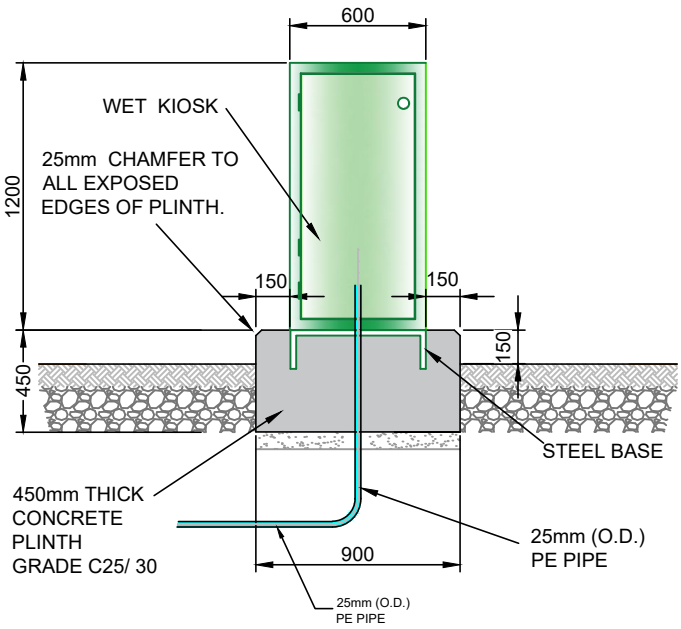
No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Notes & Kiosk Height Updated Side Flap & Earth Rod Included	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE
DATE: SEPT. 2019

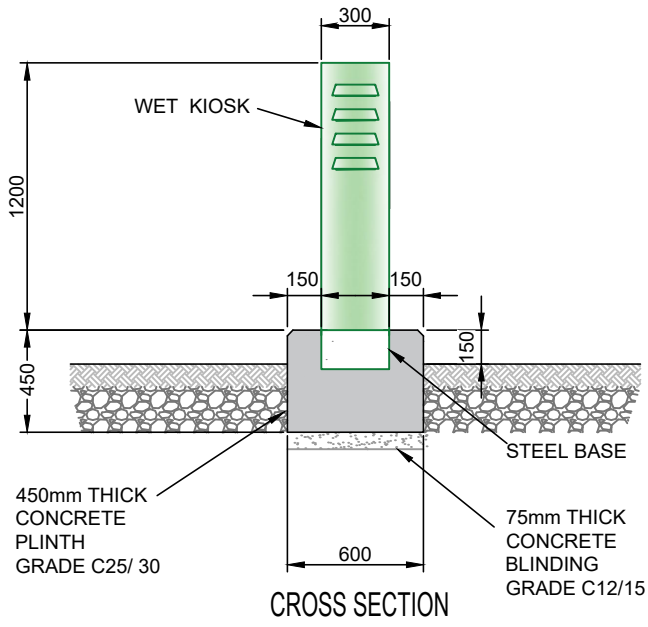
TITLE: TYPE 2 AND TYPE 3 PUMPING STATION CONTROL KIOSK

DRAWING No.: STD-WW-30A
REV: 1

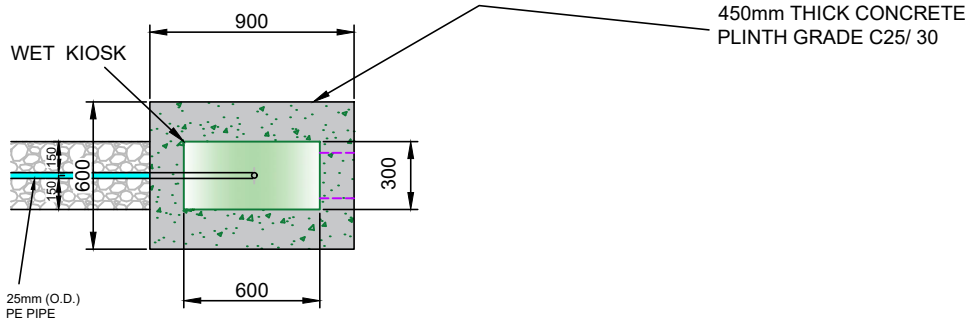
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. WET KIOSK TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE (MINIMUM 3mm THICK) TO BS EN 1461. ALTERNATIVE MATERIAL, STAINLESS STEEL IN HARSH ENVIRONMENTS, FOR WET KIOSK SUBJECT TO AGREEMENT WITH UISCE ÉIREANN.
3. KIOSK TO HAVE SINGLE OR DOUBLE STEEL/GRP DOORS WITH MULTIPLE LOCKS TO LPS 1175 SR2 OR EN 1627. MINIMUM DOUBLE LOCKS WITH BOLTS THAT ENGAGE INTO THE SILL & HEADER AS WELL AS BETWEEN THE TWO LEAVES OR LEAF & FRAME. LEADING EDGE OF LEAVES TO HAVE EITHER REBATED EDGES OR FITTED WITH ASTRAGALS.
4. COLOUR TO BE HOLLY GREEN BS 4800 14 C39. INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY UISCE ÉIREANN.
5. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ULTIMATE SIZING OF THE KIOSK TO ENSURE ADEQUATE SPACE REQUIREMENTS - SEE MINIMUM REQUIREMENTS BELOW.
6. ALL EXPOSED PIPEWORK TO BE ADEQUATELY INSULATED WITH PIPE LAGGING.
7. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
8. ALL DIMENSIONS ARE MINIMUM DIMENSIONS AND MAY VARY TO SUIT THE KIOSK REQUIREMENT.



FRONT ELEVATION



CROSS SECTION



PLAN

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
4	08/'25	RH	M McG	Plan detail & notes updated	DP
3	07/'20	RH	TOC	Wet kiosk details updated	MOD
2	11/'17	JMC	TOC	Updated note 6	MOD
1	08/'16	JMC	TOC	added note 3 (kiosk doors)	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

SCALE: NOT TO SCALE

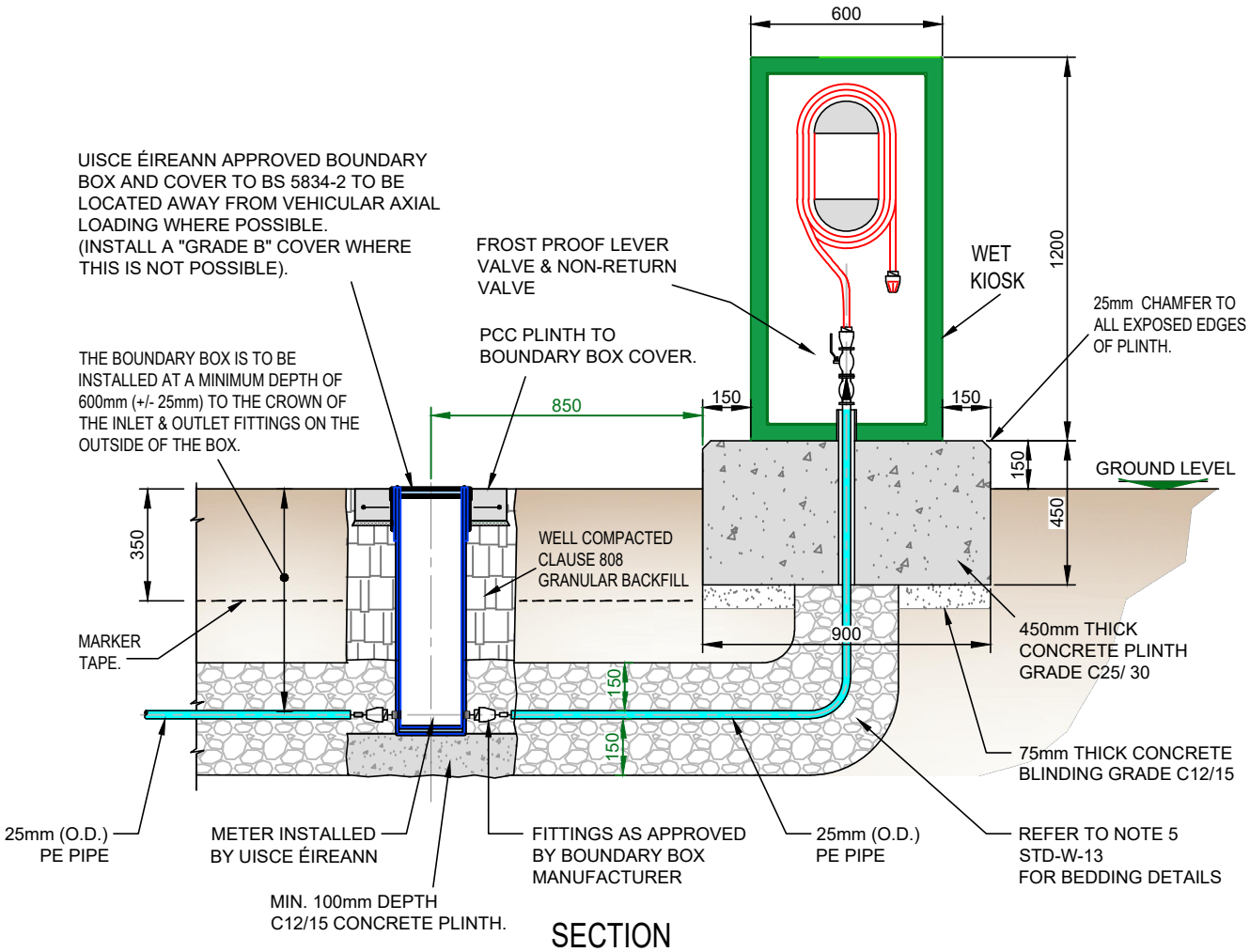
DATE: SEPT. 2015

TITLE: PUMPING STATION WET KIOSK

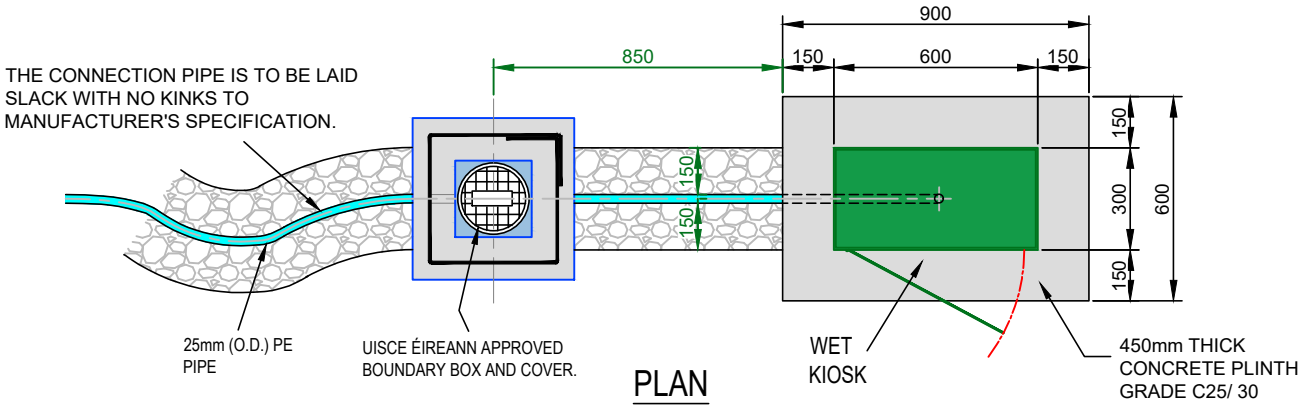
DRAWING No.: STD-WW-31

REV: 4

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. WET KIOSK TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE (MINIMUM 3mm THICK) TO BS EN 1461. ALTERNATIVE MATERIAL, STAINLESS STEEL IN HARSH ENVIRONMENTS, FOR WET KIOSK SUBJECT TO AGREEMENT WITH UISCE ÉIREANN.
3. KIOSK TO HAVE SINGLE OR DOUBLE STEEL/GRP DOORS WITH MULTIPLE LOCKS TO LPS 1175 SR2 OR EN 1627. MINIMUM DOUBLE LOCKS WITH BOLTS THAT ENGAGE INTO THE SILL & HEADER AS WELL AS BETWEEN THE TWO LEAVES OR LEAF & FRAME. LEADING EDGE OF LEAVES TO HAVE EITHER REBATED EDGES OR FITTED WITH ASTRAGALS.
4. COLOUR TO BE HOLLY GREEN BS 4800 14 C39. INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY UISCE ÉIREANN.
5. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE ULTIMATE SIZING OF THE KIOSK TO ENSURE ADEQUATE SPACE REQUIREMENTS - SEE MINIMUM REQUIREMENTS BELOW.
6. ALL EXPOSED PIPEWORK TO BE ADEQUATELY INSULATED WITH PIPE LAGGING.
7. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
8. ALL DIMENSIONS ARE MINIMUM DIMENSIONS AND MAY VARY TO SUIT THE KIOSK REQUIREMENT.



SECTION



PLAN

WET KIOSK WATER SERVICE CONNECTION DETAIL

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Lever valve and Non Return Valve Included in Kiosk	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

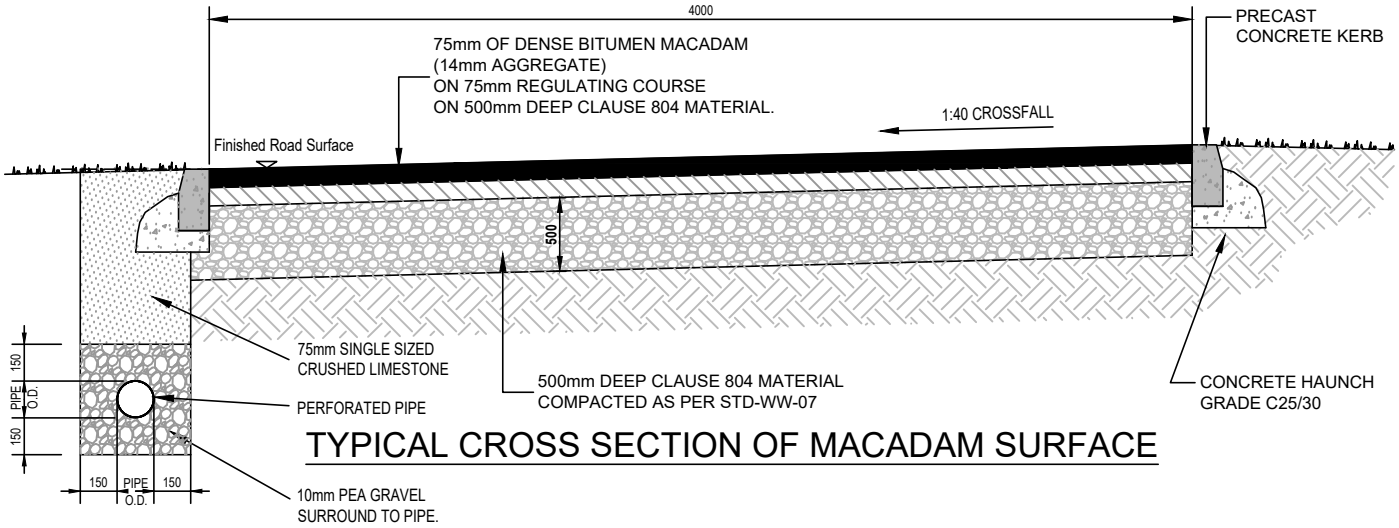
DATE: SEPT. 2015

TITLE: PUMPING STATION WET KIOSK WATER SERVICE CONNECTION ARRANGEMENT

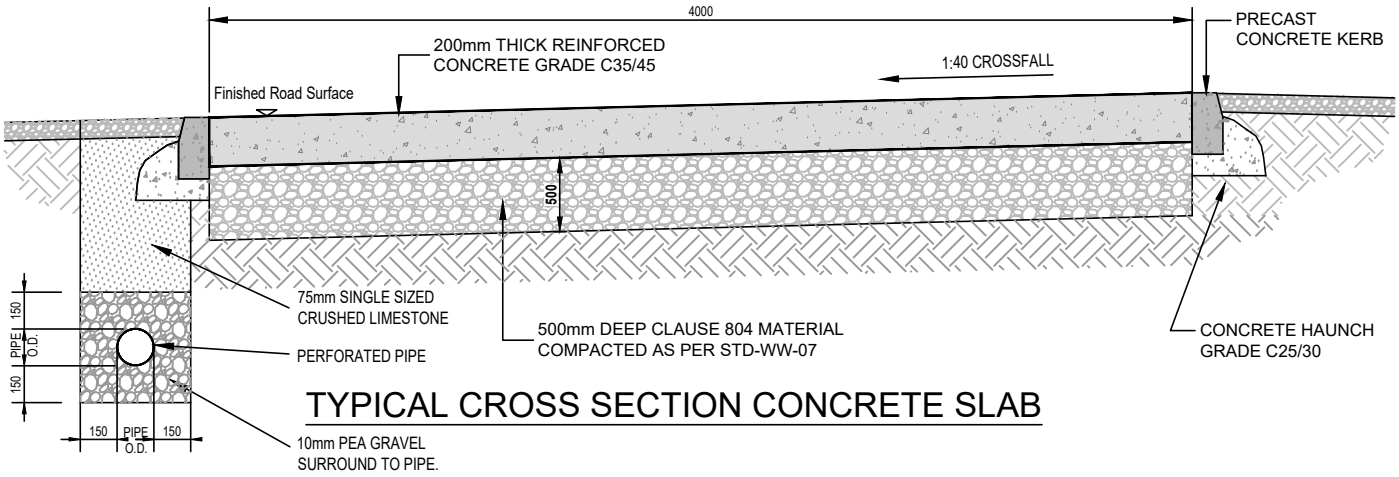
DRAWING No.: STD-WW-31A

REV: 1

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. REGULATING COURSE TO BE REVIEWED BY UISCE ÉIREANN.
3. STRUCTURAL DESIGN AND REINFORCEMENT DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
4. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
5. PRECAST KERBS TO BE IN ACCORDANCE WITH IS EN 1340:2003.



TYPICAL CROSS SECTION OF MACADAM SURFACE



TYPICAL CROSS SECTION CONCRETE SLAB

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Depth of Clause 804 Fill Clarified, Permeable Surface Removed	DP
2	07/'20	RH	TOC	Material depths modified, permeable area detail extended, drainage detail added	MOD
1	11/'17	JMC	TOC	Updated notes 2 & 3	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

Uisce Éireann Irish Water

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

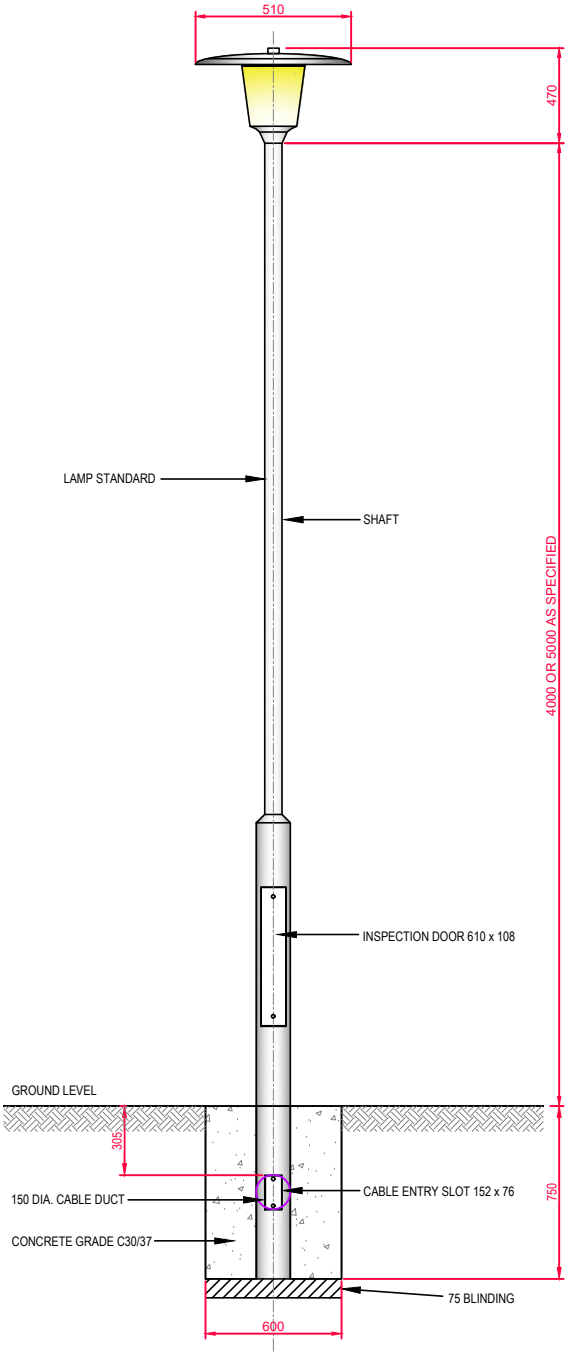
DATE: SEPT. 2015

TITLE: HARDSTANDING AREA PUMPING STATION

DRAWING No.: STD-WW-32

REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. LAMP BOLLARD TO BE REVIEWED BY UISCE ÉIREANN.
3. LAMP STANDARD TO BE REVIEWED BY UISCE ÉIREANN.
4. ELECTRICAL DUCTING TO BE IN ACCORDANCE WITH ESB SPECIFICATION.



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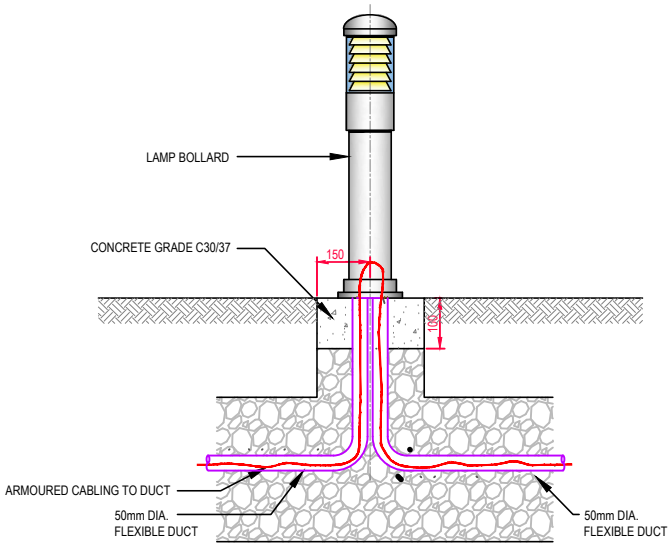
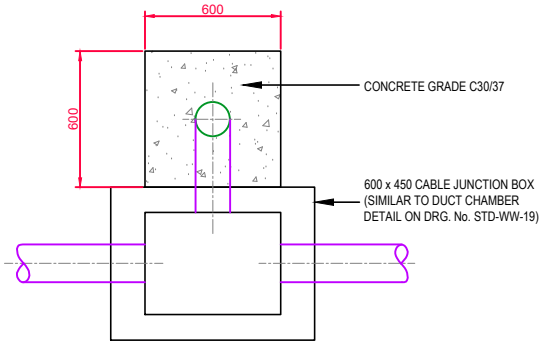
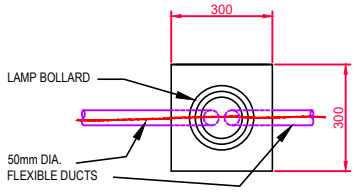


SECTION



PLAN

LAMP STANDARD



PLAN

LAMP BOLLARD

CONNECTIONS AND DEVELOPER SERVICES

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Minor Dimensional Correction	DP
2	07/'20	RH	TOC	Cable ducts to Lamp Bollard Revised	MOD
1	11/'17	JMC	TOC	Updated notes 2 & 3	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

STANDARD DETAILS - WASTEWATER

SCALE: NOT TO SCALE

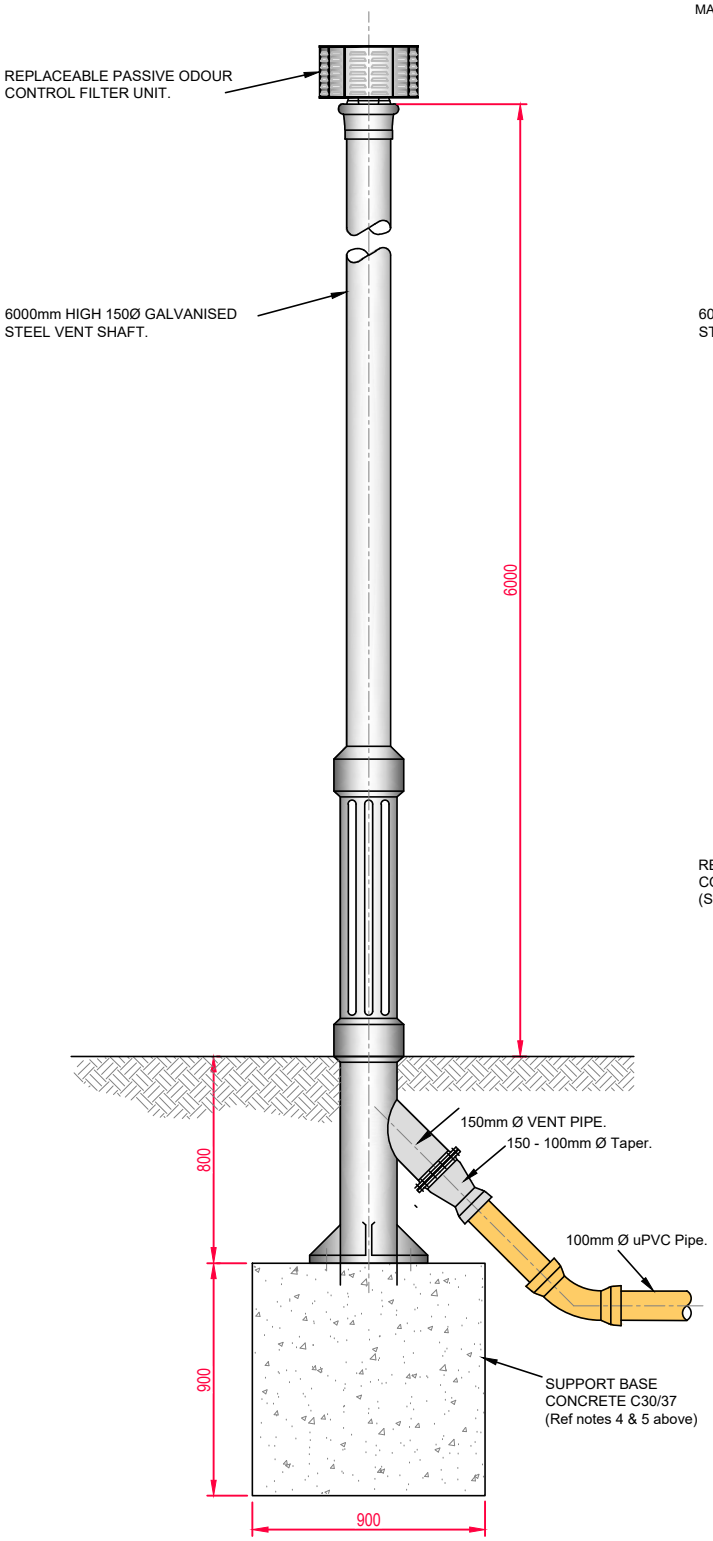
DATE: SEPT. 2015

TITLE: LAMP BOLLARD & LAMP STANDARD

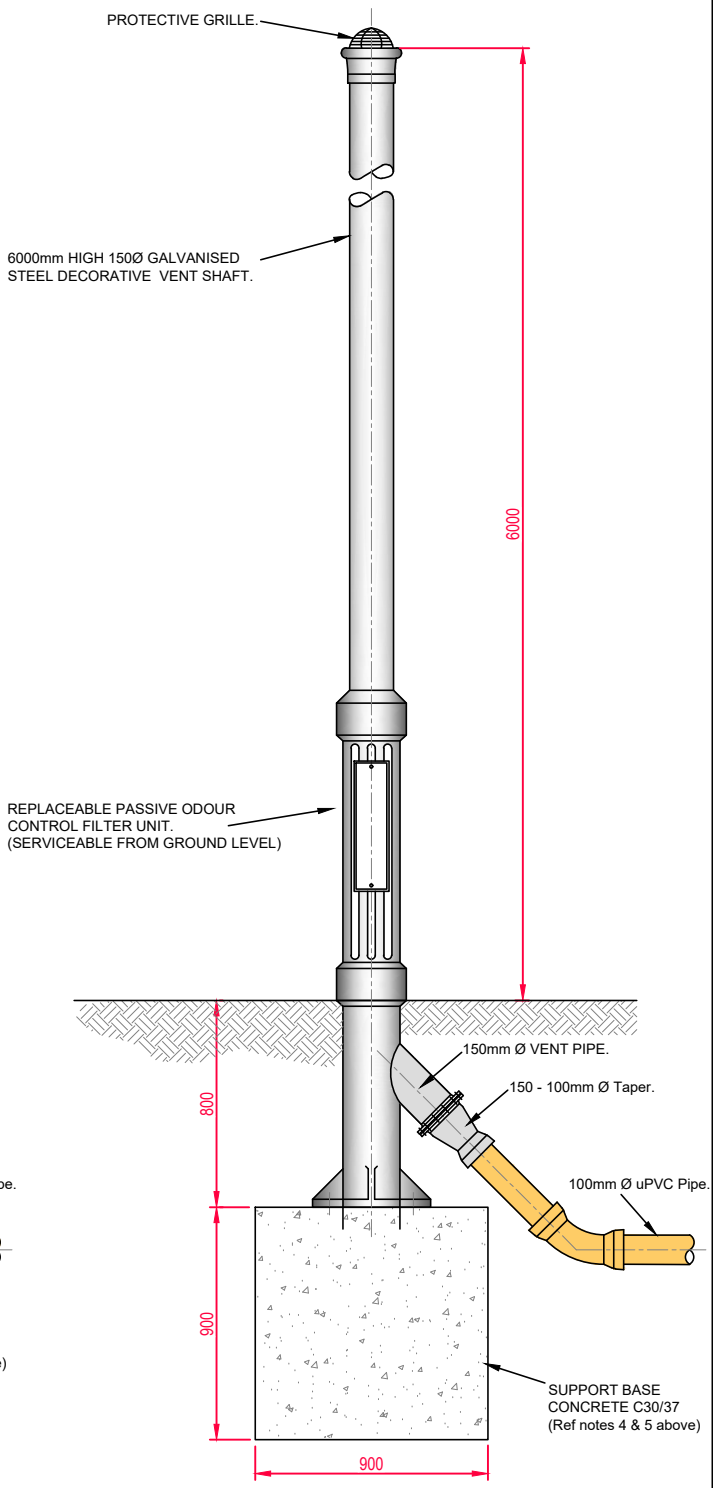
DRAWING No.: STD-WW-33

REV: 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. STRUCTURAL DESIGN AND REINFORCEMENT DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
3. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206
4. VENT STACKS SHALL BE LOCATED SUCH THAT THEY MINIMISE THE RISK OF DAMAGE TO BUILDINGS OR OTHER INFRASTRUCTURES. UISCE ÉIREANN SEPARATION DISTANCE GUIDELINES AND THAT OF OTHER UTILITY COMPANIES SHALL BE OBSERVED IN THIS REGARD.
5. WHERE EXCAVATION WORKS ARE TO BE CARRIED OUT ADJACENT TO, OR IN THE IMMEDIATE VICINITY OF VENT STACKS AND THEIR CONCRETE SUPPORT BASES, DUE CONSIDERATION SHALL BE AFFORDED TO MAINTAINING THE INTEGRITY AND STRUCTURAL STABILITY OF THIS STRUCTURE.



VENT STACK DETAIL - Option A



VENT STACK DETAIL - Option B

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
3	08/'25	RH	M McG	Notes Updated, Option "B" added	DP
2	07/'20	RH	TOC	General presentation update, stack height reduced, passive odour control filter unit note added.	MOD
1	11/'17	JMC	TOC	Updated note 2	MOD
0	09/'15	JMC	TOC	Initial Issue	SL

TITLE: VENT STACK

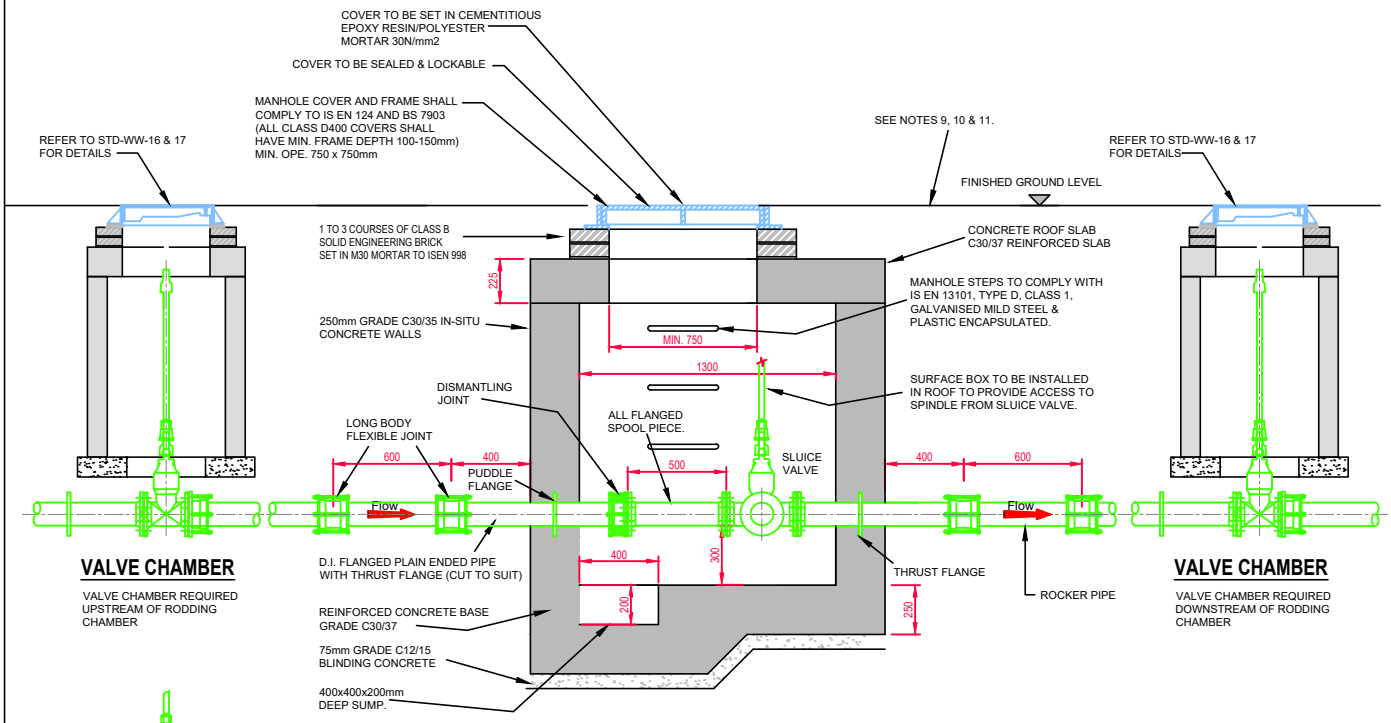
SCALE: NOT TO SCALE

DATE: SEPT. 2015

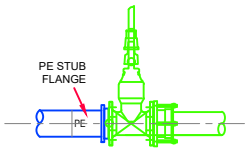
DRAWING No.: STD-WW-34

REV: 3

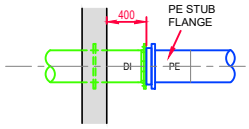
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420. (SEE STD-WW-35A)
3. CONCRETE CAST IN-SITU BASE C25/30 TO ISEN 206 WITH DRAINAGE SUMP AS PER DETAIL SHOWN.
4. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
5. MANHOLE ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE AND DEAD LOADS, AND CONSIST OF C30/35 CONCRETE, TO IE EN 206, WITH A MINIMUM THICKNESS OF 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, DEVELOPER SHALL SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH IS420 & ISEN 1917 IN RESPECT ALL PRECAST UNITS
6. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
7. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
10. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
11. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.



SECTION A-A



PE TO DI DETAIL



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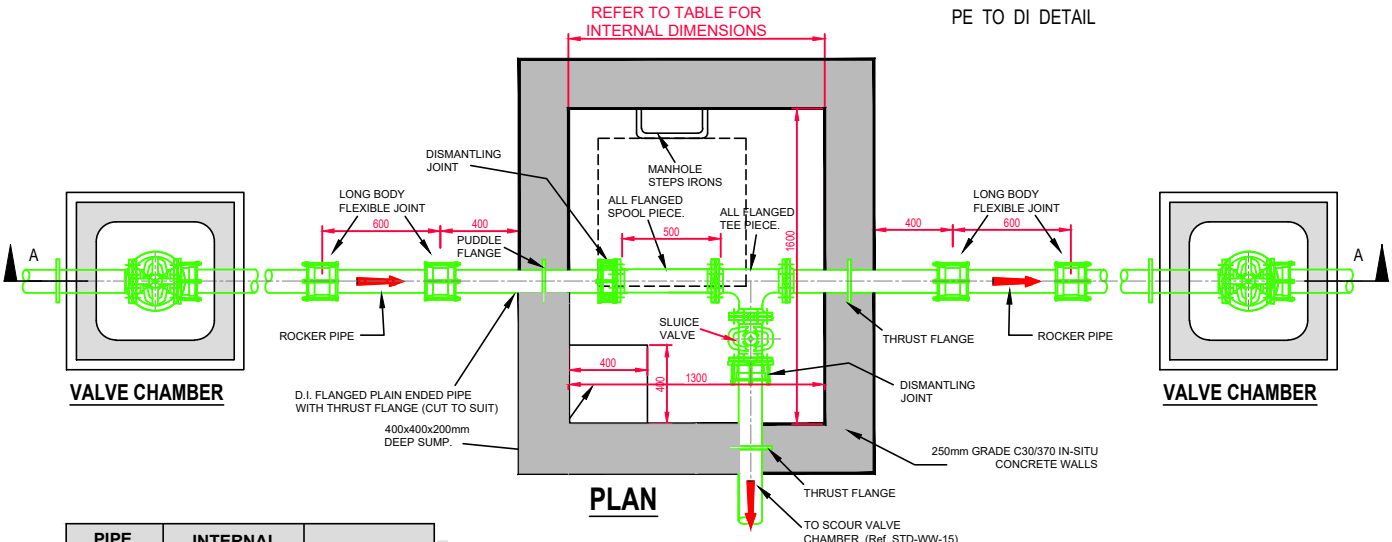


PLAN

PIPE DIAMETER (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS
80 - 150	1300 x 1600mm	750 x 750mm
200 - 300	1500 x 2200mm	900 x 900mm

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Chamber Dimensions Altered, Connection to Scour Chamber Included	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

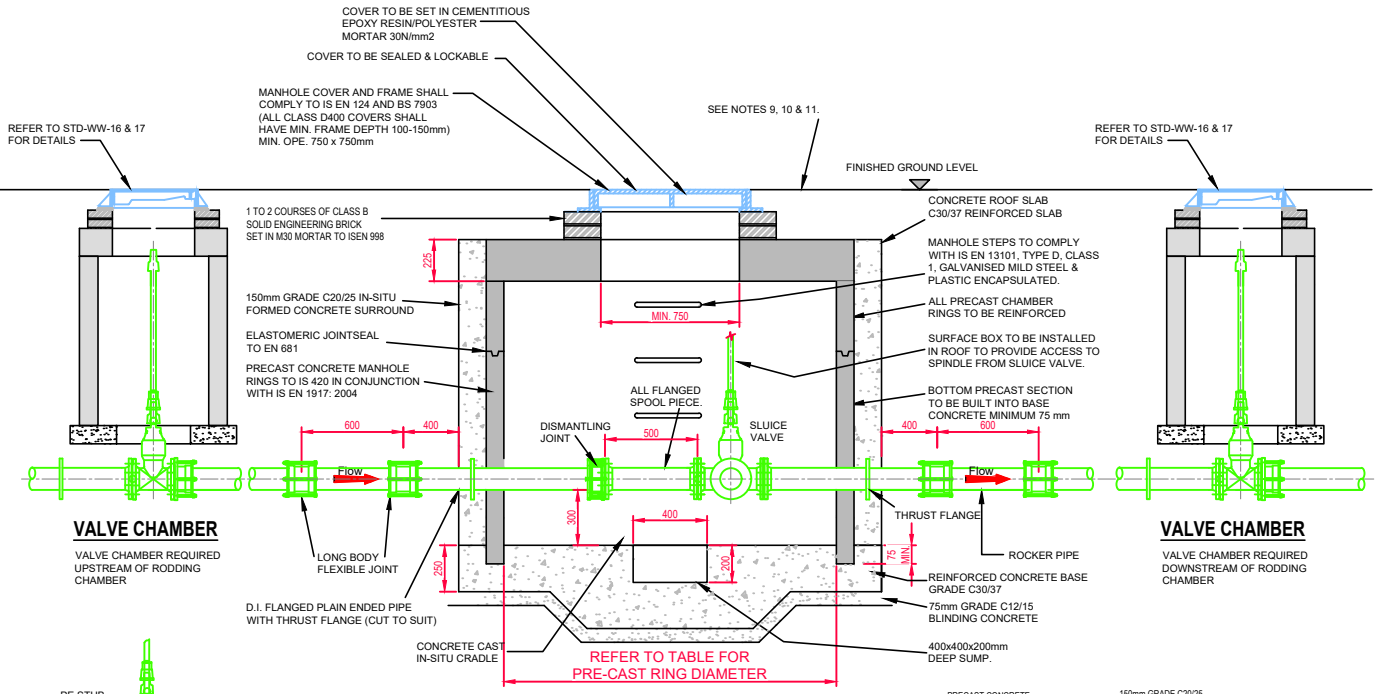
DATE: SEPT. 2019

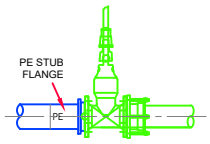
TITLE: RISING MAIN RODDING CHAMBER IN-SITU CONCRETE OPTION

DRAWING No.: STD-WW-35

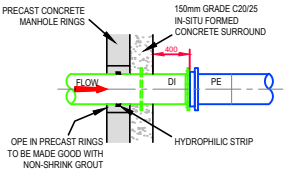
REV: 1

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND IS 420. (SEE STD-WW-35A)
3. CONCRETE CAST IN-SITU BASE C25/30 TO ISEN 206 WITH DRAINAGE SUMP AS PER DETAIL SHOWN.
4. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO UISCE ÉIREANN FOR REVIEW.
5. MANHOLE ROOF SLABS SHALL BE DESIGNED TO CARRY ALL LIVE AND DEAD LOADS, AND CONSIST OF C30/35 CONCRETE, TO IE EN 206, WITH A MINIMUM THICKNESS OF 225mm. ALTERNATIVELY, PRE-CAST CONCRETE ROOFS MAY BE USED, SUBJECT TO UISCE ÉIREANN REVIEW, DEVELOPER SHALL SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH IS420 & ISEN 1917 IN RESPECT ALL PRECAST UNITS
6. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
7. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
8. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY UISCE ÉIREANN.
9. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
10. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
11. ALL TEMPORARY AND PERMANENT ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

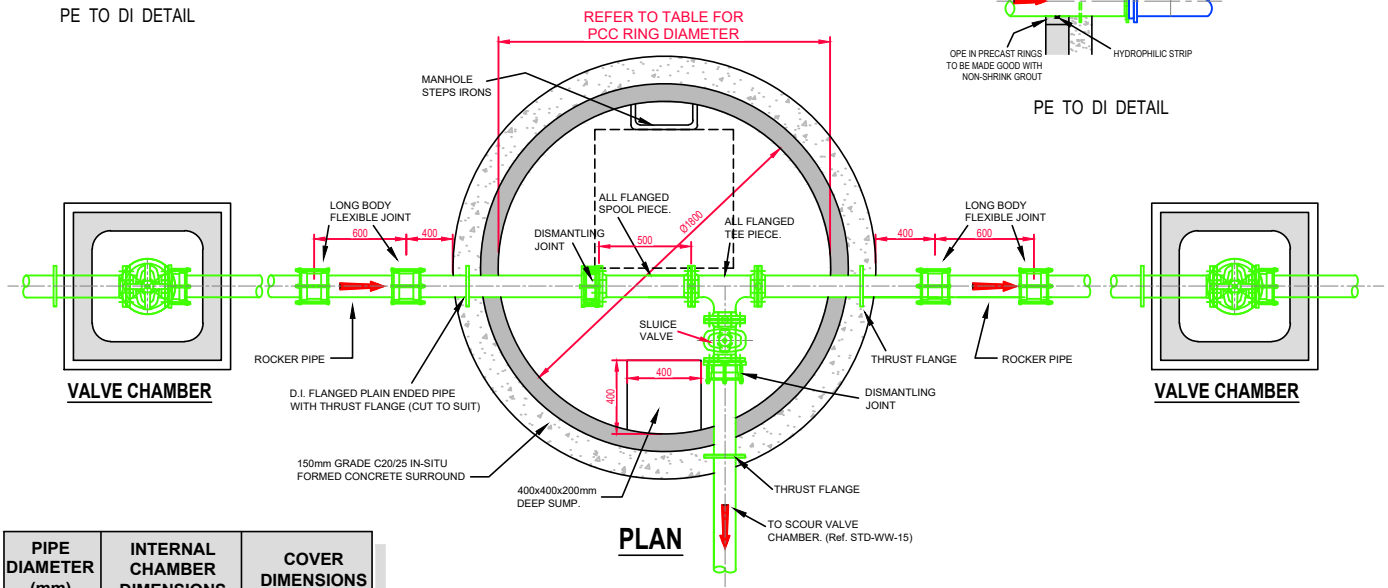




PE TO DI DETAIL



PE TO DI DETAIL



PIPE DIAMETER (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS
80 - 200	1800mm Ø	750 x 750mm
250 - 300	2300mm Ø	900 x 900mm

NOTE:- ALTERNATIVE SQUARE/RECTANGULAR PRECAST UNITS MEETING THE MINIMUM DIMENSIONAL REQUIREMENTS ON STD-W-35 SHALL BE CONSIDERED.

CONNECTIONS AND DEVELOPER SERVICES

Uisce Éireann Irish Water

No.	Date	Drn	Chk	Description	App
1	08/'25	RH	M McG	Chamber Dimensions Altered, Connection to Scour Chamber Included	DP
0	07/'20	RH	TOC	Initial Issue	MOD

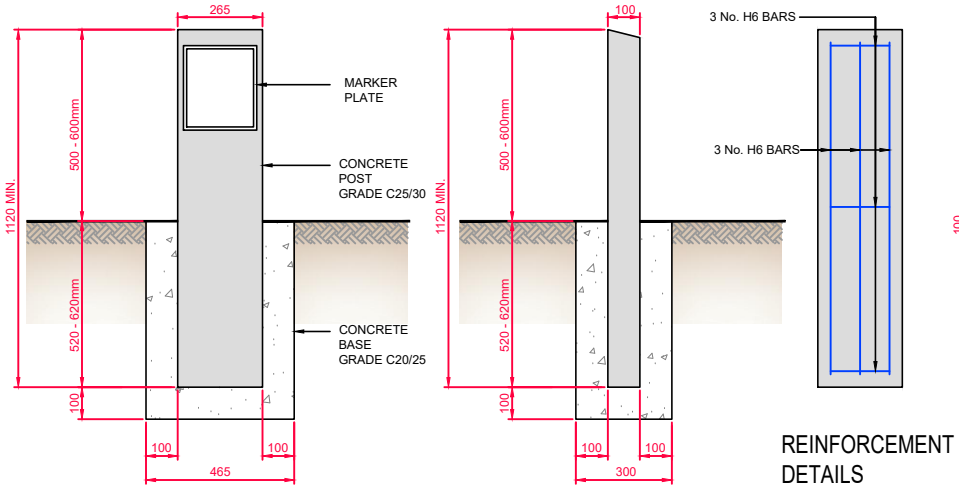
STANDARD DETAILS - WASTEWATER

TITLE

RISING MAIN
RODDING CHAMBER
PRECAST CONCRETE OPTION

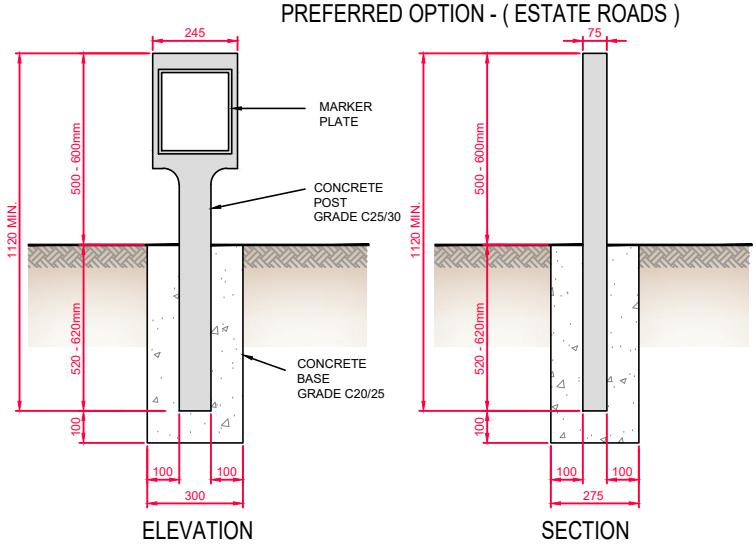
SCALE	DATE
NOT TO SCALE	SEPT. 2019

DRAWING No.	REV
STD-WW-35A	1

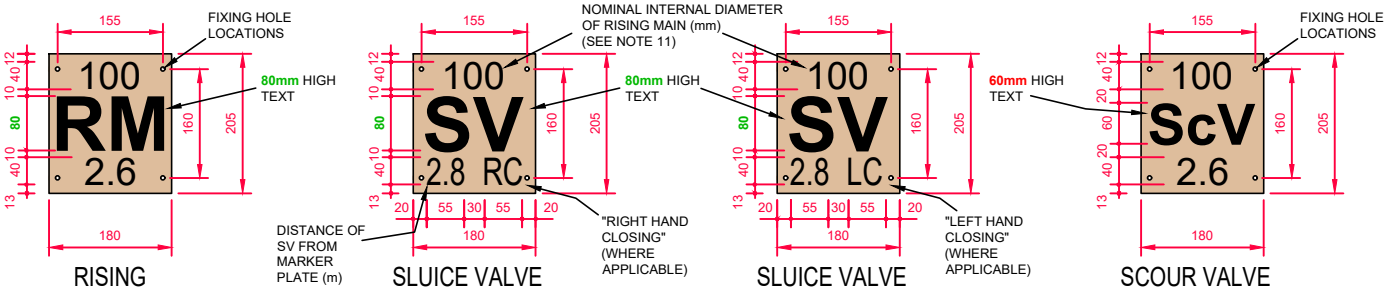


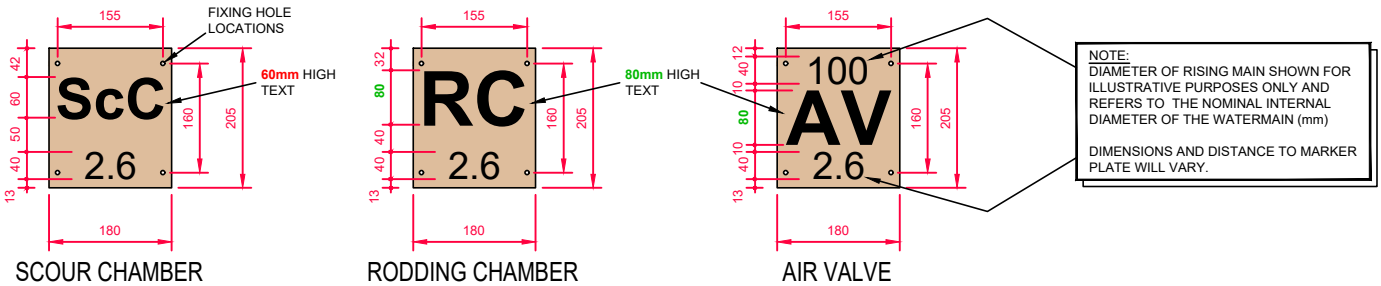
1. WHERE PRACTICAL MARKER PLATES SHALL BE FIXED TO ADJACENT WALLS OR ALTERNATIVELY ATTACHED TO MARKER POSTS.
2. PLATES TO BE FIXED IN POSITION USING WALL PLUGS AND STAINLESS STEEL SCREWS.
3. MARKER PLATES TO BE MANUFACTURED IN ACCORDANCE WITH BS 3251.
4. RISING MAIN, SLUICE VALVE, AIR VALVE, SCOUR VALVE, AND RODDING CHAMBER, ETC. SHOULD BE CAST ALUMINIUM. ALL CHARACTERS SHOULD BE BLACK ON BROWN PAINT BACKGROUND. ALTERNATIVE MATERIAL MAY BE USED SUBJECT TO ACCEPTANCE BY UISCE ÉIREANN.
5. CONCRETE MARKER POST TO BE GRADE C25 / 30 AND IN ACCORDANCE WITH IS EN 206/2013.
6. CONCRETE BASE TO BE GRADE C25/25
7. PLASTIC MARKER POSTS ARE NOT ACCEPTABLE.
8. PAINTING SPECIFICATION: 2 PACK EPOXY PRIMER 40 - 60 MICRONS FOLLOWED BY 2 PACK HIGH GLOSS POLYURETHANE TOP COAT APPLIED AT 40 - 60 MICRONS
9. REFERENCES TO PIPE DIAMETERS ON MARKER PLATES REFER SPECIFICALLY TO THE NOMINAL **INTERNAL** DIAMETER OF THE PIPE REGARDLESS OF PIPE MATERIAL

PREFERRED OPTION - (ESTATE ROADS)



ALTERNATE OPTION IN TRAFFICED AREAS - (PUBLIC ROADS / CONNECTION FACILITIES)





CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	08/'25	RH	M McG	Alternate Option Included	DP
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

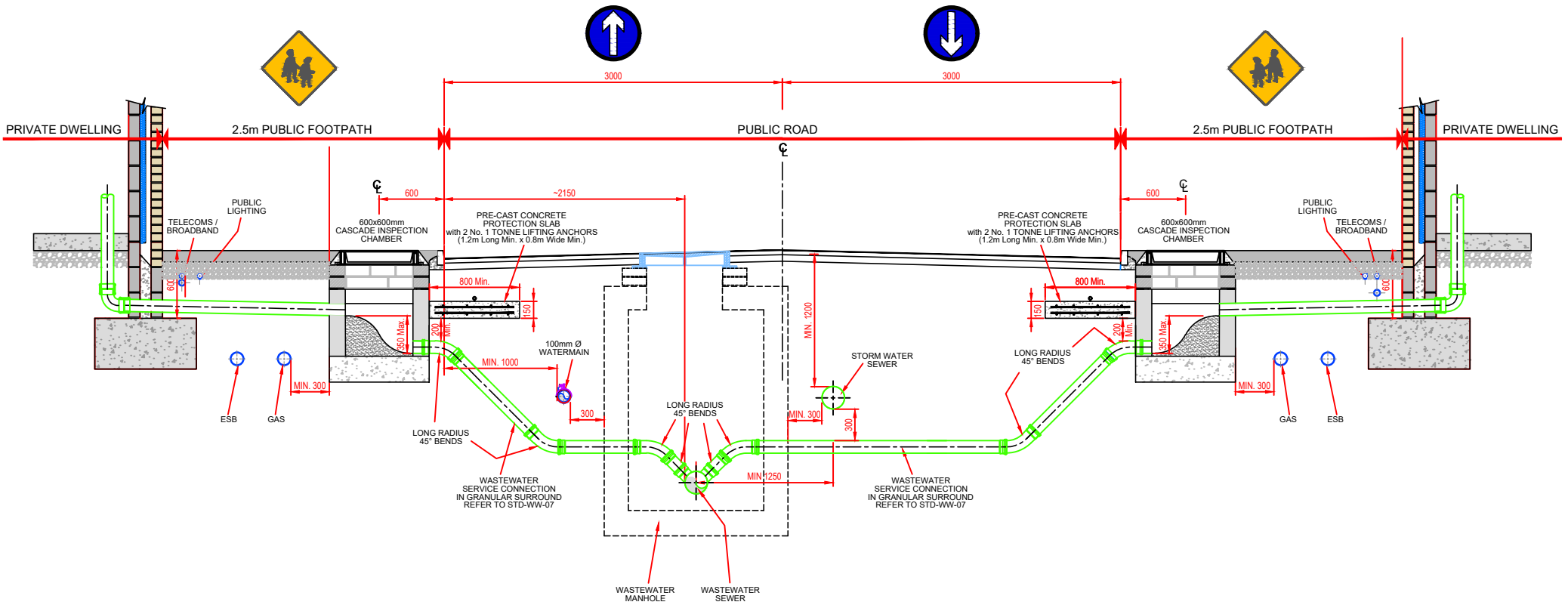
DATE: SEPT. 2019

TITLE: MARKER POSTS / PLATES

DRAWING No.: STD-WW-36

REV: 1

1. FOR NOTES REFER TO STD-WW-13
2. LEAN-MIX LOW STRENGTH CONCRETE SURROUND REQUIRED TO SERVICE CONNECTIONS WITH LESS THAT 1.2m COVER IN TRAFFICKED AREAS.
3. SMALLER INSPECTION CHAMBERS WITH INTERNAL DIMENSIONS OF 450mm Ø OR 450x450mm MAY BE PERMITTED SUBJECT TO APPROVAL BY UISCE ÉIREANN



MAINTENANCE RESPONSIBILITY OF THE WASTEWATER SERVICE CONNECTIONS FROM THE SEWER TO THE BOUNDARY IS SET OUT IN THE PIPE MAINTENANCE RESPONSIBILITY DIAGRAMS INCLUDED ON THE UÉ WEBSITE @ WWW.WATER.IE

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	07/'20	RH	TOC	Initial Issue	MOD

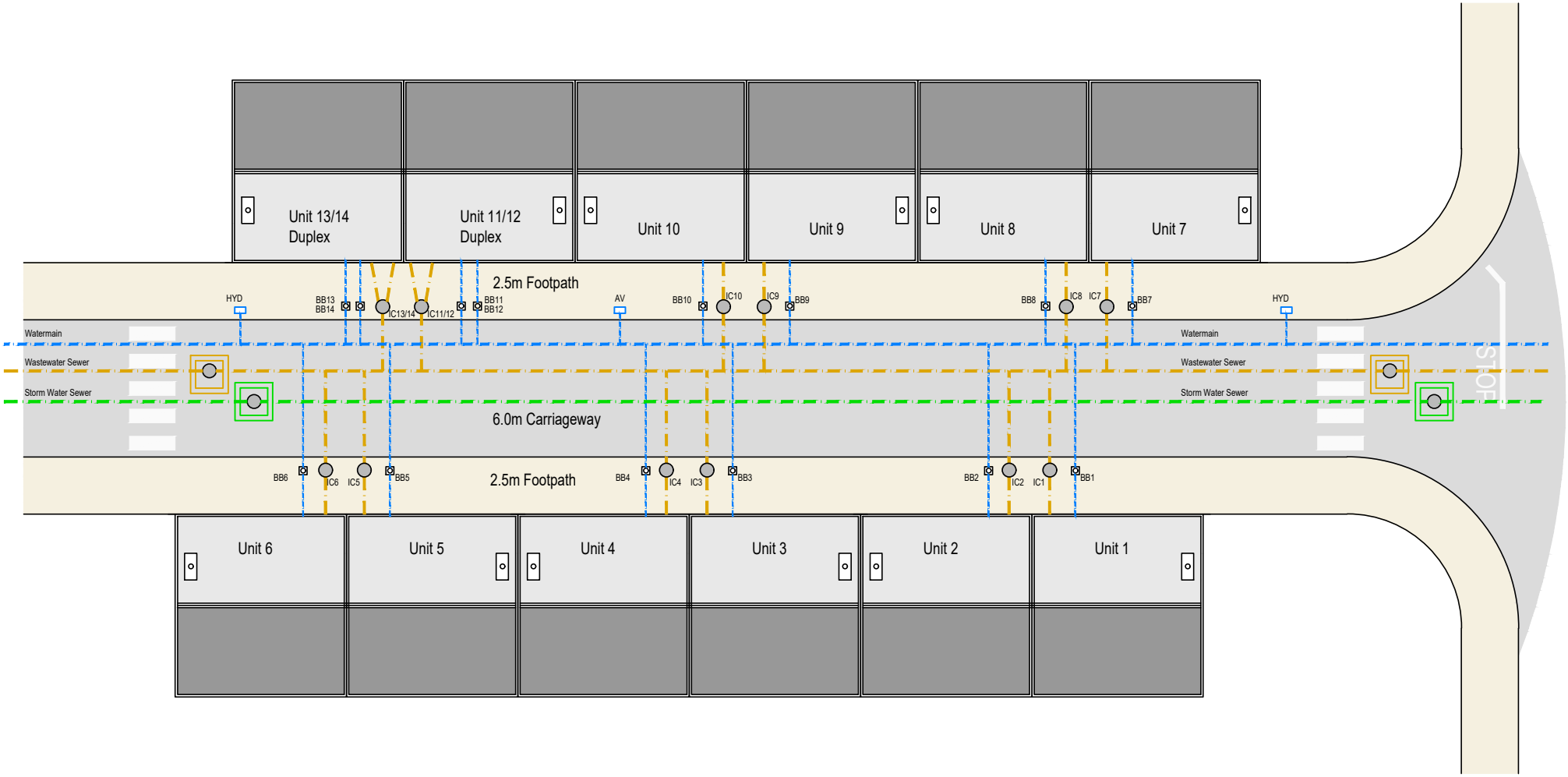
TITLE

SECTION SHOWING WASTEWATER SERVICES
SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS
2.5m Wide Footpaths with 6.0m Wide Carriageway

SCALE	DATE
NOT TO SCALE	APR. 2020

DRAWING No.	REV
STD-WW- 37	0

1. FOR NOTES REFER TO STD-WW-13
2. CONCRETE SURROUND REQUIRED TO SERVICE CONNECTIONS WITH LESS THAT 1.2m COVER IN TRAFFICKED AREAS.
3. IN SITUATIONS WHERE THE INTERNAL LAYOUT OF UNITS PERMIT, IT MAY BE AGREEABLE TO SHARE ONE INSPECTION CHAMBER BETWEEN TWO PROPERTY UNITS. THIS SHOULD BE AGREED WITH UISCE ÉIREANN AT EARLY DESIGN STAGE.
4. MINIMUM DISTANCE BETWEEN SERVICE CONNECTIONS AND OTHER SERVICES CONNECTIONS TO BE 300mm.



CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

DATE: APR 2020

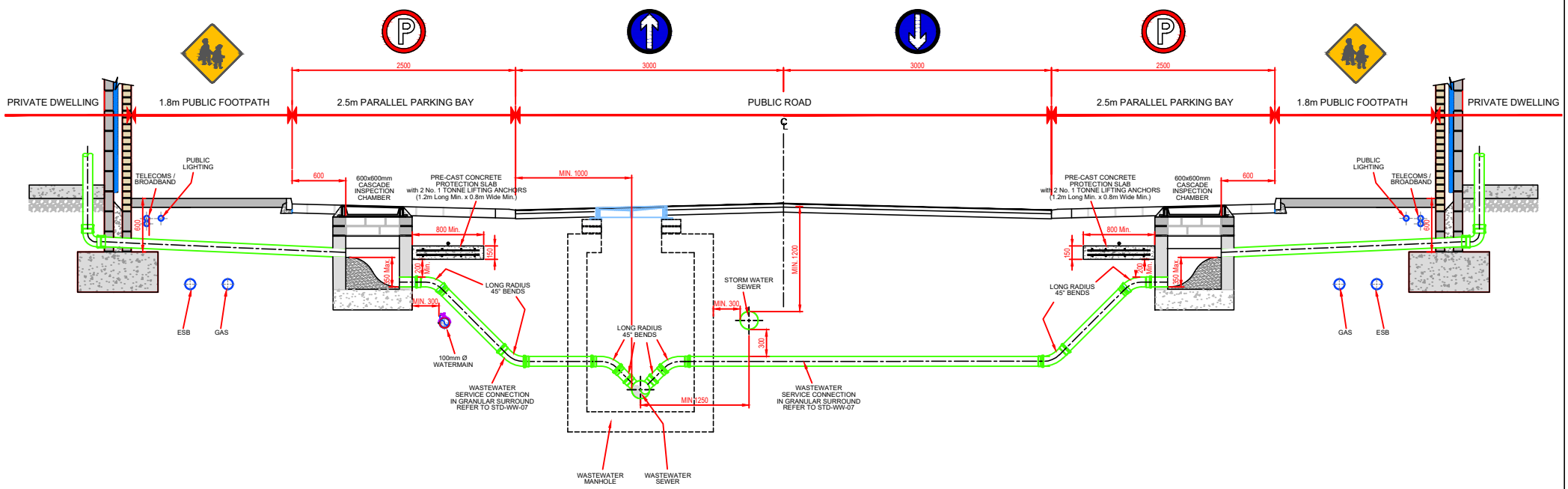
TITLE

LAYOUT PLAN SHOWING BELOW GROUND SERVICES
SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS
2.5m Wide Footpaths with 6.0m Wide Carriageway

DRAWING No.: STD-WW- 38

REV: 0

1. FOR NOTES REFER TO STD-WW-13
2. CONCRETE SURROUND REQUIRED TO SERVICE CONNECTIONS WITH LESS THAT 1.2m COVER IN TRAFFICKED AREAS.



MAINTENANCE RESPONSIBILITY OF THE WASTEWATER SERVICE CONNECTIONS FROM THE SEWER TO THE BOUNDARY IS SET OUT IN THE PIPE MAINTENANCE RESPONSIBILITY DIAGRAMS INCLUDED ON THE UÉ WEBSITE @ WWW.WATER.IE

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

DATE: APR 2020

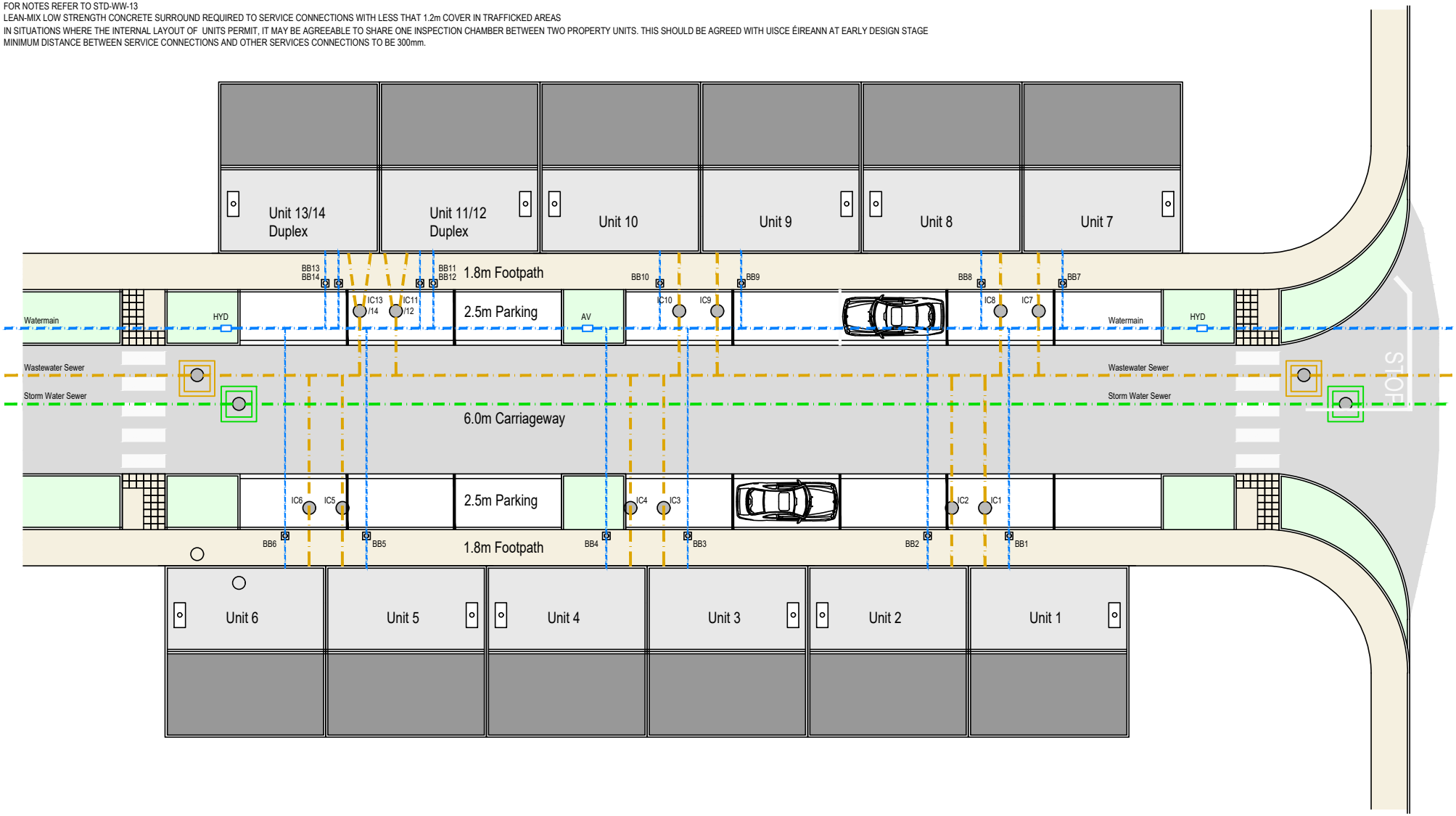
TITLE

SECTION SHOWING WASTEWATER SERVICES
SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS
1.8m Wide Footpaths, 2.5m wide Parallel Parking Bays with 6.0m Wide Carriageway.

DRAWING No.: STD-WW- 39

REV: 0

1. FOR NOTES REFER TO STD-WW-13
2. LEAN-MIX LOW STRENGTH CONCRETE SURROUND REQUIRED TO SERVICE CONNECTIONS WITH LESS THAT 1.2m COVER IN TRAFFICKED AREAS
3. IN SITUATIONS WHERE THE INTERNAL LAYOUT OF UNITS PERMIT, IT MAY BE AGREEABLE TO SHARE ONE INSPECTION CHAMBER BETWEEN TWO PROPERTY UNITS. THIS SHOULD BE AGREED WITH UISCE ÉIREANN AT EARLY DESIGN STAGE
4. MINIMUM DISTANCE BETWEEN SERVICE CONNECTIONS AND OTHER SERVICES CONNECTIONS TO BE 300mm.



CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	07/'20	RH	TOC	Initial Issue	MOD

SCALE: NOT TO SCALE

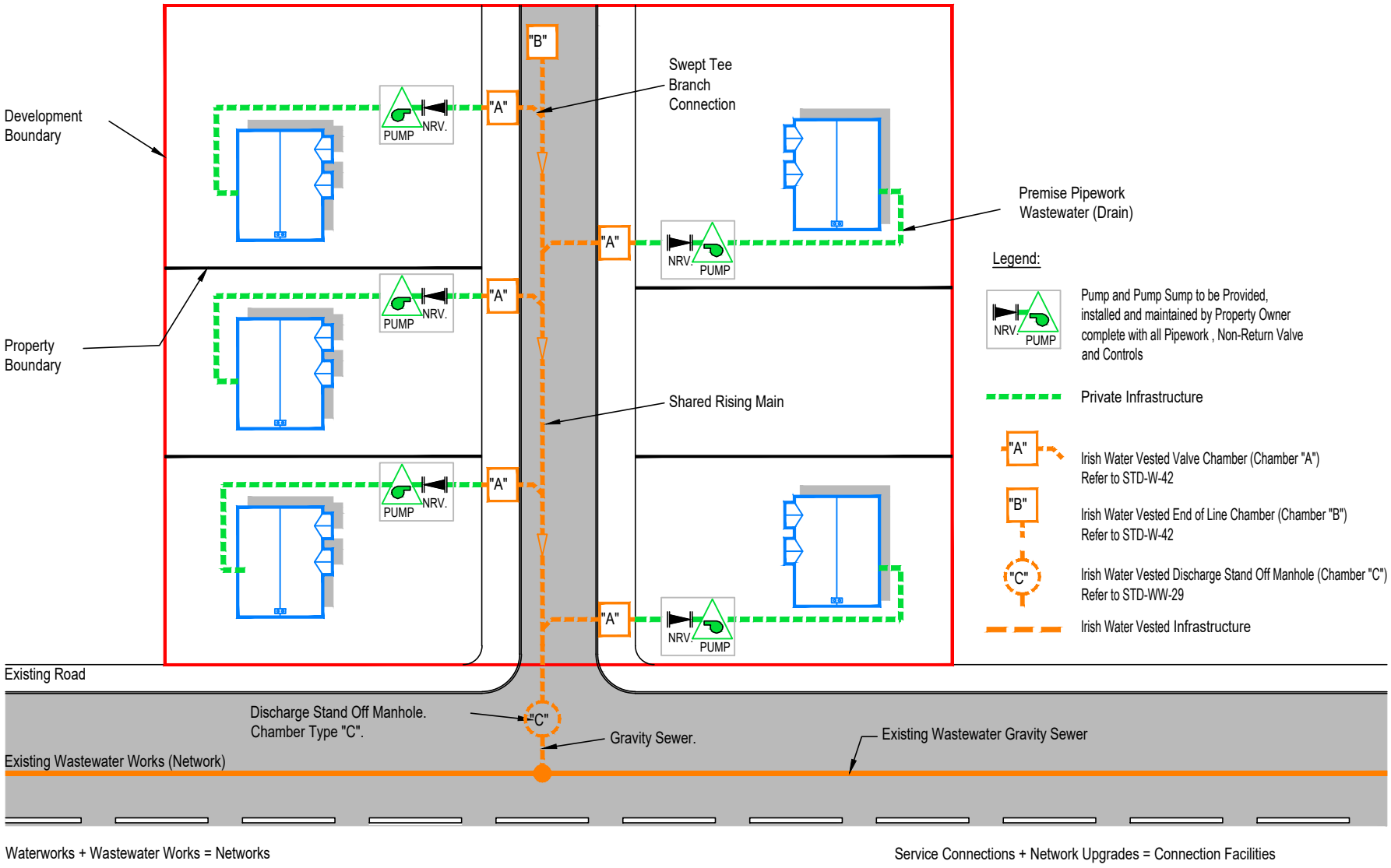
DATE: APR 2020

TITLE

LAYOUT PLAN SHOWING BELOW GROUND SERVICES
SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS
1.8m Wide Footpaths, 2.5m wide Parallel Parking Bays with 6.0m Wide Carriageway.

DRAWING No.: STD-WW-40

REV: 0



CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	08/'25	RH	M McG	Initial Issue	DP

SCALE: NOT TO SCALE

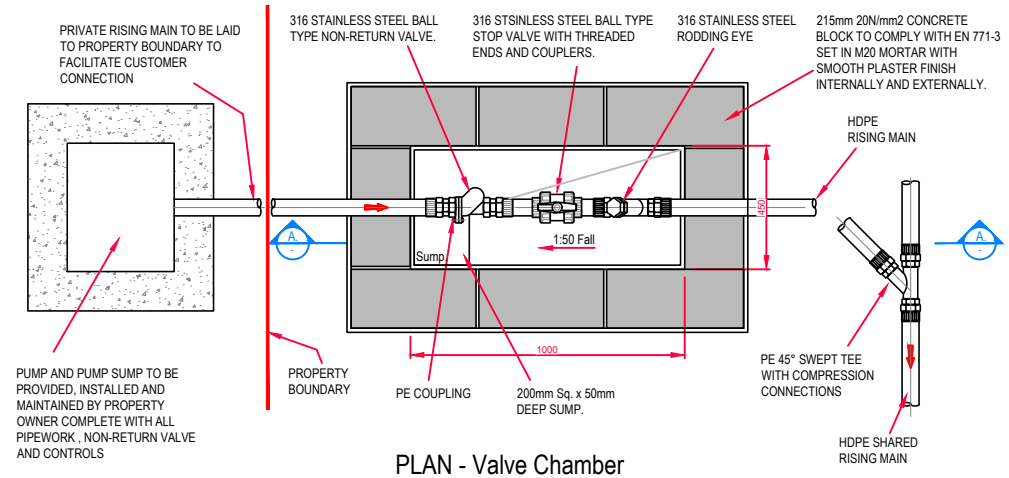
DATE: AUG. - 2025

TITLE

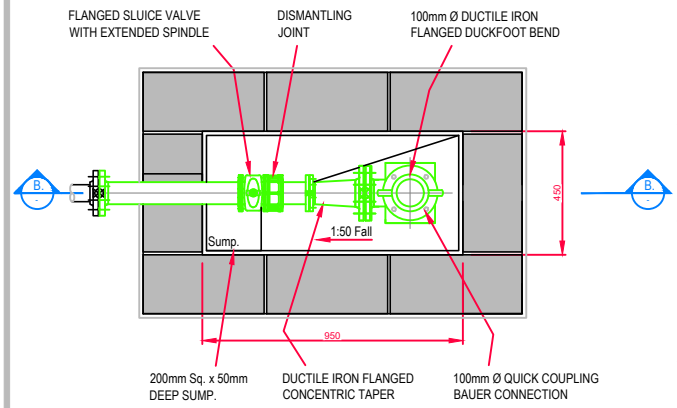
TYPICAL SHARED
RISING MAIN ARRANGEMENT

DRAWING No.: STD-WW-41

REV: 0

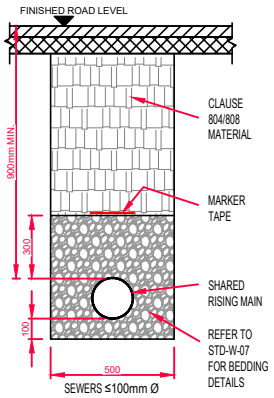


PLAN - Valve Chamber

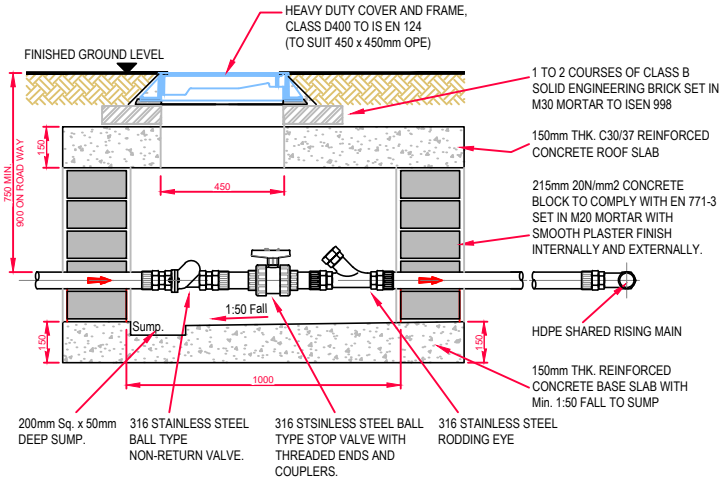


PLAN - End of Line Chamber

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. ACCESS POINTS SHOULD BE LOCATED SO THAT THEY ARE ACCESSIBLE AND APPARENT TO THE MAINTAINER AT ALL TIMES FOR USE. THEY SHOULD AVOID REAR GARDENS OR ENCLOSED LOCATIONS AND SHOULD NEVER BE OVERLAIN WITH SURFACE DRESSING, TOPSOIL, ETC.
3. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY UISCE ÉIREANN.
4. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
5. PROPRIETARY PREFABRICATED CHAMBER UNITS OR CAST-IN-SITU CONCRETE CHAMBERS MAY ALSO BE USED, SUBJECT TO REVIEW BY UISCE ÉIREANN.
6. CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 OR CLAUSE 808 MATERIAL AS PER STD-WW-07.
8. PREFABRICATED UNITS SHOULD HAVE WATER TIGHT JOINTS AND SHOULD BE INTERLOCKING TO PREVENT LATERAL MOVEMENT OF INDIVIDUAL SECTIONS OF THE UNIT.
9. THE SHARED RISING MAIN PIPE DIAMETER SHALL NOT BE LESS THAN 50mm ID.
10. THE DRAIN / SERVICE CONNECTION PIPE DIAMETER SHALL NOT BE GREATER THAN THE SHARED RISING MAIN DIAMETER AND IDEALLY WOULD HAVE A SMALLER PIPE DIAMETER.



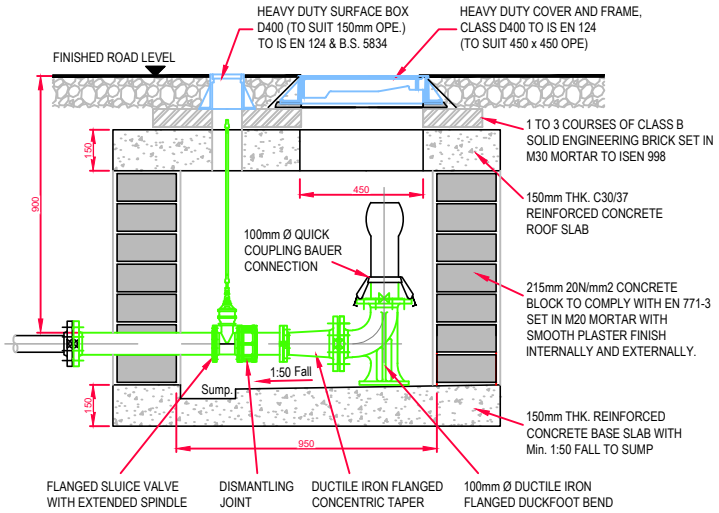
Trench Details



SECTION A-A - Valve Chamber

CHAMBER TYPE "A"

NOTE; -
A PRECAST CONCRETE CHAMBER OR IN-SITU CONCRETE CHAMBER ALTERNATIVE IS ACCEPTABLE SUBJECT TO UISCE ÉIREANN REVIEW.



SECTION B-B - End of Line Chamber

CHAMBER TYPE "B"

NOTE; -
A PRECAST CONCRETE CHAMBER OR IN-SITU CONCRETE CHAMBER ALTERNATIVE IS ACCEPTABLE SUBJECT TO UISCE ÉIREANN REVIEW.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

No.	Date	Drn	Chk	Description	App
0	08/'25	RH	M McG	Initial Issue	DP

SCALE: NOT TO SCALE

DATE: AUG. - 2025

TITLE

SHARED RISING MAIN
CHAMBER DETAILS

DRAWING No.: STD-WW- 42

REV: 0

STANDARD DETAILS FOR WASTEWATER NETWORKS: REVISION LOG – 05 (Aug. 2025)

Drg. No.	DRAWING TITLE	MATERIAL CHANGE	EDITORIAL CHANGE	REV	COMMENTS
STD-WW-01	WASTEWATER SERVICE CONNECTION MAINTENANCE RESPONSIBILITY			2	No change
STD-WW-02	TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENTS	Adjustments to Manhole Locations	Updated	3	Drawing revised
STD-WW-03	DRAIN AND SERVICE CONNECTION PIPEWORK	Note 3 removed	Updated notes	3	Drawing revised
STD-WW-04	TYPICAL SEWER / SERVICE PIPE CONNECTION			2	No change
STD-WW-05	TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES			3	Drawing revised
STD-WW-05A	WASRTEWATER SERVICE CONNECTION VERTICAL SEPARATION DISTANCES			0	No change
STD-WW-06	RESTRICTIONS ON WASTEWATER INFRASTRUCTURE WORKS ADJACENT TO TREES			2	No change
STD-WW-06A	RESTRICTIONS ON NEW TREES/SHRUBS PLANTING ADJACENT TO SEWERS	Indigenous Species Referenced	Updated notes	2	Drawing revised
STD-WW-07	TRENCH BACKFILL & BEDDING	Minor Revision to Notes	Updated Notes	3	Drawing revised
STD-WW-07A	DEPTH OF COVER REQUIREMENTS TO WASTEWATER PIPES			0	New Detail
STD-WW-08	CONCRETE PROTECTION SLAB, BED, HAUNCH, AND SURROUND TO WASTEWATER PIPES	Protection slab detail edited, concrete surround dimensions updated	Updated	2	Drawing revised
STD-WW-09	BLOCKWORK MANHOLE (<450mm DIA.)	Minor Dimensional Edits	Updated	4	Drawing revised
STD-WW-09A	MANHOLE ACCESS CLEAR OPE REQUIREMENTS			0	New Detail
STD-WW-10	PRE-CAST CONCRETE MANHOLE WITH CAST IN-SITU BASE	Revisions to Notes, Landing Area Defined	Updated	4	Drawing revised
STD-WW-10A	PRE-CAST CONCRETE MANHOLE WITH PRE-CAST BASE	Revisions to Notes – Redundant Channel Removed	Updated Notes	1	Drawing revised
STD-WW-10B	PRE-CAST CONCRETE PUMPING STATION INLET MANHOLE WITH CAST IN-SITU CONCRETE BASE	Revisions to Notes – Chamber Dimensions Updated	Updated	1	Drawing revised
STD-WW-10C	PRE-CAST CONCRETE PUMPING STATION INLET MANHOLE WITH PRE-CAST CONCRETE BASE	Revisions to Notes - – Chamber Dimensions Updated	Updated Notes	1	Drawing revised
STD-WW-11	IN-SITU CONCRETE MANHOLE	Step Iron and Ladder Offset revised	Updated	4	Drawing revised
STD-WW-11A	CAST IN-SITU CONCRETE PUMPING STATION INLET MANHOLE	Step Iron and Ladder Offset revised	Updated	1	Drawing revised
STD-WW-12	BACKDROP AND CASCADE MANHOLES	Revisions to Notes	Updated Notes	4	Drawing revised
STD-WW-13	PRIVATE SIDE INSPECTION CHAMBER	Benching Added – Notes Updated	Updated	4	Drawing revised
STD-WW-14	THRUST BLOCKS FOR RISING MAINS	Notes Revised	Updated Notes	3	Drawing revised
STD-WW-15	SCOUR VALVE CHAMBER (FOUL RISING MAIN ≤200mm DIA.)	Bauer Valve Included – Chamber Dimensions Increased		4	Drawing revised
STD-WW-16	SLUICE VALVE DETAILS FOR RISING MAINS DUCTILE IRON (D.I.) PIPE (<200mm DIA.) (Sheet 1 of 2)	Notes Revised	Updated Notes	5	Drawing revised
STD-WW-17	SLUICE VALVE DETAILS FOR RISING MAINS POLYETHYLENE (P.E.) PIPE (<200mm DIA.) (Sheet 2 of 2)	Notes Revised	Updated Notes	4	Drawing revised
STD-WW-18	AIR VALVE CHAMBER (FOUL RISING MAIN <200mm DIA.) Sheet 1 of 2	Added notes re sump		4	Drawing revised
STD-WW-18A	AIR VALVE CHAMBER (FOUL RISING MAIN <200mm DIA.) Sheet 2 of 2			0	New Detail
STD-WW-19	DUCT CHAMBER			3	No change
STD-WW-20	EMERGENCY OVERFLOW STRUCTURE & EMERGENCY OVERFLOW TO STORM SEWER	DRAWING RETIRED	DRAWING RETIRED	-	DRAWING RETIRED
STD-WW-21	TYPICAL DITCH/STREAM CROSSING FOR GRAVITY SEWER (Sheet 1 of 2)	Dimensions and Notes Added, Manhole Base aAdjusted	Updated	3	Drawing revised
STD-WW-22	TYPICAL DITCH/STREAM CROSSING FOR RISING MAIN (Sheet 2 of 2)	Notes Added	Notes Added	3	Drawing revised
STD-WW-22A	TYPICAL DITCH/STREAM CROSSING FOR POLYETHYLENE RISING MAIN	Notes Added	Notes Added	1	Drawing revised
STD-WW-23	TYPICAL BRIDGE CROSSING FOR RISING MAIN (Sheet 1 of 2)	DRAWING RETIRED	DRAWING RETIRED	-	DRAWING RETIRED
STD-WW-24	TYPICAL BRIDGE CROSSING FOR RISING MAIN	Notes Added	Notes Added	3	Drawing revised
STD-WW-24A	TYPICAL CULVERT AND SERVICES CROSSING DETAILS FOR RISING MAIN			0	No change
STD-WW-25	SECURITY GATE & FENCING PALISADE OPTION (PREFERRED)			0	No change
STD-WW-25A	SECURITY GATE & FENCING WIRE MESH OPTION			3	No change
STD-WW-26	INDICATIVE PUMPING STATION SITE LAYOUT ACCESS VIA LAY-BY	Security Fencing and noted added – Revisions to notes	Updated	2	Drawing revised
STD-WW-26A	INDICATIVE PUMPING STATION SITE LAYOUT DIRECT ACCESS FROM PUBLIC ROAD	Security Fencing and noted added – Revisions to notes	Updated	1	Drawing revised
STD-WW-27	FLOW METER CHAMBER (FOUL RISING MAIN ≤200mm DIA.) CAST IN-SITU CONCRETE OPTION	Detail Revised and Minor Edits to Notes	Updated Notes	4	Drawing revised
STD-WW-27A	FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200mm DIA.) PRECAST CONCRETE OPTION	Detail Revised and Minor Edits to Notes	Retitled Detail	1	Drawing revised
STD-WW-27B	FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200mm DIA.) PRECAST CONCRETE OPTION	DRAWING RETIRED	DRAWING RETIRED	-	DRAWING RETIRED
STD-WW-27C	FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200mm DIA.) PRECAST CONCRETE OPTION	DRAWING RETIRED	DRAWING RETIRED	-	DRAWING RETIRED
STD-WW-28	CAST IN-SITU INDICATIVE SUBMERSIBLE PUMPING STATION			3	No change
STD-WW-28A	INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION WITH CAST IN-SITU VALVE CHAMBER	Minor Revisions to Notes, Precast Pumping Station Altered	Updated & notes revised	3	Drawing revised
STD-WW-28B	INDICATIVE ALTERNATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION AND PRECAST VALVE CHAMBER	Minor Revisions to Notes, Precast Pumping Station and Valve Chamber Altered	Updated & notes revised	1	Drawing revised
STD-WW-29	RISING MAIN DISCHARGE STAND OFF MANHOLE	Rising Main Pipe Material Included	Updated	4	Drawing revised
STD-WW-30	TYPE 1 PUMPING STATION CONTROL KIOSK	Notes and Kiosk Height Updated, Side Flap & Earth Rod Included	Updated & notes revised	4	Drawing revised
STD-WW-30A	TYPE 2 AND TYPE 3 PUMPING STATION CONTROL KIOSK	Notes and Kiosk Height Updated, Side Flap & Earth Rod Included	Updated & notes revised	1	Drawing revised
STD-WW-31	PUMPING STATION WET KIOSK	Plan Detail Updated	Updated	4	Drawing revised
STD-WW-31A	PUMPING STATION WET KIOSK WATER SERVICE CONNECTION ARRANGEMENT	Lever Valve and Non-Return valve Included in Kiosk	Updated	1	Drawing revised
STD-WW-32	HARDSTANDING AREA PUMPING STATION	Depth of Clause 804 Fill Carified, Permeable Surface Removed	Updated	3	Drawing revised
STD-WW-33	LAMP BOLLARD & LAMP STANDARD	Minor Dimensional Correction	Updated	3	Drawing revised
STD-WW-34	VENT STACK	Notes Updated, Option “B” added.	Updated	3	Drawing revised
STD-WW-35	RISING MAIN RODDING CHAMBER IN-SITU CONCRETE OPTION	Chamber Dimensions Altered, Connection to Scour Chamber Included	Updated	1	Drawing revised
STD-WW-35A	RISING MAIN RODDING CHAMBER PRE-CAST CONCRETE OPTION	Chamber Dimensions Altered, Connection to Scour Chamber Included	Updated	1	Drawing revised
STD-WW-36	MARKER POSTS/PLATES	Alternate Option Included	Updated	1	Drawing revised
STD-WW-37	Section showing wastewater services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageway			0	No change
STD-WW-38	Layout plan showing below ground services separation details in high density developments 2.5m wide footpaths with 6.0m wide carriageway			0	No change
STD-WW-39	Section showing wastewater services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageway.			0	No change
STD-WW-40	Layout plan showing below ground services separation details in high density developments 1.8m wide footpaths, 2.5m wide parallel parking bays with 6.0m wide carriageway.			0	No change
STD-WW-41	TYPICAL SHARED RISING MAIN ARRANGEMENT			0	New Detail
STD-WW-42	SHARED RISING MAIN CHAMBER DETAILS			0	New Detail
/	INDEX SHEET	Inclusion of STD-W-07A, STD-W-09A, STD-W-41 & STD-W-42	Drawing revisions updated	Mar. 2025	Drawing updated