

WASTE WATER INFRASTRUCTURE

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER DOCUMENTS IW-CDS-5030-01 (STANDARD DETAILS) & IW-CDS-5030-03 (CODE OF PRACTICE).

INDIVIDUAL WASTEWATER CONNECTION TO EACH DWELLING WILL BE AS PER STANDARD DETAIL DRAWING STD-WW-02.

REFER TO SECTION 3.2 FOR SERVICE CONNECTION GRADIENTS.

THE INSPECTION CHAMBER WILL BE IN COMPLIANCE WITH STD-WW-03 AND STD-WW-13 AND WILL BE LOCATED WITHIN 1M OF EACH SITE BOUNDARY.

PIPE MATERIALS SHALL COMPLY WITH SECTION 3.13. OF THE IRISH WATER CODE OF PRACTICE.

PIPE MATERIALS WILL BE UNPLASTICIZED PVC FOR THE MAIN SEWERS AS PER SECTION 3.13.3 OF THE IRISH WATER CODE OF PRACTICE.

COMPLIANCE WITH STANDARD DETAILS DRAWINGS STD-WW-5, STD-WW-6 & STD-WW-6A SHALL BE ADHERED TO REGARDING SEPARATION DISTANCES FROM OTHER SERVICES, BOUNDARY WALLS & TREES.

MANHOLES WILL CONFORM TO STANDARD DETAILS STD-WW-09, STD-WW-10, STD-WW-11 AND/OR STD-WW-12 AS APPROPRIATE.

SEPARATION DISTANCES FROM FOUL SEWERS TO STRUCTURES AND OTHER UTILITIES WILL COMPLY WITH SECTION 3.5 OF THE IRISH WATER CODE OF PRACTICE.

REFER TO STD-W-12A, STD-WW-06, STD-WW-06A & 326 OF THE IRISH WATER CODE OF PRACTICE FOR PLANTING RESTRICTIONS OF WATER AND WASTE WATER. ROOT PROTECTION TO BE REEROD 2000 OR SIMILAR.

REFER TO DETAILS STD-W-11 FOR TYPICAL SERVICES LAYOUT DISTANCES & STD-WW-05 FOR WASTEWATER TYPICAL SERVICES LAYOUT AND 321 IRISH WATER WASTEWATER CODE OF PRACTICE.

REFER TO SECTION 3.5.16 OF THE WASTE WATER IRISH WATER CODE OF PRACTICE FOR UNAVOIDABLE SERVICES CROSSOVER.

MANHOLE COVERS LOCATED IN GRASS AREAS TO HAVE 200mm ALL ROUND CONCRETE PLINTH AND 100mm DEEP FORMED C8 CONCRETE, 20mm AGGREGATE, BEDDED IN CLAUSE 804 MATERIAL.

REFER TO 3.5.13 OF THE IRISH WATER CODE OF PRACTICE FOR STAGGERED MANHOLE SYSTEMS DETAILS.

EXTERNAL FACE OF PROPOSED MANHOLE CHAMBER TO BE A MINIMUM OF 0.5m FROM KERB LINE AND EXTERNAL FACE OF SEWERS ARE A MINIMUM OF 9M FROM KERB LINE. SEE SECTION 3.5.15 OF IRISH WATER WASTEWATER CODE OF PRACTICE.

CONFIRMATION BY A CHARTERED ENGINEER AND TEST RESULT CERTIFICATES INDICATING THAT THE WASTEWATER INFRASTRUCTURE HAS UNDERGONE APPROPRIATE ON-SITE TESTING AND COMMISSIONING. THE APPROPRIATE SITE TESTS FOR WASTEWATER COLLECTION INFRASTRUCTURE WOULD BE AS FOLLOWS:

- AIR TESTS AND WATER TESTS COMPLETION RESULTS FOR SEWERS
- WATER RETAINING TESTS COMPLETION RESULTS FOR MANHOLES AND PUMPING STATION STRUCTURES
- PRESSURE TESTING COMPLETION RESULTS OF RISING MAINS COMPLETE WITH A HARD COPY PRINT OUT FROM THE LOGGER OF THE RELAXATION CURVE AS PROOF OF THE OUTCOME OF THE TEST (IGN 4-01-93 COMPLIANT REPORT)
- A PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH JOINT (HDPE WELDING)
- PUMPING STATIONS - TESTING & COMMISSIONING REPORTS

WASTEWATER INFRASTRUCTURE - CCTV & MANHOLE SURVEY REPORTS

REPORTING AND DELIVERING - THE FINAL REPORTS AND DELIVERABLES TO IRISH WATER SHALL INCLUDE THE FOLLOWING ITEMS:

- A - CCTV SURVEY FOOTAGE FILES IN "XML" FORMAT SUBMITTED TO IRISH IN ACCORDANCE WITH MSC, 5TH ADDITION, COMPATIBLE WITH INFONET.
- B - CCTV REPORTS/REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN CD OR DVD FORMAT WITH A HARD COPY OF THE SURVEY REPORT.
- C - MANHOLE SURVEY REPORTS/REPORTS SUBMITTED IDENTIFYING THAT NO DEFECTS EXIST. REPORTS SUBMITTED IN "CSC" FORMAT ON CD OR DVD WITH A HARD COPY OF THE SURVEY REPORTS. MANHOLE REFERENCING SHALL BE CONSISTENT WITH THE AS CONSTRUCTED DRAWINGS - TO IRISH NATIONAL GRID COORDINATES (INGI) TO +/- 100mm ACCURACY IN THE HORIZONTAL PLANE, WITH DIMENSIONS RELATING TO FIXED ORDNANCE SURVEY CO-ORDINATES.
- D - CERTIFICATION FROM THE CUSTOMERS CONSULTANT ENGINEER, CONFIRMATION THAT A QUALITY CONTROL REGIME HAS BEEN IMPLEMENTED WITH THE RESULT THAT NO DEFECTS EXIST IN EITHER THE SEWERS OR THE MANHOLES.

NOTES

WATER INFRASTRUCTURE

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER DOCUMENTS IW-CDS-5020-01 (STANDARD DETAILS) & IW-CDS-5020-03 (CODE OF PRACTICE).

WATER BOUNDARY BOXES TO BE IN COMPLIANCE WITH THE IW CODE OF PRACTICE AND STANDARD DETAILS.

PIPE MATERIALS SHALL BE IN COMPLIANCE WITH SECTION 3.9 OF THE CODE OF PRACTICE.

COMPLIANCE WITH STANDARD DETAILS DRAWINGS STD-W-11, STD-W-12 & STD-W-12A SHALL BE ADHERED TO REGARDING SEPARATION DISTANCES FROM OTHER SERVICES, BOUNDARY WALLS & TREES.

SCOUR CHAMBER TO BE CONSTRUCTED AS PER IRISH WATER STANDARD DETAIL DRAWING STD-W-30.

BYPASS FLOW METER TO BE CONSTRUCTED AS PER IRISH WATER STANDARD DETAIL DRAWING STD-W-26F.

CONFIRMATION BY A CHARTERED ENGINEER AND TEST RESULT CERTIFICATES & REPORTS INDICATING THAT THE WATER INFRASTRUCTURE HAS UNDERGONE APPROPRIATE ON-SITE TESTING, OFF-SITE TESTING AND COMMISSIONING. THE APPROPRIATE SITE TESTS FOR WATER COLLECTION INFRASTRUCTURE WOULD BE AS FOLLOWS:

- IGN TEST REPORTS - WATERMAIN PRESSURE TESTING
- SERVICE CONNECTION TEST RESULTS
- ELECTRO/BUTT FUSION WELD TEST REPORTS (DESTRUCTIVE TESTING)
- PRINTOUT OF THE JOINT DETAILS, WITH A GPS LOCATION OF EACH ELECTROFUSION & BUTT FUSION JOINT
- TESTING COMPLETION RESULTS FOR BOOSTER PUMP PLANT (IF APPLICABLE)
- SWABBING & FLUSHING RECORDS
- DISINFECTION TEST REPORTS (ACCREDITED LABORATORY REPORT)
- WATER QUALITY SAMPLING RESULTS (ACCREDITED LABORATORY REPORT)

AS CONSTRUCTED DRAWINGS:

AS CONSTRUCTED RECORD DRAWINGS (IN HARD COPY AND DIGITAL FORMAT) SHALL SHOW THE LOCATION, LAYOUT PLANS, LONGITUDINAL SECTIONS AND DETAILS OF THE WORKS AND THE DEVELOPMENT IN FULL. PLAN SCALES SHOULD BE IN COMMON USE, IE 1:200, 1:500, 1:1000 OR 1:2500 AS APPROPRIATE. DRAWINGS SHOULD BE PREPARED USING AN ELECTRONIC SYSTEM AND SUBMITTED IN STANDARD "CAD COMPATIBLE (DWG/DXF)" FILE FORMAT. THESE DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION:

- LOCATIONS OF ALL VALVES, HYDRANTS, SCOUR VALVES OR WASHOUT HYDRANTS, METERS, DUCTS, TAPPING LOCATIONS, WATER MAIN AND SERVICE PIPES, BOUNDARY BOXES, ETC. COMPLETE WITH LEGENDS TO IRISH WATER'S REQUIREMENTS.
- DETAILED PIPE MATERIAL TYPES, SIZES, CONNECTION DETAILED PLANS OF PIPE BRANCHES, SHOWING VALVE LOCATIONS, ETC.
- LOCATIONS OF ASSETS ARE TO BE TO +/- 100MM ACCURACY IN THE HORIZONTAL PLANE TO THE CENTRE OF THE ASSET, WITH DIMENSIONS RELATING TO FIXED IRISH NATIONAL GRID (ING) CO-ORDINATES.
- COVER LEVEL FOR WATER MAIN FITTINGS AND INTERMITTENT WATER MAIN INVERT LEVELS RELATING TO FIXED ORDNANCE SURVEY DATUM (MALIN HEAD) TO AN ACCURACY OF +/- 200MM.
- LONGITUDINAL SECTIONS, TO AN EXAGGERATED VERTICAL SCALE, (SUCH AS 1:1000 HORIZONTAL AND 1:100 VERTICAL) SHOWING INSTALLED LEVELS, COMPLETED GROUND LEVELS, INVERT LEVELS, PIPE SIZES, BEDDING, HAUNCH AND SURROUND DETAILS, BACKFILL DETAILS, TOGETHER WITH CHAMBER LOCATIONS, CHANGES, GRADIENTS, PIPE MATERIALS, ETC. ALL CHAMBERS FOR WATER SUPPLY FITTINGS SHALL BE IDENTIFIED AND PROVIDED WITH LOCATION CO-ORDINATES TO IRISH NATIONAL GRID (ING) DETAILS OF ANY SERVICES AND STRUCTURES ON THE SITE, ESPECIALLY THOSE IN CLOSE PROXIMITY TO THE WORKS INCLUDING OFFSET MEASUREMENT TO THE WATER SUPPLY SYSTEM.
- DWELLING AND BUILDING NUMBERS.
- CONSTRUCTION DETAILS OF PUMP STATION AS WELL AS MECHANICAL, ELECTRICAL AND INSTRUMENTATION EQUIPMENT DETAILS.
- DETAILS OF SERVICES AND STRUCTURES ON THE SITE, EXISTING AND PROPOSED, ESPECIALLY THOSE IN CLOSE PROXIMITY TO THE WORKS INCLUDING OFFSETS MEASUREMENTS TO THE WORKS.

LEGEND

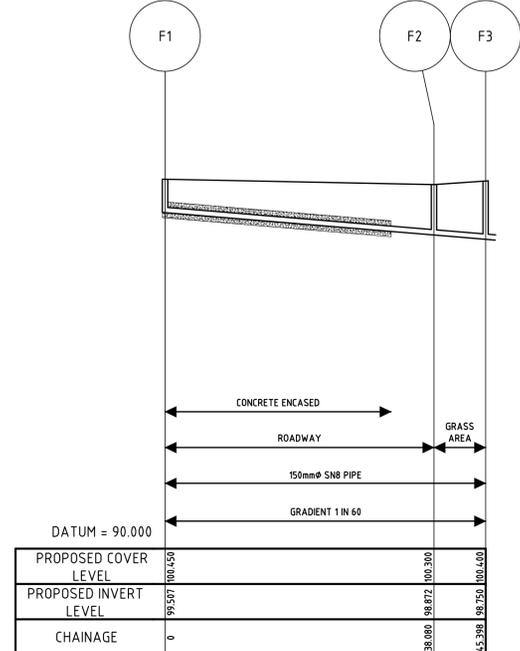
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- 100mm STORM CONNECTION
- PROPOSED STORM MANHOLE
- ROAD GULLY
- PROPOSED PIPED DRAIN
- PROPOSED FOUL SEWER
- EXISTING FOUL SEWER
- 100mm FOUL CONNECTION
- PROPOSED FOUL MANHOLE
- IRISH WATER INSPECTION CHAMBER
- FINISHED FLOOR LEVELS
- FINISHED ROAD LEVELS
- SITE BOUNDARY

STORMWATER SEWER

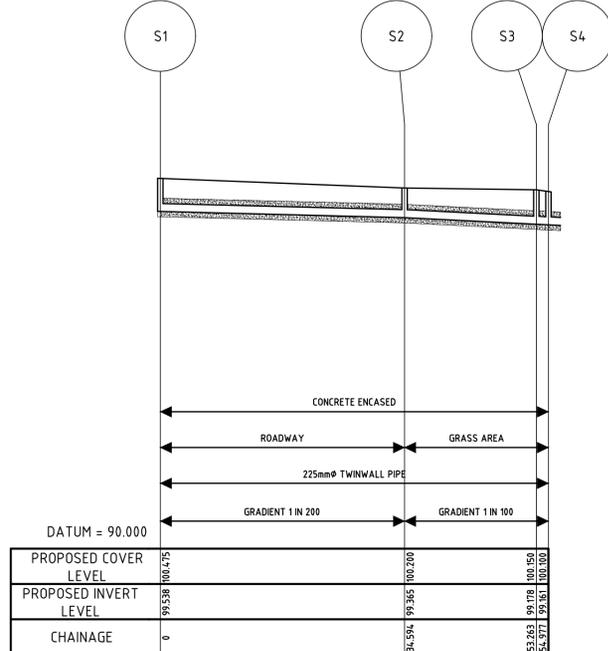
MANHOLE REF	MANHOLE TYPE (AS PER IRISH WATER CODE OF PRACTICE)	COVER LEVEL	INVERT LEVEL IN
S1	1.2m	100.475	99.538
S2	1.2m	100.200	99.365
S3	1.2m	100.150	99.178
S4	1.2m	100.100	99.161

FOUL SEWER

MANHOLE REF	MANHOLE TYPE (AS PER IRISH WATER CODE OF PRACTICE)	COVER LEVEL	INVERT LEVEL IN
F1	1.2m	100.450	99.507
F2	1.2m	100.300	98.872
F3	1.2m	100.400	98.750



PROPOSED FOUL SEWER SECTIONS F1-F3
HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100



PROPOSED FOUL SEWER SECTIONS S1-S4
HORIZONTAL SCALE 1:50
VERTICAL SCALE 1:100

T1	18/08/2023	ISSUED FOR TENDER	JOR
REV.	DATE	DESCRIPTION	APPROVED
COPYRIGHT RESERVED- THIS DRAWING IS NOT TO BE USED FOR A PURPOSE OTHER THAN THAT FOR WHICH IT HAS BEEN ISSUED BY ALAN TRAYNOR CONSULTING ENGINEERS. NOR IS IT TO BE COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN CONSENT.			
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CLIENT CAVAN COUNTY COUNCIL			
PROJECT TITLE PROPOSED RESIDENTIAL DEVELOPMENT AT ASH GROVE, DERRYLURGAN, BALLYJAMESDUFF, CO. CAVAN			
DRAWING TITLE PROPOSED SITE SERVICE LAYOUT FOUL AND SURFACE WATER SEWERS			
SCALE	DRAWN	CHECKED	APPROVED
1:200	ADDHAGAN O'REILLY	LIAM MCELGUNN	ALAN TRAYNOR
	DATE	DATE	DATE
	JULY 2023	JULY 2023	JULY 2023
DRAWING No.	REV.		
23-105-100			T1