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A1

GENERAL NOTES: -

ALL SETTING OUT DIMENSIONS TO BE CHECKED AGAINST ARCHITECTS DRAWINGS. ARCHITECTS DRAWINGS TO TAKE PRECEDENCE.

DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. ALL DISCREPANCIES TO BE NOTIFIED, IN WRITING TO ENGINEERS AND ARCHITECTS FOR RESOLUTION. ALL SETTING-OUT TO BE TAKEN FROM THE ARCHITECTS DRAWINGS.

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM. OTHER STANDARDS MAY BE CONSIDERED BUT ONLY WITH PRIOR APPROVAL BY THE ENGINEER.

OPTIONS ARE FOR CONTRACTORS CONVENIENCE. HE SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE CHOOSES AN OPTION AND HE SHALL COORDINATE ALL DETAILS.

ALL DIMENSIONS ON DRAWINGS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS ONLY APPLY. DRAWINGS ARE NOT TO BE SCALED.

ALL LEVELS ARE RELATED TO THE ORDNANCE DATUM (OD) - MALIN HEAD.

THE CONTRACTOR SHALL NOTE, AND MAKE ALLOWANCES FOR, THE MEASURES NECESSARY TO COMPLY WITH THE WASTE MINIMIZATION AND RECYCLING TARGETS SET OUT IN THE SPECIFICATION.

FOUNDATIONS: -

REFER TO PROJECT SPECIFICATION FOR STRUCTURAL NOTES

MASONRY: -

REFER TO DRAWING PROJECT SPECIFICATION FOR STRUCTURAL NOTES

REINFORCED CONCRETE: -

CEMENT SHALL BE ORDINARY PORTLAND CEMENT COMPLYING WITH IS1 OR BS12 UNLESS OTHERWISE APPROVED. REINFORCEMENT SHALL BE HOT ROLLED DEFORMED BARS COMPLYING WITH BS 4449. ALL HIGH YIELD BARS SHALL BE DEFORMED BARS TYPE 2. STEEL FABRIC SHALL COMPLY WITH BS 4483.

ALL CONCRETE SHALL BE IN ACCORDANCE WITH BS EN 206-1:2000.

CONCRETE GRADE TO BE MINIMUM - C30/37.

MINIMUM CEMENT CONTENT TO BE 300kg/m3.

MAXIMUM FREE WATER/CEMENT RATIO TO BE 0.60.

FOR CONCRETING IN COLD WEATHER REFER TO THE CONCRETE SPECIFICATION AND TO THE PROVISIONS OF EC2.

MOVEMENT JOINT SEALANT SHALL BE A TWO PART POLYSULPHIDE SEALANT SUCH AS THIOFLEX 600 BY FOSROC INTERNATIONAL OR AN APPROVED EQUAL, UNLESS NOTED OTHERWISE.

CONCRETE VERTICAL SURFACES ADJOINING MASONRY WALLS SHALL BE CAST WITH A CONTINUOUS STAINLESS STEEL PROPRIETARY CHANNEL BY ANCON CCL OR SIMILAR APPROVED, TO RECEIVE DOVETAIL S.S. WALL TIES.

PROVIDE A MINIMUM OF 48 HOURS NOTICE TO THE ENGINEER FOR INSPECTION OF ALL REINFORCING STEEL PRIOR TO PLACING CONCRETE (REFER TO PRELIMINARY INSPECTION PLAN AS REQUIRED).

CONCRETE CUBES SHALL BE TAKEN AT A RATE OF ONE SET OF THREE CUBES PER 20m3 OR FRACTION THEREOF, WITH A MINIMUM OF ONE SET PER DAY PER CLASS OF CONCRETE. CUBES SHALL BE TESTED AT 7 AND 28 DAYS.

ALL SAMPLING AND TESTING OF CONCRETE TO COMPLY WITH BS 1881. ALL THE RESULTS SHALL BE FORWARDED DIRECTLY TO THE ENGINEER.

CORE DRILLING OF ANY REINFORCED CONCRETE ELEMENTS OF THE WORK SHALL NOT BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

CONTRACTOR TO NOTE THE EXPOSED PLYWOOD SHUTTERING JOINTS WILL NEED TO FOLLOW THE BUILDING MODULE DIMENSIONS OF 1500mm AND 30000mm.

ALL REINFORCEMENT SHALL BE HOT ROLLED DEFORMED BARS COMPLYING WITH BS 4449. ALL HIGH YIELD BARS SHALL BE DEFORMED BARS TYPE 2. STEEL FABRIC SHALL COMPLY WITH BS 4483.

GENERAL DRAINAGE: -

ALL PIPE DIAMETERS ARE NOMINAL.

THE CONTRACTOR MUST CONTACT THE RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION WORK & SATISFY HIMSELF IN RESPECT OF THE LOCATION OF ALL EXISTING SERVICES.

ABANDONED PIPE RUNS TO BE BROKEN OUT & TRENCH TO BE BACKFILLED WITH COMPACTED S.R. 21 ANNEX E STRUCTURAL FILL MATERIAL TO FORMATION LEVEL.

ABANDONED MANHOLES TO BE BROKEN OUT TO FORMATION & BACKFILLED WITH COMPACTED S.R. 21 ANNEX E STRUCTURAL FILL MATERIAL TO FORMATION LEVEL. ALTERNATIVELY, PIPE AND MANHOLE TO BE FILLED WITH FOAM CONCRETE.

ALL SEWER ROCKER PIPES ARE TO BE FORMED BY CUTTING AND TRIMMING A LENGTH OF SPIGOT & SOCKET PIPE TO FORM A SPIGOT AT THE CUT END, THEREBY FORMING SPIGOT & SOCKET JOINTS AT BOTH ENDS OF THE ROCKER PIPE.

ALL ROCKER PIPES SHALL BE NO MORE THAN 150mm FROM THEIR ASSOCIATED MANHOLE, PUMPING STATION, CONCRETE ENCASED SECTION OR VALVE CHAMBER.

ROCKER PIPES ARE TO BE PROVIDED ON SEWERS WHERE:
(A). A PIPE ENTERS A MANHOLE OR PUMPING STATION.
(B). A PIPE LEAVES A MANHOLE.
(C). A PIPE ENTERS CONCRETE ENCASEMENT.
(D). A PIPE LEAVES CONCRETE ENCASEMENT.
(E). AN OTHER LOCATION AS DIRECTED BY THE ENGINEER.

PIPE SIZE (ID) mm	ROCKER PIPE LENGTH
150 TO 600	600mm
600 TO 750	1000mm
> 750	1250mm

WHERE SEWER PIPES AND RISING MAINS CONNECT TO EXISTING MANHOLES, THE CONTRACTOR IS REQUIRED TO:
(A). CONTACT THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK.
(B). MAKE GOOD THE EXISTING CHAMBER WALL AT THE PROPOSED POINT AND ADJUST THE EXISTING BENCHING TO THE SATISFACTION OF THE ENGINEER.

WHERE SEWER PIPES, RISING MAINS & ROAD GULLY DRAINS CROSS EXISTING ROADS, THE CONTRACTOR IS REQUIRED TO:
(A). CONTACT THE RELEVANT AUTHORITIES PRIOR TO COMMENCING WORK.
(B). MAKE GOOD THE EXISTING ROAD TO THE SATISFACTION OF THE ENGINEER.
LOCKABLE COVERS TO BE PROVIDED TO ALL PRIVATE MANHOLES GREATER THAN 1.8m DEEP.

GRAVITY SEWER PIPE MATERIAL TYPES:
CONCRETE:
CONCRETE SEWER PIPES WITH SPIGOT AND SOCKET JOINTS AND RUBBER RING FITTINGS SHALL COMPLY WITH IS EN 1916 (2002), BS 5911, PART 1 (2002 - 2010) AND IS 6 (2004) OR EQUIVALENT STANDARD, STRENGTH CLASS 120 WITH MINIMUM CRUSHING LOADS IN ACCORDANCE WITH TABE 8 OF BS 5911-1 (2002 - 2010). ALL PIPES AND FITTINGS SHALL HAVE GASKET TYPE JOINTS OF SPIGOT AND SOCKET OR REBATED FORM (PIPE DIAMETERS 225mm, AND ABOVE).

THERMOPLASTIC STRUCTURED WALL PIPES:
THERMOPLASTIC STRUCTURED WALL PIPES SHALL COMPLY WITH THE PROVISIONS OF IS EN 13476 (2007/2009). PIPES TO BE OF STIFFNESS CLASS 8KN/M² AND TO BE CAPABLE FOR DEMONSTRATING A JETTING RESISTANCE OF 2,600 PSI (180 BAR) WITHOUT DAMAGE WHEN TESTED IN ACCORDANCE WITH SECTION 3.3 OF WIS 4-35-01 (2008). (SEWER DIAMETERS 150mm UP TO 450mm, SERVICE CONNECTIONS TO 100mm DIAMETER).

UNPLASTICISED PVC:
UNPLASTICISED PVC PIPES AND FITTINGS SHALL COMPLY WITH THE PROVISIONS IS EN 1401 2009/2012. PIPES TO BE APPLICATION AREA CODE "ID", STIFFNESS CLASS 8KN/M². PROVISION FOR JETTING SHALL BE BASED ON THE WRC SEWER JETTING CODE OF PRACTICE, JUNE 1997. PIPES TO BE CAPABLE OF RESISTING A MAXIMUM JETTING PUMP PRESSURE OF 2,600 PSI (180 BAR) WITHOUT DAMAGE. (SEWER DIAMETERS 150mm UP TO 450mm, SERVICE CONNECTIONS OF 100mm DIAMETER).

RISING MAIN PIPE MATERIAL TYPES:
DUCTILE IRON: DUCTILE IRON PIPES AND FITTINGS FOR WASTEWATER SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 598. THE PIPES AND FITTINGS SHALL BE CEMENT LINED INTERNALLY AND ZINC COATED WITH AN APPROVED BITUMINOUS COATING EXTERNALLY. DUCTILE IRON PIPES MAY REQUIRE PLASTIC SHEETING PROTECTION IN ADVERSE GROUND CONDITIONS IN ACCORDANCE WITH BS 6076.
POLYETHYLENE: POLYETHYLENE PIPES AND FITTINGS FOR WASTEWATER SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 12201. POLYETHYLENE FITTINGS, INCLUDING FUSION JOINTS AND ELECTRO-FUSION FITTINGS, SHALL COMPLY WITH THE PROVISIONS OF IS EN 12201 - PART 3.
POLYETHYLENE PIPES SHALL ALSO CONFORM TO THE FOLLOWING UK WATER INDUSTRY SPECIFICATION DOCUMENTS:
WIS 4-32-08 - SPECIFICATION FOR THE FUSION JOINTING OF POLYETHYLENE PRESSURE PIPELINE SYSTEMS USING PE80 AND PE100 MATERIALS.
WIS 4-32-16 - SPECIFICATION FOR BUTT FUSION JOINTING MACHINES
WIS 4-32-18 - THE CHOICE OF PRESSURE RATING FOR POLYETHYLENE PIPE SYSTEMS FOR WATER SUPPLY AND SEWERAGE DUTIES.
IGN 4-01-03 - PRESSURE TESTING OF PRESSURE PIPES AND FITTINGS FOR USE BY PUBLIC WATER SUPPLIES.

WATERMAIN: -

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED

ALL LEVELS ARE IN METRES ABOVE DATUM, UNLESS OTHERWISE NOTED.

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS & MANUFACTURERS DRAWINGS & SPECIFICATIONS AND IRISH WATER.

ALL PIPE DIAMETERS ARE NOMINAL.

WATER MAINS SHALL BE EITHER DUCTILE IRON (DI) OR POLYETHYLENE (PE), WITH PE80 OR PE100 RATING (MDPE, HDPE OR HPPE). ALL PLASTIC WATER PIPES SHALL BE BLUE IN COLOUR. U-PVC PIPES SHALL NOT BE USED ON WATER SUPPLY NETWORKS. THE FOLLOWING PIPES MATERIAL CAN BE USED:

PIPE SIZE (ID) mm	PIPE MATERIAL
25 TO 80	HDPE AND MDPE (PE-80)
100 TO 150	HDPE, MDPE (PE-80) AND DI
200 TO 300	HPPE (PE-100), HDPE, MDPE (PE-80) AND DI
350 TO 600	HPPE (PE-100) AND DI
> 600	DI

DUCTILE IRON (DI) PIPES SHALL CONFORM TO IS EN 545 AND SHALL HAVE A MINIMUM C40 PRESSURE RATING. DUCTILE IRON FITTINGS SHALL HAVE 16 BAR RATING AT LEAST. ALL DUCTILE IRON PIPEWORK SHALL BE COATED INTERNALLY WITH A BLAST FURNACE CEMENT LINING WHICH COMPILES WITH THE REQUIREMENTS OF BS 6920. EXTERNAL PROTECTION SHALL INCLUDE AN ALLOY OF ZINC AND ALUMINIUM, WITH A MINIMUM 15% ALUMINIUM, WITH OR WITHOUT OTHER MATERIALS, HAVING A MASS OF 400 G/M² COMPLETE WITH A FINISHING LAYER OF BLUE FUSION BONDED EPOXY IN ACCORDANCE WITH IS EN 14901.

MDPE AND HDPE PIPES SHALL BE OF A TYPE PE-80 AND HAVE AN SDR-11 OR SDR-17 RATING. THEY SHALL CONFORM TO IS EN 12201:PART 1 AND PART 2 (PLASTIC SYSTEMS FOR WATER SUPPLY DRAINAGE AND SEWERAGE UNDER PRESSURE - PART 1, GENERAL AND PART 2 PIPES) AND IS EN 12201-3 (PLASTIC SYSTEMS FOR WATER SUPPLY, DRAINAGE AND SEWERAGE UNDER PRESSURE - PART 3: FITTINGS).

HPPE PIPES SHALL BE OF A TYPE PE-100 AND HAVE AN SDR-11 OR SDR-17 RATING. THEY SHALL CONFORM TO IS EN 12201:PART 1 AND PART 2 (PLASTIC SYSTEMS FOR WATER SUPPLY, DRAINAGE AND SEWERAGE UNDER PRESSURE - PART 1, GENERAL, AND PART 2, PIPES) AND IS EN 12201-3 (PLASTIC SYSTEMS FOR WATER SUPPLY, DRAINAGE AND SEWERAGE UNDER PRESSURE - PART 3: FITTING).

POLYETHYLENE PIPES SHALL ALSO CONFORM TO THE FOLLOWING UK WATER INDUSTRY SPECIFICATIONS (WIS):
4-32-08 - SPECIFICATION FOR THE FUSION JOINTING OF POLYETHYLENE PRESSURE PIPELINE SYSTEMS USING PE80 AND PE100 MATERIALS
4-32-16 - SPECIFICATION FOR BUTT FUSION JOINTING MACHINES
4-32-19 - SPECIFICATION FOR POLYETHYLENE PRESSURE PIPELINE SYSTEMS WITH AN ALUMINIUM BARRIER LAYER FOR POTABLE WATER SUPPLY IN CONTAMINATED LAND
IGN-4-01-03 - PRESSURE TESTING OF PRESSURE PIPES AND FITTINGS FOR USE BY PUBLIC WATER SUPPLIES

SERVICE CONNECTION PIPES SUITABLE FOR WORKS SHALL BE OF MDPE OR HDPE (PE-80) MATERIAL WITH SDR-11 OR SDR-17 RATING. ALL PLASTIC WATER SERVICE CONNECTION PIPES SHALL BE BLUE IN COLOUR. THE MDPE, HDPE AND HPPE SERVICE PIPES SHALL COMPLY WITH IS EN 12201 PART 2 (PLASTIC SYSTEMS FOR WATER SUPPLY, DRAINAGE AND SEWERAGE UNDER PRESSURE - PART 2 PIPES) AND IS EN 12201 PART 3 (PLASTIC SYSTEMS FOR WATER SUPPLY, DRAINAGE AND SEWERAGE UNDER PRESSURE - PART 3: FITTINGS) AND WITH UK WIS 4-32-08 (SPECIFICATION FOR THE FUSION JOINTING OF POLYETHYLENE PRESSURE PIPELINE SYSTEMS USING PE80 AND PE100 MATERIALS).

THE CONTRACTOR MUST CONTACT THE RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION WORK & SATISFY HIMSELF IN RESPECT OF THE LOCATION OF ALL EXISTING SERVICES.

ABANDONED WATERMAIN TO BE CUT AND CAPPED TO REQUIREMENTS OF IRISH WATER. EXISTING WATERMAIN TO BE BROKEN OUT AND TRENCH BACKFILLED WITH CLAUSE 804 MATERIAL.

CONNECTION TO PUBLIC WATERMAIN TO BE MADE BY LOCAL AUTHORITY WATERMAIN DIVISION / IRISH WATER CONTRACTOR.

POSITIONS OF FIRE HYDRANTS TO BE AGREED WITH LOCAL AUTHORITY FIRE OFFICER.

LOCATION OF STOPCOCK TO BE LOCATED IN PUBLIC FOOTPATH AREA AS PER IRISH WATER DETAILS.

INSTALLATION, TESTING AND COMMISSIONING (FLUSHING, CLEANING, SCOURING, STERILISING,ETC.) OF THE WORKS SHALL BE CARRIED OUT AND BACTERIOLOGICAL TESTS UNDERTAKEN PRIOR TO CONNECTION TO IRISH WATER NETWORK. SERVICE CONNECTION SHALL ONLY BE MADE ONCE SUPPLY PIPEWORK HAS BEEN CONFIRMED TO HAVE PASSED THE SAMPLING TESTS INDICATION COMPLIANCE WITH STATUTORY INSTRUMENT 122 OF 2014, EUROPEAN UNION DRINKING WATER REGULATIONS 2014 AND IRISH WATER CODE OF PRACTICE FOR WATER INFRASTRUCTURE IW-CDS-5020-03.

WATERMAIN TO BE INSTALLED AS PER FOLLOWING IRISH WATER SPECIFICATIONS & STANDARD DETAILS:
STD-W-01 WATER SERVICE CONNECTION RESPONSIBILITY
STD-W-02 TYPICAL LAYOUT FOR WATER MAINS WITHIN DEVELOPMENTS
STD-W-03 CUSTOMER CONNECTION & BOUNDARY BOX
STD-W-04 GENERAL PIPE CONNECTIONS
STD-W-05 GENERAL PIPE CONNECTIONS
STD-W-06 GENERAL PIPE CONNECTIONS
STD-W-07 GENERAL PIPE CONNECTIONS
STD-W-08 GENERAL PIPE CONNECTIONS
STD-W-09 GENERAL PIPE CONNECTIONS
STD-W-10 GENERAL PIPE CONNECTIONS
STD-W-11 TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
STD-W-12 RESTRICTIONS ON WATER INFRASTRUCTURE WORKS ADJACENT TO EXISTING TREES
STD-W-12A RESTRICTIONS ON NEW TREES / SHRUBS PLANTING ADJACENT TO WATERMAINS
STD-W-13 TRENCH BACKFILL / BEDDING & REDUCED COVER PROTECTION SLAB DETAIL
STD-W-14 SLUICE VALVE FOR DUCTILE IRON (D.I.) PIPE (<350mm DIA.)
STD-W-15 SLUICE VALVE FOR POLYETHYLENE (P.E.) PIPE (<350mm DIA.)
STD-W-16 ON-LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE
STD-W-17 OFF-LINE HYDRANT FOR DUCTILE IRON (D.I.) PIPE)
STD-W-18 ON-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE
STD-W-19 OFF-LINE HYDRANT FOR POLYETHYLENE (P.E.) PIPE
STD-W-20 ON-LINE AIR VALVE FOR DUCTILE IRON (D.I.) PIPE
STD-W-21 OFF-LINE AIR VALVE FOR DUCTILE IRON (D.I.) PIPE
STD-W-22 ON-LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE
STD-W-23 OFF-LINE AIR VALVE FOR POLYETHYLENE (P.E.) PIPE
STD-W-24 PRESSURE REDUCING / SUSTAINING VALVE CHAMBER IN-SITU RC OPTION
STD-W-25 BOOSTER PUMP STATION ARRANGEMENT
STD-W-26 ELECTROMAGNETIC METER CHAMBER (dn80 - dn250mm Dia.)
STD-W-26A CHAMBER FOR FLANGED MECH. METER WITHOUT STRAINER (dn40 - dn250mm Dia.)
STD-W-26B CHAMBER FOR FLANGED MECH. METER (dn100 - dn250mm Dia.) WITH SEPARATE STRAINER CHAMBER
STD-W-26C THREADED ROTARY PISTON FLOW METER CHAMBER (dn30 - dn40mm Dia.) IN-SITU CONCRETE OPTION
STD-W-26D THREADED ROTARY PISTON FLOW METER CHAMBER (dn30 - dn40mm Dia.) PRECAST CONCRETE OPTION
STD-W-26E THREADED ROTARY PISTON FLOW METER CHAMBER (dn30 - dn40mm Dia.) BLOCKWORK OPTION
STD-W-26F BY-PASS FLOW METER CHAMBER (25-32mm O.D. Dia) FOR DEVELOPMENTS WITH <20m3/DAY WATER USE
STD-W-26G FLOW METER CHAMBER (25-32mm O.D. Dia.)
STD-W-27 MARKER POSTS / PLATES
STD-W-28 WATER MAIN THRUST & SUPPORT BLOCKS
STD-W-29 DUCT CHAMBER
STD-W-30 SCOUR CHAMBER & HEAD WALL ARRANGEMENTS
STD-W-30A WASHOUT HYDRANT
STD-W-30B SCOUR CHAMBER TO STORM SEWER ARRANGEMENTS
STD-W-31 TYPICAL DITCH / STREAM CROSSING FOR WATER MAIN DUCTILE IRON OPTION
STD-W-31A TYPICAL DITCH / STREAM CROSSING FOR WATER MAIN POLYETHYLENE OPTION
STD-W-32 TYPICAL BRIDGE CROSSING FOR WATER MAIN
STD-W-33 TYPICAL BRIDGE CROSSING FOR WATER MAIN
STD-W-33A TYPICAL CULVERT AND SERVICES CROSSING DETAILS FOR WATER MAIN
STD-W-34 SECURITY GATE & FENCING PALISADE OPTION
STD-W-34A SECURITY GATE AND FENCING WIRE MESH OPTION
STD-W-35 PIPE REPAIR TO EXISTING MAINS
STD-W-36 FLOW METER KIOSK
STD-W-36A PRV / PSV CONTROL KIOSK
STD-W-37 LAMP BOLLARD & LAMP STANDARD
STD-W-38 WATERMAIN LOOP DETAIL DUCTILE IRON OPTION
STD-W-39 WATERMAIN LOOP DETAIL POLYETHYLENE OPTION
STD-W-40 SECTION SHOWING WATER SERVICES SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS 2.5m WIDE FOOTPATHS WITH 6.0m WIDE CARRIAGEWAY
STD-W-41 LAYOUT PLAN SHOWING BELOW GROUND SERVICES SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS 2.5m WIDE FOOTPATHS WITH 6.0m WIDE CARRIAGEWAY
STD-W-42 SECTION SHOWING WATER SERVICES SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS 1.8m WIDE FOOTPATHS, 2.5m WIDE PARALLEL PARKING BAYS WITH 6.0m WIDE CARRIAGEWAY
STD-W-43 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.

FOUL WATER SEWER: -

ALL PIPE RUNS BETWEEN FOUL ACCESS JUNCTIONS TO BE 100mm Ø UPVC AT 1 IN 60 GRADIENT WITH 100mm 15/20 CONCRETE SURROUND

FINAL FOUL MANHOLE AT PUBLIC SEWER CONNECTION POINT TO BE FITTED WITH APPROVED IRISH WATER MANHOLE INTERCEPTOR.

ALL PIPE DIAMETERS ARE NOMINAL.

PUBLIC SEWERS AND MANHOLES SHOULD COMPLY WITH REQUIREMENTS OF IRISH WATER CODE FOR WATER WORKS.

TABLE OF SIZES / MATERIALS:

PIPE SIZE (ID) mm	PIPE MATERIAL
150 TO 450	PVC OR STRUCTURED WALL PIPE
> 450	CONCRETE CLASS H SPIGOT & SOCKET AS PER SPEC.

THE CONTRACTOR MUST CONTACT THE RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION WORK & SATISFY HIMSELF IN RESPECT OF THE LOCATION OF ALL EXISTING SERVICES.

ON COMPLETION ALL SEWERS ARE TO BE TESTED TO IRISH WATER REQUIREMENTS AS PER SECTION 4.10 OF IW-CDS-5030-03. MAIN PIPELINES TO BE AIR TESTED IN ACCORDANCE WITH IS EN 752, AND A CCTV CONDITION SURVEY TO BE CARRIED OUT UPON COMPLETION ALL FOUL WATER PIPEWORK TO BE INSTALLED AS PER THE FOLLOWING IRISH WATER SPECIFICATION & STANDARDS DETAILS:

STD-WW-01 WASTE WATER SERVICE CONNECTION RESPONSIBILITY
STD-WW-02 TYP ICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENTS
STD-WW-03 DRAIN & SERVICE CONNECTION PIPEWORK
STD-WW-04 TYPICAL SEWER / SERVICE PIPE CONNECTION
STD-WW-05 TYPICAL SERVICE LAYOUT INDICATING SEPARATION DISTANCES
STD-WW-05A WASTEWATER SERVICE CONNECTION VERTICAL SEPARATION DISTANCES
STD-WW-06 RESTRICTIONS ON WASTEWATER INFRASTRUCTURE ADJACENT TO TREES
STD-WW-06A RESTRICTIONS ON NEW TREES/SHRUBS PLANTING ADJACENT TO SEWERS
STD-WW-07 TRENCH BACKFILL & BEDDING
STD-WW-08 CONCRETE BED, HAUNCH & SURROUND TO WASTEWATER PIPES
STD-WW-09 BLOCKWORK MANHOLE (<450mm DIA.)
STD-WW-10 PRE-CAST CONCRETE MANHOLE WITH CAST IN-SITU BASE
STD-WW-10A PRE-CAST CONCRETE MANHOLE WITH CAST PRE-CAST BASE
STD-WW-10B PRE-CAST CONCRETE PUMPING STATION INLET MANHOLE WITH CAST IN-SITU CONCRETE BASE
STD-WW-10C PRE-CAST CONCRETE PUMPING STATION INLET MANHOLE WITH PRECAST CONCRETE BASE
STD-WW-11 IN-SITU CONCRETE MANHOLE
STD-WW-11A CAST IN-SITU CONCRETE PUMPING STATION INLET MANHOLE
STD-WW-12 BACKDROP AND CASCADE MANHOLES
STD-WW-13 PRIVATE SIDE INSPECTION CHAMBER
STD-WW-14 THRUST BLOCKS FOR RISING MAINS
STD-WW-15 SCOUR VALVE CHAMBER (FOUL RISING MAIN <200mm DIA.)
STD-WW-16 SLUICE VALVE DETAILS FOR RISING MAINS DUCTILE IRON (D.I.) PIPE (<200mm DIA.)
STD-WW-17 SLUICE VALVE DETAILS FOR RISING MAINS POLYETHYLENE (P.E.) PIPE (<200mm DIA.)
STD-WW-18 AIR VALVE CHAMBER (FOUL RISING MAIN <200mm DIA.)
STD-WW-19 DUCT CHAMBER
STD-WW-20 EMERGENCY OVERFLOW STRUCTURE & EMERGENCY OVERFLOW TO STORM SEWER
STD-WW-21 TYPICAL DITCH/STREAM CROSSING FOR GRAVITY SEWER
STD-WW-22 TYPICAL DITCH/STREAM CROSSING FOR DUCTILE IRON RISING MAIN
STD-WW-22A TYPICAL DITCH/STREAM CROSSING FOR POLYETHYLENE RISING MAIN
STD-WW-23 TYPICAL BRIDGE CROSSING FOR RISING MAIN
STD-WW-24 TYPICAL BRIDGE CROSSING FOR RISING MAIN
STD-WW-24A TYPICAL CULVERT AND SERVICES CROSSING DETAILS FOR RISING MAIN
STD-WW-25 SECURITY GATE & FENCING PALISADE OPTION
STD-WW-25A SECURITY GATE & FENCING WIRE MESH OPTION
STD-WW-26 INDICATIVE PUMPING STATION SITE LAYOUT – ACCESS VIA LAY-BY
STD-WW-26A INDICATIVE PUMPING STATION SITE LAYOUT – DIRECT ACCESS FROM PUBLIC ROAD
STD-WW-27 FLOW METER CHAMBER (FOUL RISING MAIN ≤200MM DIA.) CAST IN-SITU CONCRETE OPTION
STD-WW-27A FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200mm dia.) CAST IN-SITU CONCRETE OPTION
STD-WW-27B FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200mm dia.) PRE-CAST CONCRETE OPTION
STD-WW-27C FLOW METER & VALVE CHAMBER (FOUL RISING MAIN ≤200MM DIA.) PRE-CAST CONCRETE OPTION
STD-WW-28 CAST IN-SITU INDICATIVE SUBMERSIBLE PUMPING STATION
STD-WW-28A INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION WITH CAST IN-SITU VALVE CHAMBER
STD-WW-28B INDICATIVE PRE-CAST CONCRETE SUBMERSIBLE PUMPING STATION AND PRE-CAST VALVE CHAMBER
STD-WW-29 RISING MAIN DISCHARGE STAND-OFF MANHOLE
STD-WW-30 TYPE 1 PUMPING STATION CONTROL KIOSK
STD-WW-30A TYPE 2 AND TYPE 3 PUMPING STATION CONTROL KIOSK
STD-WW-31 PUMPING STATION WET KIOSK
STD-WW-31A PUMPING STATION WET KIOSK WATER SERVICE CONNECTION ARRANGEMENT
STD-WW-32 HARDSTANDING AREA PUMPING STATION (PERMEABLE & IMPERMEABLE)
STD-WW-33 LAMP BOLLARD & LAMP STANDARD
STD-WW-34 VENT STACK
STD-WW-35 RISING MAIN RODDING CHAMBER IN-SITU CONCRETE OPTION
STD-WW-35A RISING MAIN RODDING CHAMBER PRE-CAST CONCRETE OPTION
STD-WW-36 MARKER POSTS/PLATES
STD-WW-37 SECTION SHOWING WASTEWATER SERVICES SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS 2.5m WIDE FOOTPATHS WITH 6.0m WIDE CARRIAGEWAY
STD-WW-38 LAYOUT PLAN SHOWING BELOW GROUND SERVICES SEPARATION DETAILS IN HIGH DENSITY DEVELOPMENTS 2.5m WIDE FOOTPATHS WITH 6.0m WIDE CARRIAGEWAY
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.
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.

SURFACE WATER SEWER: -
ALL ROAD GULLY / ACCESS JUNCTION PIPE RUNS TO BE 150mm Ø UPVC @ 1 : 50 GRADIENT UNLESS NOTED OTHERWISE. ALL RWP'S TO CONNECT TO MAINS SEWER WITH 100mm Ø UPVC PIPE @ 1 : 80, USING LONG RADIUS BEND TO CROWN OF PIPE. ALL ROAD GULLY & RWP DRAINS ARE TO HAVE 100mm CLASS 15/20 CONCRETE SURROUND.

PUBLIC SEWERS AND MANHOLES SHOULD COMPLY WITH REQUIREMENTS OF THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND STANDARD DETAILS.

ALL ROAD GULLIES TO BE TRAPPED AND COMPLY WITH TII SPECIFICATION FOR ROAD WORKS.

TABLE OF PIPE SIZES/MATERIAL:

PIPE SIZE (ID) mm	PIPE MATERIAL
100 TO 375	TERMOPLASTIC OR PE AS PER SPEC.
375 TO 450	CLASS H SPIGOT & SOCKET AS PER SPEC. OR PE / TP AS PER SPEC.
> 450	CLASS H SPIGOT & SOCKET AS PER SPEC.

THE CONTRACTOR MUST CONTACT THE RELEVANT AUTHORITIES PRIOR TO CONSTRUCTION WORK & SATISFY HIMSELF IN RESPECT OF THE LOCATION OF ALL EXISTING SERVICES.

ON COMPLETION ALL SEWERS ARE TO BE PRESSURE TESTED / CCTV SURVEYED AS PER SPECIFICATION.

BCaR CERTIFICATION: -

BUILDING REGULATIONS:

ALL WORKS MUST COMPLY WITH THE BUILDING REGULATIONS 1997 TO 2016 AND ANY AMENDMENTS THERETO WHETHER THESE HAVE BEEN IMPLIED OR NOT IN THE TENDER DOCUMENTATION.

CONSTRUCTION PRODUCTS REGULATIONS 2013:

ALL CONSTRUCTION PRODUCTS USED IN THE WORKS SHALL COMPLY WITH THE EUROPEAN COMMUNITY (CONSTRUCTION PRODUCTS) REGULATIONS 2013.

QUALITY ASSURANCE / CE MARKING:

ALL MATERIALS AND SPECIALIST SUPPLIERS ARE TO HAVE BEEN ASSESSED AND CERTIFIED BY AN APPROVED INDEPENDENT THIRD PARTY QUALITY ASSURANCE SCHEME AND ARE TO HAVE CE MARKING ON THEIR PRODUCTS IN ACCORDANCE WITH THE CONSTRUCTION PRODUCTS REGULATION (CPR) 305/2011/EU. THE CONTRACTOR IS TO ENSURE THAT ALL PRODUCTS HAVE CE MARKING PRIOR TO ORDERING AND IS TO FORWARD EVIDENCE OF SAME TO THE ENGINEER PRIOR TO INSTALLATION. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING ALL "DECLARATIONS OF PERFORMANCE" FOR MATERIALS DELIVERED TO THE SITE.

ROADWORKS: -

ALL WORK ON OR NEAR THE EXISTING PUBLIC CARRIAGEWAY IS TO BE COMPLETED IN ACCORDANCE WITH THE DEPARTMENT OF THE ENVIRONMENT AND LOCAL GOVERNMENT - "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" & TII SPECIFICATION FOR ROAD WORKS SERIES 900 - ROAD PAVEMENTS - BITUMINOUS MATERIALS. THE CONTRACTOR IS TO HAVE THE SOLE RESPONSIBILITY FOR THE REQUIRED ROAD OPENING LICENCE APPLICATION FEE AND COMPLIANCE WITH ALL ASSOCIATED CONDITIONS ASSOCIATED WITH THE GRANT.

GENERAL NOTES:-

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS DRAWINGS & SPECIFICATIONS.
2. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & ELEVATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. ALL DISCREPANCIES TO BE NOTIFIED, IN WRITING TO ENGINEERS & ARCHITECTS FOR RESOLUTION.
4. ALL DIMENSIONS