

**Notes:**  
All dimensions are in mm.

**LEGEND**

PRIVATE BOUNDARIES	
EXISTING COMBINED SEWER	
EXISTING FOUL SEWER	
EXISTING STORM SEWER	
PROPOSED FOUL SEWER	
PROPOSED STORM SEWER	
PROPOSED 100mm O.D HDPE PE-80 SDR17 WATERMAIN	
PROPOSED 25mm Ø O.D HDPE PE-80 SDR17 SERVICE CONNECTION	

**FOUL & SURFACE WATER NOTES:**

- FOR SETTING OUT REFER TO ARCHITECT'S DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTURAL AND ENGINEERING DRAWINGS AND ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- FOR UNDER FLOOR DRAINAGE ARRANGEMENT PLEASE REFER TO ARCHITECT'S DRAWINGS.
- DO NOT SCALE THIS DRAWING. USE FIGURE DIMENSIONS ONLY.
- ALL SURFACE WATER SEWERS SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN "RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS FOR HOUSING AREAS" AS PUBLISHED BY DEPARTMENT OF ENVIRONMENT AND LOCAL GOVERNMENT AND IRISH WATER STANDARD DETAILS FOR WASTE WATER INFRASTRUCTURE.
- ALL FOUL SEWER WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE & IRISH WATERS WASTE WATER INFRASTRUCTURE STANDARD DETAILS.
- GROUND LEVELS, COVER LEVELS AND INVERT LEVELS ARE APPROXIMATE ONLY. EXACT LEVELS TO BE CONFIRMED ON SITE.
- THE DEVELOPMENT SHALL BE CONNECTED TO THE PUBLIC SEWER TO THE SATISFACTION OF THE LOCAL AUTHORITY AND IRISH WATER. THE MINIMUM COVER TO ANY SEWER PIPE SHALL BE 1.2m IN ROAD AND 0.9m IN OPEN SPACES AND FOOTPATHS NOT ADJACENT TO CARRIAGEWAYS. WHERE IT IS NOT POSSIBLE TO ACHIEVE THESE MINIMUM COVERS, PIPES SHALL BE BEDDED AND SURROUNDED IN CONCRETE 150thk.
- THE SEWERS AND MANHOLES SHALL BE LAID AND TESTED TO THE SATISFACTION OF IRISH WATER AND THE LOCAL AUTHORITY. LAYING, BEDDING AND BACK FILLING OF SEWERS SHALL BE IN ACCORDANCE WITH THE IRISH WATER STANDARD DETAILS.
- ALL SERVICE TRENCHES IN ROADS SHALL BE BACK FILLED AND PROPERLY COMPACTED WITH GRANULAR MATERIAL IN ACCORDANCE WITH IRISH WATER STANDARD DETAILS FOR WASTEWATER INFRASTRUCTURE.
- GULLIES A) ALL GULLIES AND MANHOLES LOCATED IN THE PUBLIC ROAD SHALL BE LOCKING TYPE. GULLIES TO BE LOCATED EVERY 45m OR 200m<sup>2</sup> OF HARD STANDING B) DOUBLE GULLIES TO BE PROVIDED AT ALL ROAD SAG CURVES AND CUL DE SACS WHERE INDICATED. SEPARATE CONNECTIONS SHALL BE PROVIDED FOR EACH GULLY.

**IRISH WATER STANDARD DETAILS AND CODE PRACTICE:**

ALL OF THE SITE DRAINAGE WORKS SHOULD BE CARRIED OUT IN ACCORDANCE WITH IRISH WATER'S (IW) "WASTEWATER INFRASTRUCTURE STANDARD DETAILS" AND "CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE".

STANDARD DETAILS FOR WASTEWATER NETWORKS:

- STD-WW-02 TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENTS
- STD-WW-03 DRAIN & SERVICE CONNECTION PIPEWORK
- STD-WW-07 TRENCH BACKFILL & BEDDING
- STD-WW-08 CONCRETE BED, HAUNCH & SURROUNDING TO WASTEWATER PIPES
- STD-WW-10 PRECAST CONCRETE MANHOLE
- STD-WW-12 BACKDROP MANHOLES
- STD-WW-13 PRIVATE SIDE INSPECTION CHAMBER

FOR REINFORCED IN SITU ITEMS SUCH AS MANHOLES ETC, ALLOW H12 REBAR@200c/c BOTH FACES. NOTE THAT PRECAST OPTIONS ARE ALSO SPECIFIED.

PIPE MATERIALS:

- SERVICE CONNECTIONS FROM DWELLING TO BE 100mm Ø UNPLASTICISED PVC IN ACCORDANCE WITH SECTION 3.13 OF IW CODE PRACTICE.
- SITE SEWER TO BE THERMOPLASTIC STRUCTURED WALL PIPES IN ACCORDANCE WITH SECTION 3.13 OF THE IW CODE OF PRACTICE.
- RIISING MAIN TO BE POLYETHYLENE IN ACCORDANCE WITH SECTION 3.14 OF WASTEWATER CODE OF PRACTICE.

TESTING:

- SITE SEWER AND MANHOLES TO BE TESTED IN ACCORDANCE WITH SECTION 4.10 OF IW CODE OF PRACTICE.
- CCTV AND MANHOLE CONDITION SURVEYS TO BE CARRIED OUT IN ACCORDANCE WITH SECTION 1.9 OF IW CODE OF PRACTICE IN ADVANCE OF THE DEFECTS LIABILITY PERIOD.

NOTE: ALL MANHOLE COVER LEVELS TO BE CHECKED IN SITU TO ENSURE THAT THEY ARE LEVEL WITH THE SURROUNDING FINISHED SURFACES.

PERIMETER DRAINAGE FOR ALL PROPOSED AND ALTERATIONS TO PERIMETER DRAINAGE REFER TO ARCHITECT DETAILS

ALL GULLIES AND ACO DRAINS TO BE CONNECTED TO MAIN DRAINS WITH 150MM STORM PIPE @180 GRADIENT.

THE CONTRACTOR IS TO INCLUDE FOR THE EMPLOYMENT OF A CHARTERED ENGINEER WITH PI INSURANCE TO 6.5M TO WITNESS THE INSTALLATION OF ALL AIR TESTS AND OTHER IRISH WATER QA AS REQUIRED UNDER THE IRISH WATER QUALITY ASSURANCE (IQI) FIELD INSPECTION REQUIREMENTS MANUAL, AS PER CURRENT VERSION ON IRISH WATERS WEBSITE. IT IS A REQUIREMENT OF THE MAIN CONTRACTOR TO AGREE THE REQUIRED QA WITH THE IW FIELD INSPECTORS, RETAIN ALL THE QA DOCUMENTS ON SITE AND REPAIR ANY DEFECTS. THE MAIN CONTRACTORS CHARTERED ENGINEERS AND THE MAIN CONTRACTOR ARE RESPONSIBLE FOR AGREEING ON SITE CONFORMANCE WITH IW PRIOR TO HAND OVER OF THE WORKS TO IW. THE PRICE FOR ALL THE ABOVE IS TO BE INCLUDED IN THE MAIN CONTRACTORS TENDER SUM.

NOTE: LOCATION OF EXISTING SERVICES IS INDICATIVE ONLY AND SHOULD BE USED FOR INFORMATION PURPOSES ONLY. ALL EXISTING LEVELS TO BE CHECKED ON SITE & CONFIRMED WITH ENGINEER BEFORE COMMENCEMENT OF WORKS.

CROCON GRADING PLAN TO BE REVIEWED IN CONJUNCTION WITH THE PROPOSED DRAINAGE SYSTEM AND MANUFACTURER TO CONFIRM ACCEPTANCE OF SAME PRIOR TO INSTALLATION OF SYSTEM

**GULLY NOTES:**

- MINIMUM DEPTH FROM THE TOP OF THE GRATING TO THE TOP OF THE GULLY OUTLET IS TO BE 750MM WHEN THE CONNECTING PIPE IS UNDER A CARRIAGEWAY OR HARD SHOULDER, AND 600MM ELSEWHERE
- GULLY GRATING TO COMPLY WITH IS EN 124
- GULLY GRATING TO BE PROVIDED WITH A LOCKING DEVICE IN ACCORDANCE WITH CLAUSE 508.4
- PRECAST CONCRETE GULLYS & GULLY SLABS SHALL COMPLY WITH BS 5911-4 & IS EN 191

**CHANNEL DRAIN NOTES:**

- SPECIFIC SITE CONDITIONS MAY REQUIRE AN INCREASE IN THE DIMENSIONS OR REINFORCEMENT SHOWN. IT IS THE CLIENTS RESPONSIBILITY TO ENSURE THE CONCRETE ENCASEMENT IS DESIGNED FOR THE APPLICATION.
- A MINIMUM CONCRETE STRENGTH OF 25 MPa IS RECOMMENDED. THE CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
- THE FINISHED LEVEL OF THE CONCRETE, ASPHALT OR BRICK PAVERS MUST BE APPROX. 3mm ABOVE THE TOP OF THE CHANNEL EDGE.
- EXPANSION & CRACK CONTROL JOINTS ARE RECOMMENDED TO PROTECT THE CHANNEL & CONCRETE SURROUND.
- FOR BRICK PAVERS, THE PAVEMENT COURSE ADJACENT TO THE CHANNEL EDGE MUST BE FULLY BONDED TO THE CONCRETE SURROUND. FOR BRICKSLOT DRAINS, THE PAVEMENT COURSE ADJACENT TO THE CHANNEL EDGE MUST BE FULLY BONDED TO BRICKSLOT & CONCRETE SURROUND USING AN EPOXY OR POLYMER MODIFIED MORTAR.
- FOR ASPHALT SURFACES, THE HAUNCH MUST SLOPE AWAY AT A RATIO OF 1:4 OR 1:5' APPROX.
- REFER TO ACO OR SIMILAR APPROVED SUPPLIERS LATEST INSTALLATION INSTRUCTIONS FOR COMPLETE DETAILS.

All Junction of soft and hard landscaping to be drained with 100mm Land Drain Surrounded With 150mm 5mm - 20mm Clean Gravel Material Wrapped With A Geo Textile Membrane and connected to local storm sewer

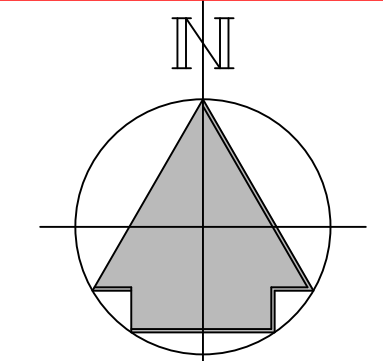
All retaining walls to be drained to adjacent storm drain with 100mm Land Drain Surrounded With 150mm 5mm - 20mm Clean Gravel Material Wrapped With A Geo Textile Membrane and connected to local storm sewer

Foul - MH: 5902  
Approx. Position  
CL: 3.64  
IL: 2.26

SITE TBM = 4.069m OD MALIN HEAD  
(INDICATED WITH STEEL NAIL & WASHER)

Contours Denote Existing Ground Levels.

REFERENCE NOTE  
REFER TO DRG. NO. 20120-CRO-X-XXX-DR-CE-03000 FOR GENERAL NOTES  
REFER TO DRG. NO. 20120-CRO-X-XXX-DR-CE-03900 FOR DRAINAGE DETAILS



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01	03/22	CC	Issue 01	DETAILS						
<p><b>CroCon Engineers Ltd.</b> Consulting Engineers 4 Main St., Bantry, Co. Cork E: info@crocon.ie Tel: (027) 58193</p> <p>Project: 20120 - CRO - X - XXX - DR - CE - 03200 Client: Skibbereen Geriatric Society Site: Proposed Apartments at Mardyke St., Skibbereen, Co. Cork Title: Proposed Foul Layout</p>										