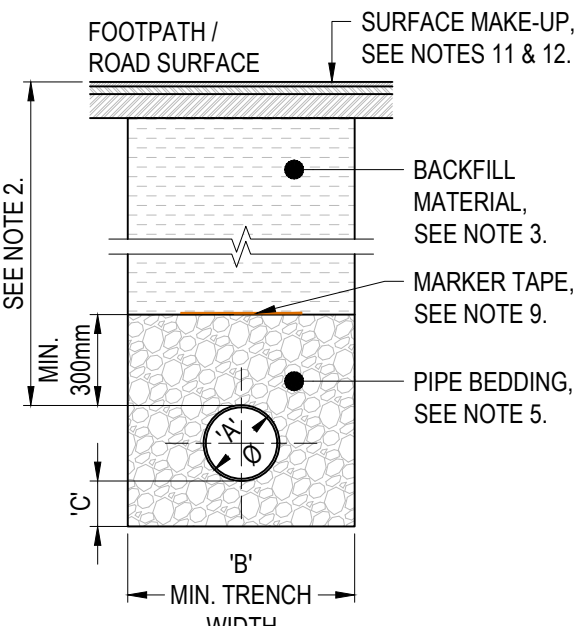
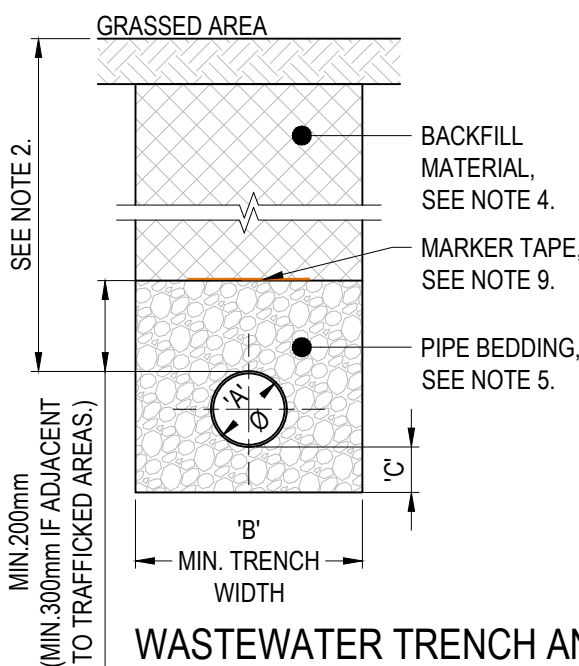




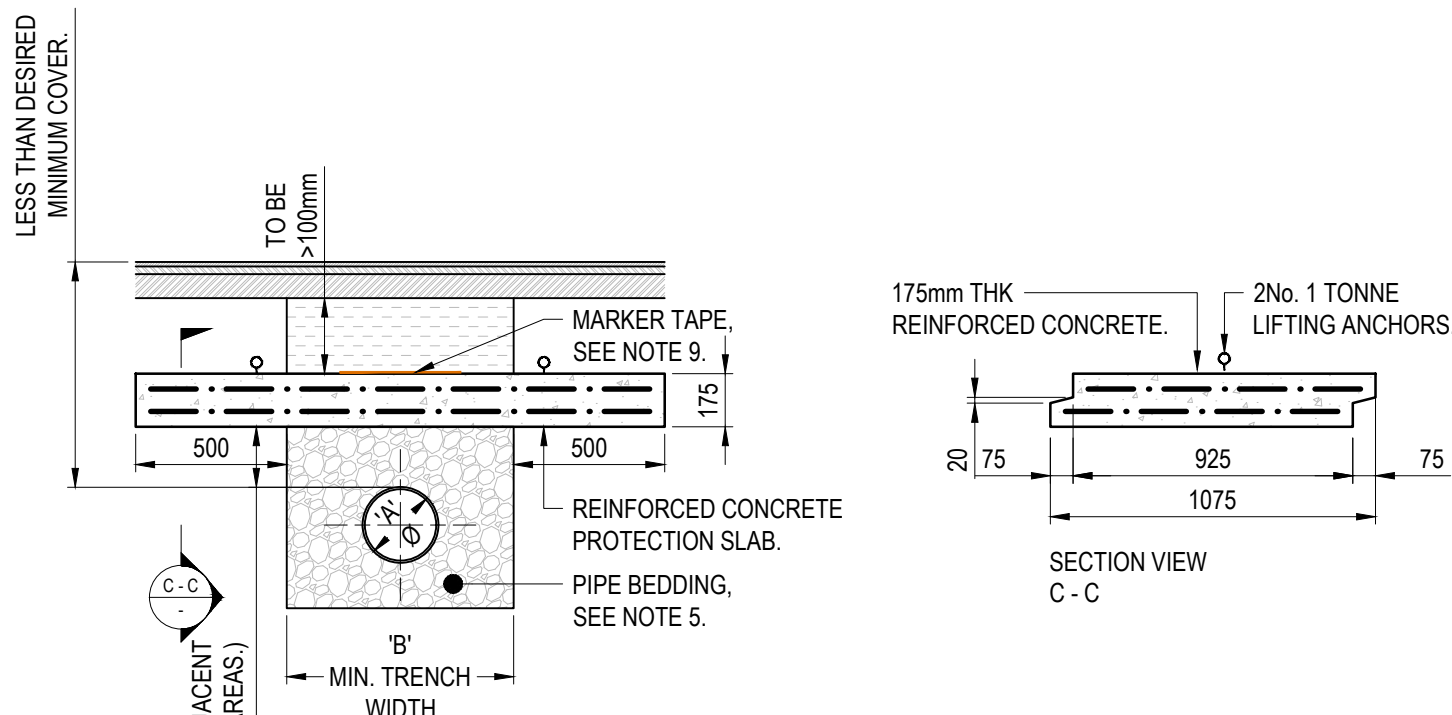
WASTEWATER TRENCH AND BEDDING DETAIL

FOR USE IN TRAFFICKED AREAS, MIN. COVER 1.2m.
SCALE 1 : 25



WASTEWATER TRENCH AND BEDDING DETAIL

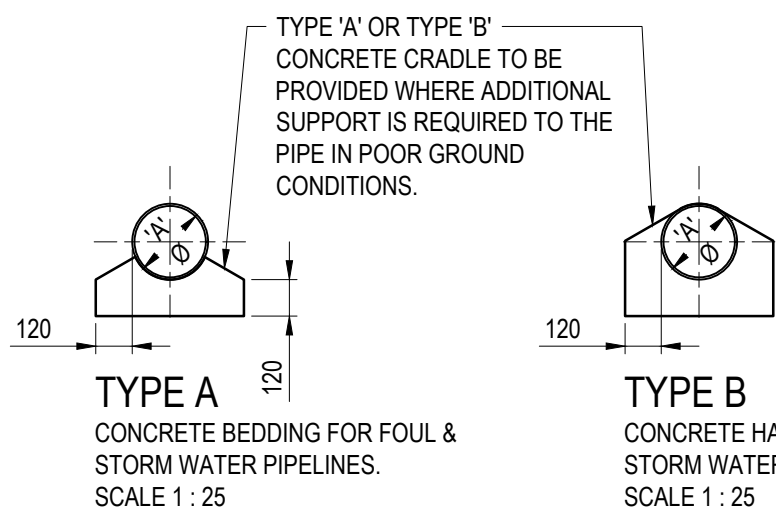
FOR USE IN NON-TRAFFICKED AREAS, MIN. COVER 0.9m.
SCALE 1 : 25



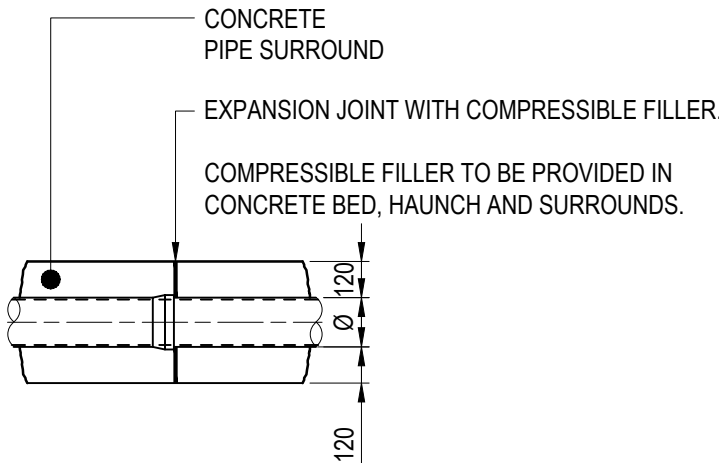
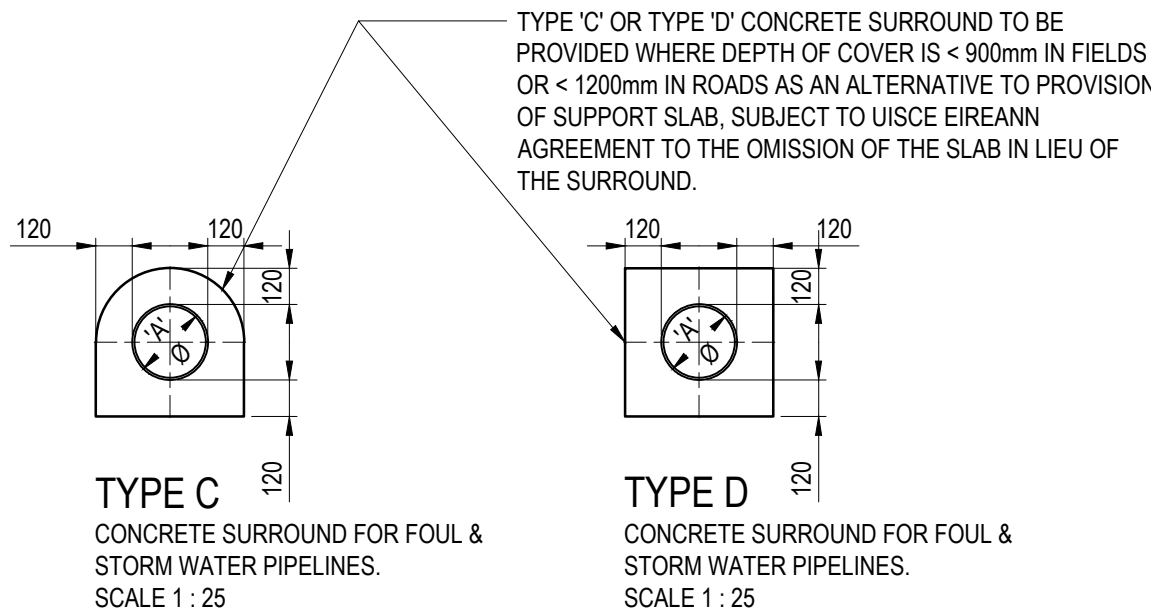
WASTEWATER TRENCH CONCRETE PROTECTION

FOR USE IN AREAS WHERE MINIMUM COVER CAN'T BE ACHIEVED.
SCALE 1 : 25

NOTE
CONCRETE PROTECTION SLAB IS UISC EIREANN'S PREFERRED OPTION FOR WATER & SEWER SYSTEMS WHERE MINIMUM COVER CAN'T BE ACHIEVED. CONCRETE ENCASEMENT AS PER BEDDING DETAILS 'C' & 'D' ONLY TO BE USED IN AGREEMENT WITH IW.



NOTE
TYPE OF CONCRETE PROTECTION FOR FOUL & STORM WATER PIPELINES TO BE AGREED WITH LOCAL COUNCIL.



SPIGOT & SOCKET JOINT DETAIL

FOR FOUL & STORM WATER PIPELINES.
SCALE 1 : 25

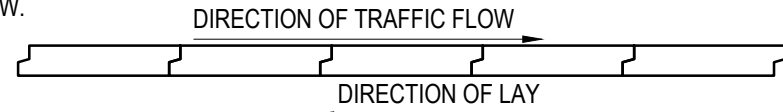
WW TABLE 01	
'A' PIPE Ø (mm)	'B' TRENCH WIDTH W (mm)
< 80 RISING MAIN	SEE NOTE 10.
100	500
150 - 200	600
> 200 - 350	750
> 350 - 450	900

WW TABLE 02	
'A' PIPE Ø (mm)	'C' DEPTH OF BEDDING (mm)
≤ 100	100
150 - 450	200

TABLE OF DIMENSIONS FOR STEEPLY INCLINED PIPELINES	
GRADIENT	SPACING (m)
1:2 & STEEPER	5.5
< 1:2 - 1:4	11.0
1:4 - 1:5	16.6
1:5 - 1:6	22.0

TRENCH & PIPEBEDDING NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES **WITHOUT PROTECTION** SHOULD BE AS FOLLOWS:
 - 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).
 - 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.
 - 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.
 - DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.
 - AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9 M.
 - 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.
- 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 UISC EIREANN 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 UISC EIREANN IN ADVANCE OF THE COMMENCEMENT OF WORKS.
- 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 UISC EIREANN.
- PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01. THE PIPE BEDDING GRANULAR MATERIAL SHALL BE 14mm TO 5mm (d/D 2/14) GRADED AGGREGATE OR 10mm (d/D 4/10) SINGLE SIZED AGGREGATE TO IS EN 13242. CONCRETE BED, HAUNCH, & SURROUND, WHERE REQUIRED, SHALL BE TO STD-WW-08.
- 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 UISC EIREANN BEFORE ADVANCING WITH THE WORK.
- 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.
- 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.
- 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.
- TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
- NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
- EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT.
- FOR ANY SLABBING WORKS TO BE CARRIED OUT WITHIN THE VICINITY OF THE PIPELINE, A METHOD STATEMENT IS TO BE SUBMITTED FOR APPROVAL BY UISC EIREANN.
- MARKER TAPE TO BE PLACED ABOVE THE PROTECTION SLAB ALONG THE DIRECTION OF THE PIPELINE.
- CONCRETE TO BE GRADE C30/35.
- MINIMUM COVER TO STEEL REINFORCEMENT = 40mm.
- SLABS TO BE DESIGNED FOR USE UNDER A HB25 LOAD IN ACCORDANCE WITH BS5400-2. DESIGN TO BE SUBMITTED TO UISC EIREANN FOR ASSESSMENT PRIOR TO INSTALLATION.
- 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 UISC EIREANN.
- 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.



- 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 UISC EIREANN.
- CONCRETE BED AND HAUNCHES MAY BE REQUIRED TO PROVIDE ADDITIONAL SUPPORT IN POOR GROUND CONDITIONS. PROPOSALS TO BE PROVIDED TO UISC EIREANN WITH GEOTECHNICAL REPORT SUPPORTING THEIR USE.
- CONCRETE SURROUNDS SHALL HAVE A MINIMUM THICKNESS OF 120mm WITH AN ABSOLUTE MINIMUM DEPTH OF COVER ABOVE THE EXTERNAL CROWN OF THE PIPE OF 750mm.
- ALL CONCRETE SURROUND ENCASING TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE GRADE C16/20 TO IS EN206.
- THE HAUNCHES AND SURROUNDS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH CAST FINISH.
- 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.
- POLYETHYLENE AND UPVC PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
- BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES.

NOTE

DETAILS AND SPECIFICATIONS BASED ON UISC EIREANN'S CURRENT STANDARDS. CONTRACTOR TO ENSURE LATEST STATUTORY BODY GUIDELINES, DETAILS AND SPECIFICATIONS ARE FOLLOWED.

GENERAL NOTES

- DO NOT SCALE FROM THIS DRAWING - IF IN DOUBT CONTACT PROJECT ENGINEER.
- ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
- ALL LEVELS AND COORDINATES ARE IN METRES REFERENCED TO IRISH TRANSVERSE MERCATOR GRID (ITM)
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL, STRUCTURAL AND SERVICES DRAWINGS.
- THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS ON SITE AND IS RESPONSIBLE FOR ACCURATE SETTING OUT.
- THE CONTRACTOR IS TO CONFIRM THE EXISTING BOUNDARY AND SITE STRUCTURES ETC. PRIOR TO COMMENCING THE WORKS AND IMMEDIATELY INFORM THE SUPERVISING OFFICER SHOULD THESE BE AT VARIANCE WITH THE ASSUMPTIONS SHOWN ON THE DRAWING.

ALL DIMENSIONS SHOWN ON THIS DRAWING ARE TO BE VERIFIED BY THE ARCHITECT PRIOR TO FABRICATION / MANUFACTURE / CONSTRUCTION

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015

THE DESIGNS ON THIS DRAWING ARE PREPARED WITH CONSIDERATION OF THE NEED TO IDENTIFY HAZARDS AND GIVE REGARD TO THEIR ELIMINATION OR MINIMISATION. REFERENCE MUST BE MADE TO HEALTH AND SAFETY INFORMATION PREPARED BY THE PRINCIPAL DESIGNER.

P01	Issued for Planning	04/06/26	AO	ES
ISSUE	DETAILS	DATE	BY	CHK

STATUS:

PLANNING

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TIPPERARY COUNTY COUNCIL

PROJECT TITLE:
**HOUSING DEVELOPMENT AT GLEAN CAOIN,
BORRISOLEIGH CO. TIPPERARY**

DRG TITLE:
DRAINAGE DETAILS, SHEET 02

DRAWN BY:	AO	DATE DRAWN:	28/05/2026
CHECKED BY:	ES	DATE CHECKED:	28/05/2026
SCALES:	AS NOTED	SHEET SIZE:	A1
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G09900 - WRD - EX - ZZ - DR - C - 50012			P01