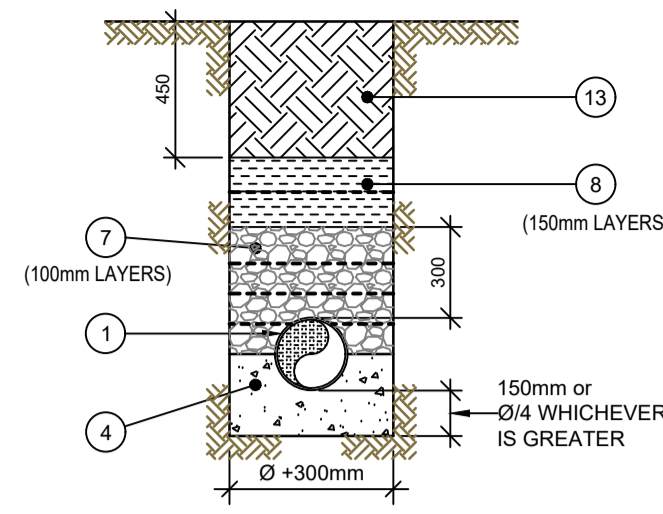


UNDER ROADS/HARDSTANDINGS/FOOTPATHS

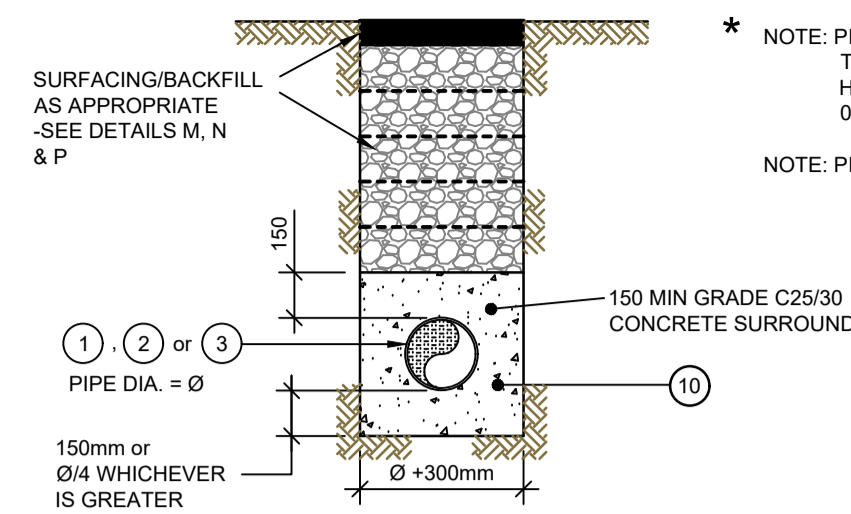
COVER ≥ 1.2m *

M DETAIL
SCALE 1:25

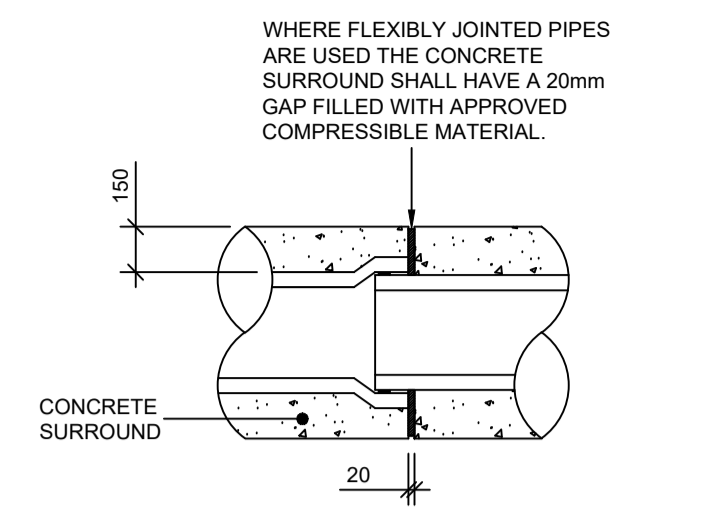


UNDER LANDSCAPED AREAS

COVER ≥ 0.9m *



CONCRETE PIPE ENCASEMENT DETAIL



JOINT IN CONCRETE SURROUND

RIGID PIPES WITH CONCRETE BED & SURROUND

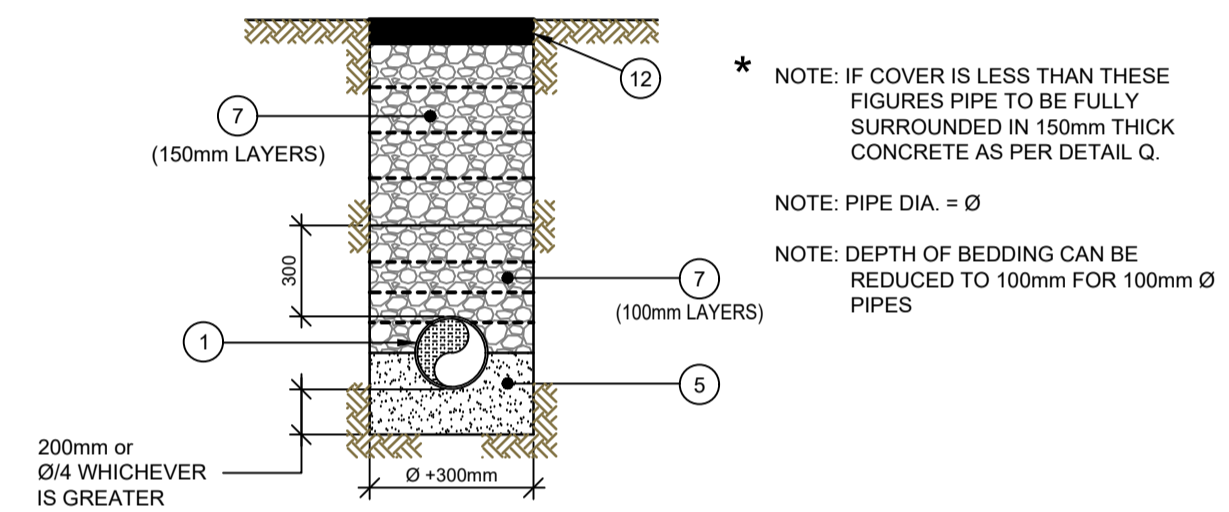
CONCRETE ENCASEMENT

NOTES

- CONCRETE SEWER PIPES WITH SPIGOT & SOCKET JOINTS & RUBBER RING FITTINGS TO COMPLY WITH ISIRI 1918 & IS 6 2004 OR EQUIVALENT STANDARD CLASS M OR CLASS H.
- THERMOPLASTIC STRUCTURED WALL PIPES AND FITTINGS IN ACCORDANCE WITH THE REQUIREMENTS OF ISIRI 13476 (2007/2009). PIPES TO BE SERVICE CLASS 8 MIN.
- UNPLASTICIZED POLYVINYLCHLORIDE (UPVC) PIPES & FITTINGS IN ACCORDANCE WITH THE REQUIREMENTS OF ISIRI 1401 (2009/2012).
- CONCRETE BED & SURROUND TO BE A MINIMUM 150mm THICK IN-SITU CONCRETE GRADE C25/30 & HAUNCHED HALF WAY UP THE BARREL OF THE PIPE.
- GRANULAR BED & SURROUND FOR RIGID PIPES TO BE EITHER:
 - 14mm to 20mm GRADED AGGREGATE OR
 - 10mm SINGLE SIZED AGGREGATE.
- ALL COMPLYING WITH THE REQUIREMENTS OF ISIRI 13242 & SHOULD HAVE A COMPACTION FACTOR VALUE NOT GREATER THAN 0.2 WHEN MEASURED IN ACCORDANCE WITH ISIRI 752.
 - 14mm TO 20mm GRADED AGGREGATE (PIPE DIAMETER ≥ 315mm)
 - 10mm SINGLE SIZED AGGREGATE (PIPE DIAMETER < 315mm)
- ALL COMPLYING WITH THE REQUIREMENTS OF ISIRI 13242 & SHOULD HAVE A COMPACTION FACTOR VALUE NOT GREATER THAN 0.2 WHEN MEASURED IN ACCORDANCE WITH ISIRI 752. GRANULAR BED FILL & COVER TO BE PLACED UNIFORMLY ON EITHER SIDE OF THE PIPE IN LAYERS NOT EXCEEDING 100mm. EACH LAYER BEING COMPACTED BY H&S TAMPING UNTIL THE PIPE HAS A MINIMUM 150mm COMPACTED COVER.
 - 14mm TO 20mm GRADED AGGREGATE (PIPE DIAMETER ≥ 315mm)
 - 10mm SINGLE SIZED AGGREGATE (PIPE DIAMETER < 315mm)
- GRANULAR BACKFILL MATERIAL SHALL BE IN COMPLIANCE WITH CLAUSE 804 (GRANULAR MATERIAL TYPE B) OF THE NRA SPECIFICATION FOR ROAD WORKS. GRANULAR BACKFILL SHOULD BE PLACED UNIFORMLY ON EITHER SIDE OF THE PIPE IN LAYERS NOT EXCEEDING 100mm. EACH LAYER BEING COMPACTED BY HAND & TAMPING UNTIL THE PIPE HAS A MINIMUM OF 300mm COMPACTED COVER. CARE SHOULD BE TAKEN THAT THE PROCESS OF COMPACTION DOES NOT DISPLACE THE PIPE FROM ITS CORRECT LINE & LEVEL. SUBSEQUENT LAYERS OF GRANULAR FILL TO BE WELL COMPACTED IN 150mm THICK LAYERS TO THE LOCAL AUTHORITY ROAD DIVISION SPECIFICATION. MECHANICAL COMPACTION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
- SELECTED FILL SHOULD BE FREE FROM STONES LARGER THAN 37mm, LUMPS OF CLAY OVER 75mm, TIMBER, FROZEN MATERIAL & VEGETABLE OR FOREIGN MATTER. SELECTED FILL SHOULD BE PLACED UNIFORMLY ON EITHER SIDE OF THE PIPE IN LAYERS NOT EXCEEDING 100mm. EACH LAYER BEING COMPACTED BY HAND & TAMPING UNTIL THE PIPE HAS A MINIMUM OF 150mm COMPACTED COVER. CARE SHOULD BE TAKEN THAT THE PROCESS OF COMPACTION DOES NOT DISPLACE THE PIPE FROM ITS CORRECT LINE & LEVEL. SUBSEQUENT SELECTED FILL CAN BE PLACED & COMPACTED IN 150mm THICK LAYERS.
- GENERAL BACKFILL MATERIAL SUITABLE FOR BACKFILL ABOVE SELECTED FILL MATERIAL SHOULD BE FREE FROM STONES, LUMPS OF CONCRETE, TIMBER & VEGETABLE OR FOREIGN / CONTAMINATED MATTER. GENERAL BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 300mm. EACH LAYER BEING WELL COMPACTED. MECHANICAL COMPACTION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
- PIPES WITH INADEQUATE COVER TO BE FULLY SURROUNDED IN 150mm THICK GRADE C25/30 CONCRETE.
- LEAN MIX BACKFILL TO TRENCHES IN EXISTING ROAD, WHERE REQUIRED BY THE LOCAL AUTHORITY TO BE GRADE C25/30 CONCRETE WITH 20mm AGGREGATE.
- SURFACING TO BE IN ACCORDANCE WITH THE ROAD SPECIFICATION & IF APPROPRIATE, LOCAL AUTHORITY REQUIREMENTS.
- GOOD QUALITY TOPSOIL, 450mm MINIMUM THICK, TO BE PLACED OVER BACKFILL IN ACCORDANCE WITH PARKS DEPARTMENT / LANDSCAPE ARCHITECTS REQUIREMENTS.
- ALL JARMS/STRENGTH JOINTS:
 - TO BE USED FOR PIPE DEPTHS UP TO 600mm
 - INTERNAL A/J'S REQUIRED TO HAVE DOUBLE SEALED COVERS
 - EXTERNAL A/J'S TYPICALLY TO BE PROPRIETARY APVC WITH 35kN COVER
 - EXTERNAL A/J'S IN AREAS SUBJECT TO TRAFFIC TO BE SURROUNDED 150 WITH C20/25 CONCRETE & TO HAVE A CLASS D COVER & FRAME SUPPORTED OFF THE CONCRETE SURROUND

GENERAL NOTES

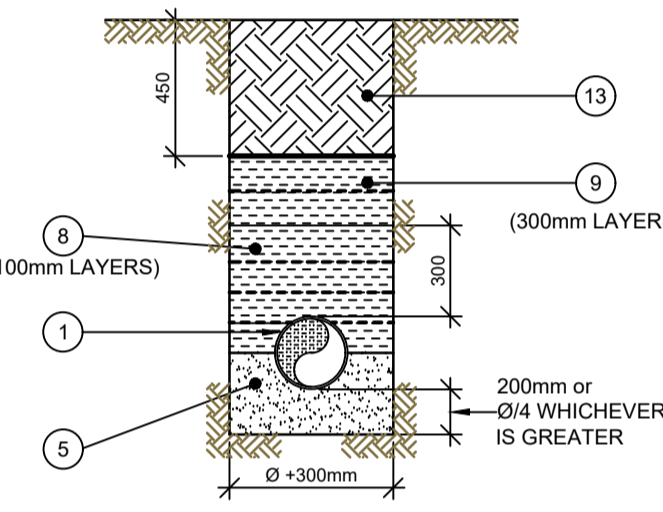
- IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 804 MATERIAL. IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING. 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 IRISH WATER BEFORE ADVANCING WITH THE WORK.
- 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 FILL WITH CLAUSE 804 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAD ABOVE THIS VOID BACKFILL MATERIAL.
- NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT TOP OF PIPE BEDDING LAYER. 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 FLUMMING STATION 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.
- 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 B.S. EN 622-1 AND B.S. EN 622-4 AND TO BE 18mm THICK.
- POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH B.S. 6076 BEFORE BEING CAST INTO CONCRETE.
- BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES.
- FOR F&S DRAINS TO BE TAKEN IN CHARGE BY IRISH WATER, PIPE BEDDING SHALL BE STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF IRISH WATER WHICH MAY DIFFER FROM THE DETAILS SHOWN. REFER TO IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE AND ASSOCIATED IRISH WATER STANDARD DETAILS, ALONG WITH ANY PARTICULAR REQUIREMENTS.



UNDER ROADS/HARDSTANDINGS/FOOTPATHS

COVER ≥ 1.2m *

N DETAIL
SCALE 1:25



UNDER LANDSCAPED AREAS

COVER ≥ 0.9m *

RIGID PIPES WITH GRANULAR BED & SURROUND

STAGE 1
LEAVE FOR 6 MONTHS TO CONSOLIDATE

R DETAIL
SCALE 1:25

REINSTATEMENT OF PIPE TRENCH IN EXISTING ROAD
(SUBJECT TO APPROVAL OF LOCAL AUTHORITY)

STAGE 2
DIG OUT SURFACING & TOP 220mm OF CL804 MATERIAL (7) & REPLACE WITH NEW WIDER SURFACING ON 220 LAYER OF LEAN-MIX CONCRETE (11)

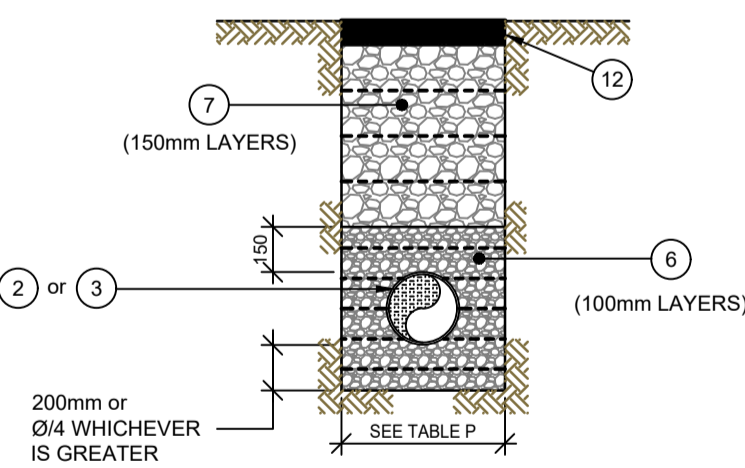
* NOTE:
TO AVOID STAGE 2 REPLACE CL804 (7) WITH LEAN MIX CONCRETE (11)

- FORM A SAW CUT 100mm DEEP AT A MIN. OF 100mm FROM SIDES OF EXCAVATION PRIOR TO PERMANENT REINSTATEMENT. WHERE ANY TRIM LINES ARE WITHIN 400mm OF ROAD EDGE, JOINT, OTHER REINSTATEMENT OR IRONWORK, THE TRIM LINE SHOULD BE EXTENDED TO THE INTERFACE OF SUCH SITUATIONS.
- LEAN-MIX SURFACE TO BE SPRAYED PER CLAUSE 920 (NRA SPEC.) PRIOR TO APPLICATION OF BASECOURSE MACADAM.
- 100°C HOT BITUMEN BINDER 50 PEN OR COLD THIXOTROPIC BITUMEN 50 - 70 PEN TO BE APPLIED TO ALL VERTICAL CUTS IN ACCORDANCE WITH B.S. 594987 PRIOR TO APPLICATION OF BITUMINOUS MATERIAL.
- JOINTS SEALED WITH HOT BITUMEN AND TOPPED WITH FINE SAND / GRIT TO GET A MINIMUM 55 SKID RESISTANCE VALUE AS DETERMINED BY THE PORTABLE SKID RESISTANCE PENDULUM USED IN ACCORDANCE WITH ROAD NOTE 27 AND SHALL NOT EXCEED 3mm THICKNESS AND 25mm WIDTH.

* NOTE: IF COVER IS LESS THAN THESE FIGURES PIPE TO BE FULLY ENCASED IN 150mm THICK CONCRETE AS PER DETAIL Q.

NOTE: PIPE DIA. = Ø
NOTE: DEPTH OF BEDDING CAN BE REDUCED TO 100mm FOR 100mm Ø PIPES

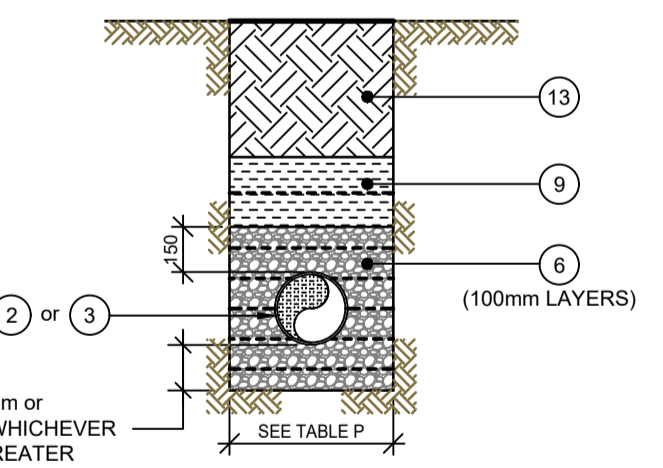
PIPE SIZE (mm)	WIDTH OF TRENCH (mm)	
	MIN.	MAX.
110	450	600
160	450	600
200-250	600	700
315	700	850
355	750	900
400	800	950
450	850	1000



UNDER ROADS/HARDSTANDINGS/FOOTPATHS

COVER ≥ 1.2m *

P DETAIL
SCALE 1:25



UNDER LANDSCAPED AREAS

COVER ≥ 0.9m *

FLEXIBLE PIPES WITH GRANULAR BED & SURROUND

NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.
- FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. ALL DIMENSIONS TO BE CHECKED ON SITE. ENGINEER TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE ANY WORK PROCEEDS.
- REFER TO DRAWING 21208-DOW-0000 FOR PROJECT SPECIFICATION.

Rev	Date	Amendments	by	chkd
C02	21.09.23	AP - PLANNING	AG	AD
C01	08.03.23	AT - TENDER	AG	AD
P01	18.06.22	ISSUED FOR PLANNING	AG	AD

PROJECT
PROPOSED HOUSING DEVELOPMENT
AT MAYESTON, POPPINTREE, DUBLIN 11

CLIENT
FINGAL COUNTY COUNCIL

DRAWING TITLE
PIPE BEDDING DETAILS

drawn by: AG date: 18.08.22 scale: N.T.S @ A1 chk: AD

21208 - DOW - 00 - XX - DR - C

Project	Originator	Volume	Level	Type	Role
21208	4002				C02
DOW Project No.	drg. no.				rev.

AP - PLANNING
Suitability Status: Code - Description

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