General Notes :
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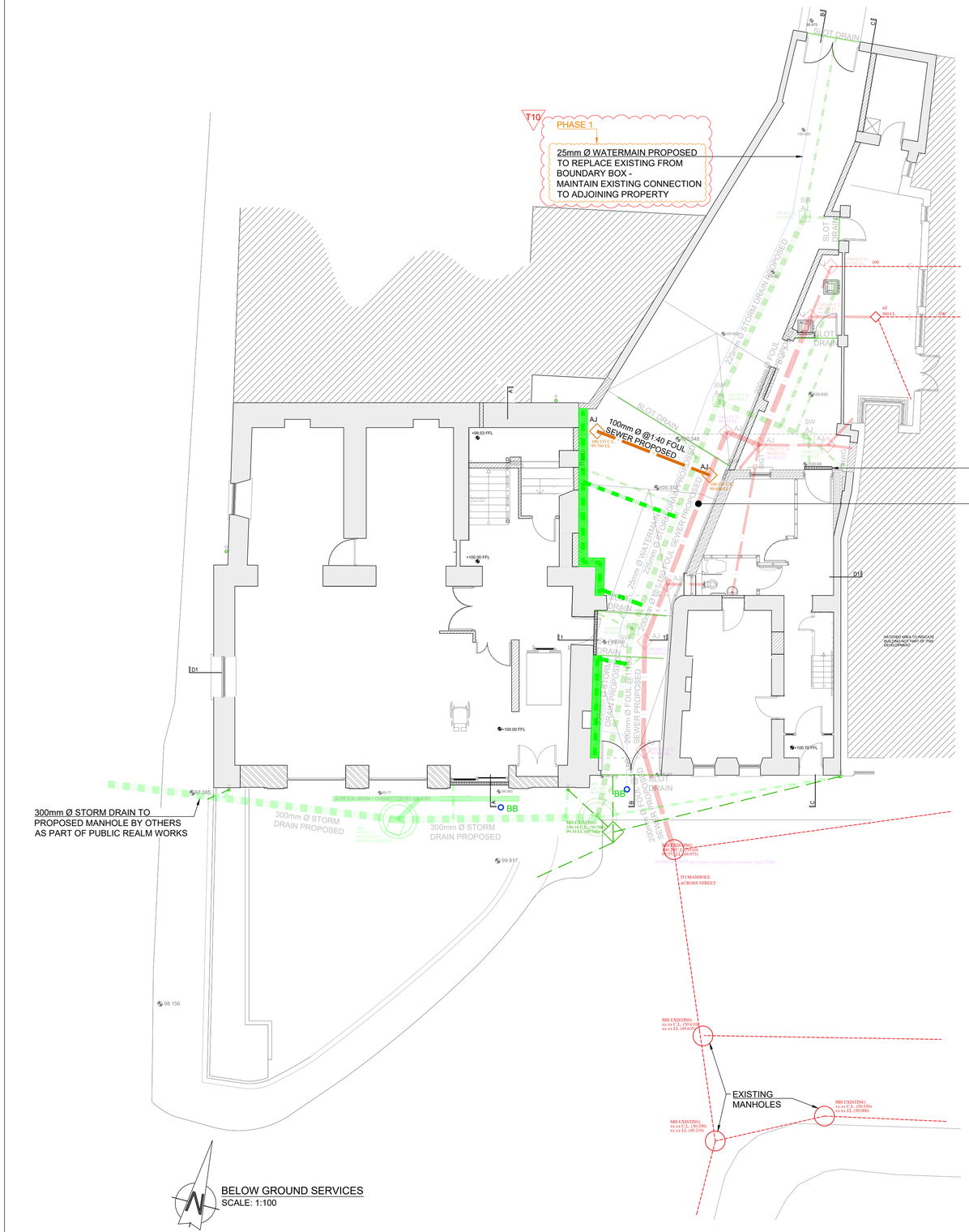
2. The contractor is responsible for checking all levels and dimensions on site and shall refer all discrepancies to the Engineer.
3. Only drawings issued for CONSTRUCTION shall be used for construction purposes.
4. Work to figured dimensions only. Do not scale print.
5. Check size of drawing sheet against dimension marks at bottom left hand corner of sheet.



BELOW GROUND SERVICES
SCALE: 1:100

FOUL DRAINAGE NOTE:

FOUL WATER DRAINAGE INSTALLATION TO BE INSTALLED **TO COMPLY WITH IRISH WATER CODE OF PRACTICE AND IRISH WATER STANDARD DETAILS.**

FOUL WATER CONNECTIONS TO BE 100mm Ø uPVC SN8 @ MIN 1 IN 60 FALL

FOUL WATER SEWER TO BE 225mm Ø uPVC SN8 @ MIN 1 IN 60 FALL

HYDRAULIC DESIGN TO COMPLY WITH CLAUSE 3.6 OF IW-CDS-5030-03, AND IN PARTICULAR CL. 3.6.5 & 3.6.6

STORM WATER DRAINAGE NOTE:

STORM WATER CONNECTIONS TO BE 100mm Ø uPVC PIPE

STORM WATER GULLY CONNECTIONS TO BE 150mm Ø uPVC PIPE

STORM WATER DRAIN TO BE 225mm Ø uPVC PIPE

ALL SEWER PIPES TO BE uPVC COMPLY WITH IS EN1401 2009/2012 "UD" STIFFNESS CLASS 8kN/m²

NOTE:
EXACT LOCATIONS OF ALL PIPEWORK POP UPS TO BE SET OUT FROM ARCHITECT'S DIMENSIONED DRAWINGS

WATER NOTE:

TRENCH BEDDING + BACKFILL TO IRISH WATER REF. STD-W-13 REV.2

ALL FITTINGS TO BE MARKED WITH INDICATOR PLATES TO BS.3251

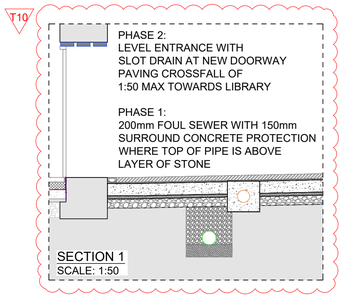
ALL WATERMAIN PIPES TO BE BLUE IN COLOUR +
SHALL BE MDPE (PE-80) SDR-11 RATING

DRAINAGE LEGEND

- PROPOSED uPVC FOUL SEWER / CONNECTION @ MIN 1 IN 60 FALL (UNLESS NOTED OTHERWISE)
- FOUL DRAINAGE (COMPLETED IN PREVIOUS PHASE OF WORKS)
- EXISTING FOUL DRAINAGE
- PROPOSED uPVC STORM DRAIN / CONNECTION
- uPVC STORM DRAIN / CONNECTION (COMPLETED IN PREVIOUS PHASE OF WORKS)
- EXISTING STORM DRAIN
- T10 FRENCH DRAIN (SEE SHEET 432)

WATER LEGEND

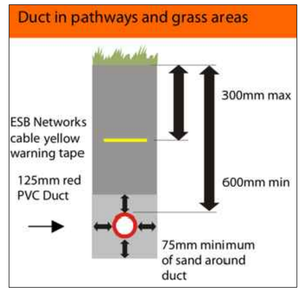
- SV SLUICE VALVE
- AV AIR VALVE
- BB BOUNDARY BOX
- EXISTING WATERMAIN
- WATERMAIN (COMPLETED IN PREVIOUS PHASE OF WORKS)



DRAINAGE CHANNEL AT REAR ENTRANCE DOOR PART OF THIS PHASE

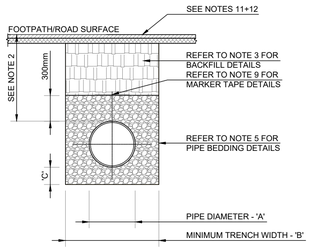
T10
PHASE 1:
FOUL DRAINAGE LAYOUT, PIPE SIZE + LEVELS UPDATED
(SEE LEVELS IN PURPLE)
150mm CONCRETE SURROUND TO FOUL DRAINAGE WHERE TOP OF PIPE IS LESS THAN 50mm CLEAR OF CONCRETE SLAB OVER
(E.G. WHERE TOP OF PIPE IS ABOVE LAYER OF STONE)

PHASE 2:
PROVIDE TEMPORARY PROTECTION AGAINST CONSTRUCTION TRAFFIC

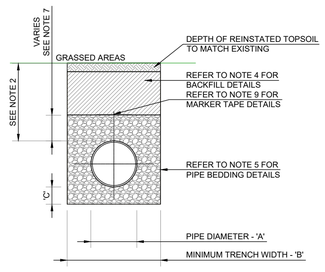


ALL ESB DUCTING WORKS ARE TO BE INSTALLED AND BACKFILLED AS PER ESB DUCT SPECIFICATIONS ON LV CABLE FOR NON-DOMESTIC CONNECTIONS STANDARD.

TRENCH BEDDING + BACKFILL DETAIL (FOR DRAINAGE + SERVICE DUCTS)



CROSS SECTION IN ROADS



CROSS SECTION IN GRASSED AREAS

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
<80 RISING MAIN	SEE NOTE 10
100	500
150 - 200	600
>200 - 350	750
>400 - 450	900

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤100	100
150 - 450	200

NOTES:
(AS PER UISCE ÉIREANN. SEE STD-WW-07)

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.

2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES **WITHOUT PROTECTION** SHOULD BE AS FOLLOWS:
A) 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).
B) 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.
C) 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.
D) DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.
E) AGRICULTURAL LAND AND PUBLIC OPEN SPACE - DEPTH NOT LESS THAN 0.9 M.
F) 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.

3. 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 UISCE ÉIREANN 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 UISCE ÉIREANN IN ADVANCE OF THE COMMENCEMENT OF WORKS.

4. 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 UISCE ÉIREANN.

5. 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.

6. 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 UISCE ÉIREANN BEFORE ADVANCING WITH THE WORK.

7. 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.

8. 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.

9. 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.

10. TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.

12. 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 INFRASTRUCTURE IRELAND REQUIREMENTS

TO BE READ IN CONJUNCTION WITH ARCHITECT'S TENDER DOCUMENTS.

Rev :	Note :		
T11	UTILITY WORKS BY OTHERS FADED TO CLARIFY PROPOSED UTILITY WORKS FOR TENDER		
	Date : 11 JUNE '26	Drawn : JH	Approved : JK
Rev :	Note :		
T10	UPDATES TO FOUL DRAINAGE + NOTES		
	Date : 28 MAY '26	Drawn : JH	Approved : JK

DAVIDKELLY PARTNERSHIP
CHARTERED ENGINEERS

Nelson House, Emmet Place, Youghal, Co. Cork.
t. +353 (0)24 92412
e. info@dkp.ie www.dkp.ie

10 Ormonde Street, Kilkenny.
t. +353 (0)56 7801260

Project :
TIPPERARY COUNTY COUNCIL:
CAHIR MARKET HOUSE BUSINESS CENTRE
THE SQUARE, CAHIR, CO. TIPPERARY

ARCHITECT: DEATON LYSAGHT ARCHITECTS

Title :
BELOW GROUND SERVICES

Purpose of Issue :	Scale :	
TENDER	1:100 ; NTS	
Project No. :	Drawing No. :	Issue No. :
20185	431	T11

SHEET SIZE : A1
0mm 50mm 100mm