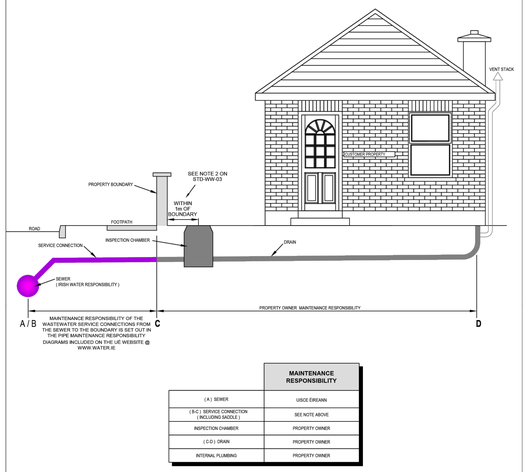


MAINTENANCE RESPONSIBILITY OF THE WASTEWATER SERVICE CONNECTIONS FROM THE SEWER TO THE PROPERTY BOUNDARY IS THE PIPE MAINTENANCE RESPONSIBILITY DIAGRAMS INCLUDED ON THE UE WEBSITE @ WWW.WATER.IE

	MAINTENANCE RESPONSIBILITY
(A) SEWER	UISCE ÉIREANN
(B-C) SERVICE CONNECTION (INCLUDING SADDLE)	SEE NOTE ABOVE
INSPECTION CHAMBER	PROPERTY OWNER
(C-D) DRAIN	PROPERTY OWNER
INTERNAL PLUMBING	PROPERTY OWNER

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

Uisce Éireann / Irish Water

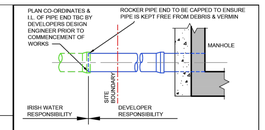
No	Date	Drn	Chk	Description	App
2	07/25	RH	TOC	B-C ownership revised	MO
1	11/17	JMC	TOC	Note reference added	MO
0	09/15	JMC	TOC	Initial Issue	SL

TITLE: WASTEWATER SERVICE CONNECTION MAINTENANCE RESPONSIBILITY

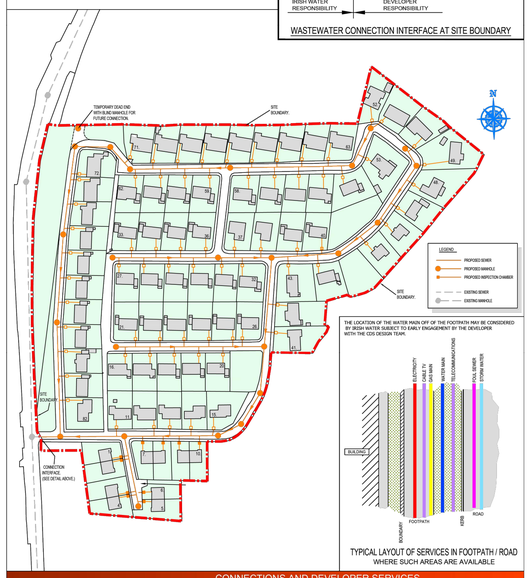
SCALE: NOT TO SCALE | DATE: SEPT. 2015

DRAWING No. STD-WW-01 | REV 2

1. THE MINIMUM SIZE FOR A GRAVITY FOUL SERVICE CONNECTION SHALL BE 100mm DIAMETER.
2. THE MINIMUM SIZE OF GRAVITY FOUL SEWER SHALL BE 225mm DIAMETER IN GENERAL. GRAVITY SEWERS ON BRANCHES SERVING 20 OR LESS PROPERTIES TO BE 150mm DIAMETER SUBJECT TO AGREEMENT WITH UISCE ÉIREANN
3. THE MINIMUM SIZE FOR RISING MAINS SHALL NOT BE LESS THAN 80mm & THE DESIRED MINIMUM SIZE OF RISING MAIN SHALL BE 100mm DIAMETER.
4. EACH PROPERTY SHALL HAVE A SEPARATE WASTE WATER SERVICE CONNECTION. A CONNECTION SHALL NOT BE TAKEN FROM AN EXISTING SERVICE CONNECTION.
5. FOR SITES WITH HIGH DENSITY DEVELOPMENTS, EARLY ENGAGEMENT IS REQUIRED IN RELATION TO AGREEING A CO-ORDINATED UTILITY SERVICES LAYOUT PLAN TO ENSURE THAT THE REQUIRED SEPARATION DISTANCES ARE ACHIEVED BETWEEN THE VARIOUS SERVICES.



WASTEWATER CONNECTION INTERFACE AT SITE BOUNDARY



THE LOCATION OF THE WATER MAIN OFF OF THE FOOTPATH MAY BE CONSIDERED BY IRISH WATER SUBJECT TO EARLY ENGAGEMENT BY THE DEVELOPER WITH THE CDS DESIGN TEAM.

TYPICAL LAYOUT OF SERVICES IN FOOTPATH / ROAD WHERE SUCH AREAS ARE AVAILABLE

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

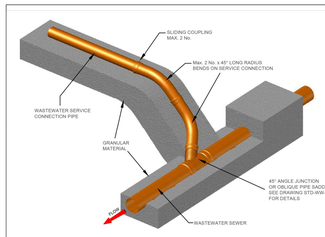
Uisce Éireann / Irish Water

No	Date	Drn	Chk	Description	App
3	09/25	RH	RMC	Adjustments to Manhole Locations	DF
2	07/25	RH	TOC	Connection Interface Detail added Dead end Kerbs connection shown Notes Updated	MO
1	11/17	JMC	TOC	Updated Note 2	MO
0	09/15	JMC	TOC	Initial Issue	SL

TITLE: TYPICAL LAYOUT FOR SEWER WITHIN NEW DEVELOPMENTS

SCALE: NOT TO SCALE | DATE: SEPT. 2015

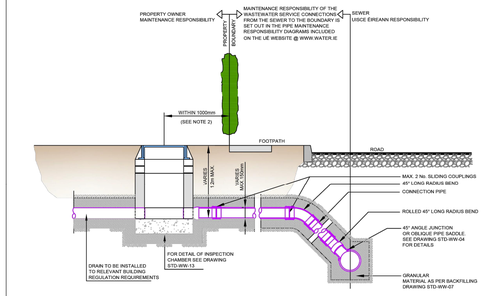
DRAWING No. STD-WW-02 | REV 3



3D VIEW SHOWING SERVICE CONNECTION PIPEWORK

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE.
3. CONSULT WITH UISCE ÉIREANN ON ALTERNATIVE LOCATIONS.
3. Updated Notes

NOTE:
IN HIGH DENSITY DEVELOPMENTS I.E. **DUPLEX OR TERRACED HOUSING**, WASTEWATER DRAINS FROM A MAXIMUM OF TWO UNITS CAN BE COMBINED INTO ONE INSPECTION CHAMBER IN INSTANCES WHERE THERE ARE SPACE CONSTRAINTS.
FOR TRIPLEX HOUSING UNITS, WASTEWATER DRAINS FROM A MAXIMUM OF 3 UNITS CAN BE COMBINED INTO ONE INSPECTION CHAMBER WITH MINIMUM INTERNAL DIMENSIONS OF 600 x 600mm OR 300mm DIAMETER. A **150MM DIAMETER** OUTLET PIPE IS REQUIRED IN INSPECTION CHAMBERS SERVING DUPLEX AND TRIPLEX UNITS.



SECTION SHOWING DRAIN AND SERVICE CONNECTION PIPEWORK

PIPE SIZE (mm)	GRADIENT
100 - 150mm Ø	1:40 - 1:80

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

Uisce Éireann / Irish Water

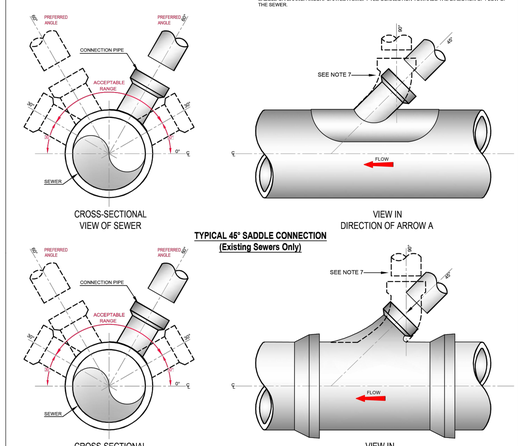
No	Date	Drn	Chk	Description	App
3	09/25	RH	RMC	Updated Notes	DF
2	07/25	RH	TOC	Connection Interface Detail added Dead end Kerbs connection shown Notes Updated	MO
1	11/17	JMC	TOC	Updated Note 2	MO
0	09/15	JMC	TOC	Initial Issue	SL

TITLE: DRAIN AND SERVICE CONNECTION PIPEWORK

SCALE: NOT TO SCALE | DATE: SEPT. 2015

DRAWING No. STD-WW-03 | REV 3

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AS FAR AS PRACTICABLE, JUNCTIONS AND SERVICE CONNECTIONS SHALL BE BUILT IN FOR ALL PLANNED USERS WHEN THE SEWER IS BEING CONSTRUCTED. WHERE IT IS NECESSARY TO MAKE A POST-CONSTRUCTION CONNECTION THE DEVELOPER SHALL BRING THE SERVICE CONNECTION TO THE PROPERTY BOUNDARY AND INSTALL THE INSPECTION CHAMBER AND SEAL THE UPSTREAM END UNTIL THE CONNECTION IS REQUIRED.
3. THE VERTICAL ANGLE BETWEEN THE SERVICE CONNECTING PIPE AND THE HORIZONTAL SHALL BE WITHIN THE ACCEPTABLE RANGE OF 30° to 90° .
4. WHERE THE SERVICE PIPE CONNECTION WITHIN THE FOOTPRINT OF THE SELF LAY AGREEMENT IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER OF 300mm DIAMETER OR LESS, CONNECTIONS SHALL BE MADE USING 45° ANGLE JUNCTIONS.
5. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER GREATER THAN 300mm, THE FOLLOWING SHALL APPLY :
A. WHERE THE DIAMETER OF THE CONNECTING PIPE IS GREATER THAN HALF THE DIAMETER OF THE SEWER, AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO FORM THE CONNECTION POINT; OR,
B. WHERE THE DIAMETER OF THE CONNECTION PIPE IS LESS THAN OR EQUAL TO HALF THE DIAMETER OF THE SEWER, THEN THE CONNECTION SHALL BE MADE USING A PREFORMED Y-BRANCH FITTING WITH A 45 DEG. SLOW BEND TO FORM THE CONNECTION TO THE WORKS.
6. CONNECTION USING SADDLES MAY ONLY BE USED IN EXCEPTIONAL CIRCUMSTANCES AND ONLY TO WHERE THE CONNECTION IS TO AN EXISTING SEWER. CONNECTIONS MADE WITH SADDLE FITTINGS SHALL BE MADE BY CUTTING AND SAFELY REMOVING A CORE FROM THE PIPE AND CONTINUING A SADDLE FITTING TO THE PIPE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO ENSURE A WATERTIGHT JOINT. THE CONNECTING PIPE SHALL NOT PROTRUDE INTO THE SEWERS
7. THE USE OF 90° "Y"-BRANCH OR SADDLE CONNECTIONS TO THE SEWER MAY BE ALLOWED, PROVIDED THE SADDLE OR BRANCH INCORPORATES A SWEPT TEE CONNECTION TOWARDS THE DIRECTION OF FLOW OF THE SEWER.



CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

Uisce Éireann / Irish Water

No	Date	Drn	Chk	Description	App
2	07/25	RH	TOC	Updated connection detail & notes	MO
1	11/17	JMC	TOC	Updated connection detail & notes	MO
0	09/15	JMC	TOC	Initial Issue	SL

TITLE: TYPICAL SEWER / SERVICE PIPE CONNECTION

SCALE: NOT TO SCALE | DATE: SEPT. 2015

DRAWING No. STD-WW-04 | REV 2

SERVICE CONNECTIONS

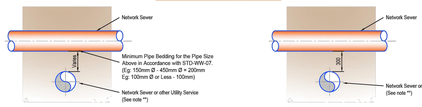
Vertical Separation required between 100mm Ø Service Connections and other Uisce Eireann Services at Crossings in Non-Trafficked Green Areas, Verges and Footpaths

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

Vertical Separation required between 100mm Ø Service Connections and other Uisce Eireann Services at Crossings in Trafficked Areas/Roads

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

NETWORK FOUL AND PIPE BELOW



Sewer Crossings (Foul & Storm). Minimum Pipe Bedding under Upper Pipe to be Achieved. Applies to Non-Trafficked Areas Only.

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

Sewer Crossings (Foul & Storm). Minimum Pipe Bedding under Upper Pipe to be Achieved. Applies to Trafficked Areas.

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

	Separation distance between Service Connection above and Uisce Éireann pipe below.	Separation distance between Service Connection below and Uisce Éireann pipe above if pipe is 100mm Ø or less.	Separation distance between Service Connection below and pipe above if pipe exceeds 100mm Ø.	Separation distance between Network Sewer above and pipe below.	Separation distance between Network Sewer below and pipe above.
Non Trafficked Areas	100mm	100mm	150mm	Pipe bedding depth of the upper pipe.	Pipe bedding depth of the pipe below.
Trafficked Areas	150mm	150mm	150mm	300mm	300mm

** Separation distances for wastewater service connection to other utility services will be as shown, as a minimum, and may be increased if required by the other Utility Company.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

Uisce Éireann / Irish Water

No	Date	Drn	Chk	Description	App
0	07/25	RH	TOC	Initial Issue	MO

TITLE: WASTEWATER SERVICE CONNECTION VERTICAL SEPARATION DISTANCES

SCALE: NOT TO SCALE | DATE: FEB. 2020

DRAWING No. STD-WW- 05A | REV 0

METHOD STATEMENTS:
ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 5837 AND INFORMED BY NJUG VOLUME 4

PRECAUTION AREA:

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS AGREED WITH UISCE ÉIREANN.

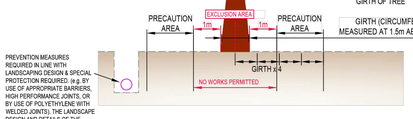
WORKS WITHIN THE PRECAUTION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST. WORKS SHALL BE SUBJECT OF A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ACCURDNT TO THE TREES/SHRUBS WHICH IS TO BE PREPARED & AGREED IN ADVANCE OF THE WORKS.

MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.

EXCLUSION AREA:

WORKS IN THIS AREA ARE TO BE AVOIDED, UNLESS ABSOLUTELY NECESSARY & AGREED WITH UISCE ÉIREANN.

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS NECESSARY AND NO OTHER OPTIONS AVAILABLE. WORKS WITHIN THE EXCLUSION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST AND AGREED WITH UISCE ÉIREANN. WORKS SHALL BE SUBJECT OF AN ARBORICULTURAL IMPACT ASSESSMENT AS PER BS 5837 & A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS IS TO BE PREPARED AND AGREED IN ADVANCE OF THE WORKS.
MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.



PREVENTION MEASURES REQUIRED IN LINE WITH LANDSCAPING DESIGN & SPECIAL PROTECTION REQUIRED. (e.g. BY USE OF APPROPRIATE BARRIERS, HIGH PERFORMANCE JOINTS, OR BY USE OF POLYETHYLENE WITH WELDED JOINTS). THE LANDSCAPE DESIGN AND DETAILS OF THE SPECIAL PROTECTION MEASURES MUST BE AGREED WITH UISCE EIREANN.

EXISTING PLANTING:

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

Uisce Éireann / Irish Water

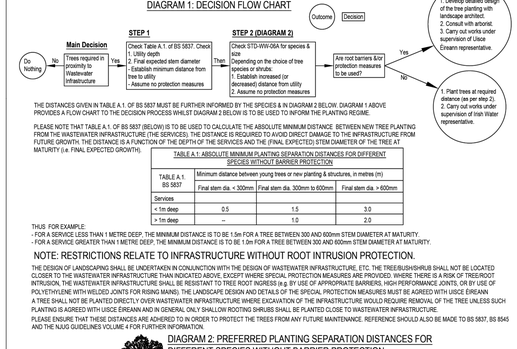
No	Date	Drn	Chk	Description	App
2	11/17	JMC	TOC	Revised to suit IU recommendations	MO
1	09/16	JMC	TOC	Added new section & notes	MO
0	09/15	JMC	TOC	Initial Issue	SL

TITLE: RESTRICTIONS ON WASTEWATER INFRASTRUCTURE WORKS ADJACENT TO TREES

SCALE: NOT TO SCALE | DATE: SEPT. 2015

DRAWING No. STD-WW-06 | REV 2

DIAGRAM 1: DECISION FLOW CHART



THE DISTANCES GIVEN IN TABLE A.1. OF BS 5837 MUST BE FURTHER INFORMED BY THE SPECIES & IN DIAGRAM 2 BELOW. DIAGRAM 1 ABOVE PROVIDES A FLOW CHART TO THE DECISION PROCESS WHILST DIAGRAM 2 BELOW IS TO BE USED TO INFORM THE PLANTING REGIME.

PLEASE NOTE THAT TABLE A.1. OF BS 5837 (BELOW) IS TO BE USED TO CALCULATE THE ABSOLUTE MINIMUM DISTANCE BETWEEN NEW TREE PLANTING FROM THE WASTEWATER INFRASTRUCTURE (THE SERVICES). THE DISTANCE IS REQUIRED TO AVOID DIRECT DAMAGE TO THE INFRASTRUCTURE FROM FUTURE GROWTH. THE DISTANCE IS A FUNCTION OF THE DEPTH OF THE SERVICES AND THE (FINAL EXPECTED) STEM DIAMETER OF THE TREE AT MATURITY (i.e. FINAL EXPECTED GROWTH).

TABLE A.1: ABSOLUTE MINIMUM PLANTING SEPARATION DISTANCES FOR DIFFERENT SPECIES WITHOUT BARRIER PROTECTION

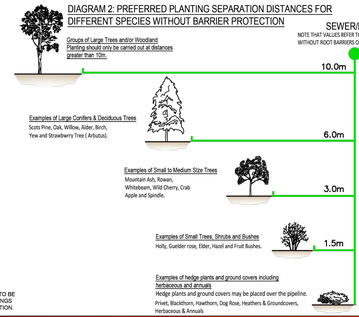
TABLE A.1. BS 5837	Minimum distance between young trees or new planting & structures, in metres (m)		
	Final stem dia. < 300mm	Final stem dia. 300mm to 600mm	Final stem dia. > 600mm
Services			
< 1m deep	0.5	1.5	3.0
> 1m deep	1.0	2.0	4.0

THUS FOR EXAMPLE:
- FOR A SERVICE LESS THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.5m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.
- FOR A SERVICE GREATER THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.0m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.

NOTE: RESTRICTIONS RELATE TO INFRASTRUCTURE WITHOUT ROOT INTRUSION PROTECTION.

THE DESIGN OF LANDSCAPING SHALL BE UNDERTAKEN IN CONJUNCTION WITH THE DESIGN OF WASTEWATER INFRASTRUCTURE, ETC. THE TREES/BUSHS/HRUB SHALL NOT BE LOCATED CLOSER TO THE WASTEWATER INFRASTRUCTURE THAN INDICATED ABOVE, EXCEPT WHERE SPECIAL PROTECTION MEASURES ARE PROVIDED. WHERE THERE IS A RISK OF TREE/ROOT INTRUSION, THE WASTEWATER INFRASTRUCTURE SHALL BE RESISTANT TO TREE ROOT INGRESS (e.g. BY USE OF APPROPRIATE BARRIERS, HIGH PERFORMANCE JOINTS, OR BY USE OF POLYETHYLENE WITH WELDED JOINTS FOR RISING MAINS). THE LANDSCAPE DESIGN AND DETAILS OF THE SPECIAL PROTECTION MEASURES MUST BE AGREED WITH UISCE EREANN
A TREE SHALL NOT BE PLANTED DIRECTLY OVER WASTEWATER INFRASTRUCTURE WHERE EXCAVATION OF THE INFRASTRUCTURE WOULD REQUIRE REMOVAL OF THE TREE UNLESS SUCH PLANTING IS AGREED WITH UISCE ÉIREANN AND IN GENERAL ONLY SHALLOW ROOTING SHRUBS SHALL BE PLANTED CLOSE TO WASTEWATER INFRASTRUCTURE.
PLEASE ENSURE THAT THESE DISTANCES ARE ADHERED TO IN ORDER TO PROTECT THE TREES FROM ANY FUTURE MAINTENANCE. REFERENCE SHOULD ALSO BE MADE TO BS 5837, BS 8540 AND THE NJUG GUIDELINES VOLUME 4 FOR FURTHER INFORMATION.

DIAGRAM 2: PREFERRED PLANTING SEPARATION DISTANCES FOR DIFFERENT SPECIES WITHOUT BARRIER PROTECTION



NOTE:
OTHER SPECIES NOT NAMED TO BE PLANTED TO THE SAME SPACINGS DEPENDING ON ROOT FORMATION.

CONNECTIONS AND DEVELOPER SERVICES

STANDARD DETAILS - WASTEWATER

Uisce Éireann / Irish Water

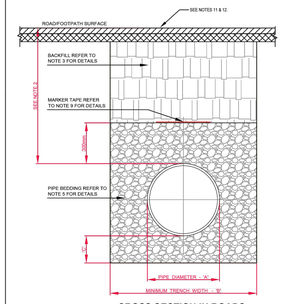
No	Date	Drn	Chk	Description	App
2	09/25	RH	RMC	Indigenous Species Referenced	DF
1	07/25	RH	TOC	Text Revised	MO
0	11/17	JMC	TOC	Initial Issue	MO

TITLE: RESTRICTIONS ON NEW TREES / SHRUBS PLANTING ADJACENT TO SEWERS

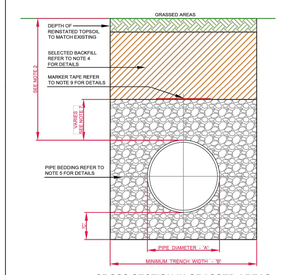
SCALE: NOT TO SCALE | DATE: JUL. 2017

DRAWING No. STD-WW-06A | REV 2

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 GRAVING DEPTHS OF 600mm IN GARDENS AND 750mm IN PATHWAYS ARE UNDERGRADE 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 EXCEEDING 2.5 TONNES - DEPTH NOT LESS THAN 0.75 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 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) ROADWAYS, HIGHWAYS, 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 ABOVE THE CROWN OF THE PIPE IN ROADWAYS, HIGHWAYS, YARDS OR WHEN THE MIDMOST PART OF THE TRENCH BEGINS WITHIN 1M OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 804 / 808 IS TO BE IN ACCORDANCE 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 MAY BE USED SUBJECT TO THE MATERIAL BEING SUITABLE FOR COMPACTION AND TO BE APPROVED 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 6.CLASS 2, MAY BE USED IN GREENFIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO REVIEW BY UISCE EIREANN.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01. PIPE BEDDING MATERIAL SHALL BE EITHER (a) GRADED AGGREGATE OR 10mm Ø (b) SINGLE SIZED AGGREGATE TO BE IN THE NJUG. 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 REGULATIONS. THE PIPE SHOULD BE INSTALLED IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS. THE SOFT GROUND 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 COMMENCEMENT OF WORKS.
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 6,CLASS 2.) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE PIPE BEDDING AND SURROUND. THE TYPE B MATERIAL SHALL BE PLACED 300mm 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. THE TRENCH SHALL BE FREE FROM 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. PIPE BEDDING MATERIAL 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) OR AT A MANHOLE COVER.
10. TRENCH WIDTHS FOR PIPE SIZES 225mm 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 SPECIFICATION.
12. ALL TEMPORARY AND PERMANENT 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.



CROSS SECTION IN ROADS



CROSS SECTION IN GRASSED AREAS

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
4 80 RISING MAIN	SEE NOTE 10
100	500
150 - 200	600
>200 - 350	750
>350 - 600	900