



- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING OUT ALL DRAINAGE INFRASTRUCTURE TO ENSURE NO CLASHES OCCUR WITH SERVICE DUCTS, CHAMBERS ETC.**
- 2. CARE SHOULD BE TAKEN BY THE CONTRACTOR WHEN HANDLING PIPES, PARTICULARLY WHEN UNLOADING AND STACKING, SO AS TO AVOID DAMAGING THEM.**
- 3. ALL PIPE SEALS AND GASKETS SHOULD BE STORED INDOORS AWAY FROM DIRECT SUNLIGHT.**
- 4. ALL SEWERS TO BE THERMOPLASTIC STRUCTURED WALL SEWER PIPE AND SHALL COMPLY WITH THE RELEVANT PROVISIONS OF MIS 4-35-01 (E.POLYSEWER BY POLYPIPE CIVILS OR EQUIVALENT APPROVED) ALL MATERIALS USED TO BE IN COMPLIANCE WITH SECTION 3.9 OF THE IRISH WATER CODE OF PRACTICE.**
- 5. EXCAVATION SHOULD NOT BE CARRIED OUT TOO FAR IN ADVANCE OF PIPE INSTALLATION ALL RELEVANT HEALTH & SAFETY REQUIREMENTS IN RESPECT OF EXCAVATION SHOULD BE OBSERVED BY THE CONTRACTOR DURING EXCAVATION WORKS.**
- 6. MINIMUM COVER TO PIPES:**
- a) 1200mm ROADWAYS
 - b) 900mm OPEN SPACES & FOOTPATHS NOT ADJACENT TO ROADS
 - c) 600mm GARDENS
- 7. THE CONTRACTOR SHOULD PLAN HIS WORK FOR CHAMBERS AND MANHOLES SO AS TO MINIMISE AS MUCH AS POSSIBLE WORKING REQUIRED IN CONFINED SPACES.**
- 8. JOINT LUBRICANTS FOR SLIDING JOINTS SHALL HAVE NO DELETERIOUS EFFECT ON EITHER THE JOINT RINGS OR PIPES AND SHALL BE UNAFFECTED BY SEWAGE.**
- 9. ALL ABANDONED SEWER PIPES TO BE FILLED WITH 1/2/5 CONCRETE. ABANDONED MANHOLES TO BE BROKEN OUT IF POSSIBLE. OTHERWISE THEY SHOULD BE FILLED WITH 1/2/5 CONCRETE.**
- 10. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE RELEVANT SERVICE PROVIDERS IN ADVANCE OF ANY PLANNED EXCAVATION WORKS TO VERIFY THE LOCATION, DEPTH AND NATURE OF ANY UNDERGROUND SERVICES.**
- 11. ROCKER PIPES:**
- a) ROCKER PIPES SHOULD BE PROVIDED AT ALL LOCATIONS WHERE:
 - i. A PIPE ENTERS OR LEAVES A MANHOLE, PUMPING STATION OR OTHER RIGID STRUCTURE.
 - ii. A PIPE ENTERS OR LEAVES A CONCRETE ENCASMENT.
 - iii. ANY LOCATION AS DIRECTED BY THE ENGINEER.
 - b) ROCKER PIPE JOINT TO BE LOCATED NO MORE THAN 150mm FROM THE OUTSIDE FACE OF THE STRUCTURE TO WHICH THE PIPEWORK IS SERVING. THE EFFECTIVE LENGTH OF THE ROCKER PIPE SHOULD BE:
 - i. PIPE DIAMETER 150mm TO 400mm: 0.66m
 - ii. PIPE DIAMETER 400mm TO 750mm: 1.00m
 - iii. PIPE DIAMETER GREATER THAN 750mm: 1.25m
 - c) ALL ROCKER PIPES ARE TO BE FORMED BY CUTTING AND TRIMMING A LENGTH OF SPOUT & SOCKET PIPE TO FORM A SPOUT AT THE CUT END, THEREBY FORMING SPOUT & SOCKET JOINTS AT BOTH ENDS OF THE ROCKER PIPE.
- 12. PIPEWORK AND BENCHING TO A SINGLE MANHOLE CHAMBER SHOULD BE COMPLETED AND THE ENGINEER INVITED TO INSPECT SAME BEFORE ALL REMAINING CHAMBERS ARE COMPLETED.**
- 13. ONLY PROPRIETARY CONNECTION PIECES TO BE USED FOR MAKING CONNECTIONS TO SEWERS.**
- 14. WHEN INSTALLING FLEXIBLE PIPES (ENGLIN/TW WALL) PVC OR SIMILAR PARTICULAR CARE SHOULD BE TAKEN BY THE CONTRACTOR TO ENSURE THE PIPES ARE WELL BEDDED AND SURROUNDED IN GOOD QUALITY GRANULAR MATERIAL IN ACCORDANCE WITH THE SPECIFICATION.**
- 15. THE CONTRACTOR MUST TAKE GREAT CARE WHEN COMPACTING MATERIAL OVER DRAINAGE PIPES SO AS NOT TO DISLodge THEM FROM THEIR CORRECT LINE AND LEVEL.**
- 16. TYPE E BEDDING TO BE USED WHERE MINIMUM COVER OR GREATER IS PROVIDED TO FLEXIBLE PIPES.**
- 17. FOR PIPES IN ROADWAYS WHERE COVER IS LESS THAN 1200mm BUT GREATER THAN 800mm TYPE G BEDDING TO BE USED.**
- 18. FOR PIPES IN ROADWAYS WHERE COVER IS LESS THAN 800mm TYPE X BEDDING TO BE USED.**
- 19. FOR PIPES IN OPEN SPACES, FOOTPATHS NOT ADJACENT TO ROADS AND GARDENS WHERE MINIMUM COVER OR GREATER IS NOT ACHIEVED, TYPE G BEDDING TO BE USED.**
- 20. ALL MANHOLES TO BE REINFORCED WITH PRECAST CONCRETE RINGS IN ACCORDANCE WITH RELEVANT ENGINEERS DETAILS DRAWING.**
- 21. PROPRIETARY CONNECTIONS TO BE USED THROUGHOUT.**
- 22. ALL JOINTS TO BE WATER TIGHT TO CL 504 SUB CLAUSE 3 OF THE NRA SPECIFICATION FOR ROADWORKS.**
- 23. MANHOLES WITHIN PAVING TO BE D400 AND RECESSED TO RECEIVE PAVORS.**
- 24. MANHOLES IN TARMAC/ADAM/GRASSED AREAS TO BE NON ROCK D400 LOCKABLE MANHOLES.**
- 25. TRENCHES IN EXISTING SURFACES TO BE SAW CUT.**
- 26. IF CONSTRUCTING MANHOLE CHAMBERS USING PRECAST CONCRETE RINGS, THE CONTRACTOR SHOULD ENSURE THAT THE JOINTS IN THE PRECAST CONCRETE RINGS ARE STAGGERED WITH THE JOINTS IN THE CONCRETE SURROUND TO REMOVE THE POSSIBILITY OF GROUND WATER INGRESS.**
- 27. WHERE A CONNECTION IS REQUIRED TO AN EXISTING PUBLIC SEWER SYSTEM, THE CONTRACTOR MUST MAKE A FORMAL APPLICATION TO THE LOCAL AUTHORITY TO DO SO.**
- 28. A DETAILED METHOD STATEMENT MUST BE SUBMITTED TO THE LOCAL AUTHORITY FOR APPROVAL AT LEAST FOUR WEEKS IN ADVANCE OF THE PLANNED CONSTRUCTION WORKS.**
- 29. WHERE NEW DRAINAGE INFRASTRUCTURE IS TO CROSS AN EXISTING ROAD, THE CONTRACTOR IS REQUIRED TO:**
- a) CONTACT THE RELEVANT AUTHORITIES WELL IN ADVANCE OF THE PLANNED WORKS.
 - b) MAKE AN APPLICATION AND PAY FOR A ROAD OPENING LICENCE IF APPLICABLE.
 - c) MAKE GOOD THE EXISTING ROAD TO THE SATISFACTION OF THE ENGINEER & THE RELEVANT AUTHORITIES ON COMPLETION OF THE WORKS.
- 30. THE CONTRACTOR IS ADVISED TO COMPLETE AND TESTING ON A DAILY BASIS DURING THE COURSE OF THE WORKS TO ENSURE ISOLATION OF ANY FAILED TESTS.**
- 31. THE COMPLETE DRAINAGE WORKS SHOULD BE PROTECTED, WHERE NECESSARY, FROM LOADS IMPOSED BY CONSTRUCTION PLANT DURING CONSTRUCTION.**
- 32. ON COMPLETION OF THE WORKS, THE CONTRACTOR MUST ENSURE ALL INTERNAL SURFACES OF THE NEW SEWERS ARE THOROUGHLY CLEANED TO REMOVE ALL DELETERIOUS MATERIAL. THIS MATERIAL MUST BE PREVENTED FROM ENTERING THE PUBLIC SEWER SYSTEM.**
- 33. A CCTV SURVEY OF THE COMPLETED UNDERGROUND DRAINAGE NETWORK SHOULD BE CARRIED OUT BY THE CONTRACTOR ON COMPLETION OF THE WORKS. IT IS RECOMMENDED THAT THIS EXERCISE IS COMPLETED BEFORE FINAL SURFACE COURSES AND FINISHES ARE APPLIED IN CASE ANY REMEDIAL WORKS ARE REQUIRED TO THE DRAINAGE.**
- 34. INSPECTION CHAMBERS TO BE INSTALLED IN COMPLIANCE WITH IRISH WATER STANDARD DETAILS STD-WW-03 & STD-WW-13.**
- 35. MANHOLES TO CONFORM WITH IRISH WATER STANDARD DETAILS STD-WW-09, STD-WW-10, STD-WW-11, STD-WW-13 AS APPROPRIATE.**
- 36. WHERE FOUL CONNECTIONS PASS OVER ATTENUATION TANKS, VERTICAL SEPARATION DISTANCE IS TO BE 300mm.**

1 Proposed Foul Sewer Layout
Scale: 1:500

2 Phasing Key Plan
Scale: 1:2500

Legend:

- MANHOLE ASSOCIATED WITH PROPOSED FOUL WATER PIPE (INCL. DIAMETER AND GRADIENT)
- INSPECTION CHAMBER (PRIVATE) TO BE INSTALLED IN ACCORDANCE WITH IRISH WATER STANDARD DETAILS AND CODE OF PRACTICE
- FOUL WATER PIPE (INCL. DIAMETER AND GRADIENT)
- DRAIN AND SERVICE CONNECTION (IN ACCORDANCE WITH STD-WW-03)

Revisions:

NO.	DATE	DESCRIPTION
01	12/22/21	Issue for Pre-Construction
02	01/22/22	Updates to reflect Pre-Construction
03	02/22/22	Updated information issued for Pre-Construction application
04	03/22/22	Issued for Planning/Architects/Engineers/Contractors
05	04/22/22	Issued for Planning/Architects/Engineers/Contractors
06	05/22/22	Issued for Planning/Architects/Engineers/Contractors
07	06/22/22	Issued for Planning/Architects/Engineers/Contractors

Project Information:

Project: Foul Sewer Layout
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