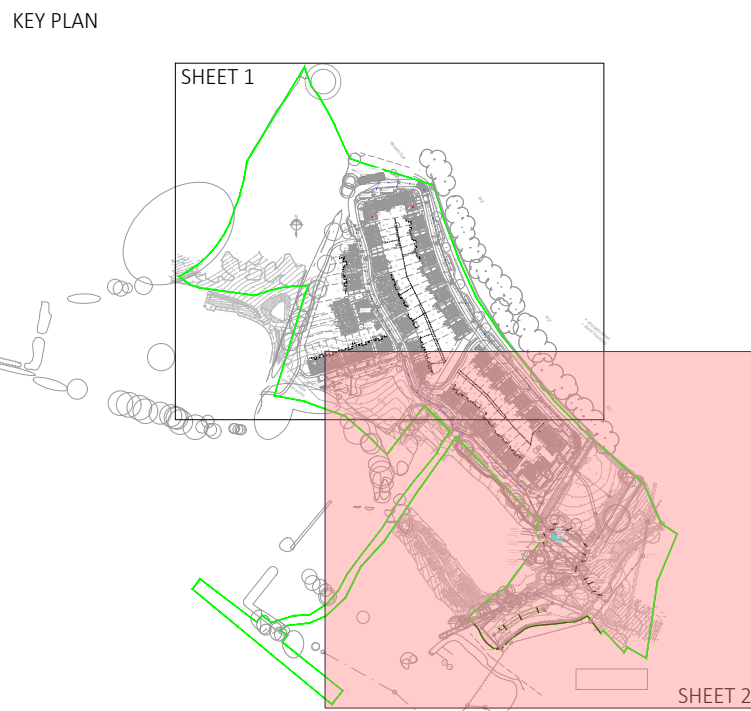
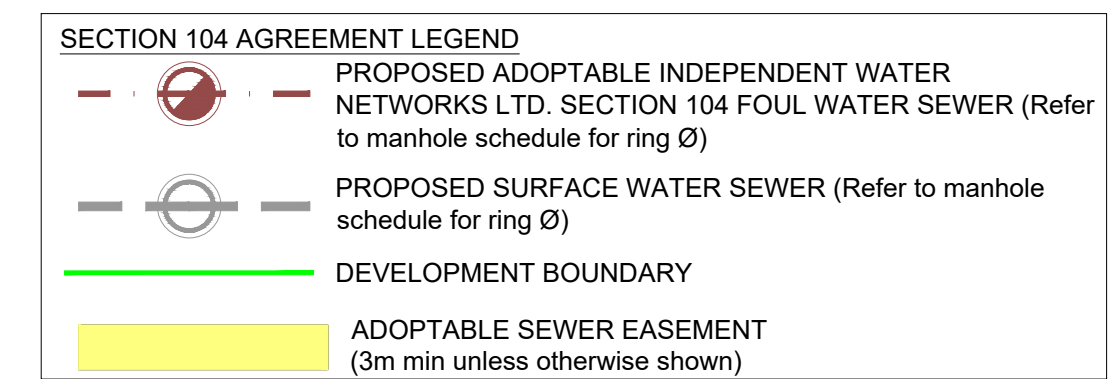




Section 104 Specification Notes:

1. The planning, design and construction of sewers shall be in accordance with Sewers Construction and Maintenance Code, Construction Guidance, the City Engineer's Specification for the Water Utility 7th Edition and Independent Water Networks Limited amendments to CESVI.
2. All adoptable sewers within adoptable highway with less than 1.2m cover to have concrete slab protection. All adoptable sewers within grassed areas with cover less than 0.9m to have reinforced concrete slab protection. All areas with greater cover than the minimum required to have type 5 bed and surround.
3. M/R covers & frames shall be ductile iron with a minimum square opening of 600x600mm. Covers and frames shall be fitted with 100mm diameter openings and be provided with lock bolted connections. Frame depths shall be 150mm but in any case all frames shall comply with DGS clause E2.32 & Table 6 (page 107).
4. All frames and lock bolts shall be supplied as specified on all frames schedule.
5. Use of this drawing does not absolve the client from his responsibilities under the Health and Safety: The Construction Design and Management Regulations 2015. The Principal Designer is required to contact Hydrock Consultants prior to permitting this drawing to be used in connection with any construction works.
6. All private drainage to comply with current Building Regulations, BS EN-752 Drain and Sewer systems outside buildings and other relevant British Standards and Codes of Practices.

The minimum size of sewer where guide bars, safety chains, or other safety devices are required in Manholes shall be 600mm diameter.

All sewers to be laid soffit to soffit unless otherwise shown.

Prior to laying any manhole the subgrade must be inspected and any soft spots removed and replaced with Type 1 material to BS 594 Clause 10.1.

It is the Contractors responsibility to locate existing services on site accurately.

11. The Contractor should comply with h(s)g 47 "Avoiding Danger from Underground Services" when excavating around existing services.

12. The Contractor is to be the line, level and grade of existing sewers before commencing drainage works.

13. Contractor to provide temporary services in each of the down stream manholes during the construction period of the development in accordance with DGS BS.2.3.

14. All in-situ concrete and precast concrete components to be manufactured using Sulphate Resisting Portland Cement, (SRPC) to BS 4027, if required, subject to soil conditions.

15. All manholes should have a concrete surround. Concrete rings shall be sealed using "Tokstrip" and lifting eyes poured with resin modified mortar.

16. Clay pipes to be vitrified clay to be as per 295-1:1991.

17. Crushing strength of clay pipes shall be as follows: Ø crushing strength

150	40
225	45

18. Manhole components to be to be as per EN1917:2002

19. All levels are to OS datum.

20. Compliance with Health & Safety on any trench/manhole is obligatory and a permit to enter a confined space is required when connecting site drainage to the existing sewerage system. A permit to work for confined space will be obtained from Independent Water Networks Limited Ltd prior to the works commencing on any public sewerage system.

21. The use of ladders or steps in Manholes, wet wells and valve chambers shall comply with the following specifications: a) All steps or ladders shall not be used in MHS of a greater depth than 1.0m. Steel plastic encapsulated double steps shall be provided in MHS up to 3.0m in depth. Ladders shall be provided in accordance with BS 42111 in MHS between 3.0 & 6.0m depth. Ladders more than 6.0m deep shall be specially designed and have a galvanised mild steel landing with intermediate landings shall be provided with galvanised mild steel gratings to prevent persons falling through. The design of deep MHS shall permit the use of a winch or lifting gear mounted at ground level in case of emergencies.

22. Only low carbon steel or stainless steel ladders for vertical lifting to MHS will be acceptable.

23. Proposed adoptable sewers are only permitted to have other sewerage/ly connections and other services at angles of between 45° and 90° across the line with a vertical clearance in excess of 300mm.

24. All ironwork to be kited marked by BSI or certified by equal inspection authority.

25. Red coloured plastic marker tape at least 150mm wide shall be laid at a minimum of 100mm above the surface of the pipe. The tape shall be printed with the words GRAVITY SEWER in bold capital letters throughout its length and at intervals not exceeding 700mm and shall incorporate a corrosion resistant tracing system for non-metallic pipes.

26. Where the proposed site drainage connects to the public sewerage system either by a new connection, new manhole or new structure, it will require the submission of a S106 application for sewer connection form to Independent Water Networks Limited Ltd prior to works commencing.

27. Where steps are to be constructed inside the restricted tree root zone a suitable tree root protection barrier is to be installed to Independent Water Networks Limited's specification.

REVISIONS				
C06	20/02/25	Cellular storage removed as LLFA request. Swale added.	JAC	JRC
C05	13/12/24	Southern Basin substituted for cellular storage to avoid loss of surface water flood storage.	JAC	JRC
C04	11/11/24	Development boundary south of southern basin revised, drainage adjusted to suit. Private drainage adjacent to plots 25-30 and 31-34 amended to avoid tree removal being required.	MT	JRC
C03	17/10/24	Reference to Southern Water amended to iWNL. Drawing key updated.	JRC	JAC

Rev	Date	Description	By	Ckd	App
-----	------	-------------	----	-----	-----

Hydrock

 OVER COURT BARN
OVER LANE
ALMONDSBURY
BRISTOL
BS32 4DF
t: +44 (0) 1454 619533
e: bristol@hydrock.com

CLIENT
FOREMAN HOMES

PROJECT
LAND OFF MISERY LANE
PROVIDENCE HILL, BURSLEDON
SOUTHAMPTON

TITLE
SECTION 104 PLAN - FOUL WATER DRAINAGE
SHEET 2 OF 2

HYDROCK PROJECT NO. C-21627-C		SCALE @ A1 1 : 500
STATUS DESCRIPTION FOR APPROVAL		STATUS S4
DRAWING NO. (PROJECT CODE-ORIGINATOR-ZONE-LEVEL-TYPE-ROLE-NUMBER) 21627-HYD-XX-XX-DR-C-0103		REVISION C06