

- Site Boundary
Adoptable storm water manhole to ICOSA Water specification
Adoptable storm water sewer to ICOSA Water specification
Adoptable foul water manhole to ICOSA Water specification
Adoptable foul water sewer to ICOSA Water specification
Storm water manhole to ICOSA Water specification by others
Storm water sewer to ICOSA Water specification by others
Foul water manhole to ICOSA Water specification by others
Foul water sewer to ICOSA Water specification by others
Sewer Easement
Tree protection zone extents. Hand dig only construction where in close proximity to roots. Additional protection barriers may be required.
Tree protection fencing

This drawing should be read in conjunction with all other design drawings and reports. In particular, the following documents:

49204-ECE-XX-XX-CA-C-0000 - Drainage Calcs
49204-ECE-XX-XX-DR-C-0002 - Plot Drainage Layout
49204-ECE-XX-XX-DR-C-0003 - Impermeable Areas Plan
49204-ECE-XX-XX-DR-C-0004-0006 - S104 Construction Details
49204-ECE-XX-XX-DR-C-0007 - Adoptable Drainage Schedule
49204-ECE-XX-XX-DR-C-0008 - Private Drainage Construction Details
49204-ECE-XX-XX-DR-C-0010 - External Works
49204-ECE-XX-XX-DR-C-0013-0015 - Longitudinal Sections

'Phase 3D' foul drainage manhole F8 to connect along sewer alignment between F145/F146 (master drainage). Sewer part constructed based on as built information provided by site (24.10.24). Master drainage design as per drawing S104 adoption plan drawing M434/109 by PFA consulting. Master drainage network offered for adoption under a separate agreement.

'Phase 3D' storm drainage to connect into manhole S3032. Master drainage design as per drawing S104 adoption plan ref M434/109 by PFA consulting. Master drainage network offered for adoption under a separate agreement.

INFORMATION WITHIN THIS DRAWING IS NOT NECESSARILY PRODUCED TO SCALE. ALWAYS USE FIGURED DIMENSIONS AND CO-ORDINATES - IF IN DOUBT, ASK.

NOTES

- All pipes shall be either:
 - PVC to have BSI kitemark status (certified to WIS 4-35-01 and to BS EN13476) Polypropylene. Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable, clay channel sections shall be used. Icosia Water accept the use of plastic pipes in adoptable sewers, provided they comply with the following standards:
 - Solid Wall PVC-U to BS EN 1401
 - Spiral Wound Welded HDPE to EN 13476 Parts 1 & 2
 - Structure-wall Thermoplastic to EN 13476 Parts 1 & 3
 - Polypropylene to BS EN 1852Please note that where plastic pipes are installed into the ground prior to obtaining approval, then the Developer will have to provide a Light-line survey and report of the prospectively adoptable sewers, which will be at the Developer's expense.
 - OR
 - Vitrified clay to BS EN 295 with a minimum crushing strength as follows:
 - 150 dia. - 40 kN/m
 - 225 dia. - 45 kN/m
 - 300 dia. - 72 kN/mOR
 - Class 120 concrete to EN1916 /BS 5911-1:2002.
- Pipes of 375mmØ or greater shall be concrete conforming to BS5911 Part 100.
- Where plastic pipes are proposed for adoptable sewers, structural calculations for the plastic pipes and a site investigation report to prove that the ground condition is suitable for the plastic pipes are to be produced.
- All pipes are to be laid soffits level at manholes unless noted otherwise.
- All adoptable sewer works and materials to be in accordance with "DCG", the relevant British/European standards and Icosia Water standards/requirements/addendum and be kitemarked.
- Manhole covers shall have a clear square opening of 675 and shall be class D400 to BS EN 124 with 150 deep frames in highways. Covers to have closed keyways and are to be bedded on steel slims with 1.3 mortar haunching.
- Sewers must have 5m clearance from trees and hedges (Icosia Technical Requirement WW-P0-002 for tree planting requirements).
- Sewers to be laid on a class S bedding (150mm granular bed and surround). Where depth of cover to top of sewer is less than 1.2m in highways and verges (or less than 0.9m in non vehicular access areas), a concrete slab is to be provided above the granular bed and surround.
- All trenches in roads and paved areas shall be backfilled with Type 1 DTF granular sub-base material, or other granular material approved by the highway authority.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of Icosia Water before any sewer works are carried out.
- Sulphate resistant cement (C20-D02) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains or sewers are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood CE.
- The chamber size of manholes with more than one connection in them may need to be increased by an increment to accommodate the connections and bends.
- Cover levels are indicative only. Covers to be set to suit camber/gradient of existing and proposed roads.
- No land drainage is to connect to the public sewers, either directly or indirectly.
- Cover slabs must carry the BSI Kitemark or will be rejected by the Icosia Water inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a load bearing slab should be fitted above the cover slab to bring the size down to 675x675, refer to CPISA Technical Bulletin issued autumn 2004 for Kitemarked cover slab opening sizes.
- Demarcation chambers to be a min. 450mmØ chamber for 150mmØ foul and surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 350mm is required for health and safety reasons. The maximum depth of demarcation chamber to be 2.0m, where depth exceeds 2m, manhole to be constructed as a Type B manhole.
- Any connection into an existing Icosia Water Sewer should only be made following the submission of a completed application form and method statement for Icosia approval. This must be provided giving 21 days notice of the intention to connect to the public sewer.
- Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.

P03	Drawing title amended. Updated to suit revised site layout received on 20.11.24.	MA	CB	02/12/2024
P02	Updated to suit revised site layout received on 10.10.24	MA	CB	29/10/2024
P01	First issue.	AT	CB	05/09/2024
REV	DESCRIPTION	SIG	CHK	DATE

MILLER HOMES

BOORLEY GARDENS, PHASE 3D,
WINCHESTER ROAD, BOORLEY
GREEN, HAMPSHIRE

S104 LAYOUT

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ECE PROJECT No	SCALE AT A1	STATUS	SUITABLE FOR	REV
49204	1:250	S3	Comment	
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				Role
				Number