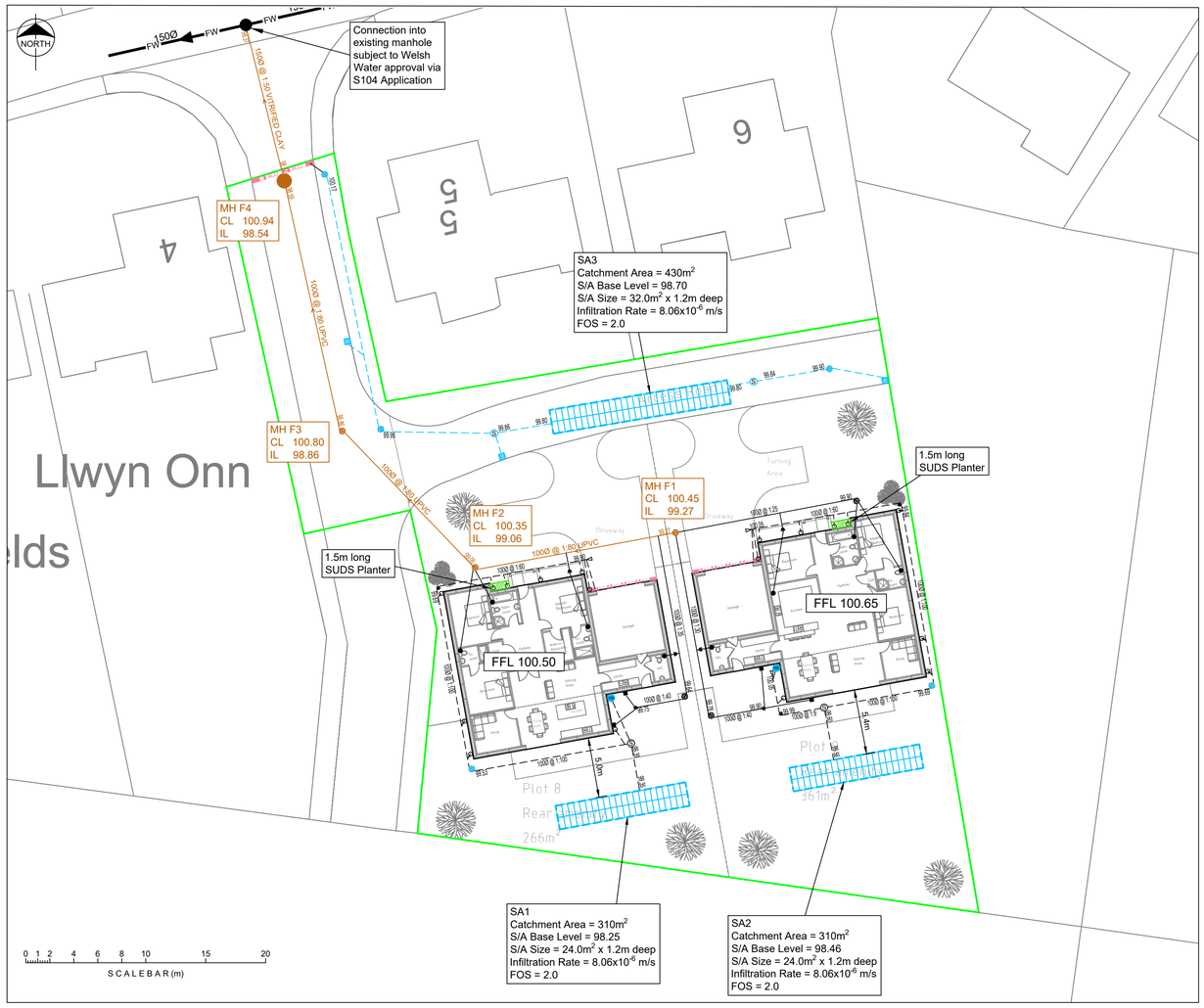
DO NOT SCALE



Drainage Layout
1:250

Drainage Strategy

Existing Drainage

The site is currently greenfield with no positive drainage.

Proposed Foul

Foul flows from the development will drain into the foul public sewer subject to a S104 Application.

Proposed Surface Water

1. Collection for re-use
Client is proposing to install a water butt on rear RWP for garden re-use.

2. Infiltration
Infiltration testing has determined the site is suitable for infiltration to dispose of surface water flows. We are proposing a soakaway to take the rear of the plot and permeable paving for the driveway and front of the plot.

3. Watercourse
There are no watercourses within the vicinity of the site.

4. Surface water sewer
There are no surface water sewers within the vicinity of the site.

5. Combined sewer
There are no combined sewers within the vicinity of the site. However, Infiltration testing has confirmed the site is suitable for infiltration techniques to dispose of surface water from the development so a connection into a combined sewer is not required.

Soakway Notes

- Soakaways to be located entirely within suitable permeable strata
- All soakaways to be located a minimum of 5m from foundations
- Soakaways designed for a 100 yr + 50% CC return period (based on FSR rainfall method)
- Infiltration rate of 2.8 x10^{-5} m/s (1.0 x10^{-1} m/h) used for design

General Notes

- Contractor to propose a suitable construction sequence for the soakaway construction and develop a detailed method statement.
- Excavation sides to adequately supported.
- Contractor to work in accordance with best practice ensuring all personnel have adequate PPE and confined space training.
- Excavation/plant to be secure from general public at all times
- Safe access and egress to be provided.

Maintenence / Responsibilities

Adoption and maintenance of all surface water components serving 2 or more properties subject to SAB approval.

This development is a single dwelling requiring SAB approval but not adoption. The owner will be responsible for the future maintenance of the surface water network.

All piped networks to have CCTV survey at end of construction activities. Any debris to be removed. Future maintenance to involve inspections to ensure no silt build ups within network.

A SUDS Management Plan will be produced to address frequency and type of maintenance activities for the silt traps and trench soakaway components.

Legend

Site Boundary

Existing

Existing Foul Water Drain

Proposed

Private Surface Water (225Ø IC, 450Ø IC)

Private Foul Drain

Adoptable Foul Sewer (Welsh Water)

Silt Trap / Catchpit

SVP

BIG

RWP

RE

FFL xx.xx — Slab Level

Soakaway

Private Road Gully

ACO Drain

Road Gully and Drain

WB — Waterbutt

SUDS Planter

Notes

1. All dimensions are in millimetres unless otherwise shown.
2. All private drainage works are to comply fully with Part H of the Building Regulations.
3. All existing invert levels to be checked by the contractor at the start of works and any other discrepancies notified to the Engineer prior to commencing works. All levels are based on topographical survey information provided by others.
4. It is the responsibility of the Contractor to verify all information given with regards to existing services and drainage connections etc. prior to commencing the works.
5. The Contractor shall adhere to the CDM Regulations at all times.
6. Only trained personnel shall be permitted to enter confined spaces.
7. Drain trenches should not be excavated lower than the foundations of any building nearby unless either:
 a) The trench is within 1m of the foundation, the trench is filled with concrete up to the lowest level of the foundation, or
 b) Where the trench is further than 1m from the building, the trench is filled with concrete to a level bellow the lowest level for the building equal to the distance from the build, less 150mm.
8. All SVP and RWP connections are indicative and shall be confirmed by the client.
9. Pipe gradients out of the building to connecting manhole to be laid at 1:40 in accordance with Building Regulations, Part H, Table 6.
10. Where pipe sizes are not indicated :
 100Ø to be used for foul
 100Ø to be used for surface water unless stated otherwise.
11. Minimum surface water gradients shall be:
 100Ø laid at 1:100 with the exception of the first connection which shall be minimum 1:60
 150Ø laid at 1:150
12. Minimum 100Ø foul drainage gradient to be 1:80 with the exception of the first connection which shall be minimum 1:40.
13. Manhole covers to be marked FWS or SW as appropriate.
14. All manhole covers and frames shall comply with BS EN124. Covers in roads to be grade D400 and be 150mm deep. Manhole covers in car parking areas and drives to be grade B125 and covers in landscaping areas to be grade A15. All to be sized in accordance with Building Regulations Part H, Tables 11 & 12.
 "In-fill" type covers should not be used. Where a cover is located in an area of block paving, the bottom of the frame should be 150mm deep.
15. Precast concrete rings to be reinforced.
16. Backdrops in private manholes / inspection chambers to be internal
17. Private drains laid under adopted / private roads to be Class S granular bed and surround with a minimum of 1.2m cover, where this cannot be achieved a Class Z concrete bed and surround shall be provided.
18. Private drains located under landscape areas or driveways / car parking bays to be Class B granular bed and surround with a minimum 0.6m cover, where this cannot be achieved a Class Z concrete bed and surround shall be provided.
19. Pipes have not been designed to accommodate construction traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.
20. Slab levels shall not be varied without reference to the Engineer for guidance.

Water Quality

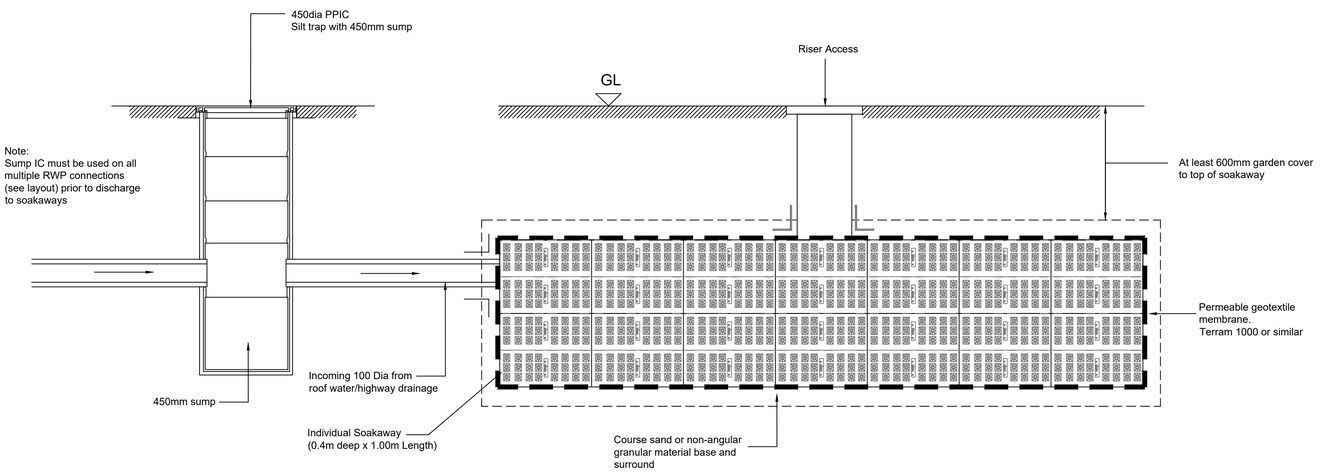
Roof

Generally run-off from roof can be considered clean run-off and will not require any this treatment. All flows from the RWP's will either drain to a soakaway in the back garden or permeable paving in the driveway.

Hardstanding

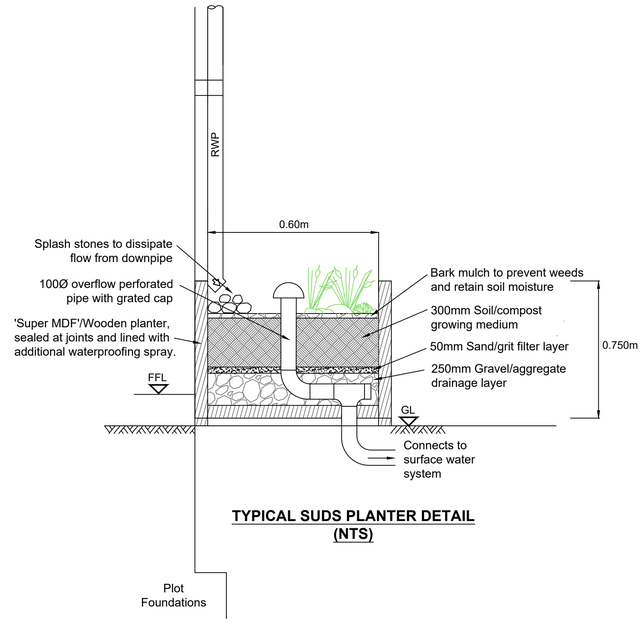
All flows from the hardstanding areas will be directed into permeable paving at the driveway.

APPROVAL



Typical Geocellular Tank Soakaway System Section (NTS)

AquaCell or similar approved with riser access for inspections and future maintenance



TYPICAL SUDS PLANTER DETAIL (NTS)

coopers
chartered consulting engineers
Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU
Tel: 01244 684910
Email: admin@coopers.co.uk
Web: http://coopers.co.uk

Client
GARY JONES

Project
LAND AT REAR OF NO. 5 & 6, PENTRE, WREXHAM.

Title
SABS Layout

DRAWING NUMBER	SCALE at A1	1:250	
8290 / 04	DATE	21.12.23	REVISION
	DRAWN	PW	B
	CHECKED	AJ	

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