

DRAINAGE STRATEGY

SURFACE WATER DRAINAGE:

Surface water drainage embraces the SUDS (Sustainable Drainage System) philosophy. On site tests at various locations and levels have been undertaken to establish suitability of utilising infiltration methods as the means of surface water disposal. These tests results have been utilised to produce a drainage strategy that will introduce soakaways to cater for the discharge from roofs, drives and carriageway areas will be constructed in permeable paving which will drain into free draining granular sub base. Prior to discharging to soakaways surface water discharge will pass through a silt trap which will reduce the sediment deposit in the soakaway.

All surface water drainage has been designed in accordance with current Environment Agency requirements for the 1 in 100 year storm event plus 40% increase for climate change and the appropriate factor of safety (FoS) as agreed with Anun District Council.

FOUL WATER DRAINAGE:

The nearest public foul sewer is situated just west of the site in North End Road. Southern Water criteria regarding connecting to public sewers means there will be no objection to the proposed discharge from the site connecting into this sewer. Connection to the sewer will involve the construction of a new manhole which will be subject to a Section 106 Agreement between the developer and Southern Water. Levels for the receiving sewer have been calculated and show that a gravity discharge from the site to the outfall is possible.

DOMESTIC SOAKAWAY DETAILS-
Trench Soakaways

Soakaway Ref	Area Draining m ²	Width m	Length m	Soakaway Depth Infiltration level m	Zone
SOA1 & 1B	90	0.4	44.0	1.00	4
SOA2 & 2B	90	0.4	44.0	1.00	4
SOA3 & 3B	100	0.8	20.0	1.00	5
SO4	100	1.0	11.0	1.00	6
SO5	100	1.0	11.0	1.00	6
SO6	100	1.0	11.0	1.00	6

ACCESS ROAD & DOMESTIC DRIVES
(Based on In-situ tests)

Drainage Point	Soakaway Depth m	Shallow Test Zone
Pitch 1-6	250	6
Access CH C-40 -with baffles	350	4
Access C-40 onwards	350	6

Infiltration Zone

Infiltration Zone	Soakage Rate (m/h)	Rate (m/h)
4	1.86 E-06	0.006966
5	3.91 E-06	0.014076
6	4.06 E-05	0.14616
Shallow Test Zone 6	4.386E-05	0.15790

Infiltration rates have been measured on site in accordance with BRE365.

Legend:

Existing foul water sewer

Type 2 foul water manhole constructed on existing sewer subject to S106 Agreement with Southern Water

Domestic foul water sewer

Domestic surface water rodding eye and drain. Invert 450mm below ground level unless noted otherwise

Manhole Type 3 - 450mm Ø with B125/D400 cover

Manhole Type 4 - 250mm Ø with B125 cover Invert 750mm lower than FFL unless noted otherwise

Manhole Type 5 - 450mmØ Silt Trap Manhole with B126 cover

ACC drain installed at ALL garage entrances and at site entrance

Domestic gravel filled soakaway designed in accordance with Environment Agency criteria. In-situ testing has been undertaken to confirm infiltration rates.

Domestic Aquacell soakaway designed in accordance with Environment Agency criteria. In-situ testing has been undertaken to confirm infiltration rates.

Permeable block paved driveway and parking area

Permeable block paved access roads and parking areas

Sub base depth

Impermeable block paved service crossing

Proposed finished floor level

Sub surface baffles under carriageway surfacing.

FFL 11.20



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SAFETY, HEALTH & ENVIRONMENTAL INFORMATION

CDM Regulations 2015

In addition to the hazards/risks normally associated with the type of work detailed on this drawing note should be made of the following:

- Working in vicinity of live highway
- Services to be located prior to any excavation work being undertaken
- Deep excavations
- Working on live foul sewers

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Contractor is not relieved of any of his obligations under all applicable health and safety regulations.

Crayfern HOMES

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Project: OIRCHARD BUSINESS PARK

YAPTON: PHASE 2

Drawing Title: Engineering Details

Drainage Layout

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ARUN DISTRICT COUNCIL V130820PPL