HARBOURSTONE DESIGN

DRAINAGE STATEMENT

RYEFIELDS FARMHOUSE, OAK TREE LANE

Residential Development

2026-C160-DS05

October 2026

Prepared on Behalf of Chichester Carpentry & Building Ltd

Harbourstone Design Limited
Civil Engineering Consultants – harbourstonedesign.co.uk
Registered in England No: 16608131

DOCUMENT CONTROL

Project Name: Ryefields Farmhouse, Oak Tree Lane

Development Type: Residential Development

Report Type: Drainage Statement

Client Name: Chichester Carpentry & Building Ltd

Document Reference: 2026-C160-DS05

Prepared by: Dan Lytton

REVISIONS:

Issue	Date	Status	Issued by
01	14/05/2026	Original Issue	DJL
02	08/07/2026	Revised Issue	DJL
03	3/8/2026	Revised Issue	DJL
04	1/10/2026	Revised Issue	DJL
05	12/10/2026	Revised Issue	DJL

DRAWINGS

2026-C160-001 Geotechnical Investigation Plan
2026-C160-002 Engineering GA - Levels & Drainage Design
2026-C160-003 Proposed Catchment
2026-C160-004 Interception Assessment
2026-C160-005 Construction Details
2026-C160-006 Manhole Schedule & Impermeable Areas Schedule

APPENDICES

Appendix A Greenfield Runoff Calculation
Appendix B Geotechnical Investigation Extracts
Appendix C Southern Water Sewer Records
Appendix D Planning Stage Drainage Design
Appendix E Southern Water S106 Approval
Appendix F Evidence of Deed of Easement
Appendix G Hydraulic Modelling Calculations
Appendix H Sudsstore Controflow Universal Flow Control Detail
Appendix I GreenBlue SuDSPod Detail
Appendix J Maintenance Schedule

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FLOOD AND DRAINAGE STATEMENT

Harbourstone Design Limited is instructed by Chichester Carpentry & Building Ltd to prepare a Drainage Statement to support a Discharge of Condition Application for a Residential Development at Ryefields Farmhouse, Oak Tree Lane. This report is for the benefit of the Client only.

The below sets out information about the drainage design for the benefit of the application.

Existing Site Information	
Location:	Land at Ryefields Farmhouse, Oak Tree Lane, Woodgate PO20 3GU
Area:	0.20 Ha.
Existing Topography:	Fairly flat, with fall southeasterly. Site levels vary from 9.9m to 9.4m AOD.
Existing Site Use:	Greenfield
Proposed Development Type:	4 no. residential dwellings
Existing Site Greenfield Rate:	0.4 l/s (**Appendix A**)

Existing Geology	
Geology:	Topsoil: SILT, Silt/Clay, Made Ground Superficial Deposits: River Terrace Deposits – CLAY, Silt/Clay, Sand (below 1.4mbgl) Bedrock: London Clay Formation – CLAY, silt and sand
Hydrogeology:	Superficial Drift Aquifer: 'Secondary A' Bedrock Aquifer: 'Unproductive Strata' - Potential for some/limited shallow infiltration, above bedrock only. Groundwater Vulnerability: Medium-Low - Low vulnerability to groundwater from pollutants
Groundwater Depth:	Peak winter groundwater levels at 0.09mbgl, January 2021.
Soakage Results:	1 no. soakage test was undertaken at 2 no. trial pits on site. Results were 3.26×10^{-7} and 1.87×10^{-7} m/s.
Infiltration Viability:	Infiltration is not viable, primarily due to very shallow groundwater levels. (**Drawing 001**, **Appendix B**)

Existing Drainage	
Nearest Watercourse:	None
Nearest Surface Water Sewer:	None
Nearest Foul Sewer:	225mm dia. foul sewer south of site, in neighbouring land. Nearest manhole 9102, recorded depth 1.26mbgl. (**Appendix C**)
Existing Site Drainage:	Overland runoff / infiltration
Highway Drainage:	Over-the-edge runoff / infiltration
Other Drainage Conditions:	Adjacent land has approved drainage strategy, with surface water to be attenuated and discharged to watercourse at approved rate. Third party infrastructure is being constructed at time of submission & conformation of implementation will be provided separately.

Prior Design	
Planning Reference:	AL/31/22/PL
Relevant Planning Condition(s):	Condition 5: *"Development shall not commence, other than works of site survey and investigation, until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority..."* *"Where the design of the surface water drainage scheme relies on an adjacent development, a Deed of Easement detailing agreement of taking such drainage shall also be provided as part of the required details..."*
Planning Drainage Design:	KNC2107-602-02 Rev E, Kazys Narbutas Consulting, March 2022 (**Appendix D**)
Proposed Strategy:	Foul water discharge to public foul sewer. Surface water discharge to Third-Party surface water drainage infrastructure, to be further attenuated at greenfield rate prior to discharge to watercourse.
Sewerage Authority Approval:	Legal Agreement obtained through S106 Connection Approval (**Appendix E**)
Third Party Land Approval:	Evidence of Deed of Easement (**Appendix F**)

Surface Water Drainage Solution	
Proposed Catchment Area:	0.081 Ha
Proposed Catchment Greenfield Rate (Pro-Rata):	Qbar: 0.2 l/s (Q100: 0.5 l/s)
Drainage Hierarchy:	• Use of living roof, rainwater harvesting, and tanked permeable pavement to ensure that all runoff is subject to interception drainage at source. • Infiltration not viable. • Discharge to watercourse, via Third-party infrastructure as agreed.
Calculations:	Discharge at up to 0.208l/s (0.124 l/s in 1-yr event) No Flooding in Design Storm Event (**Appendix G**)
Viable SuDS:	Living roof, rainwater harvesting, tanked permeable pavement
Surface Water Storage:	53.6m^3 permeable pavement Access Road : 150mm Permavoid (95% voids) & 300mm subbase (30% voids) Driveways : 350mm @ 30% voids
Surface Water Discharge:	Restricted discharge via Controflow Universal Flow Control Chamber (**Appendix H**): • Protected orifice • PS3: 11mm diameter (0.2 l/s design rate, 0.75m design head) • **Proposed discharge rate less than Greenfield for equivalent storm events per Standard 3 of NSfS** • **Third Party system to also attenuate runoff inclusive of our discharge to Greenfield rate prior to discharge**
Design Standards:	1 in 100 year storm, 45% climate change, 10% urban creep
Further Comments:	Utilisation of living roof and GreenBlue SuDSPod prior to discharge from all RWPs will further slow runoff compared to modelling results. Features will reduce first-flush flows and provide evapotranspiration for first 5mm of rainfall, as well as irrigation of surface level planting. GreenBlue SuDSPod also utilise integral attenuation and flow control to reduce storm flow rates, as seen in **Appendix I**.

Surface Water Treatment: **(Pollution Hazard Indices / Pollution Treatment Indices)**	Residential Parking: Low, TSS = 0.5, M = 0.4, H = 0.4 Residential Roofs: Very low, TSS = 0.2, M = 0.2, H = 0.05 Permeable Pavement: TSS = 0.7, M = 0.6, H = 0.7 Bioretention system: TSS = 0.8, M = 0.8, H = 0.8
Mitigation against flood risk:	Proposed finished floor levels are raised above surrounding and existing ground levels , to ensure residual risk of internal flooding from shallow groundwater mitigated against for lifetime of development.

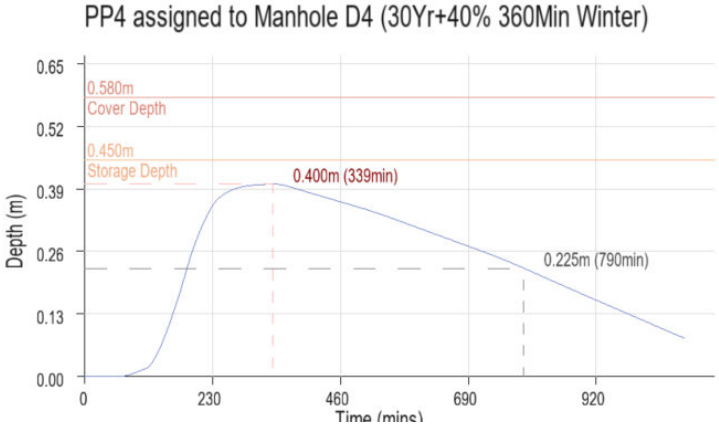
Foul Drainage Solution	
Drainage Hierarchy:	Public foul sewer south of site.
Foul Proposals:	Private foul run from proposed residential development to public sewer, by gravity
Discharge:	Discharge to public foul sewer with direct connection to existing public foul manhole.
Further Comments:	Expected peak foul discharge 0.19 l/s (in accordance with Water UK Design & Construction Guidance). Legal Agreement for connection and strategy with Southern Water under S106 obtained (**Appendix E**)

Further Design Notes	
Drainage Plans (inc. areas, full drainage details, specification, details, water quality):	Detailed drainage plan provided, and accompanying construction details and flow control specification. Water quality treatment is covered on the previous page.
Biodiversity & Amenity Benefits:	The proposals for Living Roof and Raised Planters (rainwater harvesting) with compatible planting offer attractive features that provides ecological and amenity benefits.
Arboricultural Constraints:	None – no RPZs. Design to be reviewed by arboricultural consultant, minor tree removal, mitigation and/or protection to be made as required.
Hydraulic Modelling:	Modelling shows some surcharged nodes in 1yr & 10yr + 40%CC (climate change) events. This is due to the nature of the proposed design attenuating runoff via a flat system utilising permeable pavement. Use of Living Roof and Raised Planters (rainwater harvesting) will reduce first flush flows and mitigate surcharging in minor storm events.

	Modelling results show no flooding up to the design event.
Maintenance Responsibilities:	Maintenance plan details responsibilities (**Appendix J**) & complies with Arun drainage maintenance checklist (https://www.arun.gov.uk/designer-checklists/)

Arun Checklist Adherence	
Ground Investigation Results:	Groundwater monitoring provided: • Full groundwater monitoring data • Plan showing location (Drawing 001) • Depths of holes, dates of observations, depths to groundwater • Evidence of strata encountered • Peak groundwater levels and depths in mbgl and mAOD • Data demonstrates infiltration is not viable (shallow groundwater) Infiltration Testing provided: • Infiltration testing results provided • Data demonstrates infiltration is not viable (failed tests)
Statement:	As provided here, explaining proposals, adherence, hierarchy followed, reasoning and relevant approvals.
1. Runoff Destination:	
Existing Site:	Existing site information: • No existing surface water assets • No flood risk from rivers, sea or surface water. • No flood risk from existing surface water infrastructure • Shallow groundwater, area susceptible to groundwater emergence. Mitigated with raised FFLs, shallow SuDS, raised planters for rainwater harvesting
Proposed Hierarchy:	1. Rainwater reuse **YES** 2. Infiltration into the ground **NOT VIABLE** 3. Hybrid infiltration and restricted discharge to an appropriate water body or surface water sewer is proposed **NOT VIABLE** 4. Restricted discharge to a water body **YES** 5. Restricted discharge to a surface water sewer or another piped surface water drainage system

	6. Restricted discharge to a public combined sewer
Evidence to justify proposed discharge method:	Approved strategy at planning.
Details of consent/off-site works provided:	Evidence of Deed of Easement Provided
Other Design Items:	All pipework designed to Building Regulations Ground raising avoided where possible (base of permeable pavement and foundations roughly level with existing ground levels)
2. Interception Drainage	
Assessment:	**Drawing 004** shows all runoff receives interception drainage.
3. Extreme rainfall and flooding	
Proposed Rate:	Less than greenfield rates for equivalent storms, also attenuated to greenfield prior to discharge in Third Party system
Design Criteria:	FEH22 rainfall point data for site location 45% climate change for 1% AEP storm event 10% urban creep on all individual catchment areas CV of 1.0 No flooding in design event No existing flood risk or flood storage on-site
4. Water Quality:	As covered above, adequate treatment for pollutants
5/6. Amenity & Biodiversity:	As covered above, provided by planters and living roof
7. Construction, operation, maintenance:	Detailed in Maintenance Plan (**Appendix J**) Controflow has integral blockage protection (**Appendix H**)
Modelling	As detailed above. Half drain times for critical 3.33% + AEP event below

	
Plans:	Provided as required: • Contributing area plan • Proposed design • Calculations • SuDS details • Pipe details • Control feature details • Construction details

DRAWINGS

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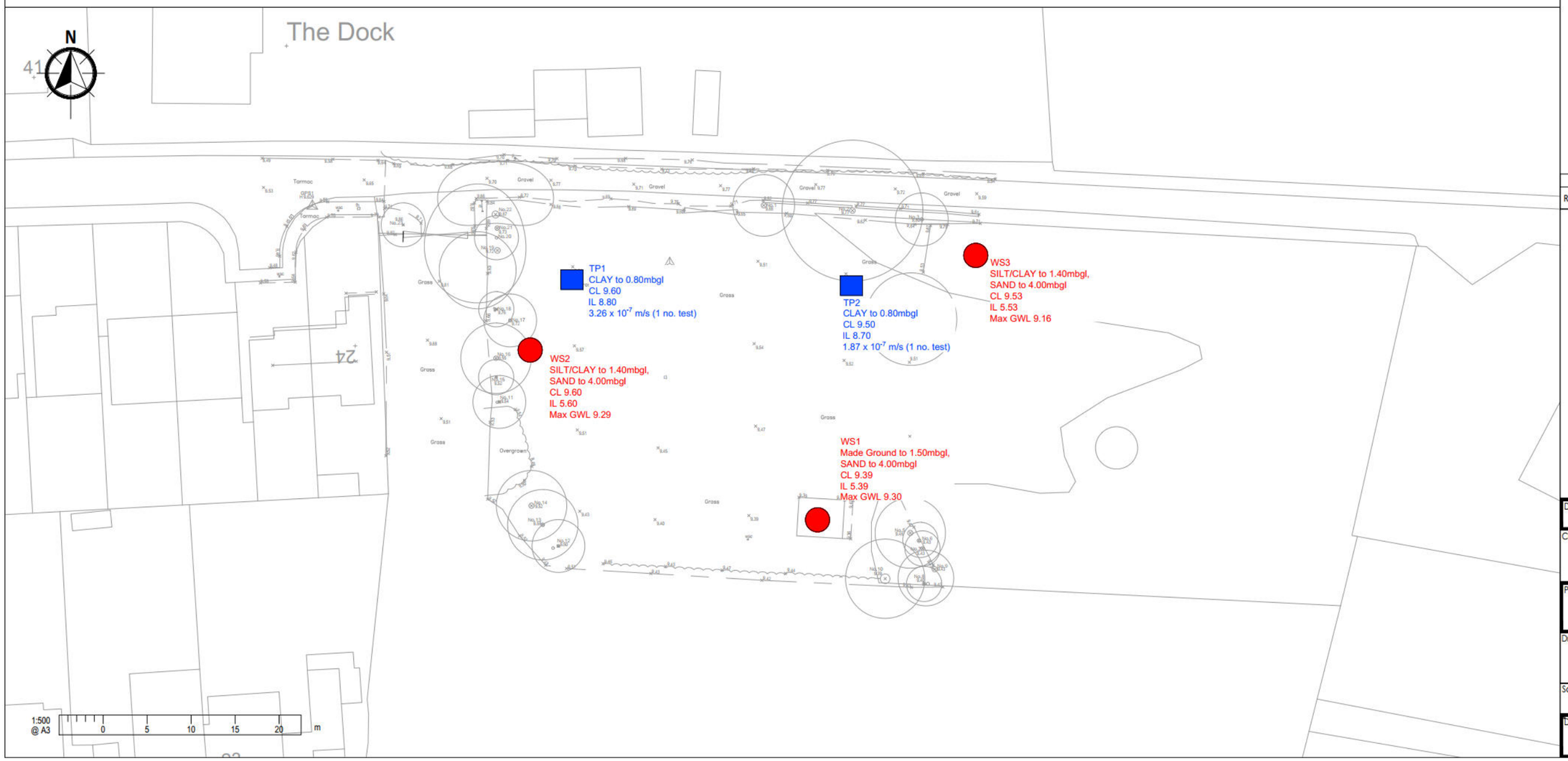
Infiltration Test Results – Recorded Infiltration Rates m/s			
	Test 1	Test 2	Test 3
TP1 @ 0.80m bgl within Undifferentiated River Terrace Deposits	3.26 x10^{-7} m/s	-	-
TP2 @ 0.80m bgl within Undifferentiated River Terrace Deposits	1.87 x10^{-7} m/s	-	-

Date	**05/01/2021**	**05/02/2021**	**17/02/2021**	**05/03/2021**	**15/03/2021**	**27/11/2021**	**10/12/2021**	**06/01/2022**	**16/01/2022**
	GWT (m bgl)	GWT (m bgl)	GWT (m bgl)	GWT (m bgl)	GWT (m bgl)	GWT m bgl)	GWT (m bgl)	GWT (m bgl)	GWT (m bgl)
Trial Hole									
WS1	0.09	0.74	0.98	1.40	1.50	1.40	1.80	1.00	0.90
WS2	0.31	1.00	1.30	1.40	1.50	1.60	1.80	0.82	0.90
WS3	0.37	0.90	1.20	1.40	1.55	1.60	1.80	1.00	0.85

	Cover Level	mAOD	mAOD	mAOD	mAOD	mAOD	mAOD	mAOD	mAOD	mAOD
Trial Hole										
WS1	**9.39**	9.30	8.65	8.41	7.99	7.89	7.99	7.59	8.39	8.49
WS2	**9.60**	9.29	8.60	8.30	8.20	8.10	8.00	7.80	8.78	8.70
WS3	**9.53**	9.16	8.63	8.33	8.13	7.98	7.93	7.73	8.53	8.68



A3

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Rev.	Amendments	Date
-	Original Issue	-

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Drawing Status
DISCHARGE OF CONDITIONS

Client
Chichester Carpentry & Building Ltd

Project
Ryefields Farmhouse, Oak Tree Lane

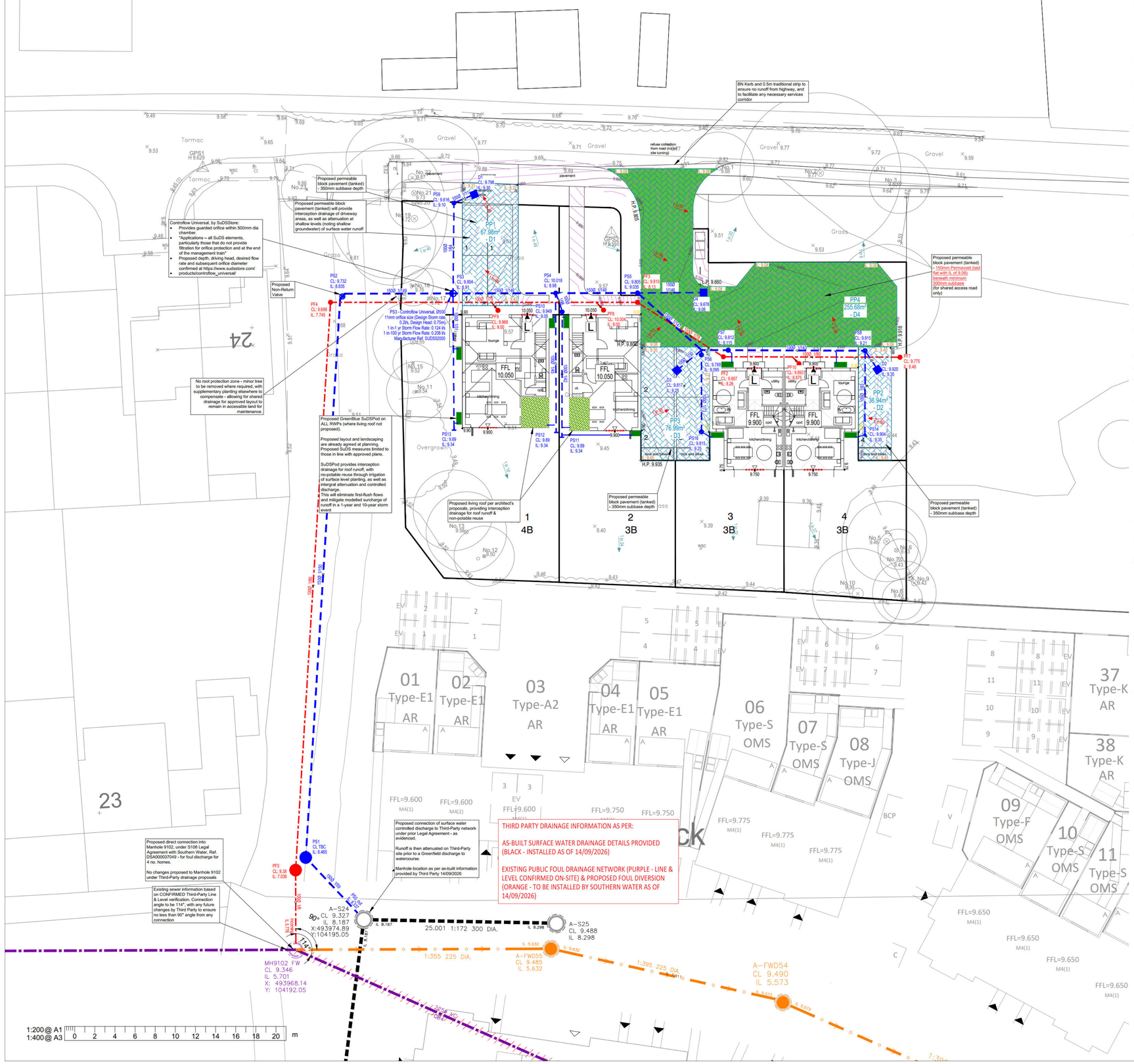
Drawing Title
Geotechnical Investigation Plan

Scale	Date	Drawn by	Checked by
1;500	May '26	DL	CT

Drawing No.
2026-C160-001

Rev.
-

The Dock



DRAINAGE NOTES:

1. All drainage works to be constructed in strict accordance with specification of the Local Authority, Building Regulations, Design and Construction Guidence (published by Water UK)& BSEN.752.
2. Any existing drainage found crossing the site is to be investigated, and if found to be 'live', it should be diverted in consultation with Harbourstone Design.
3. For location and setting out of building drainage points refer to architects drawings.
4. All pipe runs near buildings to comply with the Building Regulations 2015 part H1. Where a pipe is within 1m of a foundation the trench shall be filled with class GEN3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class GEN3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN3 concrete.
5. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN3 concrete encasement (150mm thick).
6. Where a pipe, under a carriageway, has a depth of cover of less than 1.2m the pipe shall be laid in a concrete bed and surround.
7. Where a pipe, under a vehicular area other than a carriageway has a depth of cover if less than 0.9m the pipe shall be protected with a concrete slab set above it.
8. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). the boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. a board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
9. All private building drainage shall be constructed in strict accordance with BS EN.752. Foul drainage beneath the floor slab shall be laid, shall be laid no flatter than 1:40. Unless otherwise specified below ground building drainage external to the building shall be 100mm diameter and shall be laid at a minimum gradient of (<1l/s = 1 in 40/>1l/s = 1 in 80) for foul drains and 1 in 80 for surface water drains.
10. All building drains shall be laid in conjunction with 'non adoptive bedding details' (class d, n or b) unless otherwise specified.
11. All pipes, bends and junction for private building drainage shall be UPVC conforming to BS4660, BSEN13598 and BSEN1401 as appropriate and shall be laid in accordance with the manufacturer's specification.
12. All pipes, bends and junction materials for adoptable drainage shall be vitrified clay, extra strength or super strength to BSEN295, with flexible joints and kitemark certified
13. All back inlet gullies to be roddable or connected to inspection chambers.
14. All gully connections other than at manholes to be 'y' junctions.
15. All road gully connections to be 150mm diameter.
16. All stub stacks to be fitted with air admittance valves where branch drain exceeds 12m except at the head of the run. Soil vent pipes located at the head of a run to terminate to fresh air.
17. No low point shall be without a method of drainage.
18. All connections to be soffit to soffit unless otherwise noted.
19. All concrete and concrete products to be in accordance with BRE 363 for sulphates.
20. The locations of all building drainage points shall be cross referenced against the architects drawings during setting out and any discrepancies reported immediately.
21. Before connections are made to existing public sewers an application under S106 must be made to relevant sewerage undertaker.
22. The precise depth and location and size of existing pipes, watercourses or manholes where connections or diversion are proposed must be confirmed and reported to the engineer before works commence on site.
23. Any existing drains to be abandoned to be decommissioned in accordance with the Building Regulations by either grubbing, infilling or sealing.
24. Should groundwater be encountered on site during construction Harbourstone Design shall be informed to determine if additional measures are required. **This includes design against flotation.**
25. The drainage system shall be fully cleansed on completion of the project using methods that ensure pollution off site does not occur.
22. Any existing land drains severed during construction shall be reinstated.

GENERAL

1. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.
2. The main contractor is responsible for dealing with all occurrences of ground water during the construction period.
3. The contractor must comply with all current legislation relating to health & safety.
4. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any Harbourstone Design drawings, the manufacturers instructions must be used.
5. All concrete and cement mortar to be in accordance with BS8500, BSEN206 and BSEN998.
6. The contractor is responsible for managing surface water run off during construction.

-SURFACE WATER DRAINAGE-

- Surface water disposal should be managed in view of the SuDS hierarchy, set out by Arun District Council;
  1. Re-use / Interception
  2. Infiltration
  3. Watercourse
  4. Public Surface Water Sewer(s)
  5. Sewer
- Ground investigation, infiltration testing and groundwater monitoring in the vicinity of the site shows that the site is underlain by Clay, and with groundwater levels up to 0.09mbgl & infiltration tests not providing sufficient fall.
- Infiltration is therefore ruled unviable. In accordance with the principles of the drainage strategy for the approved application AL/31/22/PL, and the Third-Party agreement with the adjacent landowner, surface water discharge will be to the adjacent site infrastructure (which attenuates runoff prior to a watercourse discharge at Greenfield rate). The Third-Party engineer confirms capacity for a 0.6l/s discharge of surface water, and under Standard 3 of the National Standards for Sustainable Drainage Systems (SuDS), peak surface water runoff rates from new greenfield developments must be restricted to the greenfield equivalent rate for equivalent storm events, including the 1-in-100 year (1% AEP) future design storm event. This means peak runoff rates for both frequent events (like the 1-in-1 event) and extreme events (like Q100) must not exceed the corresponding greenfield runoff rates.
  - Catchment Greenfield: Qbar: 0.2 l/s, Q100: 0.5 l/s
- However in accordance with Arun Drainage Engineer's request, runoff is restricted further:
  - "3l/s/ha would be 0.24 l/s"
  - Proposed: 1-yr storm: 0.124 l/s, Design Storm: 0.208 l/s
- In accordance with Arun District Council's drainage guidance, all runoff from the site will be captured and/or conveyed to interception drainage:
  - Permeable pavement will provide interception drainage for its own surface area only
  - Living roof and elevated planters will provide interception drainage for runoff from all roof areas
- Runoff from the access road and driveways will be captured and attenuated within 437m² of tanked permeable pavement. The access road will have 150mm Permavoid beneath minimum 300mm subbase, and driveways a 350mm subbase, and will drain via diffuser units. Discharge to the third-party system will be restricted by an orifice chamber (11mm Ø).
- The surface water drainage strategy has been designed to accommodate a 1-in-100-year storm event, inclusive of an allowance for climate change (45%) and urban creep (10%).

-FOUL WATER STRATEGY-

- Foul water disposal should adhere to the following hierarchy;
  1. Public Sewer
  2. Private Treatment Plant
  3. Septic Tank and Drainage Field
  4. Cesspool
- There is an existing public foul sewer to the south of the site. Agreement with the Landowner for right to connect has been established. As a result, the proposed foul drainage will be discharged to the public sewer, with a soffit-to-soffit connection to an existing manhole.
- Legal Agreement with Southern Water under a S106 Sewer Connection Application has been established.

-DRAINAGE KEY-

- Third-Party Surface Water Drainage
- Proposed Surface Water Drainage
- Proposed Diffuser Unit
- Proposed Permeable Paving (Subbase depth and inverts as shown, tanked)
- Proposed Permeable Paving (150mm Permavoid beneath min 300mm subbase)
- Proposed Inspection Chamber (Max 1.2m dp., or 3.0m w/ restricted access)
- Proposed Surface Water Flow Control Chamber - As detailed or otherwise agreed
- Proposed Non-Return Valve
- Rodding Point (Below Ground)
- GreenBlue SuDSPod (or equivalent) - Rainwater interception and non-potable re-use (irrigation), integral attenuation and flow control
- Proposed Living Roof - per Architect's specification. Rainwater interception and non-potable re-use (irrigation)
- Existing Foul Water Drain/Sewer
- Third-Party Foul Water Drainage
- Proposed Foul Water Drainage
- Proposed Foul Inspection Chamber (Max 1.2m dp., or 3.0m w/ restricted access) (Svp shall use main channel)
- Proposed Foul Manhole (Over 1.2m dp.)

DRAINAGE DESIGN NOTES:

ALL INTERNAL FOUL CONNECTIONS (SVPS, DCS ETC.) ARE ASSUMED TO BE Ø100mm & SET 600mm BELOW DESIGN FFL, WITH MIN 1:40 INTERNAL FALLS TO INSPECTION CHAMBERS.

GROUNDWATER LEVELS INDICATED AS APPROXIMATELY 0.09mbgl. SOIL STRATA INFORMATION CONFIRMED AS CLAY. EXCAVATED CLAY TO BE USED AS BACKFILL FOR PIPEWORK FOR MITIGATION AGAINST GROUNDWATER FLOTATION.

ALL RWPS TO BE DESIGNED TO DISCHARGE TO RAINWATER HARVESTING OR LIVING ROOF. FINAL DESIGN TO BE COORDINATED WITH ARCHITECT, STRUCTURE & SERVICES.

LEVELS DESIGN NOTES:

THRESHOLD ACCESS POINTS SHOWN AS FLUSH OR WITH 150mm STEP, PER ARCHITECTS PLANS, WITH BUILDING REGULATIONS M4 COMPLIANT ACCESS SLOPES.

NO PROPOSED EARTHWORKS RESULTING IN SLOPE EXCEEDING 1:6 OR SIGNIFICANT EXCAVATION OR LEVEL RAISING THAT COULD IMPACT EXISTING GROUNDWATER TABLE.

A1

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RESIDUAL HAZARDS

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

1. Possible buried services. Contractor to refer to existing services plans and undertake necessary precautions and investigation prior to excavating.
2. Excavations close to existing trees. Arborculturalist to be engaged with regard to civils proposals and appropriate mitigation measures. Contractor to prepare method statement to ensure protection of existing tree roots, in accordance with root protection proposals.
3. Connection to public drainage system. Contractor to ensure drains are shut off during works and ensure operatives are familiar and competent with procedure.
4. Excavations within area of potential shallow groundwater. Contractor to prepare method statement to ensure stability of excavations.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

Rev.	Amendments	Date
E	Revised Issue	12/10/26
D	Revised Issue	14/9/26
C	Revised Issue	11/9/26
B	Revised Issue	3/8/26
A	Revised Issue	8/7/26
-	Original Issue	-

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Registered in England No: 16608131

Drawing Status: DISCHARGE OF CONDITION

Client: Chichester Carpentry & Building Ltd

Project: Ryefields Farmhouse, Oak Tree Lane

Drawing Title: Engineering GA - Levels & Drainage

Scale	Date	Drawn By	Checked By
1:200	May '26	DJL	CT

Drawing No.: 2026-C160-002 Rev.: E

A3

IMPERMEABLE AREAS ASSESSMENT

- Site Boundary (1,988m² - 0.199 Ha.)
- Existing Impermeable Area (26m² - 0.003 Ha.)
- Proposed Impermeable Area (813m² - 0.081 Ha.)

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1:500 @ A3 — 0 5 10 15 20 m

Rev.	Amendments	Date
-	Original Issue	-

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Drawing Status: DISCHARGE OF CONDITIONS

Client: Chichester Carpentry & Building Ltd

Project: Ryefields Farmhouse, Oak Tree Lane

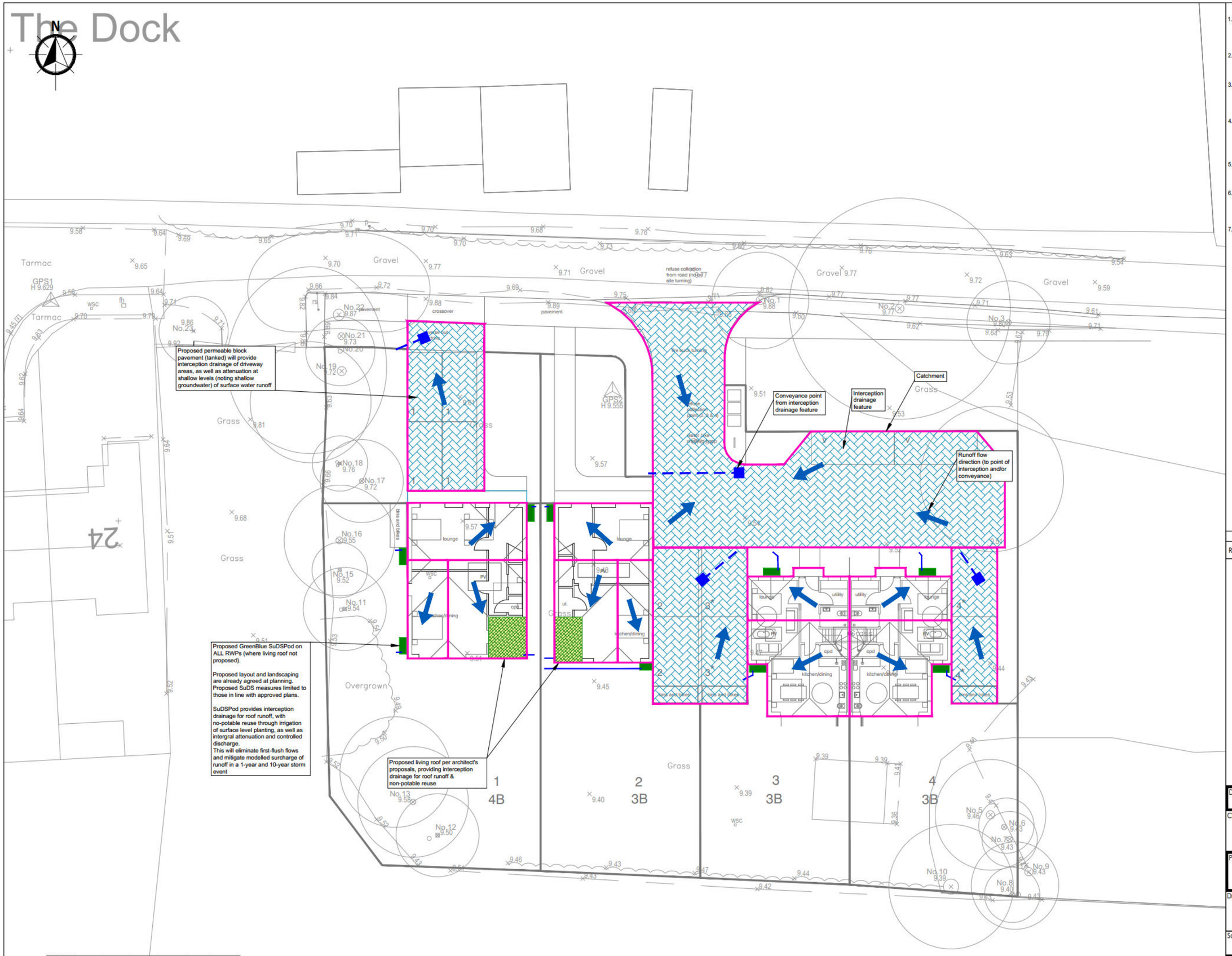
Drawing Title: Catchment Assessment

Scale	Date	Drawn by	Checked by
1:500	May '26	DL	CT

Drawing No.: 2026-C160-003

Rev.: -

The Dock



1:250 @ A3

0 2 4 6 8 10 m

A3

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Rev.	Amendments	Date
-	Original Issue	-

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Drawing Status: DISCHARGE OF CONDITION

Client: Chichester Carpentry & Building Ltd

Project: Ryefields Farmhouse, Oak Tree Lane

Drawing Title: Interception Assessment

Scale	Date	Drawn by	Checked by
1:250	May '26	DL	CT

Drawing No.: 2026-C160-004

Rev.: -

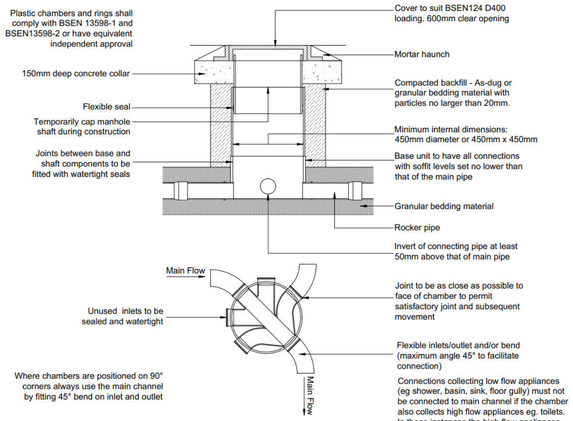
Minimum Dimensions for Access Fittings and Inspction Chambers						
Type	Min Internal Sizes				Cover Sizes	
	Depth to invert (m)	Size of largest pipe (DN)	Length x Width (mm)	Circular (mm)	Length x Width (mm)	Circular (mm)
Rodding Eye	As Drain but Minimum 100mm[a]					
Access Fitting Small Large	0.6 or less except where situated in a chamber		150x100 225x100	150 225	150x100[a] 225x100[a]	Same size as access fitting
Inspection Chamber Shallow Deep	0.6 or less 1.2 or less 1.2 - 3.0		 450x450 450x450	190[b] 450 450	 450x450 Max 300x300[c]	190[a] 430[a] Access restricted[c] to Max 350

Notes:

a. the clear opening may be reduced by 20mm in order to provide proper support for the cover and frame
b. Drains up to 150mm
c. A larger clear opening cover may be used in conjunction with a restricted access. the size is restricted for health a safety reasons to deter entry,

BUILDING REGULATIONS MINIMUM DIMENSIONS FOR CHAMBERS

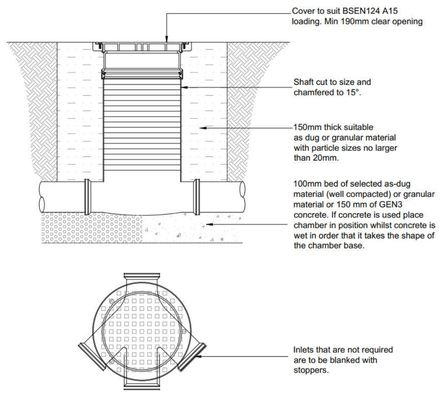
(Not to Scale)
This table complies with the Building Regulations 2015 Section 'H' - Drainage & Waste Disposal.



Alternative base invert layouts. All connections to be minimum soffit to soffit.

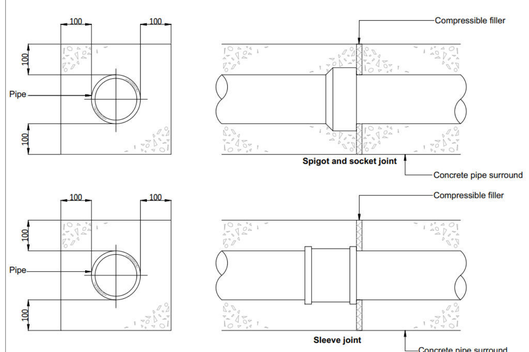
TYPICAL ACCESS CHAMBER DETAIL - 450Ø (FOOTPATHS AND PRIVATE DRIVES)

1.2m MAXIMUM DEPTH TO FROM COVER TO PIPE INVERT (OR ACCESS RESTRICTED TO MAX 300 X 300 / 350Ø). LOCATED IN AREAS SUBJECT TO LIGHT VEHICLES AND FOOTPATHS

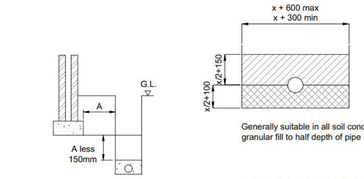


TYPICAL SHALLOW ACCESS CHAMBER DETAIL - 250Ø

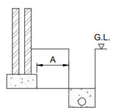
0.6m MAXIMUM DEPTH TO FROM COVER TO PIPE INVERT.



JOINTS FOR ENCASED PIPES



Where 'A' is 1.0m or more fill trench with concrete to this level.



Where 'A' is less than 1.0m fill trench with concrete to this level.

DETAIL OF PIPE RUNS NEAR BUILDINGS

(Not to Scale)

Generally suitable in all soil conditions granular fill to half depth of pipe

PIPE BEDDING DETAIL UNDER DRIVES AND GARDENS

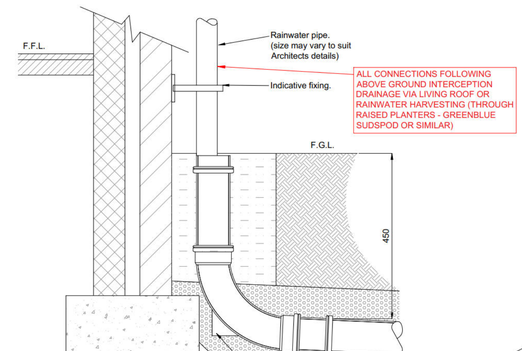
Min depth of cover 0.35m under private gardens and 0.5m under private drives

LEGEND:

Selected fill: free from stones larger than 40mm, lumps of clay over 100mm, timber frozen material and vegetable matter.

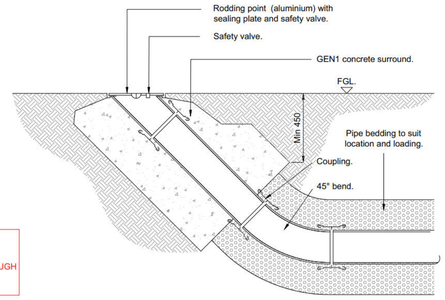
Granular material: should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B.

'x' - Denotes external pipe diameter.

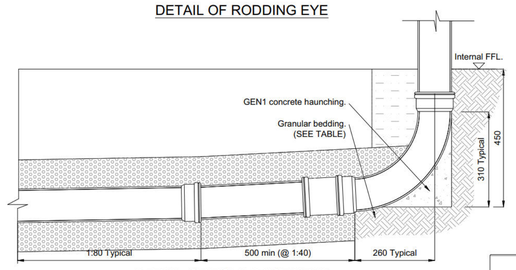


DETAIL OF RAINWATER PIPE

(Scale 1:20)

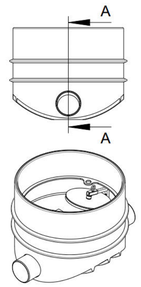


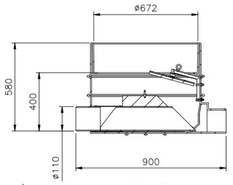
DETAIL OF RODDING EYE



DETAIL OF FOUL REST BEND

(Scale 1:20)

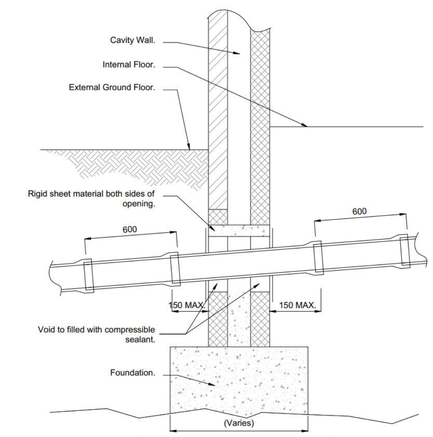




A-A

WABACK WB110-600 NON RETURN CHAMBER

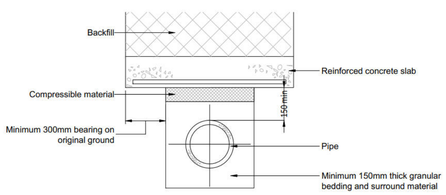
100mm INCOMING AND OUTGOING PIPE DIAMETER. MINIMUM INVERT DEPTH 650mm BELOW GROUND LEVEL.



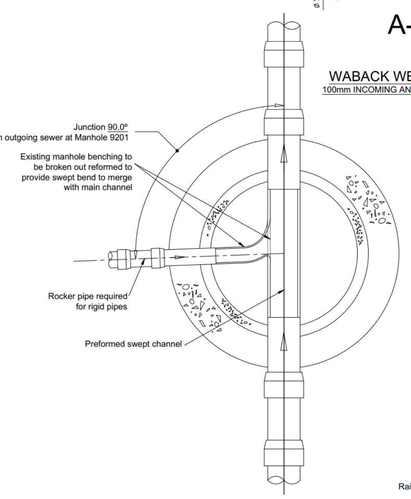
Note:
Arched or lintelled opening to give 50mm min clearance all around the pipe. mask opening both sides with rigid sheet material to prevent overspill of fill or entry for vermin.

TYPICAL SECTION PIPE PASSING THROUGH WALL PIPE THROUGH LINTELLED OPENING

(Scale 1:20)



PROTECTION OF PIPES AT SHALLOW DEPTH



Sectional Plan

Rigid pipes built into manhole should have a flexible joint as close as feasible to the external face of the structure and the length of the next rocker pipe should be as shown.

Nominal diameter (mm)	Maximum effective length (m)
150 - 600	0.6
601 - 750	1.00
over 750	1.25

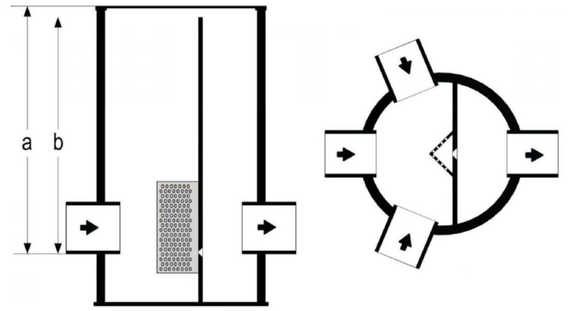
All pipes entering the bottom of the manhole to have soffits level.

ARRANGEMENT OF PIPE JUNCTION WITHIN MANHOLE 9201

FLOW CONTROL CHAMBER PS3

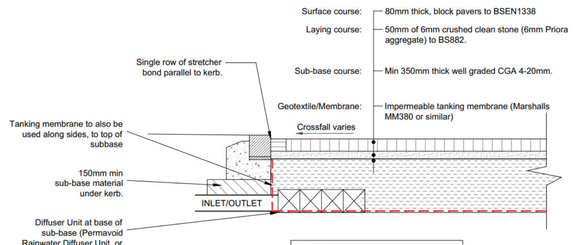
SCHEDULE

COVER LEVEL: 9.777
INVERT LEVEL: 8.450
DESIGN FLOW RATE: 1.0 l/s, DESIGN HEAD: 1.10 m
ORIFICE DIAMETER: 21mm
CALCULATED FLOW RATE (1% AEP STORM): 0.949 L/S
FLOW CONTROL UNIT: SUDSSTORE CONTROFLOW UNIVERSAL
UNIT REFERENCE: SUDS02005
MANHOLE DIMENSIONS: 500 mm



CONTROFLOW UNIVERSAL EXAMPLE SECTION

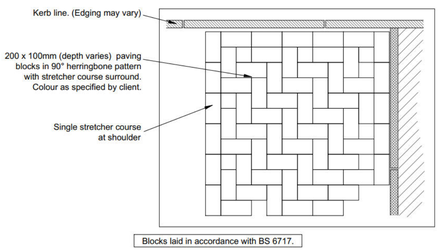
FURTHER DETAIL SHOWN IN APPENDICES



NOTE:
Porous paving system to be installed in strict accordance with the manufacturers recommendation and instructions.

PERMEABLE DRIVEWAY BLOCK PAVING CONSTRUCTION DETAIL

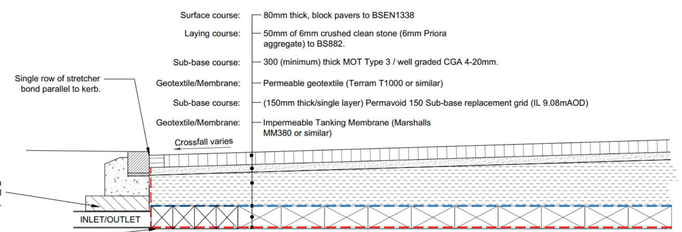
(PERMEABLE PAVERS-TANKED)
(Scale 1:20)



Blocks laid in accordance with BS 6717.

BLOCK PAVING ARRANGEMENT PLAN

(Scale 1:20)



NOTE:
Porous paving system to be installed in strict accordance with the manufacturers recommendation and instructions.

PERMEABLE ACCESS ROAD BLOCK PAVING CONSTRUCTION DETAIL

(PERMEABLE PAVERS-TANKED)
(Scale 1:20)

A1

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Rev.	Amendments	Date
A	Revised Issue	12/10/26
-	Original Issue	-

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Drawing Status: DISCHARGE OF CONDITION

Client: Chichester Carpentry & Building Ltd

Project: Ryefields Farmhouse, Oak Tree Lane

Drawing Title: Construction Details

Scale	Date	Drawn By	Checked By
As Shown	May '26	DJL	CT

Drawing No.: 2026-C160-005 Rev.: A

D1	COVER	I	A	9.30m
A 100Ø	9.798m	N	B	
	SIZE	V	C	
	710mm x710mm	E	D	
	Type E	R	E	
		T		

PS10	COVER	I	A	9.05m
A 100Ø, B 100Ø, C 100Ø	9.949m	N	B	9.05m
	DIAMETER	V	C	9.05m
	450mm	E	D	
	450 Inspection	R	E	
		T		

D2	COVER	I	A	9.35m
A 100Ø	9.920m	N	B	
	SIZE	V	C	
	710mm x710mm	E	D	
	Type E	R	E	
		T		

PS11	COVER	I	A	9.34m
A 100Ø	9.89m	N	B	
	DIAMETER	V	C	
	180mm	E	D	
	Type E	R	E	
		T		

D3	COVER	I	A	9.25m
A 100Ø	9.817m	N	B	
	SIZE	V	C	
	710mm x710mm	E	D	
	Type E	R	E	
		T		

PS12	COVER	I	A	9.34m
A 100Ø	9.89m	N	B	
	DIAMETER	V	C	
	180mm	E	D	
	Type E	R	E	
		T		

D4	COVER	I	A	9.08m
A 150Ø	9.676m	N	B	
	SIZE	V	C	
	710mm x710mm	E	D	
	Type E	R	E	
		T		

PS13	COVER	I	A	9.34m
A 100Ø, B 100Ø	9.89m	N	B	9.34m
	DIAMETER	V	C	
	180mm	E	D	
	Type E	R	E	
		T		

PS0_out	COVER	I	A	8.327m
A 150Ø	9.27m	N	B	
	DIAMETER	V	C	
	180mm	E	D	
	Type E	R	E	
		T		

PS14	COVER	I	A	9.35m
A 100Ø, B 100Ø	9.904m	N	B	9.35m
	DIAMETER	V	C	
	250mm	E	D	
	250 Inspection	R	E	
		T		

PS1	COVER	I	A	8.465m
B 150Ø, A 150Ø	9.40m	N	B	8.465m
	DIAMETER	V	C	
	1200mm	E	D	
	Type B	R	E	
		T		

PS16	COVER	I	A	9.25m
A 100Ø, B 100Ø	9.815m	N	B	9.25m
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS2	COVER	I	A	8.835m
B 150Ø, A 150Ø	9.732m	N	B	8.835m
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PF2	COVER	I	A	8.26m
A 100Ø, B 100Ø	9.807m	N	B	8.26m
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS3	COVER	I	A	8.91m
D 100Ø, A 150Ø, C 150Ø, B 100Ø	9.804m	N	B	8.96m
	DIAMETER	V	C	8.91m
	600mm	E	D	8.96m
	Type E	R	E	
		T		

PF3	COVER	I	A	8.13m
A 100Ø, B 100Ø	9.810m	N	B	8.13m
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS4	COVER	I	A	8.98m
A 150Ø, E 150Ø, D 100Ø, B 100Ø	10.018m	N	B	9.03m
	DIAMETER	V	C	9.03m
	450mm	E	D	9.03m
	450 Inspection	R	E	8.98m
		T		

PF4	COVER	I	A	7.745m
B 100Ø, A 100Ø	9.698m	N	B	7.745m
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS5	COVER	I	A	9.035m
A 150Ø, C 150Ø, B 150Ø	9.805m	N	B	9.035m
	DIAMETER	V	C	9.035m
	450mm	E	D	
	450 Inspection	R	E	
		T		

PF5	COVER	I	A	7.038m
B 100Ø, A 100Ø	9.38m	N	B	7.038m
	DIAMETER	V	C	
	1200mm	E	D	
	Type B	R	E	
		T		

PS6	COVER	I	A	9.095m
A 150Ø, C 150Ø, D 100Ø, B 100Ø	9.788m	N	B	9.145m
	DIAMETER	V	C	9.095m
	450mm	E	D	9.145m
	450 Inspection	R	E	
		T		

PF7	COVER	I	A	8.48m
A 100Ø	9.775m	N	B	
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS7	COVER	I	A	9.115m
A 150Ø, B 150Ø, C 100Ø	9.812m	N	B	9.115m
	DIAMETER	V	C	9.165m
	450mm	E	D	
	450 Inspection	R	E	
		T		

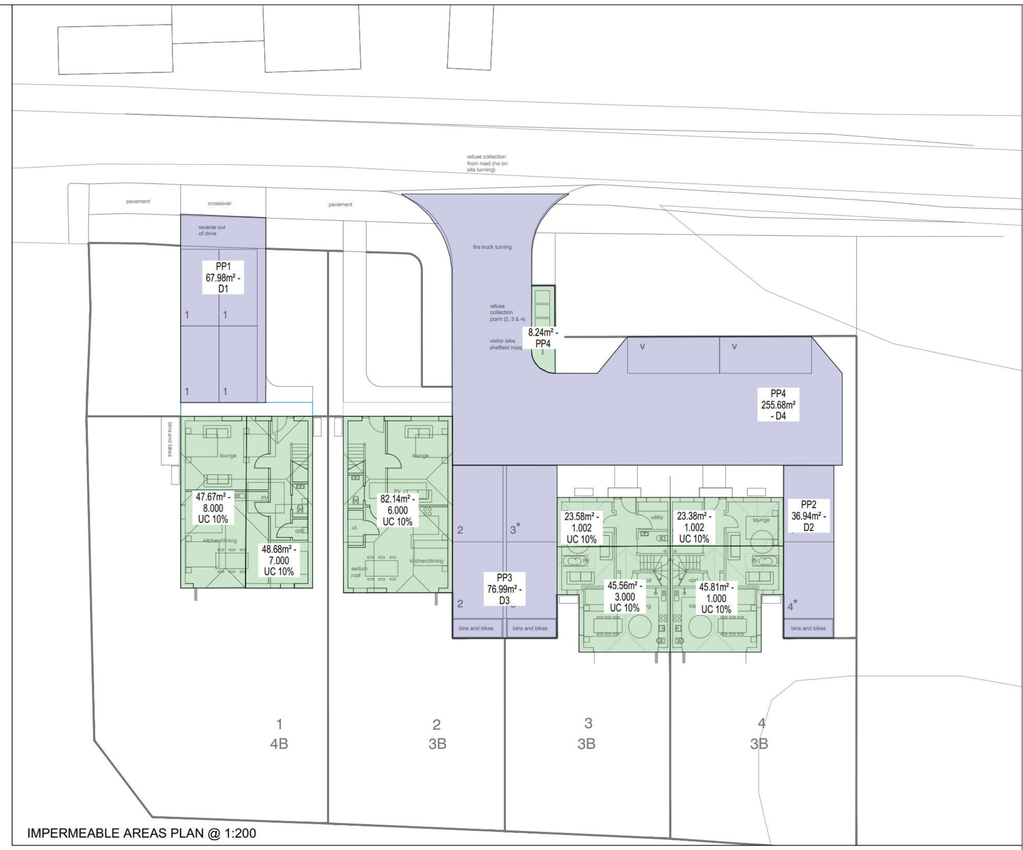
PF8	COVER	I	A	9.00m
A 100Ø	10.004m	N	B	
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS8	COVER	I	A	9.21m
A 150Ø, D 100Ø, C 100Ø	9.915m	N	B	9.26m
	DIAMETER	V	C	9.26m
	450mm	E	D	9.26m
	450 Inspection	R	E	
		T		

PF9	COVER	I	A	9.00m
A 100Ø	9.968m	N	B	
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PS9	COVER	I	A	9.10m
B 100Ø, A 100Ø	9.816m	N	B	9.10m
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		

PF10	COVER	I	A	8.875m
A 100Ø	9.893m	N	B	
	DIAMETER	V	C	
	450mm	E	D	
	450 Inspection	R	E	
		T		



IMPERMEABLE AREAS PLAN @ 1:200

A1

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It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

PHASE: 0

MH No.	MANHOLE DIMENSION (mm)	MANHOLE TYPE	COVER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
9102	1200Ø	Type A		9.280	5.720	3.410	493959.862	104193.930

PHASE: 0 (PRIVATE)

MH No.	MANHOLE DIMENSION (mm)	MANHOLE TYPE	COVER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
D1	710x710	Type E	B125	9.798	9.300	0.398	493985.867	104267.131
D2	710x710	Type E	B125	9.920	9.350	0.470	494025.958	104249.717
D3	710x710	Type E	B125	9.817	9.250	0.467	494006.018	104249.173
D4	710x710	Type E	D400	9.676	9.080	0.446	494008.658	104257.378
PS1	1200Ø	Type B		9.400	8.460	0.790	493969.122	104201.225
PS2	450Ø	450 Inspection		9.732	8.835	0.747	493972.584	104257.264
PS3	600Ø	Type E		9.804	8.910	0.744	493983.756	104257.293
PS4	450Ø	450 Inspection		10.018	8.980	0.888	493993.973	104257.318
PS5	450Ø	450 Inspection	D400	9.805	9.035	0.620	494002.101	104257.339
PS6	450Ø	450 Inspection	B125	9.788	9.095	0.543	494008.451	104251.187
PS7	450Ø	450 Inspection	B125	9.812	9.115	0.547	494011.106	104251.654
PS8	450Ø	450 Inspection	B125	9.915	9.210	0.555	494024.713	104251.599
PS9	450Ø	450 Inspection		9.816	9.100	0.616	493983.854	104266.299
PS10	450Ø	450 Inspection		9.949	9.050	0.799	493994.597	104255.470
PS11	180Ø	Type E		9.890	9.340	0.450	493994.670	104243.224
PS12	180Ø	Type E		9.890	9.340	0.450	493994.055	104243.400
PS13	180Ø	Type E		9.890	9.340	0.450	493983.803	104251.768
PS14	250Ø	250 Inspection	B125	9.904	9.350	0.454	494024.695	104243.230
PS16	450Ø	450 Inspection	B125	9.815	9.250	0.465	494008.452	104243.540
PS0_out	180Ø	Type E		9.270	8.404	0.716	493974.89	104195.05
PF2	450Ø	450 Inspection		9.807	8.260	1.447	494010.619	104250.997
PF3	450Ø	450 Inspection	B125	9.810	8.130	1.580	494002.085	104256.406
PF4	450Ø	450 Inspection		9.698	7.745	1.853	493971.581	104256.408
PF5	1200Ø	Type B		9.380	7.025	2.255	493968.112	104199.962
PF7	450Ø	450 Inspection		9.775	8.480	1.195	494028.176	104250.953
PF8	450Ø	450 Inspection		10.004	9.000	0.904	493998.719	104255.639
PF9	450Ø	450 Inspection		9.968	9.000	0.868	493988.222	104255.608
PF10	450Ø	450 Inspection		9.893	8.875	0.918	494018.147	104250.302

Manhole No.	Pipe No.	Adoptable IMP	Adoptable UC	Private IMP	Private UC	Total IMP + UC
RWP2	0.000	0.000	0.000	0.000	0.000	0.000
RWP1	0.000	0.000	0.000	0.000	0.000	0.000
RWHT6	1.000	0.000	0.000	45.806	4.581	50.386
PS14	1.001	0.000	0.000	0.000	0.000	0.000
PS8	1.002	0.000	0.000	0.000	0.000	0.000
PS7	1.003	0.000	0.000	0.000	0.000	0.000
PS6	1.004	0.000	0.000	0.000	0.000	0.000
PS5	1.005	0.000	0.000	0.000	0.000	0.000
PS4	1.006	0.000	0.000	0.000	0.000	0.000
PS3	1.007	0.000	0.000	0.000	0.000	0.000
PS2	1.008	0.000	0.000	0.000	0.000	0.000
PS1	1.009	0.000	0.000	0.000	0.000	0.000
RWHT7	2.000	0.000	0.000	23.381	2.338	25.719
D2	3.000	0.000	0.000	36.939	0.000	36.939
RWHT5	4.000	0.000	0.000	23.580	2.358	25.938
RWHT4	5.000	0.000	0.000	45.558	4.556	50.114
PS16	5.001	0.000	0.000	0.000	0.000	0.000
D3	6.000	0.000	0.000	76.992	0.000	76.992
D4	7.000	0.000	0.000	263.921	0.000	263.921
PS11	8.000	0.000	0.000	40.599	4.060	44.659
PS10	8.001	0.000	0.000	0.000	0.000	0.000
RWHT3	9.000	0.000	0.000	41.481	4.148	45.629
PS12	10.000	0.000	0.000	30.158	3.016	33.174
RWHT2	11.000	0.000	0.000	18.612	1.861	20.474
D1	12.000	0.000	0.000	67.976	0.000	67.976
PS9	12.001	0.000	0.000	0.000	0.000	0.000
RWHT1	13.000	0.000	0.000	47.666	4.767	52.433
PS13	13.001	0.000	0.000	0.000	0.000	0.000
Totals:		0.000	0.000	762.671	31.684	794.355

Rev.	Amendments	Date
B	Revised Issue	1/10/26
A	Revised Issue	8/7/26
-	Original Issue	-

HARBOURSTONE DESIGN

Harbourstone Design Limited
Civil Engineering Consultants - harbourstonedesign.co.uk
Registered in England No: 16608131

Drawing Status: DISCHARGE OF CONDITION

Client: Chichester Carpentry & Building Ltd

Project: Ryefields Farmhouse, Oak Tree Lane

Drawing Title: Manhole & Impermeable Areas Schedules

Scale	Date	Drawn By	Checked By
As Shown	May '26	DJL	CT

Drawing No.: 2026-C106-006

Rev.: B

APPENDICES

Appendix A Greenfield Runoff Calculation

Greenfield runoff rate estimation tool

www.uksuds.com | Greenfield runoff rate estimation tool (https://www.uksuds.com/)

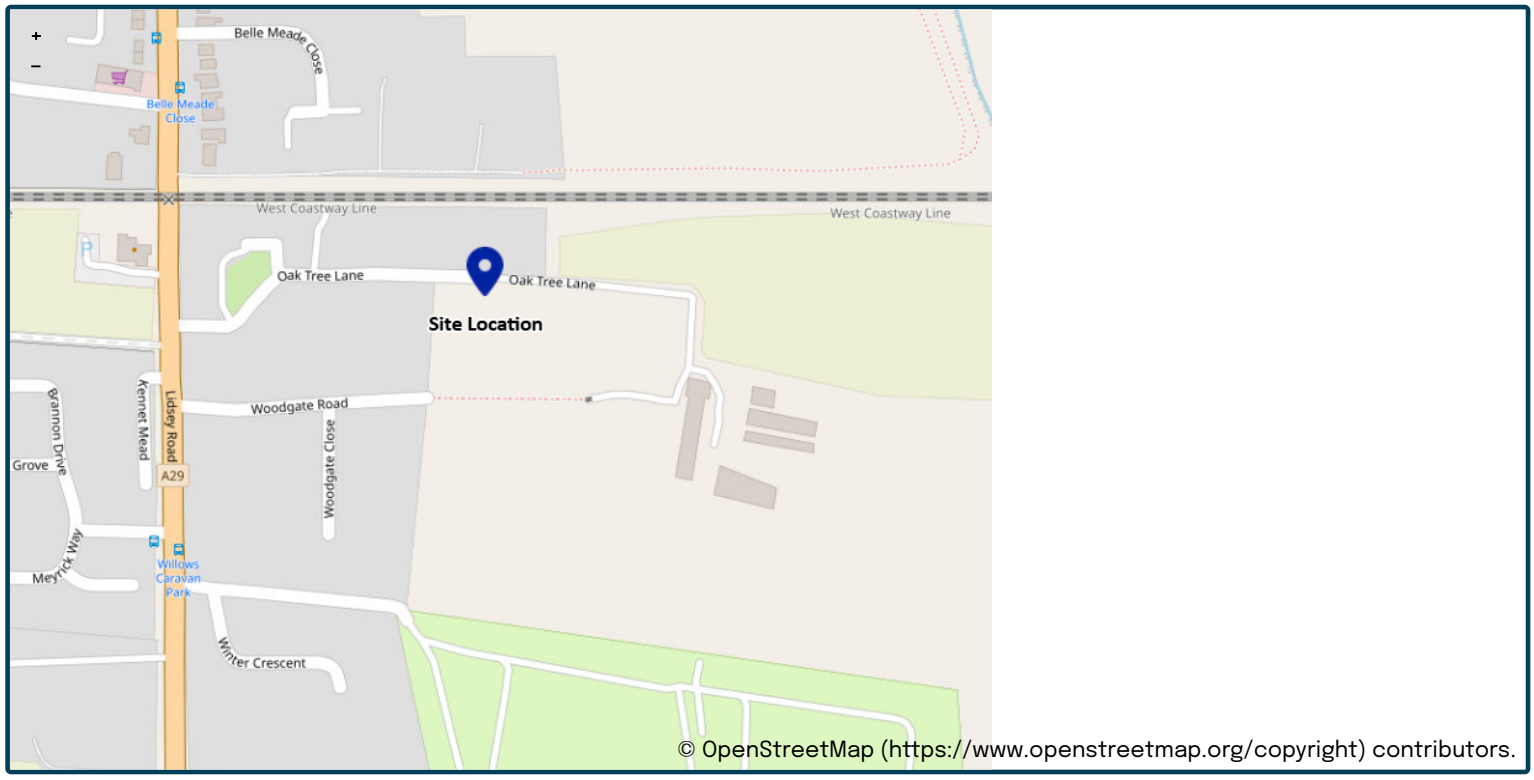
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	13/05/2026
Calculated by	DL
Reference	C160
Model version	2.2.3

Location

Site name	Ryefields
Site location	Woodgate



Site easting (British National Grid)	494000
Site northing (British National Grid)	104246

Site details

Total site area (ha)	0.21 ha

Greenfield runoff

Method

Method	FEH statistical (2025)

FEH statistical (2025)

	My value		Map value
SAAR9120 (mm)	794 mm		
BFIHOST19scaled	0.68		
QMed-QBar conversion	1.136		1.136
QMed (l/s)	0.4 l/s		
QBar (FEH statistical 2025) (l/s)	0.4 l/s		

Growth curve factors

	My value		Map value
Hydrological region	7		7
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	FEH statistical (2025)
Flow rate 1 year (l/s)	0.4 l/s
Flow rate 2 year (l/s)	0.4 l/s
Flow rate 10 years (l/s)	0.7 l/s
Flow rate 30 years (l/s)	1.0 l/s
Flow rate 100 years (l/s)	1.3 l/s
Flow rate 200 years (l/s)	1.6 l/s

Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent 'zero' figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.2.3) developed by HR Wallingford and available at uksuds.com (https://www.uksuds.com/). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at uksuds.com/terms-conditions (https://www.uksuds.com/terms-conditions). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Greenfield runoff rate estimation tool

www.uksuds.com | Greenfield runoff rate estimation tool (https://www.uksuds.com/)

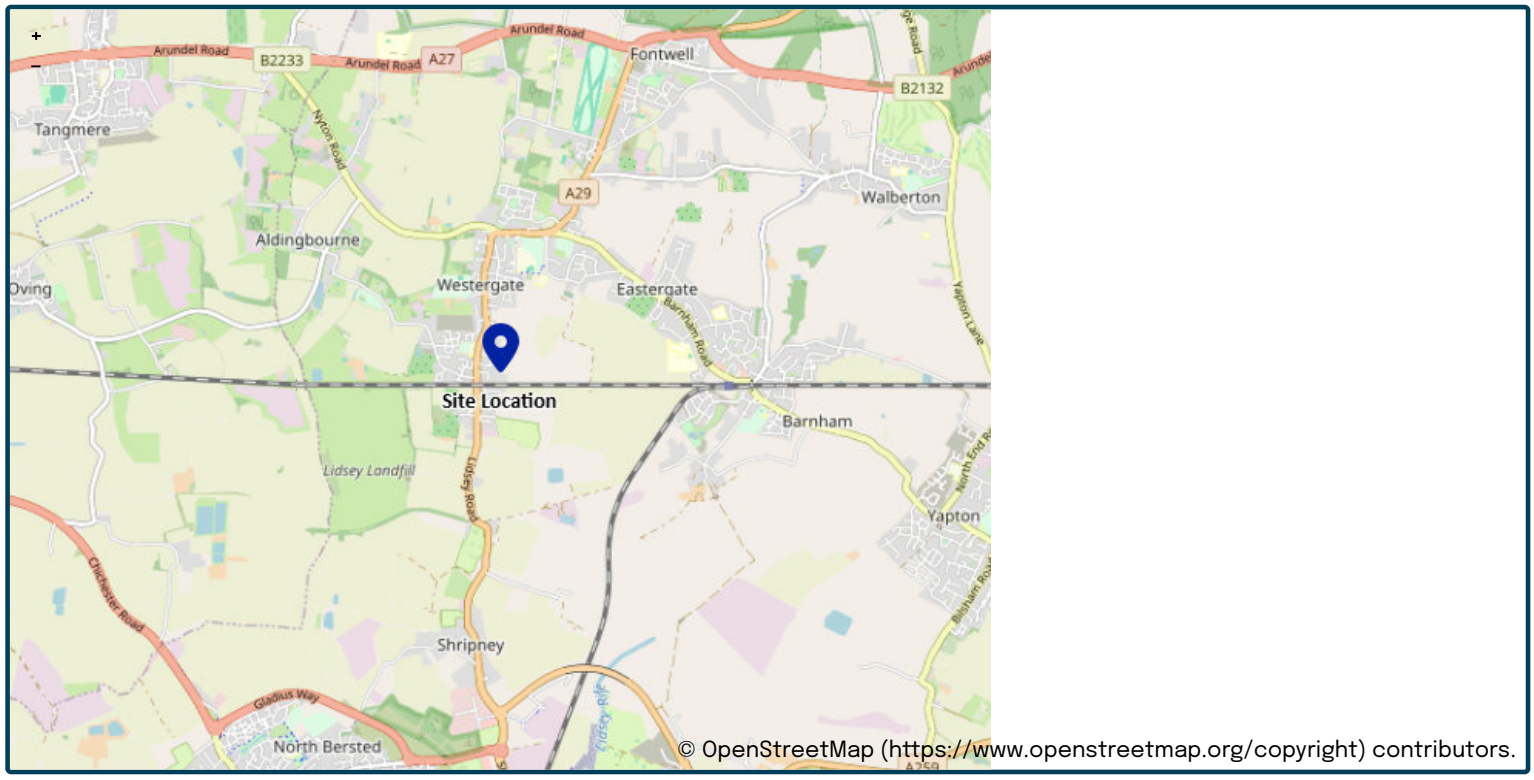
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	28/08/2026
Calculated by	DL
Reference	C160
Model version	2.2.3

Location

Site name	Ryefields
Site location	Woodgate



Site easting (British National Grid)	493993
Site northing (British National Grid)	104250

Site details

Total site area (ha)	0.081 ha

Greenfield runoff

Method

Method	IH124

IH124

	My value		Map value
SAAR (mm)	749 mm		749
How should SPR be derived?	WRAP soil type		
WRAP soil type	2		2
SPR	0.3		
QBar (IH124) (l/s)	0.2 l/s		

Growth curve factors

	My value		Map value
Hydrological region	7		7
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	IH124
Flow rate 1 year (l/s)	0.1 l/s
Flow rate 2 year (l/s)	0.1 l/s
Flow rate 10 years (l/s)	0.3 l/s
Flow rate 30 years (l/s)	0.4 l/s
Flow rate 100 years (l/s)	0.5 l/s
Flow rate 200 years (l/s)	0.6 l/s

Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent 'zero' figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.2.3) developed by HR Wallingford and available at uksuds.com (https://www.uksuds.com/). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at uksuds.com/terms-conditions (https://www.uksuds.com/terms-conditions). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Appendix B Geotechnical Investigation Extracts

Ground and Water Limited

Unit 2
The Long Barn, Norton Farm
Selborne Road
Selborne, Alton
Hampshire
GU34 3NB

[redacted]

Soakage Testing Letter Report

CLIENT	Domusea
SITE ADDRESS	Ryelands Farmhouse, 4 Oak Tree Lane, Woodgate, Chichester, West Sussex PO20 3GU
REPORT REFERENCE	GWPR4660
ENGINEER	Roger Foord, Ground and Water Limited
INVESTIGATION LOCATIONS AND SCOPE OF WORKS	Site works were undertaken in on the 3rd March 2022. Two trial pits (TP1 and TP2) were machine excavated to a depth of 0.80m bgl. Infiltration tests in accordance with the principles of BRE365 were undertaken in each of the trial pits. A trial hole location plan can be seen in Figure 1.

GROUND CONDITIONS ENCOUNTERED

Summary of Strata Encountered			
Strata	**Depth Strata Encountered (m bgl)**	**Base of Strata (m bgl)**	**Thickness (m)**
TOPSOIL: Brown gravelly sandy SILT. The sand was fine grained and the gravel was fine to medium, sub-angular flint.	GL	0.20m	0.20m
UNDIFFERENTIATED RIVER TERRACE DEPOSITS: Orangish brown sandy CLAY. The sand was fine to medium grained.	0.20m	>0.80m	>0.60m

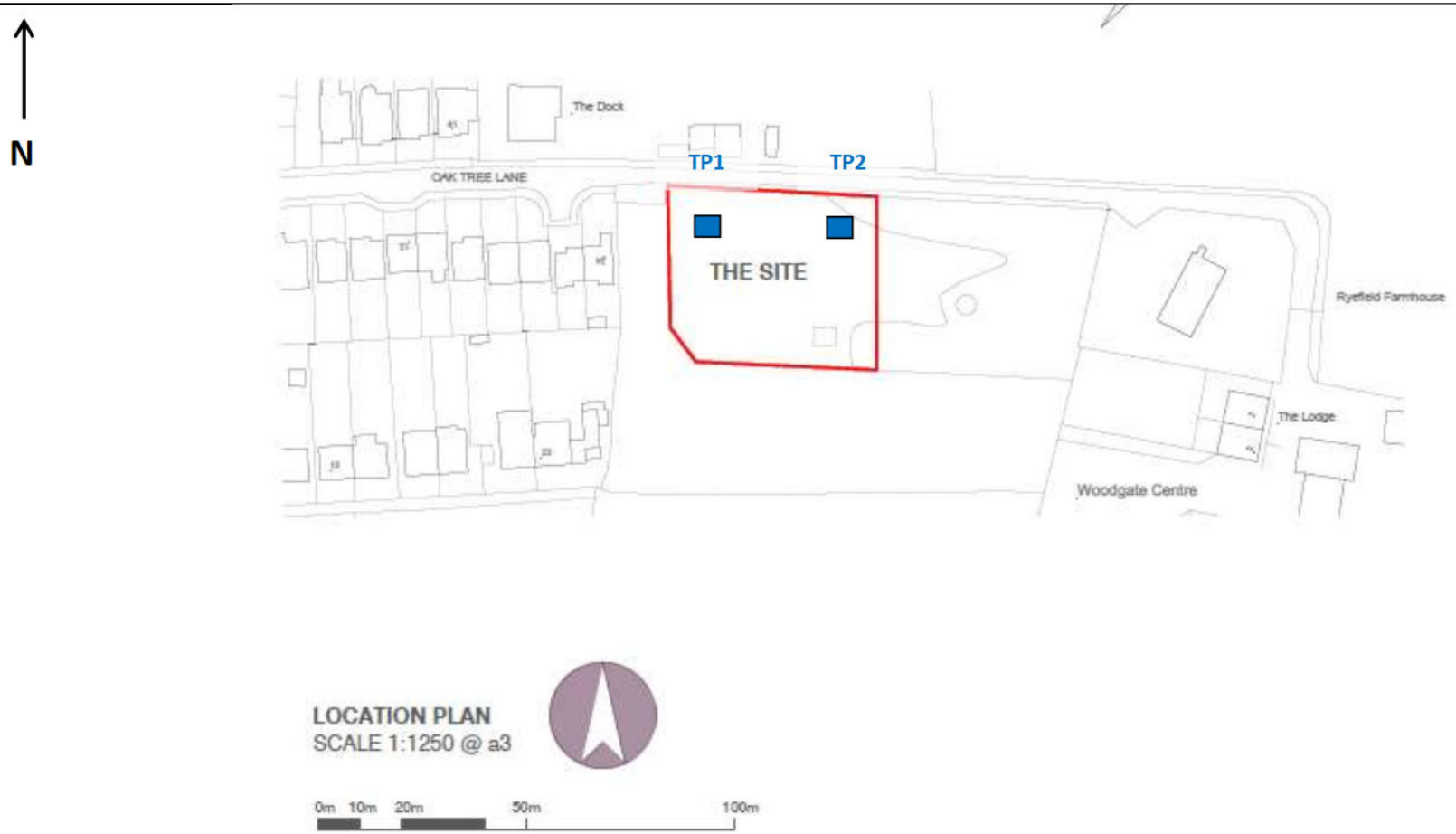
GROUNDWATER	Groundwater was not encountered.
ROOTS	Roots were noted to a depth of 0.70m bgl in TP1 and 0.60m bgl in TP2.

INFILTRATION TESTING

Soakaway tests, in accordance with the principles of bRE365 were undertaken in the base of the trial pits at a depth of 0.80m bgl. TP1 and TP2 were all bottomed out within the soils of the Undifferentiated River Terrace Deposits generally comprising an orange brown sandy clay. The sand was fine to medium grained. The infiltration rates recorded within the trial pits can be seen tabulated below.

Infiltration Test Results – Recorded Infiltration Rates m/s			
	Test 1	**Test 2**	**Test 3**
TP1 @ 0.80m bgl within Undifferentiated River Terrace Deposits	3.26×10^{-7} m/s	-	-
TP2 @ 0.80m bgl within Undifferentiated River Terrace Deposits	1.87×10^{-7} m/s	-	-

Based upon the results of the infiltration tests, it was considered unlikely that the soils of the Undifferentiated River Terrace Deposits encountered at shallow depth would provide a suitable medium for soakaway installation.



APPROXIMATE SITE BOUNDARY

NOTE: NOT TO SCALE

Project: Ryelands Farmhouse, 4 Oak Tree Lane, Woodgate, Chichester, West Sussex PO20 3GU		**Figure 1**
Client: Domesua	**Date:** March 2022	
Trial Hole Location Plan	**Ref:** GWPR4660	

Trial Pit Log

Project Name: 4, Oak Tree Lane,	Client: Domusea	Date: 03/03/2022
Location: Woodgate, Chichester, PO20 3GU	Contractor:	
Project No. : GWPR4660	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP1	TP			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			Brown gravelly sandy gravelly SILT. The sand was fine grained and the gravel was fine to medium, subangular flint. (TOPSOIL).
					0.80			Orangish brown sandy CLAY. The sand was fine to medium grained. (UNDIFFERENTIATED RIVER TERRACE DEPOSITS).
								End of Borehole at 0.800m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Roots noted to 0.70m bgl. Groundwater not encountered.

Trial Pit Log

Project Name: 4, Oak Tree Lane,	Client: Domusea	Date: 03/03/2022
Location: Woodgate, Chichester, PO20 3GU	Contractor:	
Project No. : GWPR4660	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP2	TP			1:25	Sheet 1 of 1

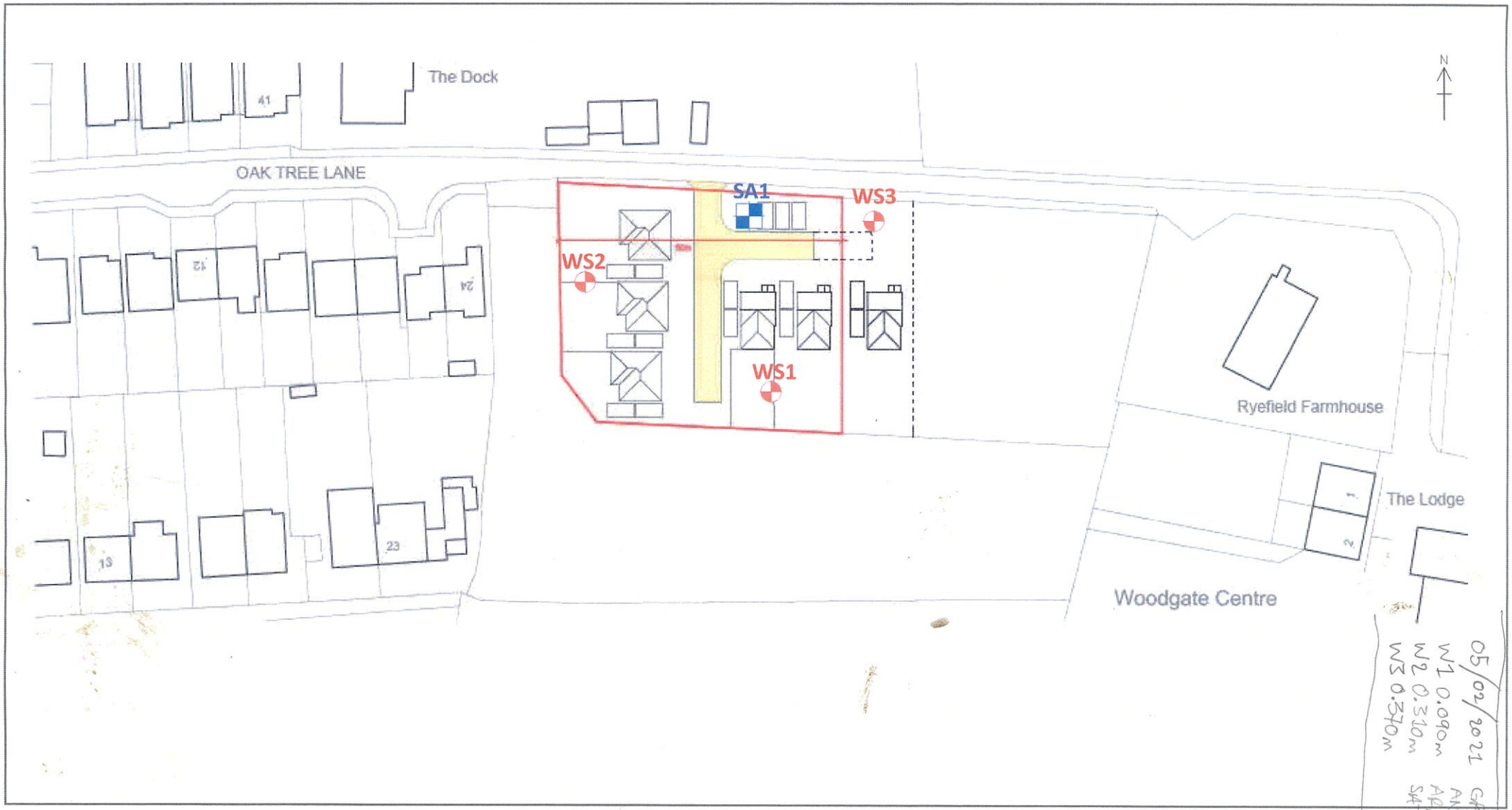
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			Brown gravelly sandy SILT. The sand was fine grained and the gravel was fine to medium, sub-angular gravel. (TOPSOIL).
					0.80			Orangish brown sandy CLAY. The sand was fine to medium grained. (UNDIFFERENTIATED RIVER TERRACE DEPOSITS).
								End of Borehole at 0.800m

1
2
3
4
5

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Roots noted to 0.60m bgl. Groundwater not encountered.



Notes:
1. Do not scale from this drawing.
2. All dimensions must be checked on site prior to commencement of work.
3. Where applicable this drawing is to be read in conjunction with other consultants drawings.
4. This drawing is the copyright of Impact Geotechnical Ltd.

Drawing Title:
Hole Location Plan

Site Name:
Land to the west of Ryefield Farm House

Project Reference:
P21.109A

Revision: 0
Drawn by: RM
Scale: Not to Scale

IMPACT GEOTECHNICAL

Percussion Drilling Log

IMPACT GEOTECHNICAL

Project Name: Ryefield Farm House	Client: Domusea	Date: 26/01/2021
Location: Eastergate, West Sussex	Contractor: Impact GEotechnical Ltd	
Project No. : P21.109B	Crew Name: SG	Drilling Equipment: Archway Dart

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS1	WLS		RM	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Orange brown mottled pale grey sandy SILT/CLAY. Sand is fine (RIVER TERRACE DEPOSITS).
					0.20			MADE GROUND: Grass over brown sandy Silt/ Clay. Sand is fine. Rare subangular to subrounded fine to medium sized gravel of flint (TOPSOIL).
		1.00	SPT	N=14 (2,2/3,3,4,4)				
					1.50			Orange brown occasionally mottled light grey fine to medium SAND (RIVER TERRACE DEPOSITS).
		2.00	SPT	N=17 (2,2/4,4,4,5)				
					4.00			End of Borehole at 4.000m

1 2 3 4 5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Groundwater encountered at 1.40mbgl and noted to rise to ~1.30mbgl. 35mm diameter groundwater standpipe installed at 4.00mbgl with 1.00m plain pipe and 3.00m slotted pipe.

AGS

Percussion Drilling Log

IMPACT GEOTECHNICAL

Project Name: Ryefield Farm House	Client: Domusea	Date: 26/01/2021
Location: Eastergate, West Sussex	Contractor: Impact GEotechnical Ltd	
Project No. : P21.109B	Crew Name: SG	Drilling Equipment: Archway Dart

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS2	WLS		RM	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15			MADE GROUND: Grass over brown sandy Silt/ Clay. Sand is fine. Rare subangular to subrounded fine to medium sized gravel of flint (TOPSOIL). Orange brown mottled pale grey sandy SILT/CLAY. Sand is fine (RIVER TERRACE DEPOSITS).
		1.00	SPT	N=14 (2,2/3,3,4,4)				
					1.40			Orange brown occasionally mottled light grey fine to medium SAND (RIVER TERRACE DEPOSITS).
		2.00	SPT	N=17 (2,2/4,4,4,5)				
					4.00			End of Borehole at 4.000m

1 2 3 4 5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Groundwater encountered at 1.40mbgl and noted to rise to ~1.20mbgl. 35mm diameter groundwater standpipe installed at 4.00mbgl with 1.00m plain pipe and 3.00m slotted pipe.

AGS

Percussion Drilling Log

IMPACT GEOTECHNICAL

Project Name: Ryefield Farm House	Client: Domusea	Date: 26/01/2021
Location: Eastergate, West Sussex	Contractor: Impact GEotechnical Ltd	
Project No. : P21.109B	Crew Name: RM	Drilling Equipment: Archway Dart

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS3	WLS		RM	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			MADE GROUND: Grass over brown sandy Silt/ Clay. Sand is fine. Rare subangular to subrounded fine to medium sized gravel of flint (TOPSOIL).
								Orange brown mottled pale grey sandy SILT/CLAY. Sand is fine (RIVER TERRACE DEPOSITS).
		1.00	SPT	N=14 (1,2/3,3,4,4)				
					1.40			Orange brown occasionally mottled light grey fine to medium SAND (RIVER TERRACE DEPOSITS).
		2.00	SPT	N=17 (2,3/3,4,5,5)				
					4.00			End of Borehole at 4.000m

1 2 3 4 5

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Groundwater encountered at 1.40mbgl and noted to rise to ~1.20mbgl. 35mm diameter groundwater standpipe installed at 3.80mbgl with 0.80m plain pipe and 3.00m slotted pipe.

AGS

Appendix C Southern Water Sewer Records

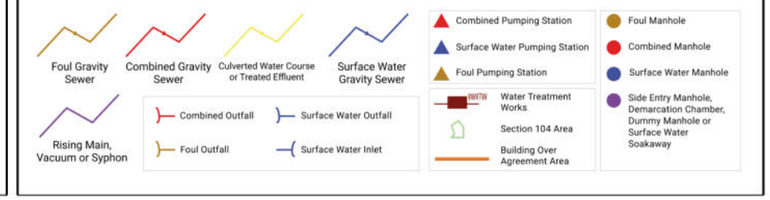


(c) Crown copyright and database rights 2026 Ordnance Survey AC0000808122 | Date: 14/05/26 | Scale: 1:1250 | Map Centre: 493963,104249 | Data updated: 17/04/26 | Our Ref: 2121238 - 1 | Wastewater Plan A3 Powered by digdat

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2026 Ordnance Survey AC0000808122 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.



dan@harbourstonedesign.co.uk

C160

WATER for LIFE from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0102	F	8.99	5.36	
1101	F	8.71	5.22	
7101	F	8.90	6.48	
7102	F	8.23	6.30	
7201	F	8.46	6.85	
7301	F	9.14	7.99	
7302	F	8.77	6.86	
7303	F	8.84	6.66	
7304	F	9.14	7.93	
7305	F	9.14	7.81	
7306	F	9.00	7.72	
8101	F	8.05	6.18	
8102	F	8.31	5.99	
8202	F	8.85	7.47	
8203	F	8.53	7.20	
8204	F	9.14	7.25	
8205	F	9.42	7.88	
8206	F	9.48	7.81	
8207	F	0.00	0.00	
8208	F	0.00	0.00	
8301	F	9.61	8.05	
9102	F	8.98	5.72	
9103	F	9.16	5.52	
9202	F	9.48	8.35	
9301	F	9.97	8.76	
9302	F	10.01	8.45	
9150	S	0.00	0.00	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert