

Rodding Eye
Shallow Inspection Chamber
450Ø Inspection Chamber
450Ø IC with 300mm sump
450Ø IC Restricted Access

Permeable Pavement

Soakaway Overflow/link pipe

Soil and Vent Pipe

Stub Stack

Rainwater Pipe

Overland Floodflow

Permavoid Distribution box

NOTE:
Drainage design is modelled on the 1:100year storm + 40% for climate change and been checked to ensure flooding of buildings does not occur.

DIRECT FOUL
WATER SEWER
CONNECTION
150Ø CLAY PIPE

NOTE: The foul drainage is design at critical gradients and the contractor must ensure that lasers are employed to ensure accuracy is maintained. The contractor shall work from the drainage outfall and work upstream in accordance with best practice.

	Foul Water Sewer
	Concrete Protection to Sewer
	Foul Sewer Easement

ADOPTABLE DRAINAGE NOTES

- 2.1 All adoptable drainage works to be in accordance with the Sewerage Sector Guidance (SSG)
- 2.2 All adoptable drainage to be either:
 - Vitrified Clayware to BS 65 and BS EN 295.
 - OR
 - Concrete to BS 5911 Part 100 Class M loading and flexibly jointed (Class 3 Sulphate resistant cement).
- Contractor to confirm the approval for the type of pipe and bedding being used with the adopting Authority prior to any construction commencing.
- 2.3 All precast concrete units are to be to BS 5911 (Class 3 Sulphate resistant cement).
- 2.4 All manhole covers and frames are to be to BS EN 124 and kite marked (refer to schedule for load class) and badged 'FW' or 'SW' as appropriate.
- 2.5 Where foul and surface water sewers cross and there is less than 100mm clearance short lengths of both runs are to be encased in concrete.

SOAKAWAY NOTES

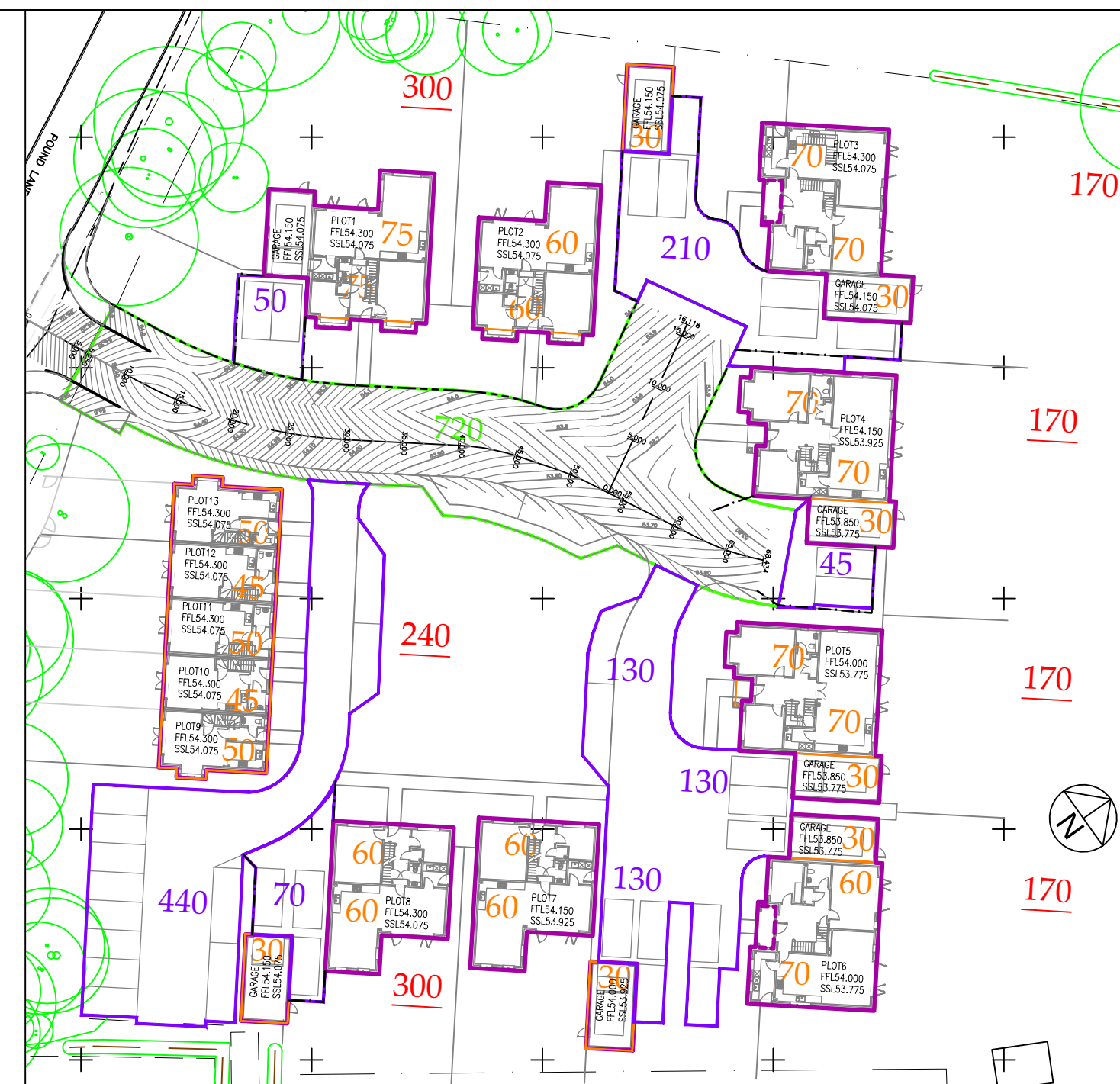
- 4.1 The Site investigation has identified River Terrace Deposits from depths of 700mm to 2m below ground. Following onsite testing, in the areas of SA04-SA08, an infiltration rate of 1x10-5m/s has been recorded. SA04-SA08 have been sized to drain roof areas from all 13 plots. Soakaways have been designed to accord with BRE365 & Ciria Report 156 utilising this value.
- 4.2 Soakage tests (to BRE365) are to be undertaken at the location of each soakaway in order to confirm that the design infiltration rate is achieved. Any discrepancy in the infiltration rate must be reported immediately to Aventus Design Civils' Department.
- 4.3 All soakaways to be sited 5m minimum from any building or wall, existing or proposed, or any other soakaway.
- 4.4 No soakaway bases to penetrate water table level.
- 4.5 No soakaway to be constructed in contaminated ground

NOTE:
Full sized BRE365 Soakage
testing required to verify the
design, refer to note 4.2 above.

PRIVATE DRAINAGE NOTES

- 3.1 All private drainage works to be in accordance with Part H of the current Building Regulations and BS 8301.
- 3.2 All private drainage to be either:
 - PVCu to BS EN 1401-1 (BS 4660/5481) by Osma, Marley or similar.
 - OR
 - Vitrified Clayware to BS 65 and BS EN 295.
 - OR
 - Concrete to BS 5911 and flexibly jointed.
- The drainage design shown on this drawing has been based upon a PVCu drainage system.
- 3.3 All private drainage to be 100mm diameter unless noted otherwise. Gully latrines to be sized to suit gully outlets. Connections to public sewers to be 150mm dia unless noted otherwise.
- 3.4 Foundations Adjacent to drain runs are to be constructed so that the difference between the formation level of the foundation and invert level of any drain must not exceed the horizontal distance minus 500mm.
- Where foul and surface water sewers cross and there is less than 100mm clearance short lengths of both runs are to be encased in concrete.
- 3.6 All RWP, SVP and foul drainage positions are to be confirmed by the Architect.
- 3.7 Where RWPs are connected direct to drain, rodding access plates are to be provided.
- 3.8 For pipe bedding and backfill details refer to drawing number H1342/432.
- 3.9 Inspection chambers shown thus IC, are not part of the critical drainage run. Depth to invert to be generally 550-750mm.

The diagram illustrates the FOUL and STORM algorithms for finding a path in a grid. The FOUL algorithm shows a path starting from a source (black dot) and moving towards a target (white dot) with obstacles (black dots). The STORM algorithm shows a path starting from a source (black dot) and moving towards a target (white dot) with obstacles (black dots). The STORM algorithm also includes a grid representation of the environment and a path visualization.



DRAINED AREAS (Scale 1:500)

Notes:

- 1.1 Do not scale from this drawing.
- 1.2 All dimensions are in m unless otherwise specified.
- 1.3 In case of any discrepancies in drawings or details refer to engineer for clarification. Unilateral decisions by the contractor will not be accepted.
- 1.4 This drawing is to be read in conjunction with all related Architects, Consultants & Sub-Contractors drawings and specifications.
- 1.5 The Contractor is to ensure that all design drawings and information are read concurrently and any discrepancies or omissions reported directly to Aventus Design.
- 1.6 This drawing is based upon the survey by KND Surveys Ltd, reference B1308-T-51-56 dated 12th March 2008.
- 1.7 Levels are related to Ordnance Survey by a minimum of 4hrs GPS observation.
- 1.8 The grid relates to a local datum.
- 1.9 The Contractor must check the levels of all existing drainage outfalls prior to construction of any drainage, unless otherwise agreed, to ensure the proposed design may be achieved. Any discrepancies must be reported immediately to Aventus Design.
- 1.10 Sulphates have been determined as class 1 (DS-1) for design purposes in accordance with BRE Special Digest 1 (2001). Buried Concrete to be in accordance with ACEC Site Class AC-1s.
- 1.11 All adoptable highway works to be in accordance with the Local Authorities Specifications.
- 1.12 All adoptable drainage works to be in accordance with the Water Authorities standard guidelines for connections etc.
- 1.13 Formation to road/hardstanding to be proof rolled and any soft spots in subgrade of road/Hardstanding areas are to be excavated and replaced with well compacted sub-base or free draining granular material to Department of Transport Specification for Highway Works Part 2' Table 6/1 Class 1 (General Granular Fill) and compacted in accordance with Table 6/4.

CDM REGULATIONS 2015

Aventus Design have considered and where reasonably practicable avoided foreseeable risks in the preparation of the design shown on this and related drawings. Significant risks which remain and associated control measures are identified in the Risk Register and should be given particular attention by the main contractor on site.

RISKS RELATING TO THIS DRAWING:

RISK NUMBERS 5 - 8 on Risk Register
NOTE: The Risk Register records only those elements considered unusual, difficult to manage or outside the anticipated expertise of a competent contractor.

Drawing Status	PRELIMINARY ISSUE	
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WORK IN PROGRESS

F	30.05.25	Soakaways amended to suit latest infiltration testing.	SU	-
E	16.04.25	Houses and layout updated to match architects plan.	SU	-
D	03.04.25	Layout updated to match architects plan, soakaways amended & Client address updated.	SU	-
C	26.03.25	Layout updated, drain points, rising main outfall and FW in front of Plot5 amended.	SU	-
B	14.03.25	Layout updated, drainage redesigned.	SU	-
A	22.01.25	Foul Sewer connection noted.	SU	-
REV.	DATE	DESCRIPTION	CHK	APP

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Aventus
DESIGN

Civil & Structural Engineers

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Client: **Darcliffe Homes**

Site: Land Adj. Golf Club,
Pound Lane,
Sonning. RG4 6GG

Title: Site Layout & Drainage

Drawing no.	H1342 - 402
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Issue:	Scale: 1:250 @ A1		Checked: -	Date: -
	Dwn: C.H.	Date: Jan 25	Apprv: -	Date: -

ORIGINAL SIZE - A1

250mm

200mm

150mm

100mm

50mm