

1 February, 2018

Mr E Newlyn
Rydon Homes Ltd
Rydon House
Forest Row
East Sussex
RH18 5DW

By E-mail: enewlyn@rydon.co.uk

Dear Mr Newlyn

**LAND NORTH OF WATER LANE, ANGMERING
WATER LEVEL MONITORING – WINTER 2017**

Rydon Homes and Gleeson Strategic Land propose to develop an area of land located to the North of Water Lane in Angmering for mixed development purposes. The proposed development comprises residential units with private and adopted highways, approximately 3 hectares of employment land, public open space, play areas, associated infrastructure and landscaping.

Idom Merebrook Limited (Merebrook) has been commissioned by Rydon Homes and Gleeson Strategic Land to undertake preliminary site investigation works and to advise on the geo-environmental implications of the redevelopment of the site for the proposed end use.

A Phase 1 (Non-intrusive Investigation) and a Phase 2a (Preliminary Exploratory Investigation) have been undertaken by Merebrook for the subject site. These are presented in Merebrook report reference GEA-19495-17-318 Rev A dated February 2018.

A Flood Risk Assessment has also been undertaken by Merebrook, report reference FRA-19495-16-140 R1 dated January 2018. The FRA includes an indicative drainage strategy. In order to assess the potential for infiltration as a disposal method for surface water management, and any engineering inclusions required for the use of basins (e.g. lining), Merebrook installed five boreholes (MBH01 to MBH05) to a maximum depth of 10 metres below ground level (m bgl) across the northern land parcel. The locations are indicated on drawing 19495-304-004 attached, together with exploratory hole records. Water levels will continue to be monitored over the winter period (October 2017 to March 2018), and results from five monitoring rounds are reported below.

Soakage testing was undertaken in two locations in September 2015, and results, together with an appraisal of ground conditions are presented in Idom Merebrook Geo-Environmental Assessment reference GEA-19495-17-318 Rev A dated February 2018. As can be seen from the exploratory hole records attached for the five cable percussion boreholes, the underlying geology comprises cohesive deposits of low permeability, predominantly assigned to the London Clay Formation.

Groundwater level monitoring has been undertaken on five occasions to date: 27 September 2017, 24 October 2017, 21 November 2017, 11 January 2018 and 24 January 2018.

	Date of Monitoring Visit									
	27/09/17		24/10/17		21/11/17		11/01/18		24/01/18	
Location	DTW*	DTB*	DTW*	DTB*	DTW*	DTB*	DTW*	DTB*	DTW*	DTB*
MBH101	5.72	9.72	1.42	9.74	1.31	9.74	1.06	9.72	1.10	9.70
MBH102	1.01	9.81	0.89	9.78	0.74	9.77	0.60	9.86	0.60	9.90

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	Date of Monitoring Visit									
	27/09/17		24/10/17		21/11/17		11/01/18		24/01/18	
Location	DTW*	DTB*	DTW*	DTB*	DTW*	DTB*	DTW*	DTB*	DTW*	DTB*
MBH103	0.72	9.92	0.35	10.00	0.42	10.03	0.35	10.01	0.10	10.00
MBH104	5.83	10.05	1.87	9.97	0.81	10.10	0.32	10.05	0.20	10.10
MBH105	1.10	9.97	0.98	10.02	0.76	10.02	0.00	9.56	0.60	9.60

*DTW – depth to water

*DTB – depth to base

Based upon the information available to date, it does not appear that soakaways will be feasible on this development parcel due to the impermeable geology and relatively high water table, and it is considered likely that any surface water attenuation features will need to be lined. The indicative drainage strategy has taken these findings into account.

Yours sincerely



Dr Lisa Horsley
For Idom Merebrook Ltd

cc File
Mark Jackson – Gleeson Strategic Land

enc Drawing 19495-304-004
Exploratory hole records



	Site boundary
	Merebrook trial pit with location reference
	Merebrook window sample with location reference
	Merebrook soakage test pit with location reference
	Merebrook cable percussion borehole installed for water level monitoring

Based on IM drawing ref: 19495-304-001	22-08-2017	
	SC	RH
Issue Details	Dwn	Chd

Client

Rydon Homes
&
Gleeson Strategic Land

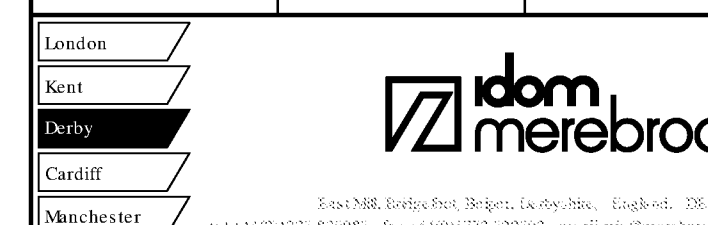
Project	Water Lane, Angmering
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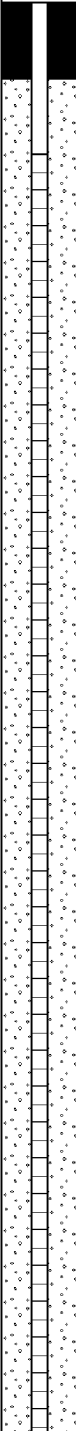
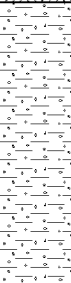
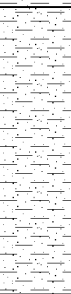
Dwg Title

Approximate Site Investigation Location

Land to the North of Water Lane

Job No. 19495	Dwg No. 304-004	Revision -
Scale 1:2500	Date August 2017	Frame Dimensions n (A1) 791 x 5
Drawn SC	Checked RH	Approved LGS



idom merebrook offices London Kent Derby Cardiff Manchester Moray Cromford Mills, Mill Lane, Matlock, Derbyshire, DE4 3BO merebrook.co.uk idom.com AN idom GROUP COMPANY										Borehole Log				Borehole No. M8H103 Sheet 1 of 1	
Project Name: Water Lane						Project No. 19495		Co-ords:		Hole Type CP					
Location: Angmering						Level:		Scale 1:50		Logged By JW					
Equipment: Cable Percussion Rig						Dates: 13/09/2017									
Well	Wtr Strk	Sample and In Situ Testing			Coring				Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results	FI	TCR	SCR	RQD							
		1.50 1.50 - 1.95	SPT(S) D	N=10 (1,2/2,2,3,3)					0.20			Vegetation over TOPSOIL.			
												Brown sandy gravelly CLAY. Gravel is Flint.	1		
										2.10				2	
		2.50 2.50 - 2.95	SPT(S) D	N=14 (2,3/3,3,3,5)									Firm brown sandy CLAY.	3	
		3.50 3.50 - 3.95	SPT(S) D	N=9 (2,2/2,2,2,3)						4.00				4	
		4.50 4.50 - 4.95	SPT(S) D	N=11 (1,2/3,2,3,3)									Firm to stiff fissured CLAY.	5	
		6.00 6.00 - 6.45	SPT(S) D	N=12 (1,2/2,3,3,4)										6	
		7.50 7.50 - 7.95	SPT(S) D	N=22 (2,3/3,5,6,8)										7	
		9.00 9.00 - 9.45	SPT(S) D	N=34 (3,4/7,8,8,11)										8	
											9.45			End of Borehole at 9.45m	9
													10		
D = small disturbed sample (tub) J = organic sample (amber glass jar) V = volatile sample (amber glass vial) B = bulk bag sample SPT(C) = Standard Penetration Test (Cone) SPT(S) = Standard Penetration Test (Split Spoon) HSV = hand shear vane (kPa) PP = pocket penetrometer (kg.cm2) PID = photoionisation detector (ppm) FI = fracture index TCR = total core recovery SCR = solid core recovery RQD = rock quality designation										Remarks Standpipe is left 0.5m above ground level					

