Archibald Shaw

[redacted]

Our Ref: PEF/SD/30253

2 January 2019

By E-Ma[redacted]

Mr D. Keet
Meadow View
Barnham
Bognor Regis
West Sussex
PO22 0BT

Dear Mr Keet

Meadow View, Barnham
Soakage Test

Further to my site investigation undertaken on 20 December 2018, please find herewith the following information:

- Trial Pit Location Plan
- Trial Pit Logs TP1, TP2 and TP3
- Marked-up Drawing STD-01-63 – Proposed Soakaway (2 No.)

Local soils were found to have poor soakage potential, with an infiltration rate of 0.0181m per hour (5.02×10^{-6}m/s).

To serve the new house roof (310m²) at Meadow View, a high storage soakaway sized 14m long x 4m wide x 0.8m total depth will be required for a 1: 100 year storm event, plus 40% for climate change. To serve the garage roof (120m²), a high storage soakaway sized 7m long x 3m wide x 0.8m total depth will be required for the storm event noted above. The exact layout of the soakaways should be agreed with me after the groundwater level monitoring has been completed. The soakaway storage volumes though at 22.4m³ and 8.4m³ should not change.

The soakaways could be installed as one of the last operations of the build, such that the groundwater level monitoring can be completed. Ideally, the monitoring should be undertaken every two weeks between December and March.

I trust that this drainage information is sufficient for now, however should you have any questions or queries please do not hesitate to contact me.

Yours sincerely

[redacted]

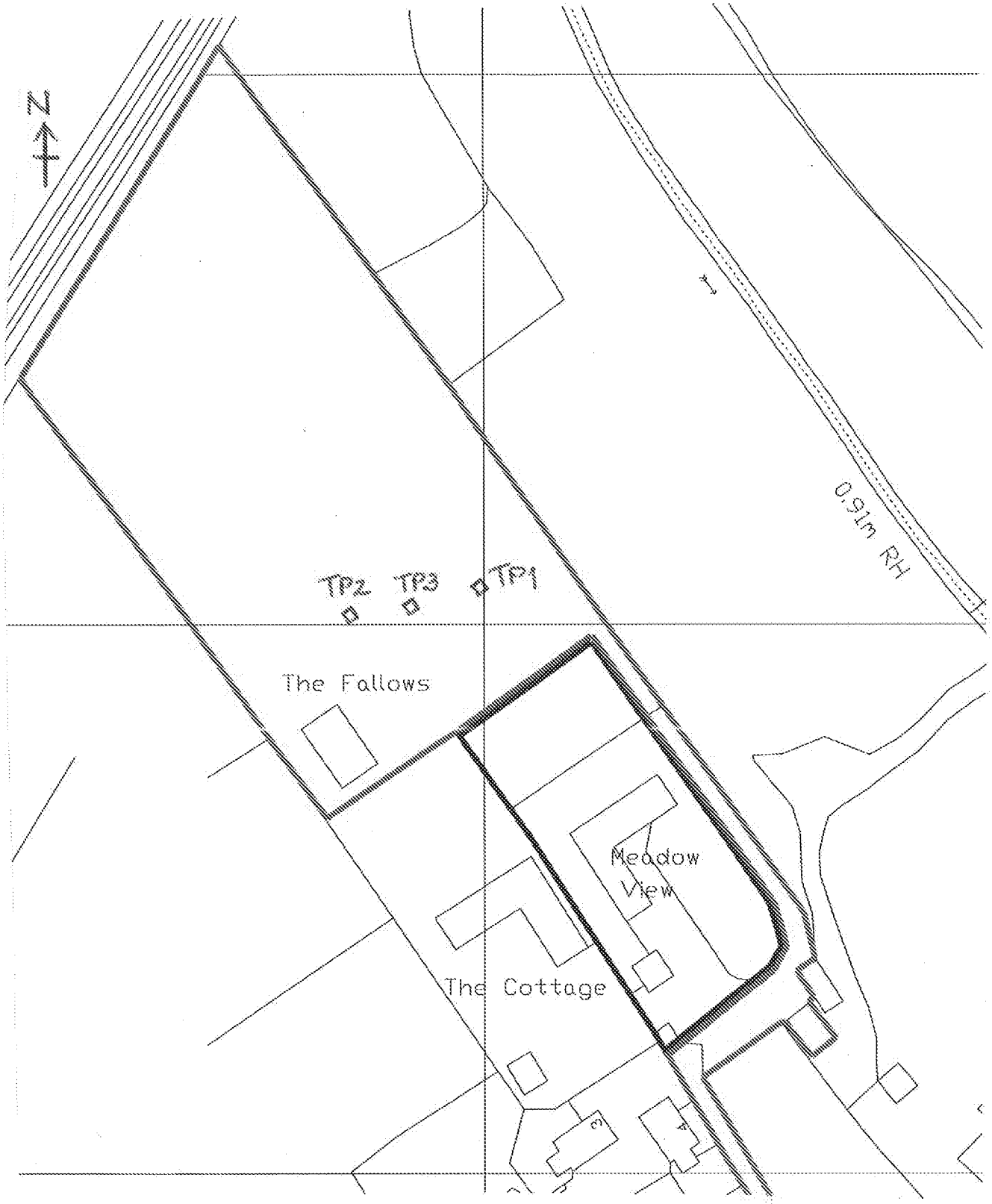
cc: [redacted]

Partners: [redacted]
Associates:
Consultants:

ace consultancy engineering business environment

UKAS

Registered in England. Registered Office: Archibald S[redacted]



NOTES

1 This drawing to be read in conjunction with all relevant Architect's, Client's and Engineer's reports, drawings and specifications.

REV	DESCRIPTION	DATE

Archibald Shaw
Consulting Civil & Structural Engineers
One Little London Chichester West Sussex PO19 1PF
Telephone: 01243 786471 Facsimile: 01243 778348
mail@archibaldshaw.co.uk www.archibaldshaw.co.uk

PROJECT	Meadow View, Barnham	
SECTION	Trial Pit Location Plan	
DRAWN BY	CHECKED BY	DESIGNED BY
PF	-	PF
SCALE @ A4	DATE	STATUS
1:1000 approx	Dec. 2018	Preliminary
JOB NO.	DRAWING NO.	REVISION
30253	Figure 1	P1

ARUN DISTRICT COUNCIL BN/40/19/DOC

Archibald Shaw
One Little London, Chichester
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Tel. 01243 786471
Fax. 01243 779346

Site: Meadow View, Barnham			Trial Pit Number: TP1
Excavation Method: Trial pit was machine excavated by a JCB	Dimensions: Pit sizes not recorded	Ground Level (mOD):	Client: Danny Keet	Job Number: 30253
	Location: See Location Plan	Dates: 10/12/2018	Engineer: Archibald Shaw	Sheet: 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	Grass over TOPSOIL.		
					0.30	Orange/brown, silty, very sandy CLAY, with some flint gravel		
					(0.60)			
					0.90	Firm, brown CLAY		
					(0.60)			
					1.50	Complete at 1.50m		

Plan

Remarks

Groundwater found at 1.3m depth.

Scale (approx)	Logged By	Figure No.
1:20	PEF/SD/30253	30253.TP1

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Archibald Shaw
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Site	Trial Pit Number
Meadow View, Barnham	TP2

Excavation Method	Dimensions	Ground Level (mOD)	Client	Job Number
Trial pit was machine excavated by a JCB	Pit sizes not recorded		Danny Keet	30253
	Location	**Dates**	**Engineer**	**Sheet**
	See Location Plan	10/12/2018	Archibald Shaw	1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	Grass over TOPSOIL		
					0.30	Orange/brown, silty, very sandy CLAY, with some flint gravel		
					(0.70)			
					1.00	Firm, brown CLAY		
					(0.20)			
					1.20	Complete at 1.20m		

Plan

Remarks

Groundwater found at 1.2m depth.
Piezometer tube installed in pit.

Scale (approx)	Logged By	Figure No.
1:20	PEF/SD/30253	30253.TP1

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Archibald Shaw
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West Sussex, PO19 1PP
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Fax 01243 779346

Site: Meadow View, Barnham			Trial Pit Number: TP3
Excavation Method: Trial pit was machine excavated by a JCB	Dimensions: Pit sizes not recorded	Ground Level (mOD):	Client: Danny Keet	Job Number: 30253
	Location: See Location Plan	Dates: 20/12/2018	Engineer: Archibald Shaw	Sheet: 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	Grass over TOPSOIL		
					0.30	Orange/brown, silty, very sandy CLAY, with some flint gravel		
					(0.60)			
					0.90	Complete at 0.90m		

Plan

Remarks

Soakaway test undertaken.
Soil infiltration rate = 5.02 x 10-6 m/sec.

Scale (approx)	Logged By	Figure No.
1:20	PEF/SD/30253	30253.TP1

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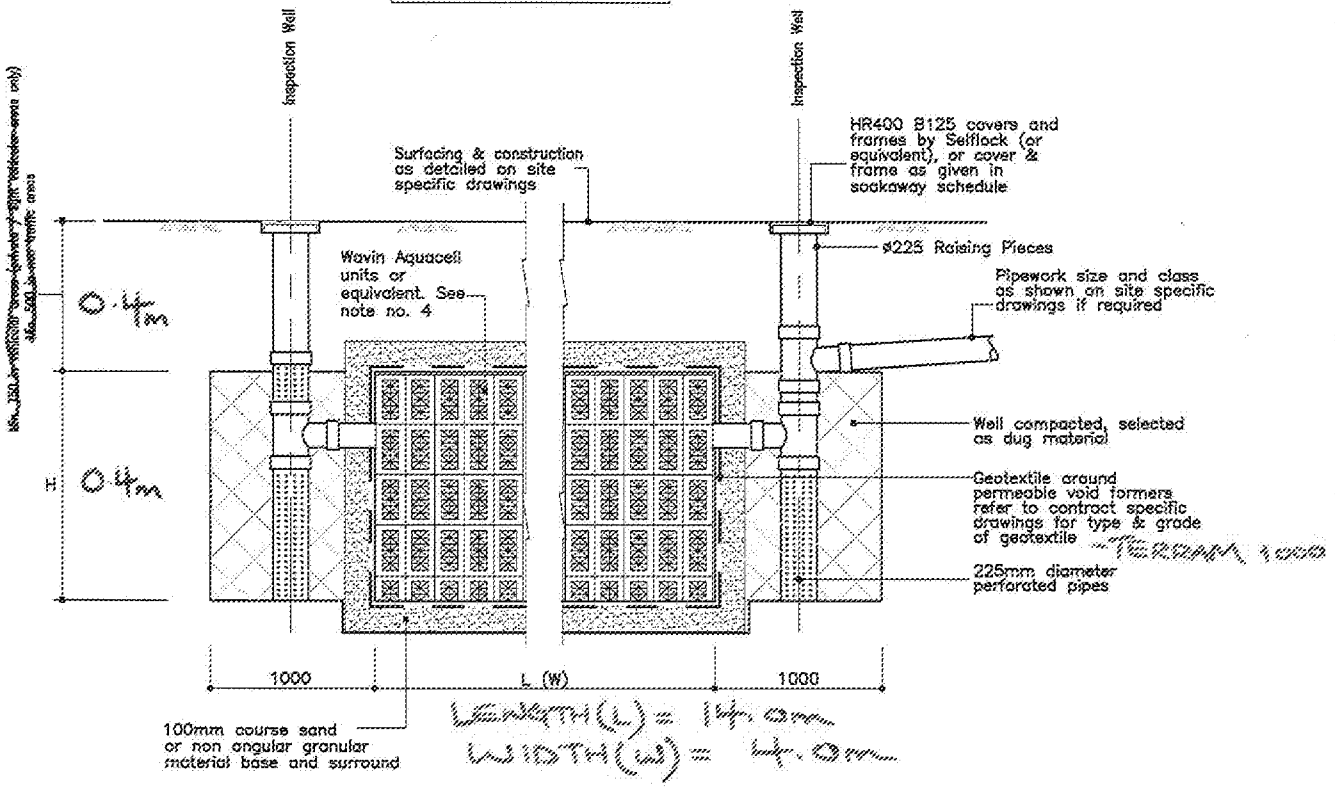
Soakaway Serving 210 sq.m (House)

WARNING :
For Industrial / H.G.V. Areas
Refer to Engineer's Details



Typical Section

Soakaways shall be 5m from any Buildings or structures

Notes

1 All dimensions are in millimetres.

2 For dimensions of soakaways refer to schedules on contract specific drawings.

3 HR400 B125 covers are suitable for the following locations :
A) Verges
B) Footways / Pedestrian Areas
C) Car Parks

4 Units shall be Aquacell by Wavin, or equivalent contact wavin tel : 01249 766600

Trafficked areas to a total depth of 4.1m	– Aquacell Core (Blue Units)
Trafficked areas 4.1 to 4.8m total depth	– Aquacell Plus (Light Blue Units)
Non – trafficked areas/ landscaped areas up to a total depth of 1.5m	– Aquacell Eco (Black Units)
Non – trafficked areas/ landscaped areas 1.5 to 4.3m total depth	– Aquacell Core (Blue Units)

5 Units shall be laid fully in accordance with manufacturers instructions

6 All details shall otherwise be in accordance with The Department of Transports Specification For Highway Works, 7th Edition.

7 Prior to acceptance, the contractor shall submit to the engineer supporting calculations as to the load carrying capacity of the storage units, and the predicted long term fill settlement under dead and live load.

REV	DESCRIPTION	DATE
C	NOTE No. 4 UPDATED.	22-06-11
B	NOTE No. 7 ADDED.	03-12-08
A	NOTE No. 4 UPDATED.	15-05-08

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PROJECT
Standard Detail
High Storage Soakaway

DRAWN BY	CHECKED BY	DESIGNED BY
RJL	PEF	RJL
SCALE	DATE	
N.T.S.	MAY.03	
	STD NO.	REVISION
	STD.01.63	C

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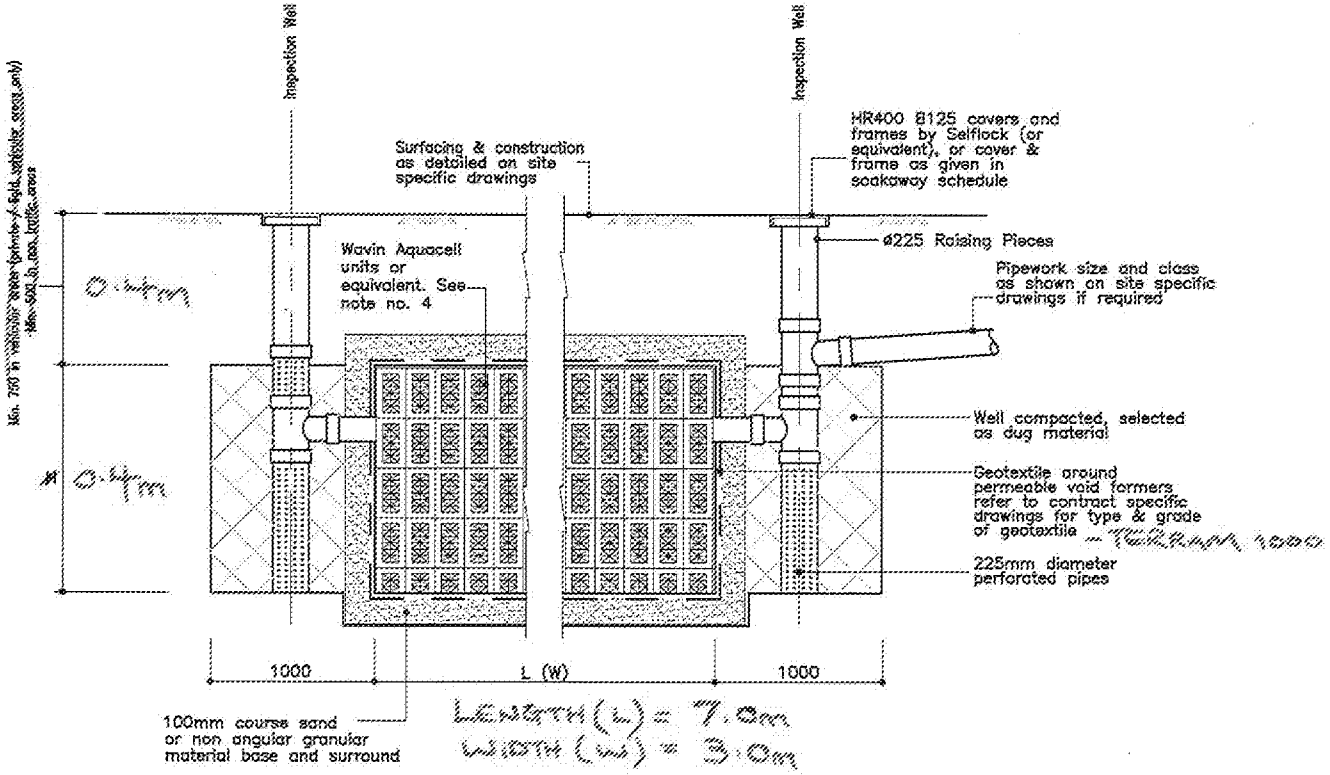
Soakaway Schedule (20 sq.m (Garage)

WARNING:

For Industrial / H.G.V. Areas
Refer to Engineer's Details



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REV	DESCRIPTION	DATE
C	NOTE No. 4 UPDATED.	22-06-11
B	NOTE No. 7 ADDED.	03-12-09
A	NOTE No. 4 UPDATED.	18-05-05

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PROJECT
Standard Detail
High Storage Soakaway

DRAWN BY	CHECKED BY	DESIGNED BY
R.J.L	PIEF	R.J.L
SCALE	DATE	
N.T.S.	MAY.03	
	STD NO.	REVISION
	STD.01.63	C

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