GRM Development Solutions Ltd
Laurus House
First Avenue
Centrum 100
Burton upon Trent
Staffordshire
DE14 2WH

Telephone: (01283) 551249
Fax: (01283) 211968

Date: 10th March 2016
Our Ref: P7298 – SA1

Catesby Property Group
Via email only

Attention of Rebecca Birch

Dear Rebecca,

Re: Soakaway Testing at Drovers Lane, Pulborough

Introduction

The phase II ground investigation revealed that the natural granular deposits underlying the site are potentially suitable for soakaway drainage. Due to access restrictions on the site the soakaway tests were conducted in the southern fields, under the area of the proposed surface water attenuation basins.

Fieldwork

The testing was undertaken on the 3rd and 4th March 2016 using trial pits to a depth of 1.2m, to accommodate the landowners requirement that the soakaway crates used in the testing must be level with ground surface, and so that a length of pipe could be left in them for the two days of testing without them becoming a health and safety hazard. Once the soakaway crates were installed, the trial pits were filled with water and then the water levels were monitored over time by data loggers to provide data for the calculation of infiltration rates. To accurately calculate rates all soakaway tests were run to a minimum of 75% empty. The soakaway testing was undertaken in line with the method set out in BRE 365 (1991).

Soakaway Testing

The soakaway tests were carried out in the head deposits present across the site at three locations.

A plan showing the approximate locations of the tests and the trial pit logs are attached.

Infiltration rates have been calculated for each test pit from the data obtained from site. The calculated infiltration rates are presented below in the order in which they were tested:

	Infiltration Rates		
Location	Test A	Test B	Test C
TP01	Insufficient infiltration (22% over 24 hours)	Not conducted	Not conducted
TP02	1.55×10^{-5} m/s	8.25×10^{-6} m/s	Not conducted
TP03	7.37×10^{-6} m/s	4.16×10^{-6} m/s	Not conducted

The strata at the base of TP01 was recorded as slightly damp, the soils throughout TP02 were recorded as damp and TP03 was recorded as dry, prior to the soakaway testing.

Detailed groundwater monitoring has not yet been conducted and the results may affect the site's surface water drainage design.

The results of the testing should be provided to the project's drainage engineers for inclusion within the site's surface water drainage design after taking into account suitable factors of safety.

It is recommended that the Environment Agency be consulted with regards to the use of attenuation basins.

We trust this is suitable for you current requirements, should you require any further information or would like any clarification of the points raised please do not hesitate to contact us.

Yours sincerely,
GRM Development Solutions Ltd

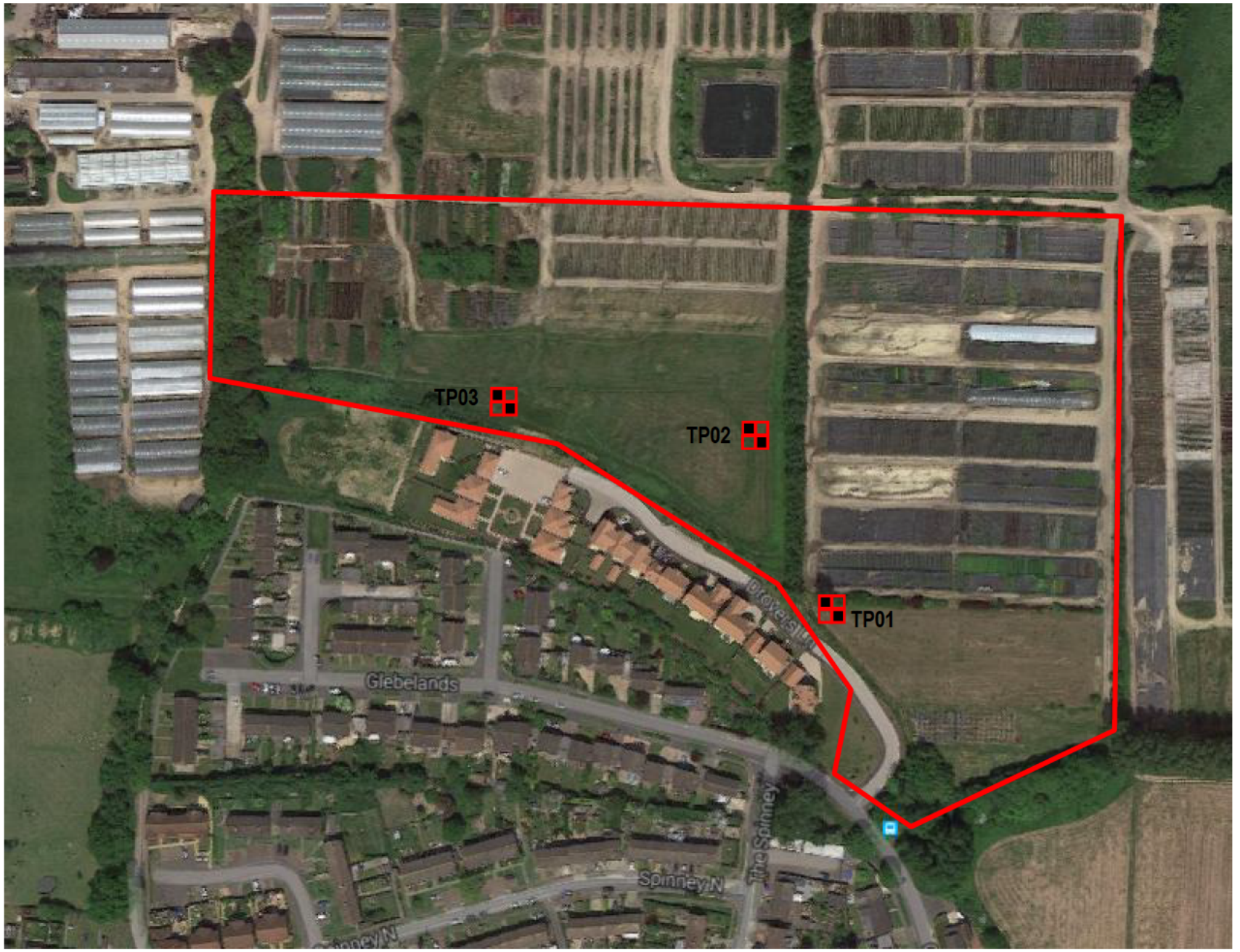


Nicola Rowley
Senior Engineering Geologist



Geoff Beckett
Principal Foundation Engineer

Enc: P7298 Soakaway location plan, P7298 Soakaway Pit Logs



DO NOT SCALE

NOTES:

Approximate Site Boundary

TP1 Soakaway Pit Location

GRM Development Solutions Ltd
Laurus House, First Ave, Centrum 100,
Burton-on-Trent, Staffordshire
Tel: 01283 551 249 Fax: 01283 211 968
mail@grm-uk.com www.grm-uk.com

CLIENT: Catesby Estates Ltd

PROJECT: Drovers Lane, Pulborough

TITLE: Soakaway Pit Location Plan

SCALE@SIZE :	ISSUE:
NTS	FINAL
DESIGN/DRAWN : KH	DATE: 03/2016
PROJECT No: P7298	DRAWING No:

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GRM Development Solutions Ltd
Laurus House,
First Avenue, Centrum 100,
Burton-on-Trent, DE14 2WH
Tel (HQ): 01283 551249
Email: info@grm-uk.com

Trial Pit Log

Trial Pit No TP01
Sheet 1 of 1

Site Name: New Place Nurseries, Pulborough

Ground Level (mAOD)

Client: Catesby Property Group

GRM Project Ref: P7298

Coordinates 505775 E 119113 N

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.20 0.20 - 2.00	ES D		0.30			Medium dense dark grey slightly clayey slightly gravelly SAND. Gravel is fine to coarse subangular to subrounded chert and sandstone. TOPSOIL
	0.50 0.60	D B					Medium dense orangish brown mottled grey silty slightly gravelly SAND. Gravel is fine to coarse subangular to subrounded chalk. HEAD
	1.10	D		1.20			End of Pit at 1.20m

1
2
3
4

Date Excavated: 03/03/2016
Date Backfilled: 03/03/2016
Shoring: None
Stability: Stable
Plant Used: Tracked Excavator
Logged by: AS

Groundwater Observations:
Damp strata at base of hole.

Trial Pit Dimensions (m):
0.60 × 2.10

Reason for termination of Trial Pit:
Maximum depth for soakaway pit achieved

General Remarks:

Strata consistencies/densities determined by observation only

Version: DRAFT

Scale: 1:25

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Tel (HQ): 01283 551249
Email: info@grm-uk.com

Trial Pit Log

Trial Pit No TP02
Sheet 1 of 1

Site Name: New Place Nurseries, Pulborough

Ground Level (mAOD)

Client: Catesby Property Group

GRM Project Ref: P7298

Coordinates 505743 E 119183 N

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.20 0.20	D ES		0.30			Loose to medium dense dark grey to dark brown slightly clayey slightly gravelly SAND. Gravel is fine to coarse subangular to subrounded sandstone. TOPSOIL
	0.60	D					Medium dense brown to dark brown very silty slightly gravelly SAND. Gravel is fine to coarse subangular to subrounded chalk. Local pockets of silt. HEAD
	1.20	D		1.20			End of Pit at 1.20m

1
2
3
4

Date Excavated: 03/03/2016
Date Backfilled: 03/03/2016
Shoring: None
Stability: Stable
Plant Used: Tracked Excavator
Logged by: AS

Groundwater Observations:
Slightly damp strata throughout.

Trial Pit Dimensions (m):
1.10 × 2.10

Reason for termination of Trial Pit:
Maximum depth for soakaway pit achieved.

General Remarks:

Strata consistencies/densities determined by observation only

Version: DRAFT

Scale: 1:25

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Trial Pit Log

Trial Pit No TP03
Sheet 1 of 1

Site Name: New Place Nurseries, Pulborough

Ground Level (mAOD)

Client: Catesby Property Group

GRM Project Ref: P7298

Coordinates 505644 E 119196 N

Water Strike	Samples & In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.30 0.30	D ES		0.40			Medium dense dark grey and dark brown clayey slightly gravelly SAND. Gravel is fine to coarse subangular to subrounded sandstone. TOPSOIL
	0.60	D					Medium dense brown to orangish brown silty fine to medium SAND. Locally very silty. Local pockets of clay. HEAD
	0.90	D		0.80			Medium dense orangish brown mottled grey very silty gravelly SAND. Gravel is fine to coarse subangular to subrounded sandstone. HEAD
	1.20	D		1.20			End of Pit at 1.20m

1
2
3
4

Date Excavated: 03/03/2016
Date Backfilled: 03/03/2016
Shoring: None
Stability: Stable
Plant Used: Tracked Excavator
Logged by: AS

Groundwater Observations:
No groundwater observed.

Trial Pit Dimensions (m):
0.90 × 2.00

Reason for termination of Trial Pit:
Maximum depth for soakaway pit achieved.

General Remarks:

Strata consistencies/densities determined by observation only

Version: DRAFT

Scale: 1:25