

PREPARED BY:	Quantum Geotechnic Ltd	DOCUMENT:	Technical Advice Note 01: Geotechnical Appraisal
CLIENT:	Hale Homes	DATE:	11 th August 2020
PROJECT TITLE:	Leiros Park	OUR REF:	Q0284-TAN01

1.0 Introduction

Quantum Geotechnic Ltd (QG) were instructed by CB3 Consult (Engineer) on behalf of Hale Construction (Client) to undertake a series of in-situ Soakaway (percolation) tests within the agricultural land proposed for further residential development at Leiros Park, Bryncoch, Neath.

The purpose of these tests was to obtain shallow ground information and drainage characteristics for the design of a suitable sustainable drainage solution across the proposed development site.

2.0 Summary of Works Undertaken

A total of 13 No. machine excavated trial pits to depths of between 0.75m and 2.10mbgl were excavated using a 9tonne rubber tracked 360 excavator operated by QG. Soakaway testing was performed in each of the trial pits in accordance with BRE Digest 365 to ascertain the shallow ground's drainage characteristics.

Figure 1 in Appendix I shows the location of all exploratory holes/ in-situ tests undertaken on site.

The trial pits were photographed and logged in accordance with BS5930:2020; BS EN ISO 14688-1:2002 and BS EN ISO 14688-2:2005, and supervised at all times by an Engineering Geologist from QG. Upon completion each pit was backfilled with arisings, compacted in layers and the surface reinstated.

A complete set of Trial Pit logs are presented within Appendix II and the soakaway test certificates are presented within Appendix III.

3.0 Summary of Findings

Table 1 below summarises the soakaway test results. Generally the strata described as silty Gravel and the underlying rock head provide a relatively high Soil Infiltration Rate which is anticipated will be sufficient to use within soakaway drainage, however the strata in localised areas was found to have significantly lower infiltration rates that is unlikely to support the use of such drainage solutions, i.e. in the areas of TP2, TP7, TP12 and TH13

Table 1: Soakaway Test Results Summary

Trial Pit ID	Trial Pit Base Depth (mbgl)	Test No.	Soil Infiltration Rate (m/sec)
TP1	1.50	1	6.98x10 ⁻⁵
		2	4.81x10 ⁻⁵
		3	6.02x10 ⁻⁵
TP2	1.5	1	Test Failed – Insufficient outflow
TP3	1.5	1	1.45x10 ⁻³
TP4	1.3	1	4.81x10 ⁻⁴
		2	3.43x10 ⁻⁴
		3	1.90x10 ⁻⁴
TP5	1.7	1	1.30x10 ⁻⁴
		2	1.02x10 ⁻⁴

		3	8.59×10^{-5}
TP6	1.4	1	1.62×10^{-3}
		2	1.45×10^{-4}
		3	1.63×10^{-3}
TP7	2.0	1	Test Failed – Insufficient outflow
TP8	1.7	1	7.86×10^{-4}
		2	5.75×10^{-4}
		3	5.68×10^{-4}
TP9	1.2	1	Test Failed – Insufficient outflow
TP10	1.4	1	1.42×10^{-4}
		2	1.31×10^{-4}
		3	9.78×10^{-5}
TP11	2.1	1	4.84×10^{-5}
		2	6.00×10^{-5}
		3	4.17×10^{-5}
TP12	0.75	1	Test Failed – Insufficient outflow
TP13	1.4	1	Test Failed – Insufficient outflow

We trust that the above is of assistance; however, if you need any further clarification or have any queries please do not hesitate to contact us.

Yours faithfully,

For and on behalf of

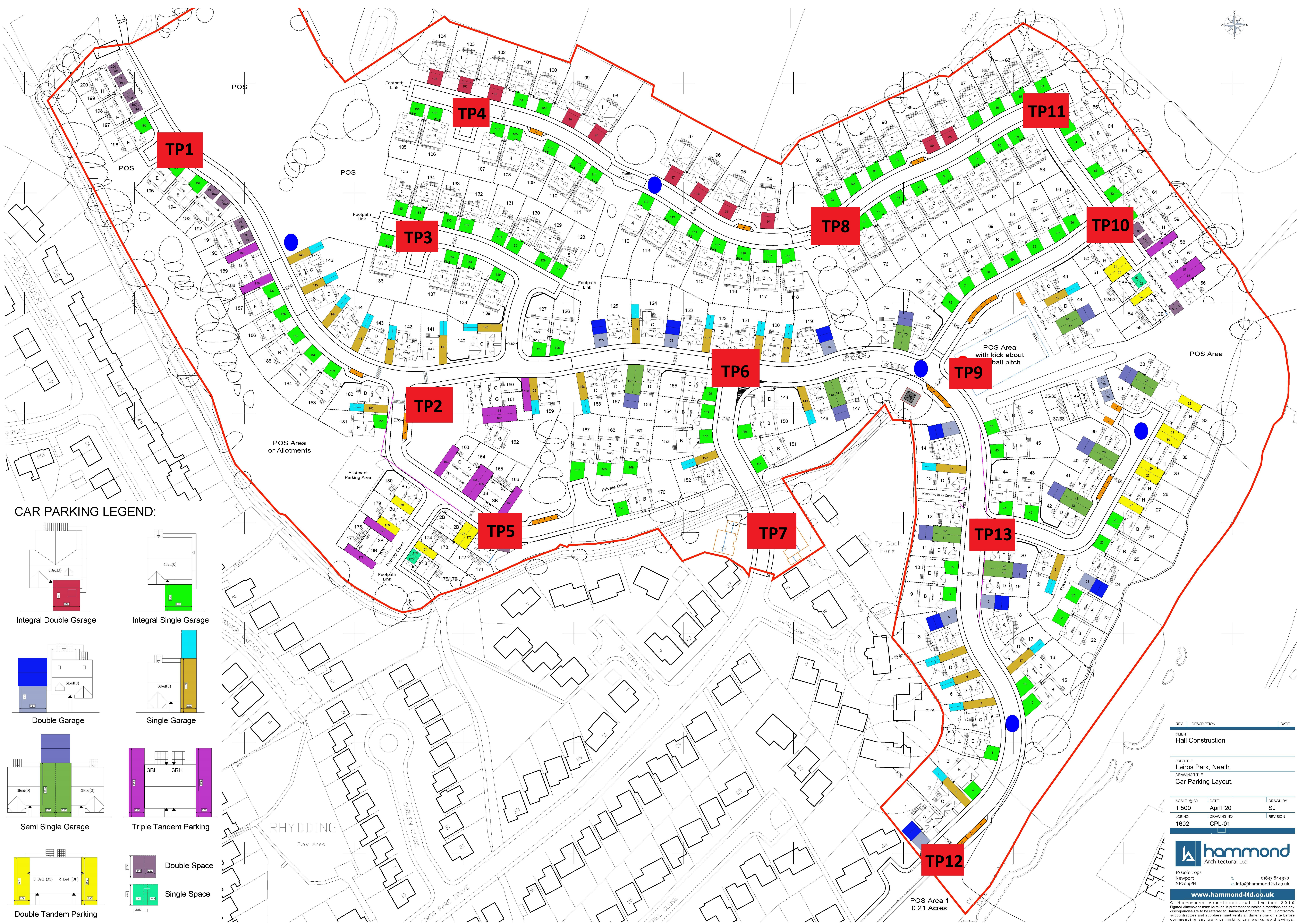
QUANTUM GEOTECHNIC LTD



Arwel Jones

Project Manager

APPENDIX I: Site Photographs & Exploratory Hole Locations



CAR PARKING LEGEND:

Integral Double Garage

Integral Single Garage

Double Garage

Single Garage

Semi Single Garage

Triple Tandem Parking

Double Tandem Parking

Double Space

Single Space

REV	DESCRIPTION	DATE
CLIENT Hall Construction		
JOB TITLE Leiros Park, Neath.		
DRAWING TITLE Car Parking Layout.		
SCALE @ A0 1:500	DATE April '20	DRAWN BY SJ
JOB NO. 1602	DRAWING NO. CPL-01	REVISION

10 Gold Tops
Newport
NP23 4PH

t. 01633 844970
e. info@hammond-ltd.co.uk

www.hammond-ltd.co.uk

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Figured dimensions must be taken in preference to scaled dimensions and any discrepancies are to be referred to Hammond Architectural Ltd. Contractors, subcontractors and suppliers must verify all dimensions on site before commencing any work or making any workshop drawings

APPENDIX II: Engineering Exploratory Hole Logs

Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP1										
Dates : 17/6/20 - 17/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 85.39 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275091.74 E 199117.49 N <i>Co-ordinates to National Grid</i>											
m B.G.L.	Samples		Tests		Strata				WATER								
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.									
1					0.05	TOPSOIL: Brown slightly gravelly clayey Sand with many rootlets.		85.34									
					0.05	Brown slightly sandy gravelly CLAY with low cobble and boulder content.											
					0.65												
					0.70	Black clayey silty GRAVEL with low cobble content of sandstone. Gravel is angular to sub angular fine to coarse Sandstone.				84.69							
					0.80												
					1.50	Trial pit terminated at 1.5mbgl		83.89									
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.											
Equipment Used: 9tonne tracked 360																	
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Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP1

Dates : 17/6/20 - 17/6/20

Job Number : Q0284

Ground Level : 85.39 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275091.74 E
199117.49 N
Co-ordinates to National Grid



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP2		
Dates : 17/6/20 - 17/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 84.87 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275143.50 E 199053.80 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.25	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many roots and rootlets.			
					0.25	Light brown silty sandy GRAVEL with low cobble content sandstone. Gravel is angular to sub angular fine to coarse sandstone.		84.62	
					1.25				
					1.50	Trial pit terminated at 1.5mbgl		83.37	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
			Plas Newydd, Llanedi, Pontarddulais, Swansea, SA4 0FQ Tel: 01554 744880 Fax: email: enquiries@quantumgeotech.co.uk			Operator: JL & GB		Logged By: A Jones	
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Contract : Leiros Park		Trial Pit No.	
Client : Hale Homes		TP2	
Dates : 17/6/20 - 17/6/20	Job Number : Q0284	Ground Level :	84.87 m A.O.D. <i>Level to Ordnance Datum</i>
Location :	Engineer : CB3	Coordinates:	275143.50 E 199053.80 N <i>Co-ordinates to National Grid</i>



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP3		
Dates : 17/6/20 - 17/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 99.35 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275190.91 E 199120.28 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.15	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.15 0.25	Light brown silty sandy GRAVEL with low cobble content sandstone. Gravel is angular to sub angular fine to coarse sandstone.		99.20	
					0.40	SANDSTONE Rock recovered as: Brown grey slightly silty slightly sandy GRAVEL with medium cobble content of sandstone. Gravel is angular fine to coarse Sandstone.		98.95	
					1.10				
					1.50	Trial pit terminated at 1.5mbgl		97.85	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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Contract : Leiros Park		Trial Pit No.	
Client : Hale Homes		TP3	
Dates : 17/6/20 - 17/6/20	Job Number : Q0284	Ground Level :	99.35 m A.O.D. <i>Level to Ordnance Datum</i>
Location :	Engineer : CB3	Coordinates:	275190.91 E 199120.28 N <i>Co-ordinates to National Grid</i>



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP4		
Dates : 17/6/20 - 17/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 112.94 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275281.14 E 199160.52 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.10	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.10	Light brown silty sandy GRAVEL with low cobble content sandstone. Gravel is angular to sub angular fine to coarse sandstone.		112.84	
					0.30				
					0.40	SANDSTONE Rock recovered as: Brown grey slightly silty slightly sandy GRAVEL with medium cobble content of sandstone. Gravel is angular fine to coarse Sandstone.		112.54	
					0.90				
					1.30	Trial pit terminated at 1.3mbgl		111.64	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP4

Dates : 17/6/20 - 17/6/20

Job Number : Q0284

Ground Level : 112.94 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275281.14 E
199160.52 N
Co-ordinates to National Grid



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP5		
Dates : 17/6/20 - 17/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 88.68 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275227.01 E 198992.43 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.30	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.30	Light brown silty sandy GRAVEL with low cobble content sandstone. Gravel is angular to sub angular fine to coarse sandstone.		88.38	
					1.40				
					1.70	Trial pit terminated at 1.5mbgl		86.98	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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Contract : Leiros Park		Trial Pit No.	
Client : Hale Homes		TP5	
Dates : 17/6/20 - 17/6/20	Job Number : Q0284	Ground Level :	88.68 m A.O.D. <i>Level to Ordnance Datum</i>
Location :	Engineer : CB3	Coordinates:	275227.01 E 198992.43 N <i>Co-ordinates to National Grid</i>



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP6		
Dates : 18/6/20 - 18/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 102.54 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275315.11 E 199075.36 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.15	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.15	Light brown silty sandy GRAVEL with low cobble content sandstone. Gravel is angular to sub angular fine to coarse sandstone.		102.39	
					0.35				
					0.50	SANDSTONE Rock recovered as: Brown grey slightly silty slightly sandy GRAVEL with medium cobble content of sandstone. Gravel is angular fine to coarse Sandstone.		102.04	
					0.90				
					1.40	Trial pit terminated at 1.5mbgl		101.14	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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							All measurements in metres unless otherwise stated		

Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP6

Dates : 18/6/20 - 18/6/20

Job Number : Q0284

Ground Level : 102.54 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275315.11 E
199075.36 N
Co-ordinates to National Grid



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP7										
Dates : 18/6/20 - 18/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 92.99 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275397.99 E 198980.28 N <i>Co-ordinates to National Grid</i>											
m B.G.L.	Samples		Tests		Strata				WATER								
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.									
1					0.20	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.											
					0.20	Soft pale brown slightly silty slightly sandy CLAY.		92.79									
					1.30												
					1.50	Weathered sandstone rock recovered as Brown very clayey slightly sandy GRAVEL. Gravel is angular fine to coarse sandstone.		91.49									
2					0.50												
					2.00	Trial pit terminated at 2.0mbgl		90.99									
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.											
Equipment Used: 9tonne tracked 360																	
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Contract : Leiros Park		Trial Pit No.	
Client : Hale Homes		TP7	
Dates : 18/6/20 - 18/6/20	Job Number : Q0284	Ground Level :	92.99 m A.O.D. <i>Level to Ordnance Datum</i>
Location :	Engineer : CB3	Coordinates:	275397.99 E 198980.28 N <i>Co-ordinates to National Grid</i>



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP8		
Dates : 18/6/20 - 18/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 108.32 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275395.08 E 199102.55 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.10	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.10	Brown slightly silty sandy GRAVEL. Gravel is angular to sub angular fine to coarse sandstone.		108.22	
					1.60				
					1.70	Trial pit terminated at 1.7mbgl		106.62	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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					m Per Page 2.5		All measurements in metres unless otherwise stated		

Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP8

Dates : 18/6/20 - 18/6/20

Job Number : Q0284

Ground Level : 108.32 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275395.08 E
199102.55 N
Co-ordinates to National Grid



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP9		
Dates : 18/6/20 - 18/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 98.17 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275489.18 E 199008.85 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.15	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.15	Orange brown clayey sandy GRAVEL. Gravel is angular to sub angular fine to coarse Sandstone.		98.02	
					0.55				
					0.70				
					0.50	Weathered sandstone rock recovered as Brown very clayey slightly sandy GRAVEL. Gravel is angular fine to coarse sandstone.		97.47	
				1.20	Trial pit terminated at 1.2mbgl unable to excavate rock.	96.97			
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP9

Dates : 18/6/20 - 18/6/20

Job Number : Q0284

Ground Level : 98.17 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275489.18 E
199008.85 N
Co-ordinates to National Grid



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP10		
Dates : 19/6/20 - 19/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 98.98 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275581.82 E 199058.23 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.15	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.15	Weathered sandstone rock recovered as Orange brown slightly silty sandy GRAVEL with low cobble content of sandstone. Gravel is angular fine to coarse sandstone.		98.83	
					1.25				
					1.40	Trial pit terminated at 1.4mbgl unable to excavate rock.		97.58	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
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		Sheet No. 1 Of 2		m Per Page 2.5		All measurements in metres unless otherwise stated			

Contract : Leiros Park		Trial Pit No. TP10
Client : Hale Homes		
Dates : 19/6/20 - 19/6/20	Job Number : Q0284	Ground Level : 98.98 m A.O.D. <i>Level to Ordnance Datum</i>
Location :	Engineer : CB3	Coordinates: 275581.82 E 199058.23 N <i>Co-ordinates to National Grid</i>



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Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP11		
Dates : 19/6/20 - 19/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 111.01 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275506.99 E 199166.66 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.10	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.10	Orange brown slightly silty sandy GRAVEL with low cobble content of sandstone. Gravel is angular fine to coarse sandstone.		110.91	
					0.60				
					0.70				
					0.05	Black silty COAL		110.31	
					0.75	Pale brown clayey sandy GRAVEL. Gravel is angular to sub angular fine to coarse sandstone.		110.26	
					0.95				
	2					1.70	SANDSTONE Rock recovered as Brown slightly silty sandy GRAVEL with low cobble content of sandstone. Gravel is angular fine to coarse sandstone.		109.31
					0.40				
					2.10	Trial pit terminated at 2.1mbgl		108.91	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									



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All measurements in
metres unless
otherwise stated



Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP11

Dates : 19/6/20 - 19/6/20

Job Number : Q0284

Ground Level : 111.01 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275506.99 E
199166.66 N
Co-ordinates to National Grid



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All measurements in
metres unless
otherwise stated



Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP12		
Dates : 19/6/20 - 19/6/20 Location :			Job Number : Q0284 Engineer : CB3		Ground Level : 86.13 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275491.44 E 198840.40 N <i>Co-ordinates to National Grid</i>				
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
					0.30	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with many rootlets.			
					0.30	Orange brown clayey sandy GRAVEL. Gravel is angular fine to coarse sandstone.		85.83	
					0.45				
					0.75	Trial pit terminated at 0.75mbgl unable to excavate rock.		85.38	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
			Plas Newydd, Llanedi, Pontarddulais, Swansea, SA4 0FQ Tel: 01554 744880 Fax: email: enquiries@quantumgeotech.co.uk			Operator: JL & GB		Logged By: A Jones	
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Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP12

Dates : 19/6/20 - 19/6/20

Job Number : Q0284

Ground Level : 86.13 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275491.44 E
198840.40 N
Co-ordinates to National Grid



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All measurements in
metres unless
otherwise stated



Contract : Leiros Park Client : Hale Homes							Trial Pit No. TP13		
Dates : 19/6/20 - 19/6/20 Location :			Job Number : Q0284 Engineer : CB3			Ground Level : 92.82 m A.O.D. <i>Level to Ordnance Datum</i> Coordinates: 275456.70 E 198937.14 N <i>Co-ordinates to National Grid</i>			
m B.G.L.	Samples		Tests		Strata				WATER
	Depth	Type No.	Depth	Test Results	Depth (Thickness)	Description	Legend	Red. Level A.O.D.	
1					0.35	TOPSOIL: Brown silty slightly sandy slightly gravelly Clay with low cobble content and many rootlets.			
					0.35	Light brown clayey sandy GRAVEL with low cobble content of sandstone. Gravel is angular fine to coarse sandstone.		92.47	
					1.05				
					1.40	Trial pit terminated at 1.4mbgl unable to excavate rock.		91.42	
PLAN 			Groundwater: No groundwater encountered Stability: Stable Shoring: None			Remarks : Position located in relation to plan provided by client. Area scanned using CAT and Genny methods. On completion of Soakaway test, hole backfilled with arisings compacted in layers with Topsoil and turf replaced at surface.			
Equipment Used: 9tonne tracked 360									
			Plas Newydd, Llanedi, Pontarddulais, Swansea, SA4 0FQ Tel: 01554 744880 Fax: email: enquiries@quantumgeotech.co.uk			Operator: JL & GB		Logged By: A Jones	
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Contract : Leiros Park

Client : Hale Homes

Trial Pit No.

TP13

Dates : 19/6/20 - 19/6/20

Job Number : Q0284

Ground Level : 92.82 m A.O.D.
Level to Ordnance Datum

Location :

Engineer : CB3

Coordinates: 275456.70 E
198937.14 N
Co-ordinates to National Grid



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APPENDIX III: Soakaway Test Certificates

Contract : Leiros Park

Point Plotted
TP4,2

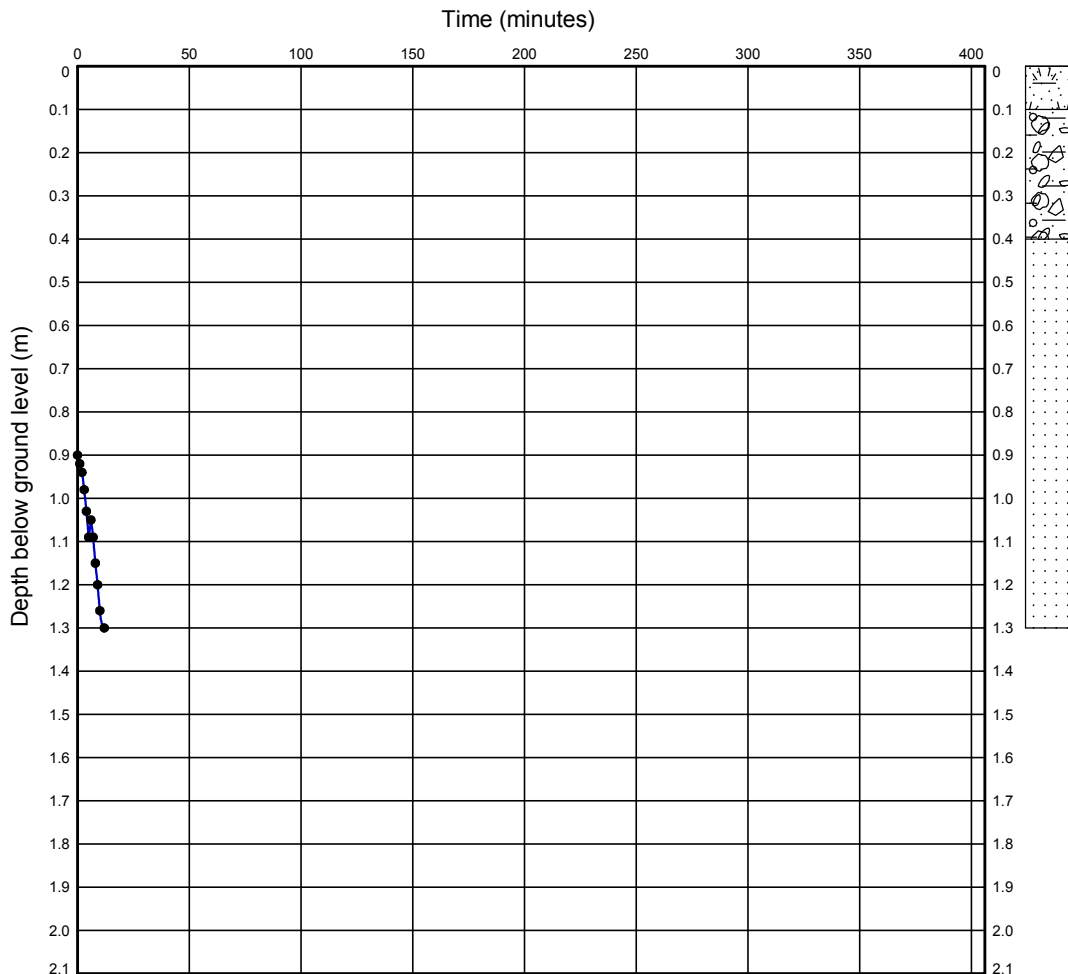
Client : Hale Homes

Job Number : Q0284

Engineer : CB3

SOAKAWAY TEST CALCULATION SHEET**Field Observations from soakaway trial pit**

Time (Minutes)	Depth of water from ground level (m)
0.0	0.9
1.0	0.92
2.0	0.94
3.0	0.98
4.0	1.03
5.0	1.09
6.0	1.05
7.0	1.09
8.0	1.15
9.0	1.2
10.0	1.26
12.0	1.3



Remarks:

Soakaway test for soil infiltration rate
design method based on BRE Digest 365

Permeability Test on Strata

Trial Pit Depth	1.300 m	$V_{p75-25} =$	0.240 m ³
Trial Pit Length	1.200 m	$a_{p50} =$	2.080 m ²
Trial Pit Width	1.000 m	$t_{p75-25} =$	5.600 minutes
Effective Depth	0.400 m		
Outflow Time	5.600 mins from 75% to 25% full		

$$f = 3.4341E-4 \text{ m/sec}$$



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email: enquiries@quantumgeotech.co.uk

Date of Test: 17/06/2020

All measurements in
metres unless
otherwise stated

Figure No.

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Library File: C:\USERS\ARWELJONES.QUANTUM\DESKTOP\QUANTUM 4.GLB. Form Name: SOAKAWAY. Version 1.01.000, 13/02/09

Client : Hale Homes

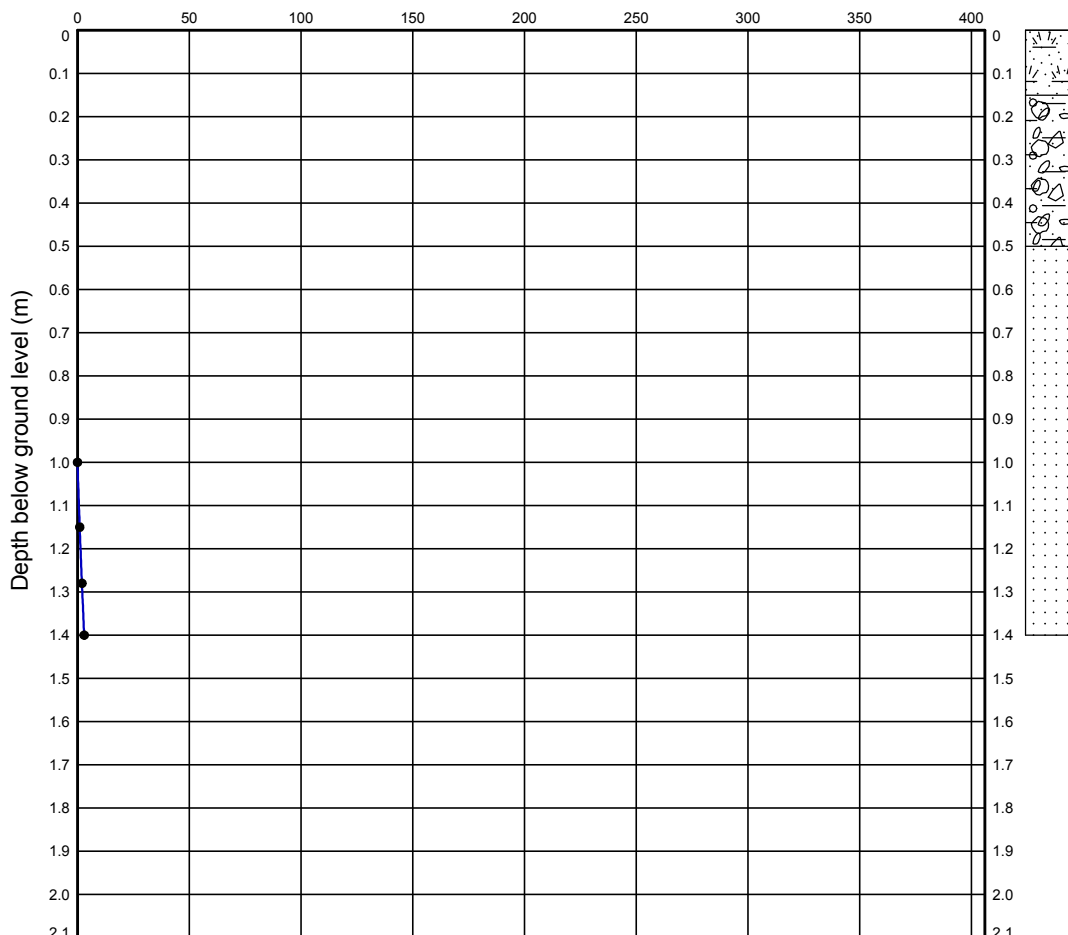
Job Number : Q0284

Engineer : CB3

SOAKAWAY TEST CALCULATION SHEET

Time (minutes)

Time (Minutes)	Depth of water from ground level (m)
0.0	1
1.0	1.15
2.0	1.28
3.0	1.4



Remarks:

Soakaway test for soil infiltration rate design method based on BRE Digest 365

Permeability Test on Strata

Trial Pit Depth	1.400 m	$V_{p75-25} =$	0.480 m ³
Trial Pit Length	2.000 m	$a_{p50} =$	3.680 m ²
Trial Pit Width	1.200 m	$t_{p75-25} =$	1.500 minutes
Effective Depth	0.400 m		
Outflow Time	1.500 mins from 75% to 25% full		

f = 1.4493E-3 m/sec



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Date of Test: 18/06/2020

Project File: Q0284.GPJ

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Figure No.
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