

C/o Matt Bartram
Barwood Land
Grovelands Business Park
West Haddon Road
East Haddon
Northamptonshire
NN6 8FB

Date: 18th January 2024

Our ref: 18012024_CC-1187_CS_MB

Dear Matt,

Re: Mounton Road, Chepstow - Infiltration Assessment

On behalf of Barwood Development Securities Ltd (the 'client'), T&P Regeneration Ltd (T&P) is pleased to provide the results of a ground investigation undertaken at Mounton Road, Chepstow (the Site).

Background and Context

The site occupies an area of approximately 13 hectares (ha) and is located around the National Grid Reference (NGR): 352411, 193317 within Chepstow, Monmouthshire. The nearest postcode is NP16 5BJ. A site location plan is included in Appendix A.

At the time of issuing the report it was understood that the proposed development is intended to comprise the construction of residential dwellings, a hotel/commercial office spaces and a retirement/care home, each with associated areas of communal and private soft landscaping with hard landscaped access and parking. A development layout plan is included in Appendix A although this will likely be subject to change following completion of master planning.

Objectives

The purposed of this letter is to summarise the findings of the recent ground investigation and infiltration assessment completed at the site.

Geological setting

Geological mapping published by the British Geological Survey indicates that Superficial Deposits are absent across the investigation area.

The entire site is indicated to be underlain by limestone of the Black Rock Limestone Subgroup formed during the Carboniferous Period.

Scope of work

A ground investigation was carried out by T&P between 10th and 13th January 2024 and comprised the following:

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- Excavation of 6No. trial pits using a tracked 8 tonne excavator to a maximum depth of 1.80m below ground level (bgl);
- Infiltration testing within 6No trial pits in accordance with BRE 365 guidance; and.
- Logging of holes by an experienced engineer in general accordance with BS5930.

An exploratory hole location plan is included within Appendix A, a selection of photographs from the ground investigation are included within Appendix B with exploratory hole logs in Appendix C.

Ground conditions

The results of the ground investigation confirmed the published geology. The geological sequence encountered during this supplementary ground investigation is summarised in Table 1.

Table 1: Summary of Ground Conditions

Stratum	Top depth range (mbgl)	Base depth range (mbgl)	Exploratory holes	Area of site	General description/comments
Topsoil	0.00	0.20	All holes	General	Silty CLAY / slightly sandy slightly gravelly CLAY with frequent rootlets.
	0.2	0.4	TP01	North	Firm slightly sandy slightly gravelly CLAY.
Black Rock Limestone Subgroup	0.2	0.9 – 1.50	TP03 & TP05	North and Central	Soft to firm silty CLAY.
	0.2 – 1.50	>0.90 - >1.80	All holes	General	Extremely weak (medium strong at base) LIMESTONE

Topsoil

Topsoil was encountered within all exploratory holes with a typical thickness of 0.20-0.40m, comprised brown silty clay and slightly sandy slightly gravelly clay with frequent rootlets.

Black Rock Limestone Subgroup

Beneath the topsoil, the weathered Black Rock Limestone Subgroup was encountered within all exploratory holes. This predominantly comprised extremely weak light grey limestone was encountered recovered as slightly clayey, slightly sandy limestone gravel with a medium - high cobble content. This graded into medium strong limestone with depth. All exploratory holes were terminated within this strata due to effective refusal.

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Within 3N° exploratory hole locations (TP01, TP03 and TP05) a soft to firm slightly sandy slightly gravelly silty clay was encountered to a maximum thickness of 1.30m overlaying the limestone bedrock.

Infiltration testing

Summary of Field Testing

Infiltration testing was undertaken within the $6N^{\circ}$ exploratory hole locations across the site to a maximum depths ranging from 0.90-1.80mgbl. Three repeat tests were conducted within all exploratory hole locations.

Graphical representations of the data are contained within Appendix D.

The infiltration testing and subsequent calculation of soil infiltration rates were carried out in general accordance with the methodologies detailed within BRE 365¹.

Soil Infiltration Rate Calculations

A summary of the results of the infiltration tests and calculated infiltration rates is provided in Table 2.

Table 2: Summary of Calculated Infiltration Rates

Exploratory Location	Date	Total Measured water level change (m)	Time Period (mins)	Calculated infiltration rate (m/s)	Design infiltration rate (m/s)
TP01 (Test 1)	10/01/2024	0.87	134	3.76E-05	
TP01 (Test 2)	11/01/2024	0.76	158	3.20E-05	3.13E-05
TP01 (Test 3)	12/01/2024	0.66	121	3.13E-05	
TP02 (Test 1)	11/01/2024	0.45	13	3.25E-04	
TP02 (Test 2)	11/01/2024	0.51	37	1.15E-04	1.15E-04
TP02 (Test 3)	12/01/2024	0.55	22	1.89E-04	
TP03 (Test 1)	11/01/2024	0.94	720	5.94E-06	
TP03 (Test 2)	11/01/2024	0.96	870	5.18E-06	5.18E-06
TP03 (Test 3)	12/01/2024	0.75	400	1.13E-05	
TP04 (Test 1)	11/01/2024	0.49	54	7.74E-05	
TP04 (Test 2)	11/01/2024	0.59	108	4.06E-05	3.70E-05
TP04 (Test 3)	12/01/2024	0.65	125	3.70E-05	
TP05 (Test 1)	10/01/2024	0.56	43	1.02E-04	9.40E-05
TP05 (Test 2)	11/01/2024	0.66	63	1.22E-04	3.40E-03

¹ Soakaway Design BRE Digest DG-365 (2016).

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Exploratory Location	Date	Total Measured water level change (m)	Time Period (mins)	Calculated infiltration rate (m/s)	Design infiltration rate (m/s)
TP05 (Test 3)	12/01/2024	0.7	62	9.40E-05	
TP06 (Test 1)	10/01/2024	0.63	1230	2.51E-06	
TP06 (Test 2)	11/01/2024	0.6	311	1.23E-05	2.51E-06
TP06 (Test 3)	12/01/2024	0.51	326	1.24E-05	

Due to the relatively quick infiltration rates observed while filling the trial pits using a 1000l ICB, TP02 and TP03 in particular were unable to fill completely before starting the test.

Discussion

The calculated infiltration rates indicate the strata beneath the site have relatively good infiltration characteristics which is reflective of the fractured limestone encountered. Based upon the test results and site observations it is considered that traditional soakaways or infiltration basins are likely to offer a viable solution for surface water discharge. Further assessment may, however, be required by the regulators to demonstrate that long-term groundwater levels are present at an acceptable depth below proposed new drainage once formation levels have been established.

We trust these details are acceptable and sufficient for your purposes. However, if you have any queries or would like to discuss any of the details above then please feel free to contact us.

Yours sincerely,

Calum Stewart

For T&P Regeneration Ltd

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Appendix A – Drawings

Appendix B – Photographs

Appendix C – Exploratory hole logs

Appendix D - Infiltration results





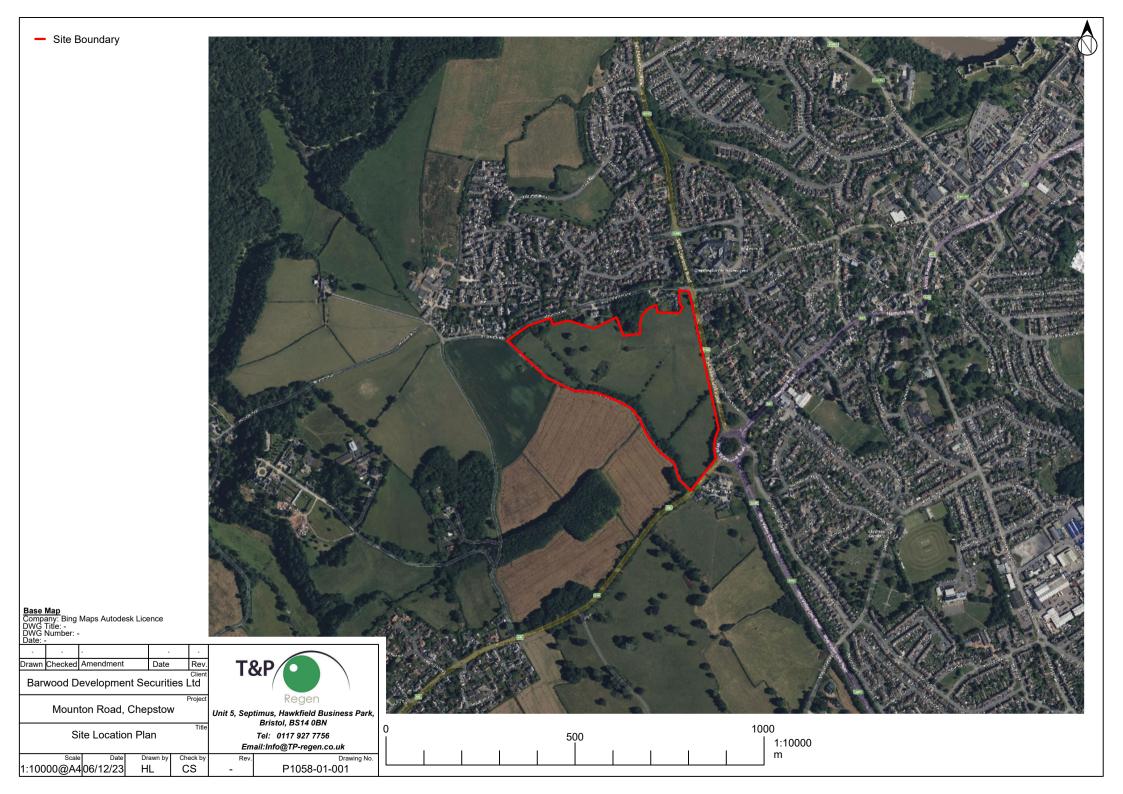








Appendix A – Drawings



Site Boundary T&P Investigation ■ Trial Pit Locations (TP01 - TP06) ■TP01 **■**TP02 **■**TP03 **■**TP04 **■**TP05 ■TP06 Base Map Company: Bing Maps Autodesk Licence DWG Title: -DWG Number: -T&P/ Barwood Development Securities Ltd Mounton Road, Chepstow Unit 5, Septimus, Hawkfield Business Park Bristol, BS14 0BN 200 1:2500 m

Tel: 0117 927 7756 Email:Info@TP-regen.co.uk

Drawing t P1058-01-003

Exploratory Hole Location Plan

Scale Date Drawn 1:2500@A3 15/01/24 HL



The scaling of this drawing cannot be assured

Revision

LEGEND



Site Boundary



Residential Development



Community Hub



Hotel/Commercial Office Space



Retirement/Care Home



Main Access



Pedestrian/Cycle Access



Secondary Access



Public Right of Way



St Lawrence Lane



National Cycle Route (4)



Local Equipped Areas of Play



Natural Play



Indicative Roadside Swale



Indicative Roadside Underdrained Swale



Indicative Infiltration Basin

Mountain Road, Chepstow

Drawing Title

Concept Masterplan - Hybrid Option

Scale 1:2500@A3 08.06.23 Project No Drawing No 31133 BL-M-09



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T&F			Moi	unton F	Road, C	hepstow	,	Bar	wood Develop	oment	Securities Ltd			
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www.tandpr		on co uk	P1058 / CC-1		10/01	1/2024	CS		TC		FINAL	Sheet	1 of 1	
			Easting:		orthing:		Ground Level:		Plant Used:			Scale:	1 01 1	
Tria	l Pit Lo	g	352545.85			49.74	79.03mC			Tonne l	Excavator		1:25	
Weather: Cl	lear		L	Te	erminatio	on: Effect	ive Refusal		Sta	ability.	Stable	1		
	Samples &	In Situ Tes	stina					Strata D						
Depth	Sample ID		Fest Result	Level	Depth (m) (Thickness)	Legend			Strata Descrip	ntion			Water	Backfill
Бериі	Sample ID	'	Test Nesult	(mAOD)	(Thickness)	Legend	Proven cilty CLA	V with f	requent rootlets.					X//XX///X
							(TOPSOIL)	1 WILIII	requerit rootiets.			-		
				78.83	0.20			liaht ar	rev LIMESTONE	Recov	ered as slightly clayey			
ŀ							slightly sandy ar	ngular f	ine to coarse lime	estone		Ē		
[COBBLES. Cob	bles ar	e angular of limes TONE SUBGROU	stone.		[
ŀ							(BLACK NOCK)	LIIVILO	TONE SUBSINO	01)		-		
					(0.80)							-		
į												-		
												-		
					4.00							ļ.,		
				78.03	1.00				End of Trial Pit a	t 1.00m		 1		V//XV///
ŀ												Ē		
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Sample Key:	B = Bul	k Disturbed	d D = Small Dis	sturbed	U = Un	disturbed O		= Water		ES = E	nvironmental Soil E	W = Envir	onmental	Water
Remarks:								Dimen	sions:					
Groundwater	encounte	red at bas	se. Effective refus	al on med	dium stro	ng Limesto	one.	Le	ngth: 1.60m	ſ	Orienta	tion: °		
								٧	Vidth: 0.60m					
								-			Groundwater Details			
I								Depth	encountered (m)		Remai			
									1.00		Slight see	paye.		
								T^-	Degen	Faur-1 1	Ingree No. 1	1-	Det-: '	- 2040
								I'&P	Regeneration TP T	remplate	Issue Number: 1	Issue	Date: Jun	ie 2016





		Regen					DN	EU	ige:	st :	5 05	.20	то					
	Project	Name:	Land o	ff Mount	on Roa	d, Chepstow	1						Pro	ject ID	P10	58		
		Client:	Barwoo	od Deve	lopmen	t Securities I	_td								•			
	ŀ	lole ID:	TP01			Test Date:	10/01/2	2024			Log	ged:	CS		Che	cked:	JD	
Te	st 1	Te	st 2	Tes	st 3								Len	gth (m)		1	.60	
Time	Depth	Time	Depth	Time	Depth								Wie	dth (m)		0	.70	
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soakaw	ay Dir	mensi	ions:	-	Test 1	- De _l	pth (m)		1	.20	
0	0.33	0	0.34	0	0.23						-	Test 2	- De _l	pth (m)		1	.10	
1	0.34	1	0.35	1	0.24						-	Test 3	- De _l	pth (m)		1	.10	
2	0.35	2	0.36	2	0.24								Т	est 1	Te	est 2	Т	est :
3	0.36	3	0.36	3	0.25		Depth	n to wa	ater a	t sta	rt of t	est (m)) (0.33	0	.34		0.23
4	0.37	4	0.37	4	0.26		Dept	h to w	ater a	at en	d of t	est (m))	1.20	1	.10		0.89
5	0.38	5	0.38	5	0.26				Tota	al he	ad di	op (m) (0.87	0	.76		0.66
6	0.38	33	0.51	6	0.27		Dep	th to v	vater	at 75	5% le	vel (m)) (0.55	0).53		0.45
35	0.58	78	0.72	17	0.34		Dep	th to v	vater	at 50)% le	vel (m		0.77	0).72		0.67
134	1.20	126	0.97	37	0.45		-					vel (m		0.98	0).91		0.88
		158	1.10	65	0.60							` '						
				121	0.89				Base	e are	a of ı	oit (m²)	1.12	1	.12	T	1.12
		121 0				Compi	uted Inte	ernal S				_		3.12		2.87	+	3.12
							fective					_		0.49		0.43	+	0.49
							1000170	Otorag	,0 VO	unic	v p/5	.25 (111	'	0. 10		7. 10		0. 10
							Elano	od tim	o at	75%	lovol	(mins	\	30		37	T	37
							-					(mins)		99		37 114	+-	120
							Liaps					ng tes		.00%		00%	+-	76%
												Hours		Yes		res	+	Yes
										_		f (m/s	_	76E-05		0E-05	+	13E-
							esign s							/ OE-US		3E-05	_	12E-
	<u> </u>		<u> </u>			_	esigii .	3011 111	iiitiai		iate	(111/3	'		3.1	3E-03		
							Elapsed	time (min)									
	0		20		40	60	2.00000	80	,	10	0		120		140	0		160
C	0.00 +							+ -										\dashv
ſ	0.20																	
	, <u>L</u> 0																	
			+															
C	0.40														\sqcap			
(lgı																		
Water level (mbgl)	0.60																+	
vel		$ \mp\mp$	\Box		ŦΠ			\		##		##		\mp	17	\mp	77	
er le	0.80		+								$ \leftarrow $	#			+		##	
Wat								*				\rightarrow	+					
	L.00 —									\searrow					\square			
_												$\prec \downarrow$				+		
_	1 20																	
1	1.20														\top		\Box	
1	L.40 [⊥]																	
				T	est 1			_	- - T	est 1	50%	6 effect	tive s	torage				
				—_т	est 2			_	- - T	est 2	: - 50%	6 effect	tive s	torage				
				T	est 3			_	- — т	est 3	- 50%	6 effect	tive s	torage				



		Regen					DN		gesi	202	.201	LO				
	Project	t Name:	Land o	ff Mount	on Roa	d, Chepstow	/					Projec	t ID:	P1058		
		Client:	Barwoo	od Deve	lopment	Securities I	_td									
	ŀ	Hole ID:	TP02			Test Date:	10/01/2	024		Logg	ged:	CS		Checked	: JD	
Te	st 1	Te	st 2	Tes	st 3							Length	(m)		1.80	
Time	Depth	Time	Depth	Time	Depth							Width	(m)	(0.70	
(mins)	(m)	(mins)	(m)	(mins)	(m)		Soakaw	ay Din	nensions	s: T	est 1 -				1.00	
0	0.50	0	0.39	0	0.35			•			est 2 -	-			0.90	
1	0.51	1	0.41	1	0.38						est 3 -	-	` ′		0.90	
2	0.55	2	0.43	2	0.41						00.0	Test		Test 2	Tes	st 3
3	0.60	3	0.47	3	0.43		Denth	to wa	ter at sta	art of te	est (m)	0.50		0.39	0.3	
4	0.63	4	0.50	4	0.46		•		ater at e		` ′	0.9		0.90	0.9	
5	0.69	5	0.52	5	0.49		Бери	I to we	Total h			0.4		0.51	0.5	
9	0.84	10	0.65	6	0.49		Don	h to w	ater at 7			0.4		0.51	0.4	
							•								-	
13	0.95	37	0.90	12	0.65		•		ater at 5					0.65	0.6	
				22	0.90		Dep	th to w	ater at 2	25% lev	/el (m)	0.8	8	0.77	0.7	76
		22							5		2.		_ 1		 	
									Base ar		_	1.20		1.26		26
							ited Inte			•	_			2.54	2.6	64
						Ef	fective S	Storag	e Volum	e V _{p75-}	₂₅ (m ³)	0.32	2	0.32	0.3	35
							Elaps	ed tim	e at 75%	6 level	(mins)	4		5	5	5
							Elaps	ed tim	e at 25%	6 level	(mins)	10)	23	10	6
								Total	discharg	ge durii	ng test	90%	6	100%	100	0%
								50% d	lischarge	e in 24	Hours	Yes	S	Yes	Υe	es
								Soil i	nfiltratio	n rate	f (m/s)	3.25E	E-04	1.15E-0	4 1.89	9E-04
							esign s	oil inf	iltration	rate f	(m/s)			1.15E-04	1	
	0			-		10	Elapsed	time (r				20	_		_	٦.
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	,,,,,															
C	0.10 +														_	-
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C	0.30															-
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nbg).40															1
el (r	0.50															
Water level (mbgl)	,.50					\downarrow \lceil										
ater	0.60							_								-
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C	0.80	1														+
C).90 🕂											+				-
1	L.00 L															
,				т	est 1				<u> </u>	1 - 50%	s effecti	ve stor	age			
								_					_			
					est 2						effecti		_			
				—— T	est 3			_	— Test	3 - 50%	effecti	ve stora	age			



		kegen								<u>'L</u>	715	<u> </u>	•	,,,	J.	20										
	Project			ff Mount													F	Proj	ect	ID:	P1	058	}			
		Client:	Barwoo	od Deve	lopment	Secu	uritie	s Ltc	ł													-				
	H	Hole ID:	TP03			Test	Date	e: 10	0/01/	2024				Lo	gge	ed:	(CS			Ch	eck	ed:	: JE)	
Te	st 1	Te	st 2	Te	st 3												L	eng	jth ((m)			1	.70		
Time	Depth	Time	Depth	Time	Depth												١	Wic	lth ((m)			0	0.60		
(mins)	(m)	(mins)	(m)	(mins)	(m)			Sc	akav	way [Dimer	nsio	ns:		Te	est 1	- [Эер	th ((m)			1	.60		
0	0.66	0	0.54	0	0.65										Te	est 2	2 - [Эер	th ((m)			1	.50		
1	0.66	1	0.55	1	0.66										Te	est 3	3 - [Эер	th ((m)			1	.40		
2	0.67	2	0.56	2	0.67													Te	est	1	1	Test	2		Tes	st 3
3	0.68	3	0.56	3	0.67				Dept	th to	water	at	star	t of	tes	st (n	n)	C	.66	i		0.5	4		0.6	65
4	0.69	4	0.56	4	0.68				Dep	th to	wate	r at	end	d of	tes	st (n	n)	1	.60	ı		1.5	0		1.4	10
5	0.70	5	0.57	5	0.68						Т	otal	he	ad	dro	p (n	n)	C).94			0.9	6	↓	0.7	75
10	0.72	10	0.60	10	0.71				Dep	oth to	wate	er a	t 75	% I	leve	el (n	n)	C	.90	,		0.7	8		9.0	34
30	0.81	26	0.67	79	0.92				Dep	oth to	wate	er a	t 50	ا %ا	leve	el (n	n)	1	.13	i		1.0	2		1.0)3
54	0.88	870	1.50	126	1.03				De	oth to	wate	er a	t 25	% I	leve	el (n	n)	1	.37			1.2	6		1.2	21
147	1.03			194	1.13																					
211	1.10			400	1.40						Ba	se	are	a o	f pi	t (m	²)	1	.02			1.0	2		1.0)2
297	1.18						Com	pute	d Int	ernal	Surf	ace	Are	ea A	۹ _{p50}) (m	²)	3	3.18	í		3.2	3		2.7	75
352	1.23							Effe	ctive	Stor	age V	olu/	me	V _p	75-2	₅ (m	3)	C	.48	,		0.4	9		0.3	38
720	1.60																									
									Elap	sed t	ime a	t 75	5%	lev	el (min	s)		63			138	3		5	2
									Elap	sed t	ime a	t 25	5%	lev	el (min	s)	4	186			626	6		25	57
										Tot	al dis	cha	arge	du	ırin	g te	st	1	00%	6	:	100	%		100)%
										50%	6 disc	har	ge	in 2	24 I	lou	rs	,	⁄es			Ye	s		Υe	es
										So	il infil	trat	ion	rate	e f	(m/s	s)	5.9)4E-	-06	5.	18	E-06	5 1	.13	E-05
								Des	sign	soil	infiltr	atio	on I	rate	e f	(m/s	s)				5.	18E	-06	,		
										d time	e (min															
	0		100	200)	300		4	100		500			6	00			70	0			800	1		90	00
	0.00																	П								
C	0.20											Ш		_	_		_	Ш	_	\perp	Ш	\perp	Ш	Ш	_	
C	0.40								++		++	H	+	+	╀	-	+	\vdash	+	+	++	+	+	\vdash	+	-
	0.60											П		\dagger	†		\dagger	\forall	\top	\top	\Box	\top	Н		†	1
Water level (mbgl)	0.80																									
el (r	7.00				+																					
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1	L.80																					\perp		Ш		
				— Т	est 1							- Te	st 1	- 50	0%	effe	ctiv	e st	ora	ge						
				—_т	est 2							- Te	st 2	- 50	0%	effe	ctiv	e st	ora	ge						
				—т	est 3							- Te	st 3	- 50	0%	effe	ctiv	e st	ora	ge						
ı																										



0.80

0.90

1.00

Test 1

-Test 2

— Test 3

Infiltration Test Results in Accordance with BRE Digest 365:2016

— Test 1 - 50% effective storage

— Test 2 - 50% effective storage

— Test 3 - 50% effective storage

	1	Regen	1	BRE Digest 365:2016 off Mounton Road, Chepstow Project ID: P1058																						
	Project	Name:	Land o	ff Mount	on Roa	d, Cl	hepsi	tow									Р	roje	ct II): F	105	58				1
		Client:	Barwoo	od Deve	lopmen	Sec	curitie	es Lt	d																	1
	ŀ	lole ID:	TP04			Tes	t Dat	:e: 1	0/01	/202	4			L	ogg	ed:	С	S		C	he	cked	l: J	D		1
Tes	st 1	Te	st 2	Te	st 3												Le	ngt	h (m	1)			2.2	0		1
Time	Depth	Time	Depth	Time	Depth												٧	Vidt	h (m	1)			0.7	0		
(mins)	(m)	(mins)	(m)	(mins)	(m)			S	oaka	way	Dim	ensi	ions	S:	T	est 1	- D	ept	h (m	1)		(0.9	0		
0	0.41	0	0.31	0	0.25										T	est 2	2 - D	ept	h (m	1)		(0.9	0		
1	0.43	1	0.32	1	0.26										T	est 3	3 - D	ept	h (m	1)		(0.9	0		
2	0.44	2	0.33	2	0.27													Tes	st 1		Те	st 2		Те	st 3	
3	0.45	3	0.34	3	0.27				Dep	th to	wat	er a	t sta	art d	of te	st (n	n)	0.	41		0.	31		0.	25	
4	0.46	4	0.34	4	0.28				Dep	oth to	wa	ter a	at ei	nd o	of te	st (n	n)	0.	90		0.	90		0.	90	
5	0.47	5	0.35	5	0.29							Tota	al h	eac	d dro	p (n	า)	0.	49		0.	59		0.	65	
13	0.54	10	0.39	10	0.32				De	pth t	o wa	ater	at 7	7 5%	lev	el (n	n)	0.	53		0.	46		0.	41	
34	0.73	31	0.51	29	0.42				De	pth t	o wa	ater	at 5	50%	lev	el (n	n)	0.	66		0.	61		0.	58	
54	0.90	60	0.65	65	0.61				De	pth t	o wa	ater	at 2	25%	lev	el (n	n)	0.	78		0.	75		0.	74	
		90	0.81	86	0.70																					
		108	0.90	125	0.90						ı	3ase	e ar	ea	of pi	it (m	²)	1.	54		1.	54		1.	54	
							Con	npute	ed In	terna	al Su	ırfac	e A	rea	A _{p5}	₀ (m	²)	2.	96		3.	25		3.	43	
								Effe	ctive	Sto	rage	Vol	lum	e V	p75-2	₅ (m	³)	0.	38		0.	45		0.	50	1
																										1
									Elap	sed	time	at 7	75%	6 le	vel (min	s)	1	2		2	22		2	28	
									Elap	sed	time	at 2	25%	6 le	vel (min	s)	4	0		7	' 9		ç	93	
										То	tal c	lisch	narç	ge c	lurin	g te	st	10	0%		10	0%		10	0%	
										50°	% di	sch	arge	e in	24	Hou	rs	Y	es		Υ	es		Υ	es	
										S	oil ir	filtra	atio	n ra	ite f	(m/s	s) :	7.74	1E-0	05 4.06E-0			5	3.70E-05		
								De	sign	soil	infi	ltrat	tion	ra	te f	(m/s	s)			:	3.70E-05					
								_		مدندام	/	. : \														
	0		20)	4	.0			lapse 60		ie (ii	1111)	80	0			1	100				12	20			
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0	0.10																	\perp							_	
0).20																	\dagger							_	
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(lg)	.40																	\perp							_	
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evel).50						\prec	\downarrow			+		\dashv		+		+	+	+			$\mid \cdot \mid$	\dashv	\dashv	_	
Water level (mbgl)	0.60			##	++		\$	\rightleftharpoons		+	+ :					= :	+ :	+ :	+:				_	\equiv	-	
×a		. _		*	$\perp \perp$	<u> </u>								_			<u> </u>	<u> </u>	⊥.		\perp		_		_	l



1.80

2.00

Test 1

-Test 2

— Test 3

Infiltration Test Results in Accordance with BRE Digest 365:2016

	1	Regen	1	BRE Digest 365:2016																							
Project Name: Land off Mounton Roa								d, Chepstow												Project ID: P1058							
		Client:	Barwoo	od Deve	d Development Securities Ltd																						
	ŀ	lole ID:	TP05	_		Tes	st Da	te: 1	10/0 <i>°</i>	1/20	24				Lo	gged:	C	S	Checked:					JD			
Te	st 1	Te	st 3													Length (m) 2.3					30	30					
Time	Depth	Time	Depth	Time	Depth												٧	Vidth	n (m)								
(mins)	(m)	(mins)	(m)	(mins)	(m)			S	oaka	awa	y Di	me	nsio	ns:				Depth (m) 1.8									
0	1.24	0	1.14	0	1.10	4										Test		-					80				
1	1.27	1	1.16	1	1.12											Test	3 - E						80				
2	1.29	2	1.18	2	1.15													Tes		-	Tes			est	_		
3	1.32	3	1.21	3	1.18	4										test (1.2			1.1		-	1.10			
4	1.35	4	1.23	4	1.20	4			De	pth	to v					test (-	1.8			1.8			1.80			
6	1.40	5	1.25	5	1.22	4			_							drop (0.5			0.6		0.70				
13	1.55	11	1.39	10	1.32	-				-						evel (1.3			1.3			1.28			
43	1.80	29	1.68	40	1.72	-										evel (1.5			1.4			1.45			
		63	1.80	62	1.80				D	epth	to '	wat	er a	t 25	% I	evel (m)	1.6	56		1.6	4	<u> </u>	1.63	•		
												_				-11	2			Г			$\overline{}$	4.00	\dashv		
						4	_									pit (n		1.3			1.3			1.38			
						4	Cor									N _{p50} (n		3.0			3.2			3.41			
					Effective Storage Volume V _{p75-25} (m ³)										า~)	0.3	39		0.4	6		0.48					
																							_				
						-				-						el (mir		5			7		<u> </u>	33			
						4			Ela	-						el (mir			26 26				<u> </u>	_			
						Total discharge during test 50% discharge in 24 Hours Soil infiltration rate f (m/s) Design soil infiltration rate f (m/s)														100%		1	1009				
																							Yes				
																						9.	40E-	.05			
							Design son mintration rate / (m/s)											9.40E-05									
							Elapsed time (min)																				
	0		10				20 30 40										50 60										
C	0.00					_											_	T									
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bgl)	0.80					-	-	-	-								+	-	\vdash		_	_	\dashv	_			
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Water level (mbgl)	1.00																						\top	\neg			
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— Test 1 - 50% effective storage

— Test 2 - 50% effective storage

— Test 3 - 50% effective storage



	1	Regen	BRE Digest 365:2016																								
Project Name: Land off Mounton Road							I, Chepstow											Project ID: P1058									
		Client:	Barwoo	od Deve	lopmen	t Se	Securities Ltd																				
	ŀ	Hole ID:	TP06			Test Date: 10/01/2024 Logge							gge	d:	CS			Checked: \			JD	JD					
Test 1 Test 2			Te	st 3												Length (m)			1.5			.50	50				
Time	Depth	Time	Depth	Time	Depth									Wic	dth	(m)				.60							
(mins)	(m)	(mins)	(m)	(mins)	(m)			(Soak	awa	ay D	ime	nsic	ns:		Те	st 1	- Dep	oth	(m)			1	.00			
0	0.24	0	0.24	0	0.34		Test 2									- Dep	oth	(m)									
1	0.25	1	0.24	1	0.34		Test 3							st 3 ·	- Dep	oth ((m)	0.9				90					
2	0.26	2	0.25	14	0.38									T	est	1	-	Tes	t 2		Test	: 3					
3	0.26	3	0.25	22	0.41		Depth to water at start of test (m)							().24	1		0.2	4		0.34						
4	0.26	4	0.25	91	0.57				D	epth	to \	vate	r at	end	d of	tes	t (m)	().87	7	0.84				0.85		
5	0.27	5	0.26	154	0.71		Total head drop (m)									(0.63	3	0.60				0.51				
6	0.27	50	0.38	326	0.85	Depth to water at 75% level (m)									().43	3	0.41				0.48					
7	0.27	119	0.54				Depth to water at 50% level (m)								(0.62			0.57			0.62					
8	0.28	192	0.67			Depth to water at 25% level (m)									().81			0.7	' 4		0.7	6				
33	0.36	311	0.84																								
53	0.41					Base area of pit (m ²						(m ²)	(0.90		0.90			0.9	0							
168	0.62					Computed Internal Surface Area A _{p50} (m ²)							(m ²)	2	2.50)	2.29				2.08						
1230	0.87					Effective Storage Volume V _{p75-25} (m ³)							0.34			0.30				0.2							
															<u></u>												
									Ela	apse	ed tii	ne a	at 7:	5%	leve	el (n	nins)	64			61				52		
									Ela	apse	ed tii	me a	at 2	5%	leve	el (n	nins)	975			238				215	5	
											Tota	al dis	scha	arge	du	ring	j test	83%			91%				91%	%	
										5	50%	dis	cha	rge	in 2	4 H	lours				Yes				Yes	s	
							Soil infiltration rate f (m/s)									2.51E-06			1.23E-05			1	1.24E-				
								D	esig	jn s	oil ii	nfilt	rati	on r	rate	f (m/s)				2.	51E	-06				
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