

REF: 2213/CM/Replet/MJS

Carl Hughes
HDS Architectural Services
Ferndale Villa
25 Manley Road
Wrexham LL13 8HD

4th April 2019

Dear Carl,

RE: SOAKAWAY TESTING CEFN MAWR

The site investigation was undertaken on Friday 29th March 2019, and comprised one machine dug trial pit to a maximum depth of 2.40m, with two percolation tests undertaken in the pit within the day.

The trial pit was logged by an engineer from GSL in general accordance with BS 5930. The soakaway test was carried out by filling the pit quickly with water from a 2,000-gallon bowser, and monitoring the fall in water in accordance with BRE Digest 365. The test was undertaken in weathered bedrock described as loose to medium dense, very gravelly sand.

The location of the trial pit is shown on Figure 1, with the supporting information in the following appendices;

- Soakaway Test Results, Appendix A,
- Trial pit log, Appendix B.

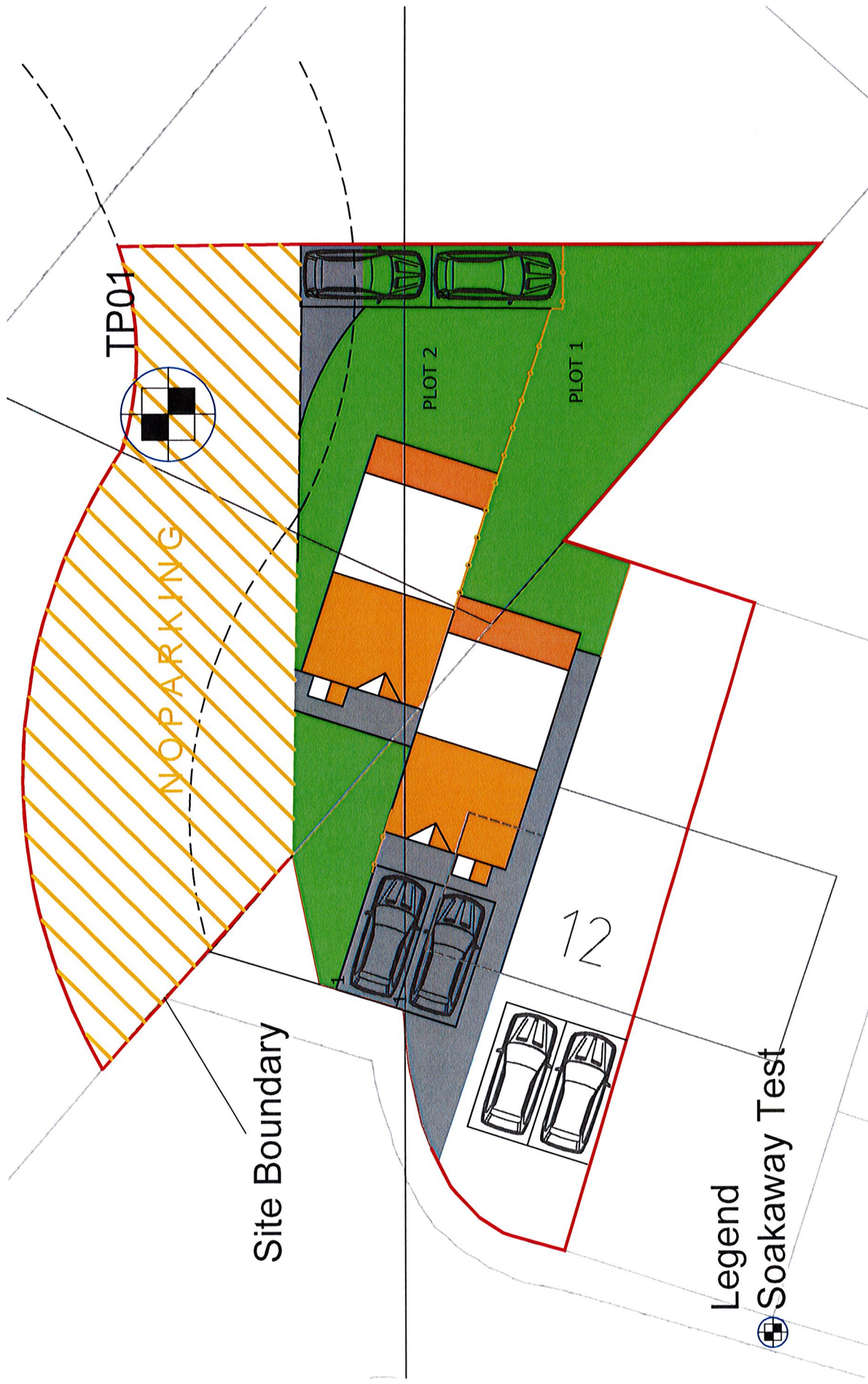
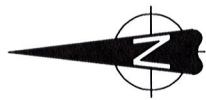
The soakaway tests recorded percolation rates between 1.034 and 1.275 x 10⁻⁵ m/sec.

We trust this is satisfactory, should you have any queries please call Mike Scott on 01244 661361.

Yours sincerely

Mike Scott

FIGURES



SCALE 1:200 @ A4

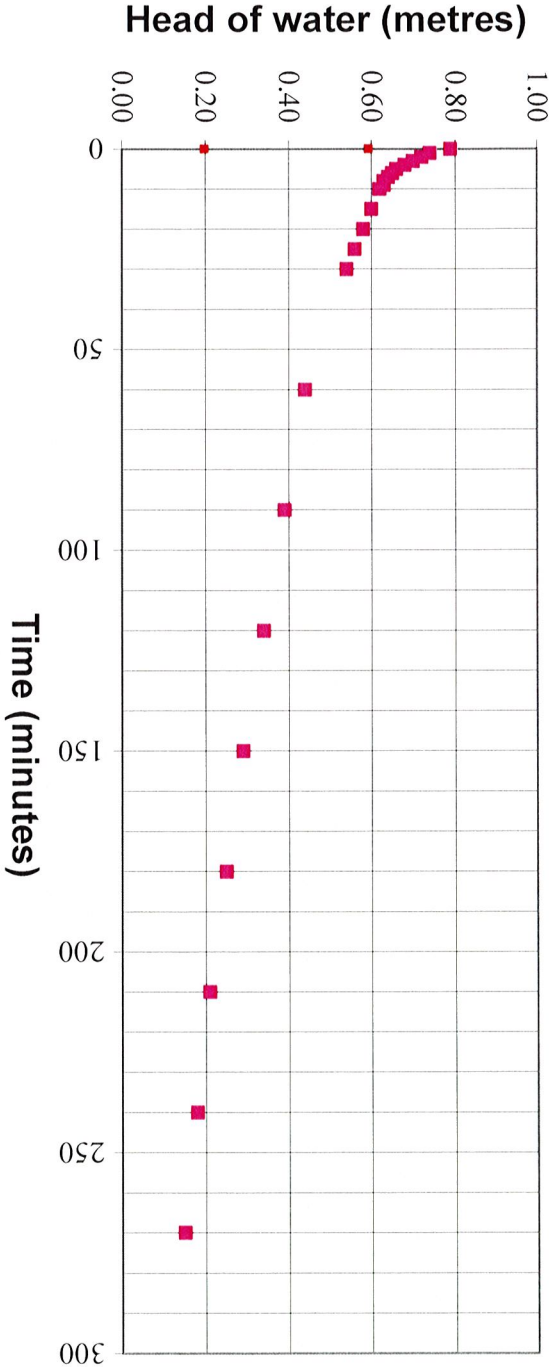
Figure Title
Location of Soakaway Test

APPENDIX A

Soakaway Test Results

2213-Cefn Mawr
TP01 Test 1
29/03/19

Time (Mins)	Depth of Water	Head of Water
0	1.46	0.79
1	1.51	0.74
2	1.53	0.72
3	1.55	0.70
4	1.57	0.68
5	1.59	0.66
6	1.60	0.65
7	1.61	0.64
8	1.62	0.63
9	1.62	0.63
10	1.63	0.62
15	1.65	0.60
20	1.67	0.58
25	1.69	0.56
30	1.71	0.54
60	1.81	0.44
90	1.86	0.39
120	1.91	0.34
150	1.96	0.29
180	2.00	0.25
210	2.04	0.21
240	2.07	0.18
270	2.10	0.15



Depth (m)	Length (m)	Width (m)	Head at 75% Vol (m)	Head at 25% Vol (m)	Water depth(t=0) (m)	Effective Area Ap50 m2	Vp75-Vp25 Volume of water m3	Adjustment Factor *	t75 (mins)	t25 (mins)	Infiltration rate m/s
2.25	2.20	0.60	0.593	0.20	0.79	3.532	0.521	1.00	27	220	1.275E-05

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

* with gravel filter adjustment factor = 0.30, with no filter = 1.0

APPENDIX B

Trial Pit Logs

TRIAL PIT 1

Depth (m)	Strata
0-0.05	Tarmac
0.05-0.25	Loose yellow brown very gravelly SAND (HARDCORE)
0.25-0.60	Loose orange silty SAND with a little gravel, gravel is sub rounded
0.60-0.80	Loose dark brown clayey sandy SILT with a little gravel, gravel is sub rounded, occasional boulder
0.80-2.4	Loose to medium dense light brown very gravelly SAND, sand is coarse with cobble and boulder, recovered as platy sandstone cobble and sand. (WEATHERED BEDROCK)

Notes

1. No Groundwater encountered
2. Pit walls stable
3. 2 soakaway tests conducted giving percolation rates of 1.275E-05 and 1.034E-05



