WAVIN Stormwater Management

AquaCell Soakaway designed in accordance with CIRIA 156

Project & Site Details

Project Number	S18955-A Plot 1	**Produced by**	Mark Henly
Client	Andrew Bailey Architects	**Checked by**	
Site Name	Tingle Bridge Lane, Hemingfield		
Location	S73 0NT	**Date**	21/07/2020

Drainage Details

Area	292 m²	**Climate Change**	40 %
Catchment Type	Roof + Hardstanding	**Effective Area**	368 m²
Area Reduction Factor	0.9	**Additional Inflow**	0.00 l/s

Discharge Parameters

Infiltration Rate	2.08E-04	**Soil Type**	Unknown
Factor of Safety	2	**Source**	S.I.R
Effective Infiltration Rate	1.04E-04		
Additional Outflow*	0.00 l/s	**Depth to Groundwater (m)**	Unknown

*flat rate from pump only

Rainfall Data

R value	0.4	**Storm Return Period**	1 in 100 years
M5-60	19	**Country**	England and Wales

Time	Z1 Value	y mm	Z2 Value	p mm	Value i	a	b	Storage Height	Time To Half -Empty
5min	0.38	7.22	1.84	13.28	0.16	-7.58	0.355	0.221	0.24
10min	0.52	9.88	1.89	18.67	0.11	-5.00	0.355	0.287	0.31
15min	0.63	11.97	1.91	22.86	0.09	-3.87	0.355	0.329	0.34
30min	0.80	15.20	1.99	30.25	0.06	-2.19	0.355	0.356	0.36
1hr	1.00	19.00	1.99	37.81	0.04	-0.95	0.355	0.284	0.30
2hr	1.19	22.61	2.03	45.90	0.02	-0.14	0.355	0.071	0.09
4hr	1.44	27.36	2.01	54.99	0.01	0.36	0.355	-0.274	-0.43
6hr	1.59	30.21	1.97	59.51	0.01	0.57	0.355	-0.503	-0.97
10hr	1.81	34.39	1.97	67.75	0.01	0.74	0.355	-0.721	-1.84
24hr	2.35	44.65	1.89	84.39	0.00	0.92	0.355	-0.919	-3.44
48hr	2.69	51.11	1.81	92.51	0.00	1.01	0.355	-1.006	-4.94

Soakaway Parameters

Length	5.0 m	**Width**	4.0 m
Depth	0.4 m	**Void**	95 %

Results

Critical storm duration (hrs)	30min	
Required Storage Height (m)	0.356	PASS
Half Time Empty (hrs)	0.36	PASS

AquaCell Modular Units

No. Units Long	5	**No. Units Wide**	8
No. Units Deep	1		
Total Number of Units	**40**	**Unit Type**	**Unknown**

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