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York House Edison Park Dorcan Way Swindon SN3 3RB	Godbey House, Hayling Island. Permeable Paving	
Date January 2018 File 5550 PERMEABLE PAVING D...	Designed by RT Checked by RB	
Elstree Computing Ltd	Source Control 2016.1	

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 22 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	3.312	0.312	8.8	15.4	0 K
30 min Summer	3.347	0.347	8.8	18.5	0 K
60 min Summer	3.360	0.360	8.8	19.7	0 K
120 min Summer	3.341	0.341	8.8	17.9	0 K
180 min Summer	3.311	0.311	8.8	15.3	0 K
240 min Summer	3.285	0.285	8.8	12.9	0 K
360 min Summer	3.249	0.249	7.8	9.9	0 K
480 min Summer	3.222	0.222	6.9	7.8	0 K
600 min Summer	3.200	0.200	6.2	6.4	0 K
720 min Summer	3.182	0.182	5.7	5.3	0 K
960 min Summer	3.155	0.155	4.8	3.8	0 K
1440 min Summer	3.120	0.120	3.7	2.3	0 K
2160 min Summer	3.090	0.090	2.8	1.3	0 K
2880 min Summer	3.072	0.072	2.3	0.8	0 K
4320 min Summer	3.052	0.052	1.6	0.4	0 K
5760 min Summer	3.046	0.046	1.3	0.3	0 K
7200 min Summer	3.042	0.042	1.1	0.3	0 K
8640 min Summer	3.039	0.039	0.9	0.2	0 K
10080 min Summer	3.037	0.037	0.8	0.2	0 K
15 min Winter	3.339	0.339	8.8	17.8	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	15
30 min Summer	83.789	0.0	25
60 min Summer	53.779	0.0	42
120 min Summer	33.337	0.0	76
180 min Summer	24.832	0.0	108
240 min Summer	20.006	0.0	138
360 min Summer	14.706	0.0	198
480 min Summer	11.818	0.0	258
600 min Summer	9.966	0.0	320
720 min Summer	8.665	0.0	378
960 min Summer	6.943	0.0	498
1440 min Summer	5.071	0.0	736
2160 min Summer	3.696	0.0	1100
2880 min Summer	2.949	0.0	1468
4320 min Summer	2.142	0.0	2180
5760 min Summer	1.705	0.0	2896
7200 min Summer	1.427	0.0	3616
8640 min Summer	1.235	0.0	4328
10080 min Summer	1.093	0.0	5072
15 min Winter	124.633	0.0	16

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	3.378	0.378	8.8	21.3	0 K
60 min Winter	3.388	0.388	8.8	22.2	0 K
120 min Winter	3.351	0.351	8.8	18.9	0 K
180 min Winter	3.305	0.305	8.8	14.7	0 K
240 min Winter	3.271	0.271	8.5	11.7	0 K
360 min Winter	3.225	0.225	7.0	8.0	0 K
480 min Winter	3.192	0.192	6.0	5.8	0 K
600 min Winter	3.167	0.167	5.2	4.4	0 K
720 min Winter	3.148	0.148	4.6	3.5	0 K
960 min Winter	3.121	0.121	3.8	2.3	0 K
1440 min Winter	3.089	0.089	2.8	1.3	0 K
2160 min Winter	3.065	0.065	2.0	0.7	0 K
2880 min Winter	3.052	0.052	1.6	0.4	0 K
4320 min Winter	3.044	0.044	1.2	0.3	0 K
5760 min Winter	3.039	0.039	0.9	0.2	0 K
7200 min Winter	3.036	0.036	0.8	0.2	0 K
8640 min Winter	3.033	0.033	0.7	0.2	0 K
10080 min Winter	3.031	0.031	0.6	0.2	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	83.789	0.0	27
60 min Winter	53.779	0.0	46
120 min Winter	33.337	0.0	82
180 min Winter	24.832	0.0	114
240 min Winter	20.006	0.0	144
360 min Winter	14.706	0.0	204
480 min Winter	11.818	0.0	264
600 min Winter	9.966	0.0	322
720 min Winter	8.665	0.0	382
960 min Winter	6.943	0.0	500
1440 min Winter	5.071	0.0	736
2160 min Winter	3.696	0.0	1096
2880 min Winter	2.949	0.0	1448
4320 min Winter	2.142	0.0	2176
5760 min Winter	1.705	0.0	2864
7200 min Winter	1.427	0.0	3560
8640 min Winter	1.235	0.0	4256
10080 min Winter	1.093	0.0	5048

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.094

Time (mins)	Area
From:	To: (ha)

0	4 0.094
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Model Details

Storage is Online Cover Level (m) 3.800

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.21200	Width (m)	12.5
Membrane Percolation (mm/hr)	1000	Length (m)	24.0
Max Percolation (l/s)	83.3	Slope (1:X)	85.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	3.000	Membrane Depth (m)	0