

CB3 Consult Ltd				Page 1																																																																																																																																																																																																																			
7 St James Crescent Swansea Wales SA1 6DP		POROUS ACCESS ROAD C1941																																																																																																																																																																																																																					
Date 01/11/2022 File POROUS ACCESS ROAD.SRCX		Designed by AJ Checked by DH																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 42 minutes. <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>99.498</td><td>0.048</td><td>0.9</td><td>2.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>99.513</td><td>0.063</td><td>1.0</td><td>2.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>99.524</td><td>0.074</td><td>1.0</td><td>3.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>99.529</td><td>0.079</td><td>1.0</td><td>3.7</td><td>O K</td></tr><tr><td>180 min Summer</td><td>99.525</td><td>0.075</td><td>1.0</td><td>3.5</td><td>O K</td></tr><tr><td>240 min Summer</td><td>99.520</td><td>0.070</td><td>1.0</td><td>3.3</td><td>O K</td></tr><tr><td>360 min Summer</td><td>99.508</td><td>0.058</td><td>1.0</td><td>2.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>99.500</td><td>0.050</td><td>1.0</td><td>2.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.495</td><td>0.045</td><td>0.9</td><td>2.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.491</td><td>0.041</td><td>0.8</td><td>1.9</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.485</td><td>0.035</td><td>0.7</td><td>1.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.477</td><td>0.027</td><td>0.5</td><td>1.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.471</td><td>0.021</td><td>0.4</td><td>1.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.467</td><td>0.017</td><td>0.3</td><td>0.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.462</td><td>0.012</td><td>0.2</td><td>0.6</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.460</td><td>0.010</td><td>0.2</td><td>0.5</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.458</td><td>0.008</td><td>0.2</td><td>0.4</td><td>O K</td></tr><tr><td>8640 min 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7 St James Crescent Swansea Wales SA1 6DP		POROUS ACCESS ROAD C1941			
Date 01/11/2022 File POROUS ACCESS ROAD.SRCX		Designed by AJ Checked by DH			
XP Solutions		Source Control 2019.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	99.524	0.074	1.0	3.4	O K
60 min Winter	99.535	0.085	1.0	4.0	O K
120 min Winter	99.537	0.087	1.0	4.0	O K
180 min Winter	99.529	0.079	1.0	3.7	O K
240 min Winter	99.520	0.070	1.0	3.2	O K
360 min Winter	99.503	0.053	1.0	2.5	O K
480 min Winter	99.495	0.045	0.9	2.1	O K
600 min Winter	99.489	0.039	0.8	1.8	O K
720 min Winter	99.485	0.035	0.7	1.6	O K
960 min Winter	99.479	0.029	0.6	1.3	O K
1440 min Winter	99.471	0.021	0.4	1.0	O K
2160 min Winter	99.466	0.016	0.3	0.7	O K
2880 min Winter	99.463	0.013	0.2	0.6	O K
4320 min Winter	99.459	0.009	0.2	0.4	O K
5760 min Winter	99.457	0.007	0.1	0.3	O K
7200 min Winter	99.456	0.006	0.1	0.3	O K
8640 min Winter	99.455	0.005	0.1	0.2	O K
10080 min Winter	99.455	0.005	0.1	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	82.212	0.0	30		
60 min Winter	52.595	0.0	48		
120 min Winter	32.531	0.0	86		
180 min Winter	24.221	0.0	122		
240 min Winter	19.519	0.0	156		
360 min Winter	14.312	0.0	212		
480 min Winter	11.488	0.0	272		
600 min Winter	9.680	0.0	334		
720 min Winter	8.411	0.0	392		
960 min Winter	6.733	0.0	512		
1440 min Winter	4.911	0.0	752		
2160 min Winter	3.575	0.0	1104		
2880 min Winter	2.850	0.0	1472		
4320 min Winter	2.068	0.0	2184		
5760 min Winter	1.644	0.0	2840		
7200 min Winter	1.376	0.0	3600		
8640 min Winter	1.189	0.0	4344		
10080 min Winter	1.051	0.0	4976		
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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)	18.600	Shortest Storm (mins)	15
Ratio R	0.358	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.015

Time (mins)	Area
From:	To: (ha)
0	4 0.015

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Model Details Storage is Online Cover Level (m) 100.000 Porous Car Park Structure <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.04550</td><td>Width (m)</td><td>5.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>31.0</td></tr><tr><td>Max Percolation (l/s)</td><td>43.1</td><td>Slope (1:X)</td><td>0.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>99.450</td><td>Membrane Depth (m)</td><td>0</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.04550	Width (m)	5.0	Membrane Percolation (mm/hr)	1000	Length (m)	31.0	Max Percolation (l/s)	43.1	Slope (1:X)	0.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	99.450	Membrane Depth (m)	0
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