

Robert Clark Associates				Page 1																																																																																																																																																																																																																			
Willow Cottage Herne Lane Rustington BN16 3EE		WAlberton Farm SA2																																																																																																																																																																																																																					
Date 9.6.26 File SA2 calcs 10yr rain.SRCX		Designed by RTFC Checked by																																																																																																																																																																																																																					
Micro Drainage		Source Control 2016.1																																																																																																																																																																																																																					
<u>Summary of Results for 10 year Return Period (+45%)</u> Half Drain Time : 79 minutes. <table><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><tr><td>15 min Summer</td><td>12.486</td><td>0.511</td><td>0.8</td><td>5.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>12.591</td><td>0.616</td><td>0.9</td><td>6.5</td><td>O K</td></tr><tr><td>60 min Summer</td><td>12.679</td><td>0.704</td><td>1.1</td><td>7.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>12.757</td><td>0.782</td><td>1.2</td><td>8.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>12.789</td><td>0.814</td><td>1.2</td><td>8.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>12.800</td><td>0.825</td><td>1.3</td><td>8.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>12.794</td><td>0.819</td><td>1.3</td><td>8.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>12.772</td><td>0.797</td><td>1.2</td><td>8.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>12.747</td><td>0.772</td><td>1.2</td><td>8.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>12.720</td><td>0.745</td><td>1.1</td><td>7.9</td><td>O K</td></tr><tr><td>960 min Summer</td><td>12.638</td><td>0.663</td><td>1.0</td><td>7.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>12.523</td><td>0.548</td><td>0.8</td><td>5.8</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>12.414</td><td>0.439</td><td>0.7</td><td>4.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>12.344</td><td>0.369</td><td>0.6</td><td>3.9</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>12.277</td><td>0.302</td><td>0.5</td><td>3.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>12.234</td><td>0.259</td><td>0.4</td><td>2.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>12.204</td><td>0.229</td><td>0.4</td><td>2.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>12.181</td><td>0.206</td><td>0.3</td><td>2.2</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>12.163</td><td>0.188</td><td>0.3</td><td>2.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>12.486</td><td>0.511</td><td>0.8</td><td>5.4</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>72.897</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>46.600</td><td>0.0</td><td>31</td></tr><tr><td>60 min Summer</td><td>29.790</td><td>0.0</td><td>52</td></tr><tr><td>120 min Summer</td><td>19.044</td><td>0.0</td><td>84</td></tr><tr><td>180 min Summer</td><td>14.658</td><td>0.0</td><td>118</td></tr><tr><td>240 min Summer</td><td>12.174</td><td>0.0</td><td>154</td></tr><tr><td>360 min Summer</td><td>9.371</td><td>0.0</td><td>220</td></tr><tr><td>480 min Summer</td><td>7.783</td><td>0.0</td><td>286</td></tr><tr><td>600 min Summer</td><td>6.738</td><td>0.0</td><td>350</td></tr><tr><td>720 min Summer</td><td>5.990</td><td>0.0</td><td>414</td></tr><tr><td>960 min Summer</td><td>4.738</td><td>0.0</td><td>540</td></tr><tr><td>1440 min Summer</td><td>3.404</td><td>0.0</td><td>782</td></tr><tr><td>2160 min Summer</td><td>2.445</td><td>0.0</td><td>1148</td></tr><tr><td>2880 min Summer</td><td>1.934</td><td>0.0</td><td>1504</td></tr><tr><td>4320 min Summer</td><td>1.482</td><td>0.0</td><td>2248</td></tr><tr><td>5760 min Summer</td><td>1.227</td><td>0.0</td><td>2944</td></tr><tr><td>7200 min Summer</td><td>1.060</td><td>0.0</td><td>3680</td></tr><tr><td>8640 min Summer</td><td>0.940</td><td>0.0</td><td>4408</td></tr><tr><td>10080 min Summer</td><td>0.850</td><td>0.0</td><td>5144</td></tr><tr><td>15 min Winter</td><td>72.897</td><td>0.0</td><td>17</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	12.486	0.511	0.8	5.4	O K	30 min Summer	12.591	0.616	0.9	6.5	O K	60 min Summer	12.679	0.704	1.1	7.4	O K	120 min Summer	12.757	0.782	1.2	8.3	O K	180 min Summer	12.789	0.814	1.2	8.6	O K	240 min Summer	12.800	0.825	1.3	8.7	O K	360 min Summer	12.794	0.819	1.3	8.7	O K	480 min Summer	12.772	0.797	1.2	8.4	O K	600 min Summer	12.747	0.772	1.2	8.2	O K	720 min Summer	12.720	0.745	1.1	7.9	O K	960 min Summer	12.638	0.663	1.0	7.0	O K	1440 min Summer	12.523	0.548	0.8	5.8	O K	2160 min Summer	12.414	0.439	0.7	4.6	O K	2880 min Summer	12.344	0.369	0.6	3.9	O K	4320 min Summer	12.277	0.302	0.5	3.2	O K	5760 min Summer	12.234	0.259	0.4	2.7	O K	7200 min Summer	12.204	0.229	0.4	2.4	O K	8640 min Summer	12.181	0.206	0.3	2.2	O K	10080 min Summer	12.163	0.188	0.3	2.0	O K	15 min Winter	12.486	0.511	0.8	5.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	72.897	0.0	18	30 min Summer	46.600	0.0	31	60 min Summer	29.790	0.0	52	120 min Summer	19.044	0.0	84	180 min Summer	14.658	0.0	118	240 min Summer	12.174	0.0	154	360 min Summer	9.371	0.0	220	480 min Summer	7.783	0.0	286	600 min Summer	6.738	0.0	350	720 min Summer	5.990	0.0	414	960 min Summer	4.738	0.0	540	1440 min Summer	3.404	0.0	782	2160 min Summer	2.445	0.0	1148	2880 min Summer	1.934	0.0	1504	4320 min Summer	1.482	0.0	2248	5760 min Summer	1.227	0.0	2944	7200 min Summer	1.060	0.0	3680	8640 min Summer	0.940	0.0	4408	10080 min Summer	0.850	0.0	5144	15 min Winter	72.897	0.0	17
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
15 min Summer	12.486	0.511	0.8	5.4	O K																																																																																																																																																																																																																		
30 min Summer	12.591	0.616	0.9	6.5	O K																																																																																																																																																																																																																		
60 min Summer	12.679	0.704	1.1	7.4	O K																																																																																																																																																																																																																		
120 min Summer	12.757	0.782	1.2	8.3	O K																																																																																																																																																																																																																		
180 min Summer	12.789	0.814	1.2	8.6	O K																																																																																																																																																																																																																		
240 min Summer	12.800	0.825	1.3	8.7	O K																																																																																																																																																																																																																		
360 min Summer	12.794	0.819	1.3	8.7	O K																																																																																																																																																																																																																		
480 min Summer	12.772	0.797	1.2	8.4	O K																																																																																																																																																																																																																		
600 min Summer	12.747	0.772	1.2	8.2	O K																																																																																																																																																																																																																		
720 min Summer	12.720	0.745	1.1	7.9	O K																																																																																																																																																																																																																		
960 min Summer	12.638	0.663	1.0	7.0	O K																																																																																																																																																																																																																		
1440 min Summer	12.523	0.548	0.8	5.8	O K																																																																																																																																																																																																																		
2160 min Summer	12.414	0.439	0.7	4.6	O K																																																																																																																																																																																																																		
2880 min Summer	12.344	0.369	0.6	3.9	O K																																																																																																																																																																																																																		
4320 min Summer	12.277	0.302	0.5	3.2	O K																																																																																																																																																																																																																		
5760 min Summer	12.234	0.259	0.4	2.7	O K																																																																																																																																																																																																																		
7200 min Summer	12.204	0.229	0.4	2.4	O K																																																																																																																																																																																																																		
8640 min Summer	12.181	0.206	0.3	2.2	O K																																																																																																																																																																																																																		
10080 min Summer	12.163	0.188	0.3	2.0	O K																																																																																																																																																																																																																		
15 min Winter	12.486	0.511	0.8	5.4	O K																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																				
15 min Summer	72.897	0.0	18																																																																																																																																																																																																																				
30 min Summer	46.600	0.0	31																																																																																																																																																																																																																				
60 min Summer	29.790	0.0	52																																																																																																																																																																																																																				
120 min Summer	19.044	0.0	84																																																																																																																																																																																																																				
180 min Summer	14.658	0.0	118																																																																																																																																																																																																																				
240 min Summer	12.174	0.0	154																																																																																																																																																																																																																				
360 min Summer	9.371	0.0	220																																																																																																																																																																																																																				
480 min Summer	7.783	0.0	286																																																																																																																																																																																																																				
600 min Summer	6.738	0.0	350																																																																																																																																																																																																																				
720 min Summer	5.990	0.0	414																																																																																																																																																																																																																				
960 min Summer	4.738	0.0	540																																																																																																																																																																																																																				
1440 min Summer	3.404	0.0	782																																																																																																																																																																																																																				
2160 min Summer	2.445	0.0	1148																																																																																																																																																																																																																				
2880 min Summer	1.934	0.0	1504																																																																																																																																																																																																																				
4320 min Summer	1.482	0.0	2248																																																																																																																																																																																																																				
5760 min Summer	1.227	0.0	2944																																																																																																																																																																																																																				
7200 min Summer	1.060	0.0	3680																																																																																																																																																																																																																				
8640 min Summer	0.940	0.0	4408																																																																																																																																																																																																																				
10080 min Summer	0.850	0.0	5144																																																																																																																																																																																																																				
15 min Winter	72.897	0.0	17																																																																																																																																																																																																																				
©1982-2016 XP Solutions																																																																																																																																																																																																																							

Robert Clark Associates				Page 2	
Willow Cottage Herne Lane Rustington BN16 3EE		WAlberton Farm SA2			
Date 9.6.26 File SA2 calcs 10yr rain.SRCX		Designed by RTFC Checked by			
Micro Drainage		Source Control 2016.1			
Summary of Results for 10 year Return Period (+45%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	12.593	0.618	0.9	6.5	O K
60 min Winter	12.682	0.707	1.1	7.5	O K
120 min Winter	12.750	0.775	1.2	8.2	O K
180 min Winter	12.767	0.792	1.2	8.4	O K
240 min Winter	12.763	0.788	1.2	8.3	O K
360 min Winter	12.733	0.758	1.2	8.0	O K
480 min Winter	12.694	0.719	1.1	7.6	O K
600 min Winter	12.655	0.680	1.0	7.2	O K
720 min Winter	12.619	0.644	1.0	6.8	O K
960 min Winter	12.529	0.554	0.8	5.9	O K
1440 min Winter	12.410	0.435	0.7	4.6	O K
2160 min Winter	12.306	0.331	0.5	3.5	O K
2880 min Winter	12.244	0.269	0.4	2.8	O K
4320 min Winter	12.186	0.211	0.3	2.2	O K
5760 min Winter	12.152	0.177	0.3	1.9	O K
7200 min Winter	12.129	0.154	0.2	1.6	O K
8640 min Winter	12.112	0.137	0.2	1.4	O K
10080 min Winter	12.099	0.124	0.2	1.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	46.600	0.0	31		
60 min Winter	29.790	0.0	56		
120 min Winter	19.044	0.0	90		
180 min Winter	14.658	0.0	128		
240 min Winter	12.174	0.0	164		
360 min Winter	9.371	0.0	234		
480 min Winter	7.783	0.0	302		
600 min Winter	6.738	0.0	368		
720 min Winter	5.990	0.0	432		
960 min Winter	4.738	0.0	558		
1440 min Winter	3.404	0.0	808		
2160 min Winter	2.445	0.0	1172		
2880 min Winter	1.934	0.0	1532		
4320 min Winter	1.482	0.0	2252		
5760 min Winter	1.227	0.0	2992		
7200 min Winter	1.060	0.0	3680		
8640 min Winter	0.940	0.0	4408		
10080 min Winter	0.850	0.0	5144		
©1982-2016 XP Solutions					

Robert Clark Associates		Page 3
Willow Cottage Herne Lane Rustington BN16 3EE	WAlberton Farm SA2	
Date 9.6.26 File SA2 calcs 10yr rain.SRCX	Designed by RTFC Checked by	
Micro Drainage Source Control 2016.1		

Rainfall Details

Rainfall Model	FEH
Return Period (years)	10
Site Location	493650 105600 SU 93650 05600
C (1km)	-0.026
D1 (1km)	0.413
D2 (1km)	0.243
D3 (1km)	0.402
E (1km)	0.310
F (1km)	2.325
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	1.000
Cv (Winter)	1.000
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.032

Time (mins)	Area
From: To:	(ha)
0	4 0.032

©1982-2016 XP Solutions

Robert Clark Associates		Page 4																				
Willow Cottage Herne Lane Rustington BN16 3EE	WAlberton Farm SA2																					
Date 9.6.26 File SA2 calcs 10yr rain.SRCX	Designed by RTFC Checked by																					
Micro Drainage																						
<u>Model Details</u> Storage is Online Cover Level (m) 13.600 <u>Lined Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Ring Diameter (m)</td> <td>1.80</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.30262</td> <td>Pit Multiplier</td> <td>1.9</td> </tr> <tr> <td>Safety Factor</td> <td>1.5</td> <td>Number Required</td> <td>2</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>11.975</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	1.80	Infiltration Coefficient Side (m/hr)	0.30262	Pit Multiplier	1.9	Safety Factor	1.5	Number Required	2	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	11.975	Cap Infiltration Depth (m)	0.000
Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	1.80																			
Infiltration Coefficient Side (m/hr)	0.30262	Pit Multiplier	1.9																			
Safety Factor	1.5	Number Required	2																			
Porosity	0.30	Cap Volume Depth (m)	0.000																			
Invert Level (m)	11.975	Cap Infiltration Depth (m)	0.000																			
©1982-2016 XP Solutions																						