

Robert Clark Associates				Page 1	
Willow Cottage Herne Lane Rustington BN16 3EE		99 Victoria Drive Bognor Regis Concrete ring soakaways			
Date 15 July 2020 File Concrete Rings.SRCX		Designed by RC Checked by			
Micro Drainage		Source Control 2016.1			
Summary of Results for 10 year Return Period (+40%)					
Half Drain Time : 2319 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	6.383	0.141	0.0	0.7	O K
30 min Summer	6.428	0.186	0.0	0.9	O K
60 min Summer	6.477	0.235	0.0	1.2	O K
120 min Summer	6.531	0.289	0.0	1.5	O K
180 min Summer	6.564	0.322	0.0	1.6	O K
240 min Summer	6.588	0.346	0.0	1.7	O K
360 min Summer	6.622	0.380	0.0	1.9	O K
480 min Summer	6.645	0.403	0.0	2.0	O K
600 min Summer	6.663	0.421	0.0	2.1	O K
720 min Summer	6.676	0.434	0.0	2.2	O K
960 min Summer	6.695	0.453	0.0	2.3	O K
1440 min Summer	6.714	0.472	0.0	2.4	O K
2160 min Summer	6.728	0.486	0.0	2.4	O K
2880 min Summer	6.737	0.495	0.0	2.5	O K
4320 min Summer	6.743	0.501	0.0	2.5	O K
5760 min Summer	6.741	0.499	0.0	2.5	O K
7200 min Summer	6.734	0.492	0.0	2.5	O K
8640 min Summer	6.726	0.484	0.0	2.4	O K
10080 min Summer	6.717	0.475	0.0	2.4	O K
15 min Winter	6.400	0.158	0.0	0.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	76.214	0.0	19		
30 min Summer	50.290	0.0	34		
60 min Summer	31.908	0.0	64		
120 min Summer	19.755	0.0	124		
180 min Summer	14.804	0.0	184		
240 min Summer	12.028	0.0	244		
360 min Summer	8.957	0.0	362		
480 min Summer	7.262	0.0	482		
600 min Summer	6.168	0.0	602		
720 min Summer	5.396	0.0	722		
960 min Summer	4.369	0.0	960		
1440 min Summer	3.241	0.0	1396		
2160 min Summer	2.402	0.0	1708		
2880 min Summer	1.942	0.0	2076		
4320 min Summer	1.437	0.0	2896		
5760 min Summer	1.161	0.0	3696		
7200 min Summer	0.983	0.0	4536		
8640 min Summer	0.859	0.0	5360		
10080 min Summer	0.766	0.0	6152		
15 min Winter	76.214	0.0	19		
©1982-2016 XP Solutions					

Robert Clark Associates					Page 2	
Willow Cottage Herne Lane Rustington BN16 3EE		99 Victoria Drive Bognor Regis Concrete ring soakaways				
Date 15 July 2020 File Concrete Rings.SRCX		Designed by RC Checked by				
Micro Drainage		Source Control 2016.1				
Summary of Results for 10 year Return Period (+40%)						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
30 min Winter	6.451	0.209	0.0	1.1	O K	
60 min Winter	6.505	0.263	0.0	1.3	O K	
120 min Winter	6.566	0.324	0.0	1.6	O K	
180 min Winter	6.603	0.361	0.0	1.8	O K	
240 min Winter	6.629	0.387	0.0	2.0	O K	
360 min Winter	6.667	0.425	0.0	2.1	O K	
480 min Winter	6.694	0.452	0.0	2.3	O K	
600 min Winter	6.714	0.472	0.0	2.4	O K	
720 min Winter	6.730	0.488	0.0	2.5	O K	
960 min Winter	6.752	0.510	0.0	2.6	O K	
1440 min Winter	6.775	0.533	0.0	2.7	O K	
2160 min Winter	6.787	0.545	0.0	2.7	O K	
2880 min Winter	6.794	0.552	0.0	2.8	O K	
4320 min Winter	6.794	0.552	0.0	2.8	O K	
5760 min Winter	6.783	0.541	0.0	2.7	O K	
7200 min Winter	6.769	0.527	0.0	2.7	O K	
8640 min Winter	6.753	0.511	0.0	2.6	O K	
10080 min Winter	6.737	0.495	0.0	2.5	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	50.290	0.0	34			
60 min Winter	31.908	0.0	64			
120 min Winter	19.755	0.0	122			
180 min Winter	14.804	0.0	182			
240 min Winter	12.028	0.0	240			
360 min Winter	8.957	0.0	358			
480 min Winter	7.262	0.0	474			
600 min Winter	6.168	0.0	590			
720 min Winter	5.396	0.0	706			
960 min Winter	4.369	0.0	932			
1440 min Winter	3.241	0.0	1370			
2160 min Winter	2.402	0.0	1732			
2880 min Winter	1.942	0.0	2188			
4320 min Winter	1.437	0.0	3112			
5760 min Winter	1.161	0.0	3984			
7200 min Winter	0.983	0.0	4832			
8640 min Winter	0.859	0.0	5704			
10080 min Winter	0.766	0.0	6552			
©1982-2016 XP Solutions						

Robert Clark Associates		Page 3
Willow Cottage Herne Lane Rustington BN16 3EE	99 Victoria Drive Bognor Regis Concrete ring soakaways	
Date 15 July 2020 File Concrete Rings.SRCX	Designed by RC Checked by	
Micro Drainage Source Control 2016.1		

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	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) 0.005

Time (mins)	Area
From: To:	(ha)
0 4	0.005

©1982-2016 XP Solutions

Robert Clark Associates		Page 4
Willow Cottage Herne Lane Rustington BN16 3EE	99 Victoria Drive Bognor Regis Concrete ring soakaways	
Date 15 July 2020 File Concrete Rings.SRCX	Designed by RC Checked by	
Micro Drainage Source Control 2016.1		

Model Details

Storage is Online Cover Level (m) 7.100

Lined Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	1.20
Infiltration Coefficient Side (m/hr)	0.01824	Pit Multiplier	2.0
Safety Factor	4.0	Number Required	2
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	6.242	Cap Infiltration Depth (m)	6.700

©1982-2016 XP Solutions