

Appendix E

Land at Bayards, Eastergate
Flood Risk Assessment & Drainage Strategy

Paul Basham Associates Ltd
Report No 020.5672/FRA&DS/1

Paul Basham Associates				Page 1																																																																																																																																																																																																																			
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottages Catchment A																																																																																																																																																																																																																					
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Summer</td><td>18.612</td><td>1.362</td><td>0.6</td><td>25.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.627</td><td>1.377</td><td>0.6</td><td>26.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.635</td><td>1.385</td><td>0.6</td><td>26.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.634</td><td>1.384</td><td>0.6</td><td>26.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.602</td><td>1.352</td><td>0.6</td><td>25.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.528</td><td>1.278</td><td>0.6</td><td>24.3</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.452</td><td>1.202</td><td>0.5</td><td>22.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.316</td><td>1.066</td><td>0.5</td><td>20.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.210</td><td>0.960</td><td>0.4</td><td>18.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.126</td><td>0.876</td><td>0.4</td><td>16.6</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>18.057</td><td>0.807</td><td>0.4</td><td>15.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>18.000</td><td>0.750</td><td>0.3</td><td>14.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.882</td><td>0.632</td><td>0.3</td><td>12.0</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>240</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>310</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>370</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>432</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>498</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>636</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>910</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1316</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1704</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2468</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3232</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>3968</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>4680</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5448</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.815	0.565	0.3	10.7	O K	30 min Summer	18.011	0.761	0.3	14.5	O K	60 min Summer	18.219	0.969	0.4	18.4	O K	120 min Summer	18.415	1.165	0.5	22.1	O K	180 min Summer	18.503	1.253	0.6	23.8	O K	240 min Summer	18.545	1.295	0.6	24.6	O K	360 min Summer	18.587	1.337	0.6	25.4	O K	480 min Summer	18.612	1.362	0.6	25.9	O K	600 min Summer	18.627	1.377	0.6	26.2	O K	720 min Summer	18.635	1.385	0.6	26.3	O K	960 min Summer	18.634	1.384	0.6	26.3	O K	1440 min Summer	18.602	1.352	0.6	25.7	O K	2160 min Summer	18.528	1.278	0.6	24.3	O K	2880 min Summer	18.452	1.202	0.5	22.8	O K	4320 min Summer	18.316	1.066	0.5	20.3	O K	5760 min Summer	18.210	0.960	0.4	18.2	O K	7200 min Summer	18.126	0.876	0.4	16.6	O K	8640 min Summer	18.057	0.807	0.4	15.3	O K	10080 min Summer	18.000	0.750	0.3	14.3	O K	15 min Winter	17.882	0.632	0.3	12.0	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	33	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	122	180 min Summer	26.132	0.0	182	240 min 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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottages Catchment A			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	18.103	0.853	0.4	16.2	O K
60 min Winter	18.337	1.087	0.5	20.7	O K
120 min Winter	18.558	1.308	0.6	24.9	O K
180 min Winter	18.659	1.409	0.6	26.8	O K
240 min Winter	18.710	1.460	0.7	27.7	O K
360 min Winter	18.757	1.507	0.7	28.6	O K
480 min Winter	18.776	1.526	0.7	29.0	O K
600 min Winter	18.787	1.537	0.7	29.2	O K
720 min Winter	18.787	1.537	0.7	29.2	O K
960 min Winter	18.768	1.518	0.7	28.8	O K
1440 min Winter	18.698	1.448	0.7	27.5	O K
2160 min Winter	18.577	1.327	0.6	25.2	O K
2880 min Winter	18.465	1.215	0.5	23.1	O K
4320 min Winter	18.284	1.034	0.5	19.6	O K
5760 min Winter	18.150	0.900	0.4	17.1	O K
7200 min Winter	18.049	0.799	0.4	15.2	O K
8640 min Winter	17.969	0.719	0.3	13.7	O K
10080 min Winter	17.905	0.655	0.3	12.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	33		
60 min Winter	55.837	0.0	62		
120 min Winter	34.965	0.0	120		
180 min Winter	26.132	0.0	176		
240 min Winter	21.115	0.0	232		
360 min Winter	15.649	0.0	336		
480 min Winter	12.630	0.0	380		
600 min Winter	10.684	0.0	456		
720 min Winter	9.314	0.0	532		
960 min Winter	7.492	0.0	684		
1440 min Winter	5.500	0.0	980		
2160 min Winter	4.028	0.0	1404		
2880 min Winter	3.224	0.0	1812		
4320 min Winter	2.351	0.0	2592		
5760 min Winter	1.880	0.0	3344		
7200 min Winter	1.582	0.0	4104		
8640 min Winter	1.374	0.0	4840		
10080 min Winter	1.220	0.0	5552		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottages Catchment A	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.046

Time (mins)		Area
From:	To:	(ha)
0	4	0.046

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottages Catchment A	
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Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 19.150

Cellular Storage Structure

Invert Level (m) 17.250 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	20.0	20.0	1.601	0.0	48.8
1.600	20.0	48.8			

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Summer</td><td>18.541</td><td>0.641</td><td>0.2</td><td>3.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.533</td><td>0.633</td><td>0.2</td><td>3.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.521</td><td>0.621</td><td>0.2</td><td>3.5</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.494</td><td>0.594</td><td>0.2</td><td>3.4</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.441</td><td>0.541</td><td>0.2</td><td>3.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.374</td><td>0.474</td><td>0.2</td><td>2.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.323</td><td>0.423</td><td>0.1</td><td>2.4</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.250</td><td>0.350</td><td>0.1</td><td>2.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.201</td><td>0.301</td><td>0.1</td><td>1.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.165</td><td>0.265</td><td>0.1</td><td>1.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>18.138</td><td>0.238</td><td>0.1</td><td>1.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>18.117</td><td>0.217</td><td>0.1</td><td>1.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>18.260</td><td>0.360</td><td>0.1</td><td>2.1</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>126.089</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>118</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>144</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>176</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>244</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>312</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>380</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>448</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>580</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>838</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1216</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1588</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2332</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3056</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>3816</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>4496</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5240</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>18</td></tr></tbody></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	18.221	0.321	0.1	1.8	O K	30 min Summer	18.327	0.427	0.1	2.4	O K	60 min Summer	18.429	0.529	0.2	3.0	O K	120 min Summer	18.501	0.601	0.2	3.4	O K	180 min Summer	18.524	0.624	0.2	3.6	O K	240 min Summer	18.535	0.635	0.2	3.6	O K	360 min Summer	18.544	0.644	0.2	3.7	O K	480 min Summer	18.541	0.641	0.2	3.7	O K	600 min Summer	18.533	0.633	0.2	3.6	O K	720 min Summer	18.521	0.621	0.2	3.5	O K	960 min Summer	18.494	0.594	0.2	3.4	O K	1440 min Summer	18.441	0.541	0.2	3.1	O K	2160 min Summer	18.374	0.474	0.2	2.7	O K	2880 min Summer	18.323	0.423	0.1	2.4	O K	4320 min Summer	18.250	0.350	0.1	2.0	O K	5760 min Summer	18.201	0.301	0.1	1.7	O K	7200 min Summer	18.165	0.265	0.1	1.5	O K	8640 min Summer	18.138	0.238	0.1	1.4	O K	10080 min Summer	18.117	0.217	0.1	1.2	O K	15 min Winter	18.260	0.360	0.1	2.1	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	18	30 min Summer	85.887	0.0	33	60 min Summer	55.837	0.0	62	120 min Summer	34.965	0.0	118	180 min Summer	26.132	0.0	144	240 min Summer	21.115	0.0	176	360 min Summer	15.649	0.0	244	480 min Summer	12.630	0.0	312	600 min Summer	10.684	0.0	380	720 min Summer	9.314	0.0	448	960 min Summer	7.492	0.0	580	1440 min Summer	5.500	0.0	838	2160 min Summer	4.028	0.0	1216	2880 min Summer	3.224	0.0	1588	4320 min Summer	2.351	0.0	2332	5760 min Summer	1.880	0.0	3056	7200 min Summer	1.582	0.0	3816	8640 min Summer	1.374	0.0	4496	10080 min Summer	1.220	0.0	5240	15 min Winter	126.089	0.0	18
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment B			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	18.379	0.479	0.2	2.7	O K
60 min Winter	18.494	0.594	0.2	3.4	O K
120 min Winter	18.579	0.679	0.2	3.9	O K
180 min Winter	18.600	0.700	0.2	4.0	O K
240 min Winter	18.610	0.710	0.2	4.0	O K
360 min Winter	18.610	0.710	0.2	4.0	O K
480 min Winter	18.596	0.696	0.2	4.0	O K
600 min Winter	18.577	0.677	0.2	3.9	O K
720 min Winter	18.556	0.656	0.2	3.7	O K
960 min Winter	18.513	0.613	0.2	3.5	O K
1440 min Winter	18.437	0.537	0.2	3.1	O K
2160 min Winter	18.350	0.450	0.1	2.6	O K
2880 min Winter	18.287	0.387	0.1	2.2	O K
4320 min Winter	18.204	0.304	0.1	1.7	O K
5760 min Winter	18.152	0.252	0.1	1.4	O K
7200 min Winter	18.117	0.217	0.1	1.2	O K
8640 min Winter	18.091	0.191	0.1	1.1	O K
10080 min Winter	18.071	0.171	0.1	1.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	32		
60 min Winter	55.837	0.0	60		
120 min Winter	34.965	0.0	116		
180 min Winter	26.132	0.0	148		
240 min Winter	21.115	0.0	184		
360 min Winter	15.649	0.0	260		
480 min Winter	12.630	0.0	336		
600 min Winter	10.684	0.0	408		
720 min Winter	9.314	0.0	478		
960 min Winter	7.492	0.0	616		
1440 min Winter	5.500	0.0	882		
2160 min Winter	4.028	0.0	1276		
2880 min Winter	3.224	0.0	1644		
4320 min Winter	2.351	0.0	2380		
5760 min Winter	1.880	0.0	3112		
7200 min Winter	1.582	0.0	3824		
8640 min Winter	1.374	0.0	4584		
10080 min Winter	1.220	0.0	5256		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment B	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.008

Time (mins)		Area
From:	To:	(ha)
0	4	0.008

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment B	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 19.000

Cellular Storage Structure

Invert Level (m) 17.900 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	6.0	6.0	0.801	0.0	13.8
0.800	6.0	13.8			

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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 287 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>17.987</td><td>0.487</td><td>0.1</td><td>3.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>18.152</td><td>0.652</td><td>0.2</td><td>5.0</td><td>O K</td></tr><tr><td>60 min Summer</td><td>18.319</td><td>0.819</td><td>0.2</td><td>6.2</td><td>O K</td></tr><tr><td>120 min Summer</td><td>18.458</td><td>0.958</td><td>0.3</td><td>7.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>18.504</td><td>1.004</td><td>0.3</td><td>7.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>18.525</td><td>1.025</td><td>0.3</td><td>7.8</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.552</td><td>1.052</td><td>0.3</td><td>8.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.562</td><td>1.062</td><td>0.3</td><td>8.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.561</td><td>1.061</td><td>0.3</td><td>8.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.554</td><td>1.054</td><td>0.3</td><td>8.0</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.530</td><td>1.030</td><td>0.3</td><td>7.8</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.468</td><td>0.968</td><td>0.3</td><td>7.4</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.376</td><td>0.876</td><td>0.3</td><td>6.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.298</td><td>0.798</td><td>0.2</td><td>6.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.179</td><td>0.679</td><td>0.2</td><td>5.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.095</td><td>0.595</td><td>0.2</td><td>4.5</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.031</td><td>0.531</td><td>0.2</td><td>4.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.982</td><td>0.482</td><td>0.1</td><td>3.7</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.942</td><td>0.442</td><td>0.1</td><td>3.4</td><td>O K</td></tr><tr><td>15 min Winter</td><td>18.045</td><td>0.545</td><td>0.2</td><td>4.1</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>120</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>172</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>198</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>260</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>328</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>396</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>464</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>600</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>866</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1256</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1640</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2380</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3112</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>3824</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>4584</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5336</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>18</td></tr></tbody></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.987	0.487	0.1	3.7	O K	30 min Summer	18.152	0.652	0.2	5.0	O K	60 min Summer	18.319	0.819	0.2	6.2	O K	120 min Summer	18.458	0.958	0.3	7.3	O K	180 min Summer	18.504	1.004	0.3	7.6	O K	240 min Summer	18.525	1.025	0.3	7.8	O K	360 min Summer	18.552	1.052	0.3	8.0	O K	480 min Summer	18.562	1.062	0.3	8.1	O K	600 min Summer	18.561	1.061	0.3	8.1	O K	720 min Summer	18.554	1.054	0.3	8.0	O K	960 min Summer	18.530	1.030	0.3	7.8	O K	1440 min Summer	18.468	0.968	0.3	7.4	O K	2160 min Summer	18.376	0.876	0.3	6.7	O K	2880 min Summer	18.298	0.798	0.2	6.1	O K	4320 min Summer	18.179	0.679	0.2	5.2	O K	5760 min Summer	18.095	0.595	0.2	4.5	O K	7200 min Summer	18.031	0.531	0.2	4.0	O K	8640 min Summer	17.982	0.482	0.1	3.7	O K	10080 min Summer	17.942	0.442	0.1	3.4	O K	15 min Winter	18.045	0.545	0.2	4.1	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	33	60 min Summer	55.837	0.0	62	120 min Summer	34.965	0.0	120	180 min Summer	26.132	0.0	172	240 min Summer	21.115	0.0	198	360 min Summer	15.649	0.0	260	480 min Summer	12.630	0.0	328	600 min Summer	10.684	0.0	396	720 min Summer	9.314	0.0	464	960 min Summer	7.492	0.0	600	1440 min Summer	5.500	0.0	866	2160 min Summer	4.028	0.0	1256	2880 min Summer	3.224	0.0	1640	4320 min Summer	2.351	0.0	2380	5760 min Summer	1.880	0.0	3112	7200 min Summer	1.582	0.0	3824	8640 min Summer	1.374	0.0	4584	10080 min Summer	1.220	0.0	5336	15 min Winter	126.089	0.0	18
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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600 min Summer	18.561	1.061	0.3	8.1	O K																																																																																																																																																																																																																		
720 min Summer	18.554	1.054	0.3	8.0	O K																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment C			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	18.231	0.731	0.2	5.6	O K
60 min Winter	18.419	0.919	0.3	7.0	O K
120 min Winter	18.579	1.079	0.3	8.2	O K
180 min Winter	18.635	1.135	0.3	8.6	O K
240 min Winter	18.651	1.151	0.3	8.8	O K
360 min Winter	18.675	1.175	0.4	8.9	O K
480 min Winter	18.674	1.174	0.4	8.9	O K
600 min Winter	18.662	1.162	0.3	8.8	O K
720 min Winter	18.642	1.142	0.3	8.7	O K
960 min Winter	18.595	1.095	0.3	8.3	O K
1440 min Winter	18.496	0.996	0.3	7.6	O K
2160 min Winter	18.367	0.867	0.3	6.6	O K
2880 min Winter	18.265	0.765	0.2	5.8	O K
4320 min Winter	18.120	0.620	0.2	4.7	O K
5760 min Winter	18.023	0.523	0.2	4.0	O K
7200 min Winter	17.954	0.454	0.1	3.5	O K
8640 min Winter	17.903	0.403	0.1	3.1	O K
10080 min Winter	17.863	0.363	0.1	2.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	33		
60 min Winter	55.837	0.0	62		
120 min Winter	34.965	0.0	118		
180 min Winter	26.132	0.0	172		
240 min Winter	21.115	0.0	218		
360 min Winter	15.649	0.0	274		
480 min Winter	12.630	0.0	350		
600 min Winter	10.684	0.0	426		
720 min Winter	9.314	0.0	500		
960 min Winter	7.492	0.0	644		
1440 min Winter	5.500	0.0	922		
2160 min Winter	4.028	0.0	1320		
2880 min Winter	3.224	0.0	1704		
4320 min Winter	2.351	0.0	2464		
5760 min Winter	1.880	0.0	3224		
7200 min Winter	1.582	0.0	3960		
8640 min Winter	1.374	0.0	4672		
10080 min Winter	1.220	0.0	5352		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment C	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 19.000

Cellular Storage Structure

Invert Level (m) 17.500 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	8.0	8.0	1.201	0.0	22.4
1.200	8.0	22.4			

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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 508 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>17.966</td><td>0.266</td><td>0.2</td><td>9.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>18.059</td><td>0.359</td><td>0.3</td><td>12.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>18.158</td><td>0.458</td><td>0.3</td><td>15.7</td><td>O K</td></tr><tr><td>120 min Summer</td><td>18.252</td><td>0.552</td><td>0.4</td><td>18.9</td><td>O K</td></tr><tr><td>180 min Summer</td><td>18.296</td><td>0.596</td><td>0.4</td><td>20.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>18.318</td><td>0.618</td><td>0.5</td><td>21.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.339</td><td>0.639</td><td>0.5</td><td>21.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.351</td><td>0.651</td><td>0.5</td><td>22.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.359</td><td>0.659</td><td>0.5</td><td>22.5</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.363</td><td>0.663</td><td>0.5</td><td>22.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.365</td><td>0.665</td><td>0.5</td><td>22.7</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.353</td><td>0.653</td><td>0.5</td><td>22.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.321</td><td>0.621</td><td>0.5</td><td>21.2</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.287</td><td>0.587</td><td>0.4</td><td>20.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.224</td><td>0.524</td><td>0.4</td><td>17.9</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.174</td><td>0.474</td><td>0.4</td><td>16.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.134</td><td>0.434</td><td>0.3</td><td>14.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>18.101</td><td>0.401</td><td>0.3</td><td>13.7</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>18.073</td><td>0.373</td><td>0.3</td><td>12.8</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.998</td><td>0.298</td><td>0.2</td><td>10.2</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>240</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>322</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>380</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>440</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>506</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>644</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>920</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1320</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1728</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2504</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3232</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>3968</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>4752</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5448</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.966	0.266	0.2	9.1	O K	30 min Summer	18.059	0.359	0.3	12.3	O K	60 min Summer	18.158	0.458	0.3	15.7	O K	120 min Summer	18.252	0.552	0.4	18.9	O K	180 min Summer	18.296	0.596	0.4	20.4	O K	240 min Summer	18.318	0.618	0.5	21.1	O K	360 min Summer	18.339	0.639	0.5	21.8	O K	480 min Summer	18.351	0.651	0.5	22.3	O K	600 min Summer	18.359	0.659	0.5	22.5	O K	720 min Summer	18.363	0.663	0.5	22.7	O K	960 min Summer	18.365	0.665	0.5	22.7	O K	1440 min Summer	18.353	0.653	0.5	22.3	O K	2160 min Summer	18.321	0.621	0.5	21.2	O K	2880 min Summer	18.287	0.587	0.4	20.1	O K	4320 min Summer	18.224	0.524	0.4	17.9	O K	5760 min Summer	18.174	0.474	0.4	16.2	O K	7200 min Summer	18.134	0.434	0.3	14.8	O K	8640 min Summer	18.101	0.401	0.3	13.7	O K	10080 min Summer	18.073	0.373	0.3	12.8	O K	15 min Winter	17.998	0.298	0.2	10.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	122	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	240	360 min Summer	15.649	0.0	322	480 min Summer	12.630	0.0	380	600 min Summer	10.684	0.0	440	720 min Summer	9.314	0.0	506	960 min Summer	7.492	0.0	644	1440 min Summer	5.500	0.0	920	2160 min Summer	4.028	0.0	1320	2880 min Summer	3.224	0.0	1728	4320 min Summer	2.351	0.0	2504	5760 min Summer	1.880	0.0	3232	7200 min Summer	1.582	0.0	3968	8640 min Summer	1.374	0.0	4752	10080 min Summer	1.220	0.0	5448	15 min Winter	126.089	0.0	19
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60 min Summer	18.158	0.458	0.3	15.7	O K																																																																																																																																																																																																																		
120 min Summer	18.252	0.552	0.4	18.9	O K																																																																																																																																																																																																																		
180 min Summer	18.296	0.596	0.4	20.4	O K																																																																																																																																																																																																																		
240 min Summer	18.318	0.618	0.5	21.1	O K																																																																																																																																																																																																																		
360 min Summer	18.339	0.639	0.5	21.8	O K																																																																																																																																																																																																																		
480 min Summer	18.351	0.651	0.5	22.3	O K																																																																																																																																																																																																																		
600 min Summer	18.359	0.659	0.5	22.5	O K																																																																																																																																																																																																																		
720 min Summer	18.363	0.663	0.5	22.7	O K																																																																																																																																																																																																																		
960 min Summer	18.365	0.665	0.5	22.7	O K																																																																																																																																																																																																																		
1440 min Summer	18.353	0.653	0.5	22.3	O K																																																																																																																																																																																																																		
2160 min Summer	18.321	0.621	0.5	21.2	O K																																																																																																																																																																																																																		
2880 min Summer	18.287	0.587	0.4	20.1	O K																																																																																																																																																																																																																		
4320 min Summer	18.224	0.524	0.4	17.9	O K																																																																																																																																																																																																																		
5760 min Summer	18.174	0.474	0.4	16.2	O K																																																																																																																																																																																																																		
7200 min Summer	18.134	0.434	0.3	14.8	O K																																																																																																																																																																																																																		
8640 min Summer	18.101	0.401	0.3	13.7	O K																																																																																																																																																																																																																		
10080 min Summer	18.073	0.373	0.3	12.8	O K																																																																																																																																																																																																																		
15 min Winter	17.998	0.298	0.2	10.2	O K																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																				
15 min Summer	126.089	0.0	19																																																																																																																																																																																																																				
30 min Summer	85.887	0.0	34																																																																																																																																																																																																																				
60 min Summer	55.837	0.0	64																																																																																																																																																																																																																				
120 min Summer	34.965	0.0	122																																																																																																																																																																																																																				
180 min Summer	26.132	0.0	182																																																																																																																																																																																																																				
240 min Summer	21.115	0.0	240																																																																																																																																																																																																																				
360 min Summer	15.649	0.0	322																																																																																																																																																																																																																				
480 min Summer	12.630	0.0	380																																																																																																																																																																																																																				
600 min Summer	10.684	0.0	440																																																																																																																																																																																																																				
720 min Summer	9.314	0.0	506																																																																																																																																																																																																																				
960 min Summer	7.492	0.0	644																																																																																																																																																																																																																				
1440 min Summer	5.500	0.0	920																																																																																																																																																																																																																				
2160 min Summer	4.028	0.0	1320																																																																																																																																																																																																																				
2880 min Summer	3.224	0.0	1728																																																																																																																																																																																																																				
4320 min Summer	2.351	0.0	2504																																																																																																																																																																																																																				
5760 min Summer	1.880	0.0	3232																																																																																																																																																																																																																				
7200 min Summer	1.582	0.0	3968																																																																																																																																																																																																																				
8640 min Summer	1.374	0.0	4752																																																																																																																																																																																																																				
10080 min Summer	1.220	0.0	5448																																																																																																																																																																																																																				
15 min Winter	126.089	0.0	19																																																																																																																																																																																																																				
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment D			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	18.103	0.403	0.3	13.8	O K
60 min Winter	18.214	0.514	0.4	17.6	O K
120 min Winter	18.320	0.620	0.5	21.2	O K
180 min Winter	18.370	0.670	0.5	22.9	O K
240 min Winter	18.396	0.696	0.5	23.8	O K
360 min Winter	18.421	0.721	0.5	24.7	O K
480 min Winter	18.430	0.730	0.5	25.0	O K
600 min Winter	18.437	0.737	0.6	25.2	O K
720 min Winter	18.438	0.738	0.6	25.3	O K
960 min Winter	18.432	0.732	0.5	25.0	O K
1440 min Winter	18.403	0.703	0.5	24.0	O K
2160 min Winter	18.349	0.649	0.5	22.2	O K
2880 min Winter	18.298	0.598	0.4	20.4	O K
4320 min Winter	18.212	0.512	0.4	17.5	O K
5760 min Winter	18.148	0.448	0.3	15.3	O K
7200 min Winter	18.099	0.399	0.3	13.7	O K
8640 min Winter	18.061	0.361	0.3	12.3	O K
10080 min Winter	18.029	0.329	0.2	11.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	33		
60 min Winter	55.837	0.0	62		
120 min Winter	34.965	0.0	120		
180 min Winter	26.132	0.0	178		
240 min Winter	21.115	0.0	234		
360 min Winter	15.649	0.0	340		
480 min Winter	12.630	0.0	386		
600 min Winter	10.684	0.0	460		
720 min Winter	9.314	0.0	538		
960 min Winter	7.492	0.0	692		
1440 min Winter	5.500	0.0	982		
2160 min Winter	4.028	0.0	1408		
2880 min Winter	3.224	0.0	1816		
4320 min Winter	2.351	0.0	2596		
5760 min Winter	1.880	0.0	3400		
7200 min Winter	1.582	0.0	4112		
8640 min Winter	1.374	0.0	4848		
10080 min Winter	1.220	0.0	5648		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment D	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.800

Cellular Storage Structure

Invert Level (m) 17.700 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	36.0	36.0	0.801	0.0	60.0
0.800	36.0	60.0			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment E																																																																																																																																																																																																																					
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW																																																																																																																																																																																																																					
Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1308 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>17.530</td><td>0.330</td><td>0.1</td><td>8.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.648</td><td>0.448</td><td>0.1</td><td>11.5</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.778</td><td>0.578</td><td>0.1</td><td>14.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.913</td><td>0.713</td><td>0.2</td><td>18.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.988</td><td>0.788</td><td>0.2</td><td>20.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>18.036</td><td>0.836</td><td>0.2</td><td>21.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.102</td><td>0.902</td><td>0.2</td><td>23.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.142</td><td>0.942</td><td>0.2</td><td>24.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.166</td><td>0.966</td><td>0.2</td><td>24.8</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.181</td><td>0.981</td><td>0.2</td><td>25.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.198</td><td>0.998</td><td>0.2</td><td>25.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.217</td><td>1.017</td><td>0.2</td><td>26.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.224</td><td>1.024</td><td>0.2</td><td>26.3</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.216</td><td>1.016</td><td>0.2</td><td>26.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.180</td><td>0.980</td><td>0.2</td><td>25.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.139</td><td>0.939</td><td>0.2</td><td>24.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.098</td><td>0.898</td><td>0.2</td><td>23.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>18.059</td><td>0.859</td><td>0.2</td><td>22.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>18.023</td><td>0.823</td><td>0.2</td><td>21.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.570</td><td>0.370</td><td>0.1</td><td>9.5</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.530	0.330	0.1	8.5	O K	30 min Summer	17.648	0.448	0.1	11.5	O K	60 min Summer	17.778	0.578	0.1	14.8	O K	120 min Summer	17.913	0.713	0.2	18.3	O K	180 min Summer	17.988	0.788	0.2	20.2	O K	240 min Summer	18.036	0.836	0.2	21.4	O K	360 min Summer	18.102	0.902	0.2	23.1	O K	480 min Summer	18.142	0.942	0.2	24.2	O K	600 min Summer	18.166	0.966	0.2	24.8	O K	720 min Summer	18.181	0.981	0.2	25.2	O K	960 min Summer	18.198	0.998	0.2	25.6	O K	1440 min Summer	18.217	1.017	0.2	26.1	O K	2160 min Summer	18.224	1.024	0.2	26.3	O K	2880 min Summer	18.216	1.016	0.2	26.0	O K	4320 min Summer	18.180	0.980	0.2	25.1	O K	5760 min Summer	18.139	0.939	0.2	24.1	O K	7200 min Summer	18.098	0.898	0.2	23.0	O K	8640 min Summer	18.059	0.859	0.2	22.0	O K	10080 min Summer	18.023	0.823	0.2	21.1	O K	15 min Winter	17.570	0.370	0.1	9.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	482	600 min Summer	10.684	0.0	600	720 min Summer	9.314	0.0	720	960 min Summer	7.492	0.0	836	1440 min Summer	5.500	0.0	1080	2160 min Summer	4.028	0.0	1472	2880 min Summer	3.224	0.0	1876	4320 min Summer	2.351	0.0	2720	5760 min Summer	1.880	0.0	3520	7200 min Summer	1.582	0.0	4320	8640 min Summer	1.374	0.0	5096	10080 min Summer	1.220	0.0	5848	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment E			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.702	0.502	0.1	12.9	O K
60 min Winter	17.848	0.648	0.1	16.6	O K
120 min Winter	17.999	0.799	0.2	20.5	O K
180 min Winter	18.083	0.883	0.2	22.7	O K
240 min Winter	18.137	0.937	0.2	24.0	O K
360 min Winter	18.212	1.012	0.2	26.0	O K
480 min Winter	18.258	1.058	0.2	27.1	O K
600 min Winter	18.288	1.088	0.2	27.9	O K
720 min Winter	18.307	1.107	0.2	28.4	O K
960 min Winter	18.325	1.125	0.2	28.9	O K
1440 min Winter	18.338	1.138	0.2	29.2	O K
2160 min Winter	18.333	1.133	0.2	29.1	O K
2880 min Winter	18.310	1.110	0.2	28.5	O K
4320 min Winter	18.245	1.045	0.2	26.8	O K
5760 min Winter	18.179	0.979	0.2	25.1	O K
7200 min Winter	18.118	0.918	0.2	23.5	O K
8640 min Winter	18.063	0.863	0.2	22.1	O K
10080 min Winter	18.014	0.814	0.2	20.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	34		
60 min Winter	55.837	0.0	64		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	470		
600 min Winter	10.684	0.0	582		
720 min Winter	9.314	0.0	692		
960 min Winter	7.492	0.0	902		
1440 min Winter	5.500	0.0	1114		
2160 min Winter	4.028	0.0	1580		
2880 min Winter	3.224	0.0	2020		
4320 min Winter	2.351	0.0	2896		
5760 min Winter	1.880	0.0	3744		
7200 min Winter	1.582	0.0	4544		
8640 min Winter	1.374	0.0	5360		
10080 min Winter	1.220	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment E	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.036

Time (mins)	Area
From:	To: (ha)
0	4 0.036

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Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.700

Cellular Storage Structure

Invert Level (m) 17.200 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	1.201	0.0	55.8
1.200	27.0	55.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment F																																																																																																																																																																																																																					
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Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1349 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>17.430</td><td>0.330</td><td>0.1</td><td>9.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.548</td><td>0.448</td><td>0.1</td><td>12.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.678</td><td>0.578</td><td>0.1</td><td>16.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.814</td><td>0.714</td><td>0.2</td><td>20.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.889</td><td>0.789</td><td>0.2</td><td>22.5</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.937</td><td>0.837</td><td>0.2</td><td>23.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.004</td><td>0.904</td><td>0.2</td><td>25.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.045</td><td>0.945</td><td>0.2</td><td>26.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.070</td><td>0.970</td><td>0.2</td><td>27.7</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.086</td><td>0.986</td><td>0.2</td><td>28.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.103</td><td>1.003</td><td>0.2</td><td>28.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.122</td><td>1.022</td><td>0.2</td><td>29.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.130</td><td>1.030</td><td>0.2</td><td>29.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.123</td><td>1.023</td><td>0.2</td><td>29.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.090</td><td>0.990</td><td>0.2</td><td>28.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.049</td><td>0.949</td><td>0.2</td><td>27.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.009</td><td>0.909</td><td>0.2</td><td>25.9</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.971</td><td>0.871</td><td>0.2</td><td>24.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.935</td><td>0.835</td><td>0.2</td><td>23.8</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.470</td><td>0.370</td><td>0.1</td><td>10.5</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>854</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1082</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1476</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1900</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5104</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5856</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.430	0.330	0.1	9.4	O K	30 min Summer	17.548	0.448	0.1	12.8	O K	60 min Summer	17.678	0.578	0.1	16.5	O K	120 min Summer	17.814	0.714	0.2	20.3	O K	180 min Summer	17.889	0.789	0.2	22.5	O K	240 min Summer	17.937	0.837	0.2	23.9	O K	360 min Summer	18.004	0.904	0.2	25.8	O K	480 min Summer	18.045	0.945	0.2	26.9	O K	600 min Summer	18.070	0.970	0.2	27.7	O K	720 min Summer	18.086	0.986	0.2	28.1	O K	960 min Summer	18.103	1.003	0.2	28.6	O K	1440 min Summer	18.122	1.022	0.2	29.1	O K	2160 min Summer	18.130	1.030	0.2	29.4	O K	2880 min Summer	18.123	1.023	0.2	29.2	O K	4320 min Summer	18.090	0.990	0.2	28.2	O K	5760 min Summer	18.049	0.949	0.2	27.1	O K	7200 min Summer	18.009	0.909	0.2	25.9	O K	8640 min Summer	17.971	0.871	0.2	24.8	O K	10080 min Summer	17.935	0.835	0.2	23.8	O K	15 min Winter	17.470	0.370	0.1	10.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	482	600 min Summer	10.684	0.0	600	720 min Summer	9.314	0.0	720	960 min Summer	7.492	0.0	854	1440 min Summer	5.500	0.0	1082	2160 min Summer	4.028	0.0	1476	2880 min Summer	3.224	0.0	1900	4320 min Summer	2.351	0.0	2720	5760 min Summer	1.880	0.0	3520	7200 min Summer	1.582	0.0	4320	8640 min Summer	1.374	0.0	5104	10080 min Summer	1.220	0.0	5856	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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4320 min Summer	18.090	0.990	0.2	28.2	O K																																																																																																																																																																																																																		
5760 min Summer	18.049	0.949	0.2	27.1	O K																																																																																																																																																																																																																		
7200 min Summer	18.009	0.909	0.2	25.9	O K																																																																																																																																																																																																																		
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Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.602	0.502	0.1	14.3	O K
60 min Winter	17.748	0.648	0.2	18.5	O K
120 min Winter	17.900	0.800	0.2	22.8	O K
180 min Winter	17.984	0.884	0.2	25.2	O K
240 min Winter	18.039	0.939	0.2	26.8	O K
360 min Winter	18.115	1.015	0.2	28.9	O K
480 min Winter	18.162	1.062	0.3	30.3	O K
600 min Winter	18.192	1.092	0.3	31.1	O K
720 min Winter	18.212	1.112	0.3	31.7	O K
960 min Winter	18.232	1.132	0.3	32.3	O K
1440 min Winter	18.245	1.145	0.3	32.6	O K
2160 min Winter	18.242	1.142	0.3	32.5	O K
2880 min Winter	18.219	1.119	0.3	31.9	O K
4320 min Winter	18.156	1.056	0.2	30.1	O K
5760 min Winter	18.092	0.992	0.2	28.3	O K
7200 min Winter	18.031	0.931	0.2	26.5	O K
8640 min Winter	17.977	0.877	0.2	25.0	O K
10080 min Winter	17.928	0.828	0.2	23.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	34		
60 min Winter	55.837	0.0	64		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	470		
600 min Winter	10.684	0.0	582		
720 min Winter	9.314	0.0	692		
960 min Winter	7.492	0.0	904		
1440 min Winter	5.500	0.0	1124		
2160 min Winter	4.028	0.0	1580		
2880 min Winter	3.224	0.0	2044		
4320 min Winter	2.351	0.0	2900		
5760 min Winter	1.880	0.0	3752		
7200 min Winter	1.582	0.0	4544		
8640 min Winter	1.374	0.0	5360		
10080 min Winter	1.220	0.0	6152		
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Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.600

Cellular Storage Structure

Invert Level (m) 17.100 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13068

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	30.0	30.0	1.201	0.0	61.2
1.200	30.0	61.2			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment G																																																																																																																																																																																																																					
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Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.021	0.321	0.1	8.2	O K	30 min Summer	17.136	0.436	0.1	11.2	O K	60 min Summer	17.262	0.562	0.1	14.4	O K	120 min Summer	17.393	0.693	0.2	17.8	O K	180 min Summer	17.466	0.766	0.2	19.6	O K	240 min Summer	17.513	0.813	0.2	20.8	O K	360 min Summer	17.577	0.877	0.2	22.5	O K	480 min Summer	17.616	0.916	0.2	23.5	O K	600 min Summer	17.640	0.940	0.2	24.1	O K	720 min Summer	17.654	0.954	0.2	24.5	O K	960 min Summer	17.670	0.970	0.2	24.9	O K	1440 min Summer	17.689	0.989	0.2	25.4	O K	2160 min Summer	17.696	0.996	0.2	25.5	O K	2880 min Summer	17.688	0.988	0.2	25.3	O K	4320 min Summer	17.654	0.954	0.2	24.5	O K	5760 min Summer	17.614	0.914	0.2	23.4	O K	7200 min Summer	17.574	0.874	0.2	22.4	O K	8640 min Summer	17.536	0.836	0.2	21.4	O K	10080 min Summer	17.501	0.801	0.2	20.5	O K	15 min Winter	17.060	0.360	0.1	9.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min 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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment G			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.188	0.488	0.1	12.5	O K
60 min Winter	17.330	0.630	0.1	16.2	O K
120 min Winter	17.477	0.777	0.2	19.9	O K
180 min Winter	17.559	0.859	0.2	22.0	O K
240 min Winter	17.611	0.911	0.2	23.4	O K
360 min Winter	17.684	0.984	0.2	25.2	O K
480 min Winter	17.729	1.029	0.2	26.4	O K
600 min Winter	17.758	1.058	0.2	27.1	O K
720 min Winter	17.777	1.077	0.2	27.6	O K
960 min Winter	17.795	1.095	0.2	28.1	O K
1440 min Winter	17.807	1.107	0.2	28.4	O K
2160 min Winter	17.802	1.102	0.2	28.3	O K
2880 min Winter	17.779	1.079	0.2	27.7	O K
4320 min Winter	17.716	1.016	0.2	26.1	O K
5760 min Winter	17.652	0.952	0.2	24.4	O K
7200 min Winter	17.593	0.893	0.2	22.9	O K
8640 min Winter	17.540	0.840	0.2	21.5	O K
10080 min Winter	17.492	0.792	0.2	20.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	34		
60 min Winter	55.837	0.0	64		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	470		
600 min Winter	10.684	0.0	582		
720 min Winter	9.314	0.0	692		
960 min Winter	7.492	0.0	902		
1440 min Winter	5.500	0.0	1114		
2160 min Winter	4.028	0.0	1580		
2880 min Winter	3.224	0.0	2020		
4320 min Winter	2.351	0.0	2896		
5760 min Winter	1.880	0.0	3744		
7200 min Winter	1.582	0.0	4544		
8640 min Winter	1.374	0.0	5360		
10080 min Winter	1.220	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment G	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.035

Time (mins)	Area
From:	To: (ha)
0	4 0.035

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Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.200

Cellular Storage Structure

Invert Level (m) 16.700 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13068

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	1.201	0.0	55.8
1.200	27.0	55.8			

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Summer</td><td>17.483</td><td>0.983</td><td>0.3</td><td>29.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.502</td><td>1.002</td><td>0.3</td><td>30.5</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.513</td><td>1.013</td><td>0.3</td><td>30.8</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.529</td><td>1.029</td><td>0.3</td><td>31.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.544</td><td>1.044</td><td>0.3</td><td>31.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.540</td><td>1.040</td><td>0.3</td><td>31.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.522</td><td>1.022</td><td>0.3</td><td>31.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.469</td><td>0.969</td><td>0.3</td><td>29.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.416</td><td>0.916</td><td>0.3</td><td>27.8</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.366</td><td>0.866</td><td>0.3</td><td>26.3</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.321</td><td>0.821</td><td>0.3</td><td>24.9</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.280</td><td>0.780</td><td>0.3</td><td>23.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>16.898</td><td>0.398</td><td>0.1</td><td>12.1</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>598</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>644</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>760</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1012</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1428</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1844</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2640</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3456</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4248</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5008</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5752</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.856	0.356	0.1	10.8	O K	30 min Summer	16.982	0.482	0.2	14.7	O K	60 min Summer	17.121	0.621	0.2	18.9	O K	120 min Summer	17.263	0.763	0.2	23.2	O K	180 min Summer	17.339	0.839	0.3	25.5	O K	240 min Summer	17.387	0.887	0.3	27.0	O K	360 min Summer	17.449	0.949	0.3	28.9	O K	480 min Summer	17.483	0.983	0.3	29.9	O K	600 min Summer	17.502	1.002	0.3	30.5	O K	720 min Summer	17.513	1.013	0.3	30.8	O K	960 min Summer	17.529	1.029	0.3	31.3	O K	1440 min Summer	17.544	1.044	0.3	31.7	O K	2160 min Summer	17.540	1.040	0.3	31.6	O K	2880 min Summer	17.522	1.022	0.3	31.1	O K	4320 min Summer	17.469	0.969	0.3	29.5	O K	5760 min Summer	17.416	0.916	0.3	27.8	O K	7200 min Summer	17.366	0.866	0.3	26.3	O K	8640 min Summer	17.321	0.821	0.3	24.9	O K	10080 min Summer	17.280	0.780	0.3	23.7	O K	15 min Winter	16.898	0.398	0.1	12.1	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	480	600 min Summer	10.684	0.0	598	720 min Summer	9.314	0.0	644	960 min Summer	7.492	0.0	760	1440 min Summer	5.500	0.0	1012	2160 min Summer	4.028	0.0	1428	2880 min Summer	3.224	0.0	1844	4320 min Summer	2.351	0.0	2640	5760 min Summer	1.880	0.0	3456	7200 min Summer	1.582	0.0	4248	8640 min Summer	1.374	0.0	5008	10080 min Summer	1.220	0.0	5752	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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2160 min Summer	17.540	1.040	0.3	31.6	O K																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment H			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.040	0.540	0.2	16.4	O K
60 min Winter	17.195	0.695	0.2	21.1	O K
120 min Winter	17.355	0.855	0.3	26.0	O K
180 min Winter	17.441	0.941	0.3	28.6	O K
240 min Winter	17.495	0.995	0.3	30.3	O K
360 min Winter	17.567	1.067	0.3	32.4	O K
480 min Winter	17.607	1.107	0.4	33.7	O K
600 min Winter	17.631	1.131	0.4	34.4	O K
720 min Winter	17.643	1.143	0.4	34.8	O K
960 min Winter	17.654	1.154	0.4	35.1	O K
1440 min Winter	17.663	1.163	0.4	35.3	O K
2160 min Winter	17.640	1.140	0.4	34.7	O K
2880 min Winter	17.601	1.101	0.4	33.5	O K
4320 min Winter	17.515	1.015	0.3	30.8	O K
5760 min Winter	17.435	0.935	0.3	28.4	O K
7200 min Winter	17.365	0.865	0.3	26.3	O K
8640 min Winter	17.304	0.804	0.3	24.5	O K
10080 min Winter	17.252	0.752	0.2	22.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	33		
60 min Winter	55.837	0.0	62		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	352		
480 min Winter	12.630	0.0	466		
600 min Winter	10.684	0.0	576		
720 min Winter	9.314	0.0	680		
960 min Winter	7.492	0.0	778		
1440 min Winter	5.500	0.0	1080		
2160 min Winter	4.028	0.0	1532		
2880 min Winter	3.224	0.0	1964		
4320 min Winter	2.351	0.0	2812		
5760 min Winter	1.880	0.0	3632		
7200 min Winter	1.582	0.0	4464		
8640 min Winter	1.374	0.0	5192		
10080 min Winter	1.220	0.0	5960		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment H	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.000

Cellular Storage Structure

Invert Level (m) 16.500 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	32.0	32.0	1.201	0.0	75.2
1.200	32.0	75.2			

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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1308 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>17.411</td><td>0.211</td><td>0.0</td><td>5.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.486</td><td>0.286</td><td>0.1</td><td>7.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.569</td><td>0.369</td><td>0.1</td><td>9.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.656</td><td>0.456</td><td>0.1</td><td>11.7</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.703</td><td>0.503</td><td>0.1</td><td>12.9</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.734</td><td>0.534</td><td>0.1</td><td>13.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.776</td><td>0.576</td><td>0.1</td><td>14.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.802</td><td>0.602</td><td>0.1</td><td>15.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.817</td><td>0.617</td><td>0.1</td><td>15.8</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.827</td><td>0.627</td><td>0.1</td><td>16.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.837</td><td>0.637</td><td>0.1</td><td>16.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.850</td><td>0.650</td><td>0.1</td><td>16.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.854</td><td>0.654</td><td>0.1</td><td>16.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.849</td><td>0.649</td><td>0.1</td><td>16.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.826</td><td>0.626</td><td>0.1</td><td>16.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.800</td><td>0.600</td><td>0.1</td><td>15.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.774</td><td>0.574</td><td>0.1</td><td>14.7</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.749</td><td>0.549</td><td>0.1</td><td>14.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.726</td><td>0.526</td><td>0.1</td><td>13.5</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.436</td><td>0.236</td><td>0.1</td><td>6.1</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.411	0.211	0.0	5.4	O K	30 min Summer	17.486	0.286	0.1	7.3	O K	60 min Summer	17.569	0.369	0.1	9.5	O K	120 min Summer	17.656	0.456	0.1	11.7	O K	180 min Summer	17.703	0.503	0.1	12.9	O K	240 min Summer	17.734	0.534	0.1	13.7	O K	360 min Summer	17.776	0.576	0.1	14.8	O K	480 min Summer	17.802	0.602	0.1	15.4	O K	600 min Summer	17.817	0.617	0.1	15.8	O K	720 min Summer	17.827	0.627	0.1	16.1	O K	960 min Summer	17.837	0.637	0.1	16.3	O K	1440 min Summer	17.850	0.650	0.1	16.7	O K	2160 min Summer	17.854	0.654	0.1	16.8	O K	2880 min Summer	17.849	0.649	0.1	16.6	O K	4320 min Summer	17.826	0.626	0.1	16.1	O K	5760 min Summer	17.800	0.600	0.1	15.4	O K	7200 min Summer	17.774	0.574	0.1	14.7	O K	8640 min Summer	17.749	0.549	0.1	14.1	O K	10080 min Summer	17.726	0.526	0.1	13.5	O K	15 min Winter	17.436	0.236	0.1	6.1	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	482	600 min Summer	10.684	0.0	600	720 min Summer	9.314	0.0	720	960 min Summer	7.492	0.0	836	1440 min Summer	5.500	0.0	1080	2160 min Summer	4.028	0.0	1472	2880 min Summer	3.224	0.0	1876	4320 min Summer	2.351	0.0	2720	5760 min Summer	1.880	0.0	3520	7200 min Summer	1.582	0.0	4320	8640 min Summer	1.374	0.0	5096	10080 min Summer	1.220	0.0	5848	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment J			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.521	0.321	0.1	8.2	O K
60 min Winter	17.614	0.414	0.1	10.6	O K
120 min Winter	17.711	0.511	0.1	13.1	O K
180 min Winter	17.764	0.564	0.1	14.5	O K
240 min Winter	17.799	0.599	0.1	15.4	O K
360 min Winter	17.847	0.647	0.1	16.6	O K
480 min Winter	17.876	0.676	0.1	17.3	O K
600 min Winter	17.895	0.695	0.2	17.8	O K
720 min Winter	17.907	0.707	0.2	18.1	O K
960 min Winter	17.919	0.719	0.2	18.4	O K
1440 min Winter	17.927	0.727	0.2	18.7	O K
2160 min Winter	17.924	0.724	0.2	18.6	O K
2880 min Winter	17.909	0.709	0.2	18.2	O K
4320 min Winter	17.868	0.668	0.1	17.1	O K
5760 min Winter	17.825	0.625	0.1	16.0	O K
7200 min Winter	17.787	0.587	0.1	15.0	O K
8640 min Winter	17.751	0.551	0.1	14.1	O K
10080 min Winter	17.720	0.520	0.1	13.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	34		
60 min Winter	55.837	0.0	64		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	470		
600 min Winter	10.684	0.0	582		
720 min Winter	9.314	0.0	692		
960 min Winter	7.492	0.0	902		
1440 min Winter	5.500	0.0	1114		
2160 min Winter	4.028	0.0	1580		
2880 min Winter	3.224	0.0	2020		
4320 min Winter	2.351	0.0	2896		
5760 min Winter	1.880	0.0	3744		
7200 min Winter	1.582	0.0	4544		
8640 min Winter	1.374	0.0	5360		
10080 min Winter	1.220	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment J	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.023

Time (mins)		Area
From:	To:	(ha)
0	4	0.023

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment J	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.300

Cellular Storage Structure

Invert Level (m) 17.200 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	0.801	0.0	46.2
0.800	27.0	46.2			

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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1066 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>16.853</td><td>0.353</td><td>0.1</td><td>13.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.978</td><td>0.478</td><td>0.2</td><td>18.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.116</td><td>0.616</td><td>0.2</td><td>23.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.257</td><td>0.757</td><td>0.3</td><td>28.8</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.333</td><td>0.833</td><td>0.3</td><td>31.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.381</td><td>0.881</td><td>0.4</td><td>33.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.443</td><td>0.943</td><td>0.4</td><td>35.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.478</td><td>0.978</td><td>0.4</td><td>37.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.497</td><td>0.997</td><td>0.4</td><td>37.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.508</td><td>1.008</td><td>0.4</td><td>38.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.524</td><td>1.024</td><td>0.4</td><td>38.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.540</td><td>1.040</td><td>0.4</td><td>39.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.538</td><td>1.038</td><td>0.4</td><td>39.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.520</td><td>1.020</td><td>0.4</td><td>38.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.469</td><td>0.969</td><td>0.4</td><td>36.8</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.417</td><td>0.917</td><td>0.4</td><td>34.8</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.368</td><td>0.868</td><td>0.3</td><td>33.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.323</td><td>0.823</td><td>0.3</td><td>31.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.284</td><td>0.784</td><td>0.3</td><td>29.8</td><td>O K</td></tr><tr><td>15 min Winter</td><td>16.895</td><td>0.395</td><td>0.2</td><td>15.0</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>658</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>764</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1022</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1428</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1844</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2640</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3456</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4248</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5016</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5752</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.853	0.353	0.1	13.4	O K	30 min Summer	16.978	0.478	0.2	18.2	O K	60 min Summer	17.116	0.616	0.2	23.4	O K	120 min Summer	17.257	0.757	0.3	28.8	O K	180 min Summer	17.333	0.833	0.3	31.6	O K	240 min Summer	17.381	0.881	0.4	33.5	O K	360 min Summer	17.443	0.943	0.4	35.8	O K	480 min Summer	17.478	0.978	0.4	37.2	O K	600 min Summer	17.497	0.997	0.4	37.9	O K	720 min Summer	17.508	1.008	0.4	38.3	O K	960 min Summer	17.524	1.024	0.4	38.9	O K	1440 min Summer	17.540	1.040	0.4	39.5	O K	2160 min Summer	17.538	1.038	0.4	39.4	O K	2880 min Summer	17.520	1.020	0.4	38.8	O K	4320 min Summer	17.469	0.969	0.4	36.8	O K	5760 min Summer	17.417	0.917	0.4	34.8	O K	7200 min Summer	17.368	0.868	0.3	33.0	O K	8640 min Summer	17.323	0.823	0.3	31.3	O K	10080 min Summer	17.284	0.784	0.3	29.8	O K	15 min Winter	16.895	0.395	0.2	15.0	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	480	600 min Summer	10.684	0.0	600	720 min Summer	9.314	0.0	658	960 min Summer	7.492	0.0	764	1440 min Summer	5.500	0.0	1022	2160 min Summer	4.028	0.0	1428	2880 min Summer	3.224	0.0	1844	4320 min Summer	2.351	0.0	2640	5760 min Summer	1.880	0.0	3456	7200 min Summer	1.582	0.0	4248	8640 min Summer	1.374	0.0	5016	10080 min Summer	1.220	0.0	5752	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
15 min Summer	16.853	0.353	0.1	13.4	O K																																																																																																																																																																																																																		
30 min Summer	16.978	0.478	0.2	18.2	O K																																																																																																																																																																																																																		
60 min Summer	17.116	0.616	0.2	23.4	O K																																																																																																																																																																																																																		
120 min Summer	17.257	0.757	0.3	28.8	O K																																																																																																																																																																																																																		
180 min Summer	17.333	0.833	0.3	31.6	O K																																																																																																																																																																																																																		
240 min Summer	17.381	0.881	0.4	33.5	O K																																																																																																																																																																																																																		
360 min Summer	17.443	0.943	0.4	35.8	O K																																																																																																																																																																																																																		
480 min Summer	17.478	0.978	0.4	37.2	O K																																																																																																																																																																																																																		
600 min Summer	17.497	0.997	0.4	37.9	O K																																																																																																																																																																																																																		
720 min Summer	17.508	1.008	0.4	38.3	O K																																																																																																																																																																																																																		
960 min Summer	17.524	1.024	0.4	38.9	O K																																																																																																																																																																																																																		
1440 min Summer	17.540	1.040	0.4	39.5	O K																																																																																																																																																																																																																		
2160 min Summer	17.538	1.038	0.4	39.4	O K																																																																																																																																																																																																																		
2880 min Summer	17.520	1.020	0.4	38.8	O K																																																																																																																																																																																																																		
4320 min Summer	17.469	0.969	0.4	36.8	O K																																																																																																																																																																																																																		
5760 min Summer	17.417	0.917	0.4	34.8	O K																																																																																																																																																																																																																		
7200 min Summer	17.368	0.868	0.3	33.0	O K																																																																																																																																																																																																																		
8640 min Summer	17.323	0.823	0.3	31.3	O K																																																																																																																																																																																																																		
10080 min Summer	17.284	0.784	0.3	29.8	O K																																																																																																																																																																																																																		
15 min Winter	16.895	0.395	0.2	15.0	O K																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																				
15 min Summer	126.089	0.0	19																																																																																																																																																																																																																				
30 min Summer	85.887	0.0	34																																																																																																																																																																																																																				
60 min Summer	55.837	0.0	64																																																																																																																																																																																																																				
120 min Summer	34.965	0.0	124																																																																																																																																																																																																																				
180 min Summer	26.132	0.0	182																																																																																																																																																																																																																				
240 min Summer	21.115	0.0	242																																																																																																																																																																																																																				
360 min Summer	15.649	0.0	362																																																																																																																																																																																																																				
480 min Summer	12.630	0.0	480																																																																																																																																																																																																																				
600 min Summer	10.684	0.0	600																																																																																																																																																																																																																				
720 min Summer	9.314	0.0	658																																																																																																																																																																																																																				
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment K			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.035	0.535	0.2	20.3	O K
60 min Winter	17.190	0.690	0.3	26.2	O K
120 min Winter	17.348	0.848	0.3	32.2	O K
180 min Winter	17.434	0.934	0.4	35.5	O K
240 min Winter	17.488	0.988	0.4	37.5	O K
360 min Winter	17.560	1.060	0.4	40.3	O K
480 min Winter	17.601	1.101	0.4	41.8	O K
600 min Winter	17.625	1.125	0.4	42.8	O K
720 min Winter	17.639	1.139	0.5	43.3	O K
960 min Winter	17.649	1.149	0.5	43.7	O K
1440 min Winter	17.659	1.159	0.5	44.0	O K
2160 min Winter	17.638	1.138	0.5	43.2	O K
2880 min Winter	17.601	1.101	0.4	41.8	O K
4320 min Winter	17.516	1.016	0.4	38.6	O K
5760 min Winter	17.438	0.938	0.4	35.6	O K
7200 min Winter	17.369	0.869	0.3	33.0	O K
8640 min Winter	17.309	0.809	0.3	30.7	O K
10080 min Winter	17.257	0.757	0.3	28.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	33		
60 min Winter	55.837	0.0	62		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	466		
600 min Winter	10.684	0.0	576		
720 min Winter	9.314	0.0	680		
960 min Winter	7.492	0.0	782		
1440 min Winter	5.500	0.0	1082		
2160 min Winter	4.028	0.0	1536		
2880 min Winter	3.224	0.0	1984		
4320 min Winter	2.351	0.0	2812		
5760 min Winter	1.880	0.0	3640		
7200 min Winter	1.582	0.0	4464		
8640 min Winter	1.374	0.0	5264		
10080 min Winter	1.220	0.0	6048		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment K	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.057

Time (mins)	Area
From:	To: (ha)
0	4 0.057

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment K	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.000

Cellular Storage Structure

Invert Level (m) 16.500 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	40.0	40.0	1.201	0.0	92.8
1.200	40.0	92.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment L																																																																																																																																																																																																																					
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Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1347 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>16.215</td><td>0.215</td><td>0.1</td><td>6.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.291</td><td>0.291</td><td>0.1</td><td>8.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>16.376</td><td>0.376</td><td>0.1</td><td>10.7</td><td>O K</td></tr><tr><td>120 min Summer</td><td>16.464</td><td>0.464</td><td>0.1</td><td>13.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.513</td><td>0.513</td><td>0.1</td><td>14.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>16.544</td><td>0.544</td><td>0.1</td><td>15.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>16.587</td><td>0.587</td><td>0.1</td><td>16.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>16.614</td><td>0.614</td><td>0.1</td><td>17.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>16.631</td><td>0.631</td><td>0.1</td><td>18.0</td><td>O K</td></tr><tr><td>720 min Summer</td><td>16.641</td><td>0.641</td><td>0.2</td><td>18.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>16.651</td><td>0.651</td><td>0.2</td><td>18.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>16.664</td><td>0.664</td><td>0.2</td><td>18.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>16.669</td><td>0.669</td><td>0.2</td><td>19.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>16.665</td><td>0.665</td><td>0.2</td><td>18.9</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>16.643</td><td>0.643</td><td>0.2</td><td>18.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>16.617</td><td>0.617</td><td>0.1</td><td>17.6</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>16.591</td><td>0.591</td><td>0.1</td><td>16.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>16.565</td><td>0.565</td><td>0.1</td><td>16.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>16.542</td><td>0.542</td><td>0.1</td><td>15.5</td><td>O K</td></tr><tr><td>15 min Winter</td><td>16.240</td><td>0.240</td><td>0.1</td><td>6.9</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>854</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1082</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1476</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1900</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5104</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5856</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.215	0.215	0.1	6.1	O K	30 min Summer	16.291	0.291	0.1	8.3	O K	60 min Summer	16.376	0.376	0.1	10.7	O K	120 min Summer	16.464	0.464	0.1	13.2	O K	180 min Summer	16.513	0.513	0.1	14.6	O K	240 min Summer	16.544	0.544	0.1	15.5	O K	360 min Summer	16.587	0.587	0.1	16.7	O K	480 min Summer	16.614	0.614	0.1	17.5	O K	600 min Summer	16.631	0.631	0.1	18.0	O K	720 min Summer	16.641	0.641	0.2	18.3	O K	960 min Summer	16.651	0.651	0.2	18.6	O K	1440 min Summer	16.664	0.664	0.2	18.9	O K	2160 min Summer	16.669	0.669	0.2	19.1	O K	2880 min Summer	16.665	0.665	0.2	18.9	O K	4320 min Summer	16.643	0.643	0.2	18.3	O K	5760 min Summer	16.617	0.617	0.1	17.6	O K	7200 min Summer	16.591	0.591	0.1	16.8	O K	8640 min Summer	16.565	0.565	0.1	16.1	O K	10080 min Summer	16.542	0.542	0.1	15.5	O K	15 min Winter	16.240	0.240	0.1	6.9	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	482	600 min Summer	10.684	0.0	600	720 min Summer	9.314	0.0	720	960 min Summer	7.492	0.0	854	1440 min Summer	5.500	0.0	1082	2160 min Summer	4.028	0.0	1476	2880 min Summer	3.224	0.0	1900	4320 min Summer	2.351	0.0	2720	5760 min Summer	1.880	0.0	3520	7200 min Summer	1.582	0.0	4320	8640 min Summer	1.374	0.0	5104	10080 min Summer	1.220	0.0	5856	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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600 min Summer	16.631	0.631	0.1	18.0	O K																																																																																																																																																																																																																		
720 min Summer	16.641	0.641	0.2	18.3	O K																																																																																																																																																																																																																		
960 min Summer	16.651	0.651	0.2	18.6	O K																																																																																																																																																																																																																		
1440 min Summer	16.664	0.664	0.2	18.9	O K																																																																																																																																																																																																																		
2160 min Summer	16.669	0.669	0.2	19.1	O K																																																																																																																																																																																																																		
2880 min Summer	16.665	0.665	0.2	18.9	O K																																																																																																																																																																																																																		
4320 min Summer	16.643	0.643	0.2	18.3	O K																																																																																																																																																																																																																		
5760 min Summer	16.617	0.617	0.1	17.6	O K																																																																																																																																																																																																																		
7200 min Summer	16.591	0.591	0.1	16.8	O K																																																																																																																																																																																																																		
8640 min Summer	16.565	0.565	0.1	16.1	O K																																																																																																																																																																																																																		
10080 min Summer	16.542	0.542	0.1	15.5	O K																																																																																																																																																																																																																		
15 min Winter	16.240	0.240	0.1	6.9	O K																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																				
15 min Summer	126.089	0.0	19																																																																																																																																																																																																																				
30 min Summer	85.887	0.0	34																																																																																																																																																																																																																				
60 min Summer	55.837	0.0	64																																																																																																																																																																																																																				
120 min Summer	34.965	0.0	124																																																																																																																																																																																																																				
180 min Summer	26.132	0.0	182																																																																																																																																																																																																																				
240 min Summer	21.115	0.0	242																																																																																																																																																																																																																				
360 min Summer	15.649	0.0	362																																																																																																																																																																																																																				
480 min Summer	12.630	0.0	482																																																																																																																																																																																																																				
600 min Summer	10.684	0.0	600																																																																																																																																																																																																																				
720 min Summer	9.314	0.0	720																																																																																																																																																																																																																				
960 min Summer	7.492	0.0	854																																																																																																																																																																																																																				
1440 min Summer	5.500	0.0	1082																																																																																																																																																																																																																				
2160 min Summer	4.028	0.0	1476																																																																																																																																																																																																																				
2880 min Summer	3.224	0.0	1900																																																																																																																																																																																																																				
4320 min Summer	2.351	0.0	2720																																																																																																																																																																																																																				
5760 min Summer	1.880	0.0	3520																																																																																																																																																																																																																				
7200 min Summer	1.582	0.0	4320																																																																																																																																																																																																																				
8640 min Summer	1.374	0.0	5104																																																																																																																																																																																																																				
10080 min Summer	1.220	0.0	5856																																																																																																																																																																																																																				
15 min Winter	126.089	0.0	19																																																																																																																																																																																																																				
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment L			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	16.326	0.326	0.1	9.3	O K
60 min Winter	16.421	0.421	0.1	12.0	O K
120 min Winter	16.520	0.520	0.1	14.8	O K
180 min Winter	16.575	0.575	0.1	16.4	O K
240 min Winter	16.610	0.610	0.1	17.4	O K
360 min Winter	16.659	0.659	0.2	18.8	O K
480 min Winter	16.690	0.690	0.2	19.7	O K
600 min Winter	16.710	0.710	0.2	20.2	O K
720 min Winter	16.723	0.723	0.2	20.6	O K
960 min Winter	16.735	0.735	0.2	21.0	O K
1440 min Winter	16.744	0.744	0.2	21.2	O K
2160 min Winter	16.742	0.742	0.2	21.1	O K
2880 min Winter	16.727	0.727	0.2	20.7	O K
4320 min Winter	16.686	0.686	0.2	19.6	O K
5760 min Winter	16.644	0.644	0.2	18.4	O K
7200 min Winter	16.605	0.605	0.1	17.2	O K
8640 min Winter	16.569	0.569	0.1	16.2	O K
10080 min Winter	16.538	0.538	0.1	15.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	34		
60 min Winter	55.837	0.0	64		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	470		
600 min Winter	10.684	0.0	582		
720 min Winter	9.314	0.0	692		
960 min Winter	7.492	0.0	904		
1440 min Winter	5.500	0.0	1124		
2160 min Winter	4.028	0.0	1580		
2880 min Winter	3.224	0.0	2044		
4320 min Winter	2.351	0.0	2900		
5760 min Winter	1.880	0.0	3752		
7200 min Winter	1.582	0.0	4544		
8640 min Winter	1.374	0.0	5360		
10080 min Winter	1.220	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment L	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.026

Time (mins)	Area
From:	To: (ha)
0	4 0.026

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment L	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 17.100

Cellular Storage Structure

Invert Level (m) 16.000 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	30.0	30.0	0.801	0.0	50.8
0.800	30.0	50.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment M																																																																																																																																																																																																																					
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Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1308 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>15.561</td><td>0.321</td><td>0.1</td><td>8.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>15.676</td><td>0.436</td><td>0.1</td><td>11.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>15.802</td><td>0.562</td><td>0.1</td><td>14.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>15.933</td><td>0.693</td><td>0.2</td><td>17.8</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.006</td><td>0.766</td><td>0.2</td><td>19.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>16.053</td><td>0.813</td><td>0.2</td><td>20.8</td><td>O K</td></tr><tr><td>360 min Summer</td><td>16.117</td><td>0.877</td><td>0.2</td><td>22.5</td><td>O K</td></tr><tr><td>480 min Summer</td><td>16.155</td><td>0.915</td><td>0.2</td><td>23.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>16.180</td><td>0.940</td><td>0.2</td><td>24.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>16.194</td><td>0.954</td><td>0.2</td><td>24.5</td><td>O K</td></tr><tr><td>960 min Summer</td><td>16.210</td><td>0.970</td><td>0.2</td><td>24.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>16.228</td><td>0.988</td><td>0.2</td><td>25.4</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>16.235</td><td>0.995</td><td>0.2</td><td>25.5</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>16.227</td><td>0.987</td><td>0.2</td><td>25.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>16.193</td><td>0.953</td><td>0.2</td><td>24.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>16.153</td><td>0.913</td><td>0.2</td><td>23.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>16.113</td><td>0.873</td><td>0.2</td><td>22.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>16.075</td><td>0.835</td><td>0.2</td><td>21.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>16.040</td><td>0.800</td><td>0.2</td><td>20.5</td><td>O K</td></tr><tr><td>15 min Winter</td><td>15.600</td><td>0.360</td><td>0.1</td><td>9.2</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	15.561	0.321	0.1	8.2	O K	30 min Summer	15.676	0.436	0.1	11.2	O K	60 min Summer	15.802	0.562	0.1	14.4	O K	120 min Summer	15.933	0.693	0.2	17.8	O K	180 min Summer	16.006	0.766	0.2	19.6	O K	240 min Summer	16.053	0.813	0.2	20.8	O K	360 min Summer	16.117	0.877	0.2	22.5	O K	480 min Summer	16.155	0.915	0.2	23.5	O K	600 min Summer	16.180	0.940	0.2	24.1	O K	720 min Summer	16.194	0.954	0.2	24.5	O K	960 min Summer	16.210	0.970	0.2	24.9	O K	1440 min Summer	16.228	0.988	0.2	25.4	O K	2160 min Summer	16.235	0.995	0.2	25.5	O K	2880 min Summer	16.227	0.987	0.2	25.3	O K	4320 min Summer	16.193	0.953	0.2	24.5	O K	5760 min Summer	16.153	0.913	0.2	23.4	O K	7200 min Summer	16.113	0.873	0.2	22.4	O K	8640 min Summer	16.075	0.835	0.2	21.4	O K	10080 min Summer	16.040	0.800	0.2	20.5	O K	15 min Winter	15.600	0.360	0.1	9.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	124	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	362	480 min Summer	12.630	0.0	482	600 min Summer	10.684	0.0	600	720 min Summer	9.314	0.0	720	960 min Summer	7.492	0.0	836	1440 min Summer	5.500	0.0	1080	2160 min Summer	4.028	0.0	1472	2880 min Summer	3.224	0.0	1876	4320 min Summer	2.351	0.0	2720	5760 min Summer	1.880	0.0	3520	7200 min Summer	1.582	0.0	4320	8640 min Summer	1.374	0.0	5096	10080 min Summer	1.220	0.0	5848	15 min Winter	126.089	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment M			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	15.728	0.488	0.1	12.5	O K
60 min Winter	15.870	0.630	0.1	16.2	O K
120 min Winter	16.017	0.777	0.2	19.9	O K
180 min Winter	16.099	0.859	0.2	22.0	O K
240 min Winter	16.151	0.911	0.2	23.4	O K
360 min Winter	16.224	0.984	0.2	25.2	O K
480 min Winter	16.269	1.029	0.2	26.4	O K
600 min Winter	16.298	1.058	0.2	27.1	O K
720 min Winter	16.316	1.076	0.2	27.6	O K
960 min Winter	16.334	1.094	0.2	28.1	O K
1440 min Winter	16.347	1.107	0.2	28.4	O K
2160 min Winter	16.342	1.102	0.2	28.3	O K
2880 min Winter	16.319	1.079	0.2	27.7	O K
4320 min Winter	16.256	1.016	0.2	26.1	O K
5760 min Winter	16.192	0.952	0.2	24.4	O K
7200 min Winter	16.133	0.893	0.2	22.9	O K
8640 min Winter	16.079	0.839	0.2	21.5	O K
10080 min Winter	16.031	0.791	0.2	20.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	34		
60 min Winter	55.837	0.0	64		
120 min Winter	34.965	0.0	122		
180 min Winter	26.132	0.0	180		
240 min Winter	21.115	0.0	238		
360 min Winter	15.649	0.0	354		
480 min Winter	12.630	0.0	470		
600 min Winter	10.684	0.0	582		
720 min Winter	9.314	0.0	692		
960 min Winter	7.492	0.0	902		
1440 min Winter	5.500	0.0	1114		
2160 min Winter	4.028	0.0	1580		
2880 min Winter	3.224	0.0	2020		
4320 min Winter	2.351	0.0	2896		
5760 min Winter	1.880	0.0	3744		
7200 min Winter	1.582	0.0	4544		
8640 min Winter	1.374	0.0	5360		
10080 min Winter	1.220	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment M	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.035

Time (mins)		Area
From:	To:	(ha)
0	4	0.035

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment M	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 17.200

Cellular Storage Structure

Invert Level (m) 15.240 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	1.201	0.0	55.8
1.200	27.0	55.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment N																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 658 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>17.673</td><td>0.123</td><td>0.0</td><td>1.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.717</td><td>0.167</td><td>0.0</td><td>1.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.763</td><td>0.213</td><td>0.0</td><td>2.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.809</td><td>0.259</td><td>0.1</td><td>3.0</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.832</td><td>0.282</td><td>0.1</td><td>3.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.845</td><td>0.295</td><td>0.1</td><td>3.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.859</td><td>0.309</td><td>0.1</td><td>3.5</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.865</td><td>0.315</td><td>0.1</td><td>3.6</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.870</td><td>0.320</td><td>0.1</td><td>3.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.873</td><td>0.323</td><td>0.1</td><td>3.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.876</td><td>0.326</td><td>0.1</td><td>3.7</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.875</td><td>0.325</td><td>0.1</td><td>3.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.865</td><td>0.315</td><td>0.1</td><td>3.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.852</td><td>0.302</td><td>0.1</td><td>3.4</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.826</td><td>0.276</td><td>0.1</td><td>3.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.803</td><td>0.253</td><td>0.0</td><td>2.9</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.784</td><td>0.234</td><td>0.0</td><td>2.7</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.768</td><td>0.218</td><td>0.0</td><td>2.5</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.755</td><td>0.205</td><td>0.0</td><td>2.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.688</td><td>0.138</td><td>0.0</td><td>1.6</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>126.089</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>85.887</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>55.837</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.965</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>26.132</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>21.115</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.649</td><td>0.0</td><td>360</td></tr><tr><td>480 min Summer</td><td>12.630</td><td>0.0</td><td>418</td></tr><tr><td>600 min Summer</td><td>10.684</td><td>0.0</td><td>478</td></tr><tr><td>720 min Summer</td><td>9.314</td><td>0.0</td><td>540</td></tr><tr><td>960 min Summer</td><td>7.492</td><td>0.0</td><td>672</td></tr><tr><td>1440 min Summer</td><td>5.500</td><td>0.0</td><td>940</td></tr><tr><td>2160 min Summer</td><td>4.028</td><td>0.0</td><td>1360</td></tr><tr><td>2880 min Summer</td><td>3.224</td><td>0.0</td><td>1760</td></tr><tr><td>4320 min Summer</td><td>2.351</td><td>0.0</td><td>2548</td></tr><tr><td>5760 min Summer</td><td>1.880</td><td>0.0</td><td>3296</td></tr><tr><td>7200 min Summer</td><td>1.582</td><td>0.0</td><td>4040</td></tr><tr><td>8640 min Summer</td><td>1.374</td><td>0.0</td><td>4840</td></tr><tr><td>10080 min Summer</td><td>1.220</td><td>0.0</td><td>5552</td></tr><tr><td>15 min Winter</td><td>126.089</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.673	0.123	0.0	1.4	O K	30 min Summer	17.717	0.167	0.0	1.9	O K	60 min Summer	17.763	0.213	0.0	2.4	O K	120 min Summer	17.809	0.259	0.1	3.0	O K	180 min Summer	17.832	0.282	0.1	3.2	O K	240 min Summer	17.845	0.295	0.1	3.4	O K	360 min Summer	17.859	0.309	0.1	3.5	O K	480 min Summer	17.865	0.315	0.1	3.6	O K	600 min Summer	17.870	0.320	0.1	3.6	O K	720 min Summer	17.873	0.323	0.1	3.7	O K	960 min Summer	17.876	0.326	0.1	3.7	O K	1440 min Summer	17.875	0.325	0.1	3.7	O K	2160 min Summer	17.865	0.315	0.1	3.6	O K	2880 min Summer	17.852	0.302	0.1	3.4	O K	4320 min Summer	17.826	0.276	0.1	3.1	O K	5760 min Summer	17.803	0.253	0.0	2.9	O K	7200 min Summer	17.784	0.234	0.0	2.7	O K	8640 min Summer	17.768	0.218	0.0	2.5	O K	10080 min Summer	17.755	0.205	0.0	2.3	O K	15 min Winter	17.688	0.138	0.0	1.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	126.089	0.0	19	30 min Summer	85.887	0.0	34	60 min Summer	55.837	0.0	64	120 min Summer	34.965	0.0	122	180 min Summer	26.132	0.0	182	240 min Summer	21.115	0.0	242	360 min Summer	15.649	0.0	360	480 min Summer	12.630	0.0	418	600 min Summer	10.684	0.0	478	720 min Summer	9.314	0.0	540	960 min Summer	7.492	0.0	672	1440 min Summer	5.500	0.0	940	2160 min Summer	4.028	0.0	1360	2880 min Summer	3.224	0.0	1760	4320 min Summer	2.351	0.0	2548	5760 min Summer	1.880	0.0	3296	7200 min Summer	1.582	0.0	4040	8640 min Summer	1.374	0.0	4840	10080 min Summer	1.220	0.0	5552	15 min Winter	126.089	0.0	19
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment N			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<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	17.737	0.187	0.0	2.1	O K
60 min Winter	17.789	0.239	0.0	2.7	O K
120 min Winter	17.841	0.291	0.1	3.3	O K
180 min Winter	17.867	0.317	0.1	3.6	O K
240 min Winter	17.882	0.332	0.1	3.8	O K
360 min Winter	17.899	0.349	0.1	4.0	O K
480 min Winter	17.906	0.356	0.1	4.1	O K
600 min Winter	17.909	0.359	0.1	4.1	O K
720 min Winter	17.911	0.361	0.1	4.1	O K
960 min Winter	17.912	0.362	0.1	4.1	O K
1440 min Winter	17.905	0.355	0.1	4.0	O K
2160 min Winter	17.886	0.336	0.1	3.8	O K
2880 min Winter	17.865	0.315	0.1	3.6	O K
4320 min Winter	17.827	0.277	0.1	3.2	O K
5760 min Winter	17.797	0.247	0.0	2.8	O K
7200 min Winter	17.773	0.223	0.0	2.5	O K
8640 min Winter	17.753	0.203	0.0	2.3	O K
10080 min Winter	17.737	0.187	0.0	2.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.887	0.0	33		
60 min Winter	55.837	0.0	62		
120 min Winter	34.965	0.0	120		
180 min Winter	26.132	0.0	178		
240 min Winter	21.115	0.0	236		
360 min Winter	15.649	0.0	346		
480 min Winter	12.630	0.0	452		
600 min Winter	10.684	0.0	488		
720 min Winter	9.314	0.0	560		
960 min Winter	7.492	0.0	712		
1440 min Winter	5.500	0.0	1012		
2160 min Winter	4.028	0.0	1448		
2880 min Winter	3.224	0.0	1872		
4320 min Winter	2.351	0.0	2680		
5760 min Winter	1.880	0.0	3464		
7200 min Winter	1.582	0.0	4248		
8640 min Winter	1.374	0.0	5008		
10080 min Winter	1.220	0.0	5752		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment N	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area
From:	To: (ha)
0	4 0.006

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Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.250

Cellular Storage Structure

Invert Level (m) 17.550 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	12.0	12.0	0.401	0.0	18.4
0.400	12.0	18.4			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottages Catchment A																																																																																																																																																																																																																					
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Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 474 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>17.595</td><td>0.345</td><td>0.2</td><td>6.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.706</td><td>0.456</td><td>0.2</td><td>8.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.824</td><td>0.574</td><td>0.3</td><td>10.9</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.942</td><td>0.692</td><td>0.3</td><td>13.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>18.001</td><td>0.751</td><td>0.3</td><td>14.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>18.035</td><td>0.785</td><td>0.4</td><td>14.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.071</td><td>0.821</td><td>0.4</td><td>15.6</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.095</td><td>0.845</td><td>0.4</td><td>16.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.111</td><td>0.861</td><td>0.4</td><td>16.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.122</td><td>0.872</td><td>0.4</td><td>16.6</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.132</td><td>0.882</td><td>0.4</td><td>16.8</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.128</td><td>0.878</td><td>0.4</td><td>16.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.096</td><td>0.846</td><td>0.4</td><td>16.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.057</td><td>0.807</td><td>0.4</td><td>15.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.982</td><td>0.732</td><td>0.3</td><td>13.9</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.920</td><td>0.670</td><td>0.3</td><td>12.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.869</td><td>0.619</td><td>0.3</td><td>11.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.825</td><td>0.575</td><td>0.3</td><td>10.9</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.789</td><td>0.539</td><td>0.2</td><td>10.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.636</td><td>0.386</td><td>0.2</td><td>7.3</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>240</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>310</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>370</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>432</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>500</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>636</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>910</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1316</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1704</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2468</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3232</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>3968</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>4680</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5448</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.595	0.345	0.2	6.6	O K	30 min Summer	17.706	0.456	0.2	8.7	O K	60 min Summer	17.824	0.574	0.3	10.9	O K	120 min Summer	17.942	0.692	0.3	13.1	O K	180 min Summer	18.001	0.751	0.3	14.3	O K	240 min Summer	18.035	0.785	0.4	14.9	O K	360 min Summer	18.071	0.821	0.4	15.6	O K	480 min Summer	18.095	0.845	0.4	16.0	O K	600 min Summer	18.111	0.861	0.4	16.4	O K	720 min Summer	18.122	0.872	0.4	16.6	O K	960 min Summer	18.132	0.882	0.4	16.8	O K	1440 min Summer	18.128	0.878	0.4	16.7	O K	2160 min Summer	18.096	0.846	0.4	16.1	O K	2880 min Summer	18.057	0.807	0.4	15.3	O K	4320 min Summer	17.982	0.732	0.3	13.9	O K	5760 min Summer	17.920	0.670	0.3	12.7	O K	7200 min Summer	17.869	0.619	0.3	11.8	O K	8640 min Summer	17.825	0.575	0.3	10.9	O K	10080 min Summer	17.789	0.539	0.2	10.2	O K	15 min Winter	17.636	0.386	0.2	7.3	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	33	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	122	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	240	360 min Summer	9.607	0.0	310	480 min Summer	7.832	0.0	370	600 min Summer	6.681	0.0	432	720 min Summer	5.866	0.0	500	960 min Summer	4.775	0.0	636	1440 min Summer	3.569	0.0	910	2160 min Summer	2.666	0.0	1316	2880 min Summer	2.166	0.0	1704	4320 min Summer	1.616	0.0	2468	5760 min Summer	1.312	0.0	3232	7200 min Summer	1.117	0.0	3968	8640 min Summer	0.979	0.0	4680	10080 min Summer	0.876	0.0	5448	15 min Winter	77.045	0.0	19
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottages Catchment A			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.761	0.511	0.2	9.7	O K
60 min Winter	17.894	0.644	0.3	12.2	O K
120 min Winter	18.026	0.776	0.3	14.8	O K
180 min Winter	18.095	0.845	0.4	16.0	O K
240 min Winter	18.135	0.885	0.4	16.8	O K
360 min Winter	18.175	0.925	0.4	17.6	O K
480 min Winter	18.196	0.946	0.4	18.0	O K
600 min Winter	18.211	0.961	0.4	18.3	O K
720 min Winter	18.218	0.968	0.4	18.4	O K
960 min Winter	18.218	0.968	0.4	18.4	O K
1440 min Winter	18.190	0.940	0.4	17.9	O K
2160 min Winter	18.129	0.879	0.4	16.7	O K
2880 min Winter	18.067	0.817	0.4	15.5	O K
4320 min Winter	17.961	0.711	0.3	13.5	O K
5760 min Winter	17.878	0.628	0.3	11.9	O K
7200 min Winter	17.814	0.564	0.3	10.7	O K
8640 min Winter	17.763	0.513	0.2	9.7	O K
10080 min Winter	17.721	0.471	0.2	8.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	33		
60 min Winter	33.096	0.0	62		
120 min Winter	20.757	0.0	120		
180 min Winter	15.665	0.0	176		
240 min Winter	12.793	0.0	232		
360 min Winter	9.607	0.0	336		
480 min Winter	7.832	0.0	380		
600 min Winter	6.681	0.0	456		
720 min Winter	5.866	0.0	532		
960 min Winter	4.775	0.0	684		
1440 min Winter	3.569	0.0	980		
2160 min Winter	2.666	0.0	1404		
2880 min Winter	2.166	0.0	1792		
4320 min Winter	1.616	0.0	2592		
5760 min Winter	1.312	0.0	3344		
7200 min Winter	1.117	0.0	4104		
8640 min Winter	0.979	0.0	4840		
10080 min Winter	0.876	0.0	5552		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottages Catchment A	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 19.150

Cellular Storage Structure

Invert Level (m) 17.250 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	20.0	20.0	1.601	0.0	48.8
1.600	20.0	48.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment B																																																																																																																																																																																																																					
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Summer</td><td>18.298</td><td>0.398</td><td>0.1</td><td>2.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.296</td><td>0.396</td><td>0.1</td><td>2.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.291</td><td>0.391</td><td>0.1</td><td>2.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.279</td><td>0.379</td><td>0.1</td><td>2.2</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.251</td><td>0.351</td><td>0.1</td><td>2.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.214</td><td>0.314</td><td>0.1</td><td>1.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.184</td><td>0.284</td><td>0.1</td><td>1.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.141</td><td>0.241</td><td>0.1</td><td>1.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.110</td><td>0.210</td><td>0.1</td><td>1.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.087</td><td>0.187</td><td>0.1</td><td>1.1</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>18.070</td><td>0.170</td><td>0.1</td><td>1.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>18.056</td><td>0.156</td><td>0.1</td><td>0.9</td><td>O K</td></tr><tr><td>15 min Winter</td><td>18.120</td><td>0.220</td><td>0.1</td><td>1.3</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>77.045</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>118</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>144</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>176</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>244</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>312</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>380</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>448</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>580</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>838</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1216</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1588</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2332</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3056</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>3768</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>4496</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5240</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>18</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	18.096	0.196	0.1	1.1	O K	30 min Summer	18.156	0.256	0.1	1.5	O K	60 min Summer	18.214	0.314	0.1	1.8	O K	120 min Summer	18.257	0.357	0.1	2.0	O K	180 min Summer	18.274	0.374	0.1	2.1	O K	240 min Summer	18.285	0.385	0.1	2.2	O K	360 min Summer	18.296	0.396	0.1	2.3	O K	480 min Summer	18.298	0.398	0.1	2.3	O K	600 min Summer	18.296	0.396	0.1	2.3	O K	720 min Summer	18.291	0.391	0.1	2.2	O K	960 min Summer	18.279	0.379	0.1	2.2	O K	1440 min Summer	18.251	0.351	0.1	2.0	O K	2160 min Summer	18.214	0.314	0.1	1.8	O K	2880 min Summer	18.184	0.284	0.1	1.6	O K	4320 min Summer	18.141	0.241	0.1	1.4	O K	5760 min Summer	18.110	0.210	0.1	1.2	O K	7200 min Summer	18.087	0.187	0.1	1.1	O K	8640 min Summer	18.070	0.170	0.1	1.0	O K	10080 min Summer	18.056	0.156	0.1	0.9	O K	15 min Winter	18.120	0.220	0.1	1.3	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	18	30 min Summer	51.477	0.0	33	60 min Summer	33.096	0.0	62	120 min Summer	20.757	0.0	118	180 min Summer	15.665	0.0	144	240 min Summer	12.793	0.0	176	360 min Summer	9.607	0.0	244	480 min Summer	7.832	0.0	312	600 min Summer	6.681	0.0	380	720 min Summer	5.866	0.0	448	960 min Summer	4.775	0.0	580	1440 min Summer	3.569	0.0	838	2160 min Summer	2.666	0.0	1216	2880 min Summer	2.166	0.0	1588	4320 min Summer	1.616	0.0	2332	5760 min Summer	1.312	0.0	3056	7200 min Summer	1.117	0.0	3768	8640 min Summer	0.979	0.0	4496	10080 min Summer	0.876	0.0	5240	15 min Winter	77.045	0.0	18
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60 min Summer	18.214	0.314	0.1	1.8	O K																																																																																																																																																																																																																		
120 min Summer	18.257	0.357	0.1	2.0	O K																																																																																																																																																																																																																		
180 min Summer	18.274	0.374	0.1	2.1	O K																																																																																																																																																																																																																		
240 min Summer	18.285	0.385	0.1	2.2	O K																																																																																																																																																																																																																		
360 min Summer	18.296	0.396	0.1	2.3	O K																																																																																																																																																																																																																		
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment B			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	18.187	0.287	0.1	1.6	O K
60 min Winter	18.252	0.352	0.1	2.0	O K
120 min Winter	18.303	0.403	0.1	2.3	O K
180 min Winter	18.320	0.420	0.1	2.4	O K
240 min Winter	18.330	0.430	0.1	2.5	O K
360 min Winter	18.336	0.436	0.1	2.5	O K
480 min Winter	18.332	0.432	0.1	2.5	O K
600 min Winter	18.324	0.424	0.1	2.4	O K
720 min Winter	18.313	0.413	0.1	2.4	O K
960 min Winter	18.291	0.391	0.1	2.2	O K
1440 min Winter	18.248	0.348	0.1	2.0	O K
2160 min Winter	18.198	0.298	0.1	1.7	O K
2880 min Winter	18.160	0.260	0.1	1.5	O K
4320 min Winter	18.109	0.209	0.1	1.2	O K
5760 min Winter	18.076	0.176	0.1	1.0	O K
7200 min Winter	18.053	0.153	0.1	0.9	O K
8640 min Winter	18.036	0.136	0.0	0.8	O K
10080 min Winter	18.023	0.123	0.0	0.7	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	32		
60 min Winter	33.096	0.0	60		
120 min Winter	20.757	0.0	116		
180 min Winter	15.665	0.0	148		
240 min Winter	12.793	0.0	184		
360 min Winter	9.607	0.0	260		
480 min Winter	7.832	0.0	336		
600 min Winter	6.681	0.0	408		
720 min Winter	5.866	0.0	478		
960 min Winter	4.775	0.0	616		
1440 min Winter	3.569	0.0	882		
2160 min Winter	2.666	0.0	1276		
2880 min Winter	2.166	0.0	1644		
4320 min Winter	1.616	0.0	2380		
5760 min Winter	1.312	0.0	3112		
7200 min Winter	1.117	0.0	3824		
8640 min Winter	0.979	0.0	4584		
10080 min Winter	0.876	0.0	5256		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment B	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.008

Time (mins)	Area
From:	To: (ha)
0	4 0.008

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment B	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 19.000

Cellular Storage Structure

Invert Level (m) 17.900 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	6.0	6.0	0.801	0.0	13.8
0.800	6.0	13.8			

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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 285 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>17.797</td><td>0.297</td><td>0.1</td><td>2.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.891</td><td>0.391</td><td>0.1</td><td>3.0</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.985</td><td>0.485</td><td>0.1</td><td>3.7</td><td>O K</td></tr><tr><td>120 min Summer</td><td>18.069</td><td>0.569</td><td>0.2</td><td>4.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>18.102</td><td>0.602</td><td>0.2</td><td>4.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>18.121</td><td>0.621</td><td>0.2</td><td>4.7</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.146</td><td>0.646</td><td>0.2</td><td>4.9</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.159</td><td>0.659</td><td>0.2</td><td>5.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.164</td><td>0.664</td><td>0.2</td><td>5.0</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.164</td><td>0.664</td><td>0.2</td><td>5.0</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.156</td><td>0.656</td><td>0.2</td><td>5.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.128</td><td>0.628</td><td>0.2</td><td>4.8</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.080</td><td>0.580</td><td>0.2</td><td>4.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.036</td><td>0.536</td><td>0.2</td><td>4.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.967</td><td>0.467</td><td>0.1</td><td>3.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.915</td><td>0.415</td><td>0.1</td><td>3.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.875</td><td>0.375</td><td>0.1</td><td>2.9</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.844</td><td>0.344</td><td>0.1</td><td>2.6</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.817</td><td>0.317</td><td>0.1</td><td>2.4</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.833</td><td>0.333</td><td>0.1</td><td>2.5</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>120</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>172</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>198</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>260</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>328</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>396</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>464</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>600</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>866</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1256</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1640</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2380</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3112</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>3824</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>4584</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5336</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>18</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.797	0.297	0.1	2.3	O K	30 min Summer	17.891	0.391	0.1	3.0	O K	60 min Summer	17.985	0.485	0.1	3.7	O K	120 min Summer	18.069	0.569	0.2	4.3	O K	180 min Summer	18.102	0.602	0.2	4.6	O K	240 min Summer	18.121	0.621	0.2	4.7	O K	360 min Summer	18.146	0.646	0.2	4.9	O K	480 min Summer	18.159	0.659	0.2	5.0	O K	600 min Summer	18.164	0.664	0.2	5.0	O K	720 min Summer	18.164	0.664	0.2	5.0	O K	960 min Summer	18.156	0.656	0.2	5.0	O K	1440 min Summer	18.128	0.628	0.2	4.8	O K	2160 min Summer	18.080	0.580	0.2	4.4	O K	2880 min Summer	18.036	0.536	0.2	4.1	O K	4320 min Summer	17.967	0.467	0.1	3.5	O K	5760 min Summer	17.915	0.415	0.1	3.2	O K	7200 min Summer	17.875	0.375	0.1	2.9	O K	8640 min Summer	17.844	0.344	0.1	2.6	O K	10080 min Summer	17.817	0.317	0.1	2.4	O K	15 min Winter	17.833	0.333	0.1	2.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	33	60 min Summer	33.096	0.0	62	120 min Summer	20.757	0.0	120	180 min Summer	15.665	0.0	172	240 min Summer	12.793	0.0	198	360 min Summer	9.607	0.0	260	480 min Summer	7.832	0.0	328	600 min Summer	6.681	0.0	396	720 min Summer	5.866	0.0	464	960 min Summer	4.775	0.0	600	1440 min Summer	3.569	0.0	866	2160 min Summer	2.666	0.0	1256	2880 min Summer	2.166	0.0	1640	4320 min Summer	1.616	0.0	2380	5760 min Summer	1.312	0.0	3112	7200 min Summer	1.117	0.0	3824	8640 min Summer	0.979	0.0	4584	10080 min Summer	0.876	0.0	5336	15 min Winter	77.045	0.0	18
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
15 min Summer	17.797	0.297	0.1	2.3	O K																																																																																																																																																																																																																		
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120 min Summer	18.069	0.569	0.2	4.3	O K																																																																																																																																																																																																																		
180 min Summer	18.102	0.602	0.2	4.6	O K																																																																																																																																																																																																																		
240 min Summer	18.121	0.621	0.2	4.7	O K																																																																																																																																																																																																																		
360 min Summer	18.146	0.646	0.2	4.9	O K																																																																																																																																																																																																																		
480 min Summer	18.159	0.659	0.2	5.0	O K																																																																																																																																																																																																																		
600 min Summer	18.164	0.664	0.2	5.0	O K																																																																																																																																																																																																																		
720 min Summer	18.164	0.664	0.2	5.0	O K																																																																																																																																																																																																																		
960 min Summer	18.156	0.656	0.2	5.0	O K																																																																																																																																																																																																																		
1440 min Summer	18.128	0.628	0.2	4.8	O K																																																																																																																																																																																																																		
2160 min Summer	18.080	0.580	0.2	4.4	O K																																																																																																																																																																																																																		
2880 min Summer	18.036	0.536	0.2	4.1	O K																																																																																																																																																																																																																		
4320 min Summer	17.967	0.467	0.1	3.5	O K																																																																																																																																																																																																																		
5760 min Summer	17.915	0.415	0.1	3.2	O K																																																																																																																																																																																																																		
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15 min Winter	17.833	0.333	0.1	2.5	O K																																																																																																																																																																																																																		
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120 min Summer	20.757	0.0	120																																																																																																																																																																																																																				
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1440 min Summer	3.569	0.0	866																																																																																																																																																																																																																				
2160 min Summer	2.666	0.0	1256																																																																																																																																																																																																																				
2880 min Summer	2.166	0.0	1640																																																																																																																																																																																																																				
4320 min Summer	1.616	0.0	2380																																																																																																																																																																																																																				
5760 min Summer	1.312	0.0	3112																																																																																																																																																																																																																				
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment C			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.938	0.438	0.1	3.3	O K
60 min Winter	18.045	0.545	0.2	4.1	O K
120 min Winter	18.140	0.640	0.2	4.9	O K
180 min Winter	18.180	0.680	0.2	5.2	O K
240 min Winter	18.198	0.698	0.2	5.3	O K
360 min Winter	18.221	0.721	0.2	5.5	O K
480 min Winter	18.228	0.728	0.2	5.5	O K
600 min Winter	18.226	0.726	0.2	5.5	O K
720 min Winter	18.219	0.719	0.2	5.5	O K
960 min Winter	18.198	0.698	0.2	5.3	O K
1440 min Winter	18.146	0.646	0.2	4.9	O K
2160 min Winter	18.074	0.574	0.2	4.4	O K
2880 min Winter	18.014	0.514	0.2	3.9	O K
4320 min Winter	17.926	0.426	0.1	3.2	O K
5760 min Winter	17.865	0.365	0.1	2.8	O K
7200 min Winter	17.821	0.321	0.1	2.4	O K
8640 min Winter	17.787	0.287	0.1	2.2	O K
10080 min Winter	17.761	0.261	0.1	2.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	33		
60 min Winter	33.096	0.0	62		
120 min Winter	20.757	0.0	118		
180 min Winter	15.665	0.0	172		
240 min Winter	12.793	0.0	218		
360 min Winter	9.607	0.0	274		
480 min Winter	7.832	0.0	350		
600 min Winter	6.681	0.0	426		
720 min Winter	5.866	0.0	500		
960 min Winter	4.775	0.0	644		
1440 min Winter	3.569	0.0	922		
2160 min Winter	2.666	0.0	1320		
2880 min Winter	2.166	0.0	1704		
4320 min Winter	1.616	0.0	2464		
5760 min Winter	1.312	0.0	3224		
7200 min Winter	1.117	0.0	3960		
8640 min Winter	0.979	0.0	4672		
10080 min Winter	0.876	0.0	5352		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment C	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.016

Time (mins)	Area
From:	To: (ha)
0	4 0.016

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment C	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 19.000

Cellular Storage Structure

Invert Level (m) 17.500 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	8.0	8.0	1.201	0.0	22.4
1.200	8.0	22.4			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment D																																																																																																																																																																																																																					
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 512 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>17.863</td><td>0.163</td><td>0.1</td><td>5.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.915</td><td>0.215</td><td>0.2</td><td>7.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.971</td><td>0.271</td><td>0.2</td><td>9.3</td><td>O K</td></tr><tr><td>120 min Summer</td><td>18.028</td><td>0.328</td><td>0.2</td><td>11.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>18.057</td><td>0.357</td><td>0.3</td><td>12.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>18.074</td><td>0.374</td><td>0.3</td><td>12.8</td><td>O K</td></tr><tr><td>360 min Summer</td><td>18.092</td><td>0.392</td><td>0.3</td><td>13.4</td><td>O K</td></tr><tr><td>480 min Summer</td><td>18.104</td><td>0.404</td><td>0.3</td><td>13.8</td><td>O K</td></tr><tr><td>600 min Summer</td><td>18.112</td><td>0.412</td><td>0.3</td><td>14.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>18.118</td><td>0.418</td><td>0.3</td><td>14.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>18.124</td><td>0.424</td><td>0.3</td><td>14.5</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>18.124</td><td>0.424</td><td>0.3</td><td>14.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>18.111</td><td>0.411</td><td>0.3</td><td>14.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>18.094</td><td>0.394</td><td>0.3</td><td>13.5</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>18.060</td><td>0.360</td><td>0.3</td><td>12.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>18.031</td><td>0.331</td><td>0.2</td><td>11.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>18.006</td><td>0.306</td><td>0.2</td><td>10.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.986</td><td>0.286</td><td>0.2</td><td>9.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.968</td><td>0.268</td><td>0.2</td><td>9.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.882</td><td>0.182</td><td>0.1</td><td>6.2</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>240</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>322</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>380</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>440</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>506</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>644</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>920</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1320</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1728</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2504</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3232</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>3968</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>4752</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5448</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.863	0.163	0.1	5.6	O K	30 min Summer	17.915	0.215	0.2	7.4	O K	60 min Summer	17.971	0.271	0.2	9.3	O K	120 min Summer	18.028	0.328	0.2	11.2	O K	180 min Summer	18.057	0.357	0.3	12.2	O K	240 min Summer	18.074	0.374	0.3	12.8	O K	360 min Summer	18.092	0.392	0.3	13.4	O K	480 min Summer	18.104	0.404	0.3	13.8	O K	600 min Summer	18.112	0.412	0.3	14.1	O K	720 min Summer	18.118	0.418	0.3	14.3	O K	960 min Summer	18.124	0.424	0.3	14.5	O K	1440 min Summer	18.124	0.424	0.3	14.5	O K	2160 min Summer	18.111	0.411	0.3	14.1	O K	2880 min Summer	18.094	0.394	0.3	13.5	O K	4320 min Summer	18.060	0.360	0.3	12.3	O K	5760 min Summer	18.031	0.331	0.2	11.3	O K	7200 min Summer	18.006	0.306	0.2	10.5	O K	8640 min Summer	17.986	0.286	0.2	9.8	O K	10080 min Summer	17.968	0.268	0.2	9.2	O K	15 min Winter	17.882	0.182	0.1	6.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	122	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	240	360 min Summer	9.607	0.0	322	480 min Summer	7.832	0.0	380	600 min Summer	6.681	0.0	440	720 min Summer	5.866	0.0	506	960 min Summer	4.775	0.0	644	1440 min Summer	3.569	0.0	920	2160 min Summer	2.666	0.0	1320	2880 min Summer	2.166	0.0	1728	4320 min Summer	1.616	0.0	2504	5760 min Summer	1.312	0.0	3232	7200 min Summer	1.117	0.0	3968	8640 min Summer	0.979	0.0	4752	10080 min Summer	0.876	0.0	5448	15 min Winter	77.045	0.0	19
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7200 min Summer	18.006	0.306	0.2	10.5	O K																																																																																																																																																																																																																		
8640 min Summer	17.986	0.286	0.2	9.8	O K																																																																																																																																																																																																																		
10080 min Summer	17.968	0.268	0.2	9.2	O K																																																																																																																																																																																																																		
15 min Winter	17.882	0.182	0.1	6.2	O K																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																				
15 min Summer	77.045	0.0	19																																																																																																																																																																																																																				
30 min Summer	51.477	0.0	34																																																																																																																																																																																																																				
60 min Summer	33.096	0.0	64																																																																																																																																																																																																																				
120 min Summer	20.757	0.0	122																																																																																																																																																																																																																				
180 min Summer	15.665	0.0	182																																																																																																																																																																																																																				
240 min Summer	12.793	0.0	240																																																																																																																																																																																																																				
360 min Summer	9.607	0.0	322																																																																																																																																																																																																																				
480 min Summer	7.832	0.0	380																																																																																																																																																																																																																				
600 min Summer	6.681	0.0	440																																																																																																																																																																																																																				
720 min Summer	5.866	0.0	506																																																																																																																																																																																																																				
960 min Summer	4.775	0.0	644																																																																																																																																																																																																																				
1440 min Summer	3.569	0.0	920																																																																																																																																																																																																																				
2160 min Summer	2.666	0.0	1320																																																																																																																																																																																																																				
2880 min Summer	2.166	0.0	1728																																																																																																																																																																																																																				
4320 min Summer	1.616	0.0	2504																																																																																																																																																																																																																				
5760 min Summer	1.312	0.0	3232																																																																																																																																																																																																																				
7200 min Summer	1.117	0.0	3968																																																																																																																																																																																																																				
8640 min Summer	0.979	0.0	4752																																																																																																																																																																																																																				
10080 min Summer	0.876	0.0	5448																																																																																																																																																																																																																				
15 min Winter	77.045	0.0	19																																																																																																																																																																																																																				
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment D			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.941	0.241	0.2	8.3	O K
60 min Winter	18.004	0.304	0.2	10.4	O K
120 min Winter	18.068	0.368	0.3	12.6	O K
180 min Winter	18.101	0.401	0.3	13.7	O K
240 min Winter	18.121	0.421	0.3	14.4	O K
360 min Winter	18.143	0.443	0.3	15.1	O K
480 min Winter	18.153	0.453	0.3	15.5	O K
600 min Winter	18.161	0.461	0.3	15.8	O K
720 min Winter	18.165	0.465	0.3	15.9	O K
960 min Winter	18.167	0.467	0.4	16.0	O K
1440 min Winter	18.156	0.456	0.3	15.6	O K
2160 min Winter	18.130	0.430	0.3	14.7	O K
2880 min Winter	18.102	0.402	0.3	13.7	O K
4320 min Winter	18.052	0.352	0.3	12.0	O K
5760 min Winter	18.013	0.313	0.2	10.7	O K
7200 min Winter	17.982	0.282	0.2	9.6	O K
8640 min Winter	17.957	0.257	0.2	8.8	O K
10080 min Winter	17.936	0.236	0.2	8.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	33		
60 min Winter	33.096	0.0	62		
120 min Winter	20.757	0.0	120		
180 min Winter	15.665	0.0	178		
240 min Winter	12.793	0.0	234		
360 min Winter	9.607	0.0	340		
480 min Winter	7.832	0.0	386		
600 min Winter	6.681	0.0	460		
720 min Winter	5.866	0.0	538		
960 min Winter	4.775	0.0	692		
1440 min Winter	3.569	0.0	982		
2160 min Winter	2.666	0.0	1408		
2880 min Winter	2.166	0.0	1816		
4320 min Winter	1.616	0.0	2596		
5760 min Winter	1.312	0.0	3400		
7200 min Winter	1.117	0.0	4112		
8640 min Winter	0.979	0.0	4848		
10080 min Winter	0.876	0.0	5648		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment D	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.039

Time (mins)		Area
From:	To:	(ha)
0	4	0.039

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment D	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.800

Cellular Storage Structure

Invert Level (m) 17.700 Safety Factor 4.0
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.36000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	36.0	36.0	0.801	0.0	60.0
0.800	36.0	60.0			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment E																																																																																																																																																																																																																					
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW																																																																																																																																																																																																																					
Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1322 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>17.402</td><td>0.202</td><td>0.0</td><td>5.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.469</td><td>0.269</td><td>0.1</td><td>6.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.543</td><td>0.343</td><td>0.1</td><td>8.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.623</td><td>0.423</td><td>0.1</td><td>10.9</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.672</td><td>0.472</td><td>0.1</td><td>12.1</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.706</td><td>0.506</td><td>0.1</td><td>13.0</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.754</td><td>0.554</td><td>0.1</td><td>14.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.784</td><td>0.584</td><td>0.1</td><td>15.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.804</td><td>0.604</td><td>0.1</td><td>15.5</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.818</td><td>0.618</td><td>0.1</td><td>15.9</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.836</td><td>0.636</td><td>0.1</td><td>16.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.860</td><td>0.660</td><td>0.1</td><td>16.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.878</td><td>0.678</td><td>0.1</td><td>17.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.882</td><td>0.682</td><td>0.1</td><td>17.5</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.874</td><td>0.674</td><td>0.1</td><td>17.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.855</td><td>0.655</td><td>0.1</td><td>16.8</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.834</td><td>0.634</td><td>0.1</td><td>16.3</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.812</td><td>0.612</td><td>0.1</td><td>15.7</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.791</td><td>0.591</td><td>0.1</td><td>15.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.426</td><td>0.226</td><td>0.0</td><td>5.8</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.402	0.202	0.0	5.2	O K	30 min Summer	17.469	0.269	0.1	6.9	O K	60 min Summer	17.543	0.343	0.1	8.8	O K	120 min Summer	17.623	0.423	0.1	10.9	O K	180 min Summer	17.672	0.472	0.1	12.1	O K	240 min Summer	17.706	0.506	0.1	13.0	O K	360 min Summer	17.754	0.554	0.1	14.2	O K	480 min Summer	17.784	0.584	0.1	15.0	O K	600 min Summer	17.804	0.604	0.1	15.5	O K	720 min Summer	17.818	0.618	0.1	15.9	O K	960 min Summer	17.836	0.636	0.1	16.3	O K	1440 min Summer	17.860	0.660	0.1	16.9	O K	2160 min Summer	17.878	0.678	0.1	17.4	O K	2880 min Summer	17.882	0.682	0.1	17.5	O K	4320 min Summer	17.874	0.674	0.1	17.3	O K	5760 min Summer	17.855	0.655	0.1	16.8	O K	7200 min Summer	17.834	0.634	0.1	16.3	O K	8640 min Summer	17.812	0.612	0.1	15.7	O K	10080 min Summer	17.791	0.591	0.1	15.2	O K	15 min Winter	17.426	0.226	0.0	5.8	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	482	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	720	960 min Summer	4.775	0.0	836	1440 min Summer	3.569	0.0	1080	2160 min Summer	2.666	0.0	1472	2880 min Summer	2.166	0.0	1876	4320 min Summer	1.616	0.0	2720	5760 min Summer	1.312	0.0	3520	7200 min Summer	1.117	0.0	4320	8640 min Summer	0.979	0.0	5096	10080 min Summer	0.876	0.0	5848	15 min Winter	77.045	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment E			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.501	0.301	0.1	7.7	O K
60 min Winter	17.584	0.384	0.1	9.8	O K
120 min Winter	17.675	0.475	0.1	12.2	O K
180 min Winter	17.729	0.529	0.1	13.6	O K
240 min Winter	17.768	0.568	0.1	14.6	O K
360 min Winter	17.821	0.621	0.1	15.9	O K
480 min Winter	17.856	0.656	0.1	16.8	O K
600 min Winter	17.880	0.680	0.1	17.5	O K
720 min Winter	17.897	0.697	0.2	17.9	O K
960 min Winter	17.917	0.717	0.2	18.4	O K
1440 min Winter	17.939	0.739	0.2	18.9	O K
2160 min Winter	17.950	0.750	0.2	19.2	O K
2880 min Winter	17.946	0.746	0.2	19.1	O K
4320 min Winter	17.918	0.718	0.2	18.4	O K
5760 min Winter	17.883	0.683	0.1	17.5	O K
7200 min Winter	17.848	0.648	0.1	16.6	O K
8640 min Winter	17.815	0.615	0.1	15.8	O K
10080 min Winter	17.785	0.585	0.1	15.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	34		
60 min Winter	33.096	0.0	64		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	354		
480 min Winter	7.832	0.0	470		
600 min Winter	6.681	0.0	582		
720 min Winter	5.866	0.0	692		
960 min Winter	4.775	0.0	902		
1440 min Winter	3.569	0.0	1114		
2160 min Winter	2.666	0.0	1580		
2880 min Winter	2.166	0.0	2020		
4320 min Winter	1.616	0.0	2896		
5760 min Winter	1.312	0.0	3744		
7200 min Winter	1.117	0.0	4544		
8640 min Winter	0.979	0.0	5360		
10080 min Winter	0.876	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment E	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.036

Time (mins)		Area
From:	To:	(ha)
0	4	0.036

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Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.700

Cellular Storage Structure

Invert Level (m) 17.200 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	1.201	0.0	55.8
1.200	27.0	55.8			

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Lancaster Court		020.5672 Phase 2																																																																																																																																																																																																																					
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1345 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>17.302</td><td>0.202</td><td>0.0</td><td>5.8</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.369</td><td>0.269</td><td>0.1</td><td>7.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.443</td><td>0.343</td><td>0.1</td><td>9.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.524</td><td>0.424</td><td>0.1</td><td>12.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.573</td><td>0.473</td><td>0.1</td><td>13.5</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.607</td><td>0.507</td><td>0.1</td><td>14.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.655</td><td>0.555</td><td>0.1</td><td>15.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.686</td><td>0.586</td><td>0.1</td><td>16.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.707</td><td>0.607</td><td>0.1</td><td>17.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.721</td><td>0.621</td><td>0.1</td><td>17.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.739</td><td>0.639</td><td>0.2</td><td>18.2</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.763</td><td>0.663</td><td>0.2</td><td>18.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.782</td><td>0.682</td><td>0.2</td><td>19.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.787</td><td>0.687</td><td>0.2</td><td>19.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.780</td><td>0.680</td><td>0.2</td><td>19.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.763</td><td>0.663</td><td>0.2</td><td>18.9</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.742</td><td>0.642</td><td>0.2</td><td>18.3</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.720</td><td>0.620</td><td>0.1</td><td>17.7</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.700</td><td>0.600</td><td>0.1</td><td>17.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.326</td><td>0.226</td><td>0.1</td><td>6.4</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>854</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1082</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1476</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1900</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5104</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5856</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></tbody></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.302	0.202	0.0	5.8	O K	30 min Summer	17.369	0.269	0.1	7.7	O K	60 min Summer	17.443	0.343	0.1	9.8	O K	120 min Summer	17.524	0.424	0.1	12.1	O K	180 min Summer	17.573	0.473	0.1	13.5	O K	240 min Summer	17.607	0.507	0.1	14.5	O K	360 min Summer	17.655	0.555	0.1	15.8	O K	480 min Summer	17.686	0.586	0.1	16.7	O K	600 min Summer	17.707	0.607	0.1	17.3	O K	720 min Summer	17.721	0.621	0.1	17.7	O K	960 min Summer	17.739	0.639	0.2	18.2	O K	1440 min Summer	17.763	0.663	0.2	18.9	O K	2160 min Summer	17.782	0.682	0.2	19.4	O K	2880 min Summer	17.787	0.687	0.2	19.6	O K	4320 min Summer	17.780	0.680	0.2	19.4	O K	5760 min Summer	17.763	0.663	0.2	18.9	O K	7200 min Summer	17.742	0.642	0.2	18.3	O K	8640 min Summer	17.720	0.620	0.1	17.7	O K	10080 min Summer	17.700	0.600	0.1	17.1	O K	15 min Winter	17.326	0.226	0.1	6.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	482	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	720	960 min Summer	4.775	0.0	854	1440 min Summer	3.569	0.0	1082	2160 min Summer	2.666	0.0	1476	2880 min Summer	2.166	0.0	1900	4320 min Summer	1.616	0.0	2720	5760 min Summer	1.312	0.0	3520	7200 min Summer	1.117	0.0	4320	8640 min Summer	0.979	0.0	5104	10080 min Summer	0.876	0.0	5856	15 min Winter	77.045	0.0	19
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Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.401	0.301	0.1	8.6	O K
60 min Winter	17.484	0.384	0.1	10.9	O K
120 min Winter	17.575	0.475	0.1	13.5	O K
180 min Winter	17.630	0.530	0.1	15.1	O K
240 min Winter	17.669	0.569	0.1	16.2	O K
360 min Winter	17.723	0.623	0.1	17.8	O K
480 min Winter	17.758	0.658	0.2	18.8	O K
600 min Winter	17.783	0.683	0.2	19.5	O K
720 min Winter	17.800	0.700	0.2	20.0	O K
960 min Winter	17.821	0.721	0.2	20.6	O K
1440 min Winter	17.843	0.743	0.2	21.2	O K
2160 min Winter	17.856	0.756	0.2	21.5	O K
2880 min Winter	17.852	0.752	0.2	21.4	O K
4320 min Winter	17.826	0.726	0.2	20.7	O K
5760 min Winter	17.792	0.692	0.2	19.7	O K
7200 min Winter	17.757	0.657	0.2	18.7	O K
8640 min Winter	17.725	0.625	0.1	17.8	O K
10080 min Winter	17.694	0.594	0.1	16.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	34		
60 min Winter	33.096	0.0	64		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	356		
480 min Winter	7.832	0.0	470		
600 min Winter	6.681	0.0	582		
720 min Winter	5.866	0.0	692		
960 min Winter	4.775	0.0	904		
1440 min Winter	3.569	0.0	1124		
2160 min Winter	2.666	0.0	1580		
2880 min Winter	2.166	0.0	2044		
4320 min Winter	1.616	0.0	2900		
5760 min Winter	1.312	0.0	3752		
7200 min Winter	1.117	0.0	4544		
8640 min Winter	0.979	0.0	5360		
10080 min Winter	0.876	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment F	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.600

Cellular Storage Structure

Invert Level (m) 17.100 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13068

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	30.0	30.0	1.201	0.0	61.2
1.200	30.0	61.2			

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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1325 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>16.896</td><td>0.196</td><td>0.0</td><td>5.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.961</td><td>0.261</td><td>0.1</td><td>6.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.033</td><td>0.333</td><td>0.1</td><td>8.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.112</td><td>0.412</td><td>0.1</td><td>10.6</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.159</td><td>0.459</td><td>0.1</td><td>11.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.192</td><td>0.492</td><td>0.1</td><td>12.6</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.238</td><td>0.538</td><td>0.1</td><td>13.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.268</td><td>0.568</td><td>0.1</td><td>14.6</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.288</td><td>0.588</td><td>0.1</td><td>15.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.301</td><td>0.601</td><td>0.1</td><td>15.4</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.318</td><td>0.618</td><td>0.1</td><td>15.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.342</td><td>0.642</td><td>0.1</td><td>16.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.359</td><td>0.659</td><td>0.1</td><td>16.9</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.364</td><td>0.664</td><td>0.1</td><td>17.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.355</td><td>0.655</td><td>0.1</td><td>16.8</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.338</td><td>0.638</td><td>0.1</td><td>16.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.317</td><td>0.617</td><td>0.1</td><td>15.8</td><td>O K</td></tr><tr><td>8640 min 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Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.896	0.196	0.0	5.0	O K	30 min Summer	16.961	0.261	0.1	6.7	O K	60 min Summer	17.033	0.333	0.1	8.5	O K	120 min Summer	17.112	0.412	0.1	10.6	O K	180 min Summer	17.159	0.459	0.1	11.8	O K	240 min Summer	17.192	0.492	0.1	12.6	O K	360 min Summer	17.238	0.538	0.1	13.8	O K	480 min Summer	17.268	0.568	0.1	14.6	O K	600 min Summer	17.288	0.588	0.1	15.1	O K	720 min Summer	17.301	0.601	0.1	15.4	O K	960 min Summer	17.318	0.618	0.1	15.9	O K	1440 min Summer	17.342	0.642	0.1	16.5	O K	2160 min Summer	17.359	0.659	0.1	16.9	O K	2880 min Summer	17.364	0.664	0.1	17.0	O K	4320 min Summer	17.355	0.655	0.1	16.8	O K	5760 min Summer	17.338	0.638	0.1	16.4	O K	7200 min Summer	17.317	0.617	0.1	15.8	O K	8640 min Summer	17.296	0.596	0.1	15.3	O K	10080 min Summer	17.275	0.575	0.1	14.8	O K	15 min Winter	16.920	0.220	0.0	5.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	482	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	720	960 min Summer	4.775	0.0	836	1440 min Summer	3.569	0.0	1080	2160 min Summer	2.666	0.0	1472	2880 min Summer	2.166	0.0	1876	4320 min Summer	1.616	0.0	2720	5760 min Summer	1.312	0.0	3520	7200 min Summer	1.117	0.0	4320	8640 min Summer	0.979	0.0	5096	10080 min Summer	0.876	0.0	5848	15 min Winter	77.045	0.0	19
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment G			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	16.992	0.292	0.1	7.5	O K
60 min Winter	17.073	0.373	0.1	9.6	O K
120 min Winter	17.161	0.461	0.1	11.8	O K
180 min Winter	17.215	0.515	0.1	13.2	O K
240 min Winter	17.252	0.552	0.1	14.2	O K
360 min Winter	17.304	0.604	0.1	15.5	O K
480 min Winter	17.338	0.638	0.1	16.4	O K
600 min Winter	17.362	0.662	0.1	17.0	O K
720 min Winter	17.378	0.678	0.1	17.4	O K
960 min Winter	17.398	0.698	0.2	17.9	O K
1440 min Winter	17.418	0.718	0.2	18.4	O K
2160 min Winter	17.430	0.730	0.2	18.7	O K
2880 min Winter	17.425	0.725	0.2	18.6	O K
4320 min Winter	17.398	0.698	0.2	17.9	O K
5760 min Winter	17.365	0.665	0.1	17.0	O K
7200 min Winter	17.331	0.631	0.1	16.2	O K
8640 min Winter	17.299	0.599	0.1	15.4	O K
10080 min Winter	17.269	0.569	0.1	14.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	34		
60 min Winter	33.096	0.0	64		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	354		
480 min Winter	7.832	0.0	470		
600 min Winter	6.681	0.0	582		
720 min Winter	5.866	0.0	692		
960 min Winter	4.775	0.0	902		
1440 min Winter	3.569	0.0	1114		
2160 min Winter	2.666	0.0	1580		
2880 min Winter	2.166	0.0	2020		
4320 min Winter	1.616	0.0	2896		
5760 min Winter	1.312	0.0	3744		
7200 min Winter	1.117	0.0	4544		
8640 min Winter	0.979	0.0	5360		
10080 min Winter	0.876	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment G	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.035

Time (mins)	Area
From:	To: (ha)
0	4 0.035

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Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.200

Cellular Storage Structure

Invert Level (m) 16.700 Safety Factor 4.0
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.13068

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	1.201	0.0	55.8
1.200	27.0	55.8			

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Summer</td><td>17.110</td><td>0.610</td><td>0.2</td><td>18.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.126</td><td>0.626</td><td>0.2</td><td>19.0</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.138</td><td>0.638</td><td>0.2</td><td>19.4</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.156</td><td>0.656</td><td>0.2</td><td>19.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.177</td><td>0.677</td><td>0.2</td><td>20.6</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.189</td><td>0.689</td><td>0.2</td><td>20.9</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.187</td><td>0.687</td><td>0.2</td><td>20.9</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.166</td><td>0.666</td><td>0.2</td><td>20.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.139</td><td>0.639</td><td>0.2</td><td>19.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.111</td><td>0.611</td><td>0.2</td><td>18.6</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.085</td><td>0.585</td><td>0.2</td><td>17.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.061</td><td>0.561</td><td>0.2</td><td>17.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>16.743</td><td>0.243</td><td>0.1</td><td>7.4</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>644</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>760</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1012</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1428</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1844</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2640</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3456</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4248</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5008</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5752</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.717	0.217	0.1	6.6	O K	30 min Summer	16.789	0.289	0.1	8.8	O K	60 min Summer	16.868	0.368	0.1	11.2	O K	120 min Summer	16.953	0.453	0.1	13.8	O K	180 min Summer	17.003	0.503	0.2	15.3	O K	240 min Summer	17.037	0.537	0.2	16.3	O K	360 min Summer	17.083	0.583	0.2	17.7	O K	480 min Summer	17.110	0.610	0.2	18.5	O K	600 min Summer	17.126	0.626	0.2	19.0	O K	720 min Summer	17.138	0.638	0.2	19.4	O K	960 min Summer	17.156	0.656	0.2	19.9	O K	1440 min Summer	17.177	0.677	0.2	20.6	O K	2160 min Summer	17.189	0.689	0.2	20.9	O K	2880 min Summer	17.187	0.687	0.2	20.9	O K	4320 min Summer	17.166	0.666	0.2	20.3	O K	5760 min Summer	17.139	0.639	0.2	19.4	O K	7200 min Summer	17.111	0.611	0.2	18.6	O K	8640 min Summer	17.085	0.585	0.2	17.8	O K	10080 min Summer	17.061	0.561	0.2	17.0	O K	15 min Winter	16.743	0.243	0.1	7.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	480	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	644	960 min Summer	4.775	0.0	760	1440 min Summer	3.569	0.0	1012	2160 min Summer	2.666	0.0	1428	2880 min Summer	2.166	0.0	1844	4320 min Summer	1.616	0.0	2640	5760 min Summer	1.312	0.0	3456	7200 min Summer	1.117	0.0	4248	8640 min Summer	0.979	0.0	5008	10080 min Summer	0.876	0.0	5752	15 min Winter	77.045	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment H			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	16.824	0.324	0.1	9.8	O K
60 min Winter	16.912	0.412	0.1	12.5	O K
120 min Winter	17.008	0.508	0.2	15.4	O K
180 min Winter	17.064	0.564	0.2	17.1	O K
240 min Winter	17.103	0.603	0.2	18.3	O K
360 min Winter	17.155	0.655	0.2	19.9	O K
480 min Winter	17.187	0.687	0.2	20.9	O K
600 min Winter	17.207	0.707	0.2	21.5	O K
720 min Winter	17.220	0.720	0.2	21.9	O K
960 min Winter	17.235	0.735	0.2	22.4	O K
1440 min Winter	17.254	0.754	0.2	22.9	O K
2160 min Winter	17.254	0.754	0.2	22.9	O K
2880 min Winter	17.240	0.740	0.2	22.5	O K
4320 min Winter	17.197	0.697	0.2	21.2	O K
5760 min Winter	17.152	0.652	0.2	19.8	O K
7200 min Winter	17.111	0.611	0.2	18.6	O K
8640 min Winter	17.073	0.573	0.2	17.4	O K
10080 min Winter	17.040	0.540	0.2	16.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	33		
60 min Winter	33.096	0.0	62		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	352		
480 min Winter	7.832	0.0	466		
600 min Winter	6.681	0.0	576		
720 min Winter	5.866	0.0	680		
960 min Winter	4.775	0.0	778		
1440 min Winter	3.569	0.0	1080		
2160 min Winter	2.666	0.0	1532		
2880 min Winter	2.166	0.0	1964		
4320 min Winter	1.616	0.0	2812		
5760 min Winter	1.312	0.0	3632		
7200 min Winter	1.117	0.0	4464		
8640 min Winter	0.979	0.0	5192		
10080 min Winter	0.876	0.0	6048		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment H	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.046

Time (mins)		Area
From:	To:	(ha)
0	4	0.046

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment H	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.000

Cellular Storage Structure

Invert Level (m) 16.500 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	32.0	32.0	1.201	0.0	75.2
1.200	32.0	75.2			

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Lancaster Court Fareham Hampshire, PO15 5TU																																																																																																																																																																																																																							
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1323 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>17.329</td><td>0.129</td><td>0.0</td><td>3.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.372</td><td>0.172</td><td>0.0</td><td>4.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.419</td><td>0.219</td><td>0.0</td><td>5.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.471</td><td>0.271</td><td>0.1</td><td>6.9</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.502</td><td>0.302</td><td>0.1</td><td>7.7</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.524</td><td>0.324</td><td>0.1</td><td>8.3</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.554</td><td>0.354</td><td>0.1</td><td>9.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.573</td><td>0.373</td><td>0.1</td><td>9.6</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.586</td><td>0.386</td><td>0.1</td><td>9.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.595</td><td>0.395</td><td>0.1</td><td>10.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.606</td><td>0.406</td><td>0.1</td><td>10.4</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.622</td><td>0.422</td><td>0.1</td><td>10.8</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.633</td><td>0.433</td><td>0.1</td><td>11.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.636</td><td>0.436</td><td>0.1</td><td>11.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.630</td><td>0.430</td><td>0.1</td><td>11.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.619</td><td>0.419</td><td>0.1</td><td>10.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.605</td><td>0.405</td><td>0.1</td><td>10.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.591</td><td>0.391</td><td>0.1</td><td>10.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.578</td><td>0.378</td><td>0.1</td><td>9.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.344</td><td>0.144</td><td>0.0</td><td>3.7</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.329	0.129	0.0	3.3	O K	30 min Summer	17.372	0.172	0.0	4.4	O K	60 min Summer	17.419	0.219	0.0	5.6	O K	120 min Summer	17.471	0.271	0.1	6.9	O K	180 min Summer	17.502	0.302	0.1	7.7	O K	240 min Summer	17.524	0.324	0.1	8.3	O K	360 min Summer	17.554	0.354	0.1	9.1	O K	480 min Summer	17.573	0.373	0.1	9.6	O K	600 min Summer	17.586	0.386	0.1	9.9	O K	720 min Summer	17.595	0.395	0.1	10.1	O K	960 min Summer	17.606	0.406	0.1	10.4	O K	1440 min Summer	17.622	0.422	0.1	10.8	O K	2160 min Summer	17.633	0.433	0.1	11.1	O K	2880 min Summer	17.636	0.436	0.1	11.2	O K	4320 min Summer	17.630	0.430	0.1	11.0	O K	5760 min Summer	17.619	0.419	0.1	10.7	O K	7200 min Summer	17.605	0.405	0.1	10.4	O K	8640 min Summer	17.591	0.391	0.1	10.0	O K	10080 min Summer	17.578	0.378	0.1	9.7	O K	15 min Winter	17.344	0.144	0.0	3.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	482	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	720	960 min Summer	4.775	0.0	836	1440 min Summer	3.569	0.0	1080	2160 min Summer	2.666	0.0	1472	2880 min Summer	2.166	0.0	1876	4320 min Summer	1.616	0.0	2720	5760 min Summer	1.312	0.0	3520	7200 min Summer	1.117	0.0	4320	8640 min Summer	0.979	0.0	5096	10080 min Summer	0.876	0.0	5848	15 min Winter	77.045	0.0	19
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU					
Date 23/08/2021 12:39 File 020.5672 Infiltration C...		Designed by MicroDrainage Checked by			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.392	0.192	0.0	4.9	O K
60 min Winter	17.445	0.245	0.1	6.3	O K
120 min Winter	17.503	0.303	0.1	7.8	O K
180 min Winter	17.538	0.338	0.1	8.7	O K
240 min Winter	17.563	0.363	0.1	9.3	O K
360 min Winter	17.597	0.397	0.1	10.2	O K
480 min Winter	17.619	0.419	0.1	10.8	O K
600 min Winter	17.635	0.435	0.1	11.2	O K
720 min Winter	17.645	0.445	0.1	11.4	O K
960 min Winter	17.658	0.458	0.1	11.8	O K
1440 min Winter	17.672	0.472	0.1	12.1	O K
2160 min Winter	17.679	0.479	0.1	12.3	O K
2880 min Winter	17.676	0.476	0.1	12.2	O K
4320 min Winter	17.659	0.459	0.1	11.8	O K
5760 min Winter	17.636	0.436	0.1	11.2	O K
7200 min Winter	17.614	0.414	0.1	10.6	O K
8640 min Winter	17.593	0.393	0.1	10.1	O K
10080 min Winter	17.574	0.374	0.1	9.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	34		
60 min Winter	33.096	0.0	64		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	354		
480 min Winter	7.832	0.0	470		
600 min Winter	6.681	0.0	582		
720 min Winter	5.866	0.0	692		
960 min Winter	4.775	0.0	902		
1440 min Winter	3.569	0.0	1114		
2160 min Winter	2.666	0.0	1580		
2880 min Winter	2.166	0.0	2020		
4320 min Winter	1.616	0.0	2896		
5760 min Winter	1.312	0.0	3744		
7200 min Winter	1.117	0.0	4544		
8640 min Winter	0.979	0.0	5360		
10080 min Winter	0.876	0.0	6152		
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Lancaster Court

Fareham

Hampshire, PO15 5TU

Date 23/08/2021 12:39

File 020.5672 Infiltration C...

Designed by MicroDrainage

Checked by

Innovyze

Source Control 2020.1.3

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.023

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

0 4 0.023

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Lancaster Court Fareham Hampshire, PO15 5TU		
Date 23/08/2021 12:39 File 020.5672 Infiltration C...	Designed by MicroDrainage Checked by	
Innovyze	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 18.300

Cellular Storage Structure

Invert Level (m) 17.200 Safety Factor 4.0
 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	0.801	0.0	46.2
0.800	27.0	46.2			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment K																																																																																																																																																																																																																					
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1057 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>16.715</td><td>0.215</td><td>0.1</td><td>8.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.786</td><td>0.286</td><td>0.1</td><td>10.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>16.865</td><td>0.365</td><td>0.1</td><td>13.9</td><td>O K</td></tr><tr><td>120 min Summer</td><td>16.949</td><td>0.449</td><td>0.2</td><td>17.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.999</td><td>0.499</td><td>0.2</td><td>19.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.034</td><td>0.534</td><td>0.2</td><td>20.3</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.079</td><td>0.579</td><td>0.2</td><td>22.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.107</td><td>0.607</td><td>0.2</td><td>23.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.124</td><td>0.624</td><td>0.2</td><td>23.7</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.135</td><td>0.635</td><td>0.3</td><td>24.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.153</td><td>0.653</td><td>0.3</td><td>24.8</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.175</td><td>0.675</td><td>0.3</td><td>25.6</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.187</td><td>0.687</td><td>0.3</td><td>26.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.185</td><td>0.685</td><td>0.3</td><td>26.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.166</td><td>0.666</td><td>0.3</td><td>25.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.140</td><td>0.640</td><td>0.3</td><td>24.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.113</td><td>0.613</td><td>0.2</td><td>23.3</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.087</td><td>0.587</td><td>0.2</td><td>22.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.063</td><td>0.563</td><td>0.2</td><td>21.4</td><td>O K</td></tr><tr><td>15 min Winter</td><td>16.741</td><td>0.241</td><td>0.1</td><td>9.2</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>658</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>764</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1022</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1428</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1844</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2640</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3456</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4248</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5016</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5752</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.715	0.215	0.1	8.2	O K	30 min Summer	16.786	0.286	0.1	10.9	O K	60 min Summer	16.865	0.365	0.1	13.9	O K	120 min Summer	16.949	0.449	0.2	17.1	O K	180 min Summer	16.999	0.499	0.2	19.0	O K	240 min Summer	17.034	0.534	0.2	20.3	O K	360 min Summer	17.079	0.579	0.2	22.0	O K	480 min Summer	17.107	0.607	0.2	23.1	O K	600 min Summer	17.124	0.624	0.2	23.7	O K	720 min Summer	17.135	0.635	0.3	24.1	O K	960 min Summer	17.153	0.653	0.3	24.8	O K	1440 min Summer	17.175	0.675	0.3	25.6	O K	2160 min Summer	17.187	0.687	0.3	26.1	O K	2880 min Summer	17.185	0.685	0.3	26.0	O K	4320 min Summer	17.166	0.666	0.3	25.3	O K	5760 min Summer	17.140	0.640	0.3	24.3	O K	7200 min Summer	17.113	0.613	0.2	23.3	O K	8640 min Summer	17.087	0.587	0.2	22.3	O K	10080 min Summer	17.063	0.563	0.2	21.4	O K	15 min Winter	16.741	0.241	0.1	9.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	480	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	658	960 min Summer	4.775	0.0	764	1440 min Summer	3.569	0.0	1022	2160 min Summer	2.666	0.0	1428	2880 min Summer	2.166	0.0	1844	4320 min Summer	1.616	0.0	2640	5760 min Summer	1.312	0.0	3456	7200 min Summer	1.117	0.0	4248	8640 min Summer	0.979	0.0	5016	10080 min Summer	0.876	0.0	5752	15 min Winter	77.045	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
15 min Summer	16.715	0.215	0.1	8.2	O K																																																																																																																																																																																																																		
30 min Summer	16.786	0.286	0.1	10.9	O K																																																																																																																																																																																																																		
60 min Summer	16.865	0.365	0.1	13.9	O K																																																																																																																																																																																																																		
120 min Summer	16.949	0.449	0.2	17.1	O K																																																																																																																																																																																																																		
180 min Summer	16.999	0.499	0.2	19.0	O K																																																																																																																																																																																																																		
240 min Summer	17.034	0.534	0.2	20.3	O K																																																																																																																																																																																																																		
360 min Summer	17.079	0.579	0.2	22.0	O K																																																																																																																																																																																																																		
480 min Summer	17.107	0.607	0.2	23.1	O K																																																																																																																																																																																																																		
600 min Summer	17.124	0.624	0.2	23.7	O K																																																																																																																																																																																																																		
720 min Summer	17.135	0.635	0.3	24.1	O K																																																																																																																																																																																																																		
960 min Summer	17.153	0.653	0.3	24.8	O K																																																																																																																																																																																																																		
1440 min Summer	17.175	0.675	0.3	25.6	O K																																																																																																																																																																																																																		
2160 min Summer	17.187	0.687	0.3	26.1	O K																																																																																																																																																																																																																		
2880 min Summer	17.185	0.685	0.3	26.0	O K																																																																																																																																																																																																																		
4320 min Summer	17.166	0.666	0.3	25.3	O K																																																																																																																																																																																																																		
5760 min Summer	17.140	0.640	0.3	24.3	O K																																																																																																																																																																																																																		
7200 min Summer	17.113	0.613	0.2	23.3	O K																																																																																																																																																																																																																		
8640 min Summer	17.087	0.587	0.2	22.3	O K																																																																																																																																																																																																																		
10080 min Summer	17.063	0.563	0.2	21.4	O K																																																																																																																																																																																																																		
15 min Winter	16.741	0.241	0.1	9.2	O K																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																				
15 min Summer	77.045	0.0	19																																																																																																																																																																																																																				
30 min Summer	51.477	0.0	34																																																																																																																																																																																																																				
60 min Summer	33.096	0.0	64																																																																																																																																																																																																																				
120 min Summer	20.757	0.0	124																																																																																																																																																																																																																				
180 min Summer	15.665	0.0	182																																																																																																																																																																																																																				
240 min Summer	12.793	0.0	242																																																																																																																																																																																																																				
360 min Summer	9.607	0.0	362																																																																																																																																																																																																																				
480 min Summer	7.832	0.0	480																																																																																																																																																																																																																				
600 min Summer	6.681	0.0	600																																																																																																																																																																																																																				
720 min Summer	5.866	0.0	658																																																																																																																																																																																																																				
960 min Summer	4.775	0.0	764																																																																																																																																																																																																																				
1440 min Summer	3.569	0.0	1022																																																																																																																																																																																																																				
2160 min Summer	2.666	0.0	1428																																																																																																																																																																																																																				
2880 min Summer	2.166	0.0	1844																																																																																																																																																																																																																				
4320 min Summer	1.616	0.0	2640																																																																																																																																																																																																																				
5760 min Summer	1.312	0.0	3456																																																																																																																																																																																																																				
7200 min Summer	1.117	0.0	4248																																																																																																																																																																																																																				
8640 min Summer	0.979	0.0	5016																																																																																																																																																																																																																				
10080 min Summer	0.876	0.0	5752																																																																																																																																																																																																																				
15 min Winter	77.045	0.0	19																																																																																																																																																																																																																				
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment K			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	16.821	0.321	0.1	12.2	O K
60 min Winter	16.909	0.409	0.2	15.5	O K
120 min Winter	17.004	0.504	0.2	19.1	O K
180 min Winter	17.060	0.560	0.2	21.3	O K
240 min Winter	17.099	0.599	0.2	22.7	O K
360 min Winter	17.151	0.651	0.3	24.7	O K
480 min Winter	17.183	0.683	0.3	26.0	O K
600 min Winter	17.204	0.704	0.3	26.7	O K
720 min Winter	17.217	0.717	0.3	27.2	O K
960 min Winter	17.232	0.732	0.3	27.8	O K
1440 min Winter	17.252	0.752	0.3	28.6	O K
2160 min Winter	17.253	0.753	0.3	28.6	O K
2880 min Winter	17.240	0.740	0.3	28.1	O K
4320 min Winter	17.198	0.698	0.3	26.5	O K
5760 min Winter	17.155	0.655	0.3	24.9	O K
7200 min Winter	17.114	0.614	0.2	23.3	O K
8640 min Winter	17.077	0.577	0.2	21.9	O K
10080 min Winter	17.044	0.544	0.2	20.7	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	33		
60 min Winter	33.096	0.0	62		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	354		
480 min Winter	7.832	0.0	466		
600 min Winter	6.681	0.0	576		
720 min Winter	5.866	0.0	680		
960 min Winter	4.775	0.0	782		
1440 min Winter	3.569	0.0	1082		
2160 min Winter	2.666	0.0	1536		
2880 min Winter	2.166	0.0	1984		
4320 min Winter	1.616	0.0	2812		
5760 min Winter	1.312	0.0	3640		
7200 min Winter	1.117	0.0	4464		
8640 min Winter	0.979	0.0	5264		
10080 min Winter	0.876	0.0	6048		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment K	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.057

Time (mins)		Area
From:	To:	(ha)
0	4	0.057

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment K	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.000

Cellular Storage Structure

Invert Level (m) 16.500 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	40.0	40.0	1.201	0.0	92.8
1.200	40.0	92.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment L																																																																																																																																																																																																																					
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW																																																																																																																																																																																																																					
Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1343 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>16.131</td><td>0.131</td><td>0.0</td><td>3.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>16.175</td><td>0.175</td><td>0.0</td><td>5.0</td><td>O K</td></tr><tr><td>60 min Summer</td><td>16.223</td><td>0.223</td><td>0.1</td><td>6.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>16.275</td><td>0.275</td><td>0.1</td><td>7.8</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.307</td><td>0.307</td><td>0.1</td><td>8.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>16.330</td><td>0.330</td><td>0.1</td><td>9.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>16.361</td><td>0.361</td><td>0.1</td><td>10.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>16.381</td><td>0.381</td><td>0.1</td><td>10.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>16.394</td><td>0.394</td><td>0.1</td><td>11.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>16.404</td><td>0.404</td><td>0.1</td><td>11.5</td><td>O K</td></tr><tr><td>960 min Summer</td><td>16.415</td><td>0.415</td><td>0.1</td><td>11.8</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>16.431</td><td>0.431</td><td>0.1</td><td>12.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>16.443</td><td>0.443</td><td>0.1</td><td>12.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>16.447</td><td>0.447</td><td>0.1</td><td>12.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>16.442</td><td>0.442</td><td>0.1</td><td>12.6</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>16.430</td><td>0.430</td><td>0.1</td><td>12.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>16.417</td><td>0.417</td><td>0.1</td><td>11.9</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>16.403</td><td>0.403</td><td>0.1</td><td>11.5</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>16.389</td><td>0.389</td><td>0.1</td><td>11.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>16.147</td><td>0.147</td><td>0.0</td><td>4.2</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>854</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1082</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1476</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1900</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5104</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5856</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	16.131	0.131	0.0	3.7	O K	30 min Summer	16.175	0.175	0.0	5.0	O K	60 min Summer	16.223	0.223	0.1	6.4	O K	120 min Summer	16.275	0.275	0.1	7.8	O K	180 min Summer	16.307	0.307	0.1	8.8	O K	240 min Summer	16.330	0.330	0.1	9.4	O K	360 min Summer	16.361	0.361	0.1	10.3	O K	480 min Summer	16.381	0.381	0.1	10.9	O K	600 min Summer	16.394	0.394	0.1	11.2	O K	720 min Summer	16.404	0.404	0.1	11.5	O K	960 min Summer	16.415	0.415	0.1	11.8	O K	1440 min Summer	16.431	0.431	0.1	12.3	O K	2160 min Summer	16.443	0.443	0.1	12.6	O K	2880 min Summer	16.447	0.447	0.1	12.7	O K	4320 min Summer	16.442	0.442	0.1	12.6	O K	5760 min Summer	16.430	0.430	0.1	12.3	O K	7200 min Summer	16.417	0.417	0.1	11.9	O K	8640 min Summer	16.403	0.403	0.1	11.5	O K	10080 min Summer	16.389	0.389	0.1	11.1	O K	15 min Winter	16.147	0.147	0.0	4.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	482	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	720	960 min Summer	4.775	0.0	854	1440 min Summer	3.569	0.0	1082	2160 min Summer	2.666	0.0	1476	2880 min Summer	2.166	0.0	1900	4320 min Summer	1.616	0.0	2720	5760 min Summer	1.312	0.0	3520	7200 min Summer	1.117	0.0	4320	8640 min Summer	0.979	0.0	5104	10080 min Summer	0.876	0.0	5856	15 min Winter	77.045	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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4320 min Summer	16.442	0.442	0.1	12.6	O K																																																																																																																																																																																																																		
5760 min Summer	16.430	0.430	0.1	12.3	O K																																																																																																																																																																																																																		
7200 min Summer	16.417	0.417	0.1	11.9	O K																																																																																																																																																																																																																		
8640 min Summer	16.403	0.403	0.1	11.5	O K																																																																																																																																																																																																																		
10080 min Summer	16.389	0.389	0.1	11.1	O K																																																																																																																																																																																																																		
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480 min Summer	7.832	0.0	482																																																																																																																																																																																																																				
600 min Summer	6.681	0.0	600																																																																																																																																																																																																																				
720 min Summer	5.866	0.0	720																																																																																																																																																																																																																				
960 min Summer	4.775	0.0	854																																																																																																																																																																																																																				
1440 min Summer	3.569	0.0	1082																																																																																																																																																																																																																				
2160 min Summer	2.666	0.0	1476																																																																																																																																																																																																																				
2880 min Summer	2.166	0.0	1900																																																																																																																																																																																																																				
4320 min Summer	1.616	0.0	2720																																																																																																																																																																																																																				
5760 min Summer	1.312	0.0	3520																																																																																																																																																																																																																				
7200 min Summer	1.117	0.0	4320																																																																																																																																																																																																																				
8640 min Summer	0.979	0.0	5104																																																																																																																																																																																																																				
10080 min Summer	0.876	0.0	5856																																																																																																																																																																																																																				
15 min Winter	77.045	0.0	19																																																																																																																																																																																																																				
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Paul Basham Associates				Page 2	
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment L			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	16.196	0.196	0.0	5.6	O K
60 min Winter	16.250	0.250	0.1	7.1	O K
120 min Winter	16.309	0.309	0.1	8.8	O K
180 min Winter	16.344	0.344	0.1	9.8	O K
240 min Winter	16.370	0.370	0.1	10.5	O K
360 min Winter	16.405	0.405	0.1	11.5	O K
480 min Winter	16.428	0.428	0.1	12.2	O K
600 min Winter	16.444	0.444	0.1	12.6	O K
720 min Winter	16.455	0.455	0.1	13.0	O K
960 min Winter	16.469	0.469	0.1	13.4	O K
1440 min Winter	16.483	0.483	0.1	13.8	O K
2160 min Winter	16.491	0.491	0.1	14.0	O K
2880 min Winter	16.489	0.489	0.1	13.9	O K
4320 min Winter	16.472	0.472	0.1	13.4	O K
5760 min Winter	16.449	0.449	0.1	12.8	O K
7200 min Winter	16.427	0.427	0.1	12.2	O K
8640 min Winter	16.406	0.406	0.1	11.6	O K
10080 min Winter	16.386	0.386	0.1	11.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	34		
60 min Winter	33.096	0.0	64		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	354		
480 min Winter	7.832	0.0	470		
600 min Winter	6.681	0.0	582		
720 min Winter	5.866	0.0	692		
960 min Winter	4.775	0.0	904		
1440 min Winter	3.569	0.0	1124		
2160 min Winter	2.666	0.0	1580		
2880 min Winter	2.166	0.0	2044		
4320 min Winter	1.616	0.0	2900		
5760 min Winter	1.312	0.0	3752		
7200 min Winter	1.117	0.0	4544		
8640 min Winter	0.979	0.0	5360		
10080 min Winter	0.876	0.0	6152		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment L	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.026

Time (mins)		Area
From:	To:	(ha)
0	4	0.026

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment L	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 17.100

Cellular Storage Structure

Invert Level (m) 16.000 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	30.0	30.0	0.801	0.0	50.8
0.800	30.0	50.8			

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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment M																																																																																																																																																																																																																					
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Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 1323 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>15.436</td><td>0.196</td><td>0.0</td><td>5.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>15.501</td><td>0.261</td><td>0.1</td><td>6.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>15.573</td><td>0.333</td><td>0.1</td><td>8.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>15.652</td><td>0.412</td><td>0.1</td><td>10.6</td><td>O K</td></tr><tr><td>180 min Summer</td><td>15.699</td><td>0.459</td><td>0.1</td><td>11.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>15.732</td><td>0.492</td><td>0.1</td><td>12.6</td><td>O K</td></tr><tr><td>360 min Summer</td><td>15.778</td><td>0.538</td><td>0.1</td><td>13.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>15.808</td><td>0.568</td><td>0.1</td><td>14.6</td><td>O K</td></tr><tr><td>600 min Summer</td><td>15.828</td><td>0.588</td><td>0.1</td><td>15.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>15.841</td><td>0.601</td><td>0.1</td><td>15.4</td><td>O K</td></tr><tr><td>960 min Summer</td><td>15.858</td><td>0.618</td><td>0.1</td><td>15.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>15.881</td><td>0.641</td><td>0.1</td><td>16.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>15.899</td><td>0.659</td><td>0.1</td><td>16.9</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>15.903</td><td>0.663</td><td>0.1</td><td>17.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>15.895</td><td>0.655</td><td>0.1</td><td>16.8</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>15.877</td><td>0.637</td><td>0.1</td><td>16.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>15.857</td><td>0.617</td><td>0.1</td><td>15.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>15.835</td><td>0.595</td><td>0.1</td><td>15.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>15.815</td><td>0.575</td><td>0.1</td><td>14.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>15.460</td><td>0.220</td><td>0.0</td><td>5.6</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>836</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>1080</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1472</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1876</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5848</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	15.436	0.196	0.0	5.0	O K	30 min Summer	15.501	0.261	0.1	6.7	O K	60 min Summer	15.573	0.333	0.1	8.5	O K	120 min Summer	15.652	0.412	0.1	10.6	O K	180 min Summer	15.699	0.459	0.1	11.8	O K	240 min Summer	15.732	0.492	0.1	12.6	O K	360 min Summer	15.778	0.538	0.1	13.8	O K	480 min Summer	15.808	0.568	0.1	14.6	O K	600 min Summer	15.828	0.588	0.1	15.1	O K	720 min Summer	15.841	0.601	0.1	15.4	O K	960 min Summer	15.858	0.618	0.1	15.9	O K	1440 min Summer	15.881	0.641	0.1	16.5	O K	2160 min Summer	15.899	0.659	0.1	16.9	O K	2880 min Summer	15.903	0.663	0.1	17.0	O K	4320 min Summer	15.895	0.655	0.1	16.8	O K	5760 min Summer	15.877	0.637	0.1	16.3	O K	7200 min Summer	15.857	0.617	0.1	15.8	O K	8640 min Summer	15.835	0.595	0.1	15.3	O K	10080 min Summer	15.815	0.575	0.1	14.7	O K	15 min Winter	15.460	0.220	0.0	5.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	124	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	362	480 min Summer	7.832	0.0	482	600 min Summer	6.681	0.0	600	720 min Summer	5.866	0.0	720	960 min Summer	4.775	0.0	836	1440 min Summer	3.569	0.0	1080	2160 min Summer	2.666	0.0	1472	2880 min Summer	2.166	0.0	1876	4320 min Summer	1.616	0.0	2720	5760 min Summer	1.312	0.0	3520	7200 min Summer	1.117	0.0	4320	8640 min Summer	0.979	0.0	5096	10080 min Summer	0.876	0.0	5848	15 min Winter	77.045	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																		
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8640 min Summer	15.835	0.595	0.1	15.3	O K																																																																																																																																																																																																																		
10080 min Summer	15.815	0.575	0.1	14.7	O K																																																																																																																																																																																																																		
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment M			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	15.532	0.292	0.1	7.5	O K
60 min Winter	15.613	0.373	0.1	9.6	O K
120 min Winter	15.701	0.461	0.1	11.8	O K
180 min Winter	15.755	0.515	0.1	13.2	O K
240 min Winter	15.792	0.552	0.1	14.2	O K
360 min Winter	15.844	0.604	0.1	15.5	O K
480 min Winter	15.878	0.638	0.1	16.4	O K
600 min Winter	15.902	0.662	0.1	17.0	O K
720 min Winter	15.918	0.678	0.1	17.4	O K
960 min Winter	15.937	0.697	0.2	17.9	O K
1440 min Winter	15.958	0.718	0.2	18.4	O K
2160 min Winter	15.969	0.729	0.2	18.7	O K
2880 min Winter	15.965	0.725	0.2	18.6	O K
4320 min Winter	15.938	0.698	0.2	17.9	O K
5760 min Winter	15.904	0.664	0.1	17.0	O K
7200 min Winter	15.870	0.630	0.1	16.2	O K
8640 min Winter	15.838	0.598	0.1	15.3	O K
10080 min Winter	15.808	0.568	0.1	14.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	34		
60 min Winter	33.096	0.0	64		
120 min Winter	20.757	0.0	122		
180 min Winter	15.665	0.0	180		
240 min Winter	12.793	0.0	238		
360 min Winter	9.607	0.0	354		
480 min Winter	7.832	0.0	470		
600 min Winter	6.681	0.0	582		
720 min Winter	5.866	0.0	692		
960 min Winter	4.775	0.0	902		
1440 min Winter	3.569	0.0	1114		
2160 min Winter	2.666	0.0	1580		
2880 min Winter	2.166	0.0	2020		
4320 min Winter	1.616	0.0	2896		
5760 min Winter	1.312	0.0	3744		
7200 min Winter	1.117	0.0	4544		
8640 min Winter	0.979	0.0	5360		
10080 min Winter	0.876	0.0	6152		
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Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 17.200

Cellular Storage Structure

Invert Level (m) 15.240 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	27.0	27.0	1.201	0.0	55.8
1.200	27.0	55.8			

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Paul Basham Associates				Page 1																																																																																																																																																																																																																			
Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment N																																																																																																																																																																																																																					
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<u>Summary of Results for 10 year Return Period (+40%)</u> Half Drain Time : 659 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>17.625</td><td>0.075</td><td>0.0</td><td>0.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>17.650</td><td>0.100</td><td>0.0</td><td>1.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>17.676</td><td>0.126</td><td>0.0</td><td>1.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>17.704</td><td>0.154</td><td>0.0</td><td>1.8</td><td>O K</td></tr><tr><td>180 min Summer</td><td>17.719</td><td>0.169</td><td>0.0</td><td>1.9</td><td>O K</td></tr><tr><td>240 min Summer</td><td>17.729</td><td>0.179</td><td>0.0</td><td>2.0</td><td>O K</td></tr><tr><td>360 min Summer</td><td>17.740</td><td>0.190</td><td>0.0</td><td>2.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>17.746</td><td>0.196</td><td>0.0</td><td>2.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>17.750</td><td>0.200</td><td>0.0</td><td>2.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>17.753</td><td>0.203</td><td>0.0</td><td>2.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>17.758</td><td>0.208</td><td>0.0</td><td>2.4</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>17.761</td><td>0.211</td><td>0.0</td><td>2.4</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>17.758</td><td>0.208</td><td>0.0</td><td>2.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>17.753</td><td>0.203</td><td>0.0</td><td>2.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>17.739</td><td>0.189</td><td>0.0</td><td>2.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>17.727</td><td>0.177</td><td>0.0</td><td>2.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>17.715</td><td>0.165</td><td>0.0</td><td>1.9</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>17.706</td><td>0.156</td><td>0.0</td><td>1.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>17.697</td><td>0.147</td><td>0.0</td><td>1.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>17.634</td><td>0.084</td><td>0.0</td><td>1.0</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>77.045</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>51.477</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>33.096</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>20.757</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>15.665</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>12.793</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>9.607</td><td>0.0</td><td>360</td></tr><tr><td>480 min Summer</td><td>7.832</td><td>0.0</td><td>418</td></tr><tr><td>600 min Summer</td><td>6.681</td><td>0.0</td><td>478</td></tr><tr><td>720 min Summer</td><td>5.866</td><td>0.0</td><td>540</td></tr><tr><td>960 min Summer</td><td>4.775</td><td>0.0</td><td>672</td></tr><tr><td>1440 min Summer</td><td>3.569</td><td>0.0</td><td>940</td></tr><tr><td>2160 min Summer</td><td>2.666</td><td>0.0</td><td>1360</td></tr><tr><td>2880 min Summer</td><td>2.166</td><td>0.0</td><td>1760</td></tr><tr><td>4320 min Summer</td><td>1.616</td><td>0.0</td><td>2548</td></tr><tr><td>5760 min Summer</td><td>1.312</td><td>0.0</td><td>3296</td></tr><tr><td>7200 min Summer</td><td>1.117</td><td>0.0</td><td>4040</td></tr><tr><td>8640 min Summer</td><td>0.979</td><td>0.0</td><td>4840</td></tr><tr><td>10080 min Summer</td><td>0.876</td><td>0.0</td><td>5552</td></tr><tr><td>15 min Winter</td><td>77.045</td><td>0.0</td><td>19</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	17.625	0.075	0.0	0.9	O K	30 min Summer	17.650	0.100	0.0	1.1	O K	60 min Summer	17.676	0.126	0.0	1.4	O K	120 min Summer	17.704	0.154	0.0	1.8	O K	180 min Summer	17.719	0.169	0.0	1.9	O K	240 min Summer	17.729	0.179	0.0	2.0	O K	360 min Summer	17.740	0.190	0.0	2.2	O K	480 min Summer	17.746	0.196	0.0	2.2	O K	600 min Summer	17.750	0.200	0.0	2.3	O K	720 min Summer	17.753	0.203	0.0	2.3	O K	960 min Summer	17.758	0.208	0.0	2.4	O K	1440 min Summer	17.761	0.211	0.0	2.4	O K	2160 min Summer	17.758	0.208	0.0	2.4	O K	2880 min Summer	17.753	0.203	0.0	2.3	O K	4320 min Summer	17.739	0.189	0.0	2.2	O K	5760 min Summer	17.727	0.177	0.0	2.0	O K	7200 min Summer	17.715	0.165	0.0	1.9	O K	8640 min Summer	17.706	0.156	0.0	1.8	O K	10080 min Summer	17.697	0.147	0.0	1.7	O K	15 min Winter	17.634	0.084	0.0	1.0	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	77.045	0.0	19	30 min Summer	51.477	0.0	34	60 min Summer	33.096	0.0	64	120 min Summer	20.757	0.0	122	180 min Summer	15.665	0.0	182	240 min Summer	12.793	0.0	242	360 min Summer	9.607	0.0	360	480 min Summer	7.832	0.0	418	600 min Summer	6.681	0.0	478	720 min Summer	5.866	0.0	540	960 min Summer	4.775	0.0	672	1440 min Summer	3.569	0.0	940	2160 min Summer	2.666	0.0	1360	2880 min Summer	2.166	0.0	1760	4320 min Summer	1.616	0.0	2548	5760 min Summer	1.312	0.0	3296	7200 min Summer	1.117	0.0	4040	8640 min Summer	0.979	0.0	4840	10080 min Summer	0.876	0.0	5552	15 min Winter	77.045	0.0	19
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Lancaster Court Fareham Hampshire, PO15 5TU		020.5672 Phase 2 Northfields Cottage Catchment N			
Date 23/08/2021 File 020.5672 Infiltration C...		Designed by CJL Checked by RW			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 10 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.662	0.112	0.0	1.3	O K
60 min Winter	17.692	0.142	0.0	1.6	O K
120 min Winter	17.723	0.173	0.0	2.0	O K
180 min Winter	17.740	0.190	0.0	2.2	O K
240 min Winter	17.751	0.201	0.0	2.3	O K
360 min Winter	17.764	0.214	0.0	2.4	O K
480 min Winter	17.771	0.221	0.0	2.5	O K
600 min Winter	17.774	0.224	0.0	2.6	O K
720 min Winter	17.778	0.228	0.0	2.6	O K
960 min Winter	17.781	0.231	0.0	2.6	O K
1440 min Winter	17.780	0.230	0.0	2.6	O K
2160 min Winter	17.772	0.222	0.0	2.5	O K
2880 min Winter	17.761	0.211	0.0	2.4	O K
4320 min Winter	17.740	0.190	0.0	2.2	O K
5760 min Winter	17.722	0.172	0.0	2.0	O K
7200 min Winter	17.707	0.157	0.0	1.8	O K
8640 min Winter	17.695	0.145	0.0	1.6	O K
10080 min Winter	17.684	0.134	0.0	1.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	51.477	0.0	33		
60 min Winter	33.096	0.0	62		
120 min Winter	20.757	0.0	120		
180 min Winter	15.665	0.0	178		
240 min Winter	12.793	0.0	236		
360 min Winter	9.607	0.0	346		
480 min Winter	7.832	0.0	452		
600 min Winter	6.681	0.0	488		
720 min Winter	5.866	0.0	558		
960 min Winter	4.775	0.0	712		
1440 min Winter	3.569	0.0	1012		
2160 min Winter	2.666	0.0	1448		
2880 min Winter	2.166	0.0	1872		
4320 min Winter	1.616	0.0	2680		
5760 min Winter	1.312	0.0	3464		
7200 min Winter	1.117	0.0	4248		
8640 min Winter	0.979	0.0	5008		
10080 min Winter	0.876	0.0	5752		
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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment N	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

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)	19.700	Shortest Storm (mins)	15
Ratio R	0.323	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area (ha)
From: 0	To: 4 0.006

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Lancaster Court Fareham Hampshire, PO15 5TU	020.5672 Phase 2 Northfields Cottage Catchment N	
Date 23/08/2021 File 020.5672 Infiltration C...	Designed by CJL Checked by RW	
Innovyze Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 18.250

Cellular Storage Structure

Invert Level (m) 17.550 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.13086

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	12.0	12.0	0.401	0.0	18.4
0.400	12.0	18.4			

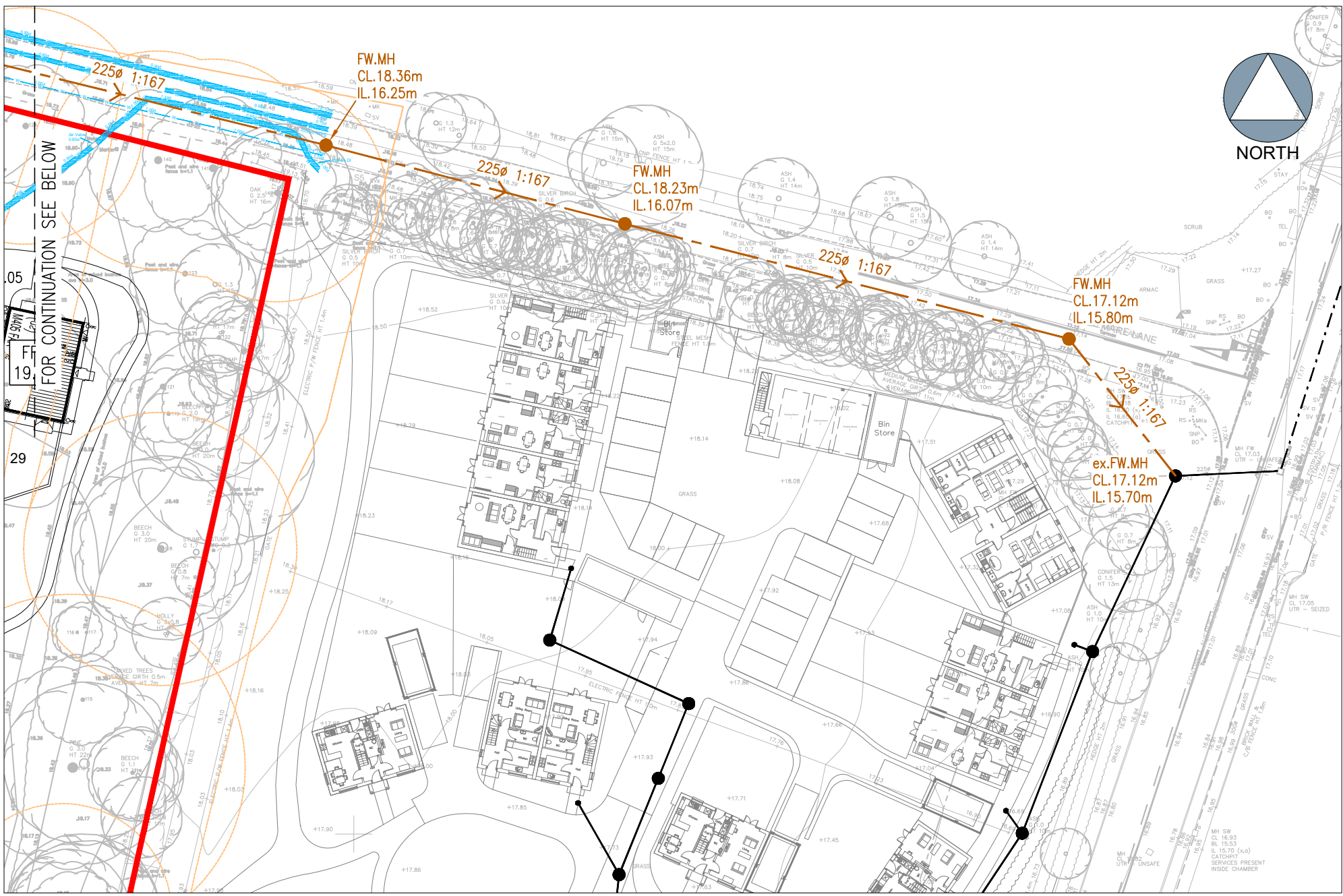
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Appendix F

Land at Bayards, Eastergate
Flood Risk Assessment & Drainage Strategy

Paul Basham Associates Ltd
Report No 020.5672/FRA&DS/1





INSET 1 - LEVEL MARE LANE AND CONNECTION TO EXISTING SEWER



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CDM Regulations 2015 : Reg. 9

None of the below is deemed to relieve any contractor of his obligations under all applicable health and safety legislation.

In preparing the design shown on this and related drawings Paul Basham Associates has considered and, where reasonably practicable, eliminated foreseeable risks. Any further abnormal or unusual risks, which remain, are numbered below and identified thus 'X' and should be given particular attention by all those carrying out construction or of future maintenance works.

1. Existing water mains present
- 2.
- 3.

GENERAL NOTES

1. THIS DRAWING IS INTENDED TO BE VIEWED IN COMBINATION WITH ALL RELEVANT ARCHITECTS, ENGINEERS, SERVICES AND SPECIALIST DRAWINGS AND SPECIFICATION.
2. ANY VARIATIONS OR DISCREPANCIES BETWEEN THESE DRAWINGS IN TERMS OF DIMENSIONS OR DETAILS SHOULD BE DRAWN TO THE ATTENTION OF THE ARCHITECT AND/OR THE ENGINEER FOR CLARIFICATION.
3. PAUL BASHAM ASSOCIATES ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF BACKGROUND INFORMATION PRODUCED BY THIRD PARTIES - THIS MUST BE TREATED AS INDICATIVE ONLY.
4. ALL DIMENSIONS AND LEVELS ARE IN METRES. DO NOT SCALE THIS DRAWING, PRINT, PLOT OR DISK.
5. THIS DRAWING SHOULD ONLY BE USED FOR CONSTRUCTION IF THE PROJECT PHASE IN THE TITLE FRAME BELOW IS SHOWN AS "CONSTRUCTION". PAUL BASHAM ASSOCIATES TAKE NO RESPONSIBILITY FOR CONSTRUCTION WORKS UNDERTAKEN TO DRAWINGS WHICH ARE NOT MARKED UNDER THIS PHASE.

DRAINAGE

1. FOUL SEWER ALONG LEVEL MARE LANE, BACK FROM PROPOSED POINT OF CONNECTION LAID FLAT TO DEMONSTRATE MINIMUM ACHIEVABLE LEVELS ON FOUL SEWER ADJACENT SITE ACCESS.

LEGEND

- SITE BOUNDARY
- ADAPTABLE/PRIVATE FOUL WATER SEWER, Ø AS NOTED
- FOUL WATER MANHOLE (CL/IL AS SHOWN)
- EXISTING / PHASE 1 FOUL WATER SEWER
- PROPOSED PRIVATE PUMPING STATION
- PROPOSED PRIVATE RISING MAIN
- EXISTING WATER MAINS
- PRELIMINARY FINISHED FLOOR LEVELS
- PRELIMINARY LEVELS
- RPA PLUS 2m

Rev	Description	Date	By	Chkd
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Paul Basham Associates Ltd
The Brixey, Curra Hill Estate, Freetown, PO16 8UT
01529 711 000
info@paulbashamassociates.com www.paulbashamassociates.com

Client

reside.

Project Name
PHASE 2 NORTHFIELDS COTTAGE,
FONTWELL AVENUE

Title
ALTERNATIVE FOUL ARRANGEMENT - OPTION A

Project Phase
PRELIMINARY

Checked By RW	Checked Date 23.08.21	Drawn By CJL	Drawn Date 10.08.21
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Client Drawing No. -	Scale 1:500	(AT A1 SIZE)
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PBA Drawing No. 020.5672.004	Revision -
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Report Presented by:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Reside Developments Ltd

[REDACTED]

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