

Keytech Development Design Ltd				Page 1																																																																																																																																																																																																																			
Riverside Offices Mountbatten Way Congleton, CW12 1DY		K24-032 LILAC GROVE ROAD SOAKAWAY																																																																																																																																																																																																																					
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 762 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>98.065</td><td>0.465</td><td>0.1</td><td>7.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>98.208</td><td>0.608</td><td>0.1</td><td>9.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>98.355</td><td>0.755</td><td>0.2</td><td>11.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>98.498</td><td>0.898</td><td>0.2</td><td>13.6</td><td>O K</td></tr><tr><td>180 min Summer</td><td>98.572</td><td>0.972</td><td>0.2</td><td>14.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>98.616</td><td>1.016</td><td>0.2</td><td>15.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>98.659</td><td>1.059</td><td>0.2</td><td>16.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>98.670</td><td>1.070</td><td>0.2</td><td>16.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>98.675</td><td>1.075</td><td>0.2</td><td>16.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>98.679</td><td>1.079</td><td>0.2</td><td>16.4</td><td>O K</td></tr><tr><td>960 min Summer</td><td>98.681</td><td>1.081</td><td>0.2</td><td>16.4</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>98.670</td><td>1.070</td><td>0.2</td><td>16.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>98.634</td><td>1.034</td><td>0.2</td><td>15.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>98.591</td><td>0.991</td><td>0.2</td><td>15.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>98.505</td><td>0.905</td><td>0.2</td><td>13.8</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>98.431</td><td>0.831</td><td>0.2</td><td>12.6</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>98.367</td><td>0.767</td><td>0.2</td><td>11.7</td><td>O K</td></tr><tr><td>8640 min 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Summer	98.208	0.608	0.1	9.2	O K	60 min Summer	98.355	0.755	0.2	11.5	O K	120 min Summer	98.498	0.898	0.2	13.6	O K	180 min Summer	98.572	0.972	0.2	14.8	O K	240 min Summer	98.616	1.016	0.2	15.4	O K	360 min Summer	98.659	1.059	0.2	16.1	O K	480 min Summer	98.670	1.070	0.2	16.3	O K	600 min Summer	98.675	1.075	0.2	16.3	O K	720 min Summer	98.679	1.079	0.2	16.4	O K	960 min Summer	98.681	1.081	0.2	16.4	O K	1440 min Summer	98.670	1.070	0.2	16.3	O K	2160 min Summer	98.634	1.034	0.2	15.7	O K	2880 min Summer	98.591	0.991	0.2	15.1	O K	4320 min Summer	98.505	0.905	0.2	13.8	O K	5760 min Summer	98.431	0.831	0.2	12.6	O K	7200 min Summer	98.367	0.767	0.2	11.7	O K	8640 min Summer	98.314	0.714	0.2	10.8	O K	10080 min Summer	98.267	0.667	0.1	10.1	O K	15 min Winter	98.121	0.521	0.1	7.9	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	115.584	0.0	27	30 min Summer	76.054	0.0	41	60 min Summer	47.821	0.0	70	120 min Summer	29.168	0.0	128	180 min Summer	21.604	0.0	186	240 min Summer	17.380	0.0	244	360 min Summer	12.705	0.0	362	480 min Summer	10.119	0.0	462	600 min Summer	8.477	0.0	510	720 min Summer	7.340	0.0	570	960 min Summer	5.844	0.0	694	1440 min Summer	4.232	0.0	968	2160 min Summer	3.059	0.0	1376	2880 min Summer	2.428	0.0	1788	4320 min Summer	1.751	0.0	2592	5760 min Summer	1.387	0.0	3352	7200 min Summer	1.157	0.0	4112	8640 min Summer	0.998	0.0	4848	10080 min Summer	0.880	0.0	5640	15 min Winter	115.584	0.0	26
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Keytech Development Design Ltd					Page 2	
Riverside Offices Mountbatten Way Congleton, CW12 1DY		K24-032 LILAC GROVE ROAD SOAKAWAY				
Date 04/10/2024 File road soakaway.SRCX		Designed by HB Checked by				
Innovyze		Source Control 2020.1.3				
Summary of Results for 100 year Return Period (+40%)						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
30 min Winter	98.281	0.681	0.2	10.4	O K	
60 min Winter	98.446	0.846	0.2	12.9	O K	
120 min Winter	98.607	1.007	0.2	15.3	O K	
180 min Winter	98.692	1.092	0.2	16.6	O K	
240 min Winter	98.743	1.143	0.3	17.4	O K	
360 min Winter	98.793	1.193	0.3	18.1	O K	
480 min Winter	98.809	1.209	0.3	18.4	O K	
600 min Winter	98.810	1.210	0.3	18.4	O K	
720 min Winter	98.809	1.209	0.3	18.4	O K	
960 min Winter	98.807	1.207	0.3	18.3	O K	
1440 min Winter	98.777	1.177	0.3	17.9	O K	
2160 min Winter	98.712	1.112	0.2	16.9	O K	
2880 min Winter	98.644	1.044	0.2	15.9	O K	
4320 min Winter	98.522	0.922	0.2	14.0	O K	
5760 min Winter	98.422	0.822	0.2	12.5	O K	
7200 min Winter	98.341	0.741	0.2	11.3	O K	
8640 min Winter	98.275	0.675	0.2	10.3	O K	
10080 min Winter	98.219	0.619	0.1	9.4	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	76.054	0.0	40			
60 min Winter	47.821	0.0	68			
120 min Winter	29.168	0.0	126			
180 min Winter	21.604	0.0	182			
240 min Winter	17.380	0.0	240			
360 min Winter	12.705	0.0	352			
480 min Winter	10.119	0.0	462			
600 min Winter	8.477	0.0	560			
720 min Winter	7.340	0.0	582			
960 min Winter	5.844	0.0	732			
1440 min Winter	4.232	0.0	1038			
2160 min Winter	3.059	0.0	1476			
2880 min Winter	2.428	0.0	1904			
4320 min Winter	1.751	0.0	2728			
5760 min Winter	1.387	0.0	3520			
7200 min Winter	1.157	0.0	4320			
8640 min Winter	0.998	0.0	5096			
10080 min Winter	0.880	0.0	5848			
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Rainfall Details <table><tr><td>Rainfall Model</td><td>FSR</td><td>Winter Storms</td><td>Yes</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>17.000</td><td>Shortest Storm (mins)</td><td>15</td></tr><tr><td>Ratio R</td><td>0.400</td><td>Longest Storm (mins)</td><td>10080</td></tr><tr><td>Summer Storms</td><td>Yes</td><td>Climate Change %</td><td>+40</td></tr></table> Time Area Diagram Total Area (ha) 0.033 <table><thead><tr><th colspan="3">Time (mins) Area</th><th colspan="3">Time (mins) Area</th><th colspan="3">Time (mins) Area</th></tr><tr><th>From:</th><th>To:</th><th>(ha)</th><th>From:</th><th>To:</th><th>(ha)</th><th>From:</th><th>To:</th><th>(ha)</th></tr></thead><tbody><tr><td>0</td><td>4</td><td>0.011</td><td>4</td><td>8</td><td>0.011</td><td>8</td><td>12</td><td>0.011</td></tr></tbody></table>			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)	17.000	Shortest Storm (mins)	15	Ratio R	0.400	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+40	Time (mins) Area			Time (mins) Area			Time (mins) Area			From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)	0	4	0.011	4	8	0.011	8	12	0.011
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