

DBFL Consulting Engineers					Page 1																																																																																																																																																																																																																			
Ormond House Upper Ormond Quay Dublin 7			220084 - Civic Offices Active Travel links Sourc Control Catchment 1C																																																																																																																																																																																																																					
Date 14/06/2023 File 220084-Infiltration tre...			Designed by KMM Checked by JPC																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+20%)</u> Half Drain Time : 1708 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>0.251</td><td>0.251</td><td>0.1</td><td>4.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.346</td><td>0.346</td><td>0.1</td><td>5.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>0.447</td><td>0.447</td><td>0.1</td><td>7.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>0.555</td><td>0.555</td><td>0.1</td><td>9.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>0.620</td><td>0.620</td><td>0.1</td><td>10.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>0.667</td><td>0.667</td><td>0.1</td><td>11.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>0.732</td><td>0.732</td><td>0.1</td><td>12.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>0.774</td><td>0.774</td><td>0.1</td><td>12.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>0.804</td><td>0.804</td><td>0.1</td><td>13.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>0.825</td><td>0.825</td><td>0.1</td><td>13.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>0.850</td><td>0.850</td><td>0.1</td><td>14.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>0.863</td><td>0.863</td><td>0.1</td><td>14.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>0.857</td><td>0.857</td><td>0.1</td><td>14.3</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>0.845</td><td>0.845</td><td>0.1</td><td>14.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>0.811</td><td>0.811</td><td>0.1</td><td>13.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>0.770</td><td>0.770</td><td>0.1</td><td>12.8</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>0.726</td><td>0.726</td><td>0.1</td><td>12.1</td><td>O K</td></tr><tr><td>8640 min 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Summer	0.346	0.346	0.1	5.8	O K	60 min Summer	0.447	0.447	0.1	7.4	O K	120 min Summer	0.555	0.555	0.1	9.2	O K	180 min Summer	0.620	0.620	0.1	10.3	O K	240 min Summer	0.667	0.667	0.1	11.1	O K	360 min Summer	0.732	0.732	0.1	12.2	O K	480 min Summer	0.774	0.774	0.1	12.9	O K	600 min Summer	0.804	0.804	0.1	13.4	O K	720 min Summer	0.825	0.825	0.1	13.7	O K	960 min Summer	0.850	0.850	0.1	14.1	O K	1440 min Summer	0.863	0.863	0.1	14.3	O K	2160 min Summer	0.857	0.857	0.1	14.3	O K	2880 min Summer	0.845	0.845	0.1	14.0	O K	4320 min Summer	0.811	0.811	0.1	13.5	O K	5760 min Summer	0.770	0.770	0.1	12.8	O K	7200 min Summer	0.726	0.726	0.1	12.1	O K	8640 min Summer	0.679	0.679	0.1	11.3	O K	10080 min Summer	0.632	0.632	0.1	10.5	O K	15 min Winter	0.281	0.281	0.1	4.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	83.677	0.0	19	30 min Summer	58.176	0.0	34	60 min Summer	38.020	0.0	64	120 min Summer	24.108	0.0	124	180 min Summer	18.308	0.0	182	240 min Summer	15.031	0.0	242	360 min Summer	11.350	0.0	362	480 min Summer	9.286	0.0	482	600 min Summer	7.943	0.0	602	720 min Summer	6.989	0.0	722	960 min Summer	5.708	0.0	960	1440 min Summer	4.291	0.0	1370	2160 min Summer	3.224	0.0	1728	2880 min Summer	2.629	0.0	2108	4320 min Summer	1.969	0.0	2940	5760 min Summer	1.603	0.0	3752	7200 min Summer	1.366	0.0	4608	8640 min Summer	1.199	0.0	5368	10080 min Summer	1.073	0.0	6160	15 min Winter	83.677	0.0	19
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Innovyze		Source Control 2020.1			
<u>Summary of Results for 100 year Return Period (+20%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	0.389	0.389	0.1	6.5	O K
60 min Winter	0.503	0.503	0.1	8.4	O K
120 min Winter	0.626	0.626	0.1	10.4	O K
180 min Winter	0.701	0.701	0.1	11.7	O K
240 min Winter	0.756	0.756	0.1	12.6	O K
360 min Winter	0.832	0.832	0.1	13.8	O K
480 min Winter	0.884	0.884	0.1	14.7	O K
600 min Winter	0.922	0.922	0.1	15.3	O K
720 min Winter	0.950	0.950	0.1	15.8	O K
960 min Winter	0.987	0.987	0.1	16.4	O K
1440 min Winter	1.019	1.019	0.1	16.9	O K
2160 min Winter	1.013	1.013	0.1	16.8	O K
2880 min Winter	0.992	0.992	0.1	16.5	O K
4320 min Winter	0.938	0.938	0.1	15.6	O K
5760 min Winter	0.869	0.869	0.1	14.4	O K
7200 min Winter	0.793	0.793	0.1	13.2	O K
8640 min Winter	0.716	0.716	0.1	11.9	O K
10080 min Winter	0.639	0.639	0.1	10.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	58.176	0.0	33		
60 min Winter	38.020	0.0	62		
120 min Winter	24.108	0.0	122		
180 min Winter	18.308	0.0	180		
240 min Winter	15.031	0.0	240		
360 min Winter	11.350	0.0	358		
480 min Winter	9.286	0.0	474		
600 min Winter	7.943	0.0	590		
720 min Winter	6.989	0.0	706		
960 min Winter	5.708	0.0	934		
1440 min Winter	4.291	0.0	1384		
2160 min Winter	3.224	0.0	2008		
2880 min Winter	2.629	0.0	2276		
4320 min Winter	1.969	0.0	3200		
5760 min Winter	1.603	0.0	4096		
7200 min Winter	1.366	0.0	4976		
8640 min Winter	1.199	0.0	5872		
10080 min Winter	1.073	0.0	6656		
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Model Details Storage is Online Cover Level (m) 1.200 Cellular Storage Structure Invert Level (m) 0.000 Safety Factor 1.0 Infiltration Coefficient Base (m/hr) 0.01709 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.01709 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>17.5</td><td>17.5</td><td>1.080</td><td>0.0</td><td>17.5</td></tr><tr><td>1.075</td><td>17.5</td><td>17.5</td><td></td><td></td><td></td></tr></tbody></table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	17.5	17.5	1.080	0.0	17.5	1.075	17.5	17.5			
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0.000	17.5	17.5	1.080	0.0	17.5															
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Appendix C : PERMISSIBLE SITE DISCHARGE AND APPLICABLE MET EIREANN RAINFALL DATA