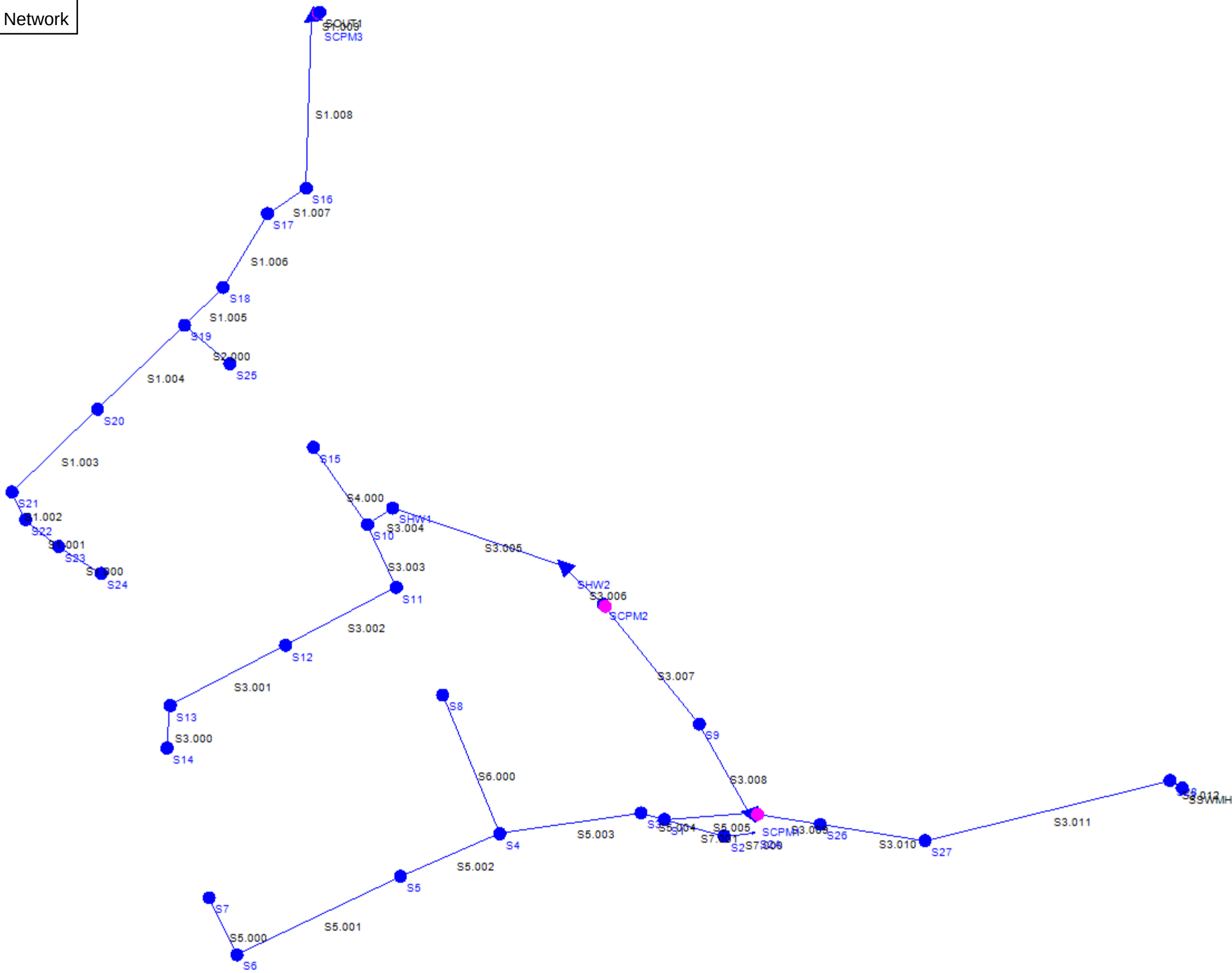


New Barn Lane
North Bersted
Surface Water Network



MJA Consulting		Page 1																																																																																																																																																																																																																																																																																																																																																					
Monarch House Barton Lane OX14 3NB		New Barn Lane, N.Bersted Surface Water Network																																																																																																																																																																																																																																																																																																																																																					
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Existing Network Details for Storm * - Indicates pipe has been modified outside of System 1 <table><thead><tr><th>PN</th><th>Length (m)</th><th>Fall (m)</th><th>Slope (1:X)</th><th>I.Area (ha)</th><th>T.E. (mins)</th><th>k (mm)</th><th>HYD SECT</th><th>DIA (mm)</th><th>Section Type</th></tr></thead><tbody><tr><td>S1.000</td><td>14.272</td><td>0.083</td><td>172.0</td><td>0.049</td><td>5.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S1.001</td><td>11.982</td><td>0.070</td><td>171.2</td><td>0.026</td><td>0.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S1.002</td><td>8.715</td><td>0.051</td><td>170.9</td><td>0.010</td><td>0.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S1.003</td><td>33.571</td><td>0.134</td><td>250.5</td><td>0.105</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S1.004</td><td>34.121</td><td>0.136</td><td>250.9</td><td>0.049</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S2.000</td><td>16.790</td><td>0.113</td><td>148.6</td><td>0.101</td><td>5.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S1.005</td><td>15.204</td><td>0.061</td><td>249.2</td><td>0.008</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S1.006</td><td>24.357</td><td>0.098</td><td>248.5</td><td>0.051</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S1.007</td><td>13.107</td><td>0.076</td><td>172.5</td><td>0.005</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S1.008</td><td>48.058</td><td>0.235</td><td>204.5</td><td>0.056</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S1.009</td><td>2.915</td><td>0.025</td><td>116.6</td><td>0.000</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S3.000</td><td>12.033</td><td>0.070</td><td>171.9</td><td>0.039</td><td>5.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr><tr><td>S3.001</td><td>36.708</td><td>0.146</td><td>251.4</td><td>0.070</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S3.002</td><td>35.335</td><td>0.142</td><td>248.8</td><td>0.047</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S3.003</td><td>19.513</td><td>0.078</td><td>250.2</td><td>0.055</td><td>0.00</td><td>0.600</td><td>o</td><td>300</td><td>Pipe/Conduit</td></tr><tr><td>S4.000</td><td>26.630</td><td>0.156</td><td>170.7</td><td>0.089</td><td>5.00</td><td>0.600</td><td>o</td><td>225</td><td>Pipe/Conduit</td></tr></tbody></table> <table><thead><tr><th>PN</th><th>US/MH Name</th><th>US/CL (m)</th><th>US/IL (m)</th><th>US C.Depth (m)</th><th>DS/CL (m)</th><th>DS/IL (m)</th><th>DS C.Depth (m)</th><th>Ctrl</th><th>US/MH (mm)</th></tr></thead><tbody><tr><td>S1.000</td><td>24</td><td>5.156</td><td>3.644</td><td>1.287</td><td>5.056</td><td>3.561</td><td>1.270</td><td></td><td>1200</td></tr><tr><td>S1.001</td><td>23</td><td>5.056</td><td>3.561</td><td>1.270</td><td>4.989</td><td>3.491</td><td>1.273</td><td></td><td>1200</td></tr><tr><td>S1.002</td><td>22</td><td>4.989</td><td>3.491</td><td>1.273</td><td>4.864</td><td>3.440</td><td>1.199</td><td></td><td>1200</td></tr><tr><td>S1.003</td><td>21</td><td>4.864</td><td>3.365</td><td>1.199</td><td>4.722</td><td>3.231</td><td>1.191</td><td></td><td>1200</td></tr><tr><td>S1.004</td><td>20</td><td>4.722</td><td>3.231</td><td>1.191</td><td>4.489</td><td>3.095</td><td>1.094</td><td></td><td>1200</td></tr><tr><td>S2.000</td><td>25</td><td>4.641</td><td>3.283</td><td>1.133</td><td>4.489</td><td>3.170</td><td>1.094</td><td></td><td>1200</td></tr><tr><td>S1.005</td><td>19</td><td>4.489</td><td>3.095</td><td>1.094</td><td>4.389</td><td>3.034</td><td>1.055</td><td></td><td>1200</td></tr><tr><td>S1.006</td><td>18</td><td>4.389</td><td>3.034</td><td>1.055</td><td>4.300</td><td>2.936</td><td>1.064</td><td></td><td>1200</td></tr><tr><td>S1.007</td><td>17</td><td>4.300</td><td>2.936</td><td>1.064</td><td>4.500</td><td>2.860</td><td>1.340</td><td></td><td>1200</td></tr><tr><td>S1.008</td><td>16</td><td>4.500</td><td>2.860</td><td>1.340</td><td>4.000</td><td>2.625</td><td>1.075</td><td></td><td>1200</td></tr><tr><td>S1.009</td><td>CPM3</td><td>4.000</td><td>2.625</td><td>1.075</td><td>4.000</td><td>2.600</td><td>1.100</td><td>Hydro-Brake®</td><td>1200</td></tr><tr><td>S3.000</td><td>14</td><td>5.393</td><td>4.250</td><td>0.918</td><td>5.410</td><td>4.180</td><td>1.005</td><td></td><td>1200</td></tr><tr><td>S3.001</td><td>13</td><td>5.410</td><td>4.105</td><td>1.005</td><td>5.160</td><td>3.959</td><td>0.901</td><td></td><td>1200</td></tr><tr><td>S3.002</td><td>12</td><td>5.160</td><td>3.959</td><td>0.901</td><td>5.323</td><td>3.817</td><td>1.206</td><td></td><td>1200</td></tr><tr><td>S3.003</td><td>11</td><td>5.323</td><td>3.817</td><td>1.206</td><td>5.000</td><td>3.739</td><td>0.961</td><td></td><td>1200</td></tr><tr><td>S4.000</td><td>15</td><td>4.950</td><td>3.970</td><td>0.755</td><td>5.000</td><td>3.814</td><td>0.961</td><td></td><td>1200</td></tr></tbody></table>				PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type	S1.000	14.272	0.083	172.0	0.049	5.00	0.600	o	225	Pipe/Conduit	S1.001	11.982	0.070	171.2	0.026	0.00	0.600	o	225	Pipe/Conduit	S1.002	8.715	0.051	170.9	0.010	0.00	0.600	o	225	Pipe/Conduit	S1.003	33.571	0.134	250.5	0.105	0.00	0.600	o	300	Pipe/Conduit	S1.004	34.121	0.136	250.9	0.049	0.00	0.600	o	300	Pipe/Conduit	S2.000	16.790	0.113	148.6	0.101	5.00	0.600	o	225	Pipe/Conduit	S1.005	15.204	0.061	249.2	0.008	0.00	0.600	o	300	Pipe/Conduit	S1.006	24.357	0.098	248.5	0.051	0.00	0.600	o	300	Pipe/Conduit	S1.007	13.107	0.076	172.5	0.005	0.00	0.600	o	300	Pipe/Conduit	S1.008	48.058	0.235	204.5	0.056	0.00	0.600	o	300	Pipe/Conduit	S1.009	2.915	0.025	116.6	0.000	0.00	0.600	o	300	Pipe/Conduit	S3.000	12.033	0.070	171.9	0.039	5.00	0.600	o	225	Pipe/Conduit	S3.001	36.708	0.146	251.4	0.070	0.00	0.600	o	300	Pipe/Conduit	S3.002	35.335	0.142	248.8	0.047	0.00	0.600	o	300	Pipe/Conduit	S3.003	19.513	0.078	250.2	0.055	0.00	0.600	o	300	Pipe/Conduit	S4.000	26.630	0.156	170.7	0.089	5.00	0.600	o	225	Pipe/Conduit	PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)	S1.000	24	5.156	3.644	1.287	5.056	3.561	1.270		1200	S1.001	23	5.056	3.561	1.270	4.989	3.491	1.273		1200	S1.002	22	4.989	3.491	1.273	4.864	3.440	1.199		1200	S1.003	21	4.864	3.365	1.199	4.722	3.231	1.191		1200	S1.004	20	4.722	3.231	1.191	4.489	3.095	1.094		1200	S2.000	25	4.641	3.283	1.133	4.489	3.170	1.094		1200	S1.005	19	4.489	3.095	1.094	4.389	3.034	1.055		1200	S1.006	18	4.389	3.034	1.055	4.300	2.936	1.064		1200	S1.007	17	4.300	2.936	1.064	4.500	2.860	1.340		1200	S1.008	16	4.500	2.860	1.340	4.000	2.625	1.075		1200	S1.009	CPM3	4.000	2.625	1.075	4.000	2.600	1.100	Hydro-Brake®	1200	S3.000	14	5.393	4.250	0.918	5.410	4.180	1.005		1200	S3.001	13	5.410	4.105	1.005	5.160	3.959	0.901		1200	S3.002	12	5.160	3.959	0.901	5.323	3.817	1.206		1200	S3.003	11	5.323	3.817	1.206	5.000	3.739	0.961		1200	S4.000	15	4.950	3.970	0.755	5.000	3.814	0.961		1200
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type																																																																																																																																																																																																																																																																																																																																														
S1.000	14.272	0.083	172.0	0.049	5.00	0.600	o	225	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.001	11.982	0.070	171.2	0.026	0.00	0.600	o	225	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.002	8.715	0.051	170.9	0.010	0.00	0.600	o	225	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.003	33.571	0.134	250.5	0.105	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.004	34.121	0.136	250.9	0.049	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S2.000	16.790	0.113	148.6	0.101	5.00	0.600	o	225	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.005	15.204	0.061	249.2	0.008	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.006	24.357	0.098	248.5	0.051	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.007	13.107	0.076	172.5	0.005	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.008	48.058	0.235	204.5	0.056	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S1.009	2.915	0.025	116.6	0.000	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S3.000	12.033	0.070	171.9	0.039	5.00	0.600	o	225	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S3.001	36.708	0.146	251.4	0.070	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S3.002	35.335	0.142	248.8	0.047	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S3.003	19.513	0.078	250.2	0.055	0.00	0.600	o	300	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
S4.000	26.630	0.156	170.7	0.089	5.00	0.600	o	225	Pipe/Conduit																																																																																																																																																																																																																																																																																																																																														
PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)																																																																																																																																																																																																																																																																																																																																														
S1.000	24	5.156	3.644	1.287	5.056	3.561	1.270		1200																																																																																																																																																																																																																																																																																																																																														
S1.001	23	5.056	3.561	1.270	4.989	3.491	1.273		1200																																																																																																																																																																																																																																																																																																																																														
S1.002	22	4.989	3.491	1.273	4.864	3.440	1.199		1200																																																																																																																																																																																																																																																																																																																																														
S1.003	21	4.864	3.365	1.199	4.722	3.231	1.191		1200																																																																																																																																																																																																																																																																																																																																														
S1.004	20	4.722	3.231	1.191	4.489	3.095	1.094		1200																																																																																																																																																																																																																																																																																																																																														
S2.000	25	4.641	3.283	1.133	4.489	3.170	1.094		1200																																																																																																																																																																																																																																																																																																																																														
S1.005	19	4.489	3.095	1.094	4.389	3.034	1.055		1200																																																																																																																																																																																																																																																																																																																																														
S1.006	18	4.389	3.034	1.055	4.300	2.936	1.064		1200																																																																																																																																																																																																																																																																																																																																														
S1.007	17	4.300	2.936	1.064	4.500	2.860	1.340		1200																																																																																																																																																																																																																																																																																																																																														
S1.008	16	4.500	2.860	1.340	4.000	2.625	1.075		1200																																																																																																																																																																																																																																																																																																																																														
S1.009	CPM3	4.000	2.625	1.075	4.000	2.600	1.100	Hydro-Brake®	1200																																																																																																																																																																																																																																																																																																																																														
S3.000	14	5.393	4.250	0.918	5.410	4.180	1.005		1200																																																																																																																																																																																																																																																																																																																																														
S3.001	13	5.410	4.105	1.005	5.160	3.959	0.901		1200																																																																																																																																																																																																																																																																																																																																														
S3.002	12	5.160	3.959	0.901	5.323	3.817	1.206		1200																																																																																																																																																																																																																																																																																																																																														
S3.003	11	5.323	3.817	1.206	5.000	3.739	0.961		1200																																																																																																																																																																																																																																																																																																																																														
S4.000	15	4.950	3.970	0.755	5.000	3.814	0.961		1200																																																																																																																																																																																																																																																																																																																																														
©1982-2017 XP Solutions																																																																																																																																																																																																																																																																																																																																																							

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Monarch House Barton Lane OX14 3NB		New Barn Lane, N.Bersted Surface Water Network							
Date 02/07/2018 File SW Network 020718.mdx		Designed by C.Pendle Checked by							
Innovyze		Network 2017.1.2							
Existing Network Details for Storm									
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
* S3.004	8.494	0.024	353.9	0.000	0.00	0.600	o	300	Pipe/Conduit
S3.005	50.847	0.168	302.7	0.000	0.00	0.600	o	300	Pipe/Conduit
S3.006	15.756	0.110	143.2	0.000	0.00	0.600	o	300	Pipe/Conduit
S3.007	43.316	0.260	166.6	0.000	0.00	0.600	o	300	Pipe/Conduit
S3.008	28.700	0.249	115.3	0.000	0.00	0.600	o	300	Pipe/Conduit
S5.000	17.925	0.105	170.7	0.035	5.00	0.600	o	225	Pipe/Conduit
S5.001	51.183	0.204	250.9	0.036	0.00	0.600	o	300	Pipe/Conduit
S5.002	30.537	0.118	258.8	0.091	0.00	0.600	o	300	Pipe/Conduit
S6.000	42.349	0.250	169.4	0.086	5.00	0.600	o	225	Pipe/Conduit
S5.003	40.263	0.161	250.1	0.100	0.00	0.600	o	300	Pipe/Conduit
S5.004	6.842	0.027	253.4	0.060	0.00	0.600	o	300	Pipe/Conduit
S7.000	8.367	0.052	160.9	0.025	5.00	0.600	o	225	Pipe/Conduit
S7.001	17.538	0.103	170.3	0.026	0.00	0.600	o	225	Pipe/Conduit
S5.005	23.908	0.400	59.8	0.000	0.00	0.600	o	300	Pipe/Conduit
PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
* S3.004	10	5.000	3.739	0.961	5.000	3.715	0.985		1200
S3.005	HW1	5.000	3.715	0.985	5.150	3.547	1.303		600
S3.006	HW2	5.150	3.547	1.303	5.150	3.437	1.413		600
S3.007	CPM2	5.150	3.437	1.413	5.000	3.177	1.523	Hydro-Brake®	1500
S3.008	9	5.000	3.177	1.523	4.750	2.928	1.522		1200
S5.000	7	5.150	4.018	0.907	5.039	3.913	0.901		1200
S5.001	6	5.039	3.838	0.901	4.883	3.634	0.949		1200
S5.002	5	4.883	3.634	0.949	4.781	3.516	0.965		1200
S6.000	8	5.150	3.841	1.084	4.781	3.591	0.965		1200
S5.003	4	4.781	3.516	0.965	4.848	3.355	1.193		1200
S5.004	3	4.848	3.355	1.193	4.934	3.328	1.306		1200
S7.000	2A	4.546	3.558	0.763	4.640	3.506	0.909		975 x 675
S7.001	2	4.640	3.506	0.909	4.934	3.403	1.306		1200
S5.005	1	4.934	3.328	1.306	4.750	2.928	1.522		1200
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Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
* S3.009	20.441	0.082	249.3	0.000	0.00	0.600	o	300	Pipe/Conduit
* S3.010	29.931	0.125	239.4	0.000	0.00	0.600	o	450	Pipe/Conduit
* S3.011	71.169	0.301	236.4	0.000	0.00	0.600	o	450	Pipe/Conduit
* S3.012	4.107	0.020	205.4	0.000	0.00	0.600	o	450	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
* S3.009	CPM1	4.750	2.878	1.572	4.229	2.796	1.133	Hydro-Brake®	1200
* S3.010	26	4.229	2.796	0.983	4.210	2.671	1.089		1500
* S3.011	27	4.210	2.671	1.089	3.850	2.370	1.030		1500
* S3.012	28	3.850	2.370	1.030	3.730	2.350	0.930		1500

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<u>Manhole Schedules for Storm</u>											
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
S24	5.156	1.512	Open Manhole	1200	S1.000	3.644	225				
S23	5.056	1.495	Open Manhole	1200	S1.001	3.561	225	S1.000	3.561	225	
S22	4.989	1.498	Open Manhole	1200	S1.002	3.491	225	S1.001	3.491	225	
S21	4.864	1.499	Open Manhole	1200	S1.003	3.365	300	S1.002	3.440	225	
S20	4.722	1.491	Open Manhole	1200	S1.004	3.231	300	S1.003	3.231	300	
S25	4.641	1.358	Open Manhole	1200	S2.000	3.283	225				
S19	4.489	1.394	Open Manhole	1200	S1.005	3.095	300	S1.004	3.095	300	
								S2.000	3.170	225	
S18	4.389	1.355	Open Manhole	1200	S1.006	3.034	300	S1.005	3.034	300	
S17	4.300	1.364	Open Manhole	1200	S1.007	2.936	300	S1.006	2.936	300	
S16	4.500	1.640	Open Manhole	1200	S1.008	2.860	300	S1.007	2.860	300	
SCPM3	4.000	1.375	Open Manhole	1200	S1.009	2.625	300	S1.008	2.625	300	
SOUT1	4.000	1.400	Open Manhole	600		OUTFALL		S1.009	2.600	300	
S14	5.393	1.143	Open Manhole	1200	S3.000	4.250	225				
S13	5.410	1.305	Open Manhole	1200	S3.001	4.105	300	S3.000	4.180	225	
S12	5.160	1.201	Open Manhole	1200	S3.002	3.959	300	S3.001	3.959	300	
S11	5.323	1.506	Open Manhole	1200	S3.003	3.817	300	S3.002	3.817	300	
S15	4.950	0.980	Open Manhole	1200	S4.000	3.970	225				
S10	5.000	1.261	Open Manhole	1200	S3.004	3.739	300	S3.003	3.739	300	
								S4.000	3.814	225	
SHW1	5.000	1.285	Open Manhole	600	S3.005	3.715	300	S3.004	3.715	300	
SHW2	5.150	1.603	Open Manhole	600	S3.006	3.547	300	S3.005	3.547	300	
SCPM2	5.150	1.713	Open Manhole	1500	S3.007	3.437	300	S3.006	3.437	300	
S9	5.000	1.823	Open Manhole	1200	S3.008	3.177	300	S3.007	3.177	300	
S7	5.150	1.132	Open Manhole	1200	S5.000	4.018	225				
S6	5.039	1.201	Open Manhole	1200	S5.001	3.838	300	S5.000	3.913	225	
S5	4.883	1.249	Open Manhole	1200	S5.002	3.634	300	S5.001	3.634	300	
S8	5.150	1.309	Open Manhole	1200	S6.000	3.841	225				
S4	4.781	1.265	Open Manhole	1200	S5.003	3.516	300	S5.002	3.516	300	
								S6.000	3.591	225	
S3	4.848	1.493	Open Manhole	1200	S5.004	3.355	300	S5.003	3.355	300	
S2A	4.546	0.988	Open Manhole	975 x 675	S7.000	3.558	225				
S2	4.640	1.134	Open Manhole	1200	S7.001	3.506	225	S7.000	3.506	225	
S1	4.934	1.606	Open Manhole	1200	S5.005	3.328	300	S5.004	3.328	300	
								S7.001	3.403	225	
SCPM1	4.750	1.872	Open Manhole	1200	S3.009	2.878	300	S3.008	2.928	300	50
								S5.005	2.928	300	50
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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
S26	4.229	1.433	Open Manhole	1500	S3.010	2.796	450	S3.009	2.796	300	
S27	4.210	1.539	Open Manhole	1500	S3.011	2.671	450	S3.010	2.671	450	
S28	3.850	1.480	Open Manhole	1500	S3.012	2.370	450	S3.011	2.370	450	
SSWMH	3.730	1.380	Open Manhole	1200		OUTFALL		S3.012	2.350	450	

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	o	225	S24	5.156	3.644	1.287	Open Manhole	1200
S1.001	o	225	S23	5.056	3.561	1.270	Open Manhole	1200
S1.002	o	225	S22	4.989	3.491	1.273	Open Manhole	1200
S1.003	o	300	S21	4.864	3.365	1.199	Open Manhole	1200
S1.004	o	300	S20	4.722	3.231	1.191	Open Manhole	1200
S2.000	o	225	S25	4.641	3.283	1.133	Open Manhole	1200
S1.005	o	300	S19	4.489	3.095	1.094	Open Manhole	1200
S1.006	o	300	S18	4.389	3.034	1.055	Open Manhole	1200
S1.007	o	300	S17	4.300	2.936	1.064	Open Manhole	1200
S1.008	o	300	S16	4.500	2.860	1.340	Open Manhole	1200
S1.009	o	300	SCPM3	4.000	2.625	1.075	Open Manhole	1200
S3.000	o	225	S14	5.393	4.250	0.918	Open Manhole	1200
S3.001	o	300	S13	5.410	4.105	1.005	Open Manhole	1200
S3.002	o	300	S12	5.160	3.959	0.901	Open Manhole	1200
S3.003	o	300	S11	5.323	3.817	1.206	Open Manhole	1200
S4.000	o	225	S15	4.950	3.970	0.755	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	14.272	172.0	S23	5.056	3.561	1.270	Open Manhole	1200
S1.001	11.982	171.2	S22	4.989	3.491	1.273	Open Manhole	1200
S1.002	8.715	170.9	S21	4.864	3.440	1.199	Open Manhole	1200
S1.003	33.571	250.5	S20	4.722	3.231	1.191	Open Manhole	1200
S1.004	34.121	250.9	S19	4.489	3.095	1.094	Open Manhole	1200
S2.000	16.790	148.6	S19	4.489	3.170	1.094	Open Manhole	1200
S1.005	15.204	249.2	S18	4.389	3.034	1.055	Open Manhole	1200
S1.006	24.357	248.5	S17	4.300	2.936	1.064	Open Manhole	1200
S1.007	13.107	172.5	S16	4.500	2.860	1.340	Open Manhole	1200
S1.008	48.058	204.5	SCPM3	4.000	2.625	1.075	Open Manhole	1200
S1.009	2.915	116.6	SOUT1	4.000	2.600	1.100	Open Manhole	600
S3.000	12.033	171.9	S13	5.410	4.180	1.005	Open Manhole	1200
S3.001	36.708	251.4	S12	5.160	3.959	0.901	Open Manhole	1200
S3.002	35.335	248.8	S11	5.323	3.817	1.206	Open Manhole	1200
S3.003	19.513	250.2	S10	5.000	3.739	0.961	Open Manhole	1200
S4.000	26.630	170.7	S10	5.000	3.814	0.961	Open Manhole	1200

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<u>PIPELINE SCHEDULES for Storm</u>								
<u>Upstream Manhole</u>								
PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S3.004	o	300	S10	5.000	3.739	0.961	Open Manhole	1200
S3.005	o	300	SHW1	5.000	3.715	0.985	Open Manhole	600
S3.006	o	300	SHW2	5.150	3.547	1.303	Open Manhole	600
S3.007	o	300	SCPM2	5.150	3.437	1.413	Open Manhole	1500
S3.008	o	300	S9	5.000	3.177	1.523	Open Manhole	1200
S5.000	o	225	S7	5.150	4.018	0.907	Open Manhole	1200
S5.001	o	300	S6	5.039	3.838	0.901	Open Manhole	1200
S5.002	o	300	S5	4.883	3.634	0.949	Open Manhole	1200
S6.000	o	225	S8	5.150	3.841	1.084	Open Manhole	1200
S5.003	o	300	S4	4.781	3.516	0.965	Open Manhole	1200
S5.004	o	300	S3	4.848	3.355	1.193	Open Manhole	1200
S7.000	o	225	S2A	4.546	3.558	0.763	Open Manhole	975 x 675
S7.001	o	225	S2	4.640	3.506	0.909	Open Manhole	1200
S5.005	o	300	S1	4.934	3.328	1.306	Open Manhole	1200
S3.009	o	300	SCPM1	4.750	2.878	1.572	Open Manhole	1200
<u>Downstream Manhole</u>								
PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S3.004	8.494	353.9	SHW1	5.000	3.715	0.985	Open Manhole	600
S3.005	50.847	302.7	SHW2	5.150	3.547	1.303	Open Manhole	600
S3.006	15.756	143.2	SCPM2	5.150	3.437	1.413	Open Manhole	1500
S3.007	43.316	166.6	S9	5.000	3.177	1.523	Open Manhole	1200
S3.008	28.700	115.3	SCPM1	4.750	2.928	1.522	Open Manhole	1200
S5.000	17.925	170.7	S6	5.039	3.913	0.901	Open Manhole	1200
S5.001	51.183	250.9	S5	4.883	3.634	0.949	Open Manhole	1200
S5.002	30.537	258.8	S4	4.781	3.516	0.965	Open Manhole	1200
S6.000	42.349	169.4	S4	4.781	3.591	0.965	Open Manhole	1200
S5.003	40.263	250.1	S3	4.848	3.355	1.193	Open Manhole	1200
S5.004	6.842	253.4	S1	4.934	3.328	1.306	Open Manhole	1200
S7.000	8.367	160.9	S2	4.640	3.506	0.909	Open Manhole	1200
S7.001	17.538	170.3	S1	4.934	3.403	1.306	Open Manhole	1200
S5.005	23.908	59.8	SCPM1	4.750	2.928	1.522	Open Manhole	1200
S3.009	20.441	249.3	S26	4.229	2.796	1.133	Open Manhole	1500
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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S3.010	o	450	S26	4.229	2.796	0.983	Open Manhole	1500
S3.011	o	450	S27	4.210	2.671	1.089	Open Manhole	1500
S3.012	o	450	S28	3.850	2.370	1.030	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S3.010	29.931	239.4	S27	4.210	2.671	1.089	Open Manhole	1500
S3.011	71.169	236.4	S28	3.850	2.370	1.030	Open Manhole	1500
S3.012	4.107	205.4	SSWMH	3.730	2.350	0.930	Open Manhole	1200

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<u>Setting Out Information - True Coordinates (Storm)</u>						
PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
S1.000	S24	1200		491497.849	101064.727	
S1.001	S23	1200		491485.798	101072.375	
S1.002	S22	1200		491476.491	101079.920	
S1.003	S21	1200		491472.662	101087.749	
S1.004	S20	1200		491496.796	101111.085	
S2.000	S25	1200		491534.117	101123.943	
S1.005	S19	1200		491521.319	101134.810	
S1.006	S18	1200		491532.172	101145.458	
S1.007	S17	1200		491544.728	101166.329	
S1.008	S16	1200		491555.712	101173.480	
S1.009	SCPM3	1200		491557.041	101221.520	
S3.000	S14	1200		491516.385	101015.460	
S3.001	S13	1200		491517.297	101027.458	
S3.002	S12	1200		491549.834	101044.453	
S3.003	S11	1200		491581.154	101060.812	
S4.000	S15	1200		491557.726	101100.354	
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<u>Setting Out Information - True Coordinates (Storm)</u>						
PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
S3.004	S10	1200		491573.004	101078.542	
S3.005	SHW1	600		491580.094	101083.220	
S3.006	SHW2	600		491628.282	101066.993	
S3.007	SCPM2	1500		491639.600	101056.032	
S3.008	S9	1200		491666.662	101022.210	
S5.000	S7	1200		491528.267	100973.200	
S5.001	S6	1200		491536.137	100957.095	
S5.002	S5	1200		491582.267	100979.270	
S6.000	S8	1200		491594.221	101030.420	
S5.003	S4	1200		491610.351	100991.263	
S5.004	S3	1200		491650.180	100997.155	
S7.000	S2A	975	675	491681.988	100991.477	
S7.001	S2	1200		491673.666	100990.615	
S5.005	S1	1200		491656.771	100995.320	
S3.009	SCPM1	1200		491680.610	100997.128	
S3.010	S26	1500		491700.791	100993.878	
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<u>Setting Out Information - True Coordinates (Storm)</u>							
PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)	
S3.011	S27	1500		491730.372	100989.315		
S3.012	S28	1500		491799.479	101006.323		
PN	DSMH Name	Dia/Len (mm)	Width (mm)	DS Easting (m)	DS Northing (m)	Layout (North)	
S1.009	SOUT1	600		491559.484	101223.110		
S3.012	SSWMH	1200		491802.976	101004.169		
<u>Free Flowing Outfall Details for Storm</u>							
Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)	
S1.009	SOUT1	4.000	2.600	0.000	600	0	
<u>Free Flowing Outfall Details for Storm</u>							
Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)	
S3.012	SSWMH	3.730	2.350	0.000	1200	0	
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Online Controls for Storm

Hydro-Brake® Optimum Manhole: SCPM3, DS/PN: S1.009, Volume (m³): 4.9

Unit Reference	MD-SHE-0105-5000-1000-5000
Design Head (m)	1.000
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	105
Invert Level (m)	2.625
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	5.0
Flush-Flo™	0.296	5.0
Kick-Flo®	0.637	4.1
Mean Flow over Head Range	-	4.3

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.6	1.200	5.4	3.000	8.4	7.000	12.5
0.200	4.8	1.400	5.8	3.500	9.0	7.500	12.9
0.300	5.0	1.600	6.2	4.000	9.6	8.000	13.3
0.400	4.9	1.800	6.6	4.500	10.1	8.500	13.7
0.500	4.7	2.000	6.9	5.000	10.6	9.000	14.1
0.600	4.3	2.200	7.2	5.500	11.1	9.500	14.5
0.800	4.5	2.400	7.5	6.000	11.6		
1.000	5.0	2.600	7.8	6.500	12.1		

Hydro-Brake® Optimum Manhole: SCPM2, DS/PN: S3.007, Volume (m³): 4.1

Unit Reference	MD-SHE-0047-1000-1000-1000
Design Head (m)	1.000
Design Flow (l/s)	1.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	47
Invert Level (m)	3.437
Minimum Outlet Pipe Diameter (mm)	75
Suggested Manhole Diameter (mm)	1200

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Hydro-Brake® Optimum Manhole: SCPM2, DS/PN: S3.007, Volume (m³): 4.1

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	1.0
Flush-Flo™	0.205	0.8
Kick-Flo®	0.415	0.7
Mean Flow over Head Range	-	0.8

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	0.8	1.200	1.1	3.000	1.6	7.000	2.4
0.200	0.8	1.400	1.2	3.500	1.8	7.500	2.5
0.300	0.8	1.600	1.2	4.000	1.9	8.000	2.6
0.400	0.7	1.800	1.3	4.500	2.0	8.500	2.7
0.500	0.7	2.000	1.4	5.000	2.1	9.000	2.7
0.600	0.8	2.200	1.4	5.500	2.2	9.500	2.8
0.800	0.9	2.400	1.5	6.000	2.3		
1.000	1.0	2.600	1.5	6.500	2.3		

Hydro-Brake® Optimum Manhole: SCPM1, DS/PN: S3.009, Volume (m³): 5.7

Unit Reference	MD-SHE-0132-8000-1000-8000
Design Head (m)	1.000
Design Flow (l/s)	8.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	132
Invert Level (m)	2.878
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	8.0
Flush-Flo™	0.302	8.0
Kick-Flo®	0.664	6.6
Mean Flow over Head Range	-	6.9

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	4.7	0.300	8.0	0.500	7.7	0.800	7.2
0.200	7.8	0.400	7.9	0.600	7.2	1.000	8.0

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Innovyze		Network 2017.1.2					
Micro Drainage							
<u>Hydro-Brake® Optimum Manhole: SCPM1, DS/PN: S3.009, Volume (m³): 5.7</u>							
Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
1.200	8.7	2.400	12.1	5.000	17.1	8.000	21.5
1.400	9.4	2.600	12.6	5.500	17.9	8.500	22.1
1.600	10.0	3.000	13.4	6.000	18.7	9.000	22.7
1.800	10.5	3.500	14.5	6.500	19.4	9.500	23.3
2.000	11.1	4.000	15.4	7.000	20.1		
2.200	11.6	4.500	16.3	7.500	20.8		
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Storage Structures for Storm

Cellular Storage Manhole: SCPM3, DS/PN: S1.009

Invert Level (m) 2.625 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	376.0	376.0	0.801	0.0	452.2
0.800	376.0	452.2			

Tank or Pond Manhole: SHW2, DS/PN: S3.006

Invert Level (m) 3.547

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	376.0	0.700	974.0	1.400	1159.0	2.100	1159.0
0.100	457.0	0.800	1065.0	1.500	1159.0	2.200	1159.0
0.200	539.0	0.900	1159.0	1.600	1159.0	2.300	1159.0
0.300	623.0	1.000	1159.0	1.700	1159.0	2.400	1159.0
0.400	708.0	1.100	1159.0	1.800	1159.0	2.500	1159.0
0.500	795.0	1.200	1159.0	1.900	1159.0		
0.600	884.0	1.300	1159.0	2.000	1159.0		

Cellular Storage Manhole: SCPM1, DS/PN: S3.009

Invert Level (m) 2.878 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	360.0	360.0	0.801	0.0	433.6
0.800	360.0	433.6			

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Innovyze		Network 2017.1.2			
<u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>					
<u>Simulation Criteria</u>					
Areal Reduction Factor 1.000		Additional Flow - % of Total Flow 0.000			
Hot Start (mins) 0		MADD Factor * 10m³/ha Storage 2.000			
Hot Start Level (mm) 0		Inlet Coeffiecient 0.800			
Manhole Headloss Coeff (Global) 0.500		Flow per Person per Day (l/per/day) 0.000			
Foul Sewage per hectare (l/s) 0.000					
Number of Input Hydrographs 0		Number of Storage Structures 3			
Number of Online Controls 3		Number of Time/Area Diagrams 0			
Number of Offline Controls 0		Number of Real Time Controls 0			
<u>Synthetic Rainfall Details</u>					
Rainfall Model		FSR		Ratio R 0.350	
Region England and Wales		Cv (Summer) 0.750			
M5-60 (mm)		19.000		Cv (Winter) 0.840	
Margin for Flood Risk Warning (mm)		300.0			
Analysis Timestep		2.5 Second Increment (Extended)			
DTS Status		ON			
DVD Status		ON			
Inertia Status		ON			
Profile(s)		Summer and Winter			
Duration(s) (mins)		15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880			
Return Period(s) (years)		1, 30, 100			
Climate Change (%)		0, 0, 40			

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Innovyze					Network 2017.1.2					
<u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u> <u>for Storm</u>										



MJA Consulting

Monarch House

Barton Lane

OX14 3NB

New Barn Lane, N.Bersted

Surface Water Network

Date 02/07/2018

File SW Network 020718.mdx

Designed by C.Pendle

Checked by

Innovyze

Network 2017.1.2

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)

for Storm

Simulation Criteria

Areal Reduction Factor

1.000

Additional Flow - % of Total Flow

0.000

Hot Start (mins)

0

MADD Factor * 10m³/ha Storage

2.000

Hot Start Level (mm)

0

Inlet Coeffiecient

0.800

Manhole Headloss Coeff (Global)

0.500

Flow per Person per Day (l/per/day)

0.000

Foul Sewage per hectare (l/s)

0.000

Number of Input Hydrographs

0

Number of Storage Structures

3

Number of Online Controls

3

Number of Time/Area Diagrams

0

Number of Offline Controls

0

Number of Real Time Controls

0

Synthetic Rainfall Details

Rainfall Model

FSR

Ratio R

0.350

Region England and Wales Cv (Summer)

0.750

M5-60 (mm)

19.000

Cv (Winter)

0.840

Margin for Flood Risk Warning (mm)

300.0

Analysis Timestep

2.5 Second Increment (Extended)

DTS Status

ON

DVD Status

ON

Inertia Status

ON

Profile(s)

Summer and Winter

Duration(s) (mins)

15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880

Return Period(s) (years)

1, 30, 100

Climate Change (%)

0, 0, 40

PN

Event

US/CL (m)

Water Level (m)

Flooded Volume (m³)

Pipe Flow (l/s)

Status

S1.000

15 minute 30 year Winter I+0%

5.156

3.955

0.000

14.8

SURCHARGED

S1.001

15 minute 30 year Winter I+0%

5.056

3.935

0.000

20.9

SURCHARGED

S1.002

15 minute 30 year Winter I+0%

4.989

3.909

0.000

21.8

SURCHARGED

S1.003

15 minute 30 year Winter I+0%

4.864

3.876

0.000

51.1

SURCHARGED

S1.004

15 minute 30 year Winter I+0%

4.722

3.785

0.000

52.2

SURCHARGED

S2.000

15 minute 30 year Winter I+0%

4.641

3.778

0.000

26.5

SURCHARGED

S1.005

15 minute 30 year Winter I+0%

4.489

3.699

0.000

73.5

SURCHARGED

S1.006

15 minute 30 year Winter I+0%

4.389

3.605

0.000

83.5

SURCHARGED

S1.007

15 minute 30 year Winter I+0%

4.300

3.433

0.000

84.2

SURCHARGED

S1.008

15 minute 30 year Winter I+0%

4.500

3.319

0.000

93.6

SURCHARGED

S1.009

240 minute 30 year Winter I+0%

4.000

2.962

0.000

5.0

SURCHARGED

S3.000

15 minute 30 year Winter I+0%

5.393

4.367

0.000

12.0

OK

S3.001

15 minute 30 year Winter I+0%

5.410

4.353

0.000

33.1

OK

S3.002

15 minute 30 year Winter I+0%

5.160

4.307

0.000

36.7

SURCHARGED

S3.003

15 minute 30 year Winter I+0%

5.323

4.221

0.000

47.6

SURCHARGED

S4.000

15 minute 30 year Winter I+0%

4.950

4.218

0.000

24.5

SURCHARGED

S3.004

15 minute 30 year Winter I+0%

5.000

4.139

0.000

70.1

SURCHARGED

S3.005

15 minute 30 year Winter I+0%

5.000

4.060

0.000

69.2

SURCHARGED

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

PN	Event				US/CL (m)	Water Level (m)	Flooded Volume (m³)	Pipe Flow (l/s)	Status
S3.006	960 minute	30 year	Winter	I+0%	5.150	3.786	0.000	2.2	OK
S3.007	960 minute	30 year	Winter	I+0%	5.150	3.785	0.000	0.8	SURCHARGED
S3.008	240 minute	30 year	Winter	I+0%	5.000	3.207	0.000	0.8	OK
S5.000	15 minute	30 year	Winter	I+0%	5.150	4.119	0.000	10.7	OK
S5.001	15 minute	30 year	Winter	I+0%	5.039	4.102	0.000	19.2	OK
S5.002	15 minute	30 year	Winter	I+0%	4.883	4.064	0.000	32.9	SURCHARGED
S6.000	15 minute	30 year	Winter	I+0%	5.150	4.091	0.000	23.7	SURCHARGED
S5.003	15 minute	30 year	Winter	I+0%	4.781	3.995	0.000	78.0	SURCHARGED
S5.004	15 minute	30 year	Winter	I+0%	4.848	3.749	0.000	90.9	SURCHARGED
S7.000	15 minute	30 year	Winter	I+0%	4.546	3.637	0.000	7.7	OK
S7.001	15 minute	30 year	Winter	I+0%	4.640	3.613	0.000	16.0	OK
S5.005	15 minute	30 year	Winter	I+0%	4.934	3.535	0.000	104.4	OK
S3.009	240 minute	30 year	Winter	I+0%	4.750	3.197	0.000	8.0	SURCHARGED
S3.010	360 minute	30 year	Summer	I+0%	4.229	2.857	0.000	8.0	OK
S3.011	180 minute	30 year	Summer	I+0%	4.210	2.729	0.000	8.0	OK
S3.012	360 minute	30 year	Summer	I+0%	3.850	2.446	0.000	8.0	OK

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<table><tr><th>PN</th><th colspan="5">Event</th><th>US/CL (m)</th><th>Water Level (m)</th><th>Flooded Volume (m³)</th><th>Pipe Flow (l/s)</th><th>Status</th></tr><tr><td>S1.000</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.156</td><td>5.138</td><td>0.000</td><td>22.2</td><td>FLOOD RISK</td></tr><tr><td>S1.001</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.056</td><td>5.056</td><td>0.130</td><td>31.7</td><td>FLOOD</td></tr><tr><td>S1.002</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.989</td><td>4.971</td><td>0.000</td><td>34.8</td><td>FLOOD RISK</td></tr><tr><td>S1.003</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.864</td><td>4.865</td><td>0.894</td><td>66.6</td><td>FLOOD</td></tr><tr><td>S1.004</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.722</td><td>4.722</td><td>0.117</td><td>82.5</td><td>FLOOD</td></tr><tr><td>S2.000</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.641</td><td>4.642</td><td>0.686</td><td>43.6</td><td>FLOOD</td></tr><tr><td>S1.005</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.489</td><td>4.494</td><td>5.453</td><td>114.5</td><td>FLOOD</td></tr><tr><td>S1.006</td><td>15 minute</td><td>100 year</td><td>Summer</td><td>I+40%</td><td>4.389</td><td>4.367</td><td>0.000</td><td>121.0</td><td>FLOOD RISK</td></tr><tr><td>S1.007</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.300</td><td>4.058</td><td>0.000</td><td>122.4</td><td>FLOOD RISK</td></tr><tr><td>S1.008</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.500</td><td>3.845</td><td>0.000</td><td>139.8</td><td>SURCHARGED</td></tr><tr><td>S1.009</td><td>360 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.000</td><td>3.334</td><td>0.000</td><td>5.0</td><td>SURCHARGED</td></tr><tr><td>S3.000</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.393</td><td>5.162</td><td>0.000</td><td>16.7</td><td>FLOOD RISK</td></tr><tr><td>S3.001</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.410</td><td>5.124</td><td>0.000</td><td>43.8</td><td>FLOOD RISK</td></tr><tr><td>S3.002</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.160</td><td>5.041</td><td>0.000</td><td>62.0</td><td>FLOOD RISK</td></tr><tr><td>S3.003</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.323</td><td>4.904</td><td>0.000</td><td>83.2</td><td>SURCHARGED</td></tr><tr><td>S4.000</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>4.950</td><td>4.942</td><td>0.000</td><td>39.0</td><td>FLOOD RISK</td></tr><tr><td>S3.004</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.000</td><td>4.763</td><td>0.000</td><td>121.7</td><td>FLOOD RISK</td></tr><tr><td>S3.005</td><td>15 minute</td><td>100 year</td><td>Winter</td><td>I+40%</td><td>5.000</td><td>4.527</td><td>0.000</td><td>118.9</td><td>SURCHARGED</td></tr></table>												PN	Event					US/CL (m)	Water Level (m)	Flooded Volume (m³)	Pipe Flow (l/s)	Status	S1.000	15 minute	100 year	Winter	I+40%	5.156	5.138	0.000	22.2	FLOOD RISK	S1.001	15 minute	100 year	Winter	I+40%	5.056	5.056	0.130	31.7	FLOOD	S1.002	15 minute	100 year	Winter	I+40%	4.989	4.971	0.000	34.8	FLOOD RISK	S1.003	15 minute	100 year	Winter	I+40%	4.864	4.865	0.894	66.6	FLOOD	S1.004	15 minute	100 year	Winter	I+40%	4.722	4.722	0.117	82.5	FLOOD	S2.000	15 minute	100 year	Winter	I+40%	4.641	4.642	0.686	43.6	FLOOD	S1.005	15 minute	100 year	Winter	I+40%	4.489	4.494	5.453	114.5	FLOOD	S1.006	15 minute	100 year	Summer	I+40%	4.389	4.367	0.000	121.0	FLOOD RISK	S1.007	15 minute	100 year	Winter	I+40%	4.300	4.058	0.000	122.4	FLOOD RISK	S1.008	15 minute	100 year	Winter	I+40%	4.500	3.845	0.000	139.8	SURCHARGED	S1.009	360 minute	100 year	Winter	I+40%	4.000	3.334	0.000	5.0	SURCHARGED	S3.000	15 minute	100 year	Winter	I+40%	5.393	5.162	0.000	16.7	FLOOD RISK	S3.001	15 minute	100 year	Winter	I+40%	5.410	5.124	0.000	43.8	FLOOD RISK	S3.002	15 minute	100 year	Winter	I+40%	5.160	5.041	0.000	62.0	FLOOD RISK	S3.003	15 minute	100 year	Winter	I+40%	5.323	4.904	0.000	83.2	SURCHARGED	S4.000	15 minute	100 year	Winter	I+40%	4.950	4.942	0.000	39.0	FLOOD RISK	S3.004	15 minute	100 year	Winter	I+40%	5.000	4.763	0.000	121.7	FLOOD RISK	S3.005	15 minute	100 year	Winter	I+40%	5.000	4.527	0.000	118.9	SURCHARGED
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MJA Consulting		Page 21
Monarch House Barton Lane OX14 3NB	New Barn Lane, N.Bersted Surface Water Network	
Date 02/07/2018 File SW Network 020718.mdx	Designed by C.Pendle Checked by	
Innovyze	Network 2017.1.2	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	Event		US/CL (m)	Water Level (m)	Flooded Volume (m³)	Pipe Flow (l/s)	Status
S3.006	1440 minute	100 year Winter I+40%	5.150	3.977	0.000	2.0	SURCHARGED
S3.007	1440 minute	100 year Winter I+40%	5.150	3.996	0.000	0.8	SURCHARGED
S3.008	240 minute	100 year Winter I+40%	5.000	3.555	0.000	1.0	SURCHARGED
S5.000	15 minute	100 year Winter I+40%	5.150	5.035	0.000	17.2	FLOOD RISK
S5.001	15 minute	100 year Summer I+40%	5.039	4.978	0.000	26.3	FLOOD RISK
S5.002	15 minute	100 year Winter I+40%	4.883	4.884	0.944	57.6	FLOOD
S6.000	15 minute	100 year Winter I+40%	5.150	5.115	0.000	40.1	FLOOD RISK
S5.003	15 minute	100 year Winter I+40%	4.781	4.783	2.353	128.8	FLOOD
S5.004	15 minute	100 year Winter I+40%	4.848	4.277	0.000	145.7	SURCHARGED
S7.000	15 minute	100 year Winter I+40%	4.546	4.021	0.000	12.4	SURCHARGED
S7.001	15 minute	100 year Winter I+40%	4.640	4.007	0.000	25.2	SURCHARGED
S5.005	15 minute	100 year Winter I+40%	4.934	3.933	0.000	169.0	SURCHARGED
S3.009	240 minute	100 year Winter I+40%	4.750	3.554	0.000	8.0	SURCHARGED
S3.010	2160 minute	100 year Summer I+40%	4.229	2.857	0.000	8.0	OK
S3.011	2160 minute	100 year Summer I+40%	4.210	2.729	0.000	8.0	OK
S3.012	2160 minute	100 year Summer I+40%	3.850	2.446	0.000	8.0	OK