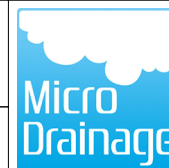


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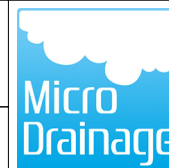
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PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	
1.000	28.435	1.300	21.9	0.044	5.00		0.0	0.600	o	150	Pipe/Conduit
1.001	74.368	0.198	375.6	0.184	5.00		0.0	0.600	o	375	Pipe/Conduit
2.000	10.678	0.178	60.0	0.033	5.00		0.0	0.600	o	225	Pipe/Conduit
2.001	27.588	0.690	40.0	0.111	5.00		0.0	0.600	o	225	Pipe/Conduit
2.002	7.734	0.516	15.0	0.000	5.00		0.0	0.600	o	225	Pipe/Conduit
1.002	9.552	0.027	353.8	0.000	5.00		0.0	0.600	o	375	Pipe/Conduit
1.003	28.632	0.081	353.5	0.000	5.00		0.0	0.600	o	375	Pipe/Conduit
3.000	18.670	0.187	99.8	0.020	5.00		0.0	0.600	o	150	Pipe/Conduit
4.000	5.807	0.537	10.8	0.021	5.00		0.0	0.600	o	150	Pipe/Conduit
3.001	20.955	0.262	80.0	0.026	5.00		0.0	0.600	o	150	Pipe/Conduit
5.000	6.126	0.102	60.1	0.030	5.00		0.0	0.600	o	150	Pipe/Conduit
3.002	24.636	1.000	24.6	0.036	5.00		0.0	0.600	o	225	Pipe/Conduit
1.004	24.237	0.054	448.8	0.025	5.00		0.0	0.600	o	450	Pipe/Conduit

	PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
	1.000	72.530	0.044	0.0	2.02	35.7
	1.001	71.005	0.228	0.0	0.93	102.6
	2.000	73.800	0.033	0.0	1.69	67.3
	2.001	73.622	0.144	0.0	2.08	82.5
	2.002	72.932	0.144	0.0	3.40	135.1
	1.002	70.807	0.372	0.0	0.96	105.8
	1.003	70.780	0.372	0.0	0.96	105.8
	3.000	73.900	0.020	0.0	1.01	17.8
	4.000	74.250	0.021	0.0	3.08	54.5
	3.001	73.713	0.067	0.0	1.13	19.9
	5.000	74.400	0.030	0.0	1.30	23.0
	3.002	73.376	0.133	0.0	2.65	105.2
	1.004	70.624	0.530	0.0	0.95	151.6

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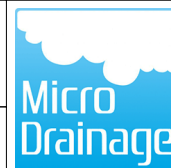
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Network 2019.1

	PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
	6.000	17.989	0.180	99.9	0.134	5.00	0.0	0.600	o	225	Pipe/Conduit
	7.000	4.692	0.059	79.5	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit
	7.001	3.264	0.068	48.0	0.000	5.00	0.0	0.600	o	150	Pipe/Conduit
	6.001	17.239	0.388	44.4	0.000	5.00	0.0	0.600	o	225	Pipe/Conduit
	6.002	18.934	1.800	10.5	0.000	5.00	0.0	0.600	o	225	Pipe/Conduit
	1.005	43.458	0.097	448.0	0.047	5.00	0.0	0.600	o	450	Pipe/Conduit
	8.000	10.932	1.093	10.0	0.014	5.00	0.0	0.600	o	150	Pipe/Conduit
	1.006	19.972	0.044	453.9	0.000	5.00	0.0	0.600	o	450	Pipe/Conduit
	9.000	28.309	0.472	60.0	0.130	5.00	0.0	0.600	o	225	Pipe/Conduit
	9.001	15.020	0.250	60.1	0.000	5.00	0.0	0.600	o	225	Pipe/Conduit
	9.002	11.573	1.157	10.0	0.000	5.00	0.0	0.600	o	225	Pipe/Conduit
	9.003	5.868	0.059	99.5	0.000	5.00	0.0	0.600	o	450	Pipe/Conduit
	9.004	7.661	0.077	99.5	0.000	5.00	0.0	0.600	o	450	Pipe/Conduit
	9.005	8.002	0.027	296.4	0.079	5.00	0.0	0.600	o	450	Pipe/Conduit
	1.007	7.791	0.078	99.9	0.000	5.00	0.0	0.600	o	375	Pipe/Conduit

	PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
	6.000	73.800	0.134	0.0	1.31	52.0
	7.000	74.280	0.024	0.0	1.13	19.9
	7.001	74.221	0.024	0.0	1.46	25.7
	6.001	73.620	0.158	0.0	1.97	78.2
	6.002	73.232	0.158	0.0	4.06	161.3
	1.005	70.570	0.735	0.0	0.95	151.7
	8.000	73.700	0.014	0.0	3.20	56.6
	1.006	70.473	0.749	0.0	0.95	150.7
	9.000	74.200	0.130	0.0	1.69	67.3
	9.001	73.728	0.130	0.0	1.69	67.2
	9.002	73.578	0.130	0.0	4.16	165.5
	9.003	71.000	0.130	0.0	2.04	324.2
	9.004	70.941	0.130	0.0	2.04	324.2
	9.005	70.864	0.209	0.0	1.18	187.0
	1.007	70.429	0.958	0.0	1.81	200.2

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Existing Network Details for SW West

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
1.008	9.957	0.199	50.0	0.000	5.00	0.0	0.600	o	375	Pipe/Conduit

Network Results Table

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
1.008	70.351	0.958	0.0	2.57	283.5

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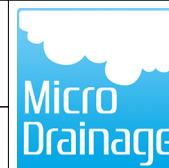
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Manhole Schedules for SW West

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SA1	384978.377	402256.806	384978.377	402256.806	Required	
SA2	384952.491	402268.573	384952.491	402268.573	Required	
SA3A	384952.148	402225.387	384952.148	402225.387	Required	
SA3B	384944.725	402217.711	384944.725	402217.711	Required	
SA3F	384918.085	402210.542	384918.085	402210.542	Required	
SA3G	384911.463	402206.547	384911.463	402206.547	Required	
SA3	384902.240	402204.060	384902.240	402204.060	Required	
SA4A	384948.977	402196.704	384948.977	402196.704	Required	
SA4B	384932.888	402188.373	384932.888	402188.373	Required	
SA4C	384930.551	402193.690	384930.551	402193.690	Required	
SA4D	384914.339	402183.564	384914.339	402183.564	Required	
SA4E	384910.329	402188.196	384910.329	402188.196	Required	
SA4	384887.208	402179.691	384887.208	402179.691	Required	
SA5A	384926.615	402160.533	384926.615	402160.533	Required	
SA5B	384911.599	402148.212	384911.599	402148.212	Required	

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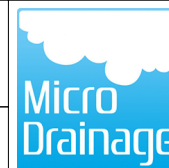
Network 2019.1

Manhole Schedules for SW West

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SA5C	384909.870	402152.573	384909.870	402152.573	Required	
SA5D	384909.265	402155.781	384909.265	402155.781	Required	
SA5E	384892.609	402151.338	384892.609	402151.338	Required	
SA5	384875.150	402158.667	384875.150	402158.667	Required	
SA6B	384864.021	402123.863	384864.021	402123.863	Required	
SA6	384853.470	402121.002	384853.470	402121.002	Required	
SA7A	384912.177	402119.265	384912.177	402119.265	Required	
SA7E	384883.912	402120.836	384883.912	402120.836	Required	
SA7F	384869.413	402116.912	384869.413	402116.912	Required	
SA7	384858.113	402114.412	384858.113	402114.412	Required	
TANK 1	384855.304	402109.261			No Entry	
SA8A	384851.455	402102.638	384851.455	402102.638	Required	
SA8	384843.521	402103.685	384843.521	402103.685	Required	
CA1	384838.382	402097.829	384838.382	402097.829	Required	
CA2	384833.522	402089.139			No Entry	

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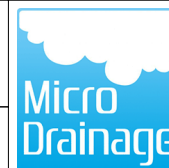


Network 2019.1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	I*W
1.000	o	150	SA1	73.664	72.530	0.984	Open Manhole		450
1.001	o	375	SA2	73.150	71.005	1.770	Open Manhole		1500
2.000	o	225	SA3A	75.209	73.800	1.184	Open Manhole		600
2.001	o	225	SA3B	75.362	73.622	1.515	Open Manhole		600
2.002	o	225	SA3F	75.242	72.932	2.085	Open Manhole		600
1.002	o	375	SA3G	75.254	70.807	4.072	Open Manhole		1500
1.003	o	375	SA3	75.020	70.780	3.865	Open Manhole		1500
3.000	o	150	SA4A	75.412	73.900	1.362	Open Manhole		450
4.000	o	150	SA4B	75.314	74.250	0.914	Open Manhole		450
3.001	o	150	SA4C	75.322	73.713	1.459	Open Manhole		450
5.000	o	150	SA4D	75.452	74.400	0.902	Open Manhole		450
3.002	o	225	SA4E	75.384	73.376	1.783	Open Manhole		450
1.004	o	450	SA4	75.334	70.624	4.260	Open Manhole		1500

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	I*W
1.000	28.435	21.9	SA2	73.150	71.230	1.770	Open Manhole		1500
1.001	74.368	375.6	SA3G	75.254	70.807	4.072	Open Manhole		1500
2.000	10.678	60.0	SA3B	75.362	73.622	1.515	Open Manhole		600
2.001	27.588	40.0	SA3F	75.242	72.932	2.085	Open Manhole		600
2.002	7.734	15.0	SA3G	75.254	72.416	2.613	Open Manhole		1500
3.002	9.552	353.8	SA3	75.020	70.780	3.865	Open Manhole		1500
3.003	28.632	353.5	SA4	75.334	70.699	4.260	Open Manhole		1500
3.000	18.670	99.8	SA4C	75.322	73.713	1.459	Open Manhole		450
4.000	5.807	10.8	SA4C	75.322	73.713	1.459	Open Manhole		450
3.001	20.955	80.0	SA4E	75.384	73.451	1.783	Open Manhole		450
3.000	6.126	60.1	SA4E	75.384	74.298	0.936	Open Manhole		450
3.002	24.636	24.6	SA4	75.334	72.376	2.733	Open Manhole		1500
3.004	24.237	448.8	SA5	75.208	70.570	4.188	Open Manhole		1500



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Upstream Manhole

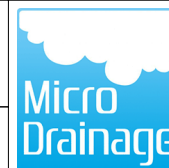
PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	L*W
6.000	o	225	SA5A	75.348	73.800	1.323	Open Manhole		600
7.000	o	150	SA5B	75.335	74.280	0.905	Open Manhole		450
7.001	o	150	SA5C	75.327	74.221	0.956	Open Manhole		450
6.001	o	225	SA5D	75.325	73.620	1.480	Open Manhole		600
6.002	o	225	SA5E	75.399	73.232	1.942	Open Manhole		600
1.005	o	450	SA5	75.208	70.570	4.188	Open Manhole		1500
8.000	o	150	SA6B	75.337	73.700	1.487	Open Manhole		450
1.006	o	450	SA6	75.398	70.473	4.475	Open Manhole		1500
9.000	o	225	SA7A	75.366	74.200	0.941	Open Manhole		600
9.001	o	225	SA7E	75.350	73.728	1.397	Open Manhole		600
9.002	o	225	SA7F	75.363	73.578	1.560	Open Manhole		600
9.003	o	450	SA7	75.219	71.000	3.769	Open Manhole		1500
9.004	o	450	TANK 1	75.230	70.941	3.839	Junction		
9.005	o	450	SA8A	75.276	70.864	3.962	Open Manhole		1500

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	L*W
5.000	17.989	99.9	SA5D	75.325	73.620	1.480	Open Manhole		600
7.000	4.692	79.5	SA5C	75.327	74.221	0.956	Open Manhole		450
7.001	3.264	48.0	SA5D	75.325	74.153	1.022	Open Manhole		600
5.001	17.239	44.4	SA5E	75.399	73.232	1.942	Open Manhole		600
5.002	18.934	10.5	SA5	75.208	71.432	3.551	Open Manhole		1500
5.005	43.458	448.0	SA6	75.398	70.473	4.475	Open Manhole		1500
5.000	10.932	10.0	SA6	75.398	72.607	2.641	Open Manhole		1500
5.006	19.972	453.9	SA8	75.335	70.429	4.456	Open Manhole		2100
9.000	28.309	60.0	SA7E	75.350	73.728	1.397	Open Manhole		600
9.001	15.020	60.1	SA7F	75.363	73.478	1.660	Open Manhole		600
9.002	11.573	10.0	SA7	75.219	72.421	2.573	Open Manhole		1500
9.003	5.868	99.5	TANK 1	75.230	70.941	3.839	Junction		
9.004	7.661	99.5	SA8A	75.276	70.864	3.962	Open Manhole		1500
9.005	8.002	296.4	SA8	75.335	70.837	4.048	Open Manhole		2100

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PIPELINE SCHEDULES for SW West

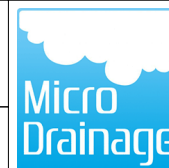
Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	I*W
1.007	o	375	SA8	75.335	70.429	4.531	Open Manhole		2100
1.008	o	375	CA1	75.488	70.351	4.762	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., (mm)	I*W
1.007	7.791	99.9	CA1	75.488	70.351	4.762	Open Manhole		1500
1.008	9.957	50.0	CA2	75.520	70.152	4.993	Open Manhole		1500

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Area Summary for SW West

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.044	0.044	0.044
1.001	-	-	100	0.184	0.184	0.184
2.000	-	-	100	0.033	0.033	0.033
2.001	-	-	100	0.111	0.111	0.111
2.002	-	-	100	0.000	0.000	0.000
1.002	-	-	100	0.000	0.000	0.000
1.003	-	-	100	0.000	0.000	0.000
3.000	-	-	100	0.020	0.020	0.020
4.000	-	-	100	0.021	0.021	0.021
3.001	-	-	100	0.026	0.026	0.026
5.000	-	-	100	0.030	0.030	0.030
3.002	-	-	100	0.036	0.036	0.036
1.004	-	-	100	0.025	0.025	0.025
6.000	-	-	100	0.134	0.134	0.134
7.000	-	-	100	0.024	0.024	0.024
7.001	-	-	100	0.000	0.000	0.000
6.001	-	-	100	0.000	0.000	0.000
6.002	-	-	100	0.000	0.000	0.000
1.005	-	-	100	0.047	0.047	0.047
8.000	-	-	100	0.014	0.014	0.014
1.006	-	-	100	0.000	0.000	0.000
9.000	-	-	100	0.130	0.130	0.130
9.001	-	-	100	0.000	0.000	0.000
9.002	-	-	100	0.000	0.000	0.000
9.003	-	-	100	0.000	0.000	0.000
9.004	-	-	100	0.000	0.000	0.000
9.005	-	-	100	0.079	0.079	0.079
1.007	-	-	100	0.000	0.000	0.000
1.008	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.958	0.958	0.958

Surcharged Outfall Details for SW West

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
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1.008	CA2	75.520	70.152	65.400	1500	0
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Datum (m) 70.152 Offset (mins) 0

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
15	-4.087	75	-4.087	135	-4.087	195	-4.087	255	-4.087	315	-4.087
30	-4.087	90	-4.087	150	-4.087	210	-4.087	270	-4.087	330	-4.087
45	-4.087	105	-4.087	165	-4.087	225	-4.087	285	-4.087	345	-4.087
60	-4.087	120	-4.087	180	-4.087	240	-4.087	300	-4.087	360	-4.087

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Surcharged Outfall Details for SW West

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
375	-4.087	555	-4.087	735	-4.087	915	-4.087	1095	-4.087	1275	-4.087
390	-4.087	570	-4.087	750	-4.087	930	-4.087	1110	-4.087	1290	-4.087
405	-4.087	585	-4.087	765	-4.087	945	-4.087	1125	-4.087	1305	-4.087
420	-4.087	600	-4.087	780	-4.087	960	-4.087	1140	-4.087	1320	-4.087
435	-4.087	615	-4.087	795	-4.087	975	-4.087	1155	-4.087	1335	-4.087
450	-4.087	630	-4.087	810	-4.087	990	-4.087	1170	-4.087	1350	-4.087
465	-4.087	645	-4.087	825	-4.087	1005	-4.087	1185	-4.087	1365	-4.087
480	-4.087	660	-4.087	840	-4.087	1020	-4.087	1200	-4.087	1380	-4.087
495	-4.087	675	-4.087	855	-4.087	1035	-4.087	1215	-4.087	1395	-4.087
510	-4.087	690	-4.087	870	-4.087	1050	-4.087	1230	-4.087	1410	-4.087
525	-4.087	705	-4.087	885	-4.087	1065	-4.087	1245	-4.087	1425	-4.087
540	-4.087	720	-4.087	900	-4.087	1080	-4.087	1260	-4.087	1440	-4.087

Simulation Criteria for SW West

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.500	Storm Duration (mins)	30
Ratio R	0.347		

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. . .		
Date 17/12/2021 08:01	Designed by losty_a	
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Online Controls for SW West

Complex Manhole: SA8, DS/PN: 1.007, Volume (m³): 20.9

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0314-6100-1500-6100
Design Head (m)	1.500
Design Flow (l/s)	61.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	314
Invert Level (m)	70.429
Minimum Outlet Pipe Diameter (mm)	375
Suggested Manhole Diameter (mm)	2100

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	61.0
Flush-Flo™	0.529	60.7
Kick-Flo®	1.082	52.1
Mean Flow over Head Range	-	51.0

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	9.5	1.200	54.8	3.000	85.3	7.000	128.9
0.200	32.2	1.400	59.0	3.500	91.9	7.500	133.3
0.300	56.0	1.600	62.9	4.000	98.1	8.000	137.6
0.400	59.9	1.800	66.6	4.500	103.9	8.500	141.7
0.500	60.7	2.000	70.1	5.000	109.4	9.000	145.8
0.600	60.5	2.200	73.4	5.500	114.6	9.500	149.7
0.800	59.0	2.400	76.5	6.000	119.5		
1.000	55.3	2.600	79.6	6.500	124.3		

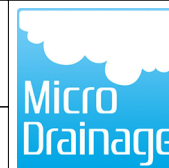
Orifice

Diameter (m) 0.170 Discharge Coefficient 0.600 Invert Level (m) 71.429

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for SW West

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	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	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Rainfall Model	FSR	Ratio R	0.347
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.500	Cv (Winter)	0.840

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Margin for Flood Risk Warning (mm) 300.0      DVD Status OFF
      Analysis Timestep   Fine Inertia Status OFF
      DTS Status          ON
```

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

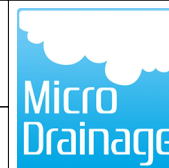
									Water
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)
1.000	SA1	15 Winter	1	+0%					72.568
1.001	SA2	15 Winter	1	+0%	30/15 Summer				71.142
2.000	SA3A	15 Winter	1	+0%					73.838
2.001	SA3B	15 Winter	1	+0%					73.695
2.002	SA3F	15 Winter	1	+0%					72.995
1.002	SA3G	15 Winter	1	+0%	30/15 Summer				71.012
1.003	SA3	15 Winter	1	+0%	30/15 Summer				70.960
3.000	SA4A	15 Winter	1	+0%	100/15 Winter				73.938
4.000	SA4B	15 Winter	1	+0%					74.273
3.001	SA4C	15 Winter	1	+0%	30/15 Winter				73.783
5.000	SA4D	15 Winter	1	+0%					74.443
3.002	SA4E	15 Winter	1	+0%					73.438
1.004	SA4	15 Winter	1	+0%	30/15 Summer				70.926
6.000	SA5A	15 Winter	1	+0%	100/15 Winter				73.890
7.000	SA5B	15 Winter	1	+0%					74.325
7.001	SA5C	15 Winter	1	+0%					74.264
6.001	SA5D	15 Winter	1	+0%					73.701
6.002	SA5E	15 Winter	1	+0%					73.287
1.005	SA5	15 Winter	1	+0%	30/15 Summer				70.913
8.000	SA6B	15 Winter	1	+0%					73.718
1.006	SA6	15 Winter	1	+0%	30/15 Summer				70.891

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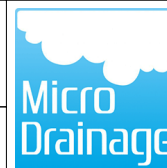
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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for SW West

PN	US/MH	Surcharged	Flooded	Flow / Cap.	Overflow	Pipe	Status	Level Exceeded
	Name	Depth (m)	Volume (m ³)		(1/s)	Flow (1/s)		
1.000	SA1	-0.112	0.000	0.14		5.4	OK	
1.001	SA2	-0.238	0.000	0.26		25.6	OK	
2.000	SA3A	-0.187	0.000	0.07		4.0	OK	
2.001	SA3B	-0.152	0.000	0.23		17.6	OK	
2.002	SA3F	-0.162	0.000	0.17		17.4	OK	
1.002	SA3G	-0.170	0.000	0.58		41.2	OK	
1.003	SA3	-0.195	0.000	0.43		40.1	OK	
3.000	SA4A	-0.112	0.000	0.14		2.4	OK	
4.000	SA4B	-0.127	0.000	0.06		2.6	OK	
3.001	SA4C	-0.080	0.000	0.43		8.1	OK	
5.000	SA4D	-0.107	0.000	0.18		3.7	OK	
3.002	SA4E	-0.163	0.000	0.17		16.0	OK	
1.004	SA4	-0.148	0.000	0.41		51.4	OK	
6.000	SA5A	-0.135	0.000	0.33		16.4	OK	
7.000	SA5B	-0.105	0.000	0.19		2.9	OK	
7.001	SA5C	-0.107	0.000	0.18		2.9	OK	
6.001	SA5D	-0.144	0.000	0.27		19.1	OK	
6.002	SA5E	-0.170	0.000	0.13		19.2	OK	
1.005	SA5	-0.107	0.000	0.48		65.5	OK	
8.000	SA6B	-0.132	0.000	0.03		1.7	OK	
1.006	SA6	-0.032	0.000	0.46		52.7	OK	

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for SW West

									Water
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)
9.000	SA7A	15 Winter	1	+0%					74.276
9.001	SA7E	15 Winter	1	+0%					73.808
9.002	SA7F	15 Winter	1	+0%					73.628
9.003	SA7	15 Winter	1	+0%	30/15 Winter				71.093
9.004	TANK 1	30 Winter	1	+0%	30/15 Winter				71.002
9.005	SA8A	30 Winter	1	+0%	30/15 Summer				70.959
1.007	SA8	15 Winter	1	+0%	1/15 Summer				70.872
1.008	CA1	15 Winter	1	+0%					70.501

PN	US/MH Name	Surcharged	Flooded	Flow / Cap.	Overflow (l/s)	Pipe	Status	Level Exceeded
		Depth (m)	Volume (m ³)			Flow (l/s)		
9.000	SA7A	-0.149	0.000	0.24		15.7	OK	
9.001	SA7E	-0.145	0.000	0.27		15.7	OK	
9.002	SA7F	-0.175	0.000	0.11		15.8	OK	
9.003	SA7	-0.357	0.000	0.09		15.9	OK	
9.004	TANK 1	-0.389	0.000	0.04		7.6	OK*	
9.005	SA8A	-0.355	0.000	0.10		12.2	OK	
1.007	SA8	0.068	0.000	0.54		59.3	SURCHARGED	
1.008	CA1	-0.225	0.000	0.34		59.3	OK	

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	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	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

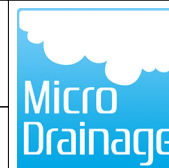
Rainfall Model	FSR	Ratio R	0.347
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.500	Cv (Winter)	0.840

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Margin for Flood Risk Warning (mm) 300.0      DVD Status OFF
      Analysis Timestep  Fine Inertia Status OFF
      DTS Status      ON
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Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

									Water
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)
1.000	SA1	15	Winter	30	+0%				72.592
1.001	SA2	15	Winter	30	+0%	30/15	Summer		71.776
2.000	SA3A	15	Winter	30	+0%				73.862
2.001	SA3B	15	Winter	30	+0%				73.744
2.002	SA3F	15	Winter	30	+0%				73.035
1.002	SA3G	60	Winter	30	+0%	30/15	Summer		71.778
1.003	SA3	60	Winter	30	+0%	30/15	Summer		71.761
3.000	SA4A	15	Winter	30	+0%	100/15	Winter		73.961
4.000	SA4B	15	Winter	30	+0%				74.287
3.001	SA4C	15	Winter	30	+0%	30/15	Winter		73.871
5.000	SA4D	15	Winter	30	+0%				74.471
3.002	SA4E	15	Winter	30	+0%				73.475
1.004	SA4	60	Winter	30	+0%	30/15	Summer		71.744
6.000	SA5A	15	Winter	30	+0%	100/15	Winter		73.957
7.000	SA5B	15	Winter	30	+0%				74.353
7.001	SA5C	15	Winter	30	+0%				74.291
6.001	SA5D	15	Winter	30	+0%				73.758
6.002	SA5E	15	Winter	30	+0%				73.321
1.005	SA5	60	Winter	30	+0%	30/15	Summer		71.716
8.000	SA6B	15	Winter	30	+0%				73.728
1.006	SA6	60	Winter	30	+0%	30/15	Summer		71.659

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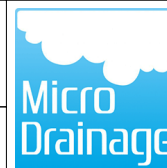
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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for SW West

Surcharged Flooded					Pipe		Level	
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Exceeded
1.000	SA1	-0.088	0.000	0.35		13.2		OK
1.001	SA2	0.396	0.000	0.59		57.1	SURCHARGED	
2.000	SA3A	-0.163	0.000	0.17		9.9		OK
2.001	SA3B	-0.103	0.000	0.56		43.0		OK
2.002	SA3F	-0.122	0.000	0.42		42.6		OK
1.002	SA3G	0.596	0.000	0.73		52.1	SURCHARGED	
1.003	SA3	0.606	0.000	0.55		50.9	SURCHARGED	
3.000	SA4A	-0.089	0.000	0.35		5.9		OK
4.000	SA4B	-0.113	0.000	0.14		6.3		OK
3.001	SA4C	0.008	0.000	1.02		19.2	SURCHARGED	
5.000	SA4D	-0.079	0.000	0.45		9.0		OK
3.002	SA4E	-0.126	0.000	0.40		38.3		OK
1.004	SA4	0.670	0.000	0.58		73.1	SURCHARGED	
6.000	SA5A	-0.068	0.000	0.82		40.1		OK
7.000	SA5B	-0.077	0.000	0.47		7.2		OK
7.001	SA5C	-0.080	0.000	0.44		7.1		OK
6.001	SA5D	-0.087	0.000	0.67		46.7		OK
6.002	SA5E	-0.136	0.000	0.32		47.2		OK
1.005	SA5	0.696	0.000	0.74		100.3	SURCHARGED	
8.000	SA6B	-0.122	0.000	0.08		4.2		OK
1.006	SA6	0.736	0.000	0.89		101.8	SURCHARGED	

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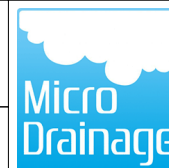
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for SW West

									Water
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)
9.000	SA7A	15 Winter	30	+0%					74.327
9.001	SA7E	15 Winter	30	+0%					73.863
9.002	SA7F	15 Winter	30	+0%					73.659
9.003	SA7	30 Winter	30	+0%	30/15 Winter				71.601
9.004	TANK 1	30 Winter	30	+0%	30/15 Winter				71.600
9.005	SA8A	30 Winter	30	+0%	30/15 Summer				71.608
1.007	SA8	60 Winter	30	+0%	1/15 Summer				71.632
1.008	CA1	60 Winter	30	+0%					70.510

PN	US/MH	Surcharged	Flooded	Pipe		Status	Level Exceeded
	Name	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)		
9.000	SA7A	-0.098	0.000	0.60	38.6		OK
9.001	SA7E	-0.090	0.000	0.65	38.5		OK
9.002	SA7F	-0.144	0.000	0.28	38.8		OK
9.003	SA7	0.151	0.000	0.18	30.9	SURCHARGED	
9.004	TANK 1	0.209	0.000	0.31	53.1	SURCHARGED*	
9.005	SA8A	0.294	0.000	0.43	52.7	SURCHARGED	
1.007	SA8	0.828	0.000	0.57	62.6	SURCHARGED	
1.008	CA1	-0.216	0.000	0.36	63.0		OK

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1) for SW West

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	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	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Rainfall Model	FSR	Ratio R	0.347
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.500	Cv (Winter)	0.840

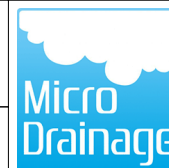
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Margin for Flood Risk Warning (mm) 300.0      DVD Status OFF
      Analysis Timestep   Fine Inertia Status OFF
      DTS Status          ON
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Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

									Water
	US/MH			Return	Climate	First (X)	First (Y)	First (Z)	Overflow
PN	Name	Storm	Period	Change		Surcharge	Flood	Overflow	Act.
1.000	SA1	15 Winter	100	+0%					72.601
1.001	SA2	60 Winter	100	+0%	30/15	Summer			72.220
2.000	SA3A	15 Winter	100	+0%					73.871
2.001	SA3B	15 Winter	100	+0%					73.766
2.002	SA3F	15 Winter	100	+0%					73.052
1.002	SA3G	60 Winter	100	+0%	30/15	Summer			72.199
1.003	SA3	60 Winter	100	+0%	30/15	Summer			72.179
3.000	SA4A	15 Winter	100	+0%	100/15	Winter			74.082
4.000	SA4B	15 Winter	100	+0%					74.293
3.001	SA4C	15 Winter	100	+0%	30/15	Winter			74.048
5.000	SA4D	15 Winter	100	+0%					74.483
3.002	SA4E	15 Winter	100	+0%					73.490
1.004	SA4	60 Winter	100	+0%	30/15	Summer			72.173
6.000	SA5A	15 Winter	100	+0%	100/15	Winter			74.041
7.000	SA5B	15 Winter	100	+0%					74.365
7.001	SA5C	15 Winter	100	+0%					74.303
6.001	SA5D	15 Winter	100	+0%					73.785
6.002	SA5E	15 Winter	100	+0%					73.334
1.005	SA5	60 Winter	100	+0%	30/15	Summer			72.156
8.000	SA6B	15 Winter	100	+0%					73.732
1.006	SA6	60 Winter	100	+0%	30/15	Summer			72.122

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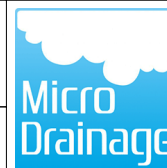


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1) for SW West

Surcharged Flooded					Pipe	Status	Level Exceeded
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)		
1.000	SA1	-0.079	0.000	0.46	17.1	OK	
1.001	SA2	0.840	0.000	0.44	42.4	SURCHARGED	
2.000	SA3A	-0.154	0.000	0.22	12.8	OK	
2.001	SA3B	-0.081	0.000	0.72	55.5	OK	
2.002	SA3F	-0.105	0.000	0.54	55.0	OK	
1.002	SA3G	1.017	0.000	0.99	70.5	SURCHARGED	
1.003	SA3	1.024	0.000	0.73	68.4	SURCHARGED	
3.000	SA4A	0.032	0.000	0.42	7.3	SURCHARGED	
4.000	SA4B	-0.107	0.000	0.18	8.1	OK	
3.001	SA4C	0.185	0.000	1.30	24.4	SURCHARGED	
5.000	SA4D	-0.067	0.000	0.58	11.6	OK	
3.002	SA4E	-0.111	0.000	0.51	49.0	OK	
1.004	SA4	1.099	0.000	0.78	98.6	SURCHARGED	
6.000	SA5A	0.016	0.000	1.03	50.6	SURCHARGED	
7.000	SA5B	-0.065	0.000	0.61	9.3	OK	
7.001	SA5C	-0.068	0.000	0.56	9.2	OK	
6.001	SA5D	-0.060	0.000	0.87	60.5	OK	
6.002	SA5E	-0.123	0.000	0.42	60.8	OK	
1.005	SA5	1.136	0.000	1.00	136.3	SURCHARGED	
8.000	SA6B	-0.118	0.000	0.10	5.4	OK	
1.006	SA6	1.199	0.000	1.21	138.1	SURCHARGED	

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Designed by losty a

Checked by

Network 2019.1

1) for SW West

									Water
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)
9.000	SA7A	15	Winter	100					74.351
9.001	SA7E	15	Winter	100					73.890
9.002	SA7F	15	Winter	100					73.671
9.003	SA7	30	Winter	100	+0%	30/15	Winter		71.921
9.004	TANK 1	30	Winter	100	+0%	30/15	Winter		71.919
9.005	SA8A	60	Winter	100	+0%	30/15	Summer		72.021
1.007	SA8	60	Winter	100	+0%	1/15	Summer		72.089
1.008	CA1	60	Winter	100	+0%				70.552

PN	US/MH	Surcharged	Flooded	Pipe		Status	Level Exceeded
	Name	Depth (m)	Volume (m³)	Flow / Overflow Cap. (l/s)	Flow (l/s)		
9.000	SA7A	-0.074	0.000	0.77	49.8		OK
9.001	SA7E	-0.063	0.000	0.84	49.7		OK
9.002	SA7F	-0.132	0.000	0.36	50.1		OK
9.003	SA7	0.471	0.000	0.22	37.9	SURCHARGED	
9.004	TANK 1	0.528	0.000	0.33	55.3	SURCHARGED*	
9.005	SA8A	0.707	0.000	0.40	49.0	SURCHARGED	
1.007	SA8	1.285	0.000	0.80	88.0	SURCHARGED	
1.008	CA1	-0.174	0.000	0.50	87.0		OK