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20 East Sands	Character Area 5	
Burbage Marlborough	Ageas Bowl	
Wiltshire SN8 3AN	Network 1	
Date 26/08/2022	Designed by JE	
File 19320-CHARACTERAREA5	Checked by AC	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	100	PIMP (%)	100
M5-60 (mm)	19.800	Add Flow / Climate Change (%)	0
Ratio R	0.350	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.889	4-8	0.711	8-12	0.305	12-16	0.070

Total Area Contributing (ha) = 1.976

Total Pipe Volume (m³) = 69.715

Network Design Table for Storm

- Indicates pipe length does not match coordinates

« - Indicates pipe capacity < flow

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	Auto Design
1.000	27.020	1.510	17.9	0.012	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.001	17.123	0.830	20.6	0.009	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.002	21.106	0.890	23.7	0.045	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.003	17.554	1.010	17.4	0.012	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.004	10.425	0.400	26.1	0.037	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.005	11.314	0.250	45.3	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.006	56.145	2.300	24.4	0.127	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.007	10.706	0.450	23.8	0.032	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.008	17.632	0.850	20.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.19	60.290	0.012	0.0	0.0	0.0	2.39	42.3	1.6
1.001	50.00	5.32	58.780	0.021	0.0	0.0	0.0	2.23	39.4	2.8
1.002	50.00	5.49	57.950	0.066	0.0	0.0	0.0	2.08	36.7	8.9
1.003	50.00	5.58	57.060	0.078	0.0	0.0	0.0	3.15	125.4	10.6
1.004	50.00	5.65	56.050	0.115	0.0	0.0	0.0	2.57	102.3	15.6
1.005	50.00	5.74	55.650	0.115	0.0	0.0	0.0	1.95	77.5	15.6
1.006	50.00	6.09	55.400	0.242	0.0	0.0	0.0	2.66	105.7	32.8
1.007	50.00	6.15	53.100	0.274	0.0	0.0	0.0	3.24	228.8	37.1
1.008	50.00	6.23	52.650	0.274	0.0	0.0	0.0	3.47	245.1	37.1

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Network Design Table for Storm

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	Auto Design
2.000	8.991	0.230	39.1	0.018	5.00	0.0	0.600	o	150	Pipe/Conduit	
2.001	17.382	0.700	24.8	0.049	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.002	64.631	3.720	17.4	0.110	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.000	40.000	0.000	0.0	0.231	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.001	5.000	3.526	1.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.003	73.723	4.050	18.2	0.084	0.00	0.0	0.600	o	300	Pipe/Conduit	
4.000	16.442	0.182	90.3	0.033	5.00	0.0	0.600	o	150	Pipe/Conduit	
4.001	15.544	0.333	46.7	0.036	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.009	47.496	0.750	63.3	0.187	0.00	0.0	0.600	o	450	Pipe/Conduit	
5.000	16.960	0.000	0.0	0.103	5.00	0.0	0.600	o	150	Pipe/Conduit	
5.001	13.094	1.450	9.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.010	34.431	0.175	196.7	0.041	0.00	0.0	0.600	o	450	Pipe/Conduit	
6.000	13.189	0.400	33.0	0.013	5.00	0.0	0.600	o	150	Pipe/Conduit	
6.001	8.416	0.590	14.3	0.004	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.002	6.582	0.385	17.1	0.023	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.003	8.637	0.595	14.5	0.003	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.004	6.318	0.390	16.2	0.011	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.005	13.347	0.770	17.3	0.018	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
2.000	50.00	5.09	60.500	0.018	0.0	0.0	0.0	1.61	28.5	2.4
2.001	50.00	5.24	60.270	0.067	0.0	0.0	0.0	2.03	35.9	9.1
2.002	50.00	5.52	59.570	0.177	0.0	0.0	0.0	3.79	267.9	24.0
3.000	50.00	12.19	59.570	0.231	0.0	0.0	0.0	0.09	1.6«	31.3
3.001	50.00	12.20	59.570	0.231	0.0	0.0	0.0	8.53	150.8	31.3
2.003	50.00	12.53	55.850	0.492	0.0	0.0	0.0	3.70	261.7	66.6
4.000	50.00	5.26	52.315	0.033	0.0	0.0	0.0	1.06	18.7	4.5
4.001	50.00	5.39	52.133	0.069	0.0	0.0	0.0	1.92	76.3	9.3
1.009	50.00	12.84	51.800	1.022	0.0	0.0	0.0	2.56	406.9	138.4
5.000	50.00	8.05	52.500	0.103	0.0	0.0	0.0	0.09	1.6«	13.9
5.001	50.00	8.11	52.500	0.103	0.0	0.0	0.0	3.37	59.6	13.9
1.010	50.00	13.24	51.050	1.166	0.0	0.0	0.0	1.45	230.0	157.9
6.000	50.00	5.12	59.750	0.013	0.0	0.0	0.0	1.76	31.1	1.8
6.001	50.00	5.18	59.350	0.017	0.0	0.0	0.0	2.68	47.4	2.3
6.002	50.00	5.22	58.760	0.040	0.0	0.0	0.0	2.45	43.3	5.4
6.003	50.00	5.28	58.375	0.043	0.0	0.0	0.0	2.66	47.0	5.8
6.004	50.00	5.32	57.705	0.054	0.0	0.0	0.0	2.52	44.4	7.3
6.005	50.00	5.41	57.315	0.072	0.0	0.0	0.0	2.43	43.0	9.7

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Network Design Table for Storm

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	Auto Design
6.006	7.769	0.540	14.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.007	13.505	0.405	33.3	0.046	0.00	0.0	0.600	o	225	Pipe/Conduit	
6.008	13.813	0.092	150.1	0.030	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.009	8.552	0.058	147.4	0.046	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.010	18.977	0.164	115.7	0.016	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.011	21.529#	0.076	283.3	0.034	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.012	9.485#	0.032	300.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.013	87.461	2.552	34.3	0.162	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.000	19.126	1.094	17.5	0.018	5.00	0.0	0.600	o	150	Pipe/Conduit	
8.000	28.840	0.000	0.0	0.178	5.00	0.0	0.600	o	150	Pipe/Conduit	
8.001	14.074	3.464	4.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
7.001	19.584	1.241	15.8	0.034	0.00	0.0	0.600	o	225	Pipe/Conduit	
7.002	26.058	1.595	16.3	0.093	0.00	0.0	0.600	o	225	Pipe/Conduit	
7.003	10.395	0.650	16.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.014	41.685	0.375	111.2	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
6.015	62.286	1.300	47.9	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.011	57.564	1.600	36.0	0.081	0.00	0.0	0.600	o	450	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
6.006	50.00	5.46	56.545	0.072	0.0	0.0	0.0	2.67	47.2	9.7
6.007	50.00	5.56	56.005	0.118	0.0	0.0	0.0	2.27	90.4	16.0
6.008	50.00	5.74	55.525	0.148	0.0	0.0	0.0	1.28	90.5	20.0
6.009	50.00	5.85	55.433	0.194	0.0	0.0	0.0	1.29	91.4	26.3
6.010	50.00	6.06	55.374	0.210	0.0	0.0	0.0	1.46	103.3	28.4
6.011	50.00	6.45	55.210	0.244	0.0	0.0	0.0	0.93	65.7	33.0
6.012	50.00	6.62	55.134	0.244	0.0	0.0	0.0	0.90	63.8	33.0
6.013	50.00	7.17	55.102	0.406	0.0	0.0	0.0	2.69	190.5	55.0
7.000	50.00	5.13	57.130	0.018	0.0	0.0	0.0	2.42	42.8	2.4
8.000	50.00	10.19	59.500	0.178	0.0	0.0	0.0	0.09	1.6«	24.1
8.001	50.00	10.23	59.500	0.178	0.0	0.0	0.0	5.04	89.0	24.1
7.001	50.00	10.33	56.036	0.230	0.0	0.0	0.0	3.31	131.6	31.1
7.002	50.00	10.46	54.795	0.323	0.0	0.0	0.0	3.25	129.4	43.7
7.003	50.00	10.51	53.200	0.323	0.0	0.0	0.0	3.95	279.3	43.7
6.014	50.00	10.91	52.550	0.729	0.0	0.0	0.0	1.72	189.7	98.7
6.015	50.00	11.31	52.175	0.729	0.0	0.0	0.0	2.62	289.7	98.7
1.011	50.00	13.52	50.875	1.976	0.0	0.0	0.0	3.40	540.5	267.6

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Micro Drainage		Network 2018.1

Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.012	0.012	0.012
1.001	-	-	100	0.009	0.009	0.009
1.002	-	-	100	0.045	0.045	0.045
1.003	-	-	100	0.012	0.012	0.012
1.004	-	-	100	0.037	0.037	0.037
1.005	-	-	100	0.000	0.000	0.000
1.006	-	-	100	0.127	0.127	0.127
1.007	-	-	100	0.032	0.032	0.032
1.008	-	-	100	0.000	0.000	0.000
2.000	-	-	100	0.018	0.018	0.018
2.001	-	-	100	0.049	0.049	0.049
2.002	-	-	100	0.110	0.110	0.110
3.000	-	-	100	0.231	0.231	0.231
3.001	-	-	100	0.000	0.000	0.000
2.003	-	-	100	0.084	0.084	0.084
4.000	-	-	100	0.033	0.033	0.033
4.001	-	-	100	0.036	0.036	0.036
1.009	-	-	100	0.187	0.187	0.187
5.000	-	-	100	0.103	0.103	0.103
5.001	-	-	100	0.000	0.000	0.000
1.010	-	-	100	0.041	0.041	0.041
6.000	-	-	100	0.013	0.013	0.013
6.001	-	-	100	0.004	0.004	0.004
6.002	-	-	100	0.023	0.023	0.023
6.003	-	-	100	0.003	0.003	0.003
6.004	-	-	100	0.011	0.011	0.011
6.005	-	-	100	0.018	0.018	0.018
6.006	-	-	100	0.000	0.000	0.000
6.007	-	-	100	0.046	0.046	0.046
6.008	-	-	100	0.030	0.030	0.030
6.009	-	-	100	0.046	0.046	0.046
6.010	-	-	100	0.016	0.016	0.016
6.011	-	-	100	0.034	0.034	0.034
6.012	-	-	100	0.000	0.000	0.000
6.013	-	-	100	0.162	0.162	0.162
7.000	-	-	100	0.018	0.018	0.018
8.000	-	-	100	0.178	0.178	0.178
8.001	-	-	100	0.000	0.000	0.000
7.001	-	-	100	0.034	0.034	0.034
7.002	-	-	100	0.093	0.093	0.093
7.003	-	-	100	0.000	0.000	0.000
6.014	-	-	100	0.000	0.000	0.000
6.015	-	-	100	0.000	0.000	0.000
1.011	-	-	100	0.081	0.081	0.081
				Total	Total	Total
				1.976	1.976	1.976

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.011		51.530	49.275	0.000	0	0

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Online Controls for Storm

Orifice Manhole: Orifice1, DS/PN: 3.001, Volume (m³): 2.3

Diameter (m) 0.040 Discharge Coefficient 0.600 Invert Level (m) 59.570

Orifice Manhole: Orifice2, DS/PN: 5.001, Volume (m³): 0.8

Diameter (m) 0.040 Discharge Coefficient 0.600 Invert Level (m) 52.500

Orifice Manhole: Orifice3, DS/PN: 8.001, Volume (m³): 1.1

Diameter (m) 0.040 Discharge Coefficient 0.600 Invert Level (m) 59.500

Orifice Manhole: S16, DS/PN: 6.015, Volume (m³): 6.0

Diameter (m) 0.050 Discharge Coefficient 0.600 Invert Level (m) 52.175

Hydro-Brake® Optimum Manhole: S29, DS/PN: 1.011, Volume (m³): 14.7

Unit Reference	MD-SHE-0118-8000-1905-8000
Design Head (m)	1.905
Design Flow (l/s)	8.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	118
Invert Level (m)	50.875
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.905	8.0	Kick-Flo®	1.053	6.1
Flush-Flo™	0.512	7.7	Mean Flow over Head Range	-	6.8

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)	Depth (m)	Flow (l/s)
0.100	4.2	0.800	7.3	2.000	8.2	4.000	11.4	7.000	14.8
0.200	6.6	1.000	6.5	2.200	8.6	4.500	12.0	7.500	15.3
0.300	7.3	1.200	6.4	2.400	8.9	5.000	12.6	8.000	15.8
0.400	7.6	1.400	6.9	2.600	9.3	5.500	13.2	8.500	16.3
0.500	7.7	1.600	7.4	3.000	9.9	6.000	13.8	9.000	16.7
0.600	7.6	1.800	7.8	3.500	10.7	6.500	14.3	9.500	17.2

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Storage Structures for Storm

Porous Car Park Manhole: PCP1, DS/PN: 3.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	34.0
Membrane Percolation (mm/hr)	1000	Length (m)	40.0
Max Percolation (l/s)	377.8	Slope (1:X)	0.0
Safety Factor	1.5	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	57.000	Membrane Depth (mm)	0

Porous Car Park Manhole: PCP2, DS/PN: 5.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	19.0
Membrane Percolation (mm/hr)	1000	Length (m)	30.0
Max Percolation (l/s)	158.3	Slope (1:X)	0.0
Safety Factor	1.5	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	52.500	Membrane Depth (mm)	0

Porous Car Park Manhole: PCP3, DS/PN: 8.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	26.0
Membrane Percolation (mm/hr)	1000	Length (m)	41.0
Max Percolation (l/s)	296.1	Slope (1:X)	0.0
Safety Factor	1.5	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	59.500	Membrane Depth (mm)	0

Tank or Pond Manhole: S16, DS/PN: 6.015

Invert Level (m) 52.175

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	440.0	1.081	1104.0

Tank or Pond Manhole: S29, DS/PN: 1.011

Invert Level (m) 50.875

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	360.0	1.905	770.0

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Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	S31	1.529	0.456	0.000	1.985
1.001	S32	1.621	0.281	0.000	1.902
1.002	S33	1.629	0.352	0.000	1.980
1.003	S34	1.701	0.650	0.000	2.351
1.004	S35	1.729	0.367	0.000	2.096
1.005	S36	1.711	0.402	0.000	2.113
1.006	S37	1.706	2.185	0.000	3.890
1.007	S38	1.722	0.672	0.000	2.394
1.008	S39	1.713	1.156	0.000	2.870
2.000	S23	1.608	0.138	0.000	1.746
2.001	S24	1.612	0.286	0.000	1.898
2.002	S25	1.647	4.484	0.000	6.130
3.000	PCP1	1.647	0.686	1642.608	1644.940
3.001	Orifice1	1.647	0.067	0.000	1.714
2.003	S26	1.729	5.121	0.000	6.850
4.000	S40	1.615	0.269	0.000	1.884
4.001	S41	1.641	0.567	0.000	2.208
1.009	S27	2.236	7.339	0.000	9.575
5.000	PCP2	0.565	0.279	85.500	86.344
5.001	Orifice2	0.565	0.209	0.000	0.774
1.010	S28	2.146	5.261	0.000	7.407
6.000	S1	1.868	0.212	0.000	2.080
6.001	S2	1.530	0.128	0.000	1.658
6.002	S3	1.646	0.095	0.000	1.741
6.003	S4	1.617	0.131	0.000	1.749
6.004	S5	1.721	0.090	0.000	1.812
6.005	S6	1.765	0.215	0.000	1.980
6.006	S7	1.769	0.116	0.000	1.885
6.007	S8	1.722	0.489	0.000	2.212
6.008	S9	1.444	0.892	0.000	2.336
6.009	S10	1.439	0.520	0.000	1.958
6.010	S12	1.717	1.257	0.000	2.973
6.011	S13	3.393	1.437	0.000	4.830
6.012	S14	4.187	0.586	0.000	4.772
6.013	S18	4.220	6.092	0.000	10.312
7.000	S19	1.527	0.317	0.000	1.844
8.000	PCP3	0.565	0.488	159.900	160.954
8.001	Orifice3	0.565	0.228	0.000	0.793
7.001	S20	1.527	0.731	0.000	2.258
7.002	S21	1.613	0.988	0.000	2.601
7.003	S22	1.621	0.645	0.000	2.265
6.014	S15	2.267	4.455	0.000	6.722
6.015	S16	1.547	6.730	807.494	815.772
1.011	S29	2.727	9.048	1051.876	1063.651
Total		77.717	67.116	3747.378	3892.211

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Burbage Marlborough	Ageas Bowl	
Wiltshire SN8 3AN	Network 1	
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Micro Drainage	Network 2018.1	

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 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 Offline Controls 0 Number of Time/Area Diagrams 0
 Number of Online Controls 5 Number of Storage Structures 5 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR M5-60 (mm) 19.800 Cv (Summer) 0.750
 Region England and Wales Ratio R 0.350 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status ON
 DVD Status OFF
 Inertia Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
 Return Period(s) (years) 30
 Climate Change (%) 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water	Surcharged
									Level (m)	Depth (m)
1.000	S31	15 Winter	30	+40%					60.327	-0.113
1.001	S32	15 Winter	30	+40%					58.833	-0.097
1.002	S33	15 Winter	30	+40%					58.062	-0.038
1.003	S34	15 Winter	30	+40%					57.149	-0.136
1.004	S35	15 Winter	30	+40%					56.182	-0.093
1.005	S36	15 Winter	30	+40%	30/15 Summer				55.945	0.070
1.006	S37	15 Winter	30	+40%	30/15 Summer				55.792	0.167
1.007	S38	15 Winter	30	+40%					53.289	-0.111
1.008	S39	15 Winter	30	+40%					52.813	-0.137
2.000	S23	15 Winter	30	+40%					60.559	-0.091
2.001	S24	15 Winter	30	+40%					60.386	-0.034
2.002	S25	15 Winter	30	+40%					59.689	-0.181
3.000	PCP1	1440 Winter	30	+40%					57.456	-2.264
3.001	Orifice1	960 Winter	30	+40%					59.571	-0.149
2.003	S26	15 Winter	30	+40%					56.000	-0.150
4.000	S40	15 Winter	30	+40%	30/15 Summer				52.651	0.186
4.001	S41	15 Winter	30	+40%	30/15 Summer				52.537	0.179
1.009	S27	15 Winter	30	+40%	30/15 Summer				52.478	0.228
5.000	PCP2	480 Winter	30	+40%	30/60 Summer				52.733	0.083
5.001	Orifice2	360 Winter	30	+40%	30/60 Summer				52.740	0.090
1.010	S28	1440 Winter	30	+40%	30/15 Summer				52.039	0.539
6.000	S1	15 Winter	30	+40%					59.796	-0.104
6.001	S2	15 Winter	30	+40%					59.394	-0.106
6.002	S3	15 Winter	30	+40%					58.837	-0.073
6.003	S4	15 Winter	30	+40%					58.450	-0.075
6.004	S5	15 Winter	30	+40%					57.797	-0.058
6.005	S6	15 Winter	30	+40%					57.424	-0.041
6.006	S7	15 Winter	30	+40%					56.651	-0.044
6.007	S8	15 Winter	30	+40%	30/15 Summer				56.272	0.042
6.008	S9	15 Winter	30	+40%	30/15 Summer				56.106	0.281
6.009	S10	15 Winter	30	+40%	30/15 Summer				56.041	0.308

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Burbage Marlborough	Ageas Bowl	
Wiltshire SN8 3AN	Network 1	
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Micro Drainage	Network 2018.1	

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

PN	US/MH Name	Flooded		Pipe		Status	Level Exceeded
		Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)		
1.000	S31	0.000	0.13		5.4	OK	
1.001	S32	0.000	0.27		9.7	OK	
1.002	S33	0.000	0.91		31.5	OK	
1.003	S34	0.000	0.33		37.2	OK	
1.004	S35	0.000	0.64		55.1	OK	
1.005	S36	0.000	0.80		52.4	SURCHARGED	
1.006	S37	0.000	1.04		105.4	SURCHARGED	
1.007	S38	0.000	0.71		118.9	OK	
1.008	S39	0.000	0.57		119.1	OK	
2.000	S23	0.000	0.32		8.1	OK	
2.001	S24	0.000	0.95		31.8	OK	
2.002	S25	0.000	0.33		84.8	OK	
3.000	PCP1	0.000	0.00		0.0	OK	
3.001	Orifice1	0.000	0.00		0.0	OK	
2.003	S26	0.000	0.50		124.4	OK	
4.000	S40	0.000	0.83		14.4	SURCHARGED	
4.001	S41	0.000	0.47		31.9	SURCHARGED	
1.009	S27	0.000	0.93		340.9	SURCHARGED	
5.000	PCP2	0.000	0.35		1.6	FLOOD RISK	
5.001	Orifice2	0.000	0.03		1.5	FLOOD RISK	
1.010	S28	0.000	0.11		21.6	SURCHARGED	
6.000	S1	0.000	0.21		5.9	OK	
6.001	S2	0.000	0.19		7.7	OK	
6.002	S3	0.000	0.51		18.8	OK	
6.003	S4	0.000	0.49		20.2	OK	
6.004	S5	0.000	0.68		25.4	OK	
6.005	S6	0.000	0.86		33.9	OK	
6.006	S7	0.000	0.82		33.6	OK	
6.007	S8	0.000	0.67		52.2	SURCHARGED	
6.008	S9	0.000	0.84		62.7	SURCHARGED	
6.009	S10	0.000	1.31		80.5	SURCHARGED	

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Burbage Marlborough	Ageas Bowl	
Wiltshire SN8 3AN	Network 1	
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File 19320-CHARACTERAREA5	Checked by AC	
Micro Drainage	Network 2018.1	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water	Surcharged
									Level (m)	Depth (m)
6.010	S12	15 Winter	30	+40%	30/15 Summer				55.936	0.262
6.011	S13	15 Winter	30	+40%	30/15 Summer				55.779	0.269
6.012	S14	15 Winter	30	+40%	30/15 Summer				55.547	0.113
6.013	S18	15 Winter	30	+40%					55.328	-0.074
7.000	S19	15 Winter	30	+40%					57.176	-0.104
8.000	PCP3	960 Winter	30	+40%	30/60 Winter				59.756	0.106
8.001	Orifice3	960 Winter	30	+40%	30/60 Winter				59.760	0.110
7.001	S20	15 Winter	30	+40%					56.105	-0.156
7.002	S21	15 Winter	30	+40%					54.919	-0.101
7.003	S22	15 Winter	30	+40%					53.321	-0.179
6.014	S15	15 Winter	30	+40%	30/15 Summer				53.165	0.240
6.015	S16	1440 Winter	30	+40%	30/120 Summer				52.736	0.186
1.011	S29	1440 Winter	30	+40%	30/15 Winter				52.038	0.713

PN	US/MH Name	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level
							Exceeded
6.010	S12	0.000	0.96		86.2	SURCHARGED	
6.011	S13	0.000	1.71		98.5	SURCHARGED	
6.012	S14	0.000	2.01		99.1	SURCHARGED	
6.013	S18	0.000	0.88		162.4	OK	
7.000	S19	0.000	0.20		8.1	OK	
8.000	PCP3	0.000	0.44		2.1	FLOOD RISK	
8.001	Orifice3	0.000	0.02		1.6	FLOOD RISK	
7.001	S20	0.000	0.21		24.5	OK	
7.002	S21	0.000	0.58		69.5	OK	
7.003	S22	0.000	0.34		69.4	OK	
6.014	S15	0.000	1.28		222.1	SURCHARGED	
6.015	S16	0.000	0.01		3.8	SURCHARGED	
1.011	S29	0.000	0.02		7.7	SURCHARGED	