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Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev03	
Date Nov 25	Designed by JS	
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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)	2	Add Flow / Climate Change (%)	45
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.000
Ratio R	0.343	Maximum Backdrop Height (m)	0.000
Maximum Rainfall (mm/hr)	50	Min Design Depth for Optimisation (m)	0.000
Foul Sewage (l/s/ha)	0.00	Min Vel for Auto Design only (m/s)	0.76
Volumetric Runoff Coeff.	1.000	Min Slope for Optimisation (1:X)	500
PIMP (%)	100		

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.014	4-8	0.002

Total Area Contributing (ha) = 0.016

Total Pipe Volume (m³) = 0.381

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)
1.000	16.200	1.906	8.5	0.004	5.00	0.0	0.600	o	110
1.001	5.000	0.050	100.0	0.004	0.00	0.0	0.600	o	110
2.000	3.600	0.379	9.5	0.004	5.00	0.0	0.600	o	110
2.001	9.200	1.533	6.0	0.004	0.00	0.0	0.600	o	110
1.002	3.600	0.045	80.0	0.000	0.00	0.0	0.600	o	110
1.003	1.000	0.010	100.0	0.000	0.00	0.0	0.600	o	110
1.004	1.500	0.015	100.0	0.000	0.00	0.0	0.600	o	110

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	5.10	65.400	0.004	0.0	0.0	0.3	2.84	27.0	1.0
1.001	50.00	5.20	63.494	0.008	0.0	0.0	0.6	0.82	7.8	2.1
2.000	50.00	5.02	65.400	0.004	0.0	0.0	0.3	2.69	25.5	1.0
2.001	50.00	5.07	65.000	0.008	0.0	0.0	0.6	3.38	32.2	2.1
1.002	50.00	5.26	63.444	0.016	0.0	0.0	1.3	0.92	8.7	4.2
1.003	50.00	5.28	63.250	0.016	0.0	0.0	1.3	0.82	7.8	4.2
1.004	50.00	5.31	63.100	0.016	0.0	0.0	1.3	0.82	7.8	4.2

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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)	Backd (mm)
RE1	66.000	0.600	Open Manhole	110	1.000	65.400	110				
S1	64.100	0.606	Open Manhole	600	1.001	63.494	110	1.000	63.494	110	
RE2	66.000	0.600	Open Manhole	110	2.000	65.400	110				
S2	65.650	0.650	Open Manhole	600	2.001	65.000	110	2.000	65.021	110	
S3	64.100	0.656	Open Manhole	600	1.002	63.444	110	1.001	63.444	110	
								2.001	63.467	110	
S4	64.000	0.750	Open Manhole	600	1.003	63.250	110	1.002	63.399	110	
RAIN GARDEN	63.700	0.600	Open Manhole	600	1.004	63.100	110	1.003	63.240	110	
Dummy	63.800	0.715	Open Manhole	600		OUTFALL		1.004	63.085	110	

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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)
1.000	o	110	RE1	66.000	65.400	0.490	Open Manhole	110
1.001	o	110	S1	64.100	63.494	0.496	Open Manhole	600
2.000	o	110	RE2	66.000	65.400	0.490	Open Manhole	110
2.001	o	110	S2	65.650	65.000	0.540	Open Manhole	600
1.002	o	110	S3	64.100	63.444	0.546	Open Manhole	600
1.003	o	110	S4	64.000	63.250	0.640	Open Manhole	600
1.004	o	110	RAIN GARDEN	63.700	63.100	0.490	Open Manhole	600

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)
1.000	16.200	8.5	S1	64.100	63.494	0.496	Open Manhole	600
1.001	5.000	100.0	S3	64.100	63.444	0.546	Open Manhole	600
2.000	3.600	9.5	S2	65.650	65.021	0.519	Open Manhole	600
2.001	9.200	6.0	S3	64.100	63.467	0.523	Open Manhole	600
1.002	3.600	80.0	S4	64.000	63.399	0.491	Open Manhole	600
1.003	1.000	100.0	RAIN GARDEN	63.700	63.240	0.350	Open Manhole	600
1.004	1.500	100.0	Dummy	63.800	63.085	0.605	Open Manhole	600

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)
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1.004	Dummy	63.800	63.085	63.100	600	0
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Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Foul Sewage per hectare (l/s)	0.000
Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	45.000
Hot Start (mins)	0	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start Level (mm)	0	Run Time (mins)	480
Manhole Headloss Coeff (Global)	0.500	Output Interval (mins)	4

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	2	Number of Time/Area Diagrams	0
Number of Offline Controls	0		

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Storm Duration (mins)	240
Ratio R	0.343		

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Online Controls for Storm

Orifice Manhole: S4, DS/PN: 1.003, Volume (m³): 0.2

Diameter (m) 0.017 Discharge Coefficient 0.600 Invert Level (m) 63.250

Depth/Flow Relationship Manhole: RAIN GARDEN, DS/PN: 1.004, Volume (m³): 0.2

Invert Level (m) 63.100

Depth (m) Flow (l/s)

0.700 0.0400

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Storage Structures for Storm

cellular Storage Manhole: S4, DS/PN: 1.003

Invert Level (m) 63.250 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	30.0	30.0	0.500	0.0	43.6
0.400	30.0	43.6			

Infiltration Blanket Manhole: RAIN GARDEN, DS/PN: 1.004

Infiltration Coefficient Base (m/hr) 0.04461 Diameter/Width (m) 1.2
Safety Factor 2.0 Length (m) 7.7
Porosity 0.30 Cap Volume Depth (m) 0.000
Invert Level (m) 63.100

Manhole Headloss for Storm

PN	US/MH Name	US/MH Headloss
1.000	RE1	0.500
1.001	S1	0.500
2.000	RE2	0.500
2.001	S2	0.500
1.002	S3	0.500
1.003	S4	0.500
1.004	RAIN GARDEN	0.500

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Summary of Results for 240 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.413	-0.097	0.000	0.04	0.0	0.9	OK
1.001	S1	63.649	0.044	0.000	0.27	0.0	1.8	SURCHARGED
2.000	RE2	65.415	-0.095	0.000	0.04	0.0	0.9	OK
2.001	S2	65.018	-0.092	0.000	0.06	0.0	1.8	OK
1.002	S3	63.648	0.094	0.000	0.51	0.0	3.7	SURCHARGED
1.003	S4	63.647	0.287	0.000	0.06	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.581	0.371	0.000	0.01	0.0	0.0	SURCHARGED

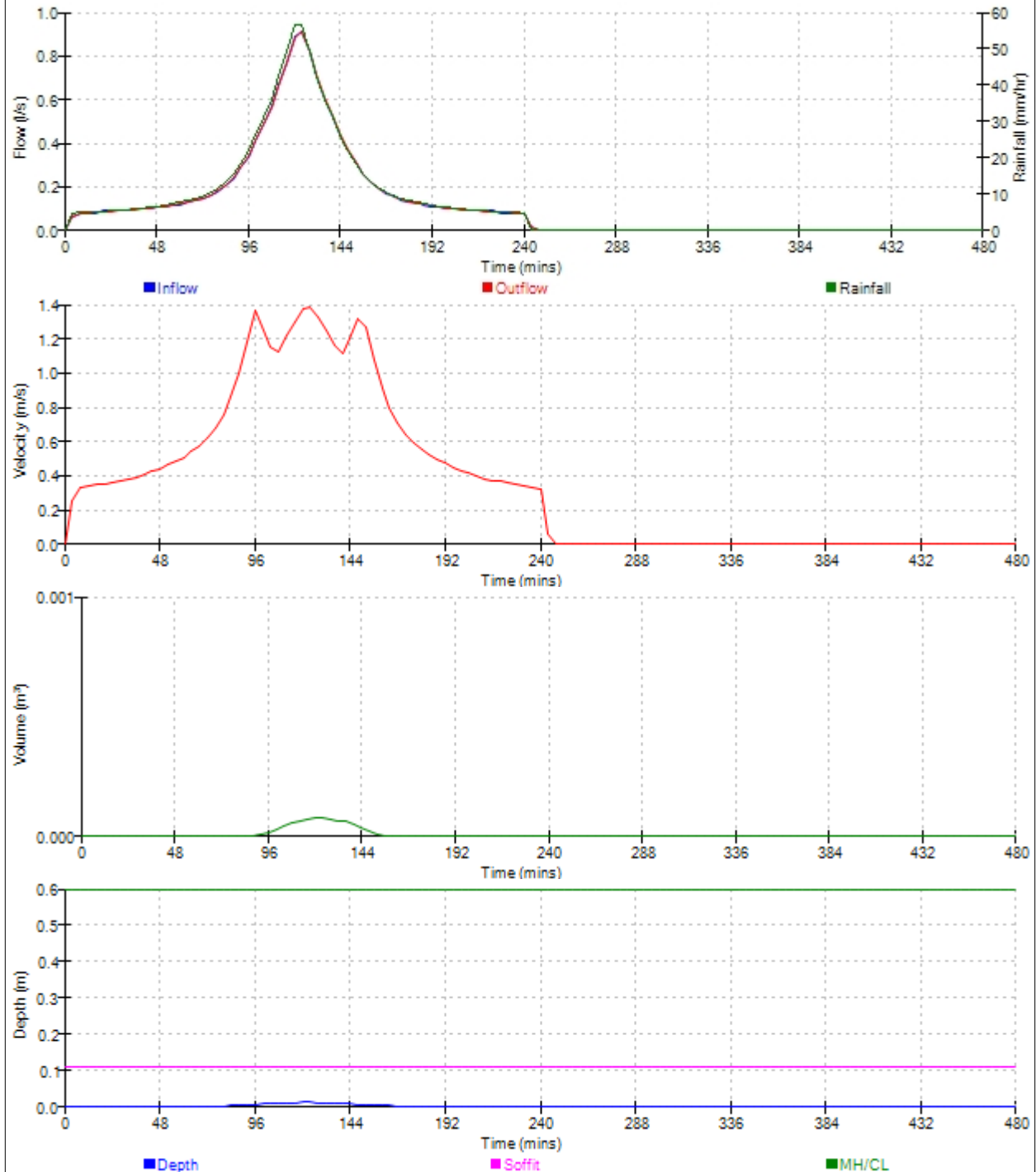
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Rainfall Hyetograph for 240 minute 100 year Summer (Storm)

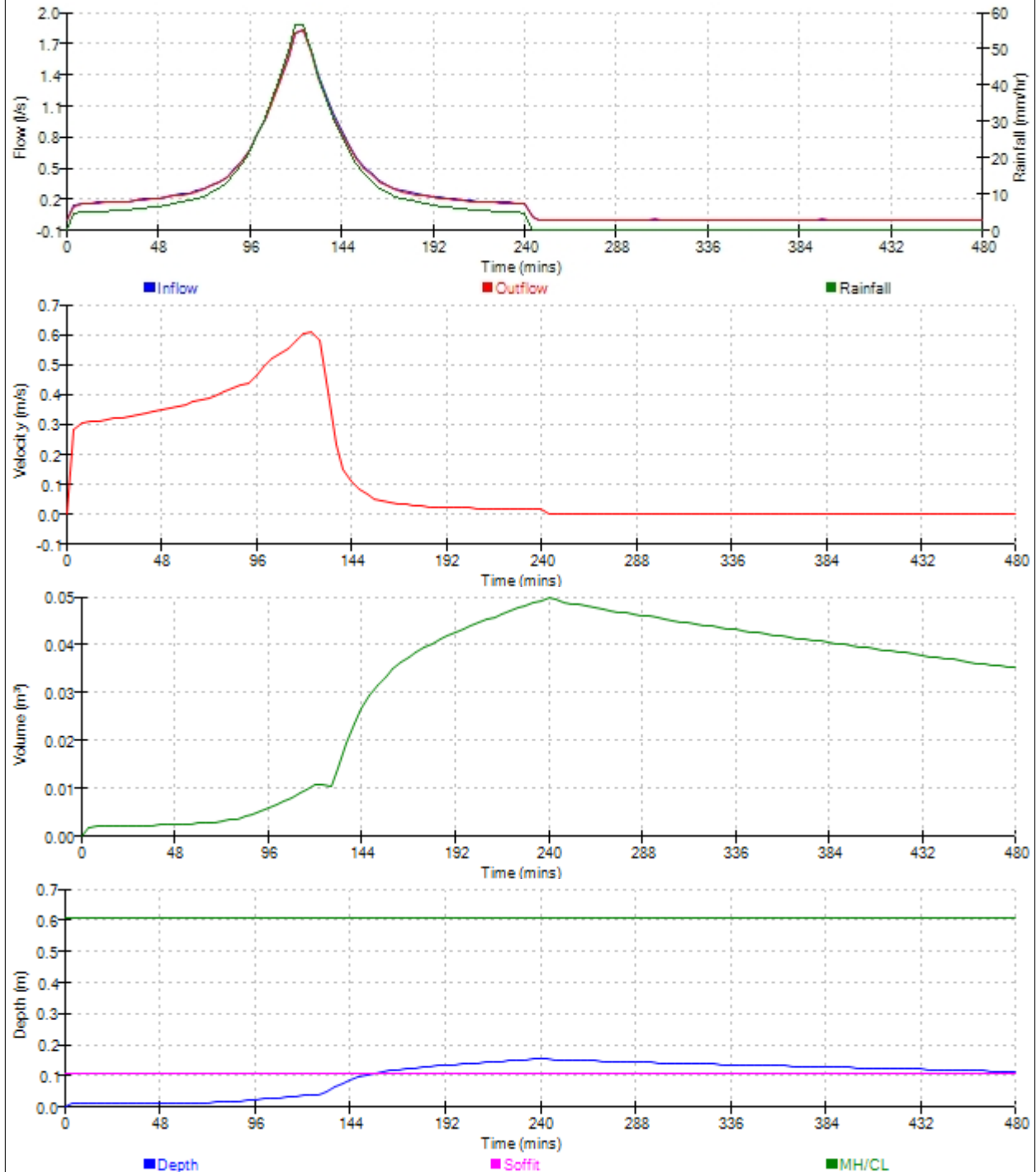
Time (mins)	Rain (mm/hr)	Time (mins)	Rain (mm/hr)	Time (mins)	Rain (mm/hr)	Time (mins)	Rain (mm/hr)	Time (mins)	Rain (mm/hr)
4	4.861	52	7.022	100	26.587	148	21.846	196	6.692
8	4.981	56	7.382	104	31.208	152	18.455	200	6.452
12	5.101	60	7.742	108	36.190	156	15.514	204	6.212
16	5.251	64	8.222	112	42.671	160	13.234	208	5.942
20	5.371	68	8.732	116	49.273	164	11.703	212	5.731
24	5.491	72	9.422	120	56.775	168	10.443	216	5.611
28	5.611	76	10.443	124	56.775	172	9.422	220	5.492
32	5.732	80	11.703	128	49.273	176	8.732	224	5.371
36	5.942	84	13.234	132	42.671	180	8.222	228	5.251
40	6.212	88	15.514	136	36.190	184	7.742	232	5.101
44	6.452	92	18.455	140	31.208	188	7.382	236	4.981
48	6.692	96	21.846	144	26.587	192	7.022	240	4.861

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Graphs for Pipe 1.000 US/MH RE1 (Storm)
240 minute 100 year Summer
Status: OK

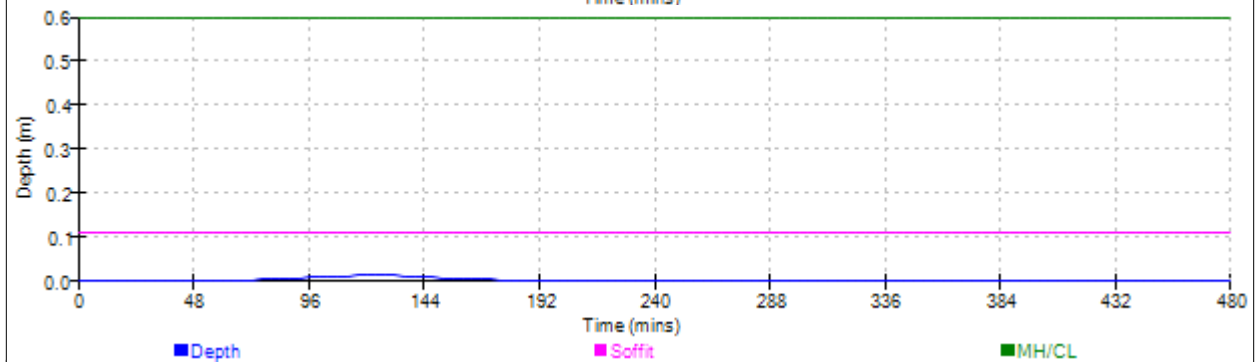
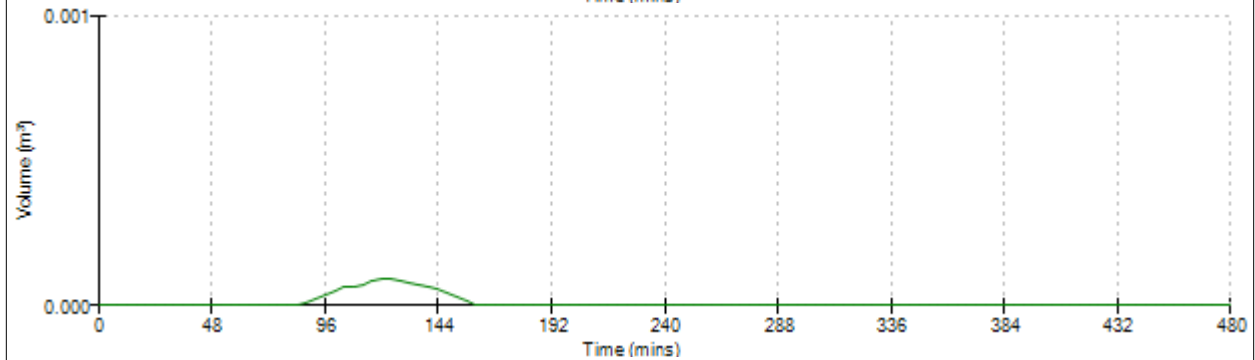
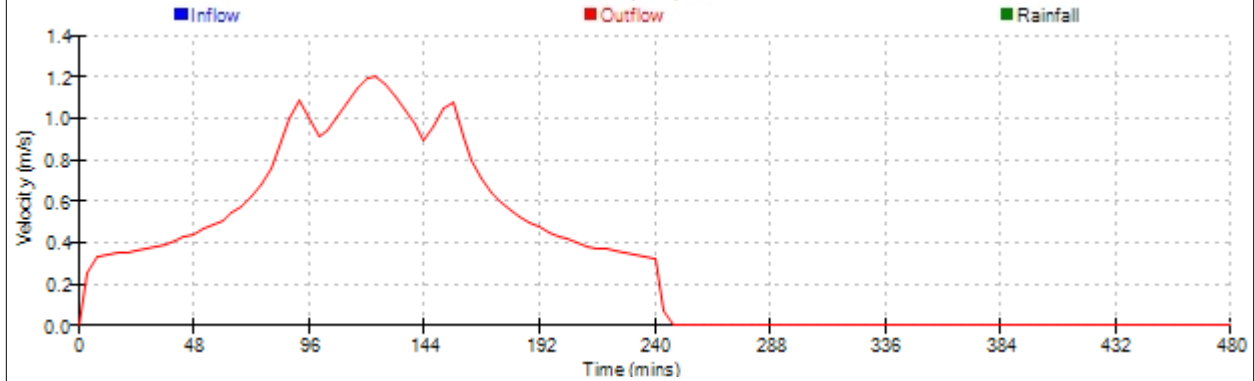
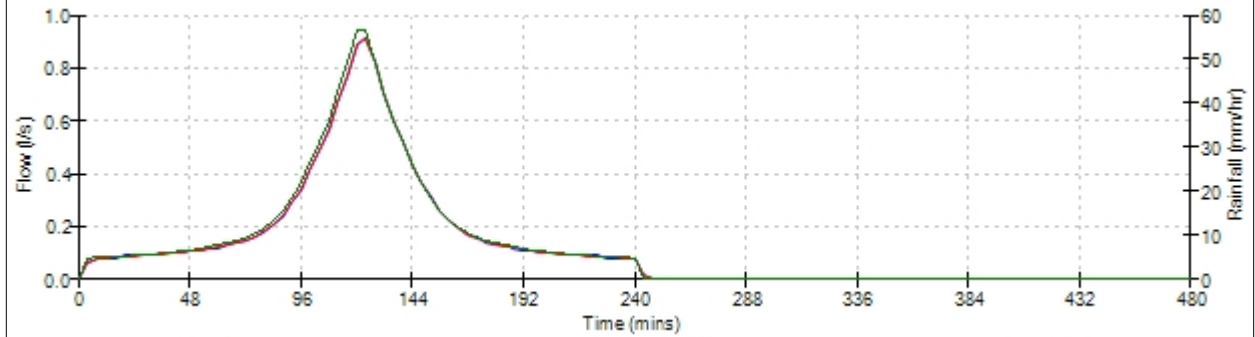


Graphs for Pipe 1.001 US/MH S1 (Storm)
 240 minute 100 year Summer
 Status: SURCHARGED



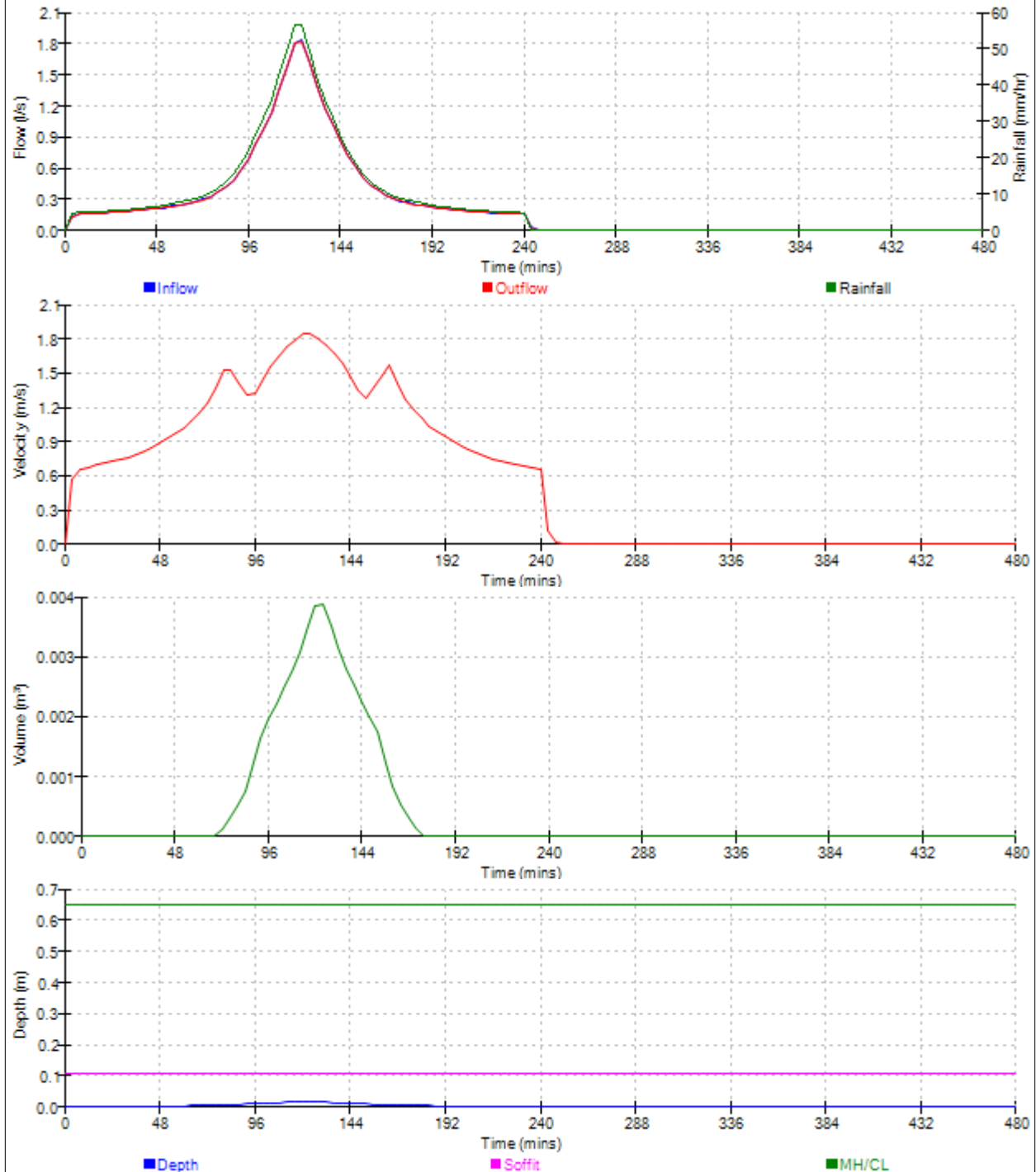
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Graphs for Pipe 2.000 US/MH RE2 (Storm)
240 minute 100 year Summer
Status: OK

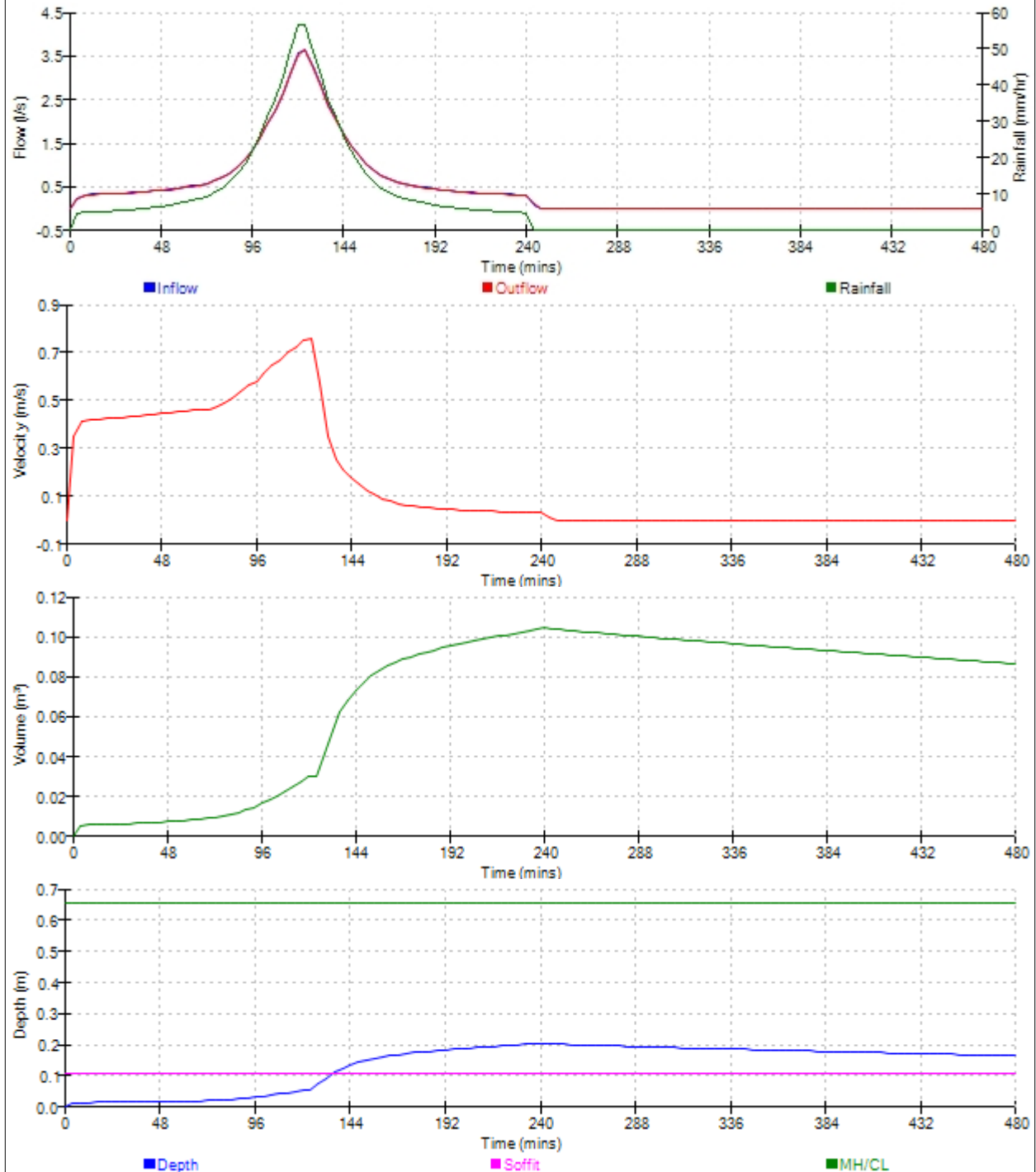


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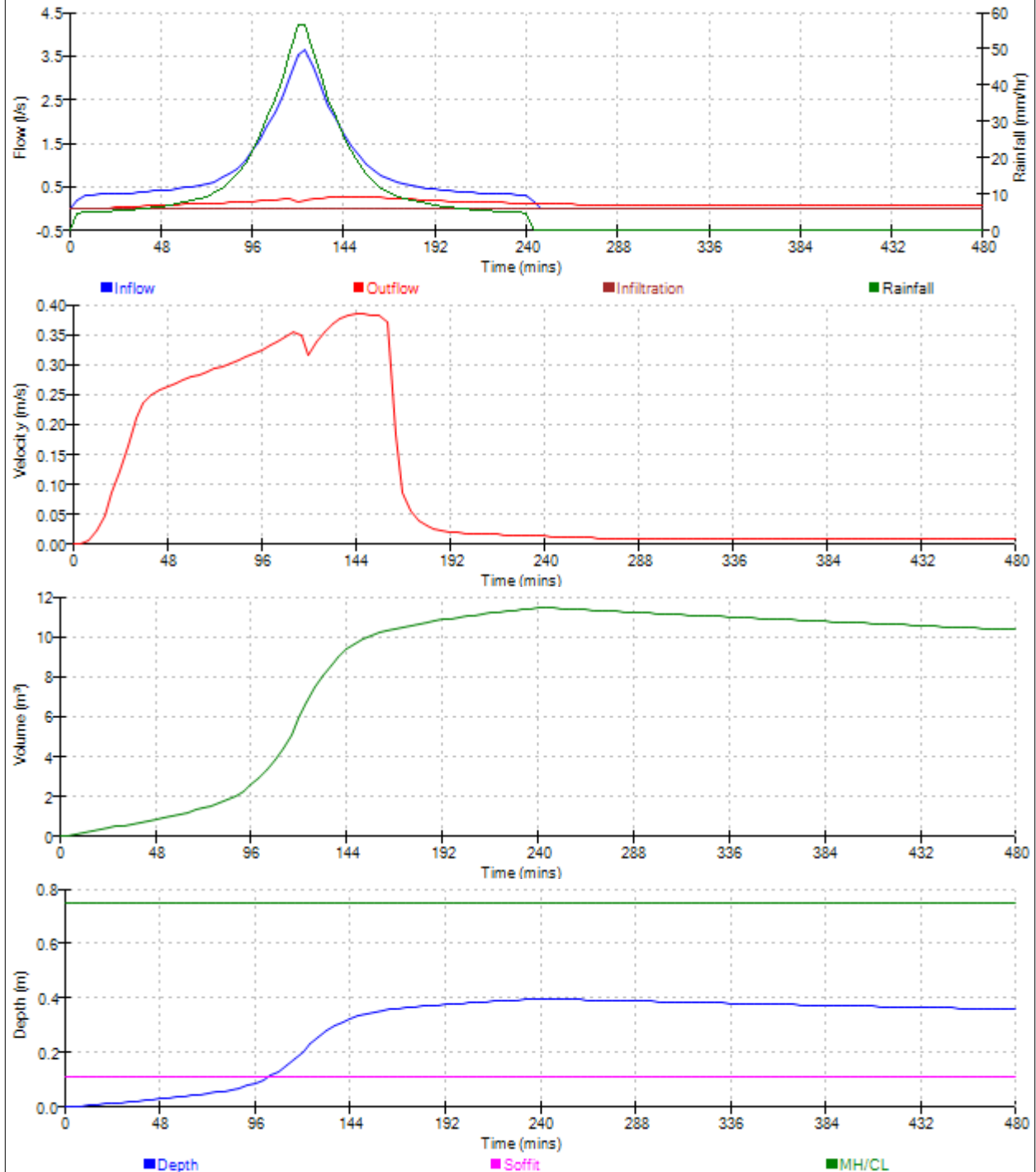
Graphs for Pipe 2.001 US/MH S2 (Storm)
240 minute 100 year Summer
Status: OK



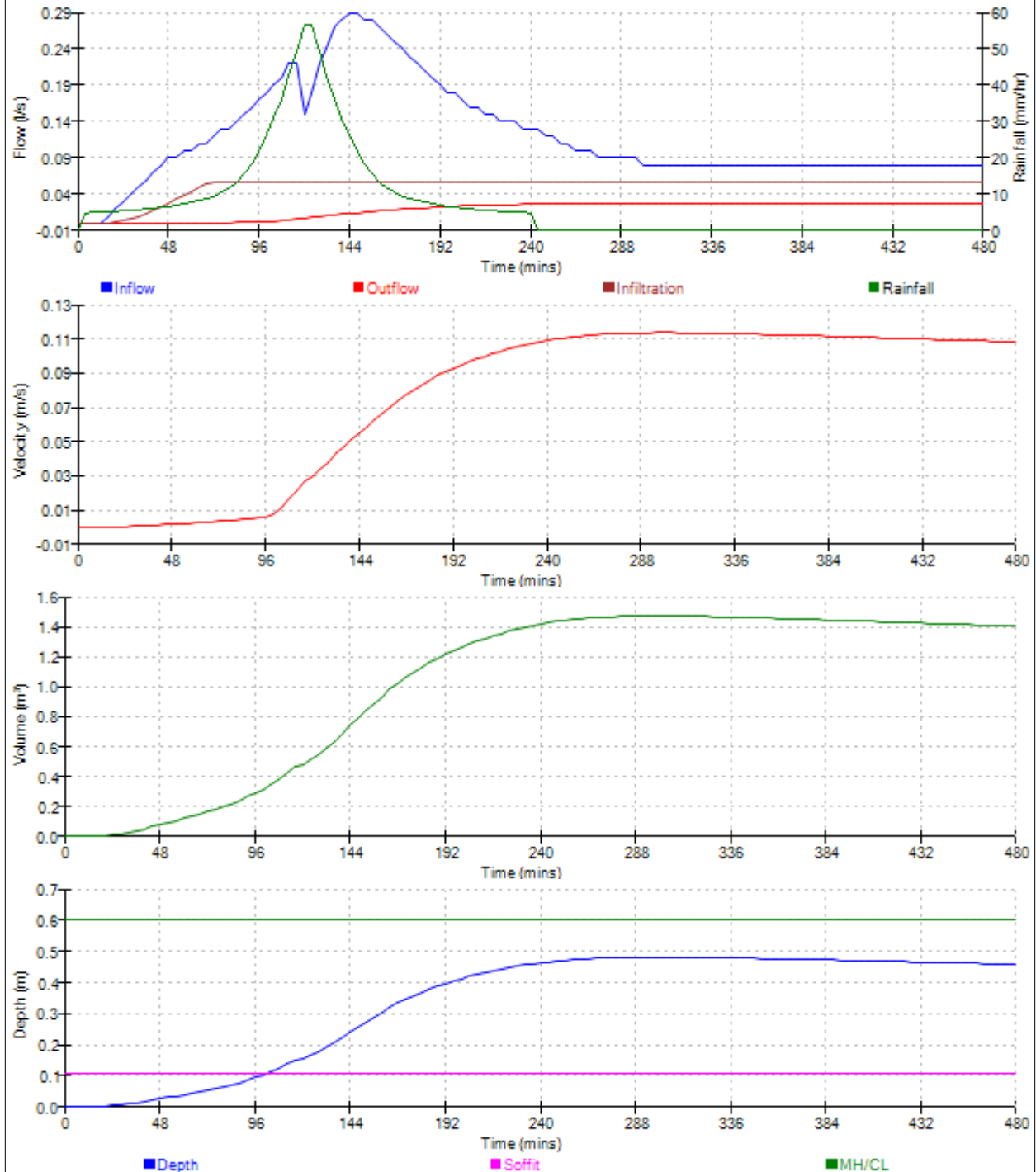
Graphs for Pipe 1.002 US/MH S3 (Storm)
240 minute 100 year Summer
Status: SURCHARGED



Graphs for Pipe 1.003 US/MH S4 (Storm)
240 minute 100 year Summer
Status: SURCHARGED



Graphs for Pipe 1.004 US/MH RAIN GARDEN (Storm)
240 minute 100 year Summer
Status: SURCHARGED



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Flows and Levels for Pipe 1.000 US/MH RE1 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
204	65.402	63.634	-0.108	0.0	0.4	0.1
208	65.402	63.636	-0.108	0.0	0.4	0.1
212	65.402	63.638	-0.108	0.0	0.4	0.1
216	65.402	63.639	-0.108	0.0	0.4	0.1
220	65.402	63.641	-0.108	0.0	0.4	0.1
224	65.402	63.643	-0.108	0.0	0.4	0.1
228	65.402	63.644	-0.108	0.0	0.4	0.1
232	65.402	63.646	-0.108	0.0	0.3	0.1
236	65.402	63.647	-0.108	0.0	0.3	0.1
240	65.402	63.649	-0.108	0.0	0.3	0.1
244	65.400	63.648	-0.110	0.0	0.1	0.0
248	65.400	63.646	-0.110	0.0	0.0	0.0
252	65.400	63.645	-0.110	0.0	0.0	0.0
256	65.400	63.645	-0.110	0.0	0.0	0.0
260	65.400	63.644	-0.110	0.0	0.0	0.0
264	65.400	63.643	-0.110	0.0	0.0	0.0
268	65.400	63.642	-0.110	0.0	0.0	0.0
272	65.400	63.641	-0.110	0.0	0.0	0.0
276	65.400	63.641	-0.110	0.0	0.0	0.0
280	65.400	63.640	-0.110	0.0	0.0	0.0
284	65.400	63.639	-0.110	0.0	0.0	0.0
288	65.400	63.639	-0.110	0.0	0.0	0.0
292	65.400	63.638	-0.110	0.0	0.0	0.0
296	65.400	63.637	-0.110	0.0	0.0	0.0
300	65.400	63.636	-0.110	0.0	0.0	0.0
304	65.400	63.636	-0.110	0.0	0.0	0.0
308	65.400	63.635	-0.110	0.0	0.0	0.0
312	65.400	63.634	-0.110	0.0	0.0	0.0
316	65.400	63.634	-0.110	0.0	0.0	0.0
320	65.400	63.633	-0.110	0.0	0.0	0.0
324	65.400	63.632	-0.110	0.0	0.0	0.0
328	65.400	63.632	-0.110	0.0	0.0	0.0
332	65.400	63.631	-0.110	0.0	0.0	0.0
336	65.400	63.630	-0.110	0.0	0.0	0.0
340	65.400	63.630	-0.110	0.0	0.0	0.0
344	65.400	63.629	-0.110	0.0	0.0	0.0
348	65.400	63.628	-0.110	0.0	0.0	0.0
352	65.400	63.628	-0.110	0.0	0.0	0.0
356	65.400	63.627	-0.110	0.0	0.0	0.0
360	65.400	63.627	-0.110	0.0	0.0	0.0
364	65.400	63.626	-0.110	0.0	0.0	0.0
368	65.400	63.625	-0.110	0.0	0.0	0.0
372	65.400	63.625	-0.110	0.0	0.0	0.0
376	65.400	63.624	-0.110	0.0	0.0	0.0
380	65.400	63.624	-0.110	0.0	0.0	0.0
384	65.400	63.623	-0.110	0.0	0.0	0.0
388	65.400	63.622	-0.110	0.0	0.0	0.0
392	65.400	63.622	-0.110	0.0	0.0	0.0
396	65.400	63.621	-0.110	0.0	0.0	0.0
400	65.400	63.620	-0.110	0.0	0.0	0.0

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Flows and Levels for Pipe 1.000 US/MH RE1 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Velocity (m/s)	Pipe Flow (l/s)
404	65.400	63.620	-0.110	0.0	0.0	0.0
408	65.400	63.619	-0.110	0.0	0.0	0.0
412	65.400	63.619	-0.110	0.0	0.0	0.0
416	65.400	63.618	-0.110	0.0	0.0	0.0
420	65.400	63.617	-0.110	0.0	0.0	0.0
424	65.400	63.617	-0.110	0.0	0.0	0.0
428	65.400	63.616	-0.110	0.0	0.0	0.0
432	65.400	63.615	-0.110	0.0	0.0	0.0
436	65.400	63.615	-0.110	0.0	0.0	0.0
440	65.400	63.614	-0.110	0.0	0.0	0.0
444	65.400	63.613	-0.110	0.0	0.0	0.0
448	65.400	63.613	-0.110	0.0	0.0	0.0
452	65.400	63.613	-0.110	0.0	0.0	0.0
456	65.400	63.612	-0.110	0.0	0.0	0.0
460	65.400	63.611	-0.110	0.0	0.0	0.0
464	65.400	63.610	-0.110	0.0	0.0	0.0
468	65.400	63.610	-0.110	0.0	0.0	0.0
472	65.400	63.610	-0.110	0.0	0.0	0.0
476	65.400	63.609	-0.110	0.0	0.0	0.0
480	65.400	63.608	-0.110	0.0	0.0	0.0

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204	63.634	63.634	0.030	0.0	0.0	0.2
208	63.636	63.635	0.032	0.0	0.0	0.2
212	63.638	63.637	0.034	0.0	0.0	0.2
216	63.639	63.639	0.035	0.0	0.0	0.2
220	63.641	63.640	0.037	0.0	0.0	0.2
224	63.643	63.642	0.039	0.0	0.0	0.2
228	63.644	63.644	0.040	0.0	0.0	0.2
232	63.646	63.645	0.042	0.0	0.0	0.2
236	63.647	63.647	0.043	0.0	0.0	0.2
240	63.649	63.648	0.044	0.0	0.0	0.2
244	63.648	63.647	0.043	0.0	0.0	0.0
248	63.646	63.646	0.042	0.0	0.0	0.0
252	63.645	63.646	0.041	0.0	0.0	0.0
256	63.645	63.645	0.041	0.0	0.0	0.0
260	63.644	63.644	0.040	0.0	0.0	0.0
264	63.643	63.643	0.039	0.0	0.0	0.0
268	63.642	63.642	0.038	0.0	0.0	0.0
272	63.641	63.641	0.037	0.0	0.0	0.0
276	63.641	63.641	0.037	0.0	0.0	0.0
280	63.640	63.640	0.036	0.0	0.0	0.0
284	63.639	63.639	0.035	0.0	0.0	0.0
288	63.639	63.639	0.034	0.0	0.0	0.0
292	63.638	63.638	0.034	0.0	0.0	0.0
296	63.637	63.637	0.033	0.0	0.0	0.0
300	63.636	63.636	0.032	0.0	0.0	0.0
304	63.636	63.636	0.032	0.0	0.0	0.0
308	63.635	63.635	0.031	0.0	0.0	0.0
312	63.634	63.634	0.030	0.0	0.0	0.0
316	63.634	63.634	0.029	0.0	0.0	0.0
320	63.633	63.633	0.029	0.0	0.0	0.0
324	63.632	63.633	0.028	0.0	0.0	0.0
328	63.632	63.632	0.028	0.0	0.0	0.0
332	63.631	63.631	0.027	0.0	0.0	0.0
336	63.630	63.630	0.026	0.0	0.0	0.0
340	63.630	63.630	0.026	0.0	0.0	0.0
344	63.629	63.629	0.025	0.0	0.0	0.0
348	63.628	63.629	0.024	0.0	0.0	0.0
352	63.628	63.628	0.024	0.0	0.0	0.0
356	63.627	63.627	0.023	0.0	0.0	0.0
360	63.627	63.627	0.022	0.0	0.0	0.0
364	63.626	63.626	0.022	0.0	0.0	0.0
368	63.625	63.625	0.021	0.0	0.0	0.0
372	63.625	63.625	0.021	0.0	0.0	0.0
376	63.624	63.624	0.020	0.0	0.0	0.0
380	63.624	63.624	0.020	0.0	0.0	0.0
384	63.623	63.623	0.019	0.0	0.0	0.0
388	63.622	63.622	0.018	0.0	0.0	0.0
392	63.622	63.622	0.018	0.0	0.0	0.0
396	63.621	63.621	0.017	0.0	0.0	0.0
400	63.620	63.621	0.016	0.0	0.0	0.0

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Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.001 US/MH S1 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Velocity (m/s)	Pipe Flow (l/s)
404	63.620	63.620	0.016	0.0	0.0	0.0
408	63.619	63.619	0.015	0.0	0.0	0.0
412	63.619	63.619	0.014	0.0	0.0	0.0
416	63.618	63.618	0.014	0.0	0.0	0.0
420	63.617	63.618	0.013	0.0	0.0	0.0
424	63.617	63.617	0.013	0.0	0.0	0.0
428	63.616	63.616	0.012	0.0	0.0	0.0
432	63.615	63.616	0.011	0.0	0.0	0.0
436	63.615	63.615	0.011	0.0	0.0	0.0
440	63.614	63.615	0.010	0.0	0.0	0.0
444	63.613	63.614	0.009	0.0	0.0	0.0
448	63.613	63.613	0.009	0.0	0.0	0.0
452	63.613	63.613	0.009	0.0	0.0	0.0
456	63.612	63.612	0.008	0.0	0.0	0.0
460	63.611	63.611	0.007	0.0	0.0	0.0
464	63.610	63.611	0.006	0.0	0.0	0.0
468	63.610	63.610	0.006	0.0	0.0	0.0
472	63.610	63.610	0.005	0.0	0.0	0.0
476	63.609	63.609	0.004	0.0	0.0	0.0
480	63.608	63.609	0.004	0.0	0.0	0.0

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Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 2.000 US/MH RE2 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
4	65.402	65.002	-0.108	0.0	0.3	0.1
8	65.402	65.003	-0.108	0.0	0.3	0.1
12	65.402	65.003	-0.108	0.0	0.3	0.1
16	65.402	65.003	-0.108	0.0	0.3	0.1
20	65.402	65.003	-0.108	0.0	0.4	0.1
24	65.402	65.003	-0.108	0.0	0.4	0.1
28	65.402	65.003	-0.108	0.0	0.4	0.1
32	65.402	65.003	-0.108	0.0	0.4	0.1
36	65.402	65.003	-0.108	0.0	0.4	0.1
40	65.402	65.004	-0.108	0.0	0.4	0.1
44	65.403	65.004	-0.107	0.0	0.4	0.1
48	65.403	65.004	-0.107	0.0	0.4	0.1
52	65.403	65.004	-0.107	0.0	0.5	0.1
56	65.403	65.004	-0.107	0.0	0.5	0.1
60	65.403	65.004	-0.107	0.0	0.5	0.1
64	65.403	65.005	-0.107	0.0	0.5	0.1
68	65.403	65.005	-0.107	0.0	0.6	0.1
72	65.404	65.005	-0.106	0.0	0.6	0.1
76	65.404	65.006	-0.106	0.0	0.7	0.2
80	65.405	65.007	-0.105	0.0	0.8	0.2
84	65.405	65.007	-0.105	0.0	0.9	0.2
88	65.406	65.009	-0.104	0.0	1.0	0.2
92	65.407	65.010	-0.103	0.0	1.1	0.3
96	65.409	65.011	-0.101	0.0	1.0	0.3
100	65.410	65.012	-0.100	0.0	0.9	0.4
104	65.411	65.013	-0.099	0.0	0.9	0.5
108	65.412	65.014	-0.098	0.0	1.0	0.6
112	65.413	65.015	-0.097	0.0	1.1	0.7
116	65.414	65.016	-0.096	0.0	1.1	0.8
120	65.415	65.018	-0.095	0.0	1.2	0.9
124	65.415	65.018	-0.095	0.0	1.2	0.9
128	65.414	65.016	-0.096	0.0	1.2	0.8
132	65.413	65.015	-0.097	0.0	1.1	0.7
136	65.412	65.014	-0.098	0.0	1.0	0.6
140	65.412	65.013	-0.098	0.0	1.0	0.5
144	65.411	65.012	-0.099	0.0	0.9	0.4
148	65.409	65.012	-0.101	0.0	1.0	0.4
152	65.408	65.011	-0.102	0.0	1.0	0.3
156	65.407	65.009	-0.103	0.0	1.1	0.3
160	65.406	65.008	-0.104	0.0	0.9	0.2
164	65.405	65.007	-0.105	0.0	0.8	0.2
168	65.404	65.006	-0.106	0.0	0.7	0.2
172	65.404	65.005	-0.106	0.0	0.6	0.2
176	65.404	65.005	-0.106	0.0	0.6	0.1
180	65.403	65.005	-0.107	0.0	0.6	0.1
184	65.403	65.004	-0.107	0.0	0.5	0.1
188	65.403	65.004	-0.107	0.0	0.5	0.1
192	65.403	65.004	-0.107	0.0	0.5	0.1
196	65.403	65.004	-0.107	0.0	0.5	0.1
200	65.403	65.004	-0.107	0.0	0.4	0.1

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Flows and Levels for Pipe 2.000 US/MH RE2 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
204	65.403	65.004	-0.107	0.0	0.4	0.1
208	65.402	65.003	-0.108	0.0	0.4	0.1
212	65.402	65.003	-0.108	0.0	0.4	0.1
216	65.402	65.003	-0.108	0.0	0.4	0.1
220	65.402	65.003	-0.108	0.0	0.4	0.1
224	65.402	65.003	-0.108	0.0	0.4	0.1
228	65.402	65.003	-0.108	0.0	0.4	0.1
232	65.402	65.003	-0.108	0.0	0.3	0.1
236	65.402	65.003	-0.108	0.0	0.3	0.1
240	65.402	65.003	-0.108	0.0	0.3	0.1
244	65.400	65.000	-0.110	0.0	0.1	0.0
248	65.400	65.000	-0.110	0.0	0.0	0.0
252	65.400	65.000	-0.110	0.0	0.0	0.0
256	65.400	65.000	-0.110	0.0	0.0	0.0
260	65.400	65.000	-0.110	0.0	0.0	0.0
264	65.400	65.000	-0.110	0.0	0.0	0.0
268	65.400	65.000	-0.110	0.0	0.0	0.0
272	65.400	65.000	-0.110	0.0	0.0	0.0
276	65.400	65.000	-0.110	0.0	0.0	0.0
280	65.400	65.000	-0.110	0.0	0.0	0.0
284	65.400	65.000	-0.110	0.0	0.0	0.0
288	65.400	65.000	-0.110	0.0	0.0	0.0
292	65.400	65.000	-0.110	0.0	0.0	0.0
296	65.400	65.000	-0.110	0.0	0.0	0.0
300	65.400	65.000	-0.110	0.0	0.0	0.0
304	65.400	65.000	-0.110	0.0	0.0	0.0
308	65.400	65.000	-0.110	0.0	0.0	0.0
312	65.400	65.000	-0.110	0.0	0.0	0.0
316	65.400	65.000	-0.110	0.0	0.0	0.0
320	65.400	65.000	-0.110	0.0	0.0	0.0
324	65.400	65.000	-0.110	0.0	0.0	0.0
328	65.400	65.000	-0.110	0.0	0.0	0.0
332	65.400	65.000	-0.110	0.0	0.0	0.0
336	65.400	65.000	-0.110	0.0	0.0	0.0
340	65.400	65.000	-0.110	0.0	0.0	0.0
344	65.400	65.000	-0.110	0.0	0.0	0.0
348	65.400	65.000	-0.110	0.0	0.0	0.0
352	65.400	65.000	-0.110	0.0	0.0	0.0
356	65.400	65.000	-0.110	0.0	0.0	0.0
360	65.400	65.000	-0.110	0.0	0.0	0.0
364	65.400	65.000	-0.110	0.0	0.0	0.0
368	65.400	65.000	-0.110	0.0	0.0	0.0
372	65.400	65.000	-0.110	0.0	0.0	0.0
376	65.400	65.000	-0.110	0.0	0.0	0.0
380	65.400	65.000	-0.110	0.0	0.0	0.0
384	65.400	65.000	-0.110	0.0	0.0	0.0
388	65.400	65.000	-0.110	0.0	0.0	0.0
392	65.400	65.000	-0.110	0.0	0.0	0.0
396	65.400	65.000	-0.110	0.0	0.0	0.0
400	65.400	65.000	-0.110	0.0	0.0	0.0

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Flows and Levels for Pipe 2.000 US/MH RE2 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Velocity (m/s)	Pipe Flow (l/s)
404	65.400	65.000	-0.110	0.0	0.0	0.0
408	65.400	65.000	-0.110	0.0	0.0	0.0
412	65.400	65.000	-0.110	0.0	0.0	0.0
416	65.400	65.000	-0.110	0.0	0.0	0.0
420	65.400	65.000	-0.110	0.0	0.0	0.0
424	65.400	65.000	-0.110	0.0	0.0	0.0
428	65.400	65.000	-0.110	0.0	0.0	0.0
432	65.400	65.000	-0.110	0.0	0.0	0.0
436	65.400	65.000	-0.110	0.0	0.0	0.0
440	65.400	65.000	-0.110	0.0	0.0	0.0
444	65.400	65.000	-0.110	0.0	0.0	0.0
448	65.400	65.000	-0.110	0.0	0.0	0.0
452	65.400	65.000	-0.110	0.0	0.0	0.0
456	65.400	65.000	-0.110	0.0	0.0	0.0
460	65.400	65.000	-0.110	0.0	0.0	0.0
464	65.400	65.000	-0.110	0.0	0.0	0.0
468	65.400	65.000	-0.110	0.0	0.0	0.0
472	65.400	65.000	-0.110	0.0	0.0	0.0
476	65.400	65.000	-0.110	0.0	0.0	0.0
480	65.400	65.000	-0.110	0.0	0.0	0.0

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Flows and Levels for Pipe 2.001 US/MH S2 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
204	65.004	63.634	-0.106	0.0	0.8	0.2
208	65.003	63.635	-0.107	0.0	0.8	0.2
212	65.003	63.637	-0.107	0.0	0.8	0.2
216	65.003	63.639	-0.107	0.0	0.7	0.2
220	65.003	63.640	-0.107	0.0	0.7	0.2
224	65.003	63.642	-0.107	0.0	0.7	0.2
228	65.003	63.644	-0.107	0.0	0.7	0.2
232	65.003	63.645	-0.107	0.0	0.7	0.2
236	65.003	63.647	-0.107	0.0	0.7	0.2
240	65.003	63.648	-0.107	0.0	0.7	0.2
244	65.000	63.647	-0.110	0.0	0.1	0.0
248	65.000	63.646	-0.110	0.0	0.0	0.0
252	65.000	63.646	-0.110	0.0	0.0	0.0
256	65.000	63.645	-0.110	0.0	0.0	0.0
260	65.000	63.644	-0.110	0.0	0.0	0.0
264	65.000	63.643	-0.110	0.0	0.0	0.0
268	65.000	63.642	-0.110	0.0	0.0	0.0
272	65.000	63.641	-0.110	0.0	0.0	0.0
276	65.000	63.641	-0.110	0.0	0.0	0.0
280	65.000	63.640	-0.110	0.0	0.0	0.0
284	65.000	63.639	-0.110	0.0	0.0	0.0
288	65.000	63.639	-0.110	0.0	0.0	0.0
292	65.000	63.638	-0.110	0.0	0.0	0.0
296	65.000	63.637	-0.110	0.0	0.0	0.0
300	65.000	63.636	-0.110	0.0	0.0	0.0
304	65.000	63.636	-0.110	0.0	0.0	0.0
308	65.000	63.635	-0.110	0.0	0.0	0.0
312	65.000	63.634	-0.110	0.0	0.0	0.0
316	65.000	63.634	-0.110	0.0	0.0	0.0
320	65.000	63.633	-0.110	0.0	0.0	0.0
324	65.000	63.633	-0.110	0.0	0.0	0.0
328	65.000	63.632	-0.110	0.0	0.0	0.0
332	65.000	63.631	-0.110	0.0	0.0	0.0
336	65.000	63.630	-0.110	0.0	0.0	0.0
340	65.000	63.630	-0.110	0.0	0.0	0.0
344	65.000	63.629	-0.110	0.0	0.0	0.0
348	65.000	63.629	-0.110	0.0	0.0	0.0
352	65.000	63.628	-0.110	0.0	0.0	0.0
356	65.000	63.627	-0.110	0.0	0.0	0.0
360	65.000	63.627	-0.110	0.0	0.0	0.0
364	65.000	63.626	-0.110	0.0	0.0	0.0
368	65.000	63.625	-0.110	0.0	0.0	0.0
372	65.000	63.625	-0.110	0.0	0.0	0.0
376	65.000	63.624	-0.110	0.0	0.0	0.0
380	65.000	63.624	-0.110	0.0	0.0	0.0
384	65.000	63.623	-0.110	0.0	0.0	0.0
388	65.000	63.622	-0.110	0.0	0.0	0.0
392	65.000	63.622	-0.110	0.0	0.0	0.0
396	65.000	63.621	-0.110	0.0	0.0	0.0
400	65.000	63.621	-0.110	0.0	0.0	0.0

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Flows and Levels for Pipe 2.001 US/MH S2 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Velocity (m/s)	Pipe Flow (l/s)
404	65.000	63.620	-0.110	0.0	0.0	0.0
408	65.000	63.619	-0.110	0.0	0.0	0.0
412	65.000	63.619	-0.110	0.0	0.0	0.0
416	65.000	63.618	-0.110	0.0	0.0	0.0
420	65.000	63.618	-0.110	0.0	0.0	0.0
424	65.000	63.617	-0.110	0.0	0.0	0.0
428	65.000	63.616	-0.110	0.0	0.0	0.0
432	65.000	63.616	-0.110	0.0	0.0	0.0
436	65.000	63.615	-0.110	0.0	0.0	0.0
440	65.000	63.615	-0.110	0.0	0.0	0.0
444	65.000	63.614	-0.110	0.0	0.0	0.0
448	65.000	63.613	-0.110	0.0	0.0	0.0
452	65.000	63.613	-0.110	0.0	0.0	0.0
456	65.000	63.612	-0.110	0.0	0.0	0.0
460	65.000	63.611	-0.110	0.0	0.0	0.0
464	65.000	63.611	-0.110	0.0	0.0	0.0
468	65.000	63.610	-0.110	0.0	0.0	0.0
472	65.000	63.610	-0.110	0.0	0.0	0.0
476	65.000	63.609	-0.110	0.0	0.0	0.0
480	65.000	63.609	-0.110	0.0	0.0	0.0

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Flows and Levels for Pipe 1.002 US/MH S3 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Velocity (m/s)	Pipe Flow (l/s)
204	63.634	63.632	0.079	0.0	0.0	0.4
208	63.635	63.634	0.081	0.0	0.0	0.4
212	63.637	63.636	0.083	0.0	0.0	0.4
216	63.639	63.638	0.085	0.0	0.0	0.4
220	63.640	63.639	0.086	0.0	0.0	0.3
224	63.642	63.641	0.088	0.0	0.0	0.3
228	63.644	63.642	0.089	0.0	0.0	0.3
232	63.645	63.644	0.091	0.0	0.0	0.3
236	63.647	63.646	0.093	0.0	0.0	0.3
240	63.648	63.647	0.094	0.0	0.0	0.3
244	63.647	63.647	0.093	0.0	0.0	0.1
248	63.646	63.647	0.092	0.0	0.0	0.0
252	63.646	63.646	0.091	0.0	0.0	0.0
256	63.645	63.645	0.091	0.0	0.0	0.0
260	63.644	63.644	0.090	0.0	0.0	0.0
264	63.643	63.643	0.089	0.0	0.0	0.0
268	63.642	63.642	0.088	0.0	0.0	0.0
272	63.641	63.642	0.087	0.0	0.0	0.0
276	63.641	63.641	0.087	0.0	0.0	0.0
280	63.640	63.640	0.086	0.0	0.0	0.0
284	63.639	63.639	0.085	0.0	0.0	0.0
288	63.639	63.639	0.085	0.0	0.0	0.0
292	63.638	63.638	0.084	0.0	0.0	0.0
296	63.637	63.637	0.083	0.0	0.0	0.0
300	63.636	63.637	0.082	0.0	0.0	0.0
304	63.636	63.636	0.082	0.0	0.0	0.0
308	63.635	63.635	0.081	0.0	0.0	0.0
312	63.634	63.635	0.080	0.0	0.0	0.0
316	63.634	63.634	0.080	0.0	0.0	0.0
320	63.633	63.633	0.079	0.0	0.0	0.0
324	63.633	63.633	0.078	0.0	0.0	0.0
328	63.632	63.632	0.078	0.0	0.0	0.0
332	63.631	63.631	0.077	0.0	0.0	0.0
336	63.630	63.631	0.076	0.0	0.0	0.0
340	63.630	63.630	0.076	0.0	0.0	0.0
344	63.629	63.630	0.075	0.0	0.0	0.0
348	63.629	63.629	0.075	0.0	0.0	0.0
352	63.628	63.628	0.074	0.0	0.0	0.0
356	63.627	63.628	0.073	0.0	0.0	0.0
360	63.627	63.627	0.073	0.0	0.0	0.0
364	63.626	63.626	0.072	0.0	0.0	0.0
368	63.625	63.626	0.071	0.0	0.0	0.0
372	63.625	63.625	0.071	0.0	0.0	0.0
376	63.624	63.625	0.070	0.0	0.0	0.0
380	63.624	63.624	0.070	0.0	0.0	0.0
384	63.623	63.623	0.069	0.0	0.0	0.0
388	63.622	63.623	0.068	0.0	0.0	0.0
392	63.622	63.622	0.068	0.0	0.0	0.0
396	63.621	63.621	0.067	0.0	0.0	0.0
400	63.621	63.621	0.067	0.0	0.0	0.0

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Flows and Levels for Pipe 1.002 US/MH S3 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
404	63.620	63.620	0.066	0.0	0.0	0.0
408	63.619	63.620	0.065	0.0	0.0	0.0
412	63.619	63.619	0.065	0.0	0.0	0.0
416	63.618	63.618	0.064	0.0	0.0	0.0
420	63.618	63.618	0.063	0.0	0.0	0.0
424	63.617	63.617	0.063	0.0	0.0	0.0
428	63.616	63.616	0.062	0.0	0.0	0.0
432	63.616	63.616	0.062	0.0	0.0	0.0
436	63.615	63.615	0.061	0.0	0.0	0.0
440	63.615	63.615	0.060	0.0	0.0	0.0
444	63.614	63.614	0.060	0.0	0.0	0.0
448	63.613	63.613	0.059	0.0	0.0	0.0
452	63.613	63.613	0.058	0.0	0.0	0.0
456	63.612	63.612	0.058	0.0	0.0	0.0
460	63.611	63.612	0.057	0.0	0.0	0.0
464	63.611	63.611	0.057	0.0	0.0	0.0
468	63.610	63.610	0.056	0.0	0.0	0.0
472	63.610	63.610	0.056	0.0	0.0	0.0
476	63.609	63.609	0.055	0.0	0.0	0.0
480	63.609	63.609	0.054	0.0	0.0	0.0

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Flows and Levels for Pipe 1.003 US/MH S4 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
4	63.252	63.100	-0.108	0.0	0.0	0.0
8	63.254	63.100	-0.106	0.0	0.0	0.0
12	63.256	63.100	-0.104	0.0	0.0	0.0
16	63.259	63.101	-0.101	0.0	0.0	0.0
20	63.262	63.103	-0.098	0.0	0.1	0.0
24	63.264	63.105	-0.096	0.0	0.1	0.0
28	63.267	63.107	-0.093	0.0	0.2	0.0
32	63.270	63.110	-0.090	0.0	0.2	0.1
36	63.272	63.114	-0.088	0.0	0.2	0.1
40	63.275	63.118	-0.085	0.0	0.2	0.1
44	63.277	63.122	-0.083	0.0	0.3	0.1
48	63.280	63.127	-0.080	0.0	0.3	0.1
52	63.283	63.131	-0.077	0.0	0.3	0.1
56	63.286	63.136	-0.074	0.0	0.3	0.1
60	63.289	63.140	-0.071	0.0	0.3	0.1
64	63.293	63.145	-0.067	0.0	0.3	0.1
68	63.296	63.149	-0.064	0.0	0.3	0.1
72	63.300	63.154	-0.060	0.0	0.3	0.1
76	63.304	63.159	-0.056	0.0	0.3	0.1
80	63.309	63.165	-0.051	0.0	0.3	0.1
84	63.314	63.171	-0.046	0.0	0.3	0.1
88	63.321	63.178	-0.039	0.0	0.3	0.1
92	63.330	63.187	-0.030	0.0	0.3	0.2
96	63.339	63.195	-0.021	0.0	0.3	0.2
100	63.351	63.205	-0.009	0.0	0.3	0.2
104	63.365	63.215	0.005	0.0	0.3	0.2
108	63.382	63.226	0.022	0.0	0.3	0.2
112	63.403	63.239	0.043	0.0	0.4	0.2
116	63.427	63.252	0.067	0.0	0.3	0.2
120	63.455	63.258	0.095	0.0	0.3	0.2
124	63.484	63.268	0.124	0.0	0.3	0.2
128	63.509	63.279	0.149	0.0	0.4	0.2
132	63.530	63.293	0.170	0.0	0.4	0.2
136	63.547	63.309	0.187	0.0	0.4	0.3
140	63.562	63.325	0.202	0.0	0.4	0.3
144	63.574	63.342	0.214	0.0	0.4	0.3
148	63.584	63.358	0.224	0.0	0.4	0.3
152	63.592	63.375	0.232	0.0	0.4	0.3
156	63.598	63.391	0.238	0.0	0.4	0.3
160	63.603	63.406	0.243	0.0	0.4	0.3
164	63.607	63.421	0.247	0.0	0.2	0.3
168	63.611	63.434	0.251	0.0	0.1	0.2
172	63.614	63.447	0.254	0.0	0.1	0.2
176	63.617	63.458	0.257	0.0	0.0	0.2
180	63.620	63.469	0.260	0.0	0.0	0.2
184	63.622	63.479	0.262	0.0	0.0	0.2
188	63.624	63.489	0.264	0.0	0.0	0.2
192	63.626	63.497	0.266	0.0	0.0	0.2
196	63.628	63.505	0.268	0.0	0.0	0.2
200	63.630	63.512	0.270	0.0	0.0	0.2

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Flows and Levels for Pipe 1.003 US/MH S4 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Velocity (m/s)	Pipe Flow (l/s)
204	63.632	63.519	0.272	0.0	0.0	0.2
208	63.634	63.526	0.274	0.0	0.0	0.2
212	63.636	63.532	0.276	0.0	0.0	0.2
216	63.638	63.537	0.278	0.0	0.0	0.2
220	63.639	63.543	0.279	0.0	0.0	0.1
224	63.641	63.547	0.281	0.0	0.0	0.1
228	63.642	63.552	0.282	0.0	0.0	0.1
232	63.644	63.556	0.284	0.0	0.0	0.1
236	63.646	63.560	0.286	0.0	0.0	0.1
240	63.647	63.563	0.287	0.0	0.0	0.1
244	63.647	63.566	0.287	0.0	0.0	0.1
248	63.647	63.569	0.287	0.0	0.0	0.1
252	63.646	63.571	0.286	0.0	0.0	0.1
256	63.645	63.573	0.285	0.0	0.0	0.1
260	63.644	63.575	0.284	0.0	0.0	0.1
264	63.643	63.576	0.283	0.0	0.0	0.1
268	63.642	63.577	0.282	0.0	0.0	0.1
272	63.642	63.578	0.282	0.0	0.0	0.1
276	63.641	63.579	0.281	0.0	0.0	0.1
280	63.640	63.580	0.280	0.0	0.0	0.1
284	63.639	63.580	0.279	0.0	0.0	0.1
288	63.639	63.581	0.279	0.0	0.0	0.1
292	63.638	63.581	0.278	0.0	0.0	0.1
296	63.637	63.581	0.277	0.0	0.0	0.1
300	63.637	63.581	0.277	0.0	0.0	0.1
304	63.636	63.581	0.276	0.0	0.0	0.1
308	63.635	63.581	0.275	0.0	0.0	0.1
312	63.635	63.581	0.275	0.0	0.0	0.1
316	63.634	63.580	0.274	0.0	0.0	0.1
320	63.633	63.580	0.273	0.0	0.0	0.1
324	63.633	63.580	0.273	0.0	0.0	0.1
328	63.632	63.579	0.272	0.0	0.0	0.1
332	63.631	63.579	0.271	0.0	0.0	0.1
336	63.631	63.579	0.271	0.0	0.0	0.1
340	63.630	63.578	0.270	0.0	0.0	0.1
344	63.630	63.578	0.270	0.0	0.0	0.1
348	63.629	63.577	0.269	0.0	0.0	0.1
352	63.628	63.577	0.268	0.0	0.0	0.1
356	63.628	63.576	0.268	0.0	0.0	0.1
360	63.627	63.576	0.267	0.0	0.0	0.1
364	63.626	63.575	0.266	0.0	0.0	0.1
368	63.626	63.575	0.266	0.0	0.0	0.1
372	63.625	63.574	0.265	0.0	0.0	0.1
376	63.625	63.573	0.265	0.0	0.0	0.1
380	63.624	63.573	0.264	0.0	0.0	0.1
384	63.623	63.572	0.263	0.0	0.0	0.1
388	63.623	63.572	0.263	0.0	0.0	0.1
392	63.622	63.571	0.262	0.0	0.0	0.1
396	63.621	63.571	0.261	0.0	0.0	0.1
400	63.621	63.570	0.261	0.0	0.0	0.1

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Flows and Levels for Pipe 1.003 US/MH S4 (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
404	63.620	63.569	0.260	0.0	0.0	0.1
408	63.620	63.569	0.260	0.0	0.0	0.1
412	63.619	63.568	0.259	0.0	0.0	0.1
416	63.618	63.568	0.258	0.0	0.0	0.1
420	63.618	63.567	0.258	0.0	0.0	0.1
424	63.617	63.566	0.257	0.0	0.0	0.1
428	63.616	63.566	0.256	0.0	0.0	0.1
432	63.616	63.565	0.256	0.0	0.0	0.1
436	63.615	63.565	0.255	0.0	0.0	0.1
440	63.615	63.564	0.255	0.0	0.0	0.1
444	63.614	63.564	0.254	0.0	0.0	0.1
448	63.613	63.563	0.253	0.0	0.0	0.1
452	63.613	63.562	0.253	0.0	0.0	0.1
456	63.612	63.562	0.252	0.0	0.0	0.1
460	63.612	63.561	0.252	0.0	0.0	0.1
464	63.611	63.561	0.251	0.0	0.0	0.1
468	63.610	63.560	0.250	0.0	0.0	0.1
472	63.610	63.559	0.250	0.0	0.0	0.1
476	63.609	63.559	0.249	0.0	0.0	0.1
480	63.609	63.558	0.249	0.0	0.0	0.1

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Flows and Levels for Pipe 1.004 US/MH RAIN GARDEN (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
4	63.100	63.096	-0.110	0.0	0.0	0.0
8	63.100	63.096	-0.110	0.0	0.0	0.0
12	63.100	63.096	-0.110	0.0	0.0	0.0
16	63.101	63.096	-0.109	0.0	0.0	0.0
20	63.103	63.096	-0.107	0.0	0.0	0.0
24	63.105	63.096	-0.105	0.0	0.0	0.0
28	63.107	63.096	-0.103	0.0	0.0	0.0
32	63.110	63.096	-0.100	0.0	0.0	0.0
36	63.114	63.096	-0.096	0.0	0.0	0.0
40	63.118	63.096	-0.092	0.0	0.0	0.0
44	63.122	63.096	-0.088	0.0	0.0	0.0
48	63.127	63.096	-0.083	0.0	0.0	0.0
52	63.131	63.096	-0.079	0.0	0.0	0.0
56	63.136	63.096	-0.074	0.0	0.0	0.0
60	63.140	63.096	-0.070	0.0	0.0	0.0
64	63.145	63.096	-0.065	0.0	0.0	0.0
68	63.149	63.096	-0.061	0.0	0.0	0.0
72	63.154	63.096	-0.056	0.0	0.0	0.0
76	63.159	63.096	-0.051	0.0	0.0	0.0
80	63.165	63.096	-0.045	0.0	0.0	0.0
84	63.171	63.096	-0.039	0.0	0.0	0.0
88	63.178	63.096	-0.032	0.0	0.0	0.0
92	63.187	63.096	-0.023	0.0	0.0	0.0
96	63.195	63.096	-0.015	0.0	0.0	0.0
100	63.205	63.096	-0.005	0.0	0.0	0.0
104	63.215	63.096	0.005	0.0	0.0	0.0
108	63.226	63.096	0.016	0.0	0.0	0.0
112	63.239	63.096	0.029	0.0	0.0	0.0
116	63.252	63.096	0.042	0.0	0.0	0.0
120	63.258	63.096	0.048	0.0	0.0	0.0
124	63.268	63.096	0.058	0.0	0.0	0.0
128	63.279	63.096	0.069	0.0	0.0	0.0
132	63.293	63.096	0.083	0.0	0.0	0.0
136	63.309	63.096	0.099	0.0	0.0	0.0
140	63.325	63.096	0.115	0.0	0.1	0.0
144	63.342	63.096	0.132	0.0	0.1	0.0
148	63.358	63.096	0.148	0.0	0.1	0.0
152	63.375	63.096	0.165	0.0	0.1	0.0
156	63.391	63.096	0.181	0.0	0.1	0.0
160	63.406	63.096	0.196	0.0	0.1	0.0
164	63.421	63.096	0.211	0.0	0.1	0.0
168	63.434	63.096	0.224	0.0	0.1	0.0
172	63.447	63.096	0.237	0.0	0.1	0.0
176	63.458	63.096	0.248	0.0	0.1	0.0
180	63.469	63.096	0.259	0.0	0.1	0.0
184	63.479	63.096	0.269	0.0	0.1	0.0
188	63.489	63.096	0.279	0.0	0.1	0.0
192	63.497	63.096	0.287	0.0	0.1	0.0
196	63.505	63.096	0.295	0.0	0.1	0.0
200	63.512	63.096	0.302	0.0	0.1	0.0

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Flows and Levels for Pipe 1.004 US/MH RAIN GARDEN (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
204	63.519	63.096	0.309	0.0	0.1	0.0
208	63.526	63.096	0.316	0.0	0.1	0.0
212	63.532	63.096	0.322	0.0	0.1	0.0
216	63.537	63.096	0.327	0.0	0.1	0.0
220	63.543	63.096	0.333	0.0	0.1	0.0
224	63.547	63.096	0.337	0.0	0.1	0.0
228	63.552	63.096	0.342	0.0	0.1	0.0
232	63.556	63.096	0.346	0.0	0.1	0.0
236	63.560	63.096	0.350	0.0	0.1	0.0
240	63.563	63.096	0.353	0.0	0.1	0.0
244	63.566	63.096	0.356	0.0	0.1	0.0
248	63.569	63.096	0.359	0.0	0.1	0.0
252	63.571	63.096	0.361	0.0	0.1	0.0
256	63.573	63.096	0.363	0.0	0.1	0.0
260	63.575	63.096	0.365	0.0	0.1	0.0
264	63.576	63.096	0.366	0.0	0.1	0.0
268	63.577	63.096	0.367	0.0	0.1	0.0
272	63.578	63.096	0.368	0.0	0.1	0.0
276	63.579	63.096	0.369	0.0	0.1	0.0
280	63.580	63.096	0.370	0.0	0.1	0.0
284	63.580	63.096	0.370	0.0	0.1	0.0
288	63.581	63.096	0.371	0.0	0.1	0.0
292	63.581	63.096	0.371	0.0	0.1	0.0
296	63.581	63.096	0.371	0.0	0.1	0.0
300	63.581	63.096	0.371	0.0	0.1	0.0
304	63.581	63.096	0.371	0.0	0.1	0.0
308	63.581	63.096	0.371	0.0	0.1	0.0
312	63.581	63.096	0.371	0.0	0.1	0.0
316	63.580	63.096	0.370	0.0	0.1	0.0
320	63.580	63.096	0.370	0.0	0.1	0.0
324	63.580	63.096	0.370	0.0	0.1	0.0
328	63.579	63.096	0.369	0.0	0.1	0.0
332	63.579	63.096	0.369	0.0	0.1	0.0
336	63.579	63.096	0.369	0.0	0.1	0.0
340	63.578	63.096	0.368	0.0	0.1	0.0
344	63.578	63.096	0.368	0.0	0.1	0.0
348	63.577	63.096	0.367	0.0	0.1	0.0
352	63.577	63.096	0.367	0.0	0.1	0.0
356	63.576	63.096	0.366	0.0	0.1	0.0
360	63.576	63.096	0.366	0.0	0.1	0.0
364	63.575	63.096	0.365	0.0	0.1	0.0
368	63.575	63.096	0.365	0.0	0.1	0.0
372	63.574	63.096	0.364	0.0	0.1	0.0
376	63.573	63.096	0.363	0.0	0.1	0.0
380	63.573	63.096	0.363	0.0	0.1	0.0
384	63.572	63.096	0.362	0.0	0.1	0.0
388	63.572	63.096	0.362	0.0	0.1	0.0
392	63.571	63.096	0.361	0.0	0.1	0.0
396	63.571	63.096	0.361	0.0	0.1	0.0
400	63.570	63.096	0.360	0.0	0.1	0.0

Dixon Hurst Kemp		Page 35
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev03	
Date Nov 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.004 US/MH RAIN GARDEN (Storm)
240 minute 100 year Summer
Average Rainfall Intensity 15.004 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total (l/s)	O/F Velocity (m/s)	Pipe Flow (l/s)
404	63.569	63.096	0.359	0.0	0.1	0.0
408	63.569	63.096	0.359	0.0	0.1	0.0
412	63.568	63.096	0.358	0.0	0.1	0.0
416	63.568	63.096	0.358	0.0	0.1	0.0
420	63.567	63.096	0.357	0.0	0.1	0.0
424	63.566	63.096	0.356	0.0	0.1	0.0
428	63.566	63.096	0.356	0.0	0.1	0.0
432	63.565	63.096	0.355	0.0	0.1	0.0
436	63.565	63.096	0.355	0.0	0.1	0.0
440	63.564	63.096	0.354	0.0	0.1	0.0
444	63.564	63.096	0.354	0.0	0.1	0.0
448	63.563	63.096	0.353	0.0	0.1	0.0
452	63.562	63.096	0.352	0.0	0.1	0.0
456	63.562	63.096	0.352	0.0	0.1	0.0
460	63.561	63.096	0.351	0.0	0.1	0.0
464	63.561	63.096	0.351	0.0	0.1	0.0
468	63.560	63.096	0.350	0.0	0.1	0.0
472	63.559	63.096	0.349	0.0	0.1	0.0
476	63.559	63.096	0.349	0.0	0.1	0.0
480	63.558	63.096	0.348	0.0	0.1	0.0