

William Saunders		Page 1
Sheppard Lockton House	Malting Lane	
Cafferata Way	Donington	
Newark, NG24 2TN	Ph 1 plus 6% FEH	
Date 22/03/2023	Designed by PAE	
File 22.03.23 PH1 PLUS 6 PER...	Checked by	
Innovyze	Network 2019.1	

STORM SEWER DESIGN by the Modified Rational Method

Pipe Sizes STANDARD Manhole Sizes STANDARD

Designed with Level Soffits

« - Indicates pipe capacity < flow

Network Results Table

William Saunders		Page 2
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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
S3.000	12.521	0.400	31.3	0.000	5.00	0.0	0.600	o	750	Pipe/Conduit	
S1.008	49.010	0.065	754.0	0.000	0.00	0.0	0.600	o	750	Pipe/Conduit	
S1.009	15.846	0.095	166.8	0.000	0.00	0.0	0.600	o	225	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)
S3.000	66.51	5.04	1.560	0.000	0.0	0.0	0.0	5.01	2214.5	0.0
S1.008	48.28	9.78	1.160	0.612	0.0	0.0	0.0	1.01	446.8	83.8
S1.009	47.60	10.04	1.095	0.612	0.0	0.0	0.0	1.01	40.1	83.8

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
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)	2	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	30
Ratio R	0.400		

William Saunders		Page 3
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

Online Controls for Storm

Hydro-Brake® Optimum Manhole: S8, DS/PN: S1.009, Volume (m³): 29.1

Unit Reference	MD-SHE-0169-1800-2405-1800
Design Head (m)	2.405
Design Flow (l/s)	18.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	169
Invert Level (m)	1.095
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1800

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.405	18.0
Flush-Flo™	0.701	18.0
Kick-Flo®	1.447	14.1
Mean Flow over Head Range	-	15.7

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	6.0	1.200	16.6	3.000	20.0	7.000	30.0
0.200	14.1	1.400	14.8	3.500	21.5	7.500	31.0
0.300	16.0	1.600	14.8	4.000	22.9	8.000	32.0
0.400	17.0	1.800	15.7	4.500	24.2	8.500	32.9
0.500	17.6	2.000	16.5	5.000	25.5	9.000	33.8
0.600	17.9	2.200	17.2	5.500	26.7	9.500	34.7
0.800	17.9	2.400	17.9	6.000	27.8		
1.000	17.5	2.600	18.6	6.500	28.9		

William Saunders		Page 4
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

Storage Structures for Storm

Tank or Pond Manhole: SPond, DS/PN: S3.000

Invert Level (m) 1.560

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	186.0	0.601	379.0	1.300	556.0	1.940	742.0
0.100	205.0	0.700	403.0	1.400	583.0	1.941	0.0
0.200	223.0	0.800	427.0	1.500	612.0	2.300	0.0
0.300	243.0	0.900	451.0	1.600	640.0	2.400	0.0
0.400	263.0	1.000	477.0	1.700	669.0	2.500	0.0
0.500	283.0	1.100	503.0	1.800	699.0		
0.600	305.0	1.200	529.0	1.900	730.0		

William Saunders		Page 5
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

1 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 0.000
 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 FEH
 FEH Rainfall Version 1999
 Site Location GB 520400 334650 TF 20400 34650
 C (1km) -0.021
 D1 (1km) 0.305
 D2 (1km) 0.317
 D3 (1km) 0.192
 E (1km) 0.307
 F (1km) 2.510
 Cv (Summer) 0.750
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 450.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status OFF
 Inertia Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 60, 120, 180, 240, 360, 480, 600, 720, 960,
 1440, 2160, 2880, 4320, 5760, 7200, 8640,
 10080
 Return Period(s) (years) 1, 2, 30, 100
 Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	SHWD1	60 Summer	1	+0%					2.204
S1.001	SHWD2	60 Summer	1	+0%	100/60 Winter				2.106
S1.002	SHWD3	60 Summer	1	+0%	100/60 Summer				2.059
S1.003	S1	60 Summer	1	+0%	100/60 Summer				1.526
S1.004	S2	60 Summer	1	+0%	100/60 Summer				1.519
S1.005	S3	60 Summer	1	+0%	100/60 Summer				1.501
S1.006	S4	60 Winter	1	+0%	100/60 Summer				1.487
S2.000	S5	60 Winter	1	+0%	100/60 Summer				1.482
S1.007	S6	60 Winter	1	+0%	100/60 Summer				1.481

William Saunders		Page 6
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

PN	US/MH Name	Surcharged		Flooded		Pipe		Level Exceeded
		Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	
S1.000	SHWD1	-0.186	0.000	0.07		2.2	OK	
S1.001	SHWD2	-0.184	0.000	0.08		2.2	OK	
S1.002	SHWD3	-0.186	0.000	0.07		2.2	OK	
S1.003	S1	-0.609	0.000	0.04		11.4	OK	
S1.004	S2	-0.601	0.000	0.04		12.3	OK	
S1.005	S3	-0.578	0.000	0.07		16.3	OK	
S1.006	S4	-0.563	0.000	0.06		22.3	OK	
S2.000	S5	-0.563	0.000	0.02		8.3	OK	
S1.007	S6	-0.509	0.000	0.09		34.5	OK	

William Saunders		Page 7
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

US/MH		Return Climate		First (X)	First (Y)	First (Z)	Overflow	Water
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act. Level (m)
S3.000	SPond	480	Winter	1	+0%			1.560
S1.008	S7	60	Winter	1	+0%	100/60	Summer	1.476
S1.009	S8	60	Winter	1	+0%	1/60	Summer	1.474

		Surcharged Flooded		Pipe				Level
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Exceeded
S3.000	SPond	-0.750	0.000	0.00		0.0	OK	
S1.008	S7	-0.434	0.000	0.07		25.4	OK	
S1.009	S8	0.154	0.000	0.47		16.8	SURCHARGED	

William Saunders		Page 8
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

2 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 0.000
 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 FEH
 FEH Rainfall Version 1999
 Site Location GB 520400 334650 TF 20400 34650
 C (1km) -0.021
 D1 (1km) 0.305
 D2 (1km) 0.317
 D3 (1km) 0.192
 E (1km) 0.307
 F (1km) 2.510
 Cv (Summer) 0.750
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 450.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status OFF
 Inertia Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 60, 120, 180, 240, 360, 480, 600, 720, 960,
 1440, 2160, 2880, 4320, 5760, 7200, 8640,
 10080
 Return Period(s) (years) 1, 2, 30, 100
 Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	SHWD1	60 Summer	2	+0%					2.210
S1.001	SHWD2	60 Summer	2	+0%	100/60 Winter				2.112
S1.002	SHWD3	60 Summer	2	+0%	100/60 Summer				2.065
S1.003	S1	60 Summer	2	+0%	100/60 Summer				1.546
S1.004	S2	60 Winter	2	+0%	100/60 Summer				1.545
S1.005	S3	60 Winter	2	+0%	100/60 Summer				1.544
S1.006	S4	60 Winter	2	+0%	100/60 Summer				1.542
S2.000	S5	60 Winter	2	+0%	100/60 Summer				1.541
S1.007	S6	60 Winter	2	+0%	100/60 Summer				1.541

William Saunders		Page 9
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

PN	US/MH Name	Surcharged		Flooded		Pipe		Level Exceeded
		Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	
S1.000	SHWD1	-0.180	0.000	0.09		2.7	OK	
S1.001	SHWD2	-0.178	0.000	0.10		2.7	OK	
S1.002	SHWD3	-0.180	0.000	0.09		2.7	OK	
S1.003	S1	-0.589	0.000	0.05		14.2	OK	
S1.004	S2	-0.575	0.000	0.04		13.2	OK	
S1.005	S3	-0.535	0.000	0.07		17.5	OK	
S1.006	S4	-0.508	0.000	0.07		27.1	OK	
S2.000	S5	-0.504	0.000	0.03		10.2	OK	
S1.007	S6	-0.449	0.000	0.11		40.2	OK	

William Saunders		Page 10
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

US/MH		Return Climate		First (X)	First (Y)	First (Z)	Overflow	Water
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act. Level (m)
S3.000	SPond	480	Winter	2	+0%			1.560
S1.008	S7	60	Winter	2	+0%	100/60	Summer	1.538
S1.009	S8	60	Winter	2	+0%	1/60	Summer	1.535

		Surcharged Flooded		Pipe				Level
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Exceeded
S3.000	SPond	-0.750	0.000	0.00		0.0	OK	
S1.008	S7	-0.372	0.000	0.07		28.0	OK	
S1.009	S8	0.215	0.000	0.49		17.3	SURCHARGED	

William Saunders		Page 11
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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 0.000
 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 FEH
 FEH Rainfall Version 1999
 Site Location GB 520400 334650 TF 20400 34650
 C (1km) -0.021
 D1 (1km) 0.305
 D2 (1km) 0.317
 D3 (1km) 0.192
 E (1km) 0.307
 F (1km) 2.510
 Cv (Summer) 0.750
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 450.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status OFF
 Inertia Status OFF

 Profile(s) Summer and Winter
 Duration(s) (mins) 60, 120, 180, 240, 360, 480, 600, 720, 960,
 1440, 2160, 2880, 4320, 5760, 7200, 8640,
 10080
 Return Period(s) (years) 1, 2, 30, 100
 Climate Change (%) 0, 0, 0, 40

US/MH		Return Climate		First (X)	First (Y)	First (Z)	Overflow	Water
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow Act.	Level (m)
S1.000	SHWD1	60 Summer	30	+0%				2.233
S1.001	SHWD2	60 Summer	30	+0%	100/60 Winter			2.136
S1.002	SHWD3	60 Summer	30	+0%	100/60 Summer			2.088
S1.003	S1	60 Winter	30	+0%	100/60 Summer			1.844
S1.004	S2	60 Winter	30	+0%	100/60 Summer			1.843
S1.005	S3	60 Winter	30	+0%	100/60 Summer			1.841
S1.006	S4	60 Winter	30	+0%	100/60 Summer			1.838
S2.000	S5	60 Winter	30	+0%	100/60 Summer			1.836
S1.007	S6	60 Winter	30	+0%	100/60 Summer			1.834

William Saunders		Page 12
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

PN	US/MH Name	Surcharged Flooded		Pipe		Level Exceeded
		Depth (m)	Volume (m ³)	Flow / Cap.	Overflow (l/s)	Status
S1.000	SHWD1	-0.157	0.000	0.20	6.1	OK
S1.001	SHWD2	-0.154	0.000	0.22	6.1	OK
S1.002	SHWD3	-0.157	0.000	0.20	6.1	OK
S1.003	S1	-0.291	0.000	0.11	27.9	OK
S1.004	S2	-0.277	0.000	0.09	28.5	OK
S1.005	S3	-0.238	0.000	0.13	33.2	OK
S1.006	S4	-0.212	0.000	0.14	52.8	OK
S2.000	S5	-0.209	0.000	0.06	22.8	OK
S1.007	S6	-0.156	0.000	0.19	71.3	OK

William Saunders		Page 13
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

US/MH		Return Climate		First (X)	First (Y)	First (Z)	Overflow	Water
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act. Level (m)
S3.000	SPond	60 Winter	30	+0%				1.753
S1.008	S7	60 Winter	30	+0%	100/60 Summer			1.825
S1.009	S8	60 Winter	30	+0%	1/60 Summer			1.820

		Surcharged Flooded		Pipe				Level
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Exceeded
S3.000	SPond	-0.557	0.000	0.01		9.3	OK	
S1.008	S7	-0.085	0.000	0.11		39.6	OK	
S1.009	S8	0.500	0.000	0.50		17.9	SURCHARGED	

William Saunders		Page 14
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

100 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 0.000
 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 FEH
 FEH Rainfall Version 1999
 Site Location GB 520400 334650 TF 20400 34650
 C (1km) -0.021
 D1 (1km) 0.305
 D2 (1km) 0.317
 D3 (1km) 0.192
 E (1km) 0.307
 F (1km) 2.510
 Cv (Summer) 0.750
 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 450.0
 Analysis Timestep 2.5 Second Increment (Extended)
 DTS Status OFF
 DVD Status OFF
 Inertia Status OFF

 Profile(s) Summer and Winter
 Duration(s) (mins) 60, 120, 180, 240, 360, 480, 600, 720, 960,
 1440, 2160, 2880, 4320, 5760, 7200, 8640,
 10080
 Return Period(s) (years) 1, 2, 30, 100
 Climate Change (%) 0, 0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	SHWD1	60 Summer	100	+40%					2.309
S1.001	SHWD2	60 Winter	100	+40%	100/60 Winter				2.293
S1.002	SHWD3	120 Winter	100	+40%	100/60 Summer				2.547
S1.003	S1	60 Winter	100	+40%	100/60 Summer				2.685
S1.004	S2	60 Winter	100	+40%	100/60 Summer				2.681
S1.005	S3	180 Winter	100	+40%	100/60 Summer				2.711
S1.006	S4	180 Winter	100	+40%	100/60 Summer				2.742
S2.000	S5	180 Winter	100	+40%	100/60 Summer				2.781
S1.007	S6	180 Winter	100	+40%	100/60 Summer				2.784

William Saunders		Page 15
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

PN	US/MH Name	Surcharged Flooded		Flow / Overflow		Pipe Flow	Status	Level Exceeded
		Depth (m)	Volume (m³)	Cap.	(l/s)	(l/s)		
S1.000	SHWD1	-0.081	0.000	0.41		12.5	OK	
S1.001	SHWD2	0.003	0.000	0.52		14.5	SURCHARGED	
S1.002	SHWD3	0.302	0.000	0.30		9.0	SURCHARGED	
S1.003	S1	0.550	0.000	0.20		53.8	SURCHARGED	
S1.004	S2	0.561	0.000	0.16		51.4	SURCHARGED	
S1.005	S3	0.632	0.000	0.29		72.3	SURCHARGED	
S1.006	S4	0.692	0.000	0.15		56.7	SURCHARGED	
S2.000	S5	0.736	0.000	0.06		20.9	SURCHARGED	
S1.007	S6	0.794	0.000	0.25		94.4	SURCHARGED	

William Saunders		Page 16
Sheppard Lockton House Cafferata Way Newark, NG24 2TN	Malting Lane Donington Ph 1 plus 6% FEH	
Date 22/03/2023 File 22.03.23 PH1 PLUS 6 PER...	Designed by PAE Checked by	
Innovyze	Network 2019.1	

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

US/MH		Return Climate		First (X)	First (Y)	First (Z)	Overflow	Water
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act. Level (m)
S3.000	SPond	60 Winter	100	+40%				2.282
S1.008	S7	180 Winter	100	+40%	100/60 Summer			2.803
S1.009	S8	180 Winter	100	+40%	1/60 Summer			3.099

		Surcharged Flooded		Pipe				Level
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Exceeded
S3.000	SPond	-0.028	0.000	0.33		327.1	OK	
S1.008	S7	0.893	0.000	0.42		158.6	SURCHARGED	
S1.009	S8	1.779	0.000	0.50		17.9	FLOOD RISK	