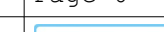


PJS Consulting Engineers Limited		Page 0
Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 0DP		
Date 19/08/2024 15:14 File Phase 2 Storm 15.05.24.mdx	Designed by thomas.nunn Checked by	
Innovyze	Network 2019.1	

STORM SEWER DESIGN by the Modified Rational Method

Pipe Sizes STANDARD Manhole Sizes STANDARD

Designed with Level Soffits

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	63.704	0.630	101.1	0.129	5.00	0.0	0.600	o	225	Pipe/Conduit	
1.001	31.978	0.480	66.6	0.118	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.002	25.340	1.035	24.5	0.096	0.00	0.0	0.600	o	300	Pipe/Conduit	

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	5.82	115.520	0.129	0.0	0.0	0.0	1.30	51.7	17.5
1.001	48.82	6.15	114.890	0.247	0.0	0.0	0.0	1.60	63.8	32.7
1.002	48.32	6.28	114.335	0.343	0.0	0.0	0.0	3.19	225.5	44.9

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.002	S1	115.055	113.300	0.000	1500	0

PJS Consulting Engineers Limited		Page 1
Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 0DP		
Date 19/08/2024 15:14	Designed by thomas.nunn	
File Phase 2 Storm 15.05.24.mdx	Checked by	
Innovyze	Network 2019.1	

Simulation Criteria for Surface Network 3

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	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 Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 0 Number of Storage Structures 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)	19.600	Storm Duration (mins)	30
Ratio R	0.400		

©1982-2019 Innovyze

PJS Consulting Engineers Limited								Page 2	
Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 0DP									
Date 19/08/2024 15:14					Designed by thomas.nunn				
File Phase 2 Storm 15.05.24.mdx					Checked by				
Innovyze					Network 2019.1				
Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 3									
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 Offline Controls 0 Number of Time/Area Diagrams 0									
Number of Online Controls 0 Number of Storage Structures 0 Number of Real Time Controls 0									
Synthetic Rainfall Details									
Rainfall Model FSR Ratio R 0.400									
Region England and Wales Cv (Summer) 0.750									
M5-60 (mm) 19.700 Cv (Winter) 0.840									
Margin for Flood Risk Warning (mm) 450.0									
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) 100									
Climate Change (%) 40									
Water									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)
1.000	S46	15 Winter	100	+40%	100/15 Summer	100/15 Summer			117.029
1.001	S47	15 Winter	100	+40%	100/15 Summer	100/15 Summer			116.347
1.002	S48	15 Winter	100	+40%					114.552
Surcharged Flooded									
	US/MH		Depth	Volume	Flow /	Pipe			Level
PN	Name		(m)	(m³)	Cap.	Flow (l/s)	Status	Exceeded	
1.000	S46		1.284	3.623	1.33	66.4	FLOOD	3	
1.001	S47		1.232	1.022	1.89	113.3	FLOOD	2	
1.002	S48		-0.083	0.000	0.85	170.5	OK		
©1982-2019 Innovyze									