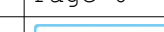


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STORM SEWER DESIGN by the Modified Rational Method

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

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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	

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Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 0DP											
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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)						1					
Climate Change (%)						0					