

Global Variables

Pipe Size File C:\Program Files\Micro Drainage Ltd\WinDes11.4\STANDARD.PIP
 Manhole Size File C:\Program Files\Micro Drainage Ltd\WinDes11.4\STANDARD.MHS

FEH Rainfall Model

Return Period (years)	2
Site Location	GB 459450 164350 SU 59450 64350
C (1km)	-0.029
D1 (1km)	0.311
D2 (1km)	0.287
D3 (1km)	0.367
E (1km)	0.306
F (1km)	2.523
Maximum Rainfall (mm/hr)	0
Foul Sewage (l/s/ha)	0.00
O'flow Setting (*Foul only)	0
Volumetric Runoff Coeff.	1.00
Add Flow / Climate Change (%)	0
Minimum Backdrop Height (m)	0.000
Maximum Backdrop Height (m)	0.000
Min Cover Depth for Optimisation (m)	0.000
Min Vel for Auto Design Only (m/s)	1.00
Min Slope for Optimisation (1:X)	500
Minimum Outfall Invert (m)	0.000
Ground Level at Outfall (m)	0.000
Outfall Manhole Name	
Outfall Manhole Dia/Length (mm)	0
Outfall Manhole Width (mm)	0

Designed with Level Inverts



PIPELINE SCHEDULES

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
1.000	o	225	1	100.200	99.075	0.900		1050
1.001	o	225	2	100.300	98.975	1.100		1050
1.002	o	225	4	100.300	98.885	1.190		1050
1.003	o	300	6	100.500	98.754	1.446		1050
1.004	o	300	11	100.500	98.614	1.586		1200
1.005	o	450	12	100.500	98.416	1.634		1350
2.000	o	300	12	100.300	99.100	0.900		1050
2.001	o	300	13	100.400	98.940	1.160		1050
3.000	o	300	14	100.500	99.300	0.900		1050
2.002	o	300	15	100.500	98.823	1.377		1050
1.006	o	450	16	100.500	98.164	1.886		1350
1.007	o	450	17	100.500	98.004	2.046		1350
1.008	o	600	18	99.500	97.969	1.381		10000
1.009	o	150	19	99.300	97.829	1.321		10000
4.000	o	300	20	100.000	98.800	0.900		1050
4.001	o	300	20	100.000	98.633	1.067		1050
4.002	o	300	20	99.500	98.300	0.900		1050
5.000	o	225	20	99.400	98.250	0.925		1050
4.003	o	300	20	99.500	98.100	1.100		1050
6.000	o	225	20	99.400	98.250	0.925		1050
6.001	o	225	20	99.250	98.125	0.900		1050
4.004	o	375	20	99.000	97.859	0.766		1350
4.005	o	375	20	99.000	97.829	0.796		1350
7.000	o	300	20	100.000	98.800	0.900		1050

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
1.000	20.00	200.0	2	100.300	98.975	1.100		1050
1.001	21.00	233.3	4	100.300	98.885	1.190		1050
1.002	36.00	274.8	6	100.500	98.754	1.521		1050
1.003	36.00	257.1	11	100.500	98.614	1.586		1200
1.004	46.50	234.8	12	100.500	98.416	1.784		1350
1.005	70.00	277.8	16	100.500	98.164	1.886		1350
2.000	40.00	250.0	13	100.400	98.940	1.160		1050
2.001	27.00	230.8	15	100.500	98.823	1.377		1050
3.000	15.00	250.0	15	100.500	99.240	0.960		1050
2.002	18.00	225.0	16	100.500	98.743	1.457		1350
1.006	40.00	250.0	17	100.500	98.004	2.046		1350
1.007	7.00	200.0	18	99.500	97.969	1.081		10000
1.008	22.50	160.7	19	99.300	97.829	1.321		10000
1.009	25.00	21.4	20	97.500	96.661	0.689		1350
4.000	25.00	149.7	20	100.000	98.633	1.067		1050
4.001	46.00	138.1	20	99.500	98.300	0.900		1050
4.002	20.00	100.0	20	99.500	98.100	1.100		1050
5.000	15.00	200.0	20	99.500	98.175	1.100		1050
4.003	20.00	83.0	20	99.000	97.859	0.841		1350
6.000	25.00	200.0	20	99.250	98.125	0.900		1050
6.001	20.00	200.0	20	99.000	98.025	0.750		1350
4.004	16.00	533.3	20	99.000	97.829	0.796		1350
4.005	22.00	149.7	20	99.500	97.682	1.443		1350
7.000	22.00	176.0	20	99.800	98.675	0.825		1050



PIPELINE SCHEDULES

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
7.001	o	300	20	99.800	98.675	0.825		1050
7.002	o	300	20	99.500	98.525	0.675		1050
4.006	o	375	20	99.500	97.682	1.443		1350
4.007	o	600	20	99.500	97.607	1.743		10000
4.008	o	225	20	99.500	97.507	1.768		10000
8.000	o	300	20	99.500	98.300	0.900		1050
8.001	o	300	20	99.500	98.175	1.025		1050
9.000	o	300	20	99.500	98.300	0.900		1050
8.002	o	300	20	99.500	98.104	1.096		1050
10.000	o	300	20	99.500	98.300	0.900		1050
10.001	o	300	20	99.500	98.163	1.037		1050
10.002	o	300	20	99.895	98.054	1.541		1200
8.003	o	300	20	100.000	97.904	1.796		1200
8.004	o	300	20	100.000	97.776	1.924		1200
8.005	o	300	20	100.000	97.616	2.084		1200
8.006	o	375	20	99.000	97.498	1.127		1350
4.009	o	375	20	99.500	97.328	1.797		1350
4.010	o	375	20	98.500	97.228	0.897		1350
11.000	o	300	20	100.000	98.800	0.900		1050
11.001	o	2400	20	99.980	98.490	0.690		3000
12.000	o	300	20	100.000	98.800	0.900		1050
11.002	o	2400	20	99.980	98.408	0.772		3000
13.000	o	300	20	100.000	98.800	0.900		1050

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
7.001	28.00	186.7	20	99.500	98.525	0.675		1050
7.002	12.00	120.0	20	99.500	98.425	0.775		1350
4.006	32.00	426.7	20	99.500	97.607	1.518		10000
4.007	45.00	450.0	20	99.500	97.507	1.843		10000
4.008	10.00	149.3	20	99.500	97.440	1.835		1350
8.000	20.00	160.0	20	99.500	98.175	1.025		1050
8.001	12.00	169.0	20	99.500	98.104	1.096		1050
9.000	30.00	200.0	20	99.500	98.150	1.050		1050
8.002	40.00	200.0	20	100.000	97.904	1.796		1200
10.000	22.00	160.6	20	99.500	98.163	1.037		1050
10.001	22.00	201.8	20	99.895	98.054	1.541		1200
10.002	6.00	214.3	20	100.000	98.026	1.674		1200
8.003	11.00	85.9	20	100.000	97.776	1.924		1200
8.004	20.00	125.0	20	100.000	97.616	2.084		1200
8.005	26.00	220.3	20	99.000	97.498	1.202		1350
8.006	42.50	250.0	20	99.500	97.328	1.797		1350
4.009	25.00	250.0	20	98.500	97.228	0.897		1350
4.010	90.00	157.9	20	97.500	96.658	0.467		1350
11.000	14.00	47.0	20	99.980	98.502	1.178		3000
11.001	37.00	451.2	20	99.980	98.408	0.772		3000
12.000	14.00	47.0	20	99.980	98.502	1.178		3000
11.002	46.00	464.6	20	99.980	98.309	0.871		3000
13.000	14.00	47.0	20	99.980	98.502	1.178		3000



PIPELINE SCHEDULES

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
11.003	o	300	20	99.980	98.309	1.371		3000
11.004	o	300	20	99.980	98.287	1.393		1050
11.005	o	300	20	99.980	98.246	1.434		1050
11.006	o	300	20	99.980	98.176	1.504		1200
11.007	o	300	20	99.980	98.065	1.615		1200
14.000	o	300	20	100.000	98.900	0.800		1050
14.001	o	2400	20	99.980	98.490	0.690		3000
15.000	o	300	20	100.000	98.900	0.800		1050
14.002	o	300	20	99.980	98.363	1.317		3000
14.003	o	300	20	99.980	98.343	1.337		1050
11.008	o	300	20	99.980	97.949	1.731		1200
11.009	o	300	20	99.980	97.841	1.839		1200
11.010	o	300	20	99.980	97.741	1.939		1200
16.000	o	300	20	99.980	98.900	0.780		1050
16.001	o	2400	20	99.980	98.490	0.690		3000
17.000	o	300	20	99.980	98.900	0.780		1050
16.002	o	300	20	99.980	98.363	1.317		3000
16.003	o	300	20	99.980	98.343	1.337		1050
18.000	o	300	20	99.980	98.900	0.780		1050
18.001	o	2400	20	100.000	98.490	0.710		3000
19.000	o	300	20	100.240	98.900	1.040		1050
18.002	o	300	20	100.580	98.363	1.917		3000
18.003	o	300	20	100.580	98.343	1.937		1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
11.003	3.00	136.4	20	99.980	98.287	1.393		1050
11.004	7.00	170.7	20	99.980	98.246	1.434		1050
11.005	13.00	185.7	20	99.980	98.176	1.504		1200
11.006	21.00	189.2	20	99.980	98.065	1.615		1200
11.007	29.00	250.0	20	99.980	97.949	1.731		1200
14.000	17.00	47.0	20	99.980	98.538	1.142		3000
14.001	56.00	440.9	20	99.980	98.363	0.817		3000
15.000	15.00	47.0	20	99.980	98.581	1.099		3000
14.002	3.00	150.0	20	99.980	98.343	1.337		1050
14.003	3.00	150.0	20	99.980	98.323	1.357		1200
11.008	27.00	250.0	20	99.980	97.841	1.839		1200
11.009	25.00	250.0	20	99.980	97.741	1.939		1200
11.010	41.00	150.2	20	99.000	97.468	1.232		1350
16.000	14.00	47.0	20	99.980	98.602	1.078		3000
16.001	56.00	440.9	20	99.980	98.363	0.817		3000
17.000	14.00	47.0	20	99.980	98.602	1.078		3000
16.002	3.00	150.0	20	99.980	98.343	1.337		1050
16.003	10.00	149.3	20	99.000	98.276	0.424		1350
18.000	14.00	47.0	20	100.000	98.602	1.098		3000
18.001	56.00	440.9	20	100.580	98.363	1.417		3000
19.000	14.00	47.0	20	100.580	98.602	1.678		3000
18.002	3.00	150.0	20	100.580	98.343	1.937		1200
18.003	36.00	145.2	20	100.189	98.095	1.794		1200



PIPELINE SCHEDULES

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
18.004	o	300	20	100.189	98.095	1.794		1200
18.005	o	300	20	99.980	97.914	1.766		1200
18.006	o	300	20	99.980	97.714	1.966		1200
20.000	o	300	20	99.980	98.900	0.780		1050
20.001	o	2400	20	99.980	98.490	0.690		3000
21.000	o	300	20	99.980	98.900	0.780		1050
20.002	o	300	20	99.980	98.363	1.317		3000
18.007	o	375	20	99.980	97.672	1.933		1350
11.011	o	375	20	99.000	97.468	1.157		1350
1.010	o	375	20	97.500	96.658	0.467		1350
1.011	o	450	22	96.800	95.158	1.192		1350
1.012	o	525	24	96.400	94.910	0.965		1500
1.013	o	525	89	96.550	94.640	1.385		1500
1.014	o	525	90	96.550	93.714	2.311		1500
1.015	o	525	91	96.400	93.303	2.572		1500
1.016	o	525	91	96.400	93.262	2.613		1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH No.	C.Level (m)	I.Level (m)	C.Depth (m)	MH DIAM., (mm)	L*W
18.004	28.00	154.7	20	99.980	97.914	1.766		1200
18.005	30.00	150.0	20	99.980	97.714	1.966		1200
18.006	4.00	95.2	20	99.980	97.672	2.008		1350
20.000	14.00	47.0	20	99.980	98.602	1.078		3000
20.001	56.00	440.9	20	99.980	98.363	0.817		3000
21.000	14.00	47.0	20	99.980	98.602	1.078		3000
20.002	3.00	150.0	20	99.980	98.343	1.337		1350
18.007	19.00	95.0	20	99.000	97.472	1.153		1350
11.011	8.00	17.0	20	97.500	96.997	0.128		1350
1.010	15.00	10.0	22	96.800	95.158	1.267		1350
1.011	20.00	80.6	24	96.400	94.910	1.040		1500
1.012	25.00	490.2	89	96.550	94.859	1.166		1500
1.013	33.10	35.7	90	96.550	93.714	2.311		1500
1.014	41.10	100.0	91	96.400	93.303	2.572		1500
1.015	20.00	487.8	91	96.400	93.262	2.613		1500
1.016	20.00	487.8		0.000	93.221	-93.746		0



MANHOLE SCHEDULES

M/Hole Number	Cover Level (m)	M/Hole Depth (m)	M/Hole Diam., L*W (mm)	Pipes Out			Pipes In		
				PN	IL. (m)	D (mm)	PN	IL. (m)	D (mm)
1	100.200	1.125	1050	1.000	99.075	225			
2	100.300	1.325	1050	1.001	98.975	225	1.000	98.975	225
4	100.300	1.415	1050	1.002	98.885	225	1.001	98.885	225
6	100.500	1.746	1050	1.003	98.754	300	1.002	98.754	225
11	100.500	1.886	1200	1.004	98.614	300	1.003	98.614	300
12	100.500	2.084	1350	1.005	98.416	450	1.004	98.416	300
12	100.300	1.200	1050	2.000	99.100	300			
13	100.400	1.460	1050	2.001	98.940	300	2.000	98.940	300
14	100.500	1.200	1050	3.000	99.300	300			
15	100.500	1.677	1050	2.002	98.823	300	2.001 3.000	98.823 99.240	300 300
16	100.500	2.336	1350	1.006	98.164	450	1.005 2.002	98.164 98.743	450 300
17	100.500	2.496	1350	1.007	98.004	450	1.006	98.004	450
18	99.500	1.531	10000	1.008	97.969	600	1.007	97.969	450
19	99.300	1.471	10000	1.009	97.829	150	1.008	97.829	600
20	100.000	1.200	1050	4.000	98.800	300			
20	100.000	1.367	1050	4.001	98.633	300	4.000	98.633	300
20	99.500	1.200	1050	4.002	98.300	300	4.001	98.300	300
20	99.400	1.150	1050	5.000	98.250	225			
20	99.500	1.400	1050	4.003	98.100	300	4.002 5.000	98.100 98.175	300 225
20	99.400	1.150	1050	6.000	98.250	225			
20	99.250	1.125	1050	6.001	98.125	225	6.000	98.125	225
20	99.000	1.141	1350	4.004	97.859	375	4.003 6.001	97.859 98.025	300 225
20	99.000	1.171	1350	4.005	97.829	375	4.004	97.829	375
20	100.000	1.200	1050	7.000	98.800	300			
20	99.800	1.125	1050	7.001	98.675	300	7.000	98.675	300
20	99.500	0.975	1050	7.002	98.525	300	7.001	98.525	300
20	99.500	1.818	1350	4.006	97.682	375	4.005 7.002	97.682 98.425	375 300
20	99.500	1.893	10000	4.007	97.607	600	4.006	97.607	375
20	99.500	1.993	10000	4.008	97.507	225	4.007	97.507	600
20	99.500	1.200	1050	8.000	98.300	300			
20	99.500	1.325	1050	8.001	98.175	300	8.000	98.175	300
20	99.500	1.200	1050	9.000	98.300	300			
20	99.500	1.396	1050	8.002	98.104	300	8.001 9.000	98.104 98.150	300 300
20	99.500	1.200	1050	10.000	98.300	300			
20	99.500	1.337	1050	10.001	98.163	300	10.000	98.163	300
20	99.895	1.841	1200	10.002	98.054	300	10.001	98.054	300

MANHOLE SCHEDULES

M/Hole Number	Cover Level (m)	M/Hole Depth (m)	M/Hole Diam., L*W (mm)	Pipes Out			Pipes In		
				PN	IL. (m)	D (mm)	PN	IL. (m)	D (mm)
20	100.000	2.096	1200	8.003	97.904	300	8.002 10.002	97.904 98.026	300 300
20	100.000	2.224	1200	8.004	97.776	300	8.003	97.776	300
20	100.000	2.384	1200	8.005	97.616	300	8.004	97.616	300
20	99.000	1.502	1350	8.006	97.498	375	8.005	97.498	300
20	99.500	2.172	1350	4.009	97.328	375	4.008 8.006	97.440 97.328	225 375
20	98.500	1.272	1350	4.010	97.228	375	4.009	97.228	375
20	100.000	1.200	1050	11.000	98.800	300			
20	99.980	1.490	3000	11.001	98.490	2400	11.000	98.502	300
20	100.000	1.200	1050	12.000	98.800	300			
20	99.980	1.572	3000	11.002	98.408	2400	11.001 12.000	98.408 98.502	2400 300
20	100.000	1.200	1050	13.000	98.800	300			
20	99.980	1.671	3000	11.003	98.309	300	11.002 13.000	98.309 98.502	2400 300
20	99.980	1.693	1050	11.004	98.287	300	11.003	98.287	300
20	99.980	1.734	1050	11.005	98.246	300	11.004	98.246	300
20	99.980	1.804	1200	11.006	98.176	300	11.005	98.176	300
20	99.980	1.915	1200	11.007	98.065	300	11.006	98.065	300
20	100.000	1.100	1050	14.000	98.900	300			
20	99.980	1.490	3000	14.001	98.490	2400	14.000	98.538	300
20	100.000	1.100	1050	15.000	98.900	300			
20	99.980	1.617	3000	14.002	98.363	300	14.001 15.000	98.363 98.581	2400 300
20	99.980	1.637	1050	14.003	98.343	300	14.002	98.343	300
20	99.980	2.031	1200	11.008	97.949	300	11.007 14.003	97.949 98.323	300 300
20	99.980	2.139	1200	11.009	97.841	300	11.008	97.841	300
20	99.980	2.239	1200	11.010	97.741	300	11.009	97.741	300
20	99.980	1.080	1050	16.000	98.900	300			
20	99.980	1.490	3000	16.001	98.490	2400	16.000	98.602	300
20	99.980	1.080	1050	17.000	98.900	300			
20	99.980	1.617	3000	16.002	98.363	300	16.001 17.000	98.363 98.602	2400 300
20	99.980	1.637	1050	16.003	98.343	300	16.002	98.343	300
20	99.980	1.080	1050	18.000	98.900	300			
20	100.000	1.510	3000	18.001	98.490	2400	18.000	98.602	300
20	100.240	1.340	1050	19.000	98.900	300			
20	100.580	2.217	3000	18.002	98.363	300	18.001 19.000	98.363 98.602	2400 300
20	100.580	2.237	1200	18.003	98.343	300	18.002	98.343	300
20	100.189	2.094	1200	18.004	98.095	300	18.003	98.095	300



MANHOLE SCHEDULES

M/Hole Number	Cover Level (m)	M/Hole Depth (m)	M/Hole Diam., L*W (mm)	Pipes Out			Pipes In		
				PN	IL. (m)	D (mm)	PN	IL. (m)	D (mm)
20	99.980	2.066	1200	18.005	97.914	300	18.004	97.914	300
20	99.980	2.266	1200	18.006	97.714	300	18.005	97.714	300
20	99.980	1.080	1050	20.000	98.900	300			
20	99.980	1.490	3000	20.001	98.490	2400	20.000	98.602	300
20	99.980	1.080	1050	21.000	98.900	300			
20	99.980	1.617	3000	20.002	98.363	300	20.001	98.363	2400
							21.000	98.602	300
20	99.980	2.308	1350	18.007	97.672	375	18.006	97.672	300
							20.002	98.343	300
20	99.000	1.532	1350	11.011	97.468	375	11.010	97.468	300
							16.003	98.276	300
							18.007	97.472	375
20	97.500	0.842	1350	1.010	96.658	375	1.009	96.661	150
							4.010	96.658	375
							11.011	96.997	375
22	96.800	1.642	1350	1.011	95.158	450	1.010	95.158	375
24	96.400	1.490	1500	1.012	94.910	525	1.011	94.910	450
89	96.550	1.910	1500	1.013	94.640	525	1.012	94.859	525
90	96.550	2.836	1500	1.014	93.714	525	1.013	93.714	525
91	96.400	3.097	1500	1.015	93.303	525	1.014	93.303	525
91	96.400	3.138	1500	1.016	93.262	525	1.015	93.262	525
	0.000	-93.221	0		OUTFALL		1.016	93.221	525