



**Micro
Drainage®**

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)
1.000	1.826	0.150	12.2	0.090	4.00	0.600	o	150
1.001	1.000	0.150	6.7	0.000	0.00	0.600	o	150
2.000	4.084	0.030	136.1	0.044	4.00	0.600	o	150
3.000	5.563	0.280	19.9	0.024	4.00	0.600	o	150
2.001	1.156	0.080	14.5	0.000	0.00	0.600	o	150
2.002	1.785	0.012	148.8	0.000	0.00	0.600	o	150
2.003	5.653	0.068	83.1	0.010	0.00	0.600	o	150
1.002	9.616	0.362	26.6	0.000	0.00	0.600	o	150

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1 Market Place Mews
Henley-on-Thames
RG9 2AH

11307 / 745
Oakhurst, Northgate
Northwood

Date 22/10/2013 17:56

Designed By JDC

File 1 in 100 yr + 30%...

Checked By



Micro Drainage

Network W.12.4

Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
1	19.010	2.540	1200	1.000	16.470	150				
2	18.500	2.180	1200	1.001	16.320	150	1.000	16.320	150	
4	20.220	2.160	1200	2.000	18.060	150				
4	19.640	1.060	475	3.000	18.580	150				
5	19.580	2.600	1200	2.001	16.980	150	2.000	18.030	150	1050
							3.000	18.300	150	1320
6	18.600	2.350	1200	2.002	16.250	150	2.001	16.900	150	650
7	18.660	2.422	1200	2.003	16.238	150	2.002	16.238	150	
8	18.010	1.840	1200	1.002	16.170	150	1.001	16.170	150	
							2.003	16.170	150	
	17.830	2.022	0		OUTFALL		1.002	15.808	150	

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1 Market Place Mews Henley-on-Thames RG9 2AH	11307 / 745 Oakhurst, Northgate Northwood	
Date 22/10/2013 17:56 File 1 in 100 yr + 30%...	Designed By JDC Checked By	
Micro Drainage	Network W.12.4	

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH DIAM., L*W (mm)
1.000	o	150	1	19.010	16.470	2.390	1200
1.001	o	150	2	18.500	16.320	2.030	1200
2.000	o	150	4	20.220	18.060	2.010	1200
3.000	o	150	4	19.640	18.580	0.910	475
2.001	o	150	5	19.580	16.980	2.450	1200
2.002	o	150	6	18.600	16.250	2.200	1200
2.003	o	150	7	18.660	16.238	2.272	1200
1.002	o	150	8	18.010	16.170	1.690	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH DIAM., L*W (mm)
1.000	1.826	12.2	2	18.500	16.320	2.030	1200
1.001	1.000	6.7	8	18.010	16.170	1.690	1200
2.000	4.084	136.1	5	19.580	18.030	1.400	1200
3.000	5.563	19.9	5	19.580	18.300	1.130	1200
2.001	1.156	14.5	6	18.600	16.900	1.550	1200
2.002	1.785	148.8	7	18.660	16.238	2.272	1200
2.003	5.653	83.1	8	18.010	16.170	1.690	1200
1.002	9.616	26.6		17.830	15.808	1.872	0

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)
1.002		17.830	15.808	0.000	0	0

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1 Market Place Mews	11307 / 745	
Henley-on-Thames	Oakhurst, Northgate	
RG9 2AH	Northwood	
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Storage Structures for Storm

Cellular Storage Manhole: 2, DS/PN: 1.001

Invert Level (m) 16.320 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	36.0	36.0	0.900	0.0	60.0
0.800	36.0	60.0			

Cellular Storage Manhole: 6, DS/PN: 2.002

Invert Level (m) 16.310 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	60.0	60.0	0.900	0.0	84.8
0.800	60.0	84.8			

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

Margin for Flood Risk Warning (mm) 100.0

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, 180, 240, 360, 480, 600,
720, 960, 1440, 2160, 2880, 4320, 5760, 7200,
8640, 10080

Return Period(s) (years) 100

Climate Change (%) 30

PN	Storm	Return Period	Climate Change	First X Surcharge	First Y Flood	First Z Overflow	O/F Act.	Lvl Exc.
1.000	120 Winter	100	+30%	100/15 Summer				
1.001	120 Winter	100	+30%	100/15 Summer				
2.000	15 Winter	100	+30%	100/15 Summer				
3.000	15 Winter	100	+30%					
2.001	120 Winter	100	+30%	100/15 Summer				
2.002	120 Winter	100	+30%	100/15 Summer				
2.003	120 Winter	100	+30%	100/15 Summer				
1.002	120 Winter	100	+30%	100/15 Summer				

PN	US/MH Name	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	1	17.942	1.322	0.000	0.86	0.0	20.8	SURCHARGED
1.001	2	17.939	1.469	0.000	0.33	0.0	8.0	SURCHARGED
2.000	4	18.491	0.281	0.000	3.24	0.0	35.1	SURCHARGED
3.000	4	18.662	-0.068	0.000	0.58	0.0	19.3	OK
2.001	5	17.946	0.816	0.000	0.92	0.0	16.3	SURCHARGED
2.002	6	17.945	1.545	0.000	0.28	0.0	3.0	SURCHARGED
2.003	7	17.943	1.555	0.000	0.19	0.0	3.1	SURCHARGED
1.002	8	17.938	1.618	0.000	0.16	0.0	5.0	FLOOD RISK

Contract:

Sheet No: 01

Job No: 11307 / 745

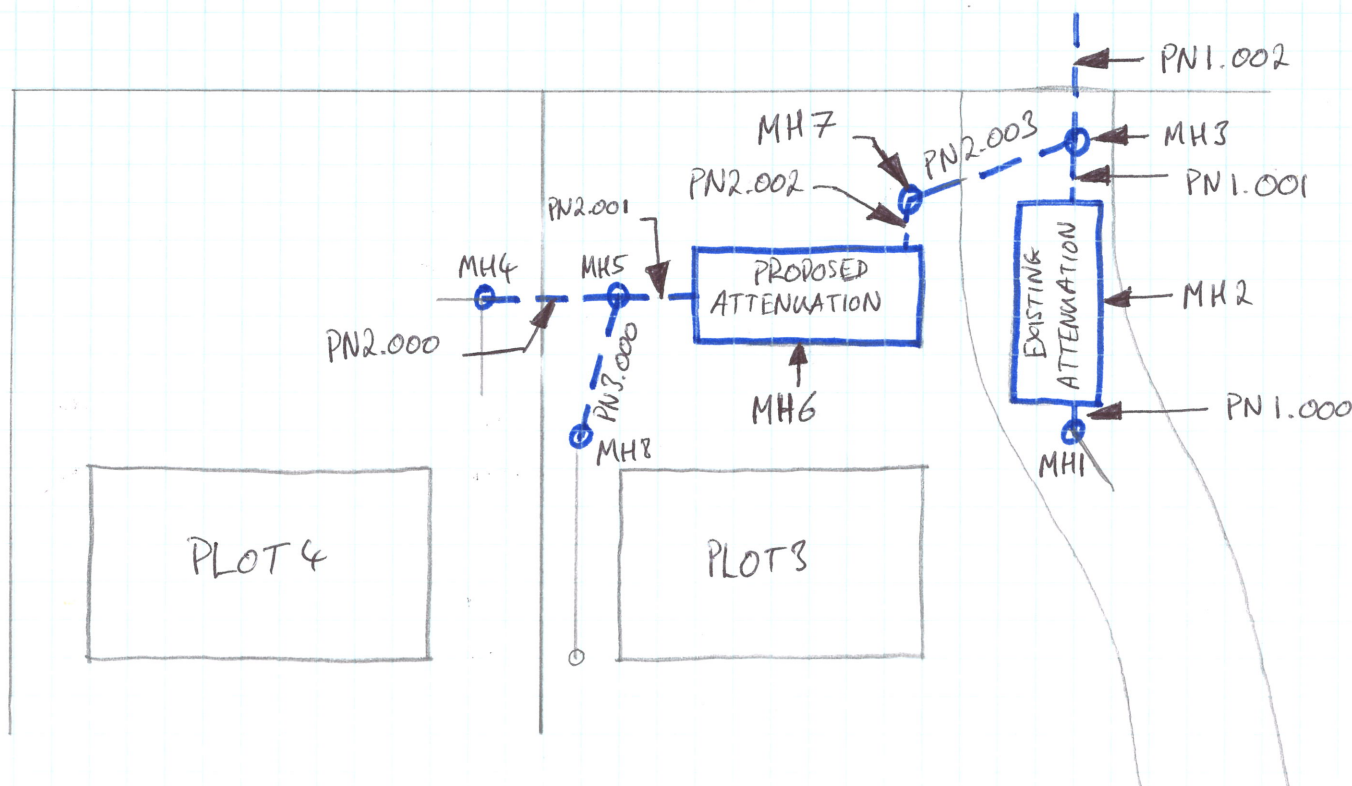
Date: Oct 13

Engineer:
JDC

Checked: AR

Subject

Drainage Simulation Layout



PIPE ORDER

PN 1.000
PN 1.001
PN 2.000
PN 3.000
PN 2.001
PN 2.002
PN 2.003
PN 1.002