



**Bailey Johnson Hayes**  
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Project  
Plot 2, Skimmingdish Lane  
Bicester.

Project No.  
S1345

Sheet No.  
D-1

Drawing No.

Rev.  
1

Section  
Surface Water Drainage

By  
P.A.B.

Date  
Nov 2017

Checked

Date

### Calculations

## PROPOSED DEVELOPMENT,

## PLOTS 2 & 3 (PHASE 2). SKIMMINGDISH LANE, BICESTER.

### SURFACE WATER DRAINAGE CALCULATIONS

#### 1.0 INTRODUCTION

The following calculations have been prepared to justify the design of a below-ground drainage system to serve the above development plots. These calculations are to be read in conjunction with previous calculations ref S1230 to justify the design of retention basins for the wider site including Plots 1-3.

The Plot 2 drainage system is looped to the Plot 3 system via a short 375mm linking pipe between neighbouring manholes flanking the boundary of the Phase 1 and Phase 2 sections of the central access road construction; the calculations therefore provide for both Plot 2 and Plot 3, the site access road, and include contributing areas from part of future development on Plot 1. This phase of construction includes the formation of Basins 1, 2, and 4, and attenuates surface water outflows from the part-completed development site to Langford Brook to a peak figure of 11 litres/second for storms up to and including 100yr+30%CC events.


#### 2.0 DRAINAGE DESIGN

Reference to the site plan indicates the proposal to subdivide the development site to create three large plots to accommodate a series of industrial/commercial buildings, including associated external service yards, access roads, and car parking.

Four retention basins are to be constructed within the landscaped areas surrounding the development plots; Basins 1, 2, and 4 are to be constructed upon completion of this phase. The basins are to have side slopes no steeper than 1:3. Drawings of each basin are appended. Geocellular storage tanks are also to be incorporated to the scheme.

Pipe reference numbers and contributing areas are noted on the drawings. For clarification the Plot 2 drainage features (manholes, gullies etc.) include the prefix 2. within the calculations.

The drainage is designed using the Microdrainage WinDes software package and adopting FEH design rainfall.

 <p><b>Bailey Johnson Hayes</b> Grange House, John Dalton Street Manchester. M2 6FW Tel: 0161 279 7777 Fax: 0161 236 3552 Web: www.bjh.co.uk</p>	Project	Plot 2, Skimmingdish Lane Bicester.	Project No. S1345	Sheet No. D-2
	Section	Surface Water Drainage	Drawing No.	Rev. 1
			By P.A.B.	Date Nov 2017
			Checked	Date

Calculations
<p>Appended to these calculations are drawings as follows:</p> <ul style="list-style-type: none"> <li>• S1345-DD01 Pipe Refs &amp; Drained areas.</li> <li>• S1345-DD02A Drainage Layout.</li> <li>• S1340-DD01 Pipe Refs &amp; Drained areas.</li> <li>• S1340-DD02 Drainage Layout</li> <li>• S1230-DD03 Basins 1 and 2.</li> <li>• S1230-DD05 Basin 4</li> </ul> <p>The below-ground drainage system is modelled in the System 1 module of WinDes, and then exported into the Simulation module where the retention basins, cellular storage tanks, Hydrobrake flow controls, and loop are included.</p> <h3>3.0 DRAINAGE DESIGN RESULTS</h3> <p>The modelled site has a total drained area of circa 7.4ha.</p> <h4>3.1 Simulation 30yr storms</h4> <p>Microdrainage pages 1-14 model details of a 15 minute winter event. Microdrainage pages 15-40 indicate the results only for models of all 30 year design storms up to and including the critical 2880 minute event. The maximum predicted water level in Basin 4 is 70.060m AOD i.e. a depth of circa 800mm.</p> <p>With the exception of one very minor incidence of flooding (circa 1m<sup>3</sup>) in Unit D loading dock, no flooding is predicted to occur during 30 year storm events.</p> <h4>3.2 Simulation 100yr+30%CC storms</h4> <p>Microdrainage pages 41-68 indicate the results only for models of all 100 year +30%CC design storms up to and including the critical 2880 minute event. The maximum predicted water level in Basin 4 is 70.285m AOD i.e. a depth of circa 1050mm.</p> <p>During short duration high intensity 100 year +30%CC design storms (15 and 30min) surface flooding is predicted to occur within the loading docks of Units A and D, a small volume of circa 4m<sup>3</sup> in the access road, and circa 1m<sup>3</sup> behind Unit D. The water in the loading docks and the access road will temporarily stand until it drains away as the storm abates, and any surface water behind Unit D will naturally drain towards the lower loading dock without threatening the building floor.</p>



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Project  
**Plot 2, Skimmingdish Lane  
Bicester.**

Project No.  
**S1345**

Sheet No.  
**D-3**

Drawing No.

Rev.  
**1**

Section  
**Surface Water Drainage**

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Date  
**Nov 2017**

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Calculations

#### 4.0 Exceedance events

To safeguard the loading dock areas in Plot 2 from excessive flooding in the event of exceedance, it is proposed to fit a weir overflow wall within the Hydrobrake chamber at the end of Basin 4. The top of the weir wall will be 70.700 i.e. 100mm below dock level.

The water level in Langford Brook is predicted to rise to circa 69.750 in a 100year storm event; at this point the southern edge of the service yard to Plot 1, and Basin 4, will be submerged, such that any surplus floodwater will naturally return to the watercourse.

## BAILEY JOHNSON HAYES DRAWINGS

S1340-DD01 – Plot 3 Drained Areas

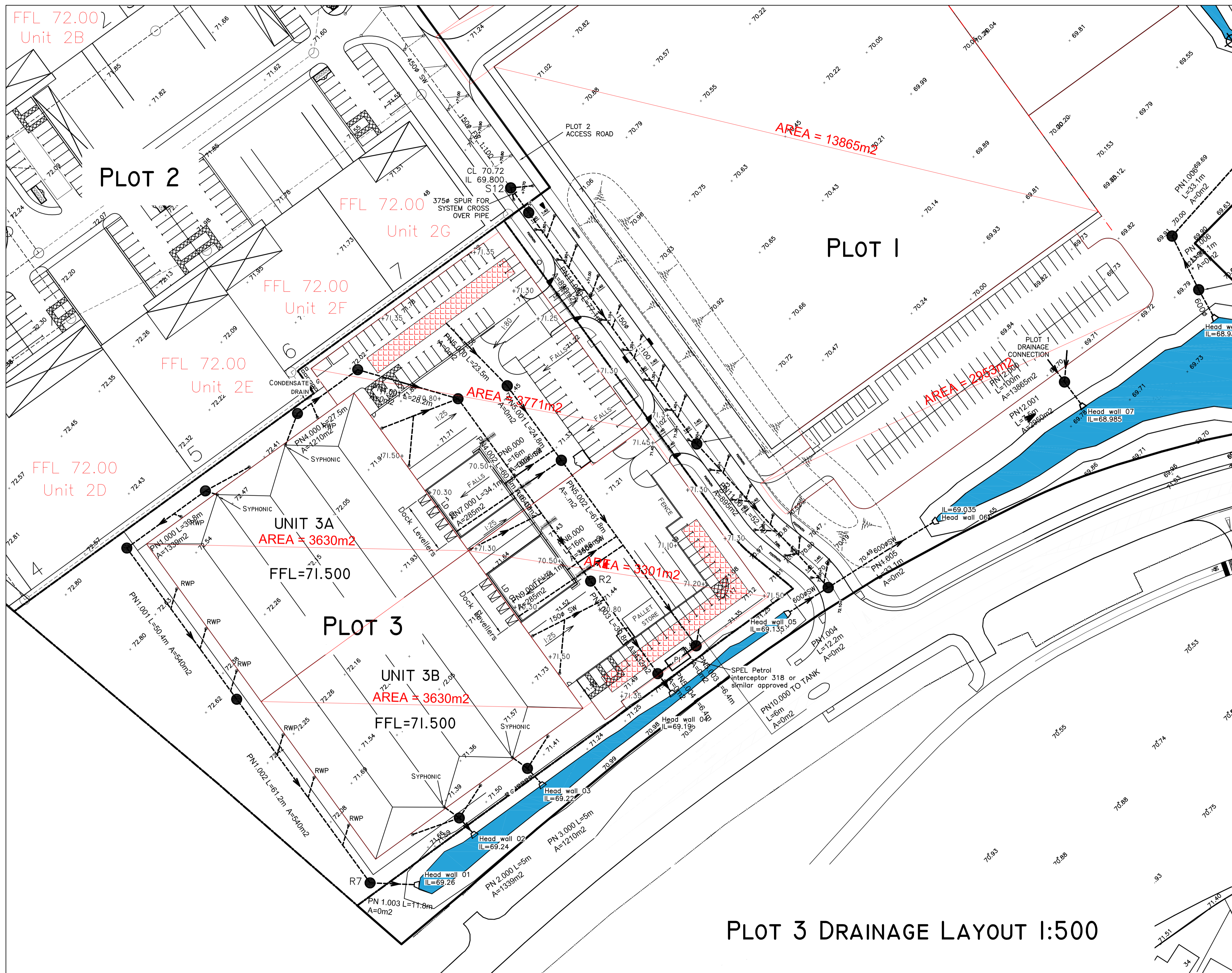
S1340-DD02 – Plot 3 Drainage Details

S1230-DD03 – Basins 1 & 2

S1345-DD01 – Plot 2 Drain Refs & Areas

S1345-DD02A – Plot 2 Drainage Layout

S1230-DD05 – Basin 4



Rev	Date	Revision Description

Revision Schedule

**INFORMATION**

**PLOT 3. Skimmingdish Lane.  
Link 9. Bicester.**

Client:-  
**ALBION LAND (2013) LTD.**

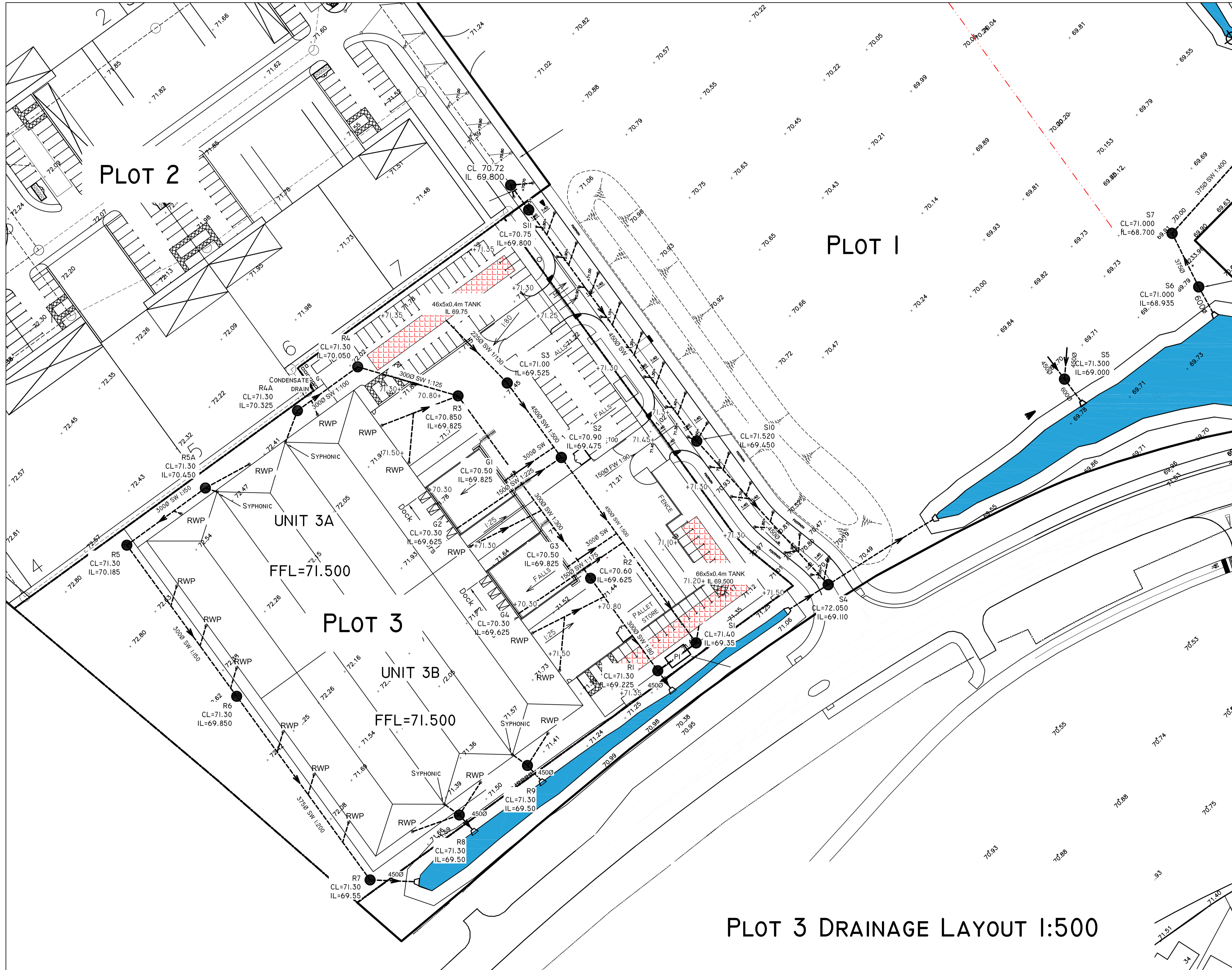
**Plot 3 - Drained Areas**

**BAILEY JOHNSON HAYES**  
Consulting Engineers

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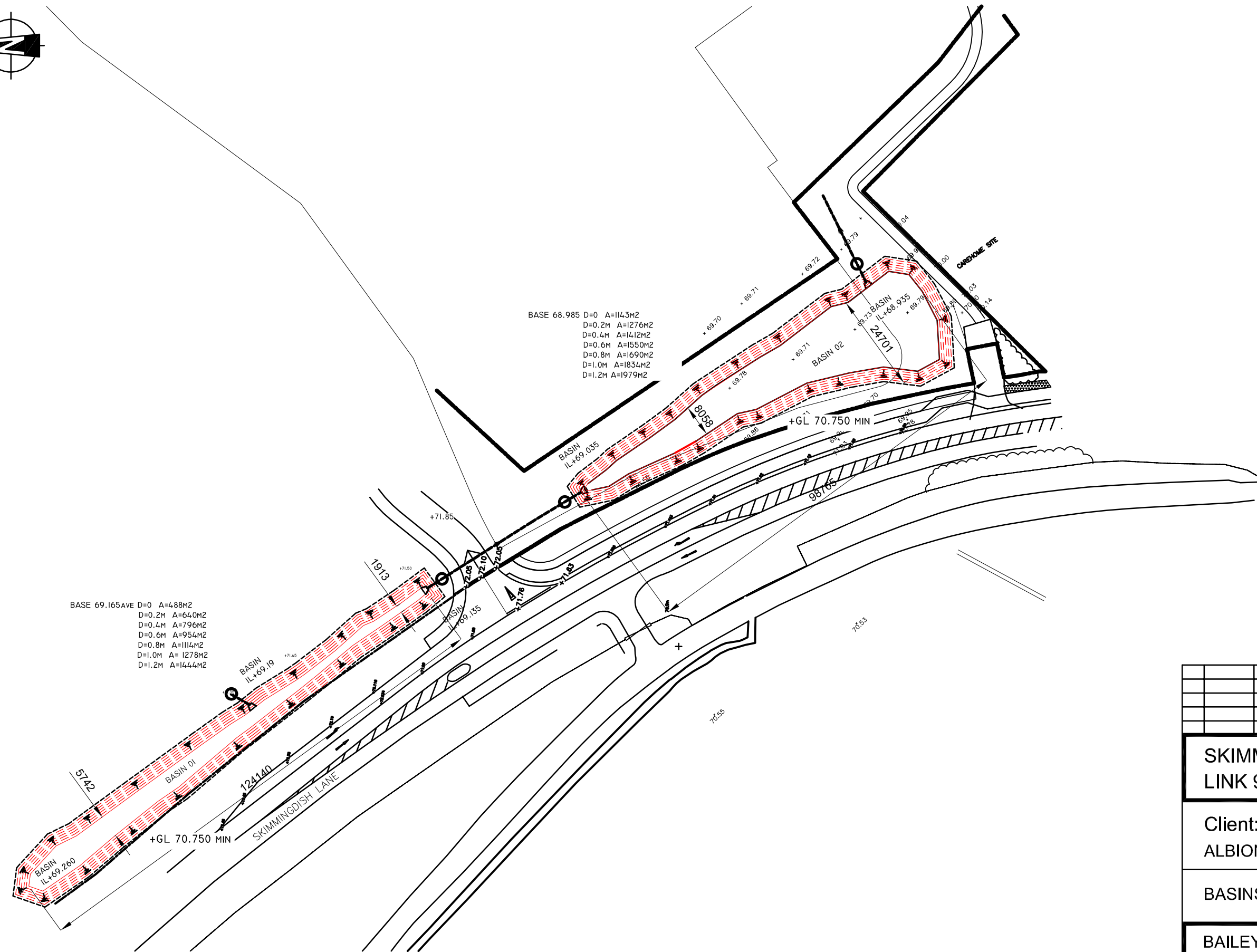
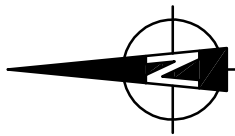
Scale	1:500 at A1	Project Ref.	S1340	Drawing No.	DD01	Rev.	.
Date	11.2017						
Drn	BJH	Chkd	BJH				

**PLOT 3 DRAINAGE LAYOUT 1:500**



**PLOT 3 DRAINAGE LAYOUT 1:500**

Rev	Date	Revision Description
Revision Schedule		
<b>INFORMATION</b>		
PLOT 3. Skimmingdish Lane. Link 9. Bicester.		
Client:- ALBION LAND (2013) LTD.		
Plot 3 - Drain Details		
<b>BAILEY JOHNSON HAYES</b> Consulting Engineers		
<small>MANCHESTER: Grange House, John Dalton Street. Tel 0161 279 7777 Fax 0161 236 3552 ST ALBANS: Phoenix House, 63 Campfield Road. Tel 01727 841172 Fax 01727 841085</small>		
Scale	1:500 at A1	Project Ref.
Date	00.00.00	S1340
Dm	BJH	Chkd BJH
Drawing No.	DD-02	Rev.



BASE 69.165 AVE D=0 A=4.88M<sup>2</sup>  
 D=0.2M A=64.0M<sup>2</sup>  
 D=0.4M A=79.6M<sup>2</sup>  
 D=0.6M A=95.4M<sup>2</sup>  
 D=0.8M A=111.4M<sup>2</sup>  
 D=1.0M A=127.8M<sup>2</sup>  
 D=1.2M A=144.4M<sup>2</sup>

BASE 68.985 D=0 A=114.3M<sup>2</sup>  
 D=0.2M A=127.6M<sup>2</sup>  
 D=0.4M A=141.2M<sup>2</sup>  
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 D=1.0M A=183.4M<sup>2</sup>  
 D=1.2M A=197.9M<sup>2</sup>

**SKIMMINGDISH LANE  
LINK 9 BICESTER**

**Client:**  
ALBION LAND (2013) LTD

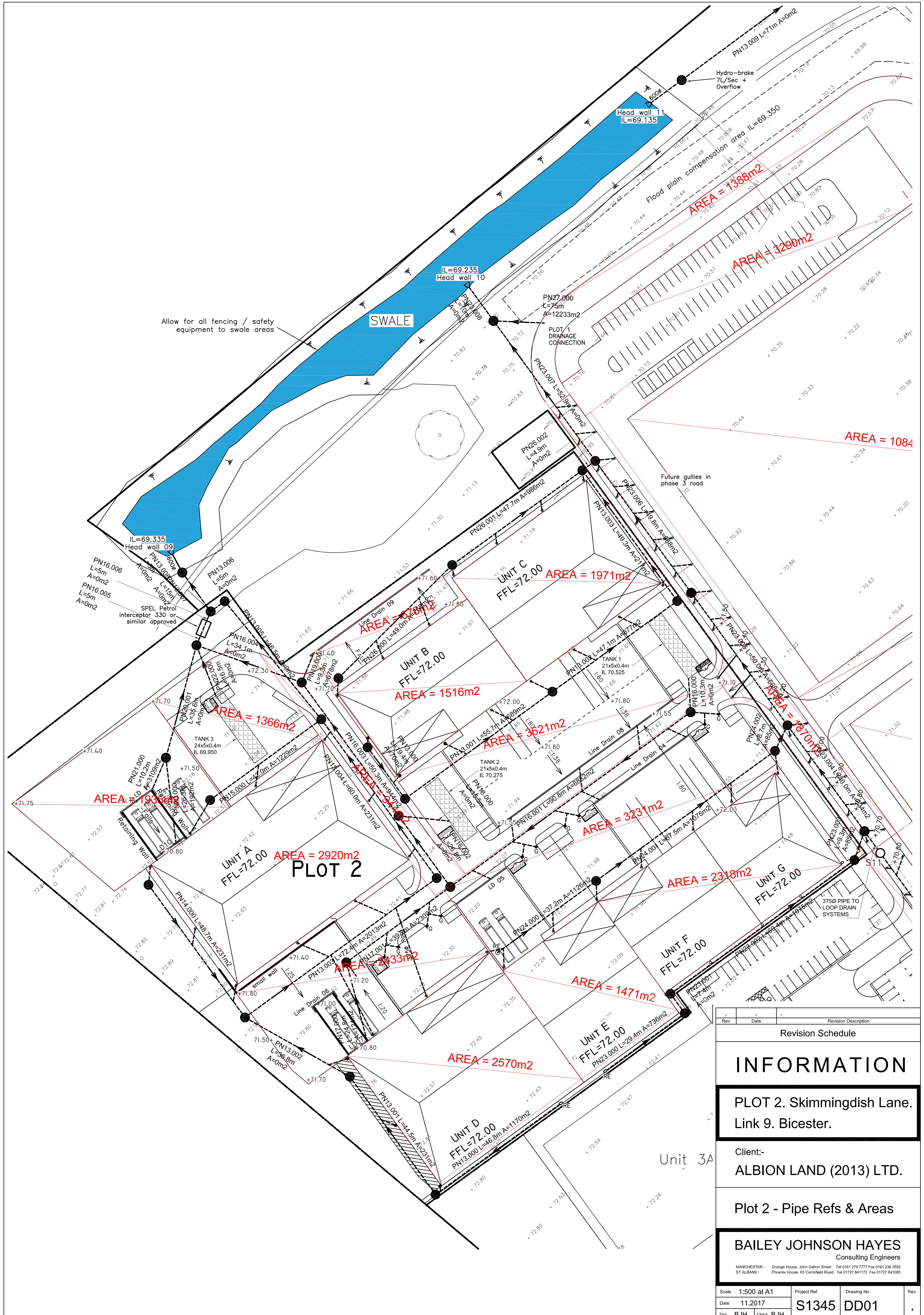
**BASINS 01 & 02 DETAILS**

**BAILEY JOHNSON HAYES**  
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Scale: 1:1000 at A3  
 Date: July 2017  
 Drawn:

**S1230-DD03**



Rev	Date	Revision Description
Revision Schedule		

## INFORMATION

**PLOT 2. Skimmingdish Lane.  
Link 9. Bicester.**

Client:-  
**ALBION LAND (2013) LTD.**

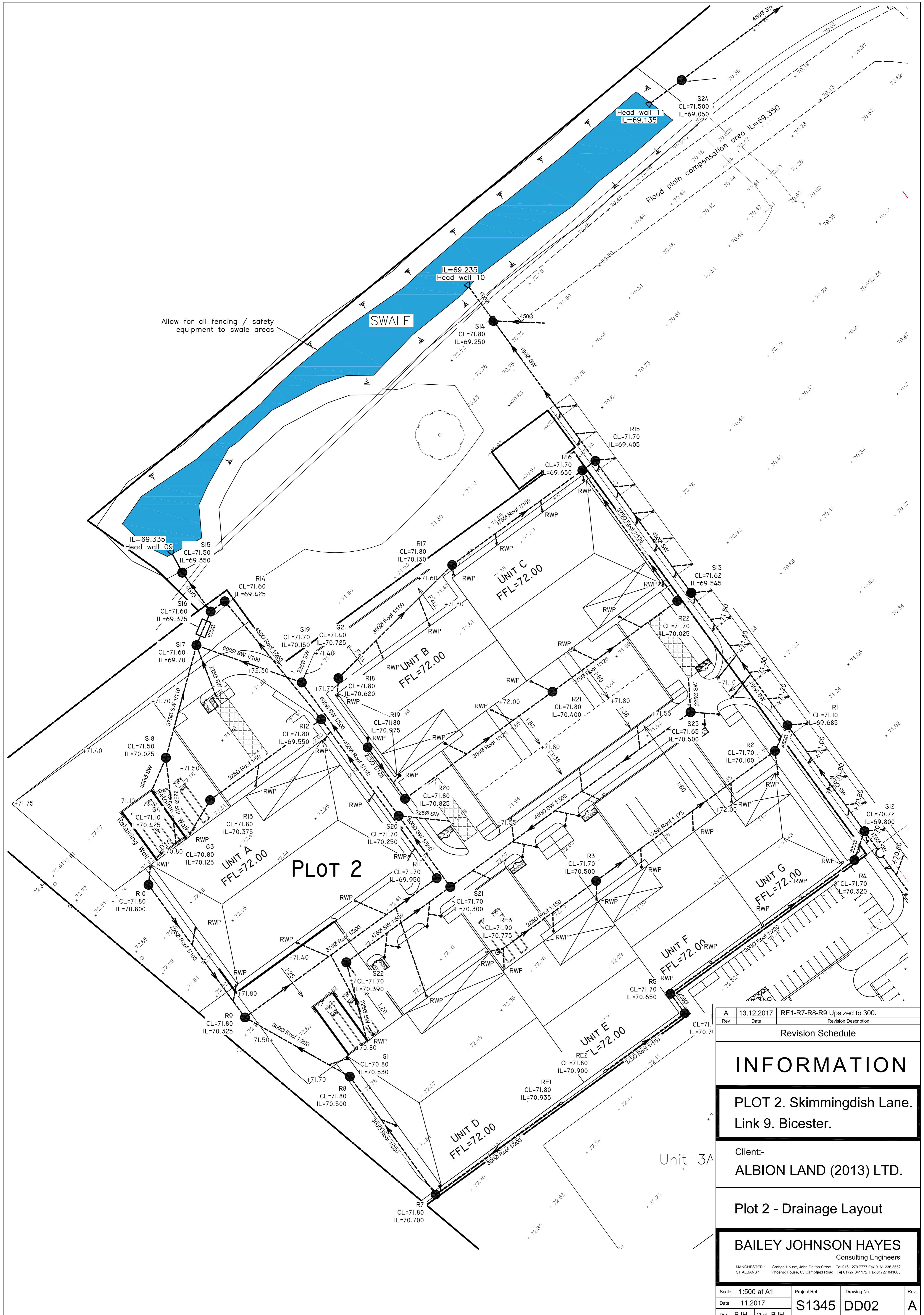
**Plot 2 - Pipe Refs & Areas**

**BAILEY JOHNSON HAYES**  
Consulting Engineers

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Scale	1:500 at A1	Project Ref.	S1345	Drawing No.	DD01	Rev.	.
Date	11.2017	Dr	BJH	Chkd	BJH		





Rev	Date	Revision Description
A	13.12.2017	RE1-R7-R8-R9 Upsized to 300.

## INFORMATION

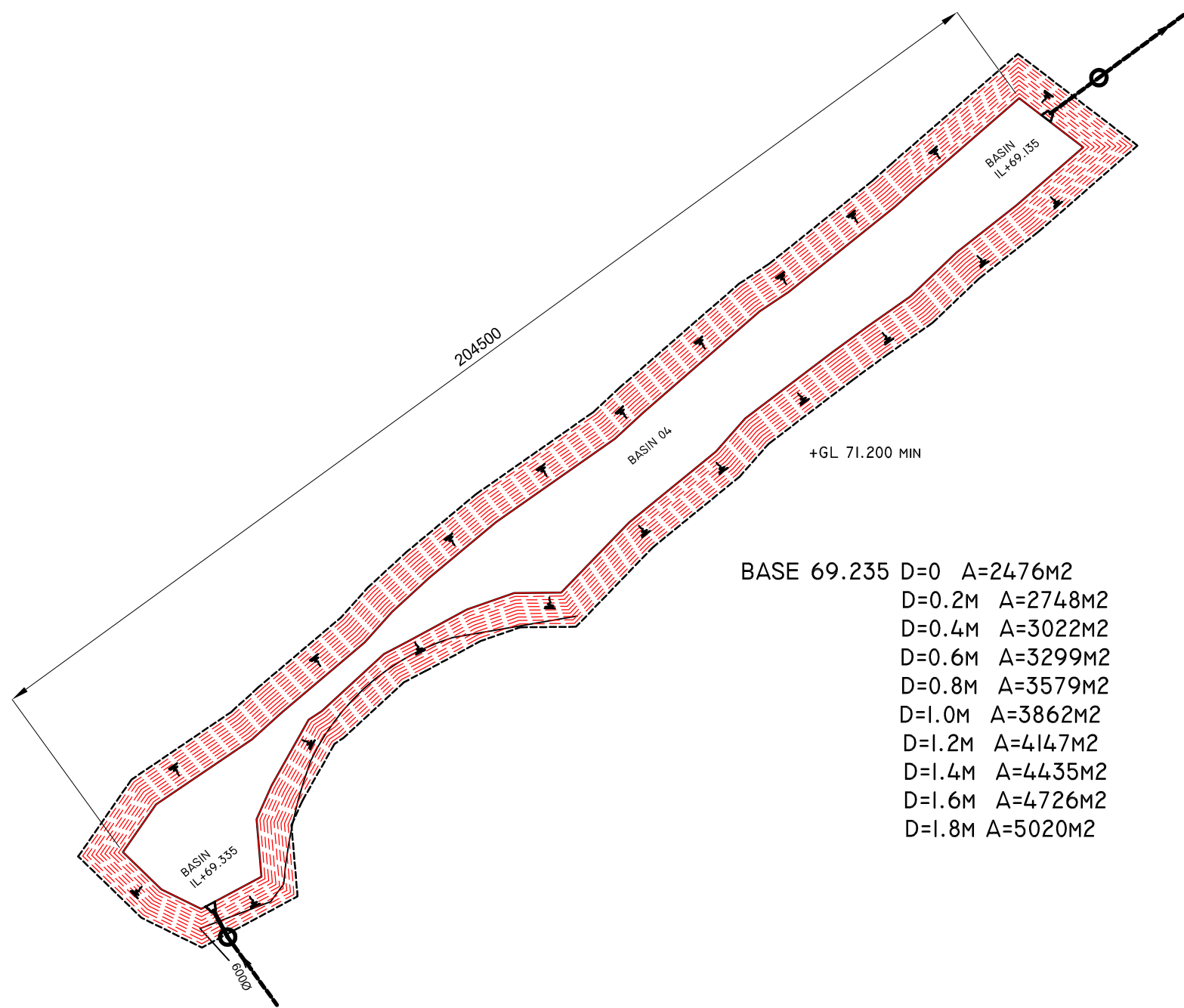
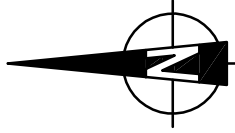
**PLOT 2. Skimmingdish Lane.  
Link 9. Bicester.**

Client:-  
**ALBION LAND (2013) LTD.**

**Plot 2 - Drainage Layout**

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Scale	1:500 at A1	Project Ref.	S1345	Drawing No.	DD02	Rev.	A
Date	11.2017	Drn	BJH	Chkd	BJH		




<b>SKIMMINGDISH LANE LINK 9 BICESTER</b>		
Client: ALBION LAND (2013) LTD		
BASIN 04 DETAILS		
<b>BAILEY JOHNSON HAYES</b> Consulting Engineers		
<small>MANCHESTER: Orange House, John Dalton St. Tel 0161 278 7777 Fax 0161 238 3382 ST ALBANS: Phoenix House, 83 Campfield Road. Tel 01727 841172 Fax 01727 841085</small>		
Scale	1:500 at A3	S1230-DD05
Date	July 2017	
Drawn		

## MICRODRAINAGE CALCULATIONS

Pages 1-40 – 30 year storms Simulation

Pages 41-68 – 100yr+30% storms Simulation


Bailey Johnson Hayes		Page 1
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 12:36 File 30yr 15 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Existing Network Details for Storm

\* - Indicates pipe has been modified outside of System 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
1.000	39.800	0.265	150.2	0.134	5.00	0.600	o	300	Pipe/Conduit
1.001	50.400	0.335	150.4	0.054	0.00	0.600	o	300	Pipe/Conduit
1.002	61.200	0.300	204.0	0.054	0.00	0.600	o	375	Pipe/Conduit
1.003	11.800	0.290	40.7	0.000	0.00	0.600	o	450	Pipe/Conduit
2.000	5.000	0.260	19.2	0.134	5.00	0.600	o	450	Pipe/Conduit
3.000	5.000	0.280	17.9	0.121	5.00	0.600	o	450	Pipe/Conduit
4.000	27.500	0.275	100.0	0.121	5.00	0.600	o	300	Pipe/Conduit
4.001	28.200	0.225	125.3	0.000	0.00	0.600	o	300	Pipe/Conduit
4.002	60.200	0.200	301.0	0.065	0.00	0.600	o	300	Pipe/Conduit
4.003	30.800	0.400	77.0	0.043	0.00	0.600	o	300	Pipe/Conduit
5.000	23.500	0.225	104.4	0.000	5.00	0.600	o	225	Pipe/Conduit
5.001	24.800	0.050	496.0	0.000	0.00	0.600	o	450	Pipe/Conduit
6.000	16.000	0.350	45.7	0.349	5.00	0.600	o	300	Pipe/Conduit
7.000	34.100	0.150	227.3	0.029	5.00	0.600	o	150	Pipe/Conduit


PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
1.000	R5A	71.300	70.450	0.550	71.300	70.185	0.815		1200
1.001	R5	71.300	70.185	0.815	71.300	69.850	1.150		1200
1.002	R6	71.300	69.850	1.075	71.300	69.550	1.375		1350
1.003	R7	71.300	69.550	1.300	71.500	69.260	1.790		1350
2.000	R8	71.300	69.500	1.350	71.500	69.240	1.810		1350
3.000	R9	71.300	69.500	1.350	71.500	69.220	1.830		1350
4.000	R4A	71.300	70.325	0.675	71.300	70.050	0.950		1200
4.001	R4	71.300	70.050	0.950	71.000	69.825	0.875		1200
4.002	R3	71.000	69.825	0.875	70.600	69.625	0.675		1200
4.003	R2	70.600	69.625	0.675	71.300	69.225	1.775		1200
5.000	Tank 1	71.300	69.750	1.325	71.000	69.525	1.250		1200
5.001	S3	71.000	69.525	1.025	70.900	69.475	0.975		1350
6.000	G1	70.500	69.825	0.375	70.900	69.475	1.125		1200
7.000	G2	70.300	69.625	0.525	70.900	69.475	1.275		1200

Bailey Johnson Hayes		Page 2
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 12:36 File 30yr 15 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
8.000	16.000	0.350	45.7	0.300	5.00	0.600	o	300	Pipe/Conduit
9.000	34.100	0.150	227.3	0.029	5.00	0.600	o	150	Pipe/Conduit
5.002	61.800	0.125	494.4	0.000	0.00	0.600	o	450	Pipe/Conduit
10.000	10.000	0.150	66.7	0.000	5.00	0.600	o	225	Pipe/Conduit
5.003	4.500	0.012	375.0	0.000	0.00	0.600	o	450	Pipe/Conduit
5.004	4.500	0.013	346.2	0.000	0.00	0.600	o	450	Pipe/Conduit
4.004	5.000	0.035	142.9	0.000	0.00	0.600	o	450	Pipe/Conduit
1.004	12.200	0.025	488.0	0.000	0.00	0.600	o	600	Pipe/Conduit
11.000	77.100	0.350	220.3	0.090	5.00	0.600	o	450	Pipe/Conduit
11.001	52.100	0.340	153.2	0.090	0.00	0.600	o	450	Pipe/Conduit
1.005	33.100	0.075	441.3	0.000	0.00	0.600	o	600	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
8.000	G3	70.500	69.825	0.375	70.900	69.475	1.125		1200
9.000	G4	70.300	69.625	0.525	70.900	69.475	1.275		1200
5.002	S2	70.900	69.475	0.975	71.400	69.350	1.600		1350
10.000	Tank 2	71.200	69.500	1.475	71.400	69.350	1.825		1200
5.003	S1	71.400	69.350	1.600	71.400	69.338	1.612		1350
5.004	Interceptor	71.400	69.338	1.512	71.300	69.325	1.425		1350
4.004	R1	71.300	69.225	1.625	71.500	69.190	1.860		1350
1.004	HW05	71.500	69.190	1.710	72.050	69.165	2.285		1500
11.000	S11	70.750	69.800	0.500	71.520	69.450	1.620		1350
11.001	S10	71.520	69.450	1.620	72.050	69.110	2.490		1350
1.005	S4	72.050	69.110	2.340	71.000	69.035	1.365		1500

Bailey Johnson Hayes		Page 3
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 12:36 File 30yr 15 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
12.000	100.000	0.500	200.0	1.387	5.00	0.600	o	600	Pipe/Conduit
12.001	7.500	0.015	500.0	0.295	0.00	0.600	o	600	Pipe/Conduit
1.006	24.100	0.235	102.6	0.000	0.00	0.600	o	375	Pipe/Conduit
* 13.000	46.800	0.235	199.1	0.117	5.00	0.600	o	300	Pipe/Conduit
* 13.001	44.500	0.200	222.5	0.023	0.00	0.600	o	300	Pipe/Conduit
* 13.002	36.800	0.175	210.3	0.000	0.00	0.600	o	300	Pipe/Conduit
14.000	48.700	0.475	102.5	0.023	5.00	0.600	o	225	Pipe/Conduit
13.003	72.400	0.375	193.1	0.201	0.00	0.600	o	375	Pipe/Conduit
13.004	60.000	0.400	150.0	0.023	0.00	0.600	o	450	Pipe/Conduit
15.000	42.000	0.825	50.9	0.123	5.00	0.600	o	225	Pipe/Conduit
13.005	46.500	0.125	372.0	0.000	0.00	0.600	o	450	Pipe/Conduit
13.006	5.000	0.050	100.0	0.000	0.00	0.600	o	450	Pipe/Conduit
16.000	10.300	0.025	412.0	0.000	5.00	0.600	o	225	Pipe/Conduit
16.001	90.800	0.200	454.0	0.685	0.00	0.600	o	450	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
12.000	UNIT1	70.700	69.500	0.600	71.300	69.000	1.700		1500
12.001	S5	71.300	69.000	1.700	71.000	68.985	1.415		1500
1.006	HW08	71.000	68.985	1.640	71.000	68.750	1.875	Hydro-Brake®	1500
* 13.000	RE2.1	71.800	70.935	0.565	71.800	70.700	0.800		1200
* 13.001	R2.7	71.800	70.700	0.800	71.800	70.500	1.000		1200
* 13.002	R2.8	71.800	70.500	1.000	71.800	70.325	1.175		1200
14.000	R2.10	71.800	70.800	0.775	71.800	70.325	1.250		1200
13.003	R2.9	71.800	70.325	1.100	71.700	69.950	1.375		1350
13.004	R2.11	71.700	69.950	1.300	71.800	69.550	1.800		1350
15.000	R2.13	71.800	70.375	1.200	71.800	69.550	2.025		1200
13.005	R2.12	71.800	69.550	1.800	71.600	69.425	1.725		1350
13.006	R2.14	71.600	69.425	1.725	71.600	69.375	1.775		1350
16.000	Tank 2.1	71.700	70.525	0.950	71.620	70.500	0.895		1200
16.001	S2.23	71.620	70.500	0.670	71.700	70.300	0.950		1350

Grange House  
 John Dalton St  
 Manchester M2 6FW

Plots 2 and 3  
 Skimmingdish Lane  
 Bicester



Date 13/12/2017 12:36  
 File 30yr 15 min winter.mdx

Designed by P.A.B.  
 Checked by

Micro Drainage Network 2017.1

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
17.000	24.800	0.140	177.1	0.012	5.00	0.600	o	150	Pipe/Conduit
17.001	39.200	0.090	435.6	0.231	0.00	0.600	o	375	Pipe/Conduit
16.002	26.800	0.050	536.0	0.000	0.00	0.600	o	600	Pipe/Conduit
18.000	15.500	0.025	620.0	0.000	5.00	0.600	o	225	Pipe/Conduit
16.003	50.300	0.100	503.0	0.094	0.00	0.600	o	600	Pipe/Conduit
19.000	9.300	0.575	16.2	0.068	5.00	0.600	o	225	Pipe/Conduit
16.004	34.100	0.450	75.8	0.000	0.00	0.600	o	600	Pipe/Conduit
20.000	26.300	0.100	263.0	0.019	5.00	0.600	o	225	Pipe/Conduit
21.000	10.200	0.400	25.5	0.311	5.00	0.600	o	300	Pipe/Conduit
20.001	35.600	0.325	109.5	0.000	0.00	0.600	o	375	Pipe/Conduit
22.000	16.500	0.250	66.0	0.000	5.00	0.600	o	225	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
17.000	G2.1	70.800	70.530	0.120	71.700	70.390	1.160		1200
17.001	S2.22	71.700	70.390	0.935	71.700	70.300	1.025		1350
16.002	S2.21	71.700	70.300	0.800	71.700	70.250	0.850		1500
18.000	Tank 2.2	71.700	70.275	1.200	71.700	70.250	1.225		1200
16.003	S2.20	71.700	70.250	0.850	71.700	70.150	0.950		1500
19.000	G2.2	71.400	70.725	0.450	71.700	70.150	1.325		1200
16.004	S2.19	71.700	70.150	0.950	71.600	69.700	1.300		1500
20.000	G2.3	70.800	70.125	0.450	71.500	70.025	1.250		1200
21.000	G2.4	71.100	70.425	0.375	71.500	70.025	1.175		1200
20.001	S2.18	71.500	70.025	1.100	71.600	69.700	1.525		1350
22.000	Tank 2.3	71.700	69.950	1.525	71.600	69.700	1.675		1200

Grange House  
 John Dalton St  
 Manchester M2 6FW

Plots 2 and 3  
 Skimmingdish Lane  
 Bicester



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Micro Drainage Network 2017.1

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
16.005	5.000	0.112	44.6	0.000	0.00	0.600	o	600	Pipe/Conduit
16.006	5.000	0.113	44.2	0.000	0.00	0.600	o	600	Pipe/Conduit
13.007	15.000	0.025	600.0	0.000	0.00	0.600	o	600	Pipe/Conduit
13.008	5.000	0.015	333.3	0.000	0.00	0.600	o	600	Pipe/Conduit
23.000	29.400	0.200	147.0	0.074	5.00	0.600	o	225	Pipe/Conduit
23.001	7.400	0.050	148.0	0.000	0.00	0.600	o	225	Pipe/Conduit
23.002	69.400	0.330	210.3	0.108	0.00	0.600	o	300	Pipe/Conduit
23.003	9.300	0.520	17.9	0.009	0.00	0.600	o	300	Pipe/Conduit
23.004	40.000	0.115	347.8	0.053	0.00	0.600	o	450	Pipe/Conduit
24.000	37.200	0.275	135.3	0.113	5.00	0.600	o	225	Pipe/Conduit
24.001	67.500	0.400	168.8	0.108	0.00	0.600	o	375	Pipe/Conduit
24.002	8.700	0.415	21.0	0.009	0.00	0.600	o	450	Pipe/Conduit
23.005	50.000	0.140	357.1	0.067	0.00	0.600	o	450	Pipe/Conduit
23.006	49.800	0.140	355.7	0.067	0.00	0.600	o	450	Pipe/Conduit
25.000	19.400	0.150	129.3	0.007	5.00	0.600	o	225	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
16.005	s2.17	71.600	69.700	1.300	71.600	69.588	1.412		1500
16.006	Interceptor	71.600	69.488	1.412	71.600	69.375	1.525		1500
13.007	S2.16	71.600	69.375	1.625	71.500	69.350	1.550		1500
13.008	S2.15	71.500	69.350	1.550	71.500	69.335	1.565		1500
23.000	RE2.2	71.700	70.900	0.575	71.700	70.700	0.775		1200
23.001	R2.6	71.700	70.700	0.775	71.700	70.650	0.825		1200
23.002	R2.5	71.700	70.650	0.750	71.700	70.320	1.080		1200
23.003	R2.4	71.700	70.320	1.080	70.720	69.800	0.620		1200
23.004	S2.12	70.720	69.800	0.470	71.100	69.685	0.965		1350
24.000	RE2.3	71.900	70.775	0.900	71.700	70.500	0.975		1200
24.001	R2.3	71.700	70.500	0.825	71.700	70.100	1.225		1350
24.002	R2.2	71.700	70.100	1.150	71.100	69.685	0.965		1350
23.005	R2.1	71.100	69.685	0.965	71.620	69.545	1.625		1350
23.006	S2.13	71.620	69.545	1.625	71.700	69.405	1.845		1350
25.000	R2.19	71.800	70.975	0.600	71.800	70.825	0.750		1200



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Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
25.001	55.700	0.425	131.1	0.070	0.00	0.600	o	300	Pipe/Conduit
25.002	47.100	0.375	125.6	0.088	0.00	0.600	o	375	Pipe/Conduit
25.003	49.300	0.375	131.5	0.022	0.00	0.600	o	375	Pipe/Conduit
26.000	49.000	0.490	100.0	0.076	5.00	0.600	o	300	Pipe/Conduit
26.001	47.700	0.480	99.4	0.099	0.00	0.600	o	375	Pipe/Conduit
26.002	4.900	0.245	20.0	0.000	0.00	0.600	o	375	Pipe/Conduit
23.007	52.900	0.155	341.3	0.000	0.00	0.600	o	450	Pipe/Conduit
27.000	75.000	0.750	100.0	1.223	5.00	0.600	o	450	Pipe/Conduit
23.008	10.000	0.015	666.7	0.000	0.00	0.600	o	600	Pipe/Conduit
13.009	71.000	0.150	473.3	0.000	0.00	0.600	o	450	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
25.001	R2.20	71.800	70.825	0.675	71.800	70.400	1.100		1200
25.002	R2.21	71.800	70.400	1.025	71.700	70.025	1.300		1350
25.003	R2.22	71.700	70.025	1.300	71.700	69.650	1.675		1350
26.000	R2.18	71.800	70.620	0.880	71.800	70.130	1.370		1200
26.001	R2.17	71.800	70.130	1.295	71.700	69.650	1.675		1350
26.002	R2.16	71.700	69.650	1.675	71.700	69.405	1.920		1350
23.007	R2.15	71.700	69.405	1.845	71.800	69.250	2.100		1350
27.000	Plot 1	70.800	70.000	0.350	71.800	69.250	2.100		1350
23.008	S2.14	71.800	69.250	1.950	71.500	69.235	1.665		1500
13.009	S2.24	71.500	69.135	1.915	71.500	68.985	2.065	Hydro-Brake®	1500

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)
1.006	Phase 1	71.000	68.750	0.000	0	0

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Free Flowing Outfall Details for Storm

<b>Outfall Pipe Number</b>	<b>Outfall Name</b>	<b>C. Level (m)</b>	<b>I. Level (m)</b>	<b>Min I. Level (m)</b>	<b>D,L (mm)</b>	<b>W (mm)</b>
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13.009	Phase 2	71.500	68.985	0.000	0	0
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Simulation Criteria for Storm

Volumetric Runoff Coeff	0.840	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m <sup>3</sup> /ha Storage	2.000
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	8
Number of Online Controls	2	Number of Time/Area Diagrams	0
Number of Offline Controls	1	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FEH
Return Period (years)	30
FEH Rainfall Version	1999
Site Location	460200 223700 SP 60200 23700
C (1km)	-0.022
D1 (1km)	0.324
D2 (1km)	0.320
D3 (1km)	0.244
E (1km)	0.290
F (1km)	2.477
Summer Storms	No
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Storm Duration (mins)	15

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: HW08, DS/PN: 1.006, Volume (m³): 14.2

Unit Reference	MD-SHE-0096-4000-0900-4000
Design Head (m)	0.900
Design Flow (l/s)	4.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	96
Invert Level (m)	68.985
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200


Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.900	4.0
Flush-Flo™	0.266	4.0
Kick-Flo®	0.578	3.3
Mean Flow over Head Range	-	3.5

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	3.1	1.200	4.6	3.000	7.0	7.000	10.5
0.200	3.9	1.400	4.9	3.500	7.5	7.500	10.8
0.300	4.0	1.600	5.2	4.000	8.0	8.000	11.2
0.400	3.9	1.800	5.5	4.500	8.5	8.500	11.5
0.500	3.7	2.000	5.8	5.000	8.9	9.000	11.8
0.600	3.3	2.200	6.1	5.500	9.3	9.500	12.1
0.800	3.8	2.400	6.3	6.000	9.7		
1.000	4.2	2.600	6.6	6.500	10.1		

Hydro-Brake® Optimum Manhole: S2.24, DS/PN: 13.009, Volume (m³): 7.6

Unit Reference	MD-SHE-0112-7000-1800-7000
Design Head (m)	1.800
Design Flow (l/s)	7.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	112
Invert Level (m)	69.135
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200


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Hydro-Brake® Optimum Manhole: S2.24, DS/PN: 13.009, Volume (m³): 7.6

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.800	7.0
Flush-Flo™	0.487	6.7
Kick-Flo®	0.996	5.3
Mean Flow over Head Range	-	6.0

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	3.9	1.200	5.8	3.000	8.9	7.000	13.3
0.200	5.9	1.400	6.2	3.500	9.6	7.500	13.7
0.300	6.4	1.600	6.6	4.000	10.2	8.000	14.2
0.400	6.6	1.800	7.0	4.500	10.8	8.500	14.6
0.500	6.7	2.000	7.3	5.000	11.3	9.000	15.0
0.600	6.6	2.200	7.7	5.500	11.9	9.500	15.4
0.800	6.3	2.400	8.0	6.000	12.4		
1.000	5.3	2.600	8.3	6.500	12.8		

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Offline Controls for Storm

Pipe Manhole: S2.12, DS/PN: 23.004, Loop to PN: 11.000

Diameter (m)	0.375	Roughness k (mm)	0.600
Section Type	Pipe/Conduit	Entry Loss Coefficient	0.500
Slope (1:X)	10000.0	Coefficient of Contraction	0.600
Length (m)	5.000	Upstream Invert Level (m)	69.800

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Storage Structures for Storm

Cellular Storage Manhole: Tank 1, DS/PN: 5.000

Invert Level (m) 69.750 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 <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	230.0	230.0	0.401	0.0	270.8
0.400	230.0	270.8			

Cellular Storage Manhole: Tank 2, DS/PN: 10.000

Invert Level (m) 69.500 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 <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	330.0	330.0	0.401	0.0	386.8
0.400	330.0	386.8			

Tank or Pond Manhole: HW05, DS/PN: 1.004

Invert Level (m) 69.190

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	488.0	0.400	796.0	0.800	1114.0	1.200	1444.0
0.200	640.0	0.600	954.0	1.000	1278.0		

Tank or Pond Manhole: HW08, DS/PN: 1.006


Invert Level (m) 68.985

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	1143.0	0.400	1412.0	0.800	1690.0	1.200	1979.0
0.200	1276.0	0.600	1550.0	1.000	1834.0		

Cellular Storage Manhole: Tank 2.1, DS/PN: 16.000

Invert Level (m) 70.525 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 <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	105.0	105.0	0.401	0.0	125.8
0.400	105.0	125.8			

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Cellular Storage Manhole: Tank 2.2 , DS/PN: 18.000

Invert Level (m) 70.275 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 <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	105.0	105.0	0.401	0.0	125.8
0.400	105.0	125.8			

Cellular Storage Manhole: Tank 2.3, DS/PN: 22.000


Invert Level (m) 69.950 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 <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	120.0	120.0	0.401	0.0	143.2
0.400	120.0	143.2			

Tank or Pond Manhole: S2.24, DS/PN: 13.009

Invert Level (m) 69.235

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	2476.0	0.600	3299.0	1.200	4147.0	1.800	5020.0
0.200	2748.0	0.800	3579.0	1.400	4435.0		
0.400	3022.0	1.000	3862.0	1.600	4726.0		


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Summary of Results for 15 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.627	-0.123	0.000	0.63	53.1	OK
1.001	R5	70.405	-0.080	0.000	0.86	73.0	OK
1.002	R6	70.084	-0.141	0.000	0.69	89.7	OK
1.003	R7	69.716	-0.284	0.000	0.30	89.6	OK
2.000	R8	69.632	-0.318	0.000	0.19	54.1	OK
3.000	R9	69.622	-0.328	0.000	0.16	48.9	OK
4.000	R4A	70.474	-0.151	0.000	0.48	48.1	OK
4.001	R4	70.236	-0.114	0.000	0.52	46.6	OK
4.002	R3	70.176	0.051	0.000	1.09	66.1	SURCHARGED
4.003	R2	69.925	0.000	0.000	0.61	70.3	SURCHARGED
5.000	Tank 1	69.799	-0.176	0.000	0.10	4.7	OK
5.001	S3	70.112	0.137	0.000	0.06	7.8	SURCHARGED
6.000	G1	70.424	0.299	0.000	0.87	121.6	FLOOD RISK
7.000	G2	70.255	0.480	0.000	0.84	9.5	FLOOD RISK
8.000	G3	70.357	0.232	0.000	0.75	105.0	FLOOD RISK
9.000	G4	70.255	0.480	0.000	0.84	9.5	FLOOD RISK
5.002	S2	70.147	0.222	0.000	1.51	201.3	SURCHARGED
10.000	Tank 2	69.558	-0.167	0.000	0.14	7.2	OK
5.003	S1	69.843	0.043	0.000	1.31	153.4	SURCHARGED
5.004	Interceptor	69.808	0.020	0.000	1.31	153.5	SURCHARGED
4.004	R1	69.775	0.100	0.000	1.46	222.4	SURCHARGED
1.004	HW05	69.520	-0.270	0.000	0.58	94.7	OK
11.000	S11	70.138	-0.112	0.000	0.84	171.6	OK
11.001	S10	69.755	-0.145	0.000	0.77	184.2	OK
1.005	S4	69.472	-0.238	0.000	0.67	180.3	OK
12.000	UNIT1	70.508	0.408	0.000	1.07	485.0	FLOOD RISK
12.001	S5	69.884	0.284	0.000	3.14	569.5	SURCHARGED
1.006	HW08	69.388	0.028	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	71.111	-0.124	0.000	0.62	46.0	OK
13.001	R2.7	70.901	-0.099	0.000	0.76	53.0	OK
13.002	R2.8	70.708	-0.092	0.000	0.73	51.8	OK
14.000	R2.10	70.866	-0.159	0.000	0.18	9.1	OK
13.003	R2.9	70.618	-0.082	0.000	0.90	122.2	OK
13.004	R2.11	70.424	0.024	0.000	0.44	106.8	SURCHARGED
15.000	R2.13	70.562	-0.038	0.000	0.70	48.5	OK
13.005	R2.12	70.347	0.347	0.000	0.88	132.5	SURCHARGED
13.006	R2.14	70.247	0.372	0.000	0.78	132.4	SURCHARGED
16.000	Tank 2.1	70.792	0.042	0.000	1.51	27.4	SURCHARGED
16.001	S2.23	71.002	0.052	0.000	1.05	149.2	SURCHARGED
17.000	G2.1	70.801	0.121	1.094	0.75	9.5	FLOOD
17.001	S2.22	70.841	0.076	0.000	1.06	91.7	SURCHARGED
16.002	S2.21	70.762	-0.138	0.000	0.94	222.1	OK
18.000	Tank 2.2	70.490	-0.010	0.000	0.97	12.9	OK



Bailey Johnson Hayes		Page 14
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 12:36 File 30yr 15 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 15 minute 30 year Winter (Storm)

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
16.003	S2.20	70.641	-0.209	0.000	0.73	195.0	OK
19.000	G2.2	70.803	-0.147	0.000	0.26	27.4	OK
16.004	S2.19	70.387	-0.363	0.000	0.32	210.2	OK
20.000	G2.3	70.396	0.046	0.000	0.23	6.7	SURCHARGED
21.000	G2.4	70.630	-0.095	0.000	0.79	124.5	OK
20.001	S2.18	70.384	-0.016	0.000	0.74	126.7	OK
22.000	Tank 2.3	70.033	-0.142	0.000	0.19	10.6	OK
16.005	s2.17	70.279	-0.021	0.000	0.78	270.4	OK
16.006	Interceptor	70.250	0.162	0.000	0.78	270.2	SURCHARGED
13.007	S2.16	70.220	0.245	0.000	2.85	396.1	SURCHARGED
13.008	S2.15	70.063	0.113	0.000	1.84	396.7	SURCHARGED
23.000	RE2.2	71.047	-0.078	0.000	0.74	29.4	OK
23.001	R2.6	70.931	0.006	0.000	0.97	30.4	SURCHARGED
23.002	R2.5	70.896	-0.054	0.000	0.94	68.4	OK
23.003	R2.4	70.452	-0.168	0.000	0.39	71.0	OK
23.004	S2.12	70.312	0.062	0.000	0.35	152.4	53.2 SURCHARGED
24.000	RE2.3	71.027	0.027	0.000	1.04	43.9	SURCHARGED
24.001	R2.3	70.713	-0.162	0.000	0.58	84.8	OK
24.002	R2.2	70.401	-0.149	0.000	0.24	85.9	OK
23.005	R2.1	70.382	0.247	0.000	0.63	97.0	SURCHARGED
23.006	S2.13	70.355	0.360	0.000	0.67	104.1	SURCHARGED
25.000	R2.19	71.014	-0.186	0.000	0.07	2.8	OK
25.001	R2.20	70.949	-0.176	0.000	0.34	31.6	OK
25.002	R2.21	70.571	-0.204	0.000	0.41	67.3	OK
25.003	R2.22	70.370	-0.030	0.000	0.42	67.5	OK
26.000	R2.18	70.731	-0.189	0.000	0.29	30.1	OK
26.001	R2.17	70.370	-0.135	0.000	0.38	69.9	OK
26.002	R2.16	70.322	0.297	0.000	0.29	56.0	SURCHARGED
23.007	R2.15	70.309	0.454	0.000	1.25	198.5	SURCHARGED
27.000	Plot 1	70.824	0.374	24.395	1.03	312.3	FLOOD
23.008	S2.14	70.060	0.210	0.000	3.39	505.3	SURCHARGED
13.009	S2.24	69.495	-0.090	0.000	0.05	6.6	OK

Grange House  
 John Dalton St  
 Manchester M2 6FW

Plots 2 and 3  
 Skimmingdish Lane  
 Bicester



Date 13/12/2017  
 File 30yr 30 min winter.mdx


Designed by P.A.B.  
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Micro Drainage Network 2017.1

Summary of Results for 30 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Flow / Cap.	Overflow (l/s)	Pipe	Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )			Flow (l/s)	
1.000	R5A	70.592	-0.158	0.000	0.45	38.2	OK	
1.001	R5	70.358	-0.127	0.000	0.62	53.0	OK	
1.002	R6	70.042	-0.183	0.000	0.51	66.5	OK	
1.003	R7	69.693	-0.307	0.000	0.22	66.6	OK	
2.000	R8	69.609	-0.341	0.000	0.13	38.5	OK	
3.000	R9	69.602	-0.348	0.000	0.12	34.7	OK	
4.000	R4A	70.447	-0.178	0.000	0.35	34.7	OK	
4.001	R4	70.179	-0.171	0.000	0.38	34.4	OK	
4.002	R3	70.043	-0.082	0.000	0.84	51.1	OK	
4.003	R2	69.835	-0.090	0.000	0.51	58.6	OK	
5.000	Tank 1	69.773	-0.202	0.000	0.02	1.0	OK	
5.001	S3	70.006	0.031	0.000	0.03	3.2	SURCHARGED	
6.000	G1	70.174	0.049	0.000	0.66	91.6	SURCHARGED	
7.000	G2	70.085	0.310	0.000	0.65	7.4	FLOOD RISK	
8.000	G3	70.134	0.009	0.000	0.57	78.9	SURCHARGED	
9.000	G4	70.085	0.310	0.000	0.65	7.4	FLOOD RISK	
5.002	S2	70.019	0.094	0.000	1.26	168.3	SURCHARGED	
10.000	Tank 2	69.555	-0.170	0.000	0.11	6.0	OK	
5.003	S1	69.813	0.013	0.000	1.11	130.4	SURCHARGED	
5.004	Interceptor	69.788	0.000	0.000	1.11	130.2	OK	
4.004	R1	69.731	0.056	0.000	1.24	189.2	SURCHARGED	
1.004	HW05	69.540	-0.250	0.000	0.64	104.2	OK	
11.000	S11	70.076	-0.174	0.000	0.65	131.6	OK	
11.001	S10	69.712	-0.188	0.000	0.62	148.2	OK	
1.005	S4	69.476	-0.234	0.000	0.68	183.6	OK	
12.000	UNIT1	70.099	-0.001	0.000	0.82	370.1	OK	
12.001	S5	69.753	0.153	0.000	2.44	443.1	SURCHARGED	
1.006	HW08	69.439	0.079	0.000	0.02	4.0	SURCHARGED	
13.000	RE2.1	71.077	-0.158	0.000	0.45	33.1	OK	
13.001	R2.7	70.863	-0.137	0.000	0.56	39.0	OK	
13.002	R2.8	70.659	-0.141	0.000	0.55	38.6	OK	
14.000	R2.10	70.854	-0.171	0.000	0.13	6.5	OK	
13.003	R2.9	70.563	-0.137	0.000	0.70	95.5	OK	
13.004	R2.11	70.288	-0.112	0.000	0.38	91.4	OK	
15.000	R2.13	70.489	-0.111	0.000	0.51	35.2	OK	
13.005	R2.12	70.236	0.236	0.000	0.74	111.9	SURCHARGED	
13.006	R2.14	70.168	0.293	0.000	0.66	111.7	SURCHARGED	
16.000	Tank 2.1	70.754	0.004	0.000	0.93	16.9	SURCHARGED	
16.001	S2.23	70.872	-0.078	0.000	0.90	128.7	OK	
17.000	G2.1	70.771	0.091	0.000	0.25	3.1	FLOOD RISK	
17.001	S2.22	70.755	-0.010	0.000	0.77	66.7	OK	
16.002	S2.21	70.707	-0.193	0.000	0.80	187.9	OK	
18.000	Tank 2.2	70.497	-0.003	0.000	0.93	12.4	OK	

Bailey Johnson Hayes		Page 16
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 30 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 30 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.602	-0.248	0.000	0.64		171.1	OK
19.000	G2.2	70.790	-0.160	0.000	0.18		19.5	OK
16.004	S2.19	70.366	-0.384	0.000	0.28		186.1	OK
20.000	G2.3	70.259	-0.091	0.000	0.18		5.4	OK
21.000	G2.4	70.586	-0.139	0.000	0.56		89.3	OK
20.001	S2.18	70.250	-0.150	0.000	0.55		93.9	OK
22.000	Tank 2.3	69.986	-0.189	0.000	0.05		3.1	OK
16.005	s2.17	70.199	-0.101	0.000	0.70		244.4	OK
16.006	Interceptor	70.174	0.086	0.000	0.70		242.1	SURCHARGED
13.007	S2.16	70.150	0.175	0.000	2.52		351.1	SURCHARGED
13.008	S2.15	70.027	0.077	0.000	1.63		350.3	SURCHARGED
23.000	RE2.2	71.017	-0.108	0.000	0.53		21.1	OK
23.001	R2.6	70.860	-0.065	0.000	0.68		21.5	OK
23.002	R2.5	70.838	-0.112	0.000	0.69		50.7	OK
23.003	R2.4	70.431	-0.189	0.000	0.29		53.0	OK
23.004	S2.12	70.213	-0.037	0.000	0.28	116.1	43.7	OK
24.000	RE2.3	70.923	-0.077	0.000	0.76		32.2	OK
24.001	R2.3	70.673	-0.202	0.000	0.43		62.0	OK
24.002	R2.2	70.281	-0.269	0.000	0.18		64.4	OK
23.005	R2.1	70.266	0.131	0.000	0.57		87.8	SURCHARGED
23.006	S2.13	70.246	0.251	0.000	0.63		97.1	SURCHARGED
25.000	R2.19	71.007	-0.193	0.000	0.05		2.0	OK
25.001	R2.20	70.926	-0.199	0.000	0.24		22.3	OK
25.002	R2.21	70.538	-0.237	0.000	0.29		47.6	OK
25.003	R2.22	70.252	-0.148	0.000	0.31		49.6	OK
26.000	R2.18	70.712	-0.208	0.000	0.21		21.7	OK
26.001	R2.17	70.274	-0.231	0.000	0.27		50.1	OK
26.002	R2.16	70.220	0.195	0.000	0.24		46.9	SURCHARGED
23.007	R2.15	70.209	0.354	0.000	1.08		172.3	SURCHARGED
27.000	Plot 1	70.759	0.309	0.000	0.98		297.6	FLOOD RISK
23.008	S2.14	70.026	0.176	0.000	3.14		468.6	SURCHARGED
13.009	S2.24	69.547	-0.038	0.000	0.05		6.6	OK

Bailey Johnson Hayes		Page 17
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 60 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 60 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
1.000	R5A	70.559	-0.191	0.000	0.29	24.0	OK
1.001	R5	70.316	-0.169	0.000	0.39	33.7	OK
1.002	R6	69.998	-0.227	0.000	0.33	42.9	OK
1.003	R7	69.662	-0.338	0.000	0.14	42.7	OK
2.000	R8	69.587	-0.363	0.000	0.08	24.0	OK
3.000	R9	69.580	-0.370	0.000	0.07	21.7	OK
4.000	R4A	70.420	-0.205	0.000	0.22	21.6	OK
4.001	R4	70.150	-0.200	0.000	0.24	21.7	OK
4.002	R3	69.985	-0.140	0.000	0.55	33.0	OK
4.003	R2	69.748	-0.177	0.000	0.35	40.5	OK
5.000	Tank 1	69.753	-0.222	0.000	0.00	0.1	OK
5.001	S3	69.818	-0.157	0.000	0.01	1.3	OK
6.000	G1	69.966	-0.159	0.000	0.45	62.3	OK
7.000	G2	69.852	0.077	0.000	0.45	5.1	SURCHARGED
8.000	G3	69.954	-0.171	0.000	0.38	53.6	OK
9.000	G4	69.852	0.077	0.000	0.45	5.1	SURCHARGED
5.002	S2	69.820	-0.105	0.000	0.92	122.4	OK
10.000	Tank 2	69.518	-0.207	0.000	0.01	0.8	OK
5.003	S1	69.714	-0.086	0.000	0.99	115.9	OK
5.004	Interceptor	69.694	-0.094	0.000	0.99	115.8	OK
4.004	R1	69.642	-0.033	0.000	1.00	152.6	OK
1.004	HW05	69.544	-0.246	0.000	0.65	105.7	OK
11.000	S11	69.900	-0.350	0.000	0.12	25.4	OK
11.001	S10	69.582	-0.318	0.000	0.17	40.5	OK
1.005	S4	69.490	-0.220	0.000	0.45	121.6	OK
12.000	UNIT1	69.819	-0.281	0.000	0.55	247.4	OK
12.001	S5	69.600	0.000	0.000	1.65	299.5	OK
1.006	HW08	69.487	0.127	0.000	0.02	3.9	SURCHARGED
13.000	RE2.1	71.044	-0.191	0.000	0.28	20.9	OK
13.001	R2.7	70.825	-0.175	0.000	0.36	24.9	OK
13.002	R2.8	70.623	-0.177	0.000	0.35	24.8	OK
14.000	R2.10	70.844	-0.181	0.000	0.08	4.1	OK
13.003	R2.9	70.506	-0.194	0.000	0.47	63.5	OK
13.004	R2.11	70.132	-0.268	0.000	0.28	67.0	OK
15.000	R2.13	70.462	-0.138	0.000	0.32	22.0	OK
13.005	R2.12	70.063	0.063	0.000	0.58	87.6	SURCHARGED
13.006	R2.14	70.017	0.142	0.000	0.52	87.5	SURCHARGED
16.000	Tank 2.1	70.676	-0.074	0.000	0.38	7.0	OK
16.001	S2.23	70.783	-0.167	0.000	0.70	100.4	OK
17.000	G2.1	70.682	0.002	0.000	0.16	2.0	FLOOD RISK
17.001	S2.22	70.671	-0.094	0.000	0.49	42.6	OK
16.002	S2.21	70.638	-0.262	0.000	0.60	141.6	OK
18.000	Tank 2.2	70.479	-0.021	0.000	0.58	7.8	OK

Bailey Johnson Hayes		Page 18
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 60 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 60 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.552	-0.298	0.000	0.50		134.1	OK
19.000	G2.2	70.776	-0.174	0.000	0.11		12.2	OK
16.004	S2.19	70.340	-0.410	0.000	0.22		145.1	OK
20.000	G2.3	70.193	-0.157	0.000	0.12		3.4	OK
21.000	G2.4	70.548	-0.177	0.000	0.35		55.6	OK
20.001	S2.18	70.177	-0.223	0.000	0.34		59.1	OK
22.000	Tank 2.3	69.962	-0.213	0.000	0.01		0.6	OK
16.005	s2.17	70.036	-0.264	0.000	0.57		199.4	OK
16.006	Interceptor	70.019	-0.069	0.000	0.57		199.5	OK
13.007	S2.16	70.003	0.028	0.000	2.06		286.5	SURCHARGED
13.008	S2.15	69.950	0.000	0.000	1.33		286.2	OK
23.000	RE2.2	70.990	-0.135	0.000	0.33		13.2	OK
23.001	R2.6	70.810	-0.115	0.000	0.42		13.3	OK
23.002	R2.5	70.791	-0.159	0.000	0.44		32.5	OK
23.003	R2.4	70.408	-0.212	0.000	0.19		34.1	OK
23.004	S2.12	70.172	-0.078	0.000	0.23	15.2	35.1	OK
24.000	RE2.3	70.885	-0.115	0.000	0.48		20.2	OK
24.001	R2.3	70.634	-0.241	0.000	0.27		39.5	OK
24.002	R2.2	70.200	-0.350	0.000	0.11		41.2	OK
23.005	R2.1	70.156	0.021	0.000	0.52		80.4	SURCHARGED
23.006	S2.13	70.114	0.119	0.000	0.59		91.2	SURCHARGED
25.000	R2.19	71.001	-0.199	0.000	0.03		1.2	OK
25.001	R2.20	70.903	-0.222	0.000	0.15		13.8	OK
25.002	R2.21	70.508	-0.267	0.000	0.18		29.6	OK
25.003	R2.22	70.141	-0.259	0.000	0.21		33.7	OK
26.000	R2.18	70.692	-0.228	0.000	0.13		13.6	OK
26.001	R2.17	70.234	-0.271	0.000	0.17		31.3	OK
26.002	R2.16	70.073	0.048	0.000	0.15		29.4	SURCHARGED
23.007	R2.15	70.066	0.211	0.000	0.96		153.1	SURCHARGED
27.000	Plot 1	70.291	-0.159	0.000	0.72		217.5	OK
23.008	S2.14	69.929	0.079	0.000	2.36		352.3	SURCHARGED
13.009	S2.24	69.612	0.027	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 120 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 120 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.534	-0.216	0.000	0.17	14.6	OK
1.001	R5	70.284	-0.201	0.000	0.24	20.4	OK
1.002	R6	69.964	-0.261	0.000	0.20	26.2	OK
1.003	R7	69.639	-0.361	0.000	0.09	26.2	OK
2.000	R8	69.565	-0.385	0.000	0.05	14.6	OK
3.000	R9	69.560	-0.390	0.000	0.04	13.2	OK
4.000	R4A	70.397	-0.228	0.000	0.13	13.2	OK
4.001	R4	70.126	-0.224	0.000	0.15	13.2	OK
4.002	R3	69.944	-0.181	0.000	0.33	20.2	OK
4.003	R2	69.719	-0.206	0.000	0.21	24.8	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0	OK
5.001	S3	69.721	-0.254	0.000	0.00	0.4	OK
6.000	G1	69.931	-0.194	0.000	0.27	38.1	OK
7.000	G2	69.741	-0.034	0.000	0.28	3.1	OK
8.000	G3	69.923	-0.202	0.000	0.23	32.7	OK
9.000	G4	69.741	-0.034	0.000	0.28	3.1	OK
5.002	S2	69.721	-0.204	0.000	0.57	76.0	OK
10.000	Tank 2	69.522	-0.203	0.000	0.00	0.0	OK
5.003	S1	69.611	-0.189	0.000	0.62	72.6	OK
5.004	Interceptor	69.597	-0.191	0.000	0.62	72.8	OK
4.004	R1	69.554	-0.121	0.000	0.63	96.4	OK
1.004	HW05	69.553	-0.237	0.000	0.58	94.6	OK
11.000	S11	69.872	-0.378	0.000	0.06	12.2	OK
11.001	S10	69.552	-0.348	0.000	0.09	22.0	OK
1.005	S4	69.552	-0.158	0.000	0.39	105.2	OK
12.000	UNIT1	69.739	-0.361	0.000	0.33	150.5	OK
12.001	S5	69.551	-0.049	0.000	1.00	181.4	OK
1.006	HW08	69.552	0.192	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	71.019	-0.216	0.000	0.17	12.7	OK
13.001	R2.7	70.795	-0.205	0.000	0.22	15.2	OK
13.002	R2.8	70.594	-0.206	0.000	0.21	15.1	OK
14.000	R2.10	70.833	-0.192	0.000	0.05	2.5	OK
13.003	R2.9	70.463	-0.237	0.000	0.29	39.4	OK
13.004	R2.11	70.088	-0.312	0.000	0.17	41.6	OK
15.000	R2.13	70.442	-0.158	0.000	0.19	13.4	OK
13.005	R2.12	70.013	0.013	0.000	0.36	54.4	SURCHARGED
13.006	R2.14	69.984	0.109	0.000	0.32	54.5	SURCHARGED
16.000	Tank 2.1	70.638	-0.112	0.000	0.20	3.6	OK
16.001	S2.23	70.723	-0.227	0.000	0.48	68.9	OK
17.000	G2.1	70.606	-0.074	0.000	0.10	1.3	FLOOD RISK
17.001	S2.22	70.599	-0.166	0.000	0.30	26.2	OK
16.002	S2.21	70.577	-0.323	0.000	0.40	94.5	OK
18.000	Tank 2.2	70.418	-0.082	0.000	0.26	3.5	OK

Bailey Johnson Hayes		Page 20
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 120 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 120 minute 30 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.500	-0.350	0.000	0.37		97.6	OK
19.000	G2.2	70.764	-0.186	0.000	0.07		7.4	OK
16.004	S2.19	70.309	-0.441	0.000	0.16		104.7	OK
20.000	G2.3	70.170	-0.180	0.000	0.07		2.1	OK
21.000	G2.4	70.519	-0.206	0.000	0.21		33.9	OK
20.001	S2.18	70.141	-0.259	0.000	0.21		35.9	OK
22.000	Tank 2.3	69.955	-0.220	0.000	0.00		0.2	OK
16.005	s2.17	69.999	-0.301	0.000	0.40		138.6	OK
16.006	Interceptor	69.987	-0.101	0.000	0.40		138.7	OK
13.007	S2.16	69.975	0.000	0.000	1.39		193.5	OK
13.008	S2.15	69.796	-0.154	0.000	0.90		193.9	OK
23.000	RE2.2	70.968	-0.157	0.000	0.20		8.1	OK
23.001	R2.6	70.779	-0.146	0.000	0.26		8.1	OK
23.002	R2.5	70.756	-0.194	0.000	0.27		19.8	OK
23.003	R2.4	70.387	-0.233	0.000	0.11		20.8	OK
23.004	S2.12	69.993	-0.257	0.000	0.16	2.6	23.8	OK
24.000	RE2.3	70.858	-0.142	0.000	0.29		12.3	OK
24.001	R2.3	70.602	-0.273	0.000	0.17		24.0	OK
24.002	R2.2	70.177	-0.373	0.000	0.07		25.0	OK
23.005	R2.1	69.977	-0.158	0.000	0.35		54.8	OK
23.006	S2.13	69.946	-0.049	0.000	0.40		62.1	OK
25.000	R2.19	70.995	-0.205	0.000	0.02		0.8	OK
25.001	R2.20	70.886	-0.239	0.000	0.09		8.4	OK
25.002	R2.21	70.482	-0.293	0.000	0.11		18.0	OK
25.003	R2.22	70.113	-0.287	0.000	0.13		20.4	OK
26.000	R2.18	70.676	-0.244	0.000	0.08		8.3	OK
26.001	R2.17	70.210	-0.295	0.000	0.10		19.1	OK
26.002	R2.16	69.917	-0.108	0.000	0.10		18.7	OK
23.007	R2.15	69.913	0.058	0.000	0.63		100.2	SURCHARGED
27.000	Plot 1	70.209	-0.241	0.000	0.44		132.9	OK
23.008	S2.14	69.850	0.000	0.000	1.53		228.5	OK
13.009	S2.24	69.674	0.089	0.000	0.05		6.7	SURCHARGED

Bailey Johnson Hayes		Page 21
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 180 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 180 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0

Analysis Timestep 2.5 Second Increment (Extended)


DTS Status OFF

DVD Status OFF

Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe	Status
							Flow (l/s)	
1.000	R5A	70.522	-0.228	0.000	0.13	10.9		OK
1.001	R5	70.270	-0.215	0.000	0.18	15.3		OK
1.002	R6	69.947	-0.278	0.000	0.15	19.6		OK
1.003	R7	69.624	-0.376	0.000	0.06	19.6		OK
2.000	R8	69.592	-0.358	0.000	0.04	10.9		OK
3.000	R9	69.592	-0.358	0.000	0.03	9.9		OK
4.000	R4A	70.388	-0.237	0.000	0.10	9.9		OK
4.001	R4	70.116	-0.234	0.000	0.11	9.9		OK
4.002	R3	69.926	-0.199	0.000	0.25	15.1		OK
4.003	R2	69.705	-0.220	0.000	0.16	18.6		OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0		OK
5.001	S3	69.681	-0.294	0.000	0.00	0.2		OK
6.000	G1	69.917	-0.208	0.000	0.20	28.5		OK
7.000	G2	69.697	-0.078	0.000	0.21	2.4		OK
8.000	G3	69.909	-0.216	0.000	0.18	24.5		OK
9.000	G4	69.697	-0.078	0.000	0.21	2.4		OK
5.002	S2	69.681	-0.244	0.000	0.43	57.4		OK
10.000	Tank 2	69.556	-0.169	0.000	0.00	0.0		OK
5.003	S1	69.593	-0.207	0.000	0.48	56.1		OK
5.004	Interceptor	69.593	-0.195	0.000	0.48	56.1		OK
4.004	R1	69.592	-0.083	0.000	0.49	74.2		OK
1.004	HW05	69.592	-0.198	0.000	0.50	81.8		OK
11.000	S11	69.858	-0.392	0.000	0.04	8.3		OK
11.001	S10	69.591	-0.309	0.000	0.07	15.6		OK
1.005	S4	69.591	-0.119	0.000	0.34	91.6		OK
12.000	UNIT1	69.703	-0.397	0.000	0.25	112.7		OK
12.001	S5	69.591	-0.009	0.000	0.75	136.5		OK
1.006	HW08	69.591	0.231	0.000	0.02	4.0		SURCHARGED
13.000	RE2.1	71.006	-0.229	0.000	0.13	9.5		OK
13.001	R2.7	70.781	-0.219	0.000	0.16	11.4		OK
13.002	R2.8	70.580	-0.220	0.000	0.16	11.4		OK
14.000	R2.10	70.828	-0.197	0.000	0.04	1.9		OK
13.003	R2.9	70.443	-0.257	0.000	0.22	29.5		OK
13.004	R2.11	70.057	-0.343	0.000	0.13	31.4		OK
15.000	R2.13	70.432	-0.168	0.000	0.14	10.0		OK
13.005	R2.12	69.935	-0.065	0.000	0.26	39.2		OK
13.006	R2.14	69.914	0.039	0.000	0.25	41.7		SURCHARGED
16.000	Tank 2.1	70.639	-0.111	0.000	0.17	3.1		OK
16.001	S2.23	70.688	-0.262	0.000	0.36	52.0		OK
17.000	G2.1	70.569	-0.111	0.000	0.08	1.0		FLOOD RISK
17.001	S2.22	70.561	-0.204	0.000	0.23	19.6		OK
16.002	S2.21	70.538	-0.362	0.000	0.30	71.1		OK
18.000	Tank 2.2	70.416	-0.084	0.000	0.23	3.1		OK



Bailey Johnson Hayes		Page 22
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 180 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 180 minute 30 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.465	-0.385	0.000	0.28		74.7	OK
19.000	G2.2	70.758	-0.192	0.000	0.05		5.6	OK
16.004	S2.19	70.288	-0.462	0.000	0.12		80.1	OK
20.000	G2.3	70.161	-0.189	0.000	0.05		1.5	OK
21.000	G2.4	70.505	-0.220	0.000	0.16		25.4	OK
20.001	S2.18	70.124	-0.276	0.000	0.16		26.9	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.932	-0.368	0.000	0.31		105.9	OK
16.006	Interceptor	69.917	-0.171	0.000	0.30		105.3	OK
13.007	S2.16	69.908	-0.067	0.000	1.03		143.7	OK
13.008	S2.15	69.712	-0.238	0.000	0.67		143.6	OK
23.000	RE2.2	70.958	-0.167	0.000	0.15		6.0	OK
23.001	R2.6	70.766	-0.159	0.000	0.19		6.0	OK
23.002	R2.5	70.741	-0.209	0.000	0.20		14.8	OK
23.003	R2.4	70.379	-0.241	0.000	0.09		15.5	OK
23.004	S2.12	69.928	-0.322	0.000	0.12	1.1	18.7	OK
24.000	RE2.3	70.846	-0.154	0.000	0.22		9.2	OK
24.001	R2.3	70.587	-0.288	0.000	0.12		18.0	OK
24.002	R2.2	70.165	-0.385	0.000	0.05		18.7	OK
23.005	R2.1	69.884	-0.251	0.000	0.27		42.1	OK
23.006	S2.13	69.839	-0.156	0.000	0.30		47.2	OK
25.000	R2.19	70.990	-0.210	0.000	0.01		0.6	OK
25.001	R2.20	70.876	-0.249	0.000	0.07		6.3	OK
25.002	R2.21	70.471	-0.304	0.000	0.08		13.4	OK
25.003	R2.22	70.102	-0.298	0.000	0.09		15.2	OK
26.000	R2.18	70.667	-0.253	0.000	0.06		6.2	OK
26.001	R2.17	70.199	-0.306	0.000	0.08		14.3	OK
26.002	R2.16	69.817	-0.208	0.000	0.07		13.7	OK
23.007	R2.15	69.814	-0.041	0.000	0.48		76.4	OK
27.000	Plot 1	70.178	-0.272	0.000	0.33		99.4	OK
23.008	S2.14	69.772	-0.078	0.000	1.14		170.5	OK
13.009	S2.24	69.712	0.127	0.000	0.05		6.7	SURCHARGED

Grange House  
 John Dalton St  
 Manchester M2 6FW

Plots 2 and 3  
 Skimmingdish Lane  
 Bicester



Date 13/12/2017  
 File 30yr 240 min winter.mdx

Designed by P.A.B.  
 Checked by

Micro Drainage Network 2017.1

Summary of Results for 240 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0


Analysis Timestep 2.5 Second Increment (Extended)

DTS Status OFF

DVD Status OFF

Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.515	-0.235	0.000	0.10	8.8	OK
1.001	R5	70.261	-0.224	0.000	0.15	12.4	OK
1.002	R6	69.936	-0.289	0.000	0.12	15.9	OK
1.003	R7	69.619	-0.381	0.000	0.05	15.9	OK
2.000	R8	69.619	-0.331	0.000	0.03	8.8	OK
3.000	R9	69.619	-0.331	0.000	0.03	8.0	OK
4.000	R4A	70.381	-0.244	0.000	0.08	8.0	OK
4.001	R4	70.110	-0.240	0.000	0.09	8.0	OK
4.002	R3	69.916	-0.209	0.000	0.20	12.2	OK
4.003	R2	69.697	-0.228	0.000	0.13	15.0	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0	OK
5.001	S3	69.658	-0.317	0.000	0.00	0.1	OK
6.000	G1	69.906	-0.219	0.000	0.16	23.0	OK
7.000	G2	69.675	-0.100	0.000	0.17	1.9	OK
8.000	G3	69.900	-0.225	0.000	0.14	19.7	OK
9.000	G4	69.675	-0.100	0.000	0.17	1.9	OK
5.002	S2	69.658	-0.267	0.000	0.35	46.3	OK
10.000	Tank 2	69.594	-0.131	0.000	0.01	0.3	OK
5.003	S1	69.619	-0.181	0.000	0.39	45.9	OK
5.004	Interceptor	69.619	-0.169	0.000	0.39	45.9	OK
4.004	R1	69.619	-0.056	0.000	0.40	60.5	OK
1.004	HW05	69.619	-0.171	0.000	0.42	68.6	OK
11.000	S11	69.852	-0.398	0.000	0.03	6.6	OK
11.001	S10	69.618	-0.282	0.000	0.05	12.5	OK
1.005	S4	69.618	-0.092	0.000	0.29	77.9	OK
12.000	UNIT1	69.682	-0.418	0.000	0.20	91.2	OK
12.001	S5	69.618	0.018	0.000	0.59	107.9	SURCHARGED
1.006	HW08	69.618	0.258	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	70.999	-0.236	0.000	0.10	7.7	OK
13.001	R2.7	70.772	-0.228	0.000	0.13	9.2	OK
13.002	R2.8	70.572	-0.228	0.000	0.13	9.2	OK
14.000	R2.10	70.826	-0.199	0.000	0.03	1.5	OK
13.003	R2.9	70.430	-0.270	0.000	0.18	23.9	OK
13.004	R2.11	70.047	-0.353	0.000	0.10	25.4	OK
15.000	R2.13	70.426	-0.174	0.000	0.12	8.1	OK
13.005	R2.12	69.827	-0.173	0.000	0.22	33.0	OK
13.006	R2.14	69.810	-0.065	0.000	0.20	33.1	OK
16.000	Tank 2.1	70.636	-0.114	0.000	0.14	2.5	OK
16.001	S2.23	70.667	-0.283	0.000	0.29	42.1	OK
17.000	G2.1	70.558	-0.122	0.000	0.06	0.8	FLOOD RISK
17.001	S2.22	70.539	-0.226	0.000	0.18	15.9	OK
16.002	S2.21	70.514	-0.386	0.000	0.25	57.9	OK
18.000	Tank 2.2	70.414	-0.086	0.000	0.19	2.5	OK

Bailey Johnson Hayes		Page 24
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 240 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 240 minute 30 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.443	-0.407	0.000	0.23		60.9	OK
19.000	G2.2	70.754	-0.196	0.000	0.04		4.5	OK
16.004	S2.19	70.276	-0.474	0.000	0.10		65.3	OK
20.000	G2.3	70.156	-0.194	0.000	0.04		1.2	OK
21.000	G2.4	70.496	-0.229	0.000	0.13		20.5	OK
20.001	S2.18	70.113	-0.287	0.000	0.13		21.7	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.902	-0.398	0.000	0.25		86.7	OK
16.006	Interceptor	69.812	-0.276	0.000	0.25		86.6	OK
13.007	S2.16	69.804	-0.171	0.000	0.86		119.3	OK
13.008	S2.15	69.739	-0.211	0.000	0.55		119.2	OK
23.000	RE2.2	70.952	-0.173	0.000	0.12		4.9	OK
23.001	R2.6	70.759	-0.166	0.000	0.15		4.9	OK
23.002	R2.5	70.731	-0.219	0.000	0.16		12.0	OK
23.003	R2.4	70.372	-0.248	0.000	0.07		12.6	OK
23.004	S2.12	69.904	-0.346	0.000	0.10	0.7	15.4	OK
24.000	RE2.3	70.838	-0.162	0.000	0.18		7.4	OK
24.001	R2.3	70.579	-0.296	0.000	0.10		14.5	OK
24.002	R2.2	70.159	-0.391	0.000	0.04		15.1	OK
23.005	R2.1	69.839	-0.296	0.000	0.22		34.7	OK
23.006	S2.13	69.760	-0.235	0.000	0.25		39.0	OK
25.000	R2.19	70.987	-0.213	0.000	0.01		0.5	OK
25.001	R2.20	70.870	-0.255	0.000	0.06		5.1	OK
25.002	R2.21	70.463	-0.312	0.000	0.07		10.9	OK
25.003	R2.22	70.093	-0.307	0.000	0.08		12.3	OK
26.000	R2.18	70.662	-0.258	0.000	0.05		5.0	OK
26.001	R2.17	70.190	-0.315	0.000	0.06		11.5	OK
26.002	R2.16	69.742	-0.283	0.000	0.06		11.5	OK
23.007	R2.15	69.742	-0.113	0.000	0.39		62.6	OK
27.000	Plot 1	70.157	-0.293	0.000	0.27		80.4	OK
23.008	S2.14	69.739	-0.111	0.000	0.95		142.2	OK
13.009	S2.24	69.739	0.154	0.000	0.05		6.7	SURCHARGED

Grange House  
 John Dalton St  
 Manchester M2 6FW

Plots 2 and 3  
 Skimmingdish Lane  
 Bicester



Date 13/12/2017  
 File 30yr 360 min winter.mdx

Designed by P.A.B.  
 Checked by

Micro Drainage Network 2017.1

Summary of Results for 360 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0


Analysis Timestep 2.5 Second Increment (Extended)

DTS Status OFF

DVD Status OFF


Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.505	-0.245	0.000	0.08	6.5	OK
1.001	R5	70.250	-0.235	0.000	0.11	9.1	OK
1.002	R6	69.925	-0.300	0.000	0.09	11.8	OK
1.003	R7	69.656	-0.344	0.000	0.04	11.8	OK
2.000	R8	69.656	-0.294	0.000	0.02	6.5	OK
3.000	R9	69.656	-0.294	0.000	0.02	5.9	OK
4.000	R4A	70.372	-0.253	0.000	0.06	5.9	OK
4.001	R4	70.100	-0.250	0.000	0.07	5.9	OK
4.002	R3	69.902	-0.223	0.000	0.15	9.0	OK
4.003	R2	69.687	-0.238	0.000	0.10	11.1	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0	OK
5.001	S3	69.658	-0.317	0.000	0.00	0.0	OK
6.000	G1	69.894	-0.231	0.000	0.12	17.0	OK
7.000	G2	69.661	-0.114	0.000	0.12	1.4	OK
8.000	G3	69.889	-0.236	0.000	0.10	14.6	OK
9.000	G4	69.661	-0.114	0.000	0.12	1.4	OK
5.002	S2	69.658	-0.267	0.000	0.26	34.3	OK
10.000	Tank 2	69.635	-0.090	0.000	0.01	0.4	OK
5.003	S1	69.655	-0.145	0.000	0.29	34.3	OK
5.004	Interceptor	69.656	-0.132	0.000	0.29	34.3	OK
4.004	R1	69.656	-0.019	0.000	0.30	45.2	OK
1.004	HW05	69.656	-0.134	0.000	0.30	48.8	OK
11.000	S11	69.847	-0.403	0.000	0.02	4.8	OK
11.001	S10	69.656	-0.244	0.000	0.04	9.2	OK
1.005	S4	69.656	-0.054	0.000	0.21	56.5	OK
12.000	UNIT1	69.658	-0.442	0.000	0.15	67.4	OK
12.001	S5	69.656	0.056	0.000	0.43	78.1	SURCHARGED
1.006	HW08	69.656	0.296	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	70.990	-0.245	0.000	0.08	5.7	OK
13.001	R2.7	70.763	-0.237	0.000	0.10	6.8	OK
13.002	R2.8	70.562	-0.238	0.000	0.10	6.8	OK
14.000	R2.10	70.823	-0.202	0.000	0.02	1.1	OK
13.003	R2.9	70.414	-0.286	0.000	0.13	17.7	OK
13.004	R2.11	70.033	-0.367	0.000	0.08	18.8	OK
15.000	R2.13	70.419	-0.181	0.000	0.09	6.0	OK
13.005	R2.12	69.779	-0.221	0.000	0.16	24.7	OK
13.006	R2.14	69.778	-0.097	0.000	0.15	24.6	OK
16.000	Tank 2.1	70.628	-0.122	0.000	0.09	1.6	OK
16.001	S2.23	70.643	-0.307	0.000	0.22	31.3	OK
17.000	G2.1	70.551	-0.129	0.000	0.05	0.6	FLOOD RISK
17.001	S2.22	70.513	-0.252	0.000	0.14	11.8	OK
16.002	S2.21	70.485	-0.415	0.000	0.18	42.9	OK
18.000	Tank 2.2	70.404	-0.096	0.000	0.13	1.7	OK

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 360 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage	Network 2017.1	

Summary of Results for 360 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.416	-0.434	0.000	0.17		45.5	OK
19.000	G2.2	70.751	-0.199	0.000	0.03		3.3	OK
16.004	S2.19	70.257	-0.493	0.000	0.07		48.8	OK
20.000	G2.3	70.151	-0.199	0.000	0.03		0.9	OK
21.000	G2.4	70.487	-0.238	0.000	0.10		15.1	OK
20.001	S2.18	70.102	-0.298	0.000	0.09		16.0	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.874	-0.426	0.000	0.19		64.5	OK
16.006	Interceptor	69.778	-0.310	0.000	0.19		64.5	OK
13.007	S2.16	69.778	-0.197	0.000	0.64		89.2	OK
13.008	S2.15	69.777	-0.173	0.000	0.41		89.2	OK
23.000	RE2.2	70.945	-0.180	0.000	0.09		3.6	OK
23.001	R2.6	70.750	-0.175	0.000	0.11		3.6	OK
23.002	R2.5	70.719	-0.231	0.000	0.12		8.8	OK
23.003	R2.4	70.363	-0.257	0.000	0.05		9.3	OK
23.004	S2.12	69.886	-0.364	0.000	0.07	0.4	11.4	OK
24.000	RE2.3	70.829	-0.171	0.000	0.13		5.5	OK
24.001	R2.3	70.567	-0.308	0.000	0.07		10.7	OK
24.002	R2.2	70.151	-0.399	0.000	0.03		11.2	OK
23.005	R2.1	69.808	-0.327	0.000	0.17		25.9	OK
23.006	S2.13	69.780	-0.215	0.000	0.19		29.0	OK
25.000	R2.19	70.984	-0.216	0.000	0.01		0.3	OK
25.001	R2.20	70.864	-0.261	0.000	0.04		3.7	OK
25.002	R2.21	70.453	-0.322	0.000	0.05		8.0	OK
25.003	R2.22	70.082	-0.318	0.000	0.06		9.1	OK
26.000	R2.18	70.656	-0.264	0.000	0.04		3.7	OK
26.001	R2.17	70.181	-0.324	0.000	0.05		8.5	OK
26.002	R2.16	69.779	-0.246	0.000	0.04		8.5	OK
23.007	R2.15	69.779	-0.076	0.000	0.29		46.5	OK
27.000	Plot 1	70.135	-0.315	0.000	0.20		59.4	OK
23.008	S2.14	69.777	-0.073	0.000	0.71		105.5	OK
13.009	S2.24	69.776	0.191	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 480 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 480 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Overflow		Pipe Flow (l/s)	Status
					Cap.	(l/s)		
1.000	R5A	70.498	-0.252	0.000	0.06		5.2	OK
1.001	R5	70.244	-0.241	0.000	0.09		7.4	OK
1.002	R6	69.916	-0.309	0.000	0.07		9.5	OK
1.003	R7	69.681	-0.319	0.000	0.03		9.5	OK
2.000	R8	69.681	-0.269	0.000	0.02		5.2	OK
3.000	R9	69.681	-0.269	0.000	0.02		4.7	OK
4.000	R4A	70.367	-0.258	0.000	0.05		4.7	OK
4.001	R4	70.094	-0.256	0.000	0.05		4.7	OK
4.002	R3	69.894	-0.231	0.000	0.12		7.3	OK
4.003	R2	69.682	-0.243	0.000	0.08		9.0	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00		0.0	OK
5.001	S3	69.682	-0.293	0.000	0.00		0.0	OK
6.000	G1	69.888	-0.237	0.000	0.10		13.7	OK
7.000	G2	69.683	-0.092	0.000	0.10		1.1	OK
8.000	G3	69.883	-0.242	0.000	0.08		11.7	OK
9.000	G4	69.683	-0.092	0.000	0.10		1.1	OK
5.002	S2	69.682	-0.243	0.000	0.21		27.7	OK
10.000	Tank 2	69.664	-0.061	0.000	0.01		0.4	OK
5.003	S1	69.680	-0.120	0.000	0.24		27.7	OK
5.004	Interceptor	69.681	-0.107	0.000	0.24		27.7	OK
4.004	R1	69.681	0.006	0.000	0.24		36.4	SURCHARGED
1.004	HW05	69.681	-0.109	0.000	0.23		37.0	OK
11.000	S11	69.840	-0.410	0.000	0.02		3.8	OK
11.001	S10	69.681	-0.219	0.000	0.03		7.3	OK
1.005	S4	69.681	-0.029	0.000	0.16		42.5	OK
12.000	UNIT1	69.683	-0.417	0.000	0.12		54.3	OK
12.001	S5	69.682	0.082	0.000	0.35		62.8	SURCHARGED
1.006	HW08	69.681	0.321	0.000	0.02		4.0	SURCHARGED
13.000	RE2.1	70.983	-0.252	0.000	0.06		4.6	OK
13.001	R2.7	70.756	-0.244	0.000	0.08		5.5	OK
13.002	R2.8	70.555	-0.245	0.000	0.08		5.5	OK
14.000	R2.10	70.819	-0.206	0.000	0.02		0.9	OK
13.003	R2.9	70.406	-0.294	0.000	0.10		14.3	OK
13.004	R2.11	70.023	-0.377	0.000	0.06		15.2	OK
15.000	R2.13	70.414	-0.186	0.000	0.07		4.8	OK
13.005	R2.12	69.804	-0.196	0.000	0.13		19.9	OK
13.006	R2.14	69.804	-0.071	0.000	0.12		19.8	OK
16.000	Tank 2.1	70.617	-0.133	0.000	0.06		1.0	OK
16.001	S2.23	70.628	-0.322	0.000	0.18		25.5	OK
17.000	G2.1	70.549	-0.131	0.000	0.04		0.5	FLOOD RISK
17.001	S2.22	70.497	-0.268	0.000	0.11		9.5	OK
16.002	S2.21	70.466	-0.434	0.000	0.15		34.9	OK
18.000	Tank 2.2	70.394	-0.106	0.000	0.10		1.3	OK

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
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Micro Drainage		Network 2017.1

Summary of Results for 480 minute 30 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.398	-0.452	0.000	0.14		37.2	OK
19.000	G2.2	70.749	-0.201	0.000	0.02		2.7	OK
16.004	S2.19	70.245	-0.505	0.000	0.06		39.8	OK
20.000	G2.3	70.149	-0.201	0.000	0.03		0.7	OK
21.000	G2.4	70.480	-0.245	0.000	0.08		12.2	OK
20.001	S2.18	70.093	-0.307	0.000	0.08		12.9	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.855	-0.445	0.000	0.15		52.7	OK
16.006	Interceptor	69.804	-0.284	0.000	0.15		52.6	OK
13.007	S2.16	69.803	-0.172	0.000	0.52		72.4	OK
13.008	S2.15	69.802	-0.148	0.000	0.34		72.4	OK
23.000	RE2.2	70.940	-0.185	0.000	0.07		2.9	OK
23.001	R2.6	70.746	-0.179	0.000	0.09		2.9	OK
23.002	R2.5	70.712	-0.238	0.000	0.10		7.1	OK
23.003	R2.4	70.359	-0.261	0.000	0.04		7.5	OK
23.004	S2.12	69.875	-0.375	0.000	0.06	0.3	9.3	OK
24.000	RE2.3	70.823	-0.177	0.000	0.10		4.4	OK
24.001	R2.3	70.559	-0.316	0.000	0.06		8.7	OK
24.002	R2.2	70.147	-0.403	0.000	0.02		9.0	OK
23.005	R2.1	69.806	-0.329	0.000	0.14		20.9	OK
23.006	S2.13	69.805	-0.190	0.000	0.15		23.5	OK
25.000	R2.19	70.982	-0.218	0.000	0.01		0.3	OK
25.001	R2.20	70.860	-0.265	0.000	0.03		3.0	OK
25.002	R2.21	70.448	-0.327	0.000	0.04		6.5	OK
25.003	R2.22	70.076	-0.324	0.000	0.05		7.3	OK
26.000	R2.18	70.653	-0.267	0.000	0.03		3.0	OK
26.001	R2.17	70.176	-0.329	0.000	0.04		6.9	OK
26.002	R2.16	69.804	-0.221	0.000	0.04		6.9	OK
23.007	R2.15	69.804	-0.051	0.000	0.24		37.6	OK
27.000	Plot 1	70.119	-0.331	0.000	0.16		47.9	OK
23.008	S2.14	69.802	-0.048	0.000	0.57		85.2	OK
13.009	S2.24	69.802	0.217	0.000	0.05		6.7	SURCHARGED


Bailey Johnson Hayes		Page 29
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 600 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 600 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF


PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow Flow (l/s)	
1.000	R5A	70.494	-0.256	0.000	0.05	4.4	OK
1.001	R5	70.238	-0.247	0.000	0.07	6.2	OK
1.002	R6	69.910	-0.315	0.000	0.06	8.0	OK
1.003	R7	69.700	-0.300	0.000	0.03	8.0	OK
2.000	R8	69.700	-0.250	0.000	0.02	4.4	OK
3.000	R9	69.700	-0.250	0.000	0.01	4.0	OK
4.000	R4A	70.363	-0.262	0.000	0.04	4.0	OK
4.001	R4	70.091	-0.259	0.000	0.04	4.0	OK
4.002	R3	69.889	-0.236	0.000	0.10	6.2	OK
4.003	R2	69.701	-0.224	0.000	0.07	7.6	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0	OK
5.001	S3	69.701	-0.274	0.000	0.00	0.0	OK
6.000	G1	69.883	-0.242	0.000	0.08	11.6	OK
7.000	G2	69.701	-0.074	0.000	0.09	1.0	OK
8.000	G3	69.877	-0.248	0.000	0.07	9.9	OK
9.000	G4	69.701	-0.074	0.000	0.09	1.0	OK
5.002	S2	69.701	-0.224	0.000	0.18	23.4	OK
10.000	Tank 2	69.687	-0.038	0.000	0.01	0.4	OK
5.003	S1	69.699	-0.101	0.000	0.20	23.4	OK
5.004	Interceptor	69.699	-0.089	0.000	0.20	23.4	OK
4.004	R1	69.700	0.025	0.000	0.20	30.7	SURCHARGED
1.004	HW05	69.700	-0.090	0.000	0.18	29.4	OK
11.000	S11	69.834	-0.416	0.000	0.02	3.2	OK
11.001	S10	69.700	-0.200	0.000	0.03	6.2	OK
1.005	S4	69.700	-0.010	0.000	0.13	33.9	OK
12.000	UNIT1	69.701	-0.399	0.000	0.10	45.9	OK
12.001	S5	69.700	0.100	0.000	0.29	53.3	SURCHARGED
1.006	HW08	69.700	0.340	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	70.979	-0.256	0.000	0.05	3.9	OK
13.001	R2.7	70.750	-0.250	0.000	0.07	4.6	OK
13.002	R2.8	70.550	-0.250	0.000	0.07	4.6	OK
14.000	R2.10	70.816	-0.209	0.000	0.02	0.8	OK
13.003	R2.9	70.400	-0.300	0.000	0.09	12.1	OK
13.004	R2.11	70.016	-0.384	0.000	0.05	12.8	OK
15.000	R2.13	70.410	-0.190	0.000	0.06	4.1	OK
13.005	R2.12	69.822	-0.178	0.000	0.11	16.9	OK
13.006	R2.14	69.822	-0.053	0.000	0.10	16.8	OK
16.000	Tank 2.1	70.610	-0.140	0.000	0.05	0.8	OK
16.001	S2.23	70.617	-0.333	0.000	0.15	21.7	OK
17.000	G2.1	70.547	-0.133	0.000	0.03	0.4	FLOOD RISK
17.001	S2.22	70.485	-0.280	0.000	0.09	8.0	OK
16.002	S2.21	70.453	-0.447	0.000	0.13	29.7	OK
18.000	Tank 2.2	70.385	-0.115	0.000	0.08	1.0	OK



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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
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Micro Drainage		Network 2017.1

Summary of Results for 600 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.387	-0.463	0.000	0.12		31.8	OK
19.000	G2.2	70.747	-0.203	0.000	0.02		2.3	OK
16.004	S2.19	70.238	-0.512	0.000	0.05		34.0	OK
20.000	G2.3	70.148	-0.202	0.000	0.02		0.6	OK
21.000	G2.4	70.475	-0.250	0.000	0.07		10.3	OK
20.001	S2.18	70.086	-0.314	0.000	0.06		10.9	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.843	-0.457	0.000	0.13		44.9	OK
16.006	Interceptor	69.822	-0.266	0.000	0.13		44.9	OK
13.007	S2.16	69.822	-0.153	0.000	0.44		61.7	OK
13.008	S2.15	69.821	-0.129	0.000	0.29		61.6	OK
23.000	RE2.2	70.936	-0.189	0.000	0.06		2.5	OK
23.001	R2.6	70.741	-0.184	0.000	0.08		2.5	OK
23.002	R2.5	70.707	-0.243	0.000	0.08		6.0	OK
23.003	R2.4	70.356	-0.264	0.000	0.04		6.3	OK
23.004	S2.12	69.868	-0.382	0.000	0.05	0.2	7.8	OK
24.000	RE2.3	70.820	-0.180	0.000	0.09		3.7	OK
24.001	R2.3	70.554	-0.321	0.000	0.05		7.3	OK
24.002	R2.2	70.145	-0.405	0.000	0.02		7.6	OK
23.005	R2.1	69.824	-0.311	0.000	0.11		17.7	OK
23.006	S2.13	69.823	-0.172	0.000	0.13		19.8	OK
25.000	R2.19	70.981	-0.219	0.000	0.01		0.2	OK
25.001	R2.20	70.858	-0.267	0.000	0.03		2.6	OK
25.002	R2.21	70.444	-0.331	0.000	0.03		5.5	OK
25.003	R2.22	70.072	-0.328	0.000	0.04		6.2	OK
26.000	R2.18	70.651	-0.269	0.000	0.02		2.5	OK
26.001	R2.17	70.173	-0.332	0.000	0.03		5.8	OK
26.002	R2.16	69.823	-0.202	0.000	0.03		5.8	OK
23.007	R2.15	69.822	-0.033	0.000	0.20		31.4	OK
27.000	Plot 1	70.109	-0.341	0.000	0.13		40.5	OK
23.008	S2.14	69.821	-0.029	0.000	0.47		70.6	OK
13.009	S2.24	69.821	0.236	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 720 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 720 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	R5A	70.491	-0.259	0.000	0.05	3.9	OK
1.001	R5	70.234	-0.251	0.000	0.06	5.4	OK
1.002	R6	69.905	-0.320	0.000	0.05	7.0	OK
1.003	R7	69.715	-0.285	0.000	0.02	7.0	OK
2.000	R8	69.715	-0.235	0.000	0.01	3.9	OK
3.000	R9	69.715	-0.235	0.000	0.01	3.5	OK
4.000	R4A	70.361	-0.264	0.000	0.03	3.5	OK
4.001	R4	70.088	-0.262	0.000	0.04	3.5	OK
4.002	R3	69.885	-0.240	0.000	0.09	5.4	OK
4.003	R2	69.715	-0.210	0.000	0.06	6.6	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0	OK
5.001	S3	69.715	-0.260	0.000	0.00	0.0	OK
6.000	G1	69.878	-0.247	0.000	0.07	10.1	OK
7.000	G2	69.715	-0.060	0.000	0.07	0.8	OK
8.000	G3	69.873	-0.252	0.000	0.06	8.7	OK
9.000	G4	69.715	-0.060	0.000	0.07	0.8	OK
5.002	S2	69.715	-0.210	0.000	0.15	20.4	OK
10.000	Tank 2	69.706	-0.019	0.000	0.01	0.4	OK
5.003	S1	69.714	-0.086	0.000	0.17	20.2	OK
5.004	Interceptor	69.714	-0.074	0.000	0.17	20.2	OK
4.004	R1	69.715	0.040	0.000	0.17	26.5	SURCHARGED
1.004	HW05	69.715	-0.075	0.000	0.15	24.7	OK
11.000	S11	69.829	-0.421	0.000	0.01	2.8	OK
11.001	S10	69.715	-0.185	0.000	0.02	5.4	OK
1.005	S4	69.715	0.005	0.000	0.11	28.6	SURCHARGED
12.000	UNIT1	69.715	-0.385	0.000	0.09	40.0	OK
12.001	S5	69.715	0.115	0.000	0.26	46.5	SURCHARGED
1.006	HW08	69.715	0.355	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	70.976	-0.259	0.000	0.05	3.4	OK
13.001	R2.7	70.747	-0.253	0.000	0.06	4.0	OK
13.002	R2.8	70.546	-0.254	0.000	0.06	4.0	OK
14.000	R2.10	70.814	-0.211	0.000	0.01	0.7	OK
13.003	R2.9	70.394	-0.306	0.000	0.08	10.5	OK
13.004	R2.11	70.012	-0.388	0.000	0.05	11.2	OK
15.000	R2.13	70.408	-0.192	0.000	0.05	3.6	OK
13.005	R2.12	69.836	-0.164	0.000	0.10	14.7	OK
13.006	R2.14	69.836	-0.039	0.000	0.09	14.7	OK
16.000	Tank 2.1	70.604	-0.146	0.000	0.04	0.7	OK
16.001	S2.23	70.609	-0.341	0.000	0.13	19.0	OK
17.000	G2.1	70.546	-0.134	0.000	0.03	0.3	FLOOD RISK
17.001	S2.22	70.478	-0.287	0.000	0.08	7.0	OK
16.002	S2.21	70.443	-0.457	0.000	0.11	26.0	OK
18.000	Tank 2.2	70.378	-0.122	0.000	0.06	0.8	OK

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
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Micro Drainage		Network 2017.1

Summary of Results for 720 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.379	-0.471	0.000	0.10		28.0	OK
19.000	G2.2	70.745	-0.205	0.000	0.02		2.0	OK
16.004	S2.19	70.232	-0.518	0.000	0.05		29.9	OK
20.000	G2.3	70.145	-0.205	0.000	0.02		0.5	OK
21.000	G2.4	70.471	-0.254	0.000	0.06		9.0	OK
20.001	S2.18	70.082	-0.318	0.000	0.06		9.5	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.837	-0.463	0.000	0.11		39.5	OK
16.006	Interceptor	69.836	-0.252	0.000	0.11		39.4	OK
13.007	S2.16	69.836	-0.139	0.000	0.39		54.1	OK
13.008	S2.15	69.835	-0.115	0.000	0.25		53.8	OK
23.000	RE2.2	70.933	-0.192	0.000	0.05		2.1	OK
23.001	R2.6	70.738	-0.187	0.000	0.07		2.1	OK
23.002	R2.5	70.703	-0.247	0.000	0.07		5.3	OK
23.003	R2.4	70.354	-0.266	0.000	0.03		5.5	OK
23.004	S2.12	69.863	-0.387	0.000	0.04	0.2	6.9	OK
24.000	RE2.3	70.816	-0.184	0.000	0.08		3.3	OK
24.001	R2.3	70.550	-0.325	0.000	0.04		6.4	OK
24.002	R2.2	70.139	-0.411	0.000	0.02		6.6	OK
23.005	R2.1	69.837	-0.298	0.000	0.10		15.4	OK
23.006	S2.13	69.837	-0.158	0.000	0.11		17.2	OK
25.000	R2.19	70.980	-0.220	0.000	0.00		0.2	OK
25.001	R2.20	70.856	-0.269	0.000	0.02		2.2	OK
25.002	R2.21	70.442	-0.333	0.000	0.03		4.8	OK
25.003	R2.22	70.069	-0.331	0.000	0.03		5.4	OK
26.000	R2.18	70.650	-0.270	0.000	0.02		2.2	OK
26.001	R2.17	70.171	-0.334	0.000	0.03		5.1	OK
26.002	R2.16	69.837	-0.188	0.000	0.03		5.1	OK
23.007	R2.15	69.837	-0.018	0.000	0.17		27.3	OK
27.000	Plot 1	70.102	-0.348	0.000	0.12		35.3	OK
23.008	S2.14	69.835	-0.015	0.000	0.41		61.5	OK
13.009	S2.24	69.835	0.250	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
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Micro Drainage		Network 2017.1

Summary of Results for 960 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.487	-0.263	0.000	0.04	3.1	OK
1.001	R5	70.228	-0.257	0.000	0.05	4.4	OK
1.002	R6	69.900	-0.325	0.000	0.04	5.6	OK
1.003	R7	69.737	-0.263	0.000	0.02	5.6	OK
2.000	R8	69.737	-0.213	0.000	0.01	3.1	OK
3.000	R9	69.737	-0.213	0.000	0.01	2.8	OK
4.000	R4A	70.358	-0.267	0.000	0.03	2.8	OK
4.001	R4	70.085	-0.265	0.000	0.03	2.8	OK
4.002	R3	69.877	-0.248	0.000	0.07	4.3	OK
4.003	R2	69.737	-0.188	0.000	0.05	5.3	OK
5.000	Tank 1	69.750	-0.225	0.000	0.00	0.0	OK
5.001	S3	69.737	-0.238	0.000	0.00	0.0	OK
6.000	G1	69.872	-0.253	0.000	0.06	8.1	OK
7.000	G2	69.737	-0.038	0.000	0.06	0.7	OK
8.000	G3	69.868	-0.257	0.000	0.05	7.0	OK
9.000	G4	69.737	-0.038	0.000	0.06	0.7	OK
5.002	S2	69.737	-0.188	0.000	0.12	16.3	OK
10.000	Tank 2	69.736	0.011	0.000	0.01	0.4	SURCHARGED
5.003	S1	69.737	-0.063	0.000	0.14	16.0	OK
5.004	Interceptor	69.737	-0.051	0.000	0.14	15.9	OK
4.004	R1	69.737	0.062	0.000	0.14	21.0	SURCHARGED
1.004	HW05	69.737	-0.053	0.000	0.11	18.5	OK
11.000	S11	69.823	-0.427	0.000	0.01	2.2	OK
11.001	S10	69.736	-0.164	0.000	0.02	4.3	OK
1.005	S4	69.737	0.027	0.000	0.08	21.5	SURCHARGED
12.000	UNIT1	69.737	-0.363	0.000	0.07	32.1	OK
12.001	S5	69.737	0.137	0.000	0.21	37.3	SURCHARGED
1.006	HW08	69.737	0.377	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	70.972	-0.263	0.000	0.04	2.7	OK
13.001	R2.7	70.741	-0.259	0.000	0.05	3.3	OK
13.002	R2.8	70.541	-0.259	0.000	0.05	3.3	OK
14.000	R2.10	70.812	-0.213	0.000	0.01	0.5	OK
13.003	R2.9	70.385	-0.315	0.000	0.06	8.5	OK
13.004	R2.11	70.006	-0.394	0.000	0.04	9.0	OK
15.000	R2.13	70.404	-0.196	0.000	0.04	2.9	OK
13.005	R2.12	69.855	-0.145	0.000	0.08	11.8	OK
13.006	R2.14	69.855	-0.020	0.000	0.07	11.5	OK
16.000	Tank 2.1	70.595	-0.155	0.000	0.03	0.5	OK
16.001	S2.23	70.598	-0.352	0.000	0.11	15.4	OK
17.000	G2.1	70.545	-0.135	0.000	0.02	0.3	FLOOD RISK
17.001	S2.22	70.468	-0.297	0.000	0.07	5.6	OK
16.002	S2.21	70.430	-0.470	0.000	0.09	21.1	OK
18.000	Tank 2.2	70.366	-0.134	0.000	0.04	0.5	OK

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Micro Drainage		Network 2017.1

Summary of Results for 960 minute 30 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.367	-0.483	0.000	0.08		22.7	OK
19.000	G2.2	70.741	-0.209	0.000	0.01		1.6	OK
16.004	S2.19	70.224	-0.526	0.000	0.04		24.3	OK
20.000	G2.3	70.141	-0.209	0.000	0.01		0.4	OK
21.000	G2.4	70.466	-0.259	0.000	0.05		7.2	OK
20.001	S2.18	70.076	-0.324	0.000	0.04		7.7	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.856	-0.444	0.000	0.09		32.0	OK
16.006	Interceptor	69.855	-0.233	0.000	0.09		31.9	OK
13.007	S2.16	69.855	-0.120	0.000	0.31		43.3	OK
13.008	S2.15	69.854	-0.096	0.000	0.20		43.1	OK
23.000	RE2.2	70.930	-0.195	0.000	0.04		1.7	OK
23.001	R2.6	70.734	-0.191	0.000	0.05		1.7	OK
23.002	R2.5	70.696	-0.254	0.000	0.06		4.2	OK
23.003	R2.4	70.352	-0.268	0.000	0.02		4.4	OK
23.004	S2.12	69.857	-0.393	0.000	0.04	0.2	5.5	OK
24.000	RE2.3	70.811	-0.189	0.000	0.06		2.6	OK
24.001	R2.3	70.545	-0.330	0.000	0.04		5.1	OK
24.002	R2.2	70.131	-0.419	0.000	0.01		5.3	OK
23.005	R2.1	69.856	-0.279	0.000	0.08		12.4	OK
23.006	S2.13	69.856	-0.139	0.000	0.09		13.9	OK
25.000	R2.19	70.979	-0.221	0.000	0.00		0.2	OK
25.001	R2.20	70.853	-0.272	0.000	0.02		1.8	OK
25.002	R2.21	70.439	-0.336	0.000	0.02		3.8	OK
25.003	R2.22	70.066	-0.334	0.000	0.03		4.3	OK
26.000	R2.18	70.644	-0.276	0.000	0.02		1.8	OK
26.001	R2.17	70.168	-0.337	0.000	0.02		4.1	OK
26.002	R2.16	69.855	-0.170	0.000	0.02		4.1	OK
23.007	R2.15	69.855	0.000	0.000	0.14		21.9	SURCHARGED
27.000	Plot 1	70.092	-0.358	0.000	0.09		28.4	OK
23.008	S2.14	69.855	0.005	0.000	0.33		49.4	SURCHARGED
13.009	S2.24	69.854	0.269	0.000	0.05		6.7	SURCHARGED


Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester
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Micro Drainage <span style="float: right;">Network 2017.1</span>	



Summary of Results for 1440 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep 2.5 Second Increment (Extended)	
DTS Status	OFF
DVD Status	OFF
Inertia Status	OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	R5A	70.483	-0.267	0.000	0.03		2.3	OK
1.001	R5	70.222	-0.263	0.000	0.04		3.2	OK
1.002	R6	69.893	-0.332	0.000	0.03		4.1	OK
1.003	R7	69.767	-0.233	0.000	0.01		4.1	OK
2.000	R8	69.767	-0.183	0.000	0.01		2.3	OK
3.000	R9	69.767	-0.183	0.000	0.01		2.1	OK
4.000	R4A	70.354	-0.271	0.000	0.02		2.1	OK
4.001	R4	70.081	-0.269	0.000	0.02		2.1	OK
4.002	R3	69.869	-0.256	0.000	0.05		3.2	OK
4.003	R2	69.767	-0.158	0.000	0.03		3.9	OK
5.000	Tank 1	69.753	-0.222	0.000	0.00		0.0	OK
5.001	S3	69.767	-0.208	0.000	0.00		0.0	OK
6.000	G1	69.865	-0.260	0.000	0.04		6.0	OK
7.000	G2	69.767	-0.008	0.000	0.04		0.5	OK
8.000	G3	69.862	-0.263	0.000	0.04		5.1	OK
9.000	G4	69.767	-0.008	0.000	0.04		0.5	OK
5.002	S2	69.767	-0.158	0.000	0.09		12.0	OK
10.000	Tank 2	69.767	0.042	0.000	0.01		0.4	SURCHARGED
5.003	S1	69.768	-0.032	0.000	0.10		11.6	OK
5.004	Interceptor	69.767	-0.021	0.000	0.10		11.6	OK
4.004	R1	69.767	0.092	0.000	0.10		15.3	SURCHARGED
1.004	HW05	69.767	-0.023	0.000	0.07		12.0	OK
11.000	S11	69.817	-0.433	0.000	0.01		1.6	OK
11.001	S10	69.767	-0.133	0.000	0.01		3.2	OK
1.005	S4	69.767	0.057	0.000	0.05		13.8	SURCHARGED
12.000	UNIT1	69.767	-0.333	0.000	0.05		23.6	OK
12.001	S5	69.767	0.167	0.000	0.15		27.5	SURCHARGED
1.006	HW08	69.767	0.407	0.000	0.02		4.0	SURCHARGED
13.000	RE2.1	70.968	-0.267	0.000	0.03		2.0	OK
13.001	R2.7	70.736	-0.264	0.000	0.03		2.4	OK
13.002	R2.8	70.536	-0.264	0.000	0.03		2.4	OK
14.000	R2.10	70.809	-0.216	0.000	0.01		0.4	OK
13.003	R2.9	70.376	-0.324	0.000	0.05		6.2	OK
13.004	R2.11	69.999	-0.401	0.000	0.03		6.6	OK
15.000	R2.13	70.401	-0.199	0.000	0.03		2.1	OK
13.005	R2.12	69.873	-0.127	0.000	0.06		8.7	OK
13.006	R2.14	69.873	-0.002	0.000	0.05		8.4	OK
16.000	Tank 2.1	70.582	-0.168	0.000	0.01		0.3	OK
16.001	S2.23	70.585	-0.365	0.000	0.08		11.4	OK
17.000	G2.1	70.542	-0.138	0.000	0.02		0.2	FLOOD RISK
17.001	S2.22	70.453	-0.312	0.000	0.05		4.2	OK
16.002	S2.21	70.411	-0.489	0.000	0.07		15.6	OK
18.000	Tank 2.2	70.348	-0.152	0.000	0.02		0.3	OK

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Micro Drainage		Network 2017.1

Summary of Results for 1440 minute 30 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.348	-0.502	0.000	0.06		17.0	OK
19.000	G2.2	70.737	-0.213	0.000	0.01		1.2	OK
16.004	S2.19	70.216	-0.534	0.000	0.03		18.2	OK
20.000	G2.3	70.137	-0.213	0.000	0.01		0.3	OK
21.000	G2.4	70.461	-0.264	0.000	0.03		5.3	OK
20.001	S2.18	70.069	-0.331	0.000	0.03		5.7	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.874	-0.426	0.000	0.07		23.8	OK
16.006	Interceptor	69.873	-0.215	0.000	0.07		23.8	OK
13.007	S2.16	69.873	-0.102	0.000	0.23		32.1	OK
13.008	S2.15	69.873	-0.077	0.000	0.15		32.0	OK
23.000	RE2.2	70.926	-0.199	0.000	0.03		1.3	OK
23.001	R2.6	70.729	-0.196	0.000	0.04		1.3	OK
23.002	R2.5	70.690	-0.260	0.000	0.04		3.1	OK
23.003	R2.4	70.346	-0.274	0.000	0.02		3.3	OK
23.004	S2.12	69.873	-0.377	0.000	0.03	0.3	4.1	OK
24.000	RE2.3	70.806	-0.194	0.000	0.05		1.9	OK
24.001	R2.3	70.540	-0.335	0.000	0.03		3.8	OK
24.002	R2.2	70.123	-0.427	0.000	0.01		3.9	OK
23.005	R2.1	69.873	-0.262	0.000	0.06		9.2	OK
23.006	S2.13	69.873	-0.122	0.000	0.07		10.2	OK
25.000	R2.19	70.978	-0.222	0.000	0.00		0.1	OK
25.001	R2.20	70.845	-0.280	0.000	0.01		1.3	OK
25.002	R2.21	70.430	-0.345	0.000	0.02		2.8	OK
25.003	R2.22	70.060	-0.340	0.000	0.02		3.2	OK
26.000	R2.18	70.638	-0.282	0.000	0.01		1.3	OK
26.001	R2.17	70.159	-0.346	0.000	0.02		3.0	OK
26.002	R2.16	69.873	-0.152	0.000	0.02		3.0	OK
23.007	R2.15	69.873	0.018	0.000	0.10		16.1	SURCHARGED
27.000	Plot 1	70.077	-0.373	0.000	0.07		20.9	OK
23.008	S2.14	69.873	0.023	0.000	0.24		36.3	SURCHARGED
13.009	S2.24	69.872	0.287	0.000	0.05		6.7	SURCHARGED


Bailey Johnson Hayes		Page 37
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 2160 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 2160 minute 30 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe	Status
							Flow (l/s)	
1.000	R5A	70.479	-0.271	0.000	0.02		1.7	OK
1.001	R5	70.218	-0.267	0.000	0.03		2.4	OK
1.002	R6	69.889	-0.336	0.000	0.02		3.1	OK
1.003	R7	69.788	-0.212	0.000	0.01		3.1	OK
2.000	R8	69.788	-0.162	0.000	0.01		1.7	OK
3.000	R9	69.788	-0.162	0.000	0.01		1.5	OK
4.000	R4A	70.347	-0.278	0.000	0.02		1.5	OK
4.001	R4	70.074	-0.276	0.000	0.02		1.5	OK
4.002	R3	69.863	-0.262	0.000	0.04		2.4	OK
4.003	R2	69.788	-0.137	0.000	0.03		2.9	OK
5.000	Tank 1	69.775	-0.200	0.000	0.00		0.2	OK
5.001	S3	69.788	-0.187	0.000	0.00		0.2	OK
6.000	G1	69.860	-0.265	0.000	0.03		4.4	OK
7.000	G2	69.788	0.013	0.000	0.03		0.4	SURCHARGED
8.000	G3	69.858	-0.267	0.000	0.03		3.8	OK
9.000	G4	69.788	0.013	0.000	0.03		0.4	SURCHARGED
5.002	S2	69.788	-0.137	0.000	0.07		8.9	OK
10.000	Tank 2	69.788	0.063	0.000	0.01		0.4	SURCHARGED
5.003	S1	69.788	-0.012	0.000	0.07		8.5	OK
5.004	Interceptor	69.788	0.000	0.000	0.07		8.5	SURCHARGED
4.004	R1	69.788	0.113	0.000	0.07		11.3	SURCHARGED
1.004	HW05	69.788	-0.002	0.000	0.05		8.6	OK
11.000	S11	69.813	-0.437	0.000	0.01		1.2	OK
11.001	S10	69.788	-0.112	0.000	0.01		2.3	OK
1.005	S4	69.788	0.078	0.000	0.04		9.8	SURCHARGED
12.000	UNIT1	69.788	-0.312	0.000	0.04		17.4	OK
12.001	S5	69.788	0.188	0.000	0.11		20.4	SURCHARGED
1.006	HW08	69.788	0.428	0.000	0.02		4.0	SURCHARGED
13.000	RE2.1	70.964	-0.271	0.000	0.02		1.5	OK
13.001	R2.7	70.732	-0.268	0.000	0.03		1.8	OK
13.002	R2.8	70.532	-0.268	0.000	0.03		1.8	OK
14.000	R2.10	70.806	-0.219	0.000	0.01		0.3	OK
13.003	R2.9	70.370	-0.330	0.000	0.03		4.6	OK
13.004	R2.11	69.993	-0.407	0.000	0.02		4.9	OK
15.000	R2.13	70.398	-0.202	0.000	0.02		1.6	OK
13.005	R2.12	69.876	-0.124	0.000	0.04		6.4	OK
13.006	R2.14	69.876	0.001	0.000	0.04		6.2	SURCHARGED
16.000	Tank 2.1	70.569	-0.181	0.000	0.01		0.1	OK
16.001	S2.23	70.571	-0.379	0.000	0.06		8.5	OK
17.000	G2.1	70.539	-0.141	0.000	0.01		0.2	FLOOD RISK
17.001	S2.22	70.442	-0.323	0.000	0.04		3.1	OK
16.002	S2.21	70.395	-0.505	0.000	0.05		11.6	OK
18.000	Tank 2.2	70.335	-0.165	0.000	0.01		0.2	OK



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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 2160 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 2160 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.335	-0.515	0.000	0.05		12.7	OK
19.000	G2.2	70.734	-0.216	0.000	0.01		0.9	OK
16.004	S2.19	70.209	-0.541	0.000	0.02		13.6	OK
20.000	G2.3	70.134	-0.216	0.000	0.01		0.2	OK
21.000	G2.4	70.457	-0.268	0.000	0.02		3.9	OK
20.001	S2.18	70.064	-0.336	0.000	0.02		4.2	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.877	-0.423	0.000	0.05		17.7	OK
16.006	Interceptor	69.876	-0.212	0.000	0.05		17.7	OK
13.007	S2.16	69.876	-0.099	0.000	0.17		23.9	OK
13.008	S2.15	69.876	-0.074	0.000	0.11		23.7	OK
23.000	RE2.2	70.923	-0.202	0.000	0.02		0.9	OK
23.001	R2.6	70.725	-0.200	0.000	0.03		0.9	OK
23.002	R2.5	70.685	-0.265	0.000	0.03		2.3	OK
23.003	R2.4	70.339	-0.281	0.000	0.01		2.4	OK
23.004	S2.12	69.876	-0.374	0.000	0.02	0.3	3.0	OK
24.000	RE2.3	70.802	-0.198	0.000	0.03		1.4	OK
24.001	R2.3	70.534	-0.341	0.000	0.02		2.8	OK
24.002	R2.2	70.117	-0.433	0.000	0.01		2.9	OK
23.005	R2.1	69.876	-0.259	0.000	0.04		6.8	OK
23.006	S2.13	69.876	-0.119	0.000	0.05		7.6	OK
25.000	R2.19	70.977	-0.223	0.000	0.00		0.1	OK
25.001	R2.20	70.840	-0.285	0.000	0.01		1.0	OK
25.002	R2.21	70.423	-0.352	0.000	0.01		2.1	OK
25.003	R2.22	70.051	-0.349	0.000	0.01		2.4	OK
26.000	R2.18	70.633	-0.287	0.000	0.01		1.0	OK
26.001	R2.17	70.151	-0.354	0.000	0.01		2.2	OK
26.002	R2.16	69.876	-0.149	0.000	0.01		2.2	OK
23.007	R2.15	69.876	0.021	0.000	0.07		11.9	SURCHARGED
27.000	Plot 1	70.065	-0.385	0.000	0.05		15.5	OK
23.008	S2.14	69.876	0.026	0.000	0.18		26.8	SURCHARGED
13.009	S2.24	69.875	0.290	0.000	0.05		6.7	SURCHARGED

Bailey Johnson Hayes		Page 39
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 2880 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 2880 minute 30 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe	Status
							Flow (l/s)	
1.000	R5A	70.473	-0.277	0.000	0.02		1.4	OK
1.001	R5	70.216	-0.269	0.000	0.02		1.9	OK
1.002	R6	69.883	-0.342	0.000	0.02		2.5	OK
1.003	R7	69.793	-0.207	0.000	0.01		2.5	OK
2.000	R8	69.793	-0.157	0.000	0.00		1.4	OK
3.000	R9	69.793	-0.157	0.000	0.00		1.2	OK
4.000	R4A	70.342	-0.283	0.000	0.01		1.2	OK
4.001	R4	70.070	-0.280	0.000	0.01		1.2	OK
4.002	R3	69.860	-0.265	0.000	0.03		1.9	OK
4.003	R2	69.793	-0.132	0.000	0.02		2.3	OK
5.000	Tank 1	69.789	-0.186	0.000	0.01		0.2	OK
5.001	S3	69.793	-0.182	0.000	0.00		0.2	OK
6.000	G1	69.857	-0.268	0.000	0.03		3.6	OK
7.000	G2	69.793	0.018	0.000	0.03		0.3	SURCHARGED
8.000	G3	69.855	-0.270	0.000	0.02		3.1	OK
9.000	G4	69.793	0.018	0.000	0.03		0.3	SURCHARGED
5.002	S2	69.793	-0.132	0.000	0.05		7.2	OK
10.000	Tank 2	69.793	0.068	0.000	0.01		0.4	SURCHARGED
5.003	S1	69.794	-0.006	0.000	0.06		6.9	OK
5.004	Interceptor	69.794	0.006	0.000	0.06		6.8	SURCHARGED
4.004	R1	69.793	0.118	0.000	0.06		9.1	SURCHARGED
1.004	HW05	69.793	0.003	0.000	0.04		7.0	SURCHARGED
11.000	S11	69.810	-0.440	0.000	0.00		1.0	OK
11.001	S10	69.793	-0.107	0.000	0.01		1.8	OK
1.005	S4	69.793	0.083	0.000	0.03		8.0	SURCHARGED
12.000	UNIT1	69.794	-0.306	0.000	0.03		14.1	OK
12.001	S5	69.794	0.194	0.000	0.09		16.4	SURCHARGED
1.006	HW08	69.793	0.433	0.000	0.02		4.0	SURCHARGED
13.000	RE2.1	70.958	-0.277	0.000	0.02		1.2	OK
13.001	R2.7	70.729	-0.271	0.000	0.02		1.4	OK
13.002	R2.8	70.529	-0.271	0.000	0.02		1.4	OK
14.000	R2.10	70.805	-0.220	0.000	0.00		0.2	OK
13.003	R2.9	70.366	-0.334	0.000	0.03		3.7	OK
13.004	R2.11	69.985	-0.415	0.000	0.02		3.9	OK
15.000	R2.13	70.394	-0.206	0.000	0.02		1.3	OK
13.005	R2.12	69.866	-0.134	0.000	0.03		5.2	OK
13.006	R2.14	69.866	-0.009	0.000	0.03		5.0	OK
16.000	Tank 2.1	70.562	-0.188	0.000	0.01		0.1	OK
16.001	S2.23	70.563	-0.387	0.000	0.05		6.9	OK
17.000	G2.1	70.537	-0.143	0.000	0.01		0.1	FLOOD RISK
17.001	S2.22	70.436	-0.329	0.000	0.03		2.5	OK
16.002	S2.21	70.385	-0.515	0.000	0.04		9.4	OK
18.000	Tank 2.2	70.326	-0.174	0.000	0.01		0.1	OK

Bailey Johnson Hayes		Page 40
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 30yr 2880 min winter.mdx	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 2880 minute 30 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.326	-0.524	0.000	0.04		10.3	OK
19.000	G2.2	70.732	-0.218	0.000	0.01		0.7	OK
16.004	S2.19	70.197	-0.553	0.000	0.02		11.0	OK
20.000	G2.3	70.132	-0.218	0.000	0.01		0.2	OK
21.000	G2.4	70.453	-0.272	0.000	0.02		3.2	OK
20.001	S2.18	70.060	-0.340	0.000	0.02		3.4	OK
22.000	Tank 2.3	69.950	-0.225	0.000	0.00		0.0	OK
16.005	s2.17	69.866	-0.434	0.000	0.04		14.4	OK
16.006	Interceptor	69.866	-0.222	0.000	0.04		14.3	OK
13.007	S2.16	69.866	-0.109	0.000	0.14		19.3	OK
13.008	S2.15	69.865	-0.085	0.000	0.09		19.2	OK
23.000	RE2.2	70.920	-0.205	0.000	0.02		0.8	OK
23.001	R2.6	70.723	-0.202	0.000	0.02		0.8	OK
23.002	R2.5	70.682	-0.268	0.000	0.03		1.9	OK
23.003	R2.4	70.335	-0.285	0.000	0.01		1.9	OK
23.004	S2.12	69.865	-0.385	0.000	0.02	0.2	2.4	OK
24.000	RE2.3	70.800	-0.200	0.000	0.03		1.2	OK
24.001	R2.3	70.528	-0.347	0.000	0.02		2.3	OK
24.002	R2.2	70.114	-0.436	0.000	0.01		2.3	OK
23.005	R2.1	69.865	-0.270	0.000	0.04		5.5	OK
23.006	S2.13	69.865	-0.130	0.000	0.04		6.1	OK
25.000	R2.19	70.977	-0.223	0.000	0.00		0.1	OK
25.001	R2.20	70.837	-0.288	0.000	0.01		0.8	OK
25.002	R2.21	70.418	-0.357	0.000	0.01		1.7	OK
25.003	R2.22	70.046	-0.354	0.000	0.01		1.9	OK
26.000	R2.18	70.631	-0.289	0.000	0.01		0.8	OK
26.001	R2.17	70.147	-0.358	0.000	0.01		1.8	OK
26.002	R2.16	69.865	-0.160	0.000	0.01		1.8	OK
23.007	R2.15	69.865	0.010	0.000	0.06		9.6	SURCHARGED
27.000	Plot 1	70.058	-0.392	0.000	0.04		12.5	OK
23.008	S2.14	69.865	0.015	0.000	0.15		21.7	SURCHARGED
13.009	S2.24	69.865	0.280	0.000	0.05		6.7	SURCHARGED

Bailey Johnson Hayes		Page 41
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 15 min winter...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 15 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	R5A	71.115	0.365	0.000	0.99		83.6	FLOOD RISK
1.001	R5	70.855	0.370	0.000	1.31		112.0	SURCHARGED
1.002	R6	70.253	0.028	0.000	1.06		138.3	SURCHARGED
1.003	R7	69.762	-0.238	0.000	0.46		138.3	OK
2.000	R8	69.702	-0.248	0.000	0.36		103.8	OK
3.000	R9	69.702	-0.248	0.000	0.31		93.7	OK
4.000	R4A	71.094	0.469	0.000	0.72		71.7	FLOOD RISK
4.001	R4	70.958	0.608	0.000	0.78		70.2	SURCHARGED
4.002	R3	70.821	0.696	0.000	1.62		98.1	FLOOD RISK
4.003	R2	70.288	0.363	0.000	1.03		118.9	SURCHARGED
5.000	Tank 1	69.910	-0.065	0.000	0.69		32.3	OK
5.001	S3	70.196	0.221	0.000	0.27		33.1	SURCHARGED
6.000	G1	70.528	0.403	27.780	0.97		135.0	FLOOD
7.000	G2	70.301	0.526	1.371	1.30		14.7	FLOOD
8.000	G3	70.518	0.393	18.214	0.90		126.0	FLOOD
9.000	G4	70.301	0.526	1.371	1.30		14.7	FLOOD
5.002	S2	70.240	0.315	0.000	1.63		216.8	SURCHARGED
10.000	Tank 2	69.662	-0.063	0.000	0.11		5.8	OK
5.003	S1	69.919	0.119	0.000	1.33		155.7	SURCHARGED
5.004	Interceptor	69.885	0.097	0.000	1.33		155.6	SURCHARGED
4.004	R1	69.851	0.176	0.000	1.78		271.5	SURCHARGED
1.004	HW05	69.702	-0.088	0.000	1.01		163.9	OK
11.000	S11	70.489	0.239	0.000	1.19		243.4	FLOOD RISK
11.001	S10	69.997	0.097	0.000	1.13		268.3	SURCHARGED
1.005	S4	69.677	-0.033	0.000	1.00		269.9	OK
12.000	UNIT1	70.802	0.702	101.542	1.28		581.2	FLOOD
12.001	S5	70.107	0.507	0.000	4.01		728.9	SURCHARGED
1.006	HW08	69.636	0.276	0.000	0.02		3.9	SURCHARGED
13.000	RE2.1	71.802	0.567	1.582	0.90		66.1	FLOOD
13.001	R2.7	71.762	0.762	0.000	0.93		64.8	FLOOD RISK
13.002	R2.8	71.669	0.869	0.000	0.94		66.4	FLOOD RISK
14.000	R2.10	71.600	0.575	0.000	0.28		13.7	FLOOD RISK
13.003	R2.9	71.571	0.871	0.000	1.22		166.0	FLOOD RISK
13.004	R2.11	71.130	0.730	0.000	0.67		162.6	SURCHARGED
15.000	R2.13	71.631	1.031	0.000	0.98		68.1	FLOOD RISK
13.005	R2.12	70.968	0.968	0.000	1.46		219.4	SURCHARGED
13.006	R2.14	70.700	0.825	0.000	1.30		220.0	SURCHARGED
16.000	Tank 2.1	71.687	0.937	0.000	2.53		46.0	FLOOD RISK
16.001	S2.23	71.627	0.677	7.227	1.81		257.9	FLOOD
17.000	G2.1	70.814	0.134	13.567	1.37		17.3	FLOOD
17.001	S2.22	71.246	0.481	0.000	1.70		147.2	SURCHARGED
16.002	S2.21	71.065	0.165	0.000	1.53		361.1	SURCHARGED
18.000	Tank 2.2	70.666	0.166	0.000	2.06		27.5	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 15 min winter...	Designed by P.A.B. Checked by	
Micro Drainage	Network 2017.1	

Summary of Results for 15 minute 100 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.974	0.124	0.000	1.18		315.9	SURCHARGED
19.000	G2.2	70.895	-0.055	0.000	0.49		52.5	OK
16.004	S2.19	70.857	0.107	0.000	0.49		324.2	SURCHARGED
20.000	G2.3	70.804	0.454	3.654	1.19		35.0	FLOOD
21.000	G2.4	71.108	0.383	8.095	1.01		159.2	FLOOD
20.001	S2.18	70.873	0.473	0.000	0.95		162.6	SURCHARGED
22.000	Tank 2.3	70.334	0.159	0.000	0.90		51.5	SURCHARGED
16.005	s2.17	70.750	0.450	0.000	1.01		350.3	SURCHARGED
16.006	Interceptor	70.667	0.579	0.000	1.00		347.7	SURCHARGED
13.007	S2.16	70.546	0.571	0.000	4.08		567.3	SURCHARGED
13.008	S2.15	70.225	0.275	0.000	2.63		566.5	SURCHARGED
23.000	RE2.2	71.701	0.576	0.998	1.12		44.8	FLOOD
23.001	R2.6	71.541	0.616	0.000	1.46		46.0	FLOOD RISK
23.002	R2.5	71.474	0.524	0.000	1.36		99.4	FLOOD RISK
23.003	R2.4	70.891	0.271	0.000	0.57		103.2	SURCHARGED
23.004	S2.12	70.723	0.473	3.597	0.33	197.7	50.5	FLOOD
24.000	RE2.3	71.870	0.870	0.000	1.59		67.3	FLOOD RISK
24.001	R2.3	71.189	0.314	0.000	0.86		125.1	SURCHARGED
24.002	R2.2	70.877	0.327	0.000	0.36		129.9	SURCHARGED
23.005	R2.1	70.847	0.712	0.000	0.64		99.0	FLOOD RISK
23.006	S2.13	70.809	0.814	0.000	0.76		118.0	SURCHARGED
25.000	R2.19	71.106	-0.094	0.000	0.13		5.3	OK
25.001	R2.20	71.097	-0.028	0.000	0.65		60.0	OK
25.002	R2.21	71.018	0.243	0.000	0.65		106.6	SURCHARGED
25.003	R2.22	70.899	0.499	0.000	0.63		101.2	SURCHARGED
26.000	R2.18	71.037	0.117	0.000	0.51		53.0	SURCHARGED
26.001	R2.17	70.936	0.431	0.000	0.55		102.4	SURCHARGED
26.002	R2.16	70.782	0.757	0.000	0.53		102.5	SURCHARGED
23.007	R2.15	70.748	0.893	0.000	1.90		302.2	SURCHARGED
27.000	Plot 1	70.961	0.511	160.765	1.08		328.2	FLOOD
23.008	S2.14	70.174	0.324	0.000	4.08		608.5	SURCHARGED
13.009	S2.24	69.701	0.116	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 30 min winter...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 30 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )				
1.000	R5A	70.713	-0.037	0.000	0.81	67.9	OK	
1.001	R5	70.541	0.056	0.000	1.09	92.8	SURCHARGED	
1.002	R6	70.129	-0.096	0.000	0.89	117.1	OK	
1.003	R7	69.751	-0.249	0.000	0.39	116.9	OK	
2.000	R8	69.746	-0.204	0.000	0.25	72.5	OK	
3.000	R9	69.746	-0.204	0.000	0.22	65.4	OK	
4.000	R4A	70.635	0.010	0.000	0.63	63.2	SURCHARGED	
4.001	R4	70.555	0.205	0.000	0.61	54.9	SURCHARGED	
4.002	R3	70.473	0.348	0.000	1.33	80.4	SURCHARGED	
4.003	R2	70.114	0.189	0.000	0.85	97.8	SURCHARGED	
5.000	Tank 1	69.909	-0.066	0.000	0.61	28.6	OK	
5.001	S3	70.184	0.209	0.000	0.24	29.5	SURCHARGED	
6.000	G1	70.511	0.386	10.546	0.95	131.9	FLOOD	
7.000	G2	70.298	0.523	0.000	1.19	13.4	FLOOD RISK	
8.000	G3	70.503	0.378	3.057	0.89	124.0	FLOOD	
9.000	G4	70.298	0.523	0.000	1.19	13.4	FLOOD RISK	
5.002	S2	70.227	0.302	0.000	1.63	217.2	SURCHARGED	
10.000	Tank 2	69.706	-0.019	0.000	0.00	0.0	OK	
5.003	S1	69.913	0.113	0.000	1.35	157.9	SURCHARGED	
5.004	Interceptor	69.881	0.093	0.000	1.35	157.4	SURCHARGED	
4.004	R1	69.850	0.175	0.000	1.67	255.0	SURCHARGED	
1.004	HW05	69.744	-0.046	0.000	1.05	170.6	OK	
11.000	S11	70.308	0.058	0.000	1.07	217.2	SURCHARGED	
11.001	S10	69.942	0.042	0.000	1.00	237.1	SURCHARGED	
1.005	S4	69.710	0.000	0.000	1.01	273.8	OK	
12.000	UNIT1	70.730	0.630	30.543	1.24	559.9	FLOOD	
12.001	S5	70.021	0.421	0.000	3.73	677.7	SURCHARGED	
1.006	HW08	69.701	0.341	0.000	0.02	3.9	SURCHARGED	
13.000	RE2.1	71.473	0.238	0.000	0.79	58.5	SURCHARGED	
13.001	R2.7	71.391	0.391	0.000	0.83	57.4	SURCHARGED	
13.002	R2.8	71.284	0.484	0.000	0.79	55.9	SURCHARGED	
14.000	R2.10	71.222	0.197	0.000	0.24	11.8	SURCHARGED	
13.003	R2.9	71.196	0.496	0.000	0.98	132.8	SURCHARGED	
13.004	R2.11	70.869	0.469	0.000	0.57	137.8	SURCHARGED	
15.000	R2.13	71.163	0.563	0.000	0.78	54.1	SURCHARGED	
13.005	R2.12	70.743	0.743	0.000	1.23	185.8	SURCHARGED	
13.006	R2.14	70.558	0.683	0.000	1.10	185.9	SURCHARGED	
16.000	Tank 2.1	71.473	0.723	0.000	2.14	38.9	FLOOD RISK	
16.001	S2.23	71.474	0.524	0.000	1.62	231.1	FLOOD RISK	
17.000	G2.1	70.812	0.132	11.821	1.35	17.0	FLOOD	
17.001	S2.22	71.042	0.277	0.000	1.22	105.2	SURCHARGED	
16.002	S2.21	70.901	0.001	0.000	1.26	298.5	SURCHARGED	
18.000	Tank 2.2	70.663	0.163	0.000	1.85	24.7	SURCHARGED	

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Micro Drainage		Network 2017.1

Summary of Results for 30 minute 100 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.797	-0.053	0.000	1.00		267.0	OK
19.000	G2.2	70.816	-0.134	0.000	0.34		36.8	OK
16.004	S2.19	70.634	-0.116	0.000	0.44		289.6	OK
20.000	G2.3	70.740	0.390	0.000	0.24		7.0	FLOOD RISK
21.000	G2.4	70.970	0.245	0.000	0.84		132.4	FLOOD RISK
20.001	S2.18	70.723	0.323	0.000	0.80		137.3	SURCHARGED
22.000	Tank 2.3	70.325	0.150	0.000	0.87		49.5	SURCHARGED
16.005	s2.17	70.548	0.248	0.000	0.98		339.2	SURCHARGED
16.006	Interceptor	70.499	0.411	0.000	0.98		339.3	SURCHARGED
13.007	S2.16	70.451	0.476	0.000	3.76		522.7	SURCHARGED
13.008	S2.15	70.178	0.228	0.000	2.43		522.9	SURCHARGED
23.000	RE2.2	71.304	0.179	0.000	0.90		35.8	SURCHARGED
23.001	R2.6	71.142	0.217	0.000	1.21		38.0	SURCHARGED
23.002	R2.5	71.079	0.129	0.000	1.17		85.4	SURCHARGED
23.003	R2.4	70.632	0.012	0.000	0.50		90.0	SURCHARGED
23.004	S2.12	70.514	0.264	0.000	0.28	178.6	43.5	FLOOD RISK
24.000	RE2.3	71.283	0.283	0.000	1.31		55.1	SURCHARGED
24.001	R2.3	70.814	-0.061	0.000	0.73		105.7	OK
24.002	R2.2	70.615	0.065	0.000	0.30		110.5	SURCHARGED
23.005	R2.1	70.591	0.456	0.000	0.58		90.0	SURCHARGED
23.006	S2.13	70.558	0.563	0.000	0.68		104.8	SURCHARGED
25.000	R2.19	71.021	-0.179	0.000	0.09		3.8	OK
25.001	R2.20	70.969	-0.156	0.000	0.46		42.0	OK
25.002	R2.21	70.696	-0.079	0.000	0.52		85.6	OK
25.003	R2.22	70.617	0.217	0.000	0.53		85.3	SURCHARGED
26.000	R2.18	70.750	-0.170	0.000	0.39		40.9	OK
26.001	R2.17	70.628	0.123	0.000	0.45		83.2	SURCHARGED
26.002	R2.16	70.532	0.507	0.000	0.43		82.7	SURCHARGED
23.007	R2.15	70.511	0.656	0.000	1.59		252.3	SURCHARGED
27.000	Plot 1	70.909	0.459	109.347	1.07		323.7	FLOOD
23.008	S2.14	70.118	0.268	0.000	3.75		559.6	SURCHARGED
13.009	S2.24	69.772	0.187	0.000	0.05		6.7	SURCHARGED


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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
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Micro Drainage		Network 2017.1

Summary of Results for 60 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF


PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.606	-0.144	0.000	0.53	44.4	OK
1.001	R5	70.377	-0.108	0.000	0.73	62.2	OK
1.002	R6	70.062	-0.163	0.000	0.60	79.1	OK
1.003	R7	69.781	-0.219	0.000	0.26	78.7	OK
2.000	R8	69.780	-0.170	0.000	0.15	44.5	OK
3.000	R9	69.780	-0.170	0.000	0.13	40.2	OK
4.000	R4A	70.457	-0.168	0.000	0.40	40.0	OK
4.001	R4	70.191	-0.159	0.000	0.45	40.1	OK
4.002	R3	70.099	-0.026	0.000	0.98	59.1	OK
4.003	R2	69.918	-0.007	0.000	0.61	69.9	OK
5.000	Tank 1	69.837	-0.138	0.000	0.17	8.0	OK
5.001	S3	70.057	0.082	0.000	0.07	8.3	SURCHARGED
6.000	G1	70.288	0.163	0.000	0.76	106.6	FLOOD RISK
7.000	G2	70.172	0.397	0.000	0.78	8.7	FLOOD RISK
8.000	G3	70.237	0.112	0.000	0.66	92.1	FLOOD RISK
9.000	G4	70.172	0.397	0.000	0.78	8.7	FLOOD RISK
5.002	S2	70.081	0.156	0.000	1.41	188.0	SURCHARGED
10.000	Tank 2	69.773	0.048	0.000	0.00	0.0	SURCHARGED
5.003	S1	69.841	0.041	0.000	1.22	143.1	SURCHARGED
5.004	Interceptor	69.819	0.031	0.000	1.22	142.9	SURCHARGED
4.004	R1	69.797	0.122	0.000	1.39	212.2	SURCHARGED
1.004	HW05	69.780	-0.010	0.000	0.77	124.5	OK
11.000	S11	70.105	-0.145	0.000	0.78	159.6	OK
11.001	S10	69.809	-0.091	0.000	0.76	180.6	OK
1.005	S4	69.779	0.069	0.000	1.00	269.9	SURCHARGED
12.000	UNIT1	70.282	0.182	0.000	0.95	428.9	SURCHARGED
12.001	S5	69.823	0.223	0.000	2.84	516.2	SURCHARGED
1.006	HW08	69.778	0.418	0.000	0.02	3.9	SURCHARGED
13.000	RE2.1	71.090	-0.145	0.000	0.53	38.7	OK
13.001	R2.7	70.880	-0.120	0.000	0.66	46.1	OK
13.002	R2.8	70.769	-0.031	0.000	0.61	42.9	OK
14.000	R2.10	70.859	-0.166	0.000	0.15	7.6	OK
13.003	R2.9	70.708	0.008	0.000	0.80	108.2	SURCHARGED
13.004	R2.11	70.487	0.087	0.000	0.45	108.6	SURCHARGED
15.000	R2.13	70.634	0.034	0.000	0.55	38.0	SURCHARGED
13.005	R2.12	70.407	0.407	0.000	0.95	143.4	SURCHARGED
13.006	R2.14	70.294	0.419	0.000	0.85	143.4	SURCHARGED
16.000	Tank 2.1	71.054	0.304	0.000	1.70	30.9	SURCHARGED
16.001	S2.23	71.056	0.106	0.000	1.17	167.1	SURCHARGED
17.000	G2.1	70.802	0.122	2.409	0.75	9.5	FLOOD
17.001	S2.22	70.824	0.059	0.000	0.87	75.2	SURCHARGED
16.002	S2.21	70.763	-0.137	0.000	0.95	224.4	OK
18.000	Tank 2.2	70.634	0.134	0.000	1.20	16.1	SURCHARGED



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Micro Drainage		Network 2017.1

Summary of Results for 60 minute 100 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.670	-0.180	0.000	0.83		221.5	OK
19.000	G2.2	70.795	-0.155	0.000	0.21		22.5	OK
16.004	S2.19	70.418	-0.332	0.000	0.36		239.0	OK
20.000	G2.3	70.451	0.101	0.000	0.19		5.6	SURCHARGED
21.000	G2.4	70.603	-0.122	0.000	0.65		102.8	OK
20.001	S2.18	70.438	0.038	0.000	0.62		106.8	SURCHARGED
22.000	Tank 2.3	70.231	0.056	0.000	0.64		36.7	SURCHARGED
16.005	s2.17	70.330	0.030	0.000	0.81		281.6	SURCHARGED
16.006	Interceptor	70.296	0.208	0.000	0.81		281.7	SURCHARGED
13.007	S2.16	70.263	0.288	0.000	3.05		424.8	SURCHARGED
13.008	S2.15	70.084	0.134	0.000	1.97		424.6	SURCHARGED
23.000	RE2.2	71.028	-0.097	0.000	0.61		24.5	OK
23.001	R2.6	70.886	-0.039	0.000	0.78		24.6	OK
23.002	R2.5	70.860	-0.090	0.000	0.82		59.9	OK
23.003	R2.4	70.442	-0.178	0.000	0.35		62.7	OK
23.004	S2.12	70.254	0.004	0.000	0.25	131.6	38.5	SURCHARGED
24.000	RE2.3	70.941	-0.059	0.000	0.89		37.4	OK
24.001	R2.3	70.690	-0.185	0.000	0.50		73.1	OK
24.002	R2.2	70.329	-0.221	0.000	0.21		75.1	OK
23.005	R2.1	70.312	0.177	0.000	0.52		81.2	SURCHARGED
23.006	S2.13	70.288	0.293	0.000	0.60		93.7	SURCHARGED
25.000	R2.19	71.009	-0.191	0.000	0.06		2.3	OK
25.001	R2.20	70.934	-0.191	0.000	0.28		25.6	OK
25.002	R2.21	70.550	-0.225	0.000	0.33		54.9	OK
25.003	R2.22	70.305	-0.095	0.000	0.38		60.5	OK
26.000	R2.18	70.720	-0.200	0.000	0.24		25.1	OK
26.001	R2.17	70.312	-0.193	0.000	0.31		56.9	OK
26.002	R2.16	70.265	0.240	0.000	0.29		56.0	SURCHARGED
23.007	R2.15	70.252	0.397	0.000	1.15		183.1	SURCHARGED
27.000	Plot 1	70.823	0.373	22.532	1.03		311.3	FLOOD
23.008	S2.14	70.044	0.194	0.000	3.28		489.9	SURCHARGED
13.009	S2.24	69.863	0.278	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
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Micro Drainage		Network 2017.1

Summary of Results for 120 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.565	-0.185	0.000	0.32	26.5	OK
1.001	R5	70.323	-0.162	0.000	0.43	37.1	OK
1.002	R6	70.007	-0.218	0.000	0.36	47.6	OK
1.003	R7	69.839	-0.161	0.000	0.16	47.5	OK
2.000	R8	69.839	-0.111	0.000	0.09	26.1	OK
3.000	R9	69.839	-0.111	0.000	0.08	23.4	OK
4.000	R4A	70.424	-0.201	0.000	0.24	23.9	OK
4.001	R4	70.155	-0.195	0.000	0.27	23.9	OK
4.002	R3	69.994	-0.131	0.000	0.60	36.6	OK
4.003	R2	69.842	-0.083	0.000	0.39	45.0	OK
5.000	Tank 1	69.819	-0.156	0.000	0.00	0.0	OK
5.001	S3	69.877	-0.098	0.000	0.00	0.0	OK
6.000	G1	69.974	-0.151	0.000	0.50	69.0	OK
7.000	G2	69.917	0.142	0.000	0.50	5.6	SURCHARGED
8.000	G3	69.961	-0.164	0.000	0.43	59.3	OK
9.000	G4	69.917	0.142	0.000	0.50	5.6	SURCHARGED
5.002	S2	69.881	-0.044	0.000	0.99	132.0	OK
10.000	Tank 2	69.831	0.106	0.000	0.00	0.2	SURCHARGED
5.003	S1	69.832	0.032	0.000	1.00	117.0	SURCHARGED
5.004	Interceptor	69.834	0.046	0.000	1.00	117.0	SURCHARGED
4.004	R1	69.837	0.162	0.000	1.06	161.9	SURCHARGED
1.004	HW05	69.839	0.049	0.000	0.76	122.4	SURCHARGED
11.000	S11	69.995	-0.255	0.000	0.39	78.9	OK
11.001	S10	69.842	-0.058	0.000	0.40	94.0	OK
1.005	S4	69.840	0.130	0.000	0.77	207.8	SURCHARGED
12.000	UNIT1	69.855	-0.245	0.000	0.60	272.7	OK
12.001	S5	69.843	0.243	0.000	1.82	330.5	SURCHARGED
1.006	HW08	69.841	0.481	0.000	0.02	3.9	SURCHARGED
13.000	RE2.1	71.050	-0.185	0.000	0.31	23.1	OK
13.001	R2.7	70.831	-0.169	0.000	0.40	27.5	OK
13.002	R2.8	70.630	-0.170	0.000	0.39	27.4	OK
14.000	R2.10	70.846	-0.179	0.000	0.09	4.5	OK
13.003	R2.9	70.519	-0.181	0.000	0.52	71.2	OK
13.004	R2.11	70.151	-0.249	0.000	0.31	75.0	OK
15.000	R2.13	70.467	-0.133	0.000	0.35	24.3	OK
13.005	R2.12	70.090	0.090	0.000	0.65	98.4	SURCHARGED
13.006	R2.14	70.037	0.162	0.000	0.58	98.4	SURCHARGED
16.000	Tank 2.1	70.796	0.046	0.000	0.61	11.1	SURCHARGED
16.001	S2.23	70.814	-0.136	0.000	0.80	114.7	OK
17.000	G2.1	70.718	0.038	0.000	0.17	2.2	FLOOD RISK
17.001	S2.22	70.707	-0.058	0.000	0.55	47.3	OK
16.002	S2.21	70.673	-0.227	0.000	0.67	158.1	OK
18.000	Tank 2.2	70.578	0.078	0.000	0.75	10.0	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 120 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 120 minute 100 year Winter (Storm)


PN	US/MH Name	Water		Surcharged		Flooded		Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)			
16.003	S2.20	70.591	-0.259	0.000	0.61		164.5		OK	
19.000	G2.2	70.778	-0.172	0.000	0.13		13.5		OK	
16.004	S2.19	70.360	-0.390	0.000	0.27		175.9		OK	
20.000	G2.3	70.199	-0.151	0.000	0.13		3.7		OK	
21.000	G2.4	70.555	-0.170	0.000	0.39		61.5		OK	
20.001	S2.18	70.185	-0.215	0.000	0.38		65.1		OK	
22.000	Tank 2.3	69.991	-0.184	0.000	0.04		2.4		OK	
16.005	s2.17	70.068	-0.232	0.000	0.66		230.6		OK	
16.006	Interceptor	70.045	-0.043	0.000	0.66		230.6		OK	
13.007	S2.16	70.022	0.047	0.000	2.36		328.5		SURCHARGED	
13.008	S2.15	69.971	0.021	0.000	1.53		328.4		SURCHARGED	
23.000	RE2.2	70.994	-0.131	0.000	0.37		14.6		OK	
23.001	R2.6	70.817	-0.108	0.000	0.46		14.6		OK	
23.002	R2.5	70.799	-0.151	0.000	0.49		35.9		OK	
23.003	R2.4	70.413	-0.207	0.000	0.21		37.6		OK	
23.004	S2.12	70.175	-0.075	0.000	0.22	62.3	33.7		OK	
24.000	RE2.3	70.892	-0.108	0.000	0.53		22.3		OK	
24.001	R2.3	70.641	-0.234	0.000	0.30		43.6		OK	
24.002	R2.2	70.205	-0.345	0.000	0.12		45.4		OK	
23.005	R2.1	70.167	0.032	0.000	0.50		77.8		SURCHARGED	
23.006	S2.13	70.133	0.138	0.000	0.57		88.7		SURCHARGED	
25.000	R2.19	71.002	-0.198	0.000	0.03		1.4		OK	
25.001	R2.20	70.907	-0.218	0.000	0.17		15.3		OK	
25.002	R2.21	70.513	-0.262	0.000	0.20		32.7		OK	
25.003	R2.22	70.156	-0.244	0.000	0.23		37.1		OK	
26.000	R2.18	70.695	-0.225	0.000	0.14		15.0		OK	
26.001	R2.17	70.239	-0.266	0.000	0.19		34.6		OK	
26.002	R2.16	70.098	0.073	0.000	0.18		34.8		SURCHARGED	
23.007	R2.15	70.090	0.235	0.000	0.96		152.0		SURCHARGED	
27.000	Plot 1	70.388	-0.062	0.000	0.76		230.5		OK	
23.008	S2.14	69.970	0.120	0.000	2.54		379.1		SURCHARGED	
13.009	S2.24	69.971	0.386	0.000	0.05		6.7		SURCHARGED	

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 180 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 180 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
1.000	R5A	70.548	-0.202	0.000	0.23	19.6	OK
1.001	R5	70.302	-0.183	0.000	0.32	27.4	OK
1.002	R6	69.982	-0.243	0.000	0.27	35.3	OK
1.003	R7	69.879	-0.121	0.000	0.12	35.3	OK
2.000	R8	69.878	-0.072	0.000	0.07	19.4	OK
3.000	R9	69.878	-0.072	0.000	0.06	17.4	OK
4.000	R4A	70.410	-0.215	0.000	0.18	17.7	OK
4.001	R4	70.140	-0.210	0.000	0.20	17.7	OK
4.002	R3	69.966	-0.159	0.000	0.45	27.1	OK
4.003	R2	69.880	-0.045	0.000	0.29	33.4	OK
5.000	Tank 1	69.870	-0.105	0.000	0.00	0.1	OK
5.001	S3	69.875	-0.100	0.000	0.00	0.0	OK
6.000	G1	69.950	-0.175	0.000	0.37	51.1	OK
7.000	G2	69.882	0.107	0.000	0.37	4.2	SURCHARGED
8.000	G3	69.940	-0.185	0.000	0.32	43.9	OK
9.000	G4	69.882	0.107	0.000	0.37	4.2	SURCHARGED
5.002	S2	69.878	-0.047	0.000	0.77	102.6	OK
10.000	Tank 2	69.870	0.145	0.000	0.00	0.1	SURCHARGED
5.003	S1	69.874	0.074	0.000	0.84	97.8	SURCHARGED
5.004	Interceptor	69.875	0.087	0.000	0.84	97.8	SURCHARGED
4.004	R1	69.877	0.202	0.000	0.85	130.1	SURCHARGED
1.004	HW05	69.878	0.088	0.000	0.67	108.8	SURCHARGED
11.000	S11	69.891	-0.359	0.000	0.09	18.2	OK
11.001	S10	69.882	-0.018	0.000	0.13	29.8	OK
1.005	S4	69.879	0.169	0.000	0.50	134.2	SURCHARGED
12.000	UNIT1	69.888	-0.212	0.000	0.45	202.0	OK
12.001	S5	69.880	0.280	0.000	1.35	245.0	SURCHARGED
1.006	HW08	69.879	0.519	0.000	0.02	4.0	SURCHARGED
13.000	RE2.1	71.033	-0.202	0.000	0.23	17.1	OK
13.001	R2.7	70.811	-0.189	0.000	0.29	20.4	OK
13.002	R2.8	70.610	-0.190	0.000	0.29	20.4	OK
14.000	R2.10	70.838	-0.187	0.000	0.07	3.4	OK
13.003	R2.9	70.487	-0.213	0.000	0.39	52.9	OK
13.004	R2.11	70.115	-0.285	0.000	0.23	56.3	OK
15.000	R2.13	70.453	-0.147	0.000	0.26	18.0	OK
13.005	R2.12	70.046	0.046	0.000	0.49	74.0	SURCHARGED
13.006	R2.14	70.035	0.160	0.000	0.44	73.9	SURCHARGED
16.000	Tank 2.1	70.733	-0.017	0.000	0.33	6.0	OK
16.001	S2.23	70.759	-0.191	0.000	0.63	89.3	OK
17.000	G2.1	70.656	-0.024	0.000	0.13	1.7	FLOOD RISK
17.001	S2.22	70.647	-0.118	0.000	0.41	35.2	OK
16.002	S2.21	70.620	-0.280	0.000	0.52	123.4	OK
18.000	Tank 2.2	70.536	0.036	0.000	0.48	6.4	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 180 min winte...	Designed by P.A.B. Checked by	
Micro Drainage	Network 2017.1	

Summary of Results for 180 minute 100 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.543	-0.307	0.000	0.48		128.7	OK
19.000	G2.2	70.771	-0.179	0.000	0.09		10.0	OK
16.004	S2.19	70.335	-0.415	0.000	0.21		137.8	OK
20.000	G2.3	70.181	-0.169	0.000	0.09		2.8	OK
21.000	G2.4	70.534	-0.191	0.000	0.29		45.5	OK
20.001	S2.18	70.160	-0.240	0.000	0.28		48.2	OK
22.000	Tank 2.3	70.023	-0.152	0.000	0.00		0.3	OK
16.005	s2.17	70.038	-0.262	0.000	0.53		182.3	OK
16.006	Interceptor	70.036	-0.052	0.000	0.53		182.3	OK
13.007	S2.16	70.034	0.059	0.000	1.84		255.7	SURCHARGED
13.008	S2.15	70.031	0.081	0.000	1.19		255.7	SURCHARGED
23.000	RE2.2	70.980	-0.145	0.000	0.27		10.8	OK
23.001	R2.6	70.796	-0.129	0.000	0.34		10.8	OK
23.002	R2.5	70.775	-0.175	0.000	0.36		26.5	OK
23.003	R2.4	70.398	-0.222	0.000	0.15		27.8	OK
23.004	S2.12	70.068	-0.182	0.000	0.20	5.2	30.3	OK
24.000	RE2.3	70.873	-0.127	0.000	0.39		16.5	OK
24.001	R2.3	70.620	-0.255	0.000	0.22		32.3	OK
24.002	R2.2	70.192	-0.358	0.000	0.09		33.5	OK
23.005	R2.1	70.053	-0.082	0.000	0.47		73.0	OK
23.006	S2.13	70.038	0.043	0.000	0.53		82.5	SURCHARGED
25.000	R2.19	70.999	-0.201	0.000	0.02		1.0	OK
25.001	R2.20	70.895	-0.230	0.000	0.12		11.3	OK
25.002	R2.21	70.495	-0.280	0.000	0.15		24.1	OK
25.003	R2.22	70.128	-0.272	0.000	0.17		27.3	OK
26.000	R2.18	70.685	-0.235	0.000	0.11		11.1	OK
26.001	R2.17	70.222	-0.283	0.000	0.14		25.6	OK
26.002	R2.16	70.035	0.010	0.000	0.13		25.2	SURCHARGED
23.007	R2.15	70.034	0.179	0.000	0.85		134.5	SURCHARGED
27.000	Plot 1	70.249	-0.201	0.000	0.59		178.1	OK
23.008	S2.14	70.030	0.180	0.000	2.09		311.9	SURCHARGED
13.009	S2.24	70.030	0.445	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 240 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 240 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.537	-0.213	0.000	0.19	15.7	OK
1.001	R5	70.288	-0.197	0.000	0.26	22.0	OK
1.002	R6	69.968	-0.257	0.000	0.22	28.3	OK
1.003	R7	69.915	-0.085	0.000	0.09	28.3	OK
2.000	R8	69.915	-0.035	0.000	0.05	15.4	OK
3.000	R9	69.915	-0.035	0.000	0.05	13.9	OK
4.000	R4A	70.400	-0.225	0.000	0.14	14.2	OK
4.001	R4	70.129	-0.221	0.000	0.16	14.2	OK
4.002	R3	69.949	-0.176	0.000	0.36	21.8	OK
4.003	R2	69.916	-0.009	0.000	0.23	26.8	OK
5.000	Tank 1	69.910	-0.065	0.000	0.00	0.1	OK
5.001	S3	69.910	-0.065	0.000	0.00	0.1	OK
6.000	G1	69.936	-0.189	0.000	0.29	40.9	OK
7.000	G2	69.916	0.141	0.000	0.30	3.3	SURCHARGED
8.000	G3	69.927	-0.198	0.000	0.25	35.2	OK
9.000	G4	69.916	0.141	0.000	0.30	3.3	SURCHARGED
5.002	S2	69.913	-0.012	0.000	0.62	82.2	OK
10.000	Tank 2	69.911	0.186	0.000	0.00	0.0	SURCHARGED
5.003	S1	69.912	0.112	0.000	0.66	77.0	SURCHARGED
5.004	Interceptor	69.913	0.125	0.000	0.66	76.9	SURCHARGED
4.004	R1	69.914	0.239	0.000	0.67	102.7	SURCHARGED
1.004	HW05	69.915	0.125	0.000	0.52	84.2	SURCHARGED
11.000	S11	69.922	-0.328	0.000	0.07	13.6	OK
11.001	S10	69.918	0.018	0.000	0.10	22.8	SURCHARGED
1.005	S4	69.916	0.206	0.000	0.37	100.9	SURCHARGED
12.000	UNIT1	69.921	-0.179	0.000	0.36	161.9	OK
12.001	S5	69.916	0.316	0.000	1.03	186.6	SURCHARGED
1.006	HW08	69.915	0.555	0.000	0.02	4.1	SURCHARGED
13.000	RE2.1	71.022	-0.213	0.000	0.19	13.7	OK
13.001	R2.7	70.798	-0.202	0.000	0.24	16.4	OK
13.002	R2.8	70.598	-0.202	0.000	0.23	16.4	OK
14.000	R2.10	70.834	-0.191	0.000	0.05	2.7	OK
13.003	R2.9	70.469	-0.231	0.000	0.31	42.5	OK
13.004	R2.11	70.093	-0.307	0.000	0.19	45.1	OK
15.000	R2.13	70.444	-0.156	0.000	0.21	14.4	OK
13.005	R2.12	70.075	0.075	0.000	0.39	59.4	SURCHARGED
13.006	R2.14	70.072	0.197	0.000	0.35	59.4	SURCHARGED
16.000	Tank 2.1	70.696	-0.054	0.000	0.22	4.0	OK
16.001	S2.23	70.735	-0.215	0.000	0.53	76.1	OK
17.000	G2.1	70.619	-0.061	0.000	0.11	1.4	FLOOD RISK
17.001	S2.22	70.611	-0.154	0.000	0.33	28.3	OK
16.002	S2.21	70.590	-0.310	0.000	0.44	104.0	OK
18.000	Tank 2.2	70.508	0.008	0.000	0.33	4.4	SURCHARGED

Bailey Johnson Hayes		Page 52
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 240 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 240 minute 100 year Winter (Storm)

PN	US/MH Name	Water		Surcharged		Flooded		Pipe Flow / Overflow (l/s)	Pipe Flow (l/s)	Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Volume (m <sup>3</sup> )	Flow / Cap.			
16.003	S2.20	70.514	-0.336	0.000	0.40			107.6		OK
19.000	G2.2	70.765	-0.185	0.000	0.07			8.0		OK
16.004	S2.19	70.318	-0.432	0.000	0.17			115.0		OK
20.000	G2.3	70.172	-0.178	0.000	0.08			2.2		OK
21.000	G2.4	70.522	-0.203	0.000	0.23			36.5		OK
20.001	S2.18	70.145	-0.255	0.000	0.23			38.7		OK
22.000	Tank 2.3	70.063	-0.112	0.000	0.01			0.3		OK
16.005	s2.17	70.075	-0.225	0.000	0.44			151.5		OK
16.006	Interceptor	70.073	-0.015	0.000	0.44			151.5		OK
13.007	S2.16	70.071	0.096	0.000	1.51			210.6		SURCHARGED
13.008	S2.15	70.068	0.118	0.000	0.98			210.6		SURCHARGED
23.000	RE2.2	70.971	-0.154	0.000	0.22			8.7		OK
23.001	R2.6	70.782	-0.143	0.000	0.28			8.7		OK
23.002	R2.5	70.760	-0.190	0.000	0.29			21.3		OK
23.003	R2.4	70.390	-0.230	0.000	0.12			22.4		OK
23.004	S2.12	70.072	-0.178	0.000	0.17	5.3		25.4		OK
24.000	RE2.3	70.861	-0.139	0.000	0.31			13.2		OK
24.001	R2.3	70.606	-0.269	0.000	0.18			25.9		OK
24.002	R2.2	70.181	-0.369	0.000	0.07			27.0		OK
23.005	R2.1	70.073	-0.062	0.000	0.39			59.8		OK
23.006	S2.13	70.071	0.076	0.000	0.44			67.7		SURCHARGED
25.000	R2.19	70.996	-0.204	0.000	0.02			0.8		OK
25.001	R2.20	70.888	-0.237	0.000	0.10			9.0		OK
25.002	R2.21	70.485	-0.290	0.000	0.12			19.4		OK
25.003	R2.22	70.117	-0.283	0.000	0.14			21.9		OK
26.000	R2.18	70.679	-0.241	0.000	0.09			8.9		OK
26.001	R2.17	70.213	-0.292	0.000	0.11			20.5		OK
26.002	R2.16	70.070	0.045	0.000	0.11			20.4		SURCHARGED
23.007	R2.15	70.070	0.215	0.000	0.69			109.7		SURCHARGED
27.000	Plot 1	70.218	-0.232	0.000	0.47			143.1		OK
23.008	S2.14	70.067	0.217	0.000	1.69			251.9		SURCHARGED
13.009	S2.24	70.067	0.482	0.000	0.05			6.7		SURCHARGED


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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 360 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 360 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF


PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow Flow (l/s)	
1.000	R5A	70.523	-0.227	0.000	0.14	11.5	OK
1.001	R5	70.273	-0.212	0.000	0.19	16.1	OK
1.002	R6	69.977	-0.248	0.000	0.16	20.7	OK
1.003	R7	69.977	-0.023	0.000	0.07	20.5	OK
2.000	R8	69.978	0.028	0.000	0.04	11.0	SURCHARGED
3.000	R9	69.978	0.028	0.000	0.03	9.9	SURCHARGED
4.000	R4A	70.389	-0.236	0.000	0.10	10.4	OK
4.001	R4	70.118	-0.232	0.000	0.12	10.4	OK
4.002	R3	69.979	-0.146	0.000	0.26	15.9	OK
4.003	R2	69.977	0.052	0.000	0.17	19.6	SURCHARGED
5.000	Tank 1	69.977	0.002	0.000	0.00	0.0	SURCHARGED
5.001	S3	69.977	0.002	0.000	0.00	0.0	SURCHARGED
6.000	G1	69.977	-0.148	0.000	0.21	29.9	OK
7.000	G2	69.977	0.202	0.000	0.21	2.3	SURCHARGED
8.000	G3	69.977	-0.148	0.000	0.18	25.7	OK
9.000	G4	69.977	0.202	0.000	0.21	2.3	SURCHARGED
5.002	S2	69.977	0.052	0.000	0.44	59.0	SURCHARGED
10.000	Tank 2	69.977	0.252	0.000	0.00	0.0	SURCHARGED
5.003	S1	69.977	0.177	0.000	0.46	53.6	SURCHARGED
5.004	Interceptor	69.977	0.189	0.000	0.46	53.4	SURCHARGED
4.004	R1	69.978	0.303	0.000	0.47	71.3	SURCHARGED
1.004	HW05	69.978	0.188	0.000	0.34	54.9	SURCHARGED
11.000	S11	69.984	-0.266	0.000	0.05	9.2	OK
11.001	S10	69.980	0.080	0.000	0.06	15.4	SURCHARGED
1.005	S4	69.978	0.268	0.000	0.24	64.7	SURCHARGED
12.000	UNIT1	69.978	-0.122	0.000	0.26	116.2	OK
12.001	S5	69.977	0.377	0.000	0.75	135.7	SURCHARGED
1.006	HW08	69.977	0.617	0.000	0.02	4.2	SURCHARGED
13.000	RE2.1	71.008	-0.227	0.000	0.14	10.0	OK
13.001	R2.7	70.783	-0.217	0.000	0.17	12.0	OK
13.002	R2.8	70.583	-0.217	0.000	0.17	12.0	OK
14.000	R2.10	70.829	-0.196	0.000	0.04	2.0	OK
13.003	R2.9	70.446	-0.254	0.000	0.23	31.2	OK
13.004	R2.11	70.125	-0.275	0.000	0.14	33.0	OK
15.000	R2.13	70.433	-0.167	0.000	0.15	10.5	OK
13.005	R2.12	70.123	0.123	0.000	0.29	43.2	SURCHARGED
13.006	R2.14	70.121	0.246	0.000	0.26	43.2	SURCHARGED
16.000	Tank 2.1	70.681	-0.069	0.000	0.13	2.4	OK
16.001	S2.23	70.696	-0.254	0.000	0.39	56.2	OK
17.000	G2.1	70.576	-0.104	0.000	0.08	1.0	FLOOD RISK
17.001	S2.22	70.571	-0.194	0.000	0.24	20.7	OK
16.002	S2.21	70.549	-0.351	0.000	0.32	76.6	OK
18.000	Tank 2.2	70.465	-0.035	0.000	0.21	2.8	OK



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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 360 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 360 minute 100 year Winter (Storm)


PN	US/MH Name	Water		Surcharged		Flooded		Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)			
16.003	S2.20	70.477	-0.373	0.000	0.31		82.3		OK	
19.000	G2.2	70.759	-0.191	0.000	0.05		5.8		OK	
16.004	S2.19	70.295	-0.455	0.000	0.13		88.0		OK	
20.000	G2.3	70.162	-0.188	0.000	0.06		1.6		OK	
21.000	G2.4	70.507	-0.218	0.000	0.17		26.6		OK	
20.001	S2.18	70.126	-0.274	0.000	0.16		28.3		OK	
22.000	Tank 2.3	70.117	-0.058	0.000	0.01		0.4		OK	
16.005	s2.17	70.123	-0.177	0.000	0.33		115.3		OK	
16.006	Interceptor	70.122	0.034	0.000	0.33		115.3		SURCHARGED	
13.007	S2.16	70.121	0.146	0.000	1.14		158.7		SURCHARGED	
13.008	S2.15	70.118	0.168	0.000	0.73		157.8		SURCHARGED	
23.000	RE2.2	70.960	-0.165	0.000	0.16		6.3		OK	
23.001	R2.6	70.768	-0.157	0.000	0.20		6.3		OK	
23.002	R2.5	70.743	-0.207	0.000	0.21		15.6		OK	
23.003	R2.4	70.381	-0.239	0.000	0.09		16.4		OK	
23.004	S2.12	70.113	-0.137	0.000	0.13	6.5	19.2		OK	
24.000	RE2.3	70.848	-0.152	0.000	0.23		9.7		OK	
24.001	R2.3	70.590	-0.285	0.000	0.13		18.9		OK	
24.002	R2.2	70.167	-0.383	0.000	0.05		19.7		OK	
23.005	R2.1	70.117	-0.018	0.000	0.28		43.6		OK	
23.006	S2.13	70.118	0.123	0.000	0.32		49.5		SURCHARGED	
25.000	R2.19	70.990	-0.210	0.000	0.01		0.6		OK	
25.001	R2.20	70.878	-0.247	0.000	0.07		6.6		OK	
25.002	R2.21	70.474	-0.301	0.000	0.09		14.1		OK	
25.003	R2.22	70.119	-0.281	0.000	0.10		16.0		OK	
26.000	R2.18	70.668	-0.252	0.000	0.06		6.5		OK	
26.001	R2.17	70.201	-0.304	0.000	0.08		15.0		OK	
26.002	R2.16	70.118	0.093	0.000	0.08		14.6		SURCHARGED	
23.007	R2.15	70.118	0.263	0.000	0.50		80.0		SURCHARGED	
27.000	Plot 1	70.182	-0.268	0.000	0.35		104.8		OK	
23.008	S2.14	70.117	0.267	0.000	1.22		181.4		SURCHARGED	
13.009	S2.24	70.118	0.533	0.000	0.05		6.7		SURCHARGED	

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 480 min winte...	Designed by P.A.B. Checked by	
Micro Drainage	Network 2017.1	

Summary of Results for 480 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.516	-0.234	0.000	0.11	9.2	OK
1.001	R5	70.262	-0.223	0.000	0.15	12.9	OK
1.002	R6	70.028	-0.197	0.000	0.13	16.6	OK
1.003	R7	70.028	0.028	0.000	0.05	16.3	SURCHARGED
2.000	R8	70.028	0.078	0.000	0.03	8.7	SURCHARGED
3.000	R9	70.028	0.078	0.000	0.03	7.9	SURCHARGED
4.000	R4A	70.382	-0.243	0.000	0.08	8.3	OK
4.001	R4	70.111	-0.239	0.000	0.09	8.3	OK
4.002	R3	70.028	-0.097	0.000	0.21	12.7	OK
4.003	R2	70.028	0.103	0.000	0.13	15.5	SURCHARGED
5.000	Tank 1	70.028	0.053	0.000	0.00	0.0	SURCHARGED
5.001	S3	70.028	0.053	0.000	0.00	0.0	SURCHARGED
6.000	G1	70.028	-0.097	0.000	0.17	23.9	OK
7.000	G2	70.028	0.253	0.000	0.16	1.8	FLOOD RISK
8.000	G3	70.028	-0.097	0.000	0.15	20.6	OK
9.000	G4	70.028	0.253	0.000	0.16	1.8	FLOOD RISK
5.002	S2	70.028	0.103	0.000	0.35	46.9	SURCHARGED
10.000	Tank 2	70.028	0.303	0.000	0.00	0.0	SURCHARGED
5.003	S1	70.028	0.228	0.000	0.35	41.3	SURCHARGED
5.004	Interceptor	70.028	0.240	0.000	0.35	41.0	SURCHARGED
4.004	R1	70.028	0.353	0.000	0.36	55.4	SURCHARGED
1.004	HW05	70.028	0.238	0.000	0.24	39.1	SURCHARGED
11.000	S11	70.033	-0.217	0.000	0.04	7.9	OK
11.001	S10	70.030	0.130	0.000	0.05	11.8	SURCHARGED
1.005	S4	70.028	0.318	0.000	0.17	46.5	SURCHARGED
12.000	UNIT1	70.027	-0.073	0.000	0.20	92.6	OK
12.001	S5	70.027	0.427	0.000	0.60	108.5	SURCHARGED
1.006	HW08	70.027	0.667	0.000	0.03	4.3	SURCHARGED
13.000	RE2.1	71.001	-0.234	0.000	0.11	8.0	OK
13.001	R2.7	70.774	-0.226	0.000	0.14	9.6	OK
13.002	R2.8	70.573	-0.227	0.000	0.14	9.6	OK
14.000	R2.10	70.826	-0.199	0.000	0.03	1.6	OK
13.003	R2.9	70.433	-0.267	0.000	0.18	24.9	OK
13.004	R2.11	70.158	-0.242	0.000	0.11	26.5	OK
15.000	R2.13	70.427	-0.173	0.000	0.12	8.4	OK
13.005	R2.12	70.157	0.157	0.000	0.23	34.7	SURCHARGED
13.006	R2.14	70.155	0.280	0.000	0.20	34.5	SURCHARGED
16.000	Tank 2.1	70.668	-0.082	0.000	0.09	1.7	OK
16.001	S2.23	70.674	-0.276	0.000	0.32	45.4	OK
17.000	G2.1	70.561	-0.119	0.000	0.06	0.8	FLOOD RISK
17.001	S2.22	70.546	-0.219	0.000	0.19	16.6	OK
16.002	S2.21	70.523	-0.377	0.000	0.26	61.9	OK
18.000	Tank 2.2	70.449	-0.051	0.000	0.14	1.8	OK

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 480 min winte...	Designed by P.A.B. Checked by	
Micro Drainage	Network 2017.1	

Summary of Results for 480 minute 100 year Winter (Storm)


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe (l/s)	Status
16.003	S2.20	70.453	-0.397	0.000	0.25		66.7	OK
19.000	G2.2	70.755	-0.195	0.000	0.04		4.7	OK
16.004	S2.19	70.281	-0.469	0.000	0.11		71.3	OK
20.000	G2.3	70.158	-0.192	0.000	0.04		1.3	OK
21.000	G2.4	70.498	-0.227	0.000	0.13		21.3	OK
20.001	S2.18	70.157	-0.243	0.000	0.13		22.6	OK
22.000	Tank 2.3	70.154	-0.021	0.000	0.01		0.4	OK
16.005	s2.17	70.156	-0.144	0.000	0.27		93.8	OK
16.006	Interceptor	70.155	0.067	0.000	0.27		93.7	SURCHARGED
13.007	S2.16	70.154	0.179	0.000	0.92		128.1	SURCHARGED
13.008	S2.15	70.153	0.203	0.000	0.59		127.3	SURCHARGED
23.000	RE2.2	70.953	-0.172	0.000	0.13		5.1	OK
23.001	R2.6	70.760	-0.165	0.000	0.16		5.1	OK
23.002	R2.5	70.733	-0.217	0.000	0.17		12.5	OK
23.003	R2.4	70.373	-0.247	0.000	0.07		13.1	OK
23.004	S2.12	70.143	-0.107	0.000	0.10	6.8	15.8	OK
24.000	RE2.3	70.840	-0.160	0.000	0.18		7.7	OK
24.001	R2.3	70.581	-0.294	0.000	0.10		15.1	OK
24.002	R2.2	70.160	-0.390	0.000	0.04		15.8	OK
23.005	R2.1	70.147	0.012	0.000	0.23		35.5	SURCHARGED
23.006	S2.13	70.149	0.154	0.000	0.25		38.4	SURCHARGED
25.000	R2.19	70.987	-0.213	0.000	0.01		0.5	OK
25.001	R2.20	70.871	-0.254	0.000	0.06		5.3	OK
25.002	R2.21	70.464	-0.311	0.000	0.07		11.3	OK
25.003	R2.22	70.152	-0.248	0.000	0.08		12.8	OK
26.000	R2.18	70.663	-0.257	0.000	0.05		5.2	OK
26.001	R2.17	70.192	-0.313	0.000	0.06		12.0	OK
26.002	R2.16	70.151	0.126	0.000	0.06		11.6	SURCHARGED
23.007	R2.15	70.151	0.296	0.000	0.38		60.6	SURCHARGED
27.000	Plot 1	70.160	-0.290	0.000	0.28		83.8	OK
23.008	S2.14	70.152	0.302	0.000	0.95		142.4	SURCHARGED
13.009	S2.24	70.152	0.567	0.000	0.05		6.7	SURCHARGED

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 600 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 600 minute 100 year Winter (Storm)


Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Overflow Cap. (l/s)	Flow (l/s)	
1.000	R5A	70.511	-0.239	0.000	0.09	7.7	OK
1.001	R5	70.256	-0.229	0.000	0.13	10.8	OK
1.002	R6	70.064	-0.161	0.000	0.11	13.9	OK
1.003	R7	70.064	0.064	0.000	0.04	13.6	SURCHARGED
2.000	R8	70.064	0.114	0.000	0.03	7.3	SURCHARGED
3.000	R9	70.064	0.114	0.000	0.02	6.6	SURCHARGED
4.000	R4A	70.377	-0.248	0.000	0.07	7.0	OK
4.001	R4	70.105	-0.245	0.000	0.08	7.0	OK
4.002	R3	70.064	-0.061	0.000	0.18	10.7	OK
4.003	R2	70.064	0.139	0.000	0.11	13.0	SURCHARGED
5.000	Tank 1	70.064	0.089	0.000	0.00	0.1	SURCHARGED
5.001	S3	70.064	0.089	0.000	0.00	0.1	SURCHARGED
6.000	G1	70.064	-0.061	0.000	0.14	20.1	OK
7.000	G2	70.064	0.289	0.000	0.14	1.5	FLOOD RISK
8.000	G3	70.064	-0.061	0.000	0.12	17.3	OK
9.000	G4	70.064	0.289	0.000	0.14	1.5	FLOOD RISK
5.002	S2	70.064	0.139	0.000	0.29	39.2	SURCHARGED
10.000	Tank 2	70.064	0.339	0.000	0.00	0.0	SURCHARGED
5.003	S1	70.064	0.264	0.000	0.29	34.0	SURCHARGED
5.004	Interceptor	70.064	0.276	0.000	0.29	33.8	SURCHARGED
4.004	R1	70.064	0.389	0.000	0.30	45.4	SURCHARGED
1.004	HW05	70.064	0.274	0.000	0.19	30.1	SURCHARGED
11.000	S11	70.070	-0.180	0.000	0.04	8.2	OK
11.001	S10	70.067	0.167	0.000	0.04	9.9	SURCHARGED
1.005	S4	70.064	0.354	0.000	0.13	35.4	SURCHARGED
12.000	UNIT1	70.063	-0.037	0.000	0.17	77.6	OK
12.001	S5	70.063	0.463	0.000	0.50	91.1	SURCHARGED
1.006	HW08	70.063	0.703	0.000	0.03	4.3	SURCHARGED
13.000	RE2.1	70.996	-0.239	0.000	0.09	6.7	OK
13.001	R2.7	70.768	-0.232	0.000	0.12	8.1	OK
13.002	R2.8	70.567	-0.233	0.000	0.11	8.1	OK
14.000	R2.10	70.824	-0.201	0.000	0.03	1.3	OK
13.003	R2.9	70.423	-0.277	0.000	0.15	21.0	OK
13.004	R2.11	70.182	-0.218	0.000	0.09	22.3	OK
15.000	R2.13	70.423	-0.177	0.000	0.10	7.1	OK
13.005	R2.12	70.181	0.181	0.000	0.19	28.4	SURCHARGED
13.006	R2.14	70.180	0.305	0.000	0.16	27.3	SURCHARGED
16.000	Tank 2.1	70.656	-0.094	0.000	0.07	1.3	OK
16.001	S2.23	70.659	-0.291	0.000	0.27	38.5	OK
17.000	G2.1	70.554	-0.126	0.000	0.05	0.7	FLOOD RISK
17.001	S2.22	70.529	-0.236	0.000	0.16	14.0	OK
16.002	S2.21	70.505	-0.395	0.000	0.22	52.4	OK
18.000	Tank 2.2	70.436	-0.064	0.000	0.10	1.3	OK

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 600 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 600 minute 100 year Winter (Storm)


PN	US/MH Name	Water Surcharged			Flooded		Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)		
16.003	S2.20	70.437	-0.413	0.000	0.21		56.8	OK	
19.000	G2.2	70.753	-0.197	0.000	0.04		3.9	OK	
16.004	S2.19	70.272	-0.478	0.000	0.09		60.7	OK	
20.000	G2.3	70.182	-0.168	0.000	0.04		1.1	OK	
21.000	G2.4	70.492	-0.233	0.000	0.11		17.9	OK	
20.001	S2.18	70.182	-0.218	0.000	0.11		19.0	OK	
22.000	Tank 2.3	70.180	0.005	0.000	0.01		0.4	SURCHARGED	
16.005	s2.17	70.181	-0.119	0.000	0.23		79.6	OK	
16.006	Interceptor	70.180	0.092	0.000	0.23		79.4	SURCHARGED	
13.007	S2.16	70.179	0.204	0.000	0.77		106.5	SURCHARGED	
13.008	S2.15	70.177	0.227	0.000	0.49		105.8	SURCHARGED	
23.000	RE2.2	70.949	-0.176	0.000	0.11		4.3	OK	
23.001	R2.6	70.755	-0.170	0.000	0.14		4.3	OK	
23.002	R2.5	70.725	-0.225	0.000	0.14		10.5	OK	
23.003	R2.4	70.368	-0.252	0.000	0.06		11.0	OK	
23.004	S2.12	70.162	-0.088	0.000	0.09	7.0	13.3	OK	
24.000	RE2.3	70.834	-0.166	0.000	0.15		6.5	OK	
24.001	R2.3	70.575	-0.300	0.000	0.09		12.7	OK	
24.002	R2.2	70.169	-0.381	0.000	0.04		13.2	OK	
23.005	R2.1	70.168	0.033	0.000	0.19		29.7	SURCHARGED	
23.006	S2.13	70.172	0.177	0.000	0.21		32.0	SURCHARGED	
25.000	R2.19	70.985	-0.215	0.000	0.01		0.4	OK	
25.001	R2.20	70.867	-0.258	0.000	0.05		4.4	OK	
25.002	R2.21	70.458	-0.317	0.000	0.06		9.5	OK	
25.003	R2.22	70.177	-0.223	0.000	0.07		10.8	OK	
26.000	R2.18	70.659	-0.261	0.000	0.04		4.4	OK	
26.001	R2.17	70.186	-0.319	0.000	0.05		10.1	OK	
26.002	R2.16	70.176	0.151	0.000	0.05		9.7	SURCHARGED	
23.007	R2.15	70.176	0.321	0.000	0.32		50.8	SURCHARGED	
27.000	Plot 1	70.181	-0.269	0.000	0.23		70.4	OK	
23.008	S2.14	70.177	0.327	0.000	0.80		119.8	SURCHARGED	
13.009	S2.24	70.177	0.592	0.000	0.05		6.7	SURCHARGED	

Bailey Johnson Hayes		Page 59
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 720 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 720 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe	Status
							Flow (l/s)	
1.000	R5A	70.506	-0.244	0.000	0.08		6.7	OK
1.001	R5	70.251	-0.234	0.000	0.11		9.4	OK
1.002	R6	70.094	-0.131	0.000	0.09		12.1	OK
1.003	R7	70.094	0.094	0.000	0.04		11.7	SURCHARGED
2.000	R8	70.094	0.144	0.000	0.02		6.4	SURCHARGED
3.000	R9	70.094	0.144	0.000	0.02		5.7	SURCHARGED
4.000	R4A	70.372	-0.253	0.000	0.06		6.0	OK
4.001	R4	70.101	-0.249	0.000	0.07		6.0	OK
4.002	R3	70.094	-0.031	0.000	0.15		9.3	OK
4.003	R2	70.094	0.169	0.000	0.10		11.3	SURCHARGED
5.000	Tank 1	70.094	0.119	0.000	0.00		0.2	SURCHARGED
5.001	S3	70.094	0.119	0.000	0.00		0.2	SURCHARGED
6.000	G1	70.094	-0.031	0.000	0.13		17.4	OK
7.000	G2	70.094	0.319	0.000	0.12		1.3	FLOOD RISK
8.000	G3	70.094	-0.031	0.000	0.11		15.0	OK
9.000	G4	70.094	0.319	0.000	0.12		1.3	FLOOD RISK
5.002	S2	70.094	0.169	0.000	0.25		33.9	SURCHARGED
10.000	Tank 2	70.094	0.369	0.000	0.00		0.0	SURCHARGED
5.003	S1	70.094	0.294	0.000	0.25		28.8	SURCHARGED
5.004	Interceptor	70.094	0.306	0.000	0.24		28.6	SURCHARGED
4.004	R1	70.094	0.419	0.000	0.25		38.7	SURCHARGED
1.004	HW05	70.094	0.304	0.000	0.15		24.5	SURCHARGED
11.000	S11	70.099	-0.151	0.000	0.05		10.3	OK
11.001	S10	70.096	0.196	0.000	0.05		10.8	SURCHARGED
1.005	S4	70.094	0.384	0.000	0.11		28.6	SURCHARGED
12.000	UNIT1	70.093	-0.007	0.000	0.15		67.2	OK
12.001	S5	70.093	0.493	0.000	0.43		79.0	SURCHARGED
1.006	HW08	70.093	0.733	0.000	0.03		4.4	SURCHARGED
13.000	RE2.1	70.991	-0.244	0.000	0.08		5.8	OK
13.001	R2.7	70.763	-0.237	0.000	0.10		7.0	OK
13.002	R2.8	70.563	-0.237	0.000	0.10		7.0	OK
14.000	R2.10	70.823	-0.202	0.000	0.02		1.1	OK
13.003	R2.9	70.416	-0.284	0.000	0.13		18.2	OK
13.004	R2.11	70.200	-0.200	0.000	0.08		19.3	OK
15.000	R2.13	70.420	-0.180	0.000	0.09		6.1	OK
13.005	R2.12	70.199	0.199	0.000	0.16		24.6	SURCHARGED
13.006	R2.14	70.198	0.323	0.000	0.14		23.7	SURCHARGED
16.000	Tank 2.1	70.647	-0.103	0.000	0.05		0.9	OK
16.001	S2.23	70.648	-0.302	0.000	0.24		33.6	OK
17.000	G2.1	70.551	-0.129	0.000	0.05		0.6	FLOOD RISK
17.001	S2.22	70.517	-0.248	0.000	0.14		12.1	OK
16.002	S2.21	70.492	-0.408	0.000	0.19		45.7	OK
18.000	Tank 2.2	70.424	-0.076	0.000	0.08		1.1	OK

Bailey Johnson Hayes		Page 60
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 720 min winte...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 720 minute 100 year Winter (Storm)

PN	US/MH Name	Water Surcharged			Flooded		Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)		
16.003	S2.20	70.425	-0.425	0.000	0.19		49.9	OK	
19.000	G2.2	70.751	-0.199	0.000	0.03		3.4	OK	
16.004	S2.19	70.264	-0.486	0.000	0.08		53.2	OK	
20.000	G2.3	70.200	-0.150	0.000	0.03		0.9	OK	
21.000	G2.4	70.488	-0.237	0.000	0.10		15.5	OK	
20.001	S2.18	70.200	-0.200	0.000	0.10		16.5	OK	
22.000	Tank 2.3	70.198	0.023	0.000	0.01		0.4	SURCHARGED	
16.005	s2.17	70.199	-0.101	0.000	0.20		69.6	OK	
16.006	Interceptor	70.198	0.110	0.000	0.20		69.4	SURCHARGED	
13.007	S2.16	70.197	0.222	0.000	0.67		92.8	SURCHARGED	
13.008	S2.15	70.196	0.246	0.000	0.43		92.3	SURCHARGED	
23.000	RE2.2	70.946	-0.179	0.000	0.09		3.7	OK	
23.001	R2.6	70.751	-0.174	0.000	0.12		3.7	OK	
23.002	R2.5	70.720	-0.230	0.000	0.12		9.1	OK	
23.003	R2.4	70.364	-0.256	0.000	0.05		9.5	OK	
23.004	S2.12	70.175	-0.075	0.000	0.08	9.5	11.6	OK	
24.000	RE2.3	70.829	-0.171	0.000	0.13		5.6	OK	
24.001	R2.3	70.568	-0.307	0.000	0.08		11.0	OK	
24.002	R2.2	70.182	-0.368	0.000	0.03		11.5	OK	
23.005	R2.1	70.181	0.046	0.000	0.17		25.7	SURCHARGED	
23.006	S2.13	70.187	0.192	0.000	0.18		27.6	SURCHARGED	
25.000	R2.19	70.984	-0.216	0.000	0.01		0.3	OK	
25.001	R2.20	70.864	-0.261	0.000	0.04		3.8	OK	
25.002	R2.21	70.454	-0.321	0.000	0.05		8.2	OK	
25.003	R2.22	70.192	-0.208	0.000	0.06		9.3	OK	
26.000	R2.18	70.657	-0.263	0.000	0.04		3.8	OK	
26.001	R2.17	70.193	-0.312	0.000	0.05		8.7	OK	
26.002	R2.16	70.192	0.167	0.000	0.04		8.4	SURCHARGED	
23.007	R2.15	70.192	0.337	0.000	0.28		44.0	SURCHARGED	
27.000	Plot 1	70.199	-0.251	0.000	0.20		61.1	OK	
23.008	S2.14	70.195	0.345	0.000	0.70		103.9	SURCHARGED	
13.009	S2.24	70.195	0.610	0.000	0.05		6.7	SURCHARGED	

Grange House  
 John Dalton St  
 Manchester M2 6FW

Plots 2 and 3  
 Skimmingdish Lane  
 Bicester



Date 13/12/2017  
 File 100yr+30% 960 min winte...

Designed by P.A.B.  
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Micro Drainage Network 2017.1

Summary of Results for 960 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
 Analysis Timestep 2.5 Second Increment (Extended)  
 DTS Status OFF  
 DVD Status OFF  
 Inertia Status OFF

PN	US/MH Name	Water Surcharged Flooded			Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	
1.000	R5A	70.499	-0.251	0.000	0.06	5.4	OK
1.001	R5	70.245	-0.240	0.000	0.09	7.5	OK
1.002	R6	70.163	-0.062	0.000	0.07	9.7	OK
1.003	R7	70.163	0.163	0.000	0.03	9.3	SURCHARGED
2.000	R8	70.163	0.213	0.000	0.02	5.1	SURCHARGED
3.000	R9	70.163	0.213	0.000	0.02	4.6	SURCHARGED
4.000	R4A	70.367	-0.258	0.000	0.05	4.8	OK
4.001	R4	70.163	-0.187	0.000	0.05	4.8	OK
4.002	R3	70.163	0.038	0.000	0.12	7.4	SURCHARGED
4.003	R2	70.163	0.238	0.000	0.08	9.0	SURCHARGED
5.000	Tank 1	70.163	0.188	0.000	0.01	0.3	SURCHARGED
5.001	S3	70.163	0.188	0.000	0.00	0.3	SURCHARGED
6.000	G1	70.163	0.038	0.000	0.10	13.9	SURCHARGED
7.000	G2	70.163	0.388	0.000	0.09	1.0	FLOOD RISK
8.000	G3	70.163	0.038	0.000	0.09	12.0	SURCHARGED
9.000	G4	70.163	0.388	0.000	0.09	1.0	FLOOD RISK
5.002	S2	70.163	0.238	0.000	0.20	27.0	SURCHARGED
10.000	Tank 2	70.163	0.438	0.000	0.00	0.0	SURCHARGED
5.003	S1	70.163	0.363	0.000	0.19	22.4	SURCHARGED
5.004	Interceptor	70.163	0.375	0.000	0.19	22.2	SURCHARGED
4.004	R1	70.163	0.488	0.000	0.20	29.8	SURCHARGED
1.004	HW05	70.163	0.373	0.000	0.11	17.9	SURCHARGED
11.000	S11	70.170	-0.080	0.000	0.08	16.5	OK
11.001	S10	70.166	0.266	0.000	0.07	17.0	SURCHARGED
1.005	S4	70.163	0.453	0.000	0.08	20.8	SURCHARGED
12.000	UNIT1	70.162	0.062	0.000	0.12	53.4	SURCHARGED
12.001	S5	70.162	0.562	0.000	0.35	62.8	SURCHARGED
1.006	HW08	70.162	0.802	0.000	0.03	4.5	SURCHARGED
13.000	RE2.1	70.984	-0.251	0.000	0.06	4.7	OK
13.001	R2.7	70.756	-0.244	0.000	0.08	5.6	OK
13.002	R2.8	70.556	-0.244	0.000	0.08	5.6	OK
14.000	R2.10	70.820	-0.205	0.000	0.02	0.9	OK
13.003	R2.9	70.406	-0.294	0.000	0.11	14.5	OK
13.004	R2.11	70.220	-0.180	0.000	0.06	15.5	OK
15.000	R2.13	70.414	-0.186	0.000	0.07	4.9	OK
13.005	R2.12	70.219	0.219	0.000	0.13	19.6	SURCHARGED
13.006	R2.14	70.218	0.343	0.000	0.11	18.9	SURCHARGED
16.000	Tank 2.1	70.632	-0.118	0.000	0.03	0.6	OK
16.001	S2.23	70.632	-0.318	0.000	0.19	27.0	OK
17.000	G2.1	70.549	-0.131	0.000	0.04	0.5	FLOOD RISK
17.001	S2.22	70.500	-0.265	0.000	0.11	9.7	OK
16.002	S2.21	70.471	-0.429	0.000	0.16	36.7	OK
18.000	Tank 2.2	70.404	-0.096	0.000	0.06	0.8	OK



Bailey Johnson Hayes		Page 62
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 960 min winte...	Designed by P.A.B. Checked by	
Micro Drainage	Network 2017.1	

Summary of Results for 960 minute 100 year Winter (Storm)

PN	US/MH Name	Water		Surcharged		Flooded		Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)			
16.003	S2.20	70.405	-0.445	0.000	0.15		40.2		OK	
19.000	G2.2	70.749	-0.201	0.000	0.03		2.7		OK	
16.004	S2.19	70.250	-0.500	0.000	0.07		42.9		OK	
20.000	G2.3	70.220	-0.130	0.000	0.03		0.8		OK	
21.000	G2.4	70.480	-0.245	0.000	0.08		12.4		OK	
20.001	S2.18	70.220	-0.180	0.000	0.08		13.2		OK	
22.000	Tank 2.3	70.218	0.043	0.000	0.01		0.4		SURCHARGED	
16.005	s2.17	70.219	-0.081	0.000	0.16		55.9		OK	
16.006	Interceptor	70.218	0.130	0.000	0.16		55.8		SURCHARGED	
13.007	S2.16	70.218	0.243	0.000	0.54		74.5		SURCHARGED	
13.008	S2.15	70.216	0.266	0.000	0.34		74.1		SURCHARGED	
23.000	RE2.2	70.940	-0.185	0.000	0.07		3.0		OK	
23.001	R2.6	70.746	-0.179	0.000	0.09		3.0		OK	
23.002	R2.5	70.713	-0.237	0.000	0.10		7.3		OK	
23.003	R2.4	70.359	-0.261	0.000	0.04		7.6		OK	
23.004	S2.12	70.176	-0.074	0.000	0.06	16.0	9.2		OK	
24.000	RE2.3	70.824	-0.176	0.000	0.11		4.5		OK	
24.001	R2.3	70.560	-0.315	0.000	0.06		8.8		OK	
24.002	R2.2	70.201	-0.349	0.000	0.03		9.2		OK	
23.005	R2.1	70.201	0.066	0.000	0.13		20.5		SURCHARGED	
23.006	S2.13	70.206	0.211	0.000	0.14		22.0		SURCHARGED	
25.000	R2.19	70.982	-0.218	0.000	0.01		0.3		OK	
25.001	R2.20	70.860	-0.265	0.000	0.03		3.1		OK	
25.002	R2.21	70.448	-0.327	0.000	0.04		6.6		OK	
25.003	R2.22	70.211	-0.189	0.000	0.05		7.5		OK	
26.000	R2.18	70.654	-0.266	0.000	0.03		3.0		OK	
26.001	R2.17	70.211	-0.294	0.000	0.04		7.0		OK	
26.002	R2.16	70.211	0.186	0.000	0.03		6.7		SURCHARGED	
23.007	R2.15	70.211	0.356	0.000	0.22		35.0		SURCHARGED	
27.000	Plot 1	70.219	-0.231	0.000	0.16		48.8		OK	
23.008	S2.14	70.215	0.365	0.000	0.56		82.8		SURCHARGED	
13.009	S2.24	70.216	0.631	0.000	0.05		6.7		SURCHARGED	

Grange House  
John Dalton St  
Manchester M2 6FW

Plots 2 and 3  
Skimmingdish Lane  
Bicester



Date 13/12/2017  
File 100yr+30% 1440 min wint...


Designed by P.A.B.  
Checked by

Micro Drainage Network 2017.1

Summary of Results for 1440 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
Analysis Timestep 2.5 Second Increment (Extended)  
DTS Status OFF  
DVD Status OFF  
Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	R5A	70.491	-0.259	0.000	0.05		3.9	OK
1.001	R5	70.234	-0.251	0.000	0.06		5.5	OK
1.002	R6	70.227	0.002	0.000	0.05		7.0	SURCHARGED
1.003	R7	70.227	0.227	0.000	0.02		6.7	SURCHARGED
2.000	R8	70.227	0.277	0.000	0.01		3.8	SURCHARGED
3.000	R9	70.227	0.277	0.000	0.01		3.4	SURCHARGED
4.000	R4A	70.361	-0.264	0.000	0.04		3.5	OK
4.001	R4	70.228	-0.122	0.000	0.04		3.5	OK
4.002	R3	70.228	0.103	0.000	0.09		5.4	SURCHARGED
4.003	R2	70.228	0.303	0.000	0.06		6.4	SURCHARGED
5.000	Tank 1	70.228	0.253	0.000	0.01		0.3	SURCHARGED
5.001	S3	70.228	0.253	0.000	0.00		0.3	SURCHARGED
6.000	G1	70.229	0.104	0.000	0.07		10.2	FLOOD RISK
7.000	G2	70.228	0.453	0.000	0.07		0.8	FLOOD RISK
8.000	G3	70.228	0.103	0.000	0.06		8.7	FLOOD RISK
9.000	G4	70.228	0.453	0.000	0.07		0.8	FLOOD RISK
5.002	S2	70.228	0.303	0.000	0.15		19.8	SURCHARGED
10.000	Tank 2	70.228	0.503	0.000	0.00		0.0	SURCHARGED
5.003	S1	70.228	0.428	0.000	0.13		15.6	SURCHARGED
5.004	Interceptor	70.228	0.440	0.000	0.13		15.5	SURCHARGED
4.004	R1	70.227	0.552	0.000	0.14		20.8	SURCHARGED
1.004	HW05	70.227	0.437	0.000	0.07		10.9	SURCHARGED
11.000	S11	70.231	-0.019	0.000	0.08		15.9	OK
11.001	S10	70.229	0.329	0.000	0.07		16.4	SURCHARGED
1.005	S4	70.227	0.517	0.000	0.05		13.0	SURCHARGED
12.000	UNIT1	70.227	0.127	0.000	0.09		38.5	SURCHARGED
12.001	S5	70.227	0.627	0.000	0.25		45.8	SURCHARGED
1.006	HW08	70.227	0.867	0.000	0.03		4.6	SURCHARGED
13.000	RE2.1	70.976	-0.259	0.000	0.05		3.4	OK
13.001	R2.7	70.747	-0.253	0.000	0.06		4.1	OK
13.002	R2.8	70.546	-0.254	0.000	0.06		4.1	OK
14.000	R2.10	70.814	-0.211	0.000	0.01		0.7	OK
13.003	R2.9	70.394	-0.306	0.000	0.08		10.6	OK
13.004	R2.11	70.241	-0.159	0.000	0.05		11.3	OK
15.000	R2.13	70.408	-0.192	0.000	0.05		3.6	OK
13.005	R2.12	70.241	0.241	0.000	0.09		14.2	SURCHARGED
13.006	R2.14	70.241	0.366	0.000	0.08		13.7	SURCHARGED
16.000	Tank 2.1	70.611	-0.139	0.000	0.02		0.4	OK
16.001	S2.23	70.611	-0.339	0.000	0.14		19.9	OK
17.000	G2.1	70.546	-0.134	0.000	0.03		0.3	FLOOD RISK
17.001	S2.22	70.479	-0.286	0.000	0.08		7.1	OK
16.002	S2.21	70.446	-0.454	0.000	0.11		26.9	OK
18.000	Tank 2.2	70.382	-0.118	0.000	0.03		0.5	OK

Bailey Johnson Hayes		Page 64
Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 1440 min wint...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 1440 minute 100 year Winter (Storm)

PN	US/MH Name	Water		Surcharged		Flooded		Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)			
16.003	S2.20	70.382	-0.468	0.000	0.11		29.6		OK	
19.000	G2.2	70.745	-0.205	0.000	0.02		2.0		OK	
16.004	S2.19	70.242	-0.508	0.000	0.05		31.6		OK	
20.000	G2.3	70.242	-0.108	0.000	0.02		0.6		OK	
21.000	G2.4	70.471	-0.254	0.000	0.06		9.0		OK	
20.001	S2.18	70.242	-0.158	0.000	0.06		9.6		OK	
22.000	Tank 2.3	70.241	0.066	0.000	0.00		0.2		SURCHARGED	
16.005	s2.17	70.241	-0.059	0.000	0.12		40.8		OK	
16.006	Interceptor	70.241	0.153	0.000	0.12		40.7		SURCHARGED	
13.007	S2.16	70.241	0.266	0.000	0.39		54.2		SURCHARGED	
13.008	S2.15	70.240	0.290	0.000	0.25		54.0		SURCHARGED	
23.000	RE2.2	70.933	-0.192	0.000	0.05		2.2		OK	
23.001	R2.6	70.738	-0.187	0.000	0.07		2.2		OK	
23.002	R2.5	70.703	-0.247	0.000	0.07		5.3		OK	
23.003	R2.4	70.354	-0.266	0.000	0.03		5.6		OK	
23.004	S2.12	70.232	-0.018	0.000	0.04	15.5	6.7		OK	
24.000	RE2.3	70.816	-0.184	0.000	0.08		3.3		OK	
24.001	R2.3	70.550	-0.325	0.000	0.04		6.4		OK	
24.002	R2.2	70.235	-0.315	0.000	0.02		6.7		OK	
23.005	R2.1	70.235	0.100	0.000	0.10		14.7		SURCHARGED	
23.006	S2.13	70.237	0.242	0.000	0.10		15.8		SURCHARGED	
25.000	R2.19	70.980	-0.220	0.000	0.00		0.2		OK	
25.001	R2.20	70.856	-0.269	0.000	0.02		2.2		OK	
25.002	R2.21	70.442	-0.333	0.000	0.03		4.8		OK	
25.003	R2.22	70.239	-0.161	0.000	0.03		5.4		OK	
26.000	R2.18	70.650	-0.270	0.000	0.02		2.2		OK	
26.001	R2.17	70.239	-0.266	0.000	0.03		5.1		OK	
26.002	R2.16	70.239	0.214	0.000	0.03		4.9		SURCHARGED	
23.007	R2.15	70.239	0.384	0.000	0.16		25.5		SURCHARGED	
27.000	Plot 1	70.242	-0.208	0.000	0.12		35.6		OK	
23.008	S2.14	70.239	0.389	0.000	0.40		60.4		SURCHARGED	
13.009	S2.24	70.239	0.654	0.000	0.05		6.7		SURCHARGED	

Grange House  
John Dalton St  
Manchester M2 6FW

Plots 2 and 3  
Skimmingdish Lane  
Bicester



Date 13/12/2017  
File 100yr+30% 2160 min wint...

Designed by P.A.B.  
Checked by

Micro Drainage Network 2017.1

Summary of Results for 2160 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 300.0  
Analysis Timestep 2.5 Second Increment (Extended)  
DTS Status OFF  
DVD Status OFF  
Inertia Status OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	R5A	70.486	-0.264	0.000	0.03		2.9	OK
1.001	R5	70.270	-0.215	0.000	0.05		4.0	OK
1.002	R6	70.270	0.045	0.000	0.04		5.1	SURCHARGED
1.003	R7	70.270	0.270	0.000	0.02		4.9	SURCHARGED
2.000	R8	70.270	0.320	0.000	0.01		2.8	SURCHARGED
3.000	R9	70.270	0.320	0.000	0.01		2.5	SURCHARGED
4.000	R4A	70.357	-0.268	0.000	0.03		2.6	OK
4.001	R4	70.271	-0.079	0.000	0.03		2.6	OK
4.002	R3	70.271	0.146	0.000	0.07		4.0	SURCHARGED
4.003	R2	70.271	0.346	0.000	0.04		4.6	SURCHARGED
5.000	Tank 1	70.271	0.296	0.000	0.01		0.3	SURCHARGED
5.001	S3	70.271	0.296	0.000	0.00		0.3	SURCHARGED
6.000	G1	70.271	0.146	0.000	0.05		7.4	FLOOD RISK
7.000	G2	70.271	0.496	0.000	0.05		0.6	FLOOD RISK
8.000	G3	70.271	0.146	0.000	0.05		6.4	FLOOD RISK
9.000	G4	70.271	0.496	0.000	0.05		0.6	FLOOD RISK
5.002	S2	70.271	0.346	0.000	0.11		14.6	SURCHARGED
10.000	Tank 2	70.271	0.546	0.000	0.00		0.0	SURCHARGED
5.003	S1	70.271	0.471	0.000	0.09		11.1	SURCHARGED
5.004	Interceptor	70.270	0.482	0.000	0.09		11.0	SURCHARGED
4.004	R1	70.270	0.595	0.000	0.10		14.8	SURCHARGED
1.004	HW05	70.270	0.480	0.000	0.05		7.5	SURCHARGED
11.000	S11	70.270	0.020	0.000	0.08		15.9	SURCHARGED
11.001	S10	70.270	0.370	0.000	0.07		16.6	SURCHARGED
1.005	S4	70.270	0.560	0.000	0.04		11.9	SURCHARGED
12.000	UNIT1	70.270	0.170	0.000	0.06		28.3	SURCHARGED
12.001	S5	70.270	0.670	0.000	0.19		33.9	SURCHARGED
1.006	HW08	70.270	0.910	0.000	0.03		4.7	SURCHARGED
13.000	RE2.1	70.971	-0.264	0.000	0.03		2.5	OK
13.001	R2.7	70.740	-0.260	0.000	0.04		3.0	OK
13.002	R2.8	70.539	-0.261	0.000	0.04		3.0	OK
14.000	R2.10	70.811	-0.214	0.000	0.01		0.5	OK
13.003	R2.9	70.382	-0.318	0.000	0.06		7.7	OK
13.004	R2.11	70.270	-0.130	0.000	0.03		8.2	OK
15.000	R2.13	70.403	-0.197	0.000	0.04		2.6	OK
13.005	R2.12	70.270	0.270	0.000	0.07		10.4	SURCHARGED
13.006	R2.14	70.270	0.395	0.000	0.06		10.0	SURCHARGED
16.000	Tank 2.1	70.596	-0.154	0.000	0.01		0.2	OK
16.001	S2.23	70.596	-0.354	0.000	0.10		14.6	OK
17.000	G2.1	70.544	-0.136	0.000	0.02		0.3	FLOOD RISK
17.001	S2.22	70.465	-0.300	0.000	0.06		5.2	OK
16.002	S2.21	70.426	-0.474	0.000	0.08		19.7	OK
18.000	Tank 2.2	70.364	-0.136	0.000	0.02		0.2	OK

Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester
Date 13/12/2017 File 100yr+30% 2160 min wint...	Designed by P.A.B. Checked by
Micro Drainage <span style="margin-left: 200px;">Network 2017.1</span>	



Summary of Results for 2160 minute 100 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Pipe Overflow (l/s)	Status
16.003	S2.20	70.364	-0.486	0.000	0.08	21.7	OK
19.000	G2.2	70.739	-0.211	0.000	0.01	1.4	OK
16.004	S2.19	70.270	-0.480	0.000	0.04	23.1	OK
20.000	G2.3	70.270	-0.080	0.000	0.01	0.4	OK
21.000	G2.4	70.464	-0.261	0.000	0.04	6.6	OK
20.001	S2.18	70.270	-0.130	0.000	0.04	7.0	OK
22.000	Tank 2.3	70.270	0.095	0.000	0.00	0.2	SURCHARGED
16.005	s2.17	70.270	-0.030	0.000	0.09	29.9	OK
16.006	Interceptor	70.270	0.182	0.000	0.09	29.8	SURCHARGED
13.007	S2.16	70.270	0.295	0.000	0.29	39.7	SURCHARGED
13.008	S2.15	70.269	0.319	0.000	0.18	39.5	SURCHARGED
23.000	RE2.2	70.929	-0.196	0.000	0.04	1.6	OK
23.001	R2.6	70.732	-0.193	0.000	0.05	1.6	OK
23.002	R2.5	70.694	-0.256	0.000	0.05	3.9	OK
23.003	R2.4	70.351	-0.269	0.000	0.02	4.1	OK
23.004	S2.12	70.269	0.019	0.000	0.03	15.2	4.8 SURCHARGED
24.000	RE2.3	70.809	-0.191	0.000	0.06	2.4	OK
24.001	R2.3	70.544	-0.331	0.000	0.03	4.7	OK
24.002	R2.2	70.269	-0.281	0.000	0.01	4.9	OK
23.005	R2.1	70.269	0.134	0.000	0.07	10.7	SURCHARGED
23.006	S2.13	70.269	0.274	0.000	0.07	11.5	SURCHARGED
25.000	R2.19	70.979	-0.221	0.000	0.00	0.1	OK
25.001	R2.20	70.850	-0.275	0.000	0.02	1.6	OK
25.002	R2.21	70.438	-0.337	0.000	0.02	3.5	OK
25.003	R2.22	70.269	-0.131	0.000	0.02	4.0	OK
26.000	R2.18	70.642	-0.278	0.000	0.02	1.6	OK
26.001	R2.17	70.269	-0.236	0.000	0.02	3.7	OK
26.002	R2.16	70.269	0.244	0.000	0.02	3.6	SURCHARGED
23.007	R2.15	70.269	0.414	0.000	0.12	18.5	SURCHARGED
27.000	Plot 1	70.270	-0.180	0.000	0.09	26.0	OK
23.008	S2.14	70.269	0.419	0.000	0.29	44.0	SURCHARGED
13.009	S2.24	70.269	0.684	0.000	0.05	6.7	SURCHARGED


Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester
Date 13/12/2017 File 100yr+30% 2880 min wint...	Designed by P.A.B. Checked by
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Summary of Results for 2880 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep 2.5 Second Increment (Extended)	
DTS Status	OFF
DVD Status	OFF
Inertia Status	OFF

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	R5A	70.483	-0.267	0.000	0.03		2.3	OK
1.001	R5	70.286	-0.199	0.000	0.04		3.2	OK
1.002	R6	70.286	0.061	0.000	0.03		4.1	SURCHARGED
1.003	R7	70.286	0.286	0.000	0.01		4.0	SURCHARGED
2.000	R8	70.286	0.336	0.000	0.01		2.2	SURCHARGED
3.000	R9	70.286	0.336	0.000	0.01		2.0	SURCHARGED
4.000	R4A	70.354	-0.271	0.000	0.02		2.1	OK
4.001	R4	70.286	-0.064	0.000	0.02		2.1	OK
4.002	R3	70.286	0.161	0.000	0.05		3.2	SURCHARGED
4.003	R2	70.286	0.361	0.000	0.03		3.7	SURCHARGED
5.000	Tank 1	70.286	0.311	0.000	0.01		0.3	SURCHARGED
5.001	S3	70.286	0.311	0.000	0.00		0.3	SURCHARGED
6.000	G1	70.287	0.162	0.000	0.04		5.9	FLOOD RISK
7.000	G2	70.286	0.511	0.000	0.04		0.5	FLOOD RISK
8.000	G3	70.287	0.162	0.000	0.04		5.1	FLOOD RISK
9.000	G4	70.286	0.511	0.000	0.04		0.5	FLOOD RISK
5.002	S2	70.286	0.361	0.000	0.09		11.7	SURCHARGED
10.000	Tank 2	70.286	0.561	0.000	0.00		0.0	SURCHARGED
5.003	S1	70.286	0.486	0.000	0.08		8.8	SURCHARGED
5.004	Interceptor	70.286	0.498	0.000	0.07		8.7	SURCHARGED
4.004	R1	70.286	0.611	0.000	0.08		11.7	SURCHARGED
1.004	HW05	70.286	0.496	0.000	0.04		6.0	SURCHARGED
11.000	S11	70.285	0.035	0.000	0.07		13.8	SURCHARGED
11.001	S10	70.285	0.385	0.000	0.06		14.4	SURCHARGED
1.005	S4	70.285	0.575	0.000	0.04		10.7	SURCHARGED
12.000	UNIT1	70.286	0.186	0.000	0.05		22.7	SURCHARGED
12.001	S5	70.286	0.686	0.000	0.15		27.1	SURCHARGED
1.006	HW08	70.285	0.925	0.000	0.03		4.7	SURCHARGED
13.000	RE2.1	70.968	-0.267	0.000	0.03		2.0	OK
13.001	R2.7	70.736	-0.264	0.000	0.03		2.4	OK
13.002	R2.8	70.536	-0.264	0.000	0.03		2.4	OK
14.000	R2.10	70.808	-0.217	0.000	0.01		0.4	OK
13.003	R2.9	70.376	-0.324	0.000	0.05		6.2	OK
13.004	R2.11	70.285	-0.115	0.000	0.03		6.6	OK
15.000	R2.13	70.400	-0.200	0.000	0.03		2.1	OK
13.005	R2.12	70.285	0.285	0.000	0.06		8.3	SURCHARGED
13.006	R2.14	70.285	0.410	0.000	0.05		8.0	SURCHARGED
16.000	Tank 2.1	70.585	-0.165	0.000	0.01		0.1	OK
16.001	S2.23	70.585	-0.365	0.000	0.08		11.6	OK
17.000	G2.1	70.541	-0.139	0.000	0.02		0.2	FLOOD RISK
17.001	S2.22	70.453	-0.312	0.000	0.05		4.1	OK
16.002	S2.21	70.412	-0.488	0.000	0.07		15.8	OK
18.000	Tank 2.2	70.349	-0.151	0.000	0.01		0.2	OK

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Grange House John Dalton St Manchester M2 6FW	Plots 2 and 3 Skimmingdish Lane Bicester	
Date 13/12/2017 File 100yr+30% 2880 min wint...	Designed by P.A.B. Checked by	
Micro Drainage		Network 2017.1

Summary of Results for 2880 minute 100 year Winter (Storm)

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap. (l/s)	Overflow (l/s)	Pipe Flow (l/s)	Status
16.003	S2.20	70.349	-0.501	0.000	0.06		17.3	OK
19.000	G2.2	70.737	-0.213	0.000	0.01		1.2	OK
16.004	S2.19	70.286	-0.464	0.000	0.03		18.5	OK
20.000	G2.3	70.285	-0.065	0.000	0.01		0.3	OK
21.000	G2.4	70.460	-0.265	0.000	0.03		5.3	OK
20.001	S2.18	70.286	-0.114	0.000	0.03		5.6	OK
22.000	Tank 2.3	70.286	0.111	0.000	0.00		0.2	SURCHARGED
16.005	s2.17	70.286	-0.014	0.000	0.07		23.9	OK
16.006	Interceptor	70.285	0.197	0.000	0.07		23.8	SURCHARGED
13.007	S2.16	70.285	0.310	0.000	0.23		31.8	SURCHARGED
13.008	S2.15	70.285	0.335	0.000	0.15		31.6	SURCHARGED
23.000	RE2.2	70.926	-0.199	0.000	0.03		1.3	OK
23.001	R2.6	70.729	-0.196	0.000	0.04		1.3	OK
23.002	R2.5	70.689	-0.261	0.000	0.04		3.1	OK
23.003	R2.4	70.346	-0.274	0.000	0.02		3.3	OK
23.004	S2.12	70.285	0.035	0.000	0.03	13.2	3.9	SURCHARGED
24.000	RE2.3	70.806	-0.194	0.000	0.05		1.9	OK
24.001	R2.3	70.540	-0.335	0.000	0.03		3.8	OK
24.002	R2.2	70.285	-0.265	0.000	0.01		3.9	OK
23.005	R2.1	70.285	0.150	0.000	0.06		8.5	SURCHARGED
23.006	S2.13	70.285	0.290	0.000	0.06		9.2	SURCHARGED
25.000	R2.19	70.978	-0.222	0.000	0.00		0.1	OK
25.001	R2.20	70.845	-0.280	0.000	0.01		1.3	OK
25.002	R2.21	70.430	-0.345	0.000	0.02		2.8	OK
25.003	R2.22	70.285	-0.115	0.000	0.02		3.2	OK
26.000	R2.18	70.638	-0.282	0.000	0.01		1.3	OK
26.001	R2.17	70.285	-0.220	0.000	0.02		3.0	OK
26.002	R2.16	70.285	0.260	0.000	0.01		2.8	SURCHARGED
23.007	R2.15	70.285	0.430	0.000	0.09		14.8	SURCHARGED
27.000	Plot 1	70.285	-0.165	0.000	0.07		20.8	OK
23.008	S2.14	70.285	0.435	0.000	0.24		35.2	SURCHARGED
13.009	S2.24	70.284	0.699	0.000	0.05		6.7	SURCHARGED