ARP ASSOCIATES
CHARTERED CONSULTING ENGINEERS

Our ref: 2489/01/CN1
13/10/2025

MR R KERSHAW

BRADLEY VILLA FARM
(PROPOSED CHANGE OF USE AND ASSOCIATED WORKS)

CLARIFICATION NOTE

1.0 General

1.1 This covering note has been prepared by ARP associates on behalf of Mr R Kershaw for the proposed for a change of use of the former egg production facility to research and development or industrial uses falling within E(G)II and (III) at Bradley Villa Farm, Bradley, which is referred henceforth as "the site".

1.2 The proposed discharge of condition application (planning reference: 2025/91781) relates to the several planning conditions required to be discharged prior to development commencing. Comments relating to drainage were raised by Kirklees LLFA, in respect of the Drainage Strategy report (revA) dated June 2025, which was submitted with the discharge of condition planning application 12, 13 and 14. This clarification note aims to address the outstanding drainage related comment and provide further details on the proposed Drainage Strategy in support of the application.

1.3 This covering note has been initially prepared for the use and reliance of the Client only. This note should be read in conjunction with the relevant drawings and in the context of which it is has been prepared, which is for the clarification of comments made by the statutory consultees in respect to the above planning application.

2.0 Kirklees LLFA

2.1 Kirklees Lead Local Flood Authority (LLFA) team provided their comments in a formal consultation response dated 29th July 2025. The LLFA requested further clarification on the following outline drainage design elements;

> *"We are however concerned at the amount of flooding that this system produces in a 1 in 100 year plus climate change storm event as no evidence had been provided to demonstrate that the water can be safely held on site."*

2.2 As stated within the previous drainage strategy report, the proposed development changes would require areas surrounding the existing unit to have their drainage arrangements modified. Due to drainage design standard requested by the LLFA, the existing shallow depth of the existing drainage infrastructure demonstrated that the existing drainage network serving the proposed change of use unit floods during a number of events.

2.3 The existing Network B serving the unit of site has been modelled and was found to cause approximately 278m^3 of flooding during the existing 1 in 100 year event. As a result, it was proposed that due to site constraints, two attenuation basins and two flow controls would be required to ensure that the current and future redevelopment of the site would not exceed the current discharge capacity of the site to the existing public combined sewer within Bradley Road to the south of the site.

2.4 As stated within the proposed drainage strategy, it was sought to minimise the extent of drainage works to the areas being redeveloped, whilst also significantly reducing flood risk across the site. As such, flooding across the site was reduce from 278m^3 down to 9.6m^3 during the 1 in 100 year event. The remaining flood risk was from one shallow manhole which was not subject to redevelopment at this time. This would have resulted in approximately 20.6 m^3 of flooding during the 1 in 100 year climate change event following redevelopment. This potential flood water would largely be captured by buildings and topography within the site before slowly drainage into the drainage system and land drain situated along the eastern and southeastern boundaries of the site.

2.5 In order to meet with the LLFA's requirements and robustly address their comments, further drainage works at the site are proposed to ensure there is no flooding following redevelopment during the 1 in 100 year plus climate change event. An additional section of the existing drainage is to be rebuilt (manhole EX MH15) at increased depths to ensure that there is no flooding from this remaining manhole. The revised drainage arrangements are shown within **Appendix 1**.

2.6 As a result of amending EX MH15 and redirecting the pipework into MH14 which goes into the attenuation Basin 1, the site is now future proofed and ensures there is no flooding during the 1 in 100 plus 45% climate change event. The revised network calculations are provided within **Appendix 2**.

2.7 The proposed drainage strategy report revA and amendments outlined within this clarification note should now satisfy the LLFA comments and ensure the drainage related planning conditions can now be discharged.

3.0 Summary

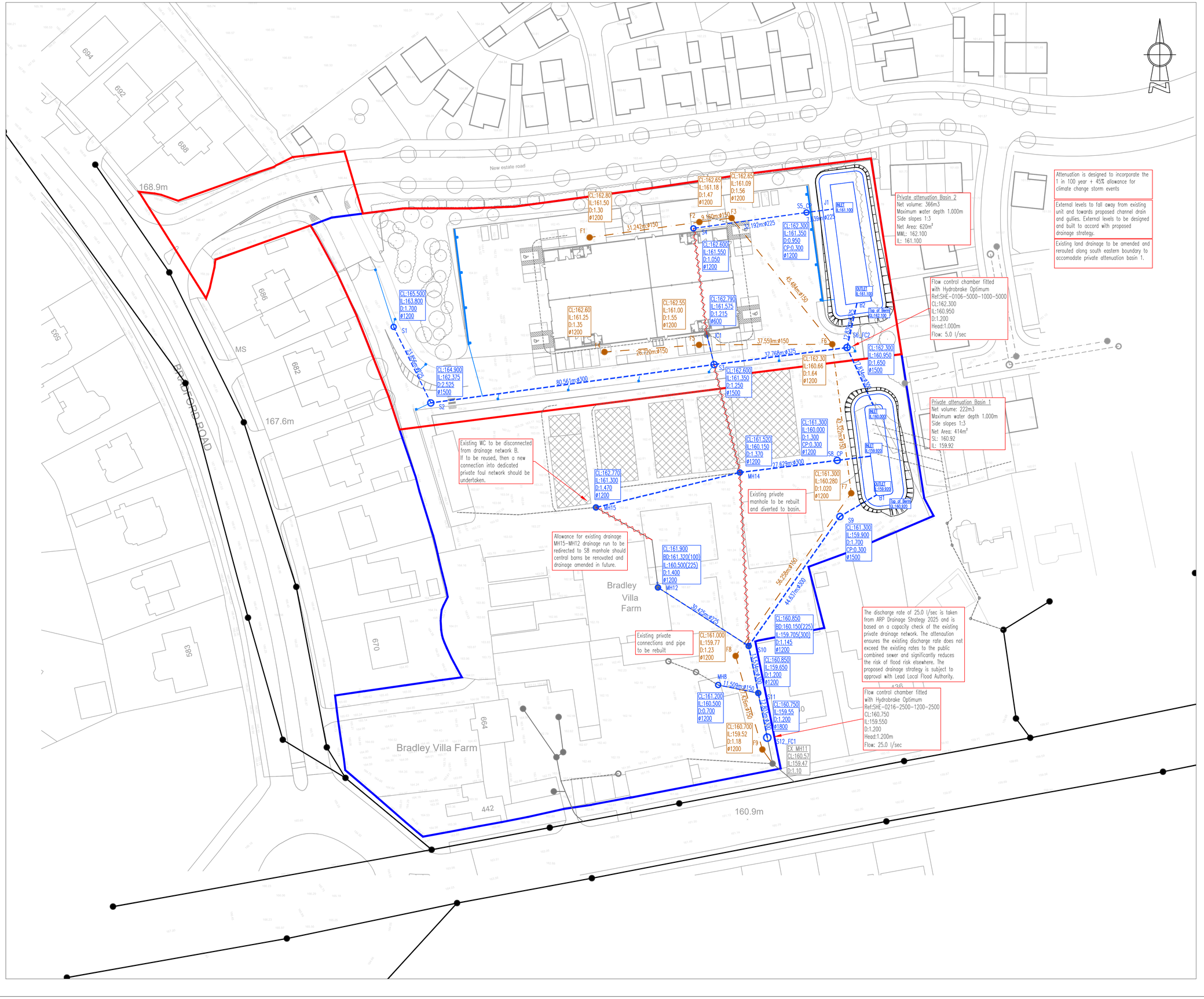
3.1 This covering note provides a clarification on the previous comments raised by Kirklees LLFA, dated in their consultation response July 2025. The latest drawings and clarification note provide an update on the proposed drainage strategy which demonstrate the site can be drained without increasing flood risk elsewhere.

3.2 The LLFA comments did not raise any significant issues with the previous drainage strategy put forward. The latest drainage strategy report and this clarification note should now satisfy the fundamental principles of the proposed drainage strategy and clarify that there is now a complete reduction to any flood volume from existing drainage apparatus downstream of the proposed development up to and including the 1 in 100 year plus 45% climate change event.

3.3 Overall, the design information previously provided and within the drainage strategy report and the subsequent clarification within this note is now considered sufficiently progressed to ensure that all the statutory consultee comments have been addressed on drainage related matters.

APPENDIX 1

PROPOSED DRAINAGE LAYOUT



N O T E S

K E Y

- Existing surface water manhole
- Existing surface water drain
- Existing perforated land drain
- Existing foul water manhole
- Existing foul water drain
- Existing combined manhole
- Existing combined drain
- Existing public sewer manhole
- Existing public combined sewer
- Proposed surface water sewer manhole
- Proposed surface water sewer manhole
- Proposed foul water sewer manhole
- Proposed foul water sewer manhole
- Existing drainage to be abandoned

Notes

- Do not scale from this drawing.

- Drainage runs and manhole positions shown are approximate based on the topographic survey locations. The exact position of buried chambers may alter slightly from those shown on this drawing.

- All levels and pipe sizes are approximate and have been informed from the Jet Aire Drainage Survey information, April 2025. Any queries or discrepanices should refer back to the Jet Aire Survey information.

-Where existing chambers covers are either buried or seized, drainage levels have been interpolated from upstream and downstream chambers and pipe diameters. Actual depths and diamters may vary.

- Drainage runs shown are approximate and are subject to change at detailed design stage.

- No trees to be planted within 5m of drainage.

- All levels and pipe sizes are approximate and may vary at detailed design stage.

-No service records have currently been obtained. The presence of private utilities should be checked prior to any construction works taking place.

-Refer to Jet Aire Drainage Survey , April 2025 for full existing drainage details.

Drainage Design Criteria Design parameters are based on the latest information available and may be subject to change at detailed design and planning approval stage	
Climate Change Allowance (%)	45%
Urban Creep (%)	0%
CV Values (Summer/Winter)	0.75/0.84

Rev	By	Date	Revision	Apvd
B	MD	13.10.25	Updated drainage strategy following LLFA comments	MI
A	MD	10.06.25	Updated drainage strategy following client comments	MI
/	MD	22.05.25	Issued for approval	MI

ARP ASSOCIATES
Chartered Consulting Engineers
Northwest House ● 5 & 6 Northwest Business Park ● Servia Hill, Leeds ● LS6 2QH
☎ 0113 2458498 🖷 0113 2443864 ● leeds@arpassociates.co.uk ● www.arpassociates.co.uk
ARP Associates is a trading division of ARP Geotechnical Ltd, a company registered in England and Wales with company number 3771811, whose registered office is at 5/6 Northwest Business Park, Servia Hill, Leeds LS6 2QH

TITLE
DRAINAGE STRATEGY
PROPOSED – NETWORK B
SHEET 1 OF 1

PROJECT
BRADLEY VILLA FARM

CLIENT
MR R KERSHAW

DRAWING STATUS
PRELIMINARY

Scale	Date	Drawn	Chk.
1:500 @ A1	MAY 25	MD	MI

Drg. No. 2489/01/SK01.02 Rev B

APPENDIX 2

PROPOSED NETWORK B DRAINAGE CALCULATIONS

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	19.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.335	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
EX IC1	0.075	5.00	162.790	600		415037.422	420436.143	1.215
MH14	0.072	5.00	161.520	1200		415046.700	420397.334	1.370
MH15	0.096	5.00	162.770	1200		415006.128	420387.481	1.470
EX MH15A	0.033	5.00	162.150			415021.937	420378.353	0.409
EX MH12	0.106	5.00	161.900	1200		415023.618	420364.928	1.400
EX MH6	0.025	5.00	161.750	620	470	415026.576	420344.124	0.700
EX MH7	0.017	5.00	161.450	600	450	415034.351	420341.075	0.600
EX MH8	0.037	5.00	161.200	1200		415040.595	420337.446	0.700
EX MH11	0.050	5.00	160.570	820	470	415055.932	420315.266	1.100
OUT_B			160.500			415062.055	420310.167	2.000
1	0.095	5.00	165.500			414949.103	420438.363	1.700
2	0.221	5.00	164.900	1500		414959.580	420416.931	2.525
3			162.600	1500		415039.428	420427.751	1.250
4	0.075	5.00	162.600	1200		415033.617	420466.125	1.050
5			162.300	1200		415065.482	420470.606	0.950
J1			162.100			415073.043	420471.588	1.000
BASIN_2		5.00	162.100			415082.462	420443.041	1.000
6_FC2	0.154	5.00	162.300	1500		415076.907	420432.540	1.650
7_IN			161.000			415084.267	420416.296	1.080
8_CP	0.155	5.00	161.300	1200		415074.149	420400.741	1.600
J2			160.920			415083.573	420401.940	1.000
BASIN_1		5.00	160.920			415085.259	420391.012	1.000
9			161.300	1500		415074.901	420384.928	1.700
10			160.850	1200		415049.183	420348.433	1.145
11			160.850	1200		415051.883	420335.162	1.200
12_FC1			160.750	1800		415054.436	420322.615	1.200

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
7.000	MH15	MH14	41.751	0.600	161.300	160.225	1.075	38.8	225	5.33	50.0
5.000	EX MH15A	EX MH12	13.530	0.600	161.741	161.320	0.421	32.1	100	5.17	50.0
5.001	EX MH12	10	30.425	0.600	160.500	160.240	0.260	117.0	225	5.59	50.0
6.000	EX MH6	EX MH7	8.351	0.600	161.050	160.900	0.150	55.7	100	5.13	50.0
6.001	EX MH7	EX MH8	7.222	0.600	160.850	160.500	0.350	20.6	150	5.19	50.0
6.002	EX MH8	11	11.517	0.600	160.500	159.800	0.700	16.5	150	5.27	50.0
1.000	1	2	23.856	0.600	163.800	162.525	1.275	18.7	225	5.13	50.0
1.001	2	3	80.578	0.600	162.375	161.425	0.950	84.8	300	5.92	50.0
2.000	EX IC1	3	8.628	0.600	161.575	161.500	0.075	115.0	225	5.12	50.0
1.002	3	6_FC2	37.784	0.600	161.350	161.000	0.350	108.0	375	6.28	50.0
8.000	4	5	32.179	0.600	161.550	161.350	0.200	160.9	225	5.52	50.0
8.001	5	J1	7.625	0.600	161.350	161.275	0.075	101.7	225	5.62	50.0
3.000	BASIN_2	6_FC2	11.880	0.600	161.100	161.000	0.100	118.8	375	5.12	50.0
1.003	6_FC2	7_IN	17.834	0.600	160.950	160.000	0.950	18.8	300	6.36	50.0
7.001	MH14	8_CP	27.660	0.600	160.150	160.000	0.150	184.4	300	5.73	50.0
7.002	8_CP	J2	9.500	0.600	160.000	159.920	0.080	118.7	300	5.84	50.0
4.000	BASIN_1	9	12.013	0.600	159.920	159.900	0.020	600.6	300	5.32	50.0
4.001	9	10	44.646	0.600	159.900	159.705	0.195	229.0	300	6.03	50.0
4.002	10	11	13.543	0.600	159.705	159.650	0.055	246.2	300	6.26	50.0
4.003	11	12_FC1	12.804	0.600	159.650	159.600	0.050	256.1	300	6.48	50.0
4.004	12_FC1	EX MH11	7.500	0.600	159.550	159.470	0.080	93.7	300	6.56	50.0
4.005	EX MH11	OUT_B	7.968	0.600	159.470	158.500	0.970	8.2	150	6.59	50.0

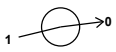
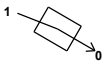
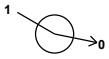
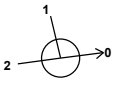
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
7.000	2.105	83.7	13.0	1.245	1.070	0.096	0.0	59	1.535
5.000	1.366	10.7	4.5	0.309	0.480	0.033	0.0	45	1.303
5.001	1.207	48.0	18.8	1.175	0.385	0.139	0.0	98	1.137
6.000	1.034	8.1	3.4	0.600	0.450	0.025	0.0	45	0.987
6.001	2.227	39.4	5.7	0.450	0.550	0.042	0.0	38	1.589
6.002	2.495	44.1	10.7	0.550	0.900	0.079	0.0	50	2.060
1.000	3.039	120.8	12.9	1.475	2.150	0.095	0.0	50	2.005
1.001	1.708	120.7	42.8	2.225	0.875	0.316	0.0	123	1.567
2.000	1.218	48.4	10.2	0.990	0.875	0.075	0.0	70	0.969
1.002	1.743	192.5	53.0	0.875	0.925	0.391	0.0	134	1.494
8.000	1.028	40.9	10.2	0.825	0.725	0.075	0.0	76	0.855
8.001	1.296	51.5	10.2	0.725	0.600	0.075	0.0	67	1.011
3.000	1.661	183.5	0.0	0.625	0.925	0.000	0.0	0	0.000
1.003	3.645	257.6	73.9	1.050	0.700	0.545	0.0	109	3.158
7.001	1.154	81.6	22.8	1.070	1.000	0.168	0.0	108	0.993
7.002	1.441	101.9	43.8	1.000	0.700	0.323	0.0	137	1.389
4.000	0.634	44.8	0.0	0.700	1.100	0.000	0.0	0	0.000
4.001	1.035	73.1	0.0	1.100	0.845	0.000	0.0	0	0.000
4.002	0.997	70.5	18.8	0.845	0.900	0.139	0.0	106	0.849
4.003	0.978	69.1	29.5	0.900	0.850	0.218	0.0	137	0.940
4.004	1.624	114.8	29.5	0.900	0.800	0.218	0.0	103	1.368
4.005	3.537	62.5	36.3	0.950	1.850	0.268	0.0	82	3.669

Pipeline Schedule

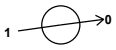
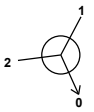
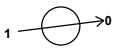
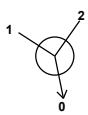
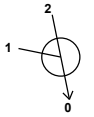
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
7.000	41.751	38.8	225	Circular	162.770	161.300	1.245	161.520	160.225	1.070
5.000	13.530	32.1	100	Circular	162.150	161.741	0.309	161.900	161.320	0.480
5.001	30.425	117.0	225	Circular	161.900	160.500	1.175	160.850	160.240	0.385
6.000	8.351	55.7	100	Circular	161.750	161.050	0.600	161.450	160.900	0.450
6.001	7.222	20.6	150	Circular	161.450	160.850	0.450	161.200	160.500	0.550
6.002	11.517	16.5	150	Circular	161.200	160.500	0.550	160.850	159.800	0.900
1.000	23.856	18.7	225	Circular	165.500	163.800	1.475	164.900	162.525	2.150
1.001	80.578	84.8	300	Circular	164.900	162.375	2.225	162.600	161.425	0.875
2.000	8.628	115.0	225	Circular	162.790	161.575	0.990	162.600	161.500	0.875
1.002	37.784	108.0	375	Circular	162.600	161.350	0.875	162.300	161.000	0.925
8.000	32.179	160.9	225	Circular	162.600	161.550	0.825	162.300	161.350	0.725
8.001	7.625	101.7	225	Circular	162.300	161.350	0.725	162.100	161.275	0.600
3.000	11.880	118.8	375	Circular	162.100	161.100	0.625	162.300	161.000	0.925
1.003	17.834	18.8	300	Circular	162.300	160.950	1.050	161.000	160.000	0.700
7.001	27.660	184.4	300	Circular	161.520	160.150	1.070	161.300	160.000	1.000
7.002	9.500	118.7	300	Circular	161.300	160.000	1.000	160.920	159.920	0.700
4.000	12.013	600.6	300	Circular	160.920	159.920	0.700	161.300	159.900	1.100
4.001	44.646	229.0	300	Circular	161.300	159.900	1.100	160.850	159.705	0.845
4.002	13.543	246.2	300	Circular	160.850	159.705	0.845	160.850	159.650	0.900
4.003	12.804	256.1	300	Circular	160.850	159.650	0.900	160.750	159.600	0.850
4.004	7.500	93.7	300	Circular	160.750	159.550	0.900	160.570	159.470	0.800
4.005	7.968	8.2	150	Circular	160.570	159.470	0.950	160.500	158.500	1.850

Link	US Node	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
7.000	MH15	1200		Manhole	Adoptable	MH14	1200		Manhole	Adoptable
5.000	EX MH15A			Junction		EX MH12	1200		Manhole	Adoptable
5.001	EX MH12	1200		Manhole	Adoptable	10	1200		Manhole	Adoptable
6.000	EX MH6	620	470	Manhole	Adoptable	EX MH7	600	450	Manhole	Adoptable
6.001	EX MH7	600	450	Manhole	Adoptable	EX MH8	1200		Manhole	Adoptable
6.002	EX MH8	1200		Manhole	Adoptable	11	1200		Manhole	Adoptable
1.000	1			Junction		2	1500		Manhole	Adoptable
1.001	2	1500		Manhole	Adoptable	3	1500		Manhole	Adoptable
2.000	EX IC1	600		Manhole	Adoptable	3	1500		Manhole	Adoptable
1.002	3	1500		Manhole	Adoptable	6_FC2	1500		Manhole	Adoptable
8.000	4	1200		Manhole	Adoptable	5	1200		Manhole	Adoptable
8.001	5	1200		Manhole	Adoptable	J1			Junction	
3.000	BASIN_2			Junction		6_FC2	1500		Manhole	Adoptable
1.003	6_FC2	1500		Manhole	Adoptable	7_IN			Junction	
7.001	MH14	1200		Manhole	Adoptable	8_CP	1200		Manhole	Adoptable
7.002	8_CP	1200		Manhole	Adoptable	J2			Junction	
4.000	BASIN_1			Junction		9	1500		Manhole	Adoptable
4.001	9	1500		Manhole	Adoptable	10	1200		Manhole	Adoptable
4.002	10	1200		Manhole	Adoptable	11	1200		Manhole	Adoptable
4.003	11	1200		Manhole	Adoptable	12_FC1	1800		Manhole	Adoptable
4.004	12_FC1	1800		Manhole	Adoptable	EX MH11	820	470	Manhole	Adoptable
4.005	EX MH11	820	470	Manhole	Adoptable	OUT_B			Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
EX IC1	415037.422	420436.143	162.790	1.215	600			0	2.000	161.575	225
MH14	415046.700	420397.334	161.520	1.370	1200			1	7.000	160.225	225
								0	7.001	160.150	300
MH15	415006.128	420387.481	162.770	1.470	1200			0	7.000	161.300	225
EX MH15A	415021.937	420378.353	162.150	0.409				0	5.000	161.741	100
EX MH12	415023.618	420364.928	161.900	1.400	1200			1	5.000	161.320	100
								0	5.001	160.500	225
EX MH6	415026.576	420344.124	161.750	0.700	620	470		0	6.000	161.050	100
EX MH7	415034.351	420341.075	161.450	0.600	600	450		1	6.000	160.900	100
								0	6.001	160.850	150
EX MH8	415040.595	420337.446	161.200	0.700	1200			1	6.001	160.500	150
								0	6.002	160.500	150
EX MH11	415055.932	420315.266	160.570	1.100	820	470		1	4.004	159.470	300
								0	4.005	159.470	150
OUT_B	415062.055	420310.167	160.500	2.000				1	4.005	158.500	150
1	414949.103	420438.363	165.500	1.700				0	1.000	163.800	225
2	414959.580	420416.931	164.900	2.525	1500			1	1.000	162.525	225
								0	1.001	162.375	300
3	415039.428	420427.751	162.600	1.250	1500			1	2.000	161.500	225
								2	1.001	161.425	300
								0	1.002	161.350	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
4	415033.617	420466.125	162.600	1.050	1200					
							0	8.000	161.550	225
5	415065.482	420470.606	162.300	0.950	1200		1	8.000	161.350	225
										
							0	8.001	161.350	225
J1	415073.043	420471.588	162.100	1.000			1	8.001	161.275	225
										
BASIN_2	415082.462	420443.041	162.100	1.000						
							0	3.000	161.100	375
6_FC2	415076.907	420432.540	162.300	1.650	1500		1	3.000	161.000	375
							2	1.002	161.000	375
										
							0	1.003	160.950	300
7_IN	415084.267	420416.296	161.000	1.080			1	1.003	160.000	300
										
8_CP	415074.149	420400.741	161.300	1.600	1200		1	7.001	160.000	300
										
							0	7.002	160.000	300
J2	415083.573	420401.940	160.920	1.000			1	7.002	159.920	300
										
BASIN_1	415085.259	420391.012	160.920	1.000						
							0	4.000	159.920	300
9	415074.901	420384.928	161.300	1.700	1500		1	4.000	159.900	300
										
							0	4.001	159.900	300
10	415049.183	420348.433	160.850	1.145	1200		1	5.001	160.240	225
							2	4.001	159.705	300
										
							0	4.002	159.705	300
11	415051.883	420335.162	160.850	1.200	1200		1	6.002	159.800	150
							2	4.002	159.650	300
										
							0	4.003	159.650	300
12_FC1	415054.436	420322.615	160.750	1.200	1800		1	4.003	159.600	300
										
							0	4.004	159.550	300

Node 12_FC1 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	159.550	Product Number	CTL-SHE-0216-2500-1200-2500
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.300
Design Flow (l/s)	25.0	Min Node Diameter (mm)	1800

Node 6_FC2 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	160.950	Product Number	CTL-SHE-0106-5000-1000-5000
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node BASIN_1 Pond Storage Structure

Invert Level (m)	159.920	Time to half empty (mins)	102	Analyse flow through structure	x

Inlets

7_IN | J2

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	127.0	1.000	333.0	1.001	0.0

Node BASIN_2 Pond Storage Structure

Invert Level (m)	161.100	Time to half empty (mins)		Analyse flow through structure	x

Inlets

J1

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	235.0	1.000	515.0	1.001	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	EX IC1	10	161.647	0.072	9.5	0.1087	0.0000	OK
15 minute winter	MH14	10	160.254	0.104	20.8	0.2267	0.0000	OK
15 minute winter	MH15	10	161.358	0.058	12.1	0.1406	0.0000	OK
15 minute winter	EX MH15A	10	161.785	0.044	4.2	0.0707	0.0000	OK
15 minute winter	EX MH12	10	160.595	0.095	17.5	0.2515	0.0000	OK
15 minute winter	EX MH6	10	161.095	0.045	3.2	0.0457	0.0000	OK
15 minute winter	EX MH7	10	160.887	0.037	5.2	0.0309	0.0000	OK
15 minute winter	EX MH8	10	160.550	0.050	9.9	0.1102	0.0000	OK
15 minute winter	EX MH11	12	159.545	0.075	28.6	0.0973	0.0000	OK
15 minute winter	OUT_B	12	158.571	0.071	28.6	0.0000	0.0000	OK
15 minute winter	1	10	163.848	0.048	12.0	0.0537	0.0000	OK
15 minute winter	2	11	162.492	0.117	39.7	0.4130	0.0000	OK
15 minute winter	3	11	161.475	0.125	47.5	0.2214	0.0000	OK
15 minute winter	4	10	161.625	0.075	9.5	0.1921	0.0000	OK
15 minute winter	5	11	161.417	0.067	9.2	0.0755	0.0000	OK
180 minute winter	J1	148	161.279	0.179	7.9	0.0000	0.0000	OK
180 minute winter	BASIN_2	140	161.278	0.178	16.5	46.2133	0.0000	OK
180 minute winter	6_FC2	140	161.278	0.328	21.2	1.3265	0.0000	SURCHARGED
60 minute winter	7_IN	43	160.060	0.140	5.0	0.0000	0.0000	OK
15 minute winter	8_CP	11	160.129	0.129	39.8	0.4530	0.0000	OK
60 minute winter	J2	42	160.064	0.144	22.1	0.0000	0.0000	OK
60 minute winter	BASIN_1	43	160.054	0.134	20.6	19.7489	0.0000	OK
60 minute winter	9	41	160.039	0.139	18.6	0.2453	0.0000	OK
60 minute winter	10	41	160.031	0.326	26.6	0.3687	0.0000	SURCHARGED
60 minute winter	11	40	160.023	0.373	27.4	0.4223	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	EX IC1	2.000	3	9.4	0.906	0.193	0.0891	
15 minute winter	MH14	7.001	8_CP	20.5	0.817	0.252	0.6969	
15 minute winter	MH15	7.000	MH14	11.7	1.482	0.140	0.3309	
15 minute winter	EX MH15A	5.000	EX MH12	4.1	1.260	0.382	0.0441	
15 minute winter	EX MH12	5.001	10	17.0	1.095	0.355	0.4735	
15 minute winter	EX MH6	6.000	EX MH7	3.1	0.939	0.387	0.0280	
15 minute winter	EX MH7	6.001	EX MH8	5.2	1.232	0.133	0.0309	
15 minute winter	EX MH8	6.002	11	9.9	1.948	0.224	0.1064	
15 minute winter	EX MH11	4.005	OUT_B	28.6	3.353	0.458	0.0680	66.8
15 minute winter	1	1.000	2	11.9	1.933	0.098	0.1464	
15 minute winter	2	1.001	3	38.5	1.525	0.319	2.0321	
15 minute winter	3	1.002	6_FC2	47.6	0.854	0.247	2.1051	
15 minute winter	4	8.000	5	9.2	0.873	0.226	0.3409	
15 minute winter	5	8.001	J1	9.3	0.969	0.180	0.0731	
180 minute winter	BASIN_2	3.000	6_FC2	21.2	0.567	0.115	0.8248	
180 minute winter	6_FC2	1.003	7_IN	5.0	1.437	0.019	0.0771	
15 minute winter	8_CP	7.002	J2	39.2	2.021	0.385	0.2321	
60 minute winter	BASIN_1	4.000	9	18.6	0.770	0.415	0.3738	
60 minute winter	9	4.001	10	19.3	0.689	0.264	2.2834	
60 minute winter	10	4.002	11	22.8	0.609	0.324	0.9537	
60 minute winter	11	4.003	12_FC1	26.4	0.483	0.382	0.9016	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	12_FC1	40	160.014	0.464	26.4	1.1800	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	12_FC1	4.004	EX MH11	24.9	1.460	0.217	0.1318	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	EX IC1	10	161.657	0.082	12.2	0.1250	0.0000	OK
15 minute winter	MH14	10	160.271	0.121	26.9	0.2636	0.0000	OK
15 minute winter	MH15	10	161.366	0.066	15.7	0.1611	0.0000	OK
15 minute winter	EX MH15A	10	161.792	0.051	5.4	0.0821	0.0000	OK
15 minute winter	EX MH12	10	160.611	0.111	22.6	0.2930	0.0000	OK
15 minute winter	EX MH6	10	161.103	0.053	4.1	0.0531	0.0000	OK
15 minute winter	EX MH7	10	160.892	0.042	6.8	0.0355	0.0000	OK
15 minute winter	EX MH8	10	160.557	0.057	12.8	0.1236	0.0000	OK
15 minute winter	EX MH11	11	159.551	0.081	32.1	0.1045	0.0000	OK
15 minute winter	OUT_B	11	158.576	0.076	32.1	0.0000	0.0000	OK
15 minute winter	1	10	163.855	0.055	15.5	0.0612	0.0000	OK
15 minute winter	2	11	162.511	0.136	51.3	0.4779	0.0000	OK
15 minute winter	3	11	161.494	0.144	61.5	0.2540	0.0000	OK
15 minute winter	4	10	161.636	0.086	12.2	0.2201	0.0000	OK
15 minute winter	5	11	161.426	0.076	11.9	0.0864	0.0000	OK
180 minute winter	J1	156	161.339	0.239	10.3	0.0000	0.0000	OK
180 minute winter	BASIN_2	148	161.338	0.238	17.6	63.8845	0.0000	OK
180 minute winter	6_FC2	148	161.338	0.388	23.4	1.5697	0.0000	SURCHARGED
60 minute winter	7_IN	45	160.108	0.188	8.0	0.0000	0.0000	OK
15 minute winter	8_CP	11	160.149	0.149	51.7	0.5241	0.0000	OK
60 minute winter	J2	44	160.113	0.193	28.2	0.0000	0.0000	OK
60 minute winter	BASIN_1	44	160.102	0.182	23.5	27.4378	0.0000	OK
60 minute winter	9	44	160.097	0.197	20.1	0.3473	0.0000	OK
60 minute winter	10	41	160.089	0.384	29.0	0.4338	0.0000	SURCHARGED
60 minute winter	11	41	160.081	0.431	30.4	0.4878	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	EX IC1	2.000	3	12.0	0.967	0.249	0.1075	
15 minute winter	MH14	7.001	8_CP	26.6	0.870	0.326	0.8471	
15 minute winter	MH15	7.000	MH14	15.2	1.593	0.182	0.3992	
15 minute winter	EX MH15A	5.000	EX MH12	5.3	1.345	0.495	0.0534	
15 minute winter	EX MH12	5.001	10	22.0	1.168	0.459	0.5741	
15 minute winter	EX MH6	6.000	EX MH7	4.0	0.996	0.495	0.0337	
15 minute winter	EX MH7	6.001	EX MH8	6.8	1.346	0.172	0.0366	
15 minute winter	EX MH8	6.002	11	13.1	2.026	0.298	0.1311	
15 minute winter	EX MH11	4.005	OUT_B	32.1	3.442	0.513	0.0742	87.2
15 minute winter	1	1.000	2	15.3	2.079	0.127	0.1759	
15 minute winter	2	1.001	3	49.8	1.632	0.413	2.4609	
15 minute winter	3	1.002	6_FC2	61.7	0.959	0.320	2.4062	
15 minute winter	4	8.000	5	11.9	0.932	0.292	0.4118	
15 minute winter	5	8.001	J1	12.0	1.037	0.232	0.0879	
180 minute winter	BASIN_2	3.000	6_FC2	21.4	0.573	0.116	1.0585	
180 minute winter	6_FC2	1.003	7_IN	5.0	1.437	0.019	0.0945	
15 minute winter	8_CP	7.002	J2	50.7	2.105	0.498	0.2918	
60 minute winter	BASIN_1	4.000	9	20.1	0.767	0.449	0.5624	
60 minute winter	9	4.001	10	21.3	0.695	0.291	2.6640	
60 minute winter	10	4.002	11	23.5	0.609	0.333	0.9537	
60 minute winter	11	4.003	12_FC1	28.7	0.505	0.415	0.9016	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	12_FC1	41	160.071	0.521	28.7	1.3270	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	12_FC1	4.004	EX MH11	25.0	1.472	0.218	0.1345	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	EX IC1	10	161.695	0.120	23.1	0.1821	0.0000	OK
60 minute winter	MH14	47	160.343	0.193	28.2	0.4207	0.0000	OK
15 minute winter	MH15	10	161.391	0.091	29.6	0.2229	0.0000	OK
15 minute winter	EX MH15A	10	161.821	0.080	10.2	0.1290	0.0000	OK
15 minute winter	EX MH12	10	160.671	0.171	42.6	0.4524	0.0000	OK
15 minute winter	EX MH6	10	161.135	0.085	7.7	0.0857	0.0000	OK
15 minute winter	EX MH7	10	160.910	0.060	12.7	0.0504	0.0000	OK
15 minute winter	EX MH8	11	160.590	0.090	24.1	0.1978	0.0000	OK
15 minute winter	EX MH11	10	159.564	0.094	40.2	0.1213	0.0000	OK
15 minute winter	OUT_B	10	158.587	0.087	40.1	0.0000	0.0000	OK
15 minute winter	1	10	163.876	0.076	29.3	0.0855	0.0000	OK
15 minute winter	2	11	162.580	0.205	97.2	0.7195	0.0000	OK
240 minute winter	3	232	161.613	0.263	25.4	0.4650	0.0000	OK
15 minute winter	4	10	161.674	0.124	23.1	0.3185	0.0000	OK
240 minute winter	5	240	161.613	0.263	4.9	0.2974	0.0000	SURCHARGED
240 minute winter	J1	240	161.613	0.513	21.5	0.0000	0.0000	OK
240 minute winter	BASIN_2	236	161.613	0.513	29.6	157.3378	0.0000	SURCHARGED
240 minute winter	6_FC2	236	161.613	0.663	35.4	2.6852	0.0000	SURCHARGED
60 minute winter	7_IN	51	160.335	0.415	21.3	0.0000	0.0000	OK
60 minute winter	8_CP	47	160.342	0.342	54.1	1.2034	0.0000	SURCHARGED
60 minute winter	J2	48	160.341	0.421	52.0	0.0000	0.0000	OK
60 minute winter	BASIN_1	49	160.328	0.408	37.4	70.2378	0.0000	SURCHARGED
60 minute winter	9	48	160.325	0.424	24.1	0.7501	0.0000	SURCHARGED
60 minute winter	10	46	160.315	0.610	32.9	0.6903	0.0000	SURCHARGED
60 minute winter	11	46	160.309	0.659	30.7	0.7450	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	EX IC1	2.000	3	22.8	1.133	0.472	0.1739	
60 minute winter	MH14	7.001	8_CP	28.2	0.777	0.345	1.6356	
15 minute winter	MH15	7.000	MH14	29.3	1.797	0.350	0.7061	
15 minute winter	EX MH15A	5.000	EX MH12	10.0	1.521	0.929	0.0889	
15 minute winter	EX MH12	5.001	10	41.6	1.333	0.867	0.9498	
15 minute winter	EX MH6	6.000	EX MH7	7.5	1.118	0.929	0.0564	
15 minute winter	EX MH7	6.001	EX MH8	12.7	1.548	0.323	0.0631	
15 minute winter	EX MH8	6.002	11	23.4	2.078	0.531	0.1653	
15 minute winter	EX MH11	4.005	OUT_B	40.1	3.612	0.642	0.0885	165.4
15 minute winter	1	1.000	2	29.0	2.482	0.240	0.2790	
15 minute winter	2	1.001	3	94.6	1.887	0.783	4.0387	
240 minute winter	3	1.002	6_FC2	25.4	0.521	0.132	3.6448	
15 minute winter	4	8.000	5	22.7	1.091	0.554	0.6679	
240 minute winter	5	8.001	J1	10.7	0.784	0.207	0.3033	
240 minute winter	BASIN_2	3.000	6_FC2	-29.6	-0.336	-0.162	1.3103	
240 minute winter	6_FC2	1.003	7_IN	5.0	1.435	0.019	0.5007	
60 minute winter	8_CP	7.002	J2	52.0	1.600	0.511	0.6690	
60 minute winter	BASIN_1	4.000	9	24.1	0.782	0.538	0.8459	
60 minute winter	9	4.001	10	24.4	0.695	0.333	3.1439	
60 minute winter	10	4.002	11	24.5	0.608	0.348	0.9537	
60 minute winter	11	4.003	12_FC1	28.4	0.539	0.410	0.9016	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	12_FC1	46	160.299	0.749	28.4	1.9073	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	12_FC1	4.004	EX MH11	25.0	1.477	0.218	0.1405	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	EX IC1	344	161.776	0.201	4.7	0.3048	0.0000	OK
120 minute winter	MH14	92	160.494	0.344	23.4	0.7515	0.0000	SURCHARGED
15 minute winter	MH15	10	161.405	0.105	38.3	0.2570	0.0000	OK
15 minute winter	EX MH15A	11	161.966	0.225	13.2	0.3637	0.0000	FLOOD RISK
15 minute winter	EX MH12	11	160.752	0.252	53.3	0.6655	0.0000	SURCHARGED
15 minute winter	EX MH6	11	161.245	0.195	10.0	0.1961	0.0000	SURCHARGED
15 minute winter	EX MH7	10	160.918	0.068	16.0	0.0567	0.0000	OK
15 minute winter	EX MH8	12	160.674	0.174	30.7	0.3798	0.0000	SURCHARGED
15 minute winter	EX MH11	10	159.570	0.100	44.2	0.1299	0.0000	OK
15 minute winter	OUT_B	10	158.593	0.093	44.1	0.0000	0.0000	OK
15 minute winter	1	10	163.886	0.086	37.9	0.0961	0.0000	OK
15 minute winter	2	11	162.632	0.257	125.8	0.9030	0.0000	OK
360 minute winter	3	344	161.776	0.426	24.5	0.7526	0.0000	SURCHARGED
360 minute winter	4	352	161.776	0.226	4.7	0.5792	0.0000	SURCHARGED
360 minute winter	5	352	161.776	0.426	5.4	0.4821	0.0000	SURCHARGED
360 minute winter	J1	352	161.776	0.676	15.2	0.0000	0.0000	OK
360 minute winter	BASIN_2	344	161.776	0.676	28.0	222.7943	0.0000	SURCHARGED
360 minute winter	6_FC2	344	161.776	0.826	33.5	3.3438	0.0000	SURCHARGED
120 minute winter	7_IN	96	160.487	0.567	16.8	0.0000	0.0000	OK
120 minute winter	8_CP	92	160.494	0.494	43.7	1.7352	0.0000	SURCHARGED
120 minute winter	J2	94	160.492	0.572	41.7	0.0000	0.0000	OK
120 minute winter	BASIN_1	94	160.480	0.560	28.7	104.9049	0.0000	SURCHARGED
120 minute winter	9	94	160.477	0.577	24.1	1.0192	0.0000	SURCHARGED
120 minute winter	10	90	160.468	0.763	26.7	0.8632	0.0000	SURCHARGED
120 minute winter	11	90	160.462	0.812	27.7	0.9188	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	EX IC1	2.000	3	4.7	0.754	0.097	0.3331	
120 minute winter	MH14	7.001	8_CP	22.6	0.701	0.277	1.9478	
15 minute winter	MH15	7.000	MH14	37.8	1.812	0.452	1.0578	
15 minute winter	EX MH15A	5.000	EX MH12	11.7	1.502	1.092	0.1059	
15 minute winter	EX MH12	5.001	10	51.4	1.355	1.071	1.1455	
15 minute winter	EX MH6	6.000	EX MH7	9.5	1.216	1.171	0.0644	
15 minute winter	EX MH7	6.001	EX MH8	16.0	1.561	0.406	0.0911	
15 minute winter	EX MH8	6.002	11	29.5	2.210	0.669	0.2028	
15 minute winter	EX MH11	4.005	OUT_B	44.1	3.679	0.706	0.0956	206.9
15 minute winter	1	1.000	2	37.7	2.600	0.312	0.3811	
15 minute winter	2	1.001	3	121.7	1.919	1.008	5.2434	
360 minute winter	3	1.002	6_FC2	23.8	0.502	0.123	4.1675	
360 minute winter	4	8.000	5	4.7	0.714	0.115	1.2795	
360 minute winter	5	8.001	J1	4.3	0.738	0.083	0.3033	
360 minute winter	BASIN_2	3.000	6_FC2	-28.0	-0.254	-0.153	1.3103	
360 minute winter	6_FC2	1.003	7_IN	5.0	1.431	0.019	0.6111	
120 minute winter	8_CP	7.002	J2	41.7	1.386	0.409	0.6690	
120 minute winter	BASIN_1	4.000	9	24.1	0.775	0.537	0.8459	
120 minute winter	9	4.001	10	24.4	0.691	0.333	3.1439	
120 minute winter	10	4.002	11	24.5	0.606	0.348	0.9537	
120 minute winter	11	4.003	12_FC1	26.7	0.509	0.387	0.9016	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	12_FC1	90	160.455	0.905	26.7	2.3022	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	12_FC1	4.004	EX MH11	25.0	1.477	0.218	0.1368	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	EX IC1	12	162.166	0.591	43.4	0.8971	0.0000	SURCHARGED
15 minute winter	MH14	11	160.826	0.676	95.2	1.4742	0.0000	SURCHARGED
15 minute winter	MH15	11	161.441	0.141	55.4	0.3441	0.0000	OK
15 minute summer	EX MH15A	10	162.150	0.409	18.2	0.9636	0.0000	FLOOD RISK
15 minute winter	EX MH12	12	161.214	0.714	75.6	1.8893	0.0000	SURCHARGED
15 minute winter	EX MH6	12	161.683	0.633	14.5	0.6363	0.0000	FLOOD RISK
15 minute winter	EX MH7	12	161.311	0.461	21.6	0.3862	0.0000	FLOOD RISK
15 minute winter	EX MH8	12	161.197	0.697	39.8	1.5254	0.0000	FLOOD RISK
15 minute winter	EX MH11	10	159.584	0.114	51.6	0.1474	0.0000	OK
15 minute winter	OUT_B	10	158.604	0.104	51.6	0.0000	0.0000	OK
15 minute winter	1	12	164.029	0.229	54.8	0.2565	0.0000	SURCHARGED
15 minute winter	2	12	163.817	1.442	179.5	5.0723	0.0000	SURCHARGED
15 minute winter	3	12	162.111	0.761	192.3	1.3446	0.0000	SURCHARGED
480 minute winter	4	472	162.080	0.530	5.5	1.3563	0.0000	SURCHARGED
480 minute winter	5	472	162.080	0.730	5.5	0.8254	0.0000	FLOOD RISK
480 minute winter	J1	472	162.080	0.980	19.2	0.0000	0.0000	OK
480 minute winter	BASIN_2	464	162.079	0.979	33.9	364.2399	0.0000	FLOOD RISK
480 minute winter	6_FC2	464	162.079	1.129	38.6	4.5710	0.0000	FLOOD RISK
120 minute winter	7_IN	114	160.770	0.850	28.1	0.0000	0.0000	OK
120 minute winter	8_CP	110	160.776	0.776	63.7	2.7297	0.0000	SURCHARGED
120 minute winter	J2	112	160.775	0.855	62.5	0.0000	0.0000	OK
120 minute winter	BASIN_1	112	160.761	0.841	52.1	181.9984	0.0000	FLOOD RISK
120 minute winter	9	112	160.758	0.858	24.1	1.5161	0.0000	SURCHARGED
120 minute winter	10	110	160.747	1.042	28.1	1.1785	0.0000	FLOOD RISK
120 minute winter	11	110	160.740	1.090	27.4	1.2324	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	EX IC1	2.000	3	38.9	1.216	0.804	0.3431	
15 minute winter	MH14	7.001	8_CP	88.9	1.262	1.089	1.9478	
15 minute winter	MH15	7.000	MH14	53.6	1.814	0.641	1.3776	
15 minute summer	EX MH15A	5.000	EX MH12	15.2	1.941	1.415	0.1049	
15 minute winter	EX MH12	5.001	10	68.8	1.730	1.433	1.2100	
15 minute winter	EX MH6	6.000	EX MH7	11.8	1.507	1.452	0.0653	
15 minute winter	EX MH7	6.001	EX MH8	19.6	1.571	0.498	0.1271	
15 minute winter	EX MH8	6.002	11	34.4	2.207	0.780	0.2028	
15 minute winter	EX MH11	4.005	OUT_B	51.6	3.770	0.826	0.1091	252.0
15 minute winter	1	1.000	2	51.8	2.612	0.429	0.9488	
15 minute winter	2	1.001	3	153.4	2.179	1.271	5.6742	
15 minute winter	3	1.002	6_FC2	190.0	1.723	0.987	4.1675	
480 minute winter	4	8.000	5	5.3	0.689	0.129	1.2798	
480 minute winter	5	8.001	J1	6.6	0.707	0.129	0.3033	
480 minute winter	BASIN_2	3.000	6_FC2	-33.9	-0.307	-0.185	1.3103	
480 minute winter	6_FC2	1.003	7_IN	5.2	1.454	0.020	0.6596	
120 minute winter	8_CP	7.002	J2	62.5	1.523	0.613	0.6690	
120 minute winter	BASIN_1	4.000	9	24.1	0.777	0.537	0.8459	
120 minute winter	9	4.001	10	24.4	0.694	0.333	3.1439	
120 minute winter	10	4.002	11	24.5	0.608	0.348	0.9537	
120 minute winter	11	4.003	12_FC1	25.9	0.512	0.375	0.9016	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	12_FC1	110	160.731	1.181	25.9	3.0048	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	12_FC1	4.004	EX MH11	25.0	1.477	0.218	0.1389	