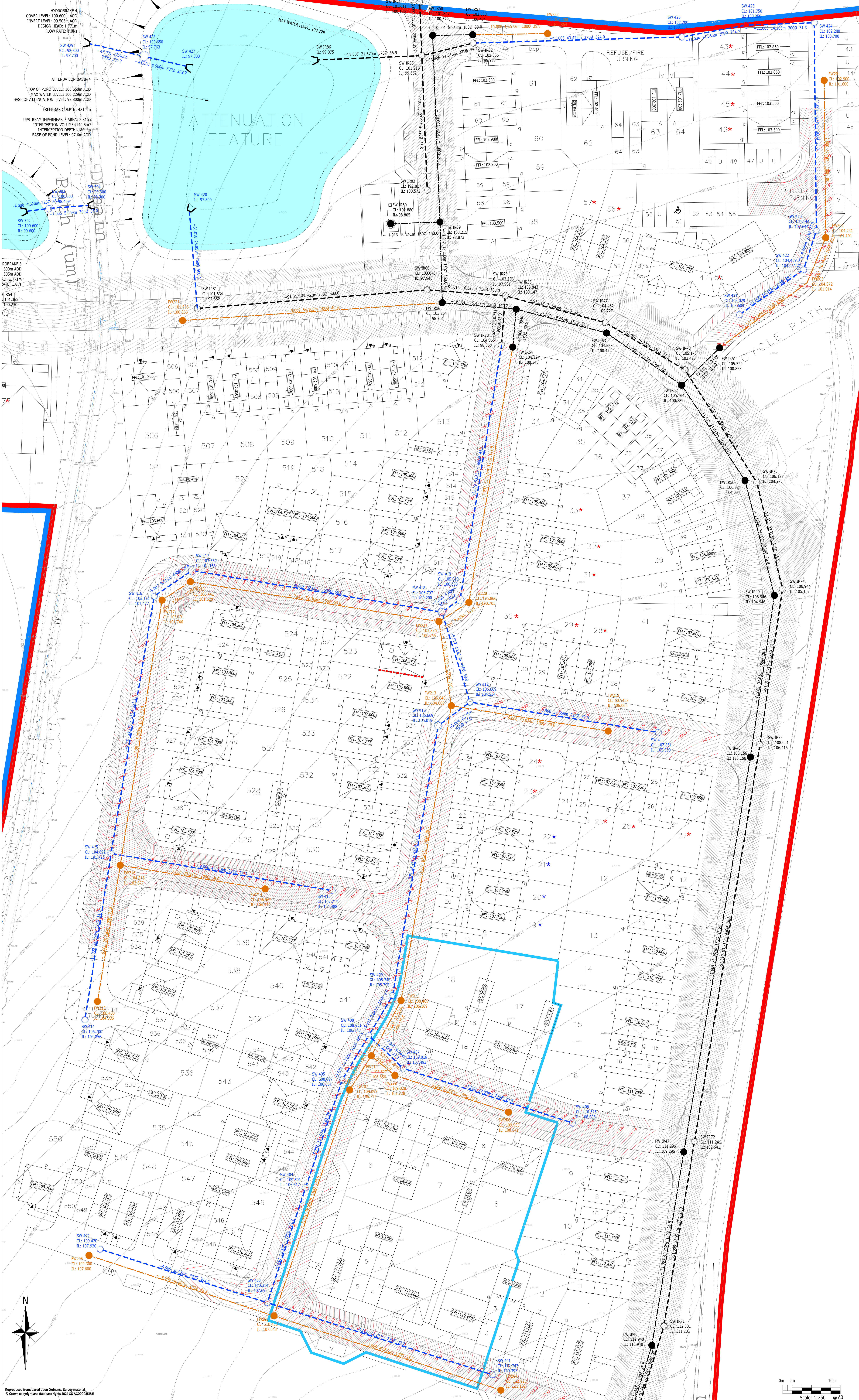




ENGINEERING KEY

- SITE BOUNDARY
- SURFACE WATER APPROVED UNDER INFRASTRUCTURE APPLICATION
- FOULED WATER APPROVED UNDER INFRASTRUCTURE APPLICATION
- PROPOSED ADOPTABLE SURFACE WATER SEWER
- PROPOSED ADOPTABLE SURFACE WATER SEWER
- PROPOSED ATTENUATION CRATES
- PROPOSED DETENTION BASIN

NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION, INC. RISK ASSESSMENTS AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.
- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES UNLESS OTHERWISE STATED.
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KEYPLAN

P2	UPDATED TO SUIT NEW LAYOUT	ADS	CC	AD	16-12-25
P1	FIRST ISSUE	AMC	AMC	AMC	28-11-25
Rev	Description	Drn	Chk	App	Date
Purpose:	PRELIMINARY	Status:			NOT YET APPROVED

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VISTRY SOUTH EAST
Project Title:
IMBERHORNE FARM, EAST GRINSTEAD
Drawing Title:
PROPOSED DRAINAGE SHEET 6
Drawn by: AMC
Checked by: AMC
Approved by: AD
Scale: 1:250 @ A0
Date: 28-11-25
Revision: P2
Drawing Number: 2206781-ACE-XX-XX-DR-C-0626

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File location: y:\latest projects\2206781 - Imberhorne Farm, east grinstead\updates\technical\dwg\drawings\2206781-ace-xx-xx-dr-c-0626 - drainage layout.dwg

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.600
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	150.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
101	0.113	5.00	109.000	1200	536707.937	138551.117	1.500	107.500
102			108.500	1200	536684.681	138551.483	1.500	107.000
103			109.170	1200	536634.612	138542.123	2.378	106.792
104	0.063	5.00	109.100	1200	536589.042	138537.552	1.500	107.600
105			109.100	1200	536609.759	138539.140	1.623	107.477
106	0.040	5.00	109.112	1200	536625.939	138544.369	2.357	106.755
107			108.851	1200	536624.526	138549.678	2.355	106.496
108	0.088	5.00	106.874	1350	536620.979	138595.791	1.833	105.041
109	0.136	5.00	106.729	1350	536687.824	138606.120	1.774	104.955
110			106.487	1350	536653.904	138598.280	1.640	104.847
111	0.247	5.00	106.557	1350	536646.950	138598.258	1.807	104.750
112			104.490	1350	536646.768	138654.295	1.650	102.840
IR01			101.953		536646.585	138710.333	1.774	100.179
113	0.051	5.00	107.100	1200	536565.015	138570.278	1.500	105.600
114			107.100	1200	536567.203	138585.847	1.593	105.507
115			107.100	1200	536577.614	138597.750	1.925	105.175
116	0.150	5.00	106.422	1200	536582.965	138600.129	1.516	104.906
IR02			104.905		536585.867	138635.871	1.650	103.255
IR03	0.166	5.00	104.125	1350	536586.896	138654.373	2.734	101.391
IR04	0.100	5.00	103.148	1350	536571.814	138673.396	2.338	100.810
IR05	0.012	5.00	101.612	1350	536571.879	138721.668	1.575	100.037
IR06	0.056	5.00	101.451	1500	536587.028	138721.504	1.967	99.484
IR07	0.109	5.00	101.582	1500	536646.550	138721.076	2.200	99.382
117	0.115	5.00	108.832	1200	536729.986	138562.161	1.678	107.154
118	0.088	5.00	107.253	1350	536728.262	138611.780	1.677	105.576
119	0.105	5.00	106.970	1350	536706.583	138610.703	1.575	105.395
120	0.143	5.00	104.949	1350	536705.482	138661.273	1.575	103.374
IR08			102.488		536704.380	138711.843	1.654	100.834
IR09	0.052	5.00	102.447	1200	536733.624	138724.502	1.937	100.510
IR10	0.142	5.00	102.167	1350	536703.967	138722.258	2.058	100.109
IR11	0.090	5.00	101.716	1950	536660.972	138721.343	2.862	98.854
IR12	0.112	5.00	101.663		536660.650	138729.502	2.824	98.839
121	0.110	5.00	99.200	1200	536655.168	138810.924	1.136	98.064
122	0.209	5.00	99.831	2100	536658.593	138781.630	2.788	97.043
123			99.500	2100	536726.849	138786.567	2.525	96.975
124			99.250		536797.514	138781.738	2.400	96.850
125	0.146	5.00	109.000	1350	536749.751	138551.024	1.650	107.350
126	0.091	5.00	107.500	1200	536882.484	138560.679	1.575	105.925
127			107.700	1200	536857.917	138554.064	1.879	105.821
128	0.125	5.00	108.915	1350	536831.621	138553.618	3.277	105.638
129	0.058	5.00	106.869	1200	536804.660	138614.482	1.425	105.444
130	0.134	5.00	106.507	1350	536829.559	138615.315	1.575	104.932
131	0.091	5.00	106.051	1200	536848.889	138618.561	1.500	104.551
132			105.674	1200	536879.162	138619.524	1.477	104.197
133	0.142	5.00	105.492	1200	536885.157	138622.896	1.655	103.837
134			103.715	1200	536882.937	138676.295	1.524	102.191
135	0.085	5.00	103.388	1500	536874.679	138683.416	1.773	101.615
136	0.145	5.00	103.933	1500	536827.044	138681.604	2.415	101.518
137			102.283	1500	536825.617	138716.966	1.880	100.403

**Nodes**

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
IR13			101.700		536823.446	138733.452	1.887	99.813
138	0.130	5.00	106.689	1350	536782.063	138613.970	1.575	105.114
139	0.227	5.00	106.882	1350	536767.999	138613.398	1.825	105.057
140			103.949	1350	536764.782	138692.503	1.926	102.023
IR14			102.873		536759.434	138717.852	1.723	101.150
IR15	0.082	5.00	102.553	1350	536757.060	138728.367	1.666	100.887
IR16	0.044	5.00	101.945	1350	536790.781	138737.959	1.902	100.043
IR17	0.056	5.00	101.371	1800	536822.067	138743.924	1.950	99.421
IR18	0.146	5.00	100.821	1800	536850.951	138747.740	2.000	98.821
IR19	0.200	5.00	100.416	1800	536920.202	138750.659	2.365	98.051
IR20	0.020	5.00	100.211	1800	536919.361	138770.520	2.381	97.830
141			98.760		536895.069	138772.771	1.866	96.894
142			99.250		536872.984	138774.817	2.400	96.850
143		5.00	99.250		536873.443	138787.431	2.412	96.838
144			99.250	2100	536882.010	138789.367	2.448	96.802
145			97.855	1200	536892.999	138792.196	1.100	96.755

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)
1.000	23.259	54.7	225	Circular	109.000	107.500	1.275	108.500	107.075	1.200
1.001	50.936	244.9	300	Circular	108.500	107.000	1.200	109.170	106.792	2.078
1.002	8.959	242.1	300	Circular	109.170	106.792	2.078	109.112	106.755	2.057
2.000	20.778	168.9	225	Circular	109.100	107.600	1.275	109.100	107.477	1.398
2.001	17.004	26.3	225	Circular	109.100	107.477	1.398	109.112	106.830	2.057
1.003	5.494	21.2	300	Circular	109.112	106.755	2.057	108.851	106.496	2.055
1.004	46.249	33.5	300	Circular	108.851	106.496	2.055	106.874	105.116	1.458
1.005	26.088	120.6	375	Circular	106.874	105.041	1.458	106.557	104.825	1.357
3.000	34.814	322.4	375	Circular	106.729	104.955	1.399	106.487	104.847	1.265
3.001	6.954	316.1	375	Circular	106.487	104.847	1.265	106.557	104.825	1.357
1.006	56.037	29.3	450	Circular	106.557	104.750	1.357	104.490	102.840	1.200
1.007	56.038	21.1	450	Circular	104.490	102.840	1.200	101.953	100.179	1.324
S18.00	10.743	16.6	450	Circular	101.953	100.179	1.324	101.582	99.532	1.600
4.000	15.722	169.1	225	Circular	107.100	105.600	1.275	107.100	105.507	1.368
4.001	15.814	47.6	225	Circular	107.100	105.507	1.368	107.100	105.175	1.700
4.002	5.856	30.2	225	Circular	107.100	105.175	1.700	106.422	104.981	1.216
4.003	35.860	23.9	300	Circular	106.422	104.906	1.216	104.905	103.405	1.200

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	101	1200	Manhole	Adoptable	102	1200	Manhole	Adoptable
1.001	102	1200	Manhole	Adoptable	103	1200	Manhole	Adoptable
1.002	103	1200	Manhole	Adoptable	106	1200	Manhole	Adoptable
2.000	104	1200	Manhole	Adoptable	105	1200	Manhole	Adoptable
2.001	105	1200	Manhole	Adoptable	106	1200	Manhole	Adoptable
1.003	106	1200	Manhole	Adoptable	107	1200	Manhole	Adoptable
1.004	107	1200	Manhole	Adoptable	108	1350	Manhole	Adoptable
1.005	108	1350	Manhole	Adoptable	111	1350	Manhole	Adoptable
3.000	109	1350	Manhole	Adoptable	110	1350	Manhole	Adoptable
3.001	110	1350	Manhole	Adoptable	111	1350	Manhole	Adoptable
1.006	111	1350	Manhole	Adoptable	112	1350	Manhole	Adoptable
1.007	112	1350	Manhole	Adoptable	IR01		Junction	
S18.00	IR01		Junction		IR07	1500	Manhole	Adoptable
4.000	113	1200	Manhole	Adoptable	114	1200	Manhole	Adoptable
4.001	114	1200	Manhole	Adoptable	115	1200	Manhole	Adoptable
4.002	115	1200	Manhole	Adoptable	116	1200	Manhole	Adoptable
4.003	116	1200	Manhole	Adoptable	IR02		Junction	

**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)
4.004	18.531	9.9	450	Circular	104.905	103.255	1.200	104.125	101.391	2.284
4.005	67.131	38.2	450	Circular	104.125	101.391	2.284	101.451	99.634	1.367
5.000	48.272	62.4	375	Circular	103.148	100.810	1.963	101.612	100.037	1.200
S16.001	15.150	46.2	375	Circular	101.612	100.037	1.200	101.451	99.709	1.367
S16.002	59.524	583.6	600	Circular	101.451	99.484	1.367	101.582	99.382	1.600
S16.003	14.424	185.6	600	Circular	101.582	99.382	1.600	101.716	99.304	1.812
6.000	49.649	34.8	225	Circular	108.832	107.154	1.453	107.253	105.726	1.302
6.001	21.706	119.7	375	Circular	107.253	105.576	1.302	106.970	105.395	1.200
6.002	50.582	25.0	375	Circular	106.970	105.395	1.200	104.949	103.374	1.200
6.003	50.582	19.9	375	Circular	104.949	103.374	1.200	102.488	100.834	1.279
S15.000	10.423	16.0	375	Circular	102.488	100.834	1.279	102.167	100.184	1.608
S14.000	29.742	169.0	225	Circular	102.447	100.510	1.712	102.167	100.334	1.608
S14.001	43.005	65.7	450	Circular	102.167	100.109	1.608	101.716	99.454	1.812
S14.002	8.165	544.4	1050	Circular	101.716	98.854	1.812	101.663	98.839	1.774
1.011	52.169	31.7	1050	Circular	99.663	98.839	1.774	99.831	97.193	1.588
8.000	29.494	243.7	300	Circular	99.200	98.064	0.836	99.831	97.943	1.588
1.012	68.434	1006.4	1200	Circular	99.831	97.043	1.588	99.500	96.975	1.325
1.013	70.830	944.4	1200	Circular	99.500	96.975	1.325	99.250	96.900	1.150
9.000	81.911	323.8	375	Circular	109.000	107.350	1.275	108.915	107.097	1.443
10.000	25.442	244.6	300	Circular	107.500	105.925	1.275	107.700	105.821	1.579
10.001	26.300	243.5	300	Circular	107.700	105.821	1.579	108.915	105.713	2.902
9.001	61.731	87.4	375	Circular	108.915	105.638	2.902	106.507	104.932	1.200
11.000	24.913	68.8	225	Circular	106.869	105.444	1.200	106.507	105.082	1.200
9.002	66.337	25.8	375	Circular	106.507	104.932	1.200	103.933	102.358	1.200
12.000	30.288	85.6	225	Circular	106.051	104.551	1.275	105.674	104.197	1.252
12.001	6.878	24.1	225	Circular	105.674	104.197	1.252	105.492	103.912	1.355
12.002	53.472	32.5	300	Circular	105.492	103.837	1.355	103.715	102.191	1.224
12.003	10.904	31.1	300	Circular	103.715	102.191	1.224	103.388	101.840	1.248

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.004	IR02		Junction		IR03	1350	Manhole	Adoptable
4.005	IR03	1350	Manhole	Adoptable	IR06	1500	Manhole	Adoptable
5.000	IR04	1350	Manhole	Adoptable	IR05	1350	Manhole	Adoptable
S16.001	IR05	1350	Manhole	Adoptable	IR06	1500	Manhole	Adoptable
S16.002	IR06	1500	Manhole	Adoptable	IR07	1500	Manhole	Adoptable
S16.003	IR07	1500	Manhole	Adoptable	IR11	1950	Manhole	Adoptable
6.000	117	1200	Manhole	Adoptable	118	1350	Manhole	Adoptable
6.001	118	1350	Manhole	Adoptable	119	1350	Manhole	Adoptable
6.002	119	1350	Manhole	Adoptable	120	1350	Manhole	Adoptable
6.003	120	1350	Manhole	Adoptable	IR08		Junction	
S15.000	IR08		Junction		IR10	1350	Manhole	Adoptable
S14.000	IR09	1200	Manhole	Adoptable	IR10	1350	Manhole	Adoptable
S14.001	IR10	1350	Manhole	Adoptable	IR11	1950	Manhole	Adoptable
S14.002	IR11	1950	Manhole	Adoptable	IR12		Junction	
1.011	IR12		Junction		122	2100	Manhole	Adoptable
8.000	121	1200	Manhole	Adoptable	122	2100	Manhole	Adoptable
1.012	122	2100	Manhole	Adoptable	123	2100	Manhole	Adoptable
1.013	123	2100	Manhole	Adoptable	124		Junction	
9.000	125	1350	Manhole	Adoptable	128	1350	Manhole	Adoptable
10.000	126	1200	Manhole	Adoptable	127	1200	Manhole	Adoptable
10.001	127	1200	Manhole	Adoptable	128	1350	Manhole	Adoptable
9.001	128	1350	Manhole	Adoptable	130	1350	Manhole	Adoptable
11.000	129	1200	Manhole	Adoptable	130	1350	Manhole	Adoptable
9.002	130	1350	Manhole	Adoptable	136	1500	Manhole	Adoptable
12.000	131	1200	Manhole	Adoptable	132	1200	Manhole	Adoptable
12.001	132	1200	Manhole	Adoptable	133	1200	Manhole	Adoptable
12.002	133	1200	Manhole	Adoptable	134	1200	Manhole	Adoptable
12.003	134	1200	Manhole	Adoptable	135	1500	Manhole	Adoptable

Pipeline Schedule

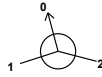
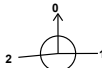
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
12.004	47.669	491.4	525	Circular	103.388	101.615	1.248	103.933	101.518	1.890
9.003	35.391	31.8	525	Circular	103.933	101.518	1.890	102.283	100.403	1.355
9.004	16.628	32.3	525	Circular	102.283	100.403	1.355	101.700	99.888	1.287
S13.000	10.562	43.7	600	Circular	101.700	99.813	1.287	101.371	99.571	1.200
13.000	14.076	246.9	375	Circular	106.689	105.114	1.200	106.882	105.057	1.450
13.001	79.170	26.1	375	Circular	106.882	105.057	1.450	103.949	102.023	1.551
13.002	25.907	32.4	375	Circular	103.949	102.023	1.551	102.873	101.225	1.273
S12.000	10.780	41.0	450	Circular	102.873	101.150	1.273	102.553	100.887	1.216
S12.001	35.059	41.6	450	Circular	102.553	100.887	1.216	101.945	100.043	1.452
S12.002	31.850	98.8	450	Circular	101.945	100.043	1.452	101.371	99.721	1.200
S12.003	29.135	48.6	750	Circular	101.371	99.421	1.200	100.821	98.821	1.250
S12.004	69.312	90.0	750	Circular	100.821	98.821	1.250	100.416	98.051	1.615
S12.005	19.879	90.0	750	Circular	100.416	98.051	1.615	100.211	97.830	1.631
S12.006	24.396	26.1	750	Circular	100.211	97.830	1.631	98.760	96.894	1.116
9.010	22.180	504.1	750	Circular	98.760	96.894	1.116	99.250	96.850	1.650
14.000	8.783	244.0	300	Circular	99.250	96.838	2.112	99.250	96.802	2.148
14.001	11.347	241.4	300	Circular	99.250	96.802	2.148	97.855	96.755	0.800

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
12.004	135	1500	Manhole	Adoptable	136	1500	Manhole	Adoptable
9.003	136	1500	Manhole	Adoptable	137	1500	Manhole	Adoptable
9.004	137	1500	Manhole	Adoptable	IR13		Junction	
S13.000	IR13		Junction		IR17	1800	Manhole	Adoptable
13.000	138	1350	Manhole	Adoptable	139	1350	Manhole	Adoptable
13.001	139	1350	Manhole	Adoptable	140	1350	Manhole	Adoptable
13.002	140	1350	Manhole	Adoptable	IR14		Junction	
S12.000	IR14		Junction		IR15	1350	Manhole	Adoptable
S12.001	IR15	1350	Manhole	Adoptable	IR16	1350	Manhole	Adoptable
S12.002	IR16	1350	Manhole	Adoptable	IR17	1800	Manhole	Adoptable
S12.003	IR17	1800	Manhole	Adoptable	IR18	1800	Manhole	Adoptable
S12.004	IR18	1800	Manhole	Adoptable	IR19	1800	Manhole	Adoptable
S12.005	IR19	1800	Manhole	Adoptable	IR20	1800	Manhole	Adoptable
S12.006	IR20	1800	Manhole	Adoptable	141		Junction	
9.010	141		Junction		142		Junction	
14.000	143		Junction		144	2100	Manhole	Adoptable
14.001	144	2100	Manhole	Adoptable	145	1200	Manhole	Adoptable

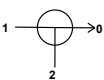
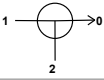
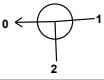
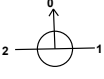
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
101	536707.937	138551.117	109.000	1.500	1200	Manhole	Adoptable	0 ←	0	1.000	107.500	225 Circular
102	536684.681	138551.483	108.500	1.500	1200	Manhole	Adoptable	0 ← 1	1	1.000	107.075	225 Circular
103	536634.612	138542.123	109.170	2.378	1200	Manhole	Adoptable	0 ← 1	0	1.001	107.000	300 Circular
									1	1.001	106.792	300 Circular
									0	1.002	106.792	300 Circular
104	536589.042	138537.552	109.100	1.500	1200	Manhole	Adoptable	→ 0	0	2.000	107.600	225 Circular

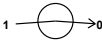
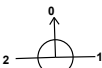
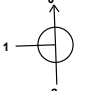
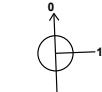
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type	
105	536609.759	138539.140	109.100	1.623	1200	Manhole	Adoptable		1	2.000	107.477	225	Circular
									0	2.001	107.477	225	Circular
106	536625.939	138544.369	109.112	2.357	1200	Manhole	Adoptable		1	2.001	106.830	225	Circular
									2	1.002	106.755	300	Circular
									0	1.003	106.755	300	Circular
107	536624.526	138549.678	108.851	2.355	1200	Manhole	Adoptable		1	1.003	106.496	300	Circular
									0	1.004	106.496	300	Circular
108	536620.979	138595.791	106.874	1.833	1350	Manhole	Adoptable		1	1.004	105.116	300	Circular
									0	1.005	105.041	375	Circular
109	536687.824	138606.120	106.729	1.774	1350	Manhole	Adoptable						
									0	3.000	104.955	375	Circular
110	536653.904	138598.280	106.487	1.640	1350	Manhole	Adoptable		1	3.000	104.847	375	Circular
									0	3.001	104.847	375	Circular
111	536646.950	138598.258	106.557	1.807	1350	Manhole	Adoptable		1	3.001	104.825	375	Circular
									2	1.005	104.825	375	Circular
									0	1.006	104.750	450	Circular
112	536646.768	138654.295	104.490	1.650	1350	Manhole	Adoptable		1	1.006	102.840	450	Circular
									0	1.007	102.840	450	Circular
IR01	536646.585	138710.333	101.953	1.774		Junction			1	1.007	100.179	450	Circular
									0	518.00	100.179	450	Circular
113	536565.015	138570.278	107.100	1.500	1200	Manhole	Adoptable						
									0	4.000	105.600	225	Circular
114	536567.203	138585.847	107.100	1.593	1200	Manhole	Adoptable		1	4.000	105.507	225	Circular
									0	4.001	105.507	225	Circular
115	536577.614	138597.750	107.100	1.925	1200	Manhole	Adoptable		1	4.001	105.175	225	Circular
									0	4.002	105.175	225	Circular
116	536582.965	138600.129	106.422	1.516	1200	Manhole	Adoptable		1	4.002	104.981	225	Circular
									0	4.003	104.906	300	Circular
IR02	536585.867	138635.871	104.905	1.650		Junction			1	4.003	103.405	300	Circular
									0	4.004	103.255	450	Circular
IR03	536586.896	138654.373	104.125	2.734	1350	Manhole	Adoptable		1	4.004	101.391	450	Circular
									0	4.005	101.391	450	Circular

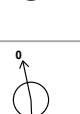
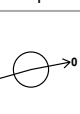
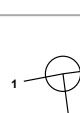
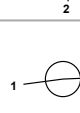
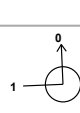
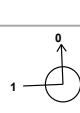
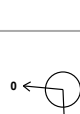
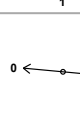
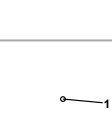
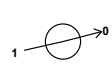
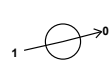
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
IR04	536571.814	138673.396	103.148	2.338	1350	Manhole	Adoptable		0	5.000	100.810	375 Circular
IR05	536571.879	138721.668	101.612	1.575	1350	Manhole	Adoptable		1	5.000	100.037	375 Circular
IR06	536587.028	138721.504	101.451	1.967	1500	Manhole	Adoptable		1 2	S16.001 4.005	100.037 99.634	375 450 Circular
IR07	536646.550	138721.076	101.582	2.200	1500	Manhole	Adoptable		1 2	S16.002 S18.00	99.484 99.532	600 450 Circular
117	536729.986	138562.161	108.832	1.678	1200	Manhole	Adoptable		0	6.000	107.154	225 Circular
118	536728.262	138611.780	107.253	1.677	1350	Manhole	Adoptable		1	6.000	105.726	225 Circular
119	536706.583	138610.703	106.970	1.575	1350	Manhole	Adoptable		1	6.001	105.395	375 Circular
120	536705.482	138661.273	104.949	1.575	1350	Manhole	Adoptable		1	6.002	103.374	375 Circular
IR08	536704.380	138711.843	102.488	1.654		Junction			1	6.003	100.834	375 Circular
IR09	536733.624	138724.502	102.447	1.937	1200	Manhole	Adoptable		0	S14.000	100.510	225 Circular
IR10	536703.967	138722.258	102.167	2.058	1350	Manhole	Adoptable		1 2	S14.000 S15.000	100.334 100.184	225 375 Circular
IR11	536660.972	138721.343	101.716	2.862	1950	Manhole	Adoptable		1 2	S14.001 S16.003	99.454 99.304	450 600 Circular
IR12	536660.650	138729.502	101.663	2.824		Junction			1	S14.002	98.854	1050 Circular
121	536655.168	138810.924	99.200	1.136	1200	Manhole	Adoptable		0	1.011	98.839	1050 Circular
122	536658.593	138781.630	99.831	2.788	2100	Manhole	Adoptable		1 2	8.000 1.011	97.943 97.193	300 1050 Circular
									0	1.012	97.043	1200 Circular

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
123	536726.849	138786.567	99.500	2.525	2100	Manhole	Adoptable	 1	1.012	96.975	1200	Circular
124	536797.514	138781.738	99.250	2.400		Junction		 1	1.013	96.900	1200	Circular
125	536749.751	138551.024	109.000	1.650	1350	Manhole	Adoptable	 0	9.000	107.350	375	Circular
126	536882.484	138560.679	107.500	1.575	1200	Manhole	Adoptable	 0	10.000	105.925	300	Circular
127	536857.917	138554.064	107.700	1.879	1200	Manhole	Adoptable	 0	10.000	105.821	300	Circular
128	536831.621	138553.618	108.915	3.277	1350	Manhole	Adoptable	 0	10.001	105.713	300	Circular
129	536804.660	138614.482	106.869	1.425	1200	Manhole	Adoptable	 0	9.000	107.097	375	Circular
130	536829.559	138615.315	106.507	1.575	1350	Manhole	Adoptable	 0	11.000	105.638	225	Circular
131	536848.889	138618.561	106.051	1.500	1200	Manhole	Adoptable	 0	11.000	105.082	225	Circular
132	536879.162	138619.524	105.674	1.477	1200	Manhole	Adoptable	 0	12.000	104.932	375	Circular
133	536885.157	138622.896	105.492	1.655	1200	Manhole	Adoptable	 0	12.001	104.197	225	Circular
134	536882.937	138676.295	103.715	1.524	1200	Manhole	Adoptable	 0	12.001	103.912	225	Circular
135	536874.679	138683.416	103.388	1.773	1500	Manhole	Adoptable	 0	12.002	102.191	300	Circular
136	536827.044	138681.604	103.933	2.415	1500	Manhole	Adoptable	 0	12.003	102.191	300	Circular
137	536825.617	138716.966	102.283	1.880	1500	Manhole	Adoptable	 0	12.004	101.840	300	Circular
								 1	9.003	101.518	525	Circular
								 0	9.004	100.403	525	Circular

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
IR13	536823.446	138733.452	101.700	1.887		Junction			1 9.004	99.888	525	Circular
									0 S13.000	99.813	600	Circular
138	536782.063	138613.970	106.689	1.575	1350	Manhole	Adoptable		0 13.000	105.114	375	Circular
139	536767.999	138613.398	106.882	1.825	1350	Manhole	Adoptable		1 13.000	105.057	375	Circular
									0 13.001	105.057	375	Circular
140	536764.782	138692.503	103.949	1.926	1350	Manhole	Adoptable		1 13.001	102.023	375	Circular
									0 13.002	102.023	375	Circular
IR14	536759.434	138717.852	102.873	1.723		Junction			1 13.002	101.225	375	Circular
									0 S12.000	101.150	450	Circular
IR15	536757.060	138728.367	102.553	1.666	1350	Manhole	Adoptable		1 S12.000	100.887	450	Circular
									0 S12.001	100.887	450	Circular
IR16	536790.781	138737.959	101.945	1.902	1350	Manhole	Adoptable		1 S12.001	100.043	450	Circular
									0 S12.002	100.043	450	Circular
IR17	536822.067	138743.924	101.371	1.950	1800	Manhole	Adoptable		1 S12.002	99.721	450	Circular
									2 S13.000	99.571	600	Circular
									0 S12.003	99.421	750	Circular
IR18	536850.951	138747.740	100.821	2.000	1800	Manhole	Adoptable		1 S12.003	98.821	750	Circular
									0 S12.004	98.821	750	Circular
IR19	536920.202	138750.659	100.416	2.365	1800	Manhole	Adoptable		1 S12.004	98.051	750	Circular
									0 S12.005	98.051	750	Circular
IR20	536919.361	138770.520	100.211	2.381	1800	Manhole	Adoptable		1 S12.005	97.830	750	Circular
									0 S12.006	97.830	750	Circular
141	536895.069	138772.771	98.760	1.866		Junction			1 S12.006	96.894	750	Circular
									0 9.010	96.894	750	Circular
142	536872.984	138774.817	99.250	2.400		Junction			1 9.010	96.850	750	Circular
									0 14.000	96.838	300	Circular
143	536873.443	138787.431	99.250	2.412		Junction			0 14.000	96.802	300	Circular
									1 14.001	96.802	300	Circular
144	536882.010	138789.367	99.250	2.448	2100	Manhole	Adoptable		0 14.001	96.802	300	Circular

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
145	536892.999	138792.196	97.855	1.100	1200	Manhole	Adoptable	1	14.001	96.755	300	Circular



Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	20.0		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	45	0	0
30	0	0	0				

Node 144 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	14.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0202-2600-2400-2600
Invert Level (m)	96.802	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.400	Min Node Diameter (mm)	2100
Design Flow (l/s)	26.0		

Node 143 Pond Storage Structure

Invert Level (m)	96.850	Time to half empty (mins)	Analyse flow through structure	x
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Inlets

124	142
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Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1648.4	2.400	3122.6

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101	10	107.568	0.068	13.4	0.1792	0.0000	OK
15 minute summer	102	11	107.088	0.088	13.2	0.1000	0.0000	OK
15 minute summer	103	11	106.881	0.089	13.2	0.1009	0.0000	OK
15 minute summer	104	10	107.670	0.070	7.5	0.1370	0.0000	OK
15 minute summer	105	11	107.519	0.042	7.4	0.0473	0.0000	OK
15 minute summer	106	11	106.827	0.072	24.9	0.1058	0.0000	OK
15 minute summer	107	11	106.569	0.073	24.9	0.0830	0.0000	OK
15 minute summer	108	11	105.156	0.115	34.5	0.2740	0.0000	OK
15 minute summer	109	10	105.053	0.098	16.2	0.2899	0.0000	OK
15 minute summer	110	11	104.948	0.101	15.9	0.1441	0.0000	OK
15 minute summer	111	11	104.863	0.113	78.0	0.4699	0.0000	OK
15 minute summer	112	11	102.941	0.101	77.8	0.1438	0.0000	OK
15 minute summer	IR01	11	100.278	0.099	77.2	0.0000	0.0000	OK
15 minute summer	113	10	105.662	0.062	6.1	0.1118	0.0000	OK
15 minute summer	114	10	105.551	0.044	6.0	0.0500	0.0000	OK
15 minute summer	115	11	105.216	0.041	6.0	0.0461	0.0000	OK
15 minute summer	116	10	104.971	0.065	23.6	0.2021	0.0000	OK
15 minute summer	IR02	11	103.301	0.046	23.2	0.0000	0.0000	OK
15 minute summer	IR03	11	101.478	0.087	42.8	0.2299	0.0000	OK
15 minute summer	IR04	10	100.865	0.055	11.9	0.1260	0.0000	OK
15 minute summer	IR05	11	100.092	0.055	13.1	0.0877	0.0000	OK
15 minute summer	IR06	11	99.676	0.192	61.8	0.4489	0.0000	OK
15 minute summer	IR07	12	99.627	0.245	149.5	0.6762	0.0000	OK
15 minute summer	117	10	107.214	0.060	13.7	0.1491	0.0000	OK
15 minute summer	118	10	105.672	0.096	23.8	0.2374	0.0000	OK
15 minute summer	119	11	105.470	0.075	36.0	0.2067	0.0000	OK
15 minute summer	120	11	103.460	0.086	52.3	0.2804	0.0000	OK
15 minute summer	IR08	11	100.920	0.085	52.3	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	1.000	102	13.2	1.339	0.187	0.2289	
15 minute summer	102	1.001	103	13.2	0.763	0.187	0.8873	
15 minute summer	103	1.002	106	13.1	0.880	0.184	0.1366	
15 minute summer	104	2.000	105	7.4	0.969	0.185	0.1604	
15 minute summer	105	2.001	106	7.3	1.474	0.072	0.0846	
15 minute summer	106	1.003	107	24.9	1.894	0.103	0.0722	
15 minute summer	107	1.004	108	24.5	1.870	0.127	0.6069	
15 minute summer	108	1.005	111	34.0	1.245	0.187	0.7149	
15 minute summer	109	3.000	110	15.9	0.695	0.143	0.8028	
15 minute summer	110	3.001	111	15.9	0.726	0.142	0.1524	
15 minute summer	111	1.006	112	77.8	2.714	0.130	1.6082	
15 minute summer	112	1.007	IR01	77.2	2.964	0.109	1.4599	
15 minute summer	IR01	S18.00	IR07	76.5	3.103	0.096	0.2667	
15 minute summer	113	4.000	114	6.0	0.846	0.151	0.1125	
15 minute summer	114	4.001	115	6.0	1.154	0.079	0.0819	
15 minute summer	115	4.002	116	6.0	1.287	0.063	0.0274	
15 minute summer	116	4.003	IR02	23.2	2.093	0.102	0.3984	
15 minute summer	IR02	4.004	IR03	23.3	1.613	0.023	0.2775	
15 minute summer	IR03	4.005	IR06	42.4	2.007	0.081	1.4194	
15 minute summer	IR04	5.000	IR05	11.7	1.175	0.046	0.4815	
15 minute summer	IR05	S16.001	IR06	13.1	1.332	0.044	0.1487	
15 minute summer	IR06	S16.002	IR07	60.5	0.657	0.214	5.4970	
15 minute summer	IR07	S16.003	IR11	148.8	1.485	0.295	1.4457	
15 minute summer	117	6.000	118	13.3	1.602	0.150	0.4122	
15 minute summer	118	6.001	119	23.5	1.257	0.129	0.4080	
15 minute summer	119	6.002	120	35.7	2.060	0.089	0.8777	
15 minute summer	120	6.003	IR08	52.3	2.758	0.116	0.9598	
15 minute summer	IR08	S15.000	IR10	52.5	2.895	0.105	0.1891	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR09	11	100.570	0.060	6.2	0.0998	0.0000	OK
15 minute summer	IR10	11	100.245	0.136	74.6	0.3816	0.0000	OK
15 minute summer	IR11	12	99.131	0.277	229.1	1.0008	0.0000	OK
15 minute summer	IR12	12	98.987	0.148	230.5	0.1170	0.0000	OK
15 minute summer	121	11	98.152	0.088	13.1	0.2697	0.0000	OK
15 minute summer	122	12	97.404	0.361	275.2	1.7899	0.0000	OK
15 minute summer	123	13	97.305	0.330	271.6	1.1437	0.0000	OK
960 minute summer	124	630	97.253	0.403	46.8	0.0000	0.0000	OK
15 minute summer	125	11	107.446	0.096	17.3	0.3057	0.0000	OK
15 minute summer	126	10	106.006	0.081	10.8	0.1842	0.0000	OK
15 minute summer	127	11	105.901	0.080	10.6	0.0901	0.0000	OK
15 minute summer	128	11	105.750	0.112	39.9	0.2457	0.0000	OK
15 minute summer	129	10	105.495	0.051	6.9	0.0988	0.0000	OK
15 minute summer	130	11	105.032	0.100	61.4	0.3130	0.0000	OK
15 minute summer	131	10	104.621	0.070	10.8	0.1649	0.0000	OK
15 minute summer	132	11	104.248	0.051	10.6	0.0581	0.0000	OK
15 minute summer	133	10	103.912	0.076	27.4	0.2150	0.0000	OK
15 minute summer	134	11	102.271	0.080	27.1	0.0908	0.0000	OK
15 minute summer	135	11	101.765	0.150	36.8	0.4085	0.0000	OK
15 minute summer	136	11	101.650	0.132	113.6	0.3911	0.0000	OK
15 minute summer	137	11	100.536	0.133	112.8	0.2350	0.0000	OK
15 minute summer	IR13	11	99.954	0.142	111.8	0.0000	0.0000	OK
15 minute summer	138	10	105.205	0.091	15.4	0.2801	0.0000	OK
15 minute summer	139	10	105.139	0.082	42.2	0.3206	0.0000	OK
15 minute summer	140	11	102.111	0.088	41.7	0.1258	0.0000	OK
15 minute summer	IR14	11	101.239	0.089	41.6	0.0000	0.0000	OK
15 minute summer	IR15	11	100.982	0.096	51.0	0.2307	0.0000	OK
15 minute summer	IR16	11	100.174	0.131	56.1	0.2479	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR09	S14.000	IR10	6.0	0.723	0.151	0.2478	
15 minute summer	IR10	S14.001	IR11	74.9	1.917	0.187	1.6794	
15 minute summer	IR11	S14.002	IR12	218.2	1.755	0.172	1.0411	
15 minute summer	IR12	1.011	122	240.7	2.773	0.045	5.1289	
15 minute summer	121	8.000	122	12.8	0.760	0.180	0.4958	
15 minute summer	122	1.012	123	271.6	1.074	0.205	17.9437	
15 minute summer	123	1.013	124	256.7	1.185	0.188	15.5755	
15 minute summer	125	9.000	128	15.4	0.742	0.139	1.6991	
15 minute summer	126	10.000	127	10.6	0.730	0.150	0.3803	
15 minute summer	127	10.001	128	10.5	0.716	0.148	0.3842	
15 minute summer	128	9.001	130	39.5	1.548	0.185	1.5766	
15 minute summer	129	11.000	130	6.7	1.027	0.107	0.1639	
15 minute summer	130	9.002	136	60.0	2.596	0.152	1.5345	
15 minute summer	131	12.000	132	10.6	1.232	0.189	0.2632	
15 minute summer	132	12.001	133	10.6	1.636	0.099	0.0445	
15 minute summer	133	12.002	134	27.1	1.884	0.138	0.7712	
15 minute summer	134	12.003	135	27.2	1.898	0.136	0.1563	
15 minute summer	135	12.004	136	37.2	0.799	0.171	2.2186	
15 minute summer	136	9.003	137	112.8	2.646	0.131	1.5091	
15 minute summer	137	9.004	IR13	111.8	2.716	0.131	0.6872	
15 minute summer	IR13	S13.000	IR17	112.2	2.351	0.108	0.5041	
15 minute summer	138	13.000	139	15.2	0.795	0.120	0.2693	
15 minute summer	139	13.001	140	41.7	2.255	0.106	1.4690	
15 minute summer	140	13.002	IR14	41.6	2.153	0.118	0.5010	
15 minute summer	IR14	S12.000	IR15	41.7	1.784	0.082	0.2518	
15 minute summer	IR15	S12.001	IR16	51.1	1.648	0.102	1.1001	
15 minute summer	IR16	S12.002	IR17	55.6	1.510	0.171	1.1738	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR17	11	99.584	0.163	173.3	0.5076	0.0000	OK
15 minute summer	IR18	12	99.013	0.192	189.0	0.7672	0.0000	OK
15 minute summer	IR19	12	98.278	0.227	208.6	0.9596	0.0000	OK
15 minute summer	IR20	12	97.976	0.146	212.6	0.3974	0.0000	OK
960 minute summer	141	630	97.252	0.358	37.4	0.0000	0.0000	OK
960 minute summer	142	630	97.252	0.402	36.9	0.0000	0.0000	OK
960 minute summer	143	630	97.246	0.408	40.8	708.7399	0.0000	SURCHARGED
960 minute summer	144	630	97.240	0.438	23.3	1.5178	0.0000	SURCHARGED
960 minute summer	145	630	96.871	0.116	23.3	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR17	S12.003	IR18	172.8	2.190	0.097	2.3132	
15 minute summer	IR18	S12.004	IR19	190.0	1.897	0.146	6.9497	
15 minute summer	IR19	S12.005	IR20	210.6	2.471	0.162	1.7135	
15 minute summer	IR20	S12.006	141	212.7	1.965	0.088	2.7166	
15 minute summer	141	9.010	142	198.8	3.052	0.363	1.9088	
960 minute summer	143	14.000	144	23.3	0.331	0.329	0.6185	
960 minute summer	144	14.001	145	23.3	0.872	0.328	0.3036	998.6

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101	10	107.659	0.159	54.2	0.4187	0.0000	OK
15 minute summer	102	11	107.201	0.201	53.4	0.2269	0.0000	OK
15 minute summer	103	11	106.998	0.206	53.4	0.2334	0.0000	OK
15 minute summer	104	10	107.751	0.151	30.2	0.2968	0.0000	OK
15 minute summer	105	10	107.563	0.086	29.9	0.0974	0.0000	OK
15 minute summer	106	11	106.928	0.173	101.5	0.2546	0.0000	OK
15 minute summer	107	11	106.650	0.154	101.7	0.1738	0.0000	OK
15 minute summer	108	11	105.315	0.273	142.2	0.6539	0.0000	OK
15 minute summer	109	10	105.172	0.217	65.2	0.6443	0.0000	OK
15 minute summer	110	11	105.062	0.215	64.1	0.3083	0.0000	OK
15 minute summer	111	11	105.000	0.250	319.5	1.0408	0.0000	OK
15 minute summer	112	11	103.054	0.214	320.2	0.3058	0.0000	OK
15 minute summer	IR01	11	100.405	0.226	322.8	0.0000	0.0000	OK
15 minute summer	113	10	105.732	0.131	24.5	0.2381	0.0000	OK
15 minute summer	114	10	105.600	0.093	24.2	0.1048	0.0000	OK
15 minute summer	115	10	105.263	0.088	24.1	0.0994	0.0000	OK
15 minute summer	116	10	105.044	0.138	95.7	0.4280	0.0000	OK
15 minute summer	IR02	10	103.346	0.091	94.9	0.0000	0.0000	OK
15 minute summer	IR03	10	101.566	0.175	174.3	0.4623	0.0000	OK
15 minute summer	IR04	10	100.923	0.113	48.0	0.2577	0.0000	OK
15 minute summer	IR05	11	100.162	0.125	53.2	0.1979	0.0000	OK
15 minute summer	IR06	11	100.171	0.687	252.0	1.6044	0.0000	SURCHARGED
15 minute summer	IR07	11	100.075	0.693	610.5	1.9117	0.0000	SURCHARGED
15 minute summer	117	10	107.285	0.131	55.2	0.3289	0.0000	OK
15 minute summer	118	10	105.784	0.208	96.3	0.5160	0.0000	OK
15 minute summer	119	10	105.551	0.156	146.0	0.4305	0.0000	OK
15 minute summer	120	10	103.558	0.184	213.4	0.5980	0.0000	OK
15 minute summer	IR08	10	101.011	0.176	211.4	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	1.000	102	53.4	1.875	0.759	0.6633	
15 minute summer	102	1.001	103	53.4	1.050	0.755	2.5910	
15 minute summer	103	1.002	106	53.8	1.201	0.757	0.4201	
15 minute summer	104	2.000	105	29.9	1.414	0.749	0.4385	
15 minute summer	105	2.001	106	29.8	2.082	0.293	0.2570	
15 minute summer	106	1.003	107	101.7	2.592	0.419	0.2155	
15 minute summer	107	1.004	108	101.8	2.404	0.529	1.9829	
15 minute summer	108	1.005	111	142.3	1.754	0.782	2.1152	
15 minute summer	109	3.000	110	64.1	0.979	0.579	2.2811	
15 minute summer	110	3.001	111	64.1	1.073	0.572	0.4150	
15 minute summer	111	1.006	112	320.2	3.892	0.535	4.6101	
15 minute summer	112	1.007	IR01	322.8	4.313	0.457	4.3121	
15 minute summer	IR01	S18.00	IR07	316.8	3.105	0.398	1.2794	
15 minute summer	113	4.000	114	24.2	1.228	0.608	0.3104	
15 minute summer	114	4.001	115	24.1	1.618	0.318	0.2352	
15 minute summer	115	4.002	116	24.0	1.827	0.252	0.0769	
15 minute summer	116	4.003	IR02	94.9	3.069	0.416	1.1086	
15 minute summer	IR02	4.004	IR03	94.7	2.426	0.092	0.7386	
15 minute summer	IR03	4.005	IR06	172.4	2.473	0.329	7.2137	
15 minute summer	IR04	5.000	IR05	47.4	1.776	0.187	1.4220	
15 minute summer	IR05	S16.001	IR06	52.7	1.684	0.179	1.0786	
15 minute summer	IR06	S16.002	IR07	248.5	0.882	0.878	16.7666	
15 minute summer	IR07	S16.003	IR11	607.8	2.175	1.205	3.8600	
15 minute summer	117	6.000	118	54.2	2.307	0.612	1.1671	
15 minute summer	118	6.001	119	95.7	1.814	0.523	1.1498	
15 minute summer	119	6.002	120	144.9	2.992	0.361	2.4546	
15 minute summer	120	6.003	IR08	211.4	4.046	0.470	2.6497	
15 minute summer	IR08	S15.000	IR10	211.9	3.351	0.422	0.6618	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR09	10	100.642	0.132	24.9	0.2206	0.0000	OK
15 minute summer	IR10	11	100.429	0.320	302.7	0.8985	0.0000	OK
15 minute summer	IR11	11	99.462	0.608	953.4	2.1988	0.0000	OK
15 minute summer	IR12	11	99.137	0.298	1001.5	0.2361	0.0000	OK
15 minute summer	121	10	98.264	0.200	52.8	0.6136	0.0000	OK
600 minute winter	122	585	97.878	0.835	110.8	4.1427	0.0000	OK
600 minute winter	123	585	97.878	0.903	106.1	3.1269	0.0000	OK
600 minute winter	124	585	97.878	1.028	99.6	0.0000	0.0000	OK
15 minute summer	125	11	107.565	0.215	69.9	0.6894	0.0000	OK
15 minute summer	126	10	106.106	0.181	43.6	0.4138	0.0000	OK
15 minute summer	127	11	106.001	0.180	43.0	0.2031	0.0000	OK
15 minute summer	128	11	105.900	0.262	166.5	0.5750	0.0000	OK
15 minute summer	129	10	105.553	0.109	27.8	0.2120	0.0000	OK
15 minute summer	130	11	105.160	0.228	254.9	0.7137	0.0000	OK
15 minute summer	131	10	104.710	0.159	43.6	0.3735	0.0000	OK
15 minute summer	132	10	104.313	0.116	43.1	0.1314	0.0000	OK
15 minute summer	133	10	103.999	0.162	110.8	0.4618	0.0000	OK
15 minute summer	134	11	102.378	0.187	110.1	0.2116	0.0000	OK
15 minute summer	135	11	101.947	0.332	149.4	0.9048	0.0000	OK
15 minute summer	136	11	101.820	0.302	470.5	0.8970	0.0000	OK
15 minute summer	137	11	100.708	0.305	470.6	0.5382	0.0000	OK
15 minute summer	IR13	11	100.139	0.327	469.9	0.0000	0.0000	OK
15 minute summer	138	10	105.310	0.196	62.3	0.6051	0.0000	OK
15 minute summer	139	10	105.229	0.172	170.6	0.6736	0.0000	OK
15 minute summer	140	10	102.212	0.189	169.2	0.2706	0.0000	OK
15 minute summer	IR14	11	101.344	0.195	168.3	0.0000	0.0000	OK
15 minute summer	IR15	10	101.092	0.205	206.0	0.4947	0.0000	OK
15 minute summer	IR16	11	100.349	0.305	227.5	0.5782	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR09	S14.000	IR10	24.3	1.039	0.610	0.6988	
15 minute summer	IR10	S14.001	IR11	304.4	2.676	0.762	4.8885	
15 minute summer	IR11	S14.002	IR12	950.3	2.668	0.747	2.9356	
15 minute summer	IR12	1.011	122	995.7	2.856	0.188	19.3736	
15 minute summer	121	8.000	122	51.5	1.115	0.728	1.3686	
15 minute summer	122	1.012	123	1118.9	1.536	0.845	49.8198	
15 minute summer	123	1.013	124	1105.7	1.866	0.809	42.6350	
15 minute summer	125	9.000	128	66.4	1.105	0.601	4.9408	
15 minute summer	126	10.000	127	43.0	0.978	0.608	1.1180	
15 minute summer	127	10.001	128	42.8	0.984	0.604	1.1862	
15 minute summer	128	9.001	130	166.7	2.187	0.779	4.7008	
15 minute summer	129	11.000	130	27.4	1.489	0.437	0.4584	
15 minute summer	130	9.002	136	254.2	3.754	0.643	4.4920	
15 minute summer	131	12.000	132	43.1	1.692	0.766	0.7681	
15 minute summer	132	12.001	133	42.8	2.289	0.402	0.1286	
15 minute summer	133	12.002	134	110.1	2.590	0.563	2.2708	
15 minute summer	134	12.003	135	109.6	2.625	0.548	0.4549	
15 minute summer	135	12.004	136	149.9	1.100	0.690	6.4948	
15 minute summer	136	9.003	137	470.6	3.641	0.546	4.5747	
15 minute summer	137	9.004	IR13	469.9	3.875	0.549	2.0160	
15 minute summer	IR13	S13.000	IR17	469.6	3.320	0.450	1.4939	
15 minute summer	138	13.000	139	61.7	1.150	0.487	0.7574	
15 minute summer	139	13.001	140	169.2	3.226	0.430	4.1523	
15 minute summer	140	13.002	IR14	168.3	3.121	0.478	1.3969	
15 minute summer	IR14	S12.000	IR15	168.5	2.486	0.333	0.7314	
15 minute summer	IR15	S12.001	IR16	207.4	2.246	0.413	3.2341	
15 minute summer	IR16	S12.002	IR17	228.8	2.129	0.704	3.4207	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR17	11	99.806	0.385	724.0	1.2010	0.0000	OK
15 minute summer	IR18	11	99.275	0.454	790.5	1.8179	0.0000	OK
15 minute summer	IR19	11	98.575	0.524	879.2	2.2213	0.0000	OK
15 minute summer	IR20	11	98.176	0.346	879.8	0.9397	0.0000	OK
600 minute winter	141	585	97.877	0.983	85.6	0.0000	0.0000	SURCHARGED
600 minute winter	142	585	97.877	1.027	84.5	0.0000	0.0000	OK
600 minute winter	143	585	97.869	1.031	77.1	2011.2950	0.0000	SURCHARGED
600 minute winter	144	585	97.862	1.060	26.2	3.6731	0.0000	SURCHARGED
120 minute winter	145	214	96.878	0.123	26.0	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR17	S12.003	IR18	723.7	2.874	0.407	7.3753	
15 minute summer	IR18	S12.004	IR19	787.7	2.610	0.604	21.0531	
15 minute summer	IR19	S12.005	IR20	870.7	3.308	0.668	5.2431	
15 minute summer	IR20	S12.006	141	880.3	2.813	0.363	7.5013	
15 minute winter	141	9.010	142	964.1	4.030	1.761	6.1052	
60 minute summer	143	14.000	144	26.7	0.379	0.377	0.6185	
120 minute winter	144	14.001	145	26.0	0.898	0.365	0.3280	487.9

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.79%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	101	11	108.454	0.954	99.5	2.5166	0.0000	SURCHARGED
15 minute summer	102	12	107.618	0.618	91.6	0.6986	0.0000	SURCHARGED
15 minute summer	103	12	107.252	0.460	89.9	0.5203	0.0000	SURCHARGED
15 minute summer	104	11	107.932	0.332	55.5	0.6540	0.0000	SURCHARGED
15 minute summer	105	11	107.594	0.117	54.0	0.1319	0.0000	OK
15 minute summer	106	12	107.153	0.398	173.3	0.5844	0.0000	SURCHARGED
15 minute summer	107	12	106.878	0.382	169.7	0.4317	0.0000	SURCHARGED
15 minute summer	108	11	105.658	0.617	242.5	1.4749	0.0000	SURCHARGED
15 minute summer	109	11	105.353	0.398	119.8	1.1795	0.0000	SURCHARGED
15 minute summer	110	11	105.213	0.366	115.8	0.5238	0.0000	OK
15 minute summer	111	11	105.154	0.404	565.2	1.6824	0.0000	OK
15 minute summer	112	11	103.164	0.324	572.5	0.4633	0.0000	OK
15 minute summer	IR01	11	101.131	0.952	569.8	0.0000	0.0000	SURCHARGED
15 minute summer	113	10	105.803	0.203	45.0	0.3677	0.0000	OK
15 minute summer	114	10	105.642	0.135	44.5	0.1525	0.0000	OK
15 minute summer	115	10	105.304	0.129	44.1	0.1457	0.0000	OK
15 minute summer	116	10	105.110	0.204	176.1	0.6334	0.0000	OK
15 minute summer	IR02	10	103.378	0.123	174.6	0.0000	0.0000	OK
15 minute summer	IR03	11	101.700	0.309	320.7	0.8176	0.0000	OK
15 minute summer	IR04	12	101.020	0.210	88.1	0.4802	0.0000	OK
15 minute summer	IR05	11	100.969	0.932	98.1	1.4758	0.0000	SURCHARGED
15 minute summer	IR06	11	100.930	1.446	440.2	3.3775	0.0000	SURCHARGED
15 minute summer	IR07	11	100.631	1.249	1093.7	3.4446	0.0000	SURCHARGED
15 minute summer	117	11	107.689	0.535	101.3	1.3392	0.0000	SURCHARGED
15 minute summer	118	11	105.879	0.303	167.0	0.7519	0.0000	OK
15 minute winter	119	10	105.614	0.219	250.4	0.6050	0.0000	OK
15 minute summer	120	11	103.665	0.291	380.5	0.9447	0.0000	OK
15 minute summer	IR08	11	101.846	1.011	376.2	0.0000	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	101	1.000	102	91.6	2.303	1.300	0.9250	
15 minute summer	102	1.001	103	89.9	1.276	1.271	3.5869	
15 minute summer	103	1.002	106	88.3	1.432	1.241	0.6309	
15 minute summer	104	2.000	105	54.0	1.567	1.354	0.6288	
15 minute summer	105	2.001	106	54.1	2.110	0.531	0.5146	
15 minute summer	106	1.003	107	169.7	2.762	0.700	0.3869	
15 minute summer	107	1.004	108	176.8	2.562	0.918	3.2568	
15 minute summer	108	1.005	111	240.6	2.182	1.321	2.8234	
15 minute summer	109	3.000	110	115.8	1.073	1.045	3.8270	
15 minute summer	110	3.001	111	116.7	1.144	1.042	0.7373	
15 minute summer	111	1.006	112	572.5	4.234	0.956	7.6230	
15 minute summer	112	1.007	IR01	569.8	4.326	0.806	7.8601	
15 minute summer	IR01	S18.00	IR07	566.3	3.575	0.711	1.7022	
15 minute summer	113	4.000	114	44.5	1.392	1.115	0.4918	
15 minute summer	114	4.001	115	44.1	1.828	0.584	0.3820	
15 minute summer	115	4.002	116	44.1	1.995	0.464	0.1375	
15 minute summer	116	4.003	IR02	174.6	3.522	0.765	1.7784	
15 minute summer	IR02	4.004	IR03	174.4	2.709	0.169	1.3985	
15 minute summer	IR03	4.005	IR06	313.3	2.371	0.597	9.2132	
15 minute summer	IR04	5.000	IR05	87.5	1.893	0.345	4.1937	
15 minute summer	IR05	S16.001	IR06	102.2	1.577	0.346	1.6710	
15 minute summer	IR06	S16.002	IR07	435.6	1.546	1.540	16.7666	
15 minute summer	IR07	S16.003	IR11	1092.4	3.879	2.166	4.0218	
15 minute summer	117	6.000	118	92.9	2.571	1.050	1.9742	
15 minute summer	118	6.001	119	167.1	2.054	0.914	1.7519	
15 minute summer	119	6.002	120	256.3	3.323	0.639	3.9892	
15 minute summer	120	6.003	IR08	376.2	4.150	0.836	5.1102	
15 minute summer	IR08	S15.000	IR10	374.5	3.396	0.746	1.1496	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.79%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR09	11	101.563	1.053	45.8	1.7558	0.0000	SURCHARGED
15 minute summer	IR10	11	101.324	1.215	536.4	3.4155	0.0000	SURCHARGED
15 minute summer	IR11	11	99.692	0.838	1703.1	3.0291	0.0000	OK
15 minute summer	IR12	11	99.249	0.410	1993.6	0.3250	0.0000	OK
1440 minute winter	121	1380	98.881	0.817	4.7	2.5078	0.0000	SURCHARGED
1440 minute winter	122	1380	98.881	1.838	106.8	9.1239	0.0000	SURCHARGED
1440 minute winter	123	1380	98.881	1.906	103.2	6.6037	0.0000	SURCHARGED
1440 minute winter	124	1380	98.881	2.031	100.1	0.0000	0.0000	OK
15 minute summer	125	11	107.700	0.350	128.6	1.1199	0.0000	OK
15 minute summer	126	12	107.244	1.319	80.1	3.0162	0.0000	FLOOD RISK
15 minute summer	127	12	107.137	1.316	71.4	1.4887	0.0000	SURCHARGED
15 minute summer	128	12	107.021	1.383	281.6	3.0348	0.0000	SURCHARGED
15 minute summer	129	12	105.908	0.464	51.1	0.9027	0.0000	SURCHARGED
15 minute summer	130	12	105.728	0.796	428.4	2.4945	0.0000	SURCHARGED
15 minute summer	131	11	105.204	0.653	80.1	1.5310	0.0000	SURCHARGED
15 minute summer	132	12	104.527	0.330	73.0	0.3729	0.0000	SURCHARGED
15 minute summer	133	11	104.307	0.470	196.8	1.3391	0.0000	SURCHARGED
15 minute summer	134	12	102.771	0.580	189.3	0.6565	0.0000	SURCHARGED
15 minute summer	135	12	102.329	0.714	261.6	1.9459	0.0000	SURCHARGED
15 minute summer	136	12	102.182	0.664	783.8	1.9719	0.0000	SURCHARGED
15 minute summer	137	12	101.055	0.652	765.4	1.1521	0.0000	SURCHARGED
15 minute summer	IR13	11	100.532	0.719	779.5	0.0000	0.0000	SURCHARGED
15 minute summer	138	10	105.415	0.301	114.5	0.9268	0.0000	OK
15 minute summer	139	10	105.311	0.254	313.6	0.9953	0.0000	OK
15 minute summer	140	11	102.316	0.293	311.2	0.4190	0.0000	OK
15 minute summer	IR14	11	101.680	0.530	306.6	0.0000	0.0000	SURCHARGED
15 minute summer	IR15	11	101.548	0.661	377.4	1.5977	0.0000	SURCHARGED
15 minute summer	IR16	11	100.965	0.921	401.8	1.7451	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR09	S14.000	IR10	42.9	1.106	1.075	1.1829	
15 minute summer	IR10	S14.001	IR11	534.9	3.376	1.339	6.7449	
15 minute summer	IR11	S14.002	IR12	1915.9	3.623	1.506	4.2857	
15 minute summer	IR12	1.011	122	1796.9	3.028	0.338	30.4552	
15 minute summer	121	8.000	122	94.2	1.364	1.329	2.0209	
15 minute summer	122	1.012	123	2029.4	1.909	1.533	72.0518	
15 minute summer	123	1.013	124	2051.4	2.296	1.501	62.9177	
15 minute summer	125	9.000	128	120.2	1.269	1.087	7.6640	
15 minute summer	126	10.000	127	71.4	1.061	1.009	1.7916	
15 minute summer	127	10.001	128	77.8	1.105	1.098	1.8520	
15 minute summer	128	9.001	130	269.9	2.447	1.261	6.8087	
15 minute summer	129	11.000	130	50.5	1.629	0.804	0.9908	
30 minute summer	130	9.002	136	406.2	3.953	1.027	7.2142	
15 minute summer	131	12.000	132	73.0	1.897	1.298	1.2046	
15 minute summer	132	12.001	133	71.7	2.504	0.673	0.2735	
15 minute summer	133	12.002	134	189.3	2.765	0.968	3.7655	
15 minute summer	134	12.003	135	186.7	2.652	0.934	0.7679	
30 minute summer	135	12.004	136	252.4	1.248	1.162	9.7986	
15 minute winter	136	9.003	137	766.0	3.855	0.888	7.1142	
15 minute summer	137	9.004	IR13	779.5	4.126	0.911	3.5922	
15 minute summer	IR13	S13.000	IR17	781.2	3.561	0.749	2.9751	
15 minute summer	138	13.000	139	113.6	1.306	0.896	1.2259	
15 minute summer	139	13.001	140	311.2	3.632	0.792	6.7700	
15 minute summer	140	13.002	IR14	306.6	3.504	0.870	2.6249	
15 minute summer	IR14	S12.000	IR15	305.2	2.573	0.603	1.7080	
15 minute summer	IR15	S12.001	IR16	363.0	2.346	0.722	5.5549	
15 minute summer	IR16	S12.002	IR17	395.5	2.497	1.216	5.0464	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.79%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR17	11	100.334	0.913	1192.4	2.8474	0.0000	SURCHARGED
15 minute summer	IR18	11	99.904	1.083	1291.4	4.3392	0.0000	SURCHARGED
15 minute summer	IR19	11	98.946	0.895	1452.6	3.7907	0.0000	SURCHARGED
1440 minute winter	IR20	1380	98.880	1.050	302.7	2.8485	0.0000	SURCHARGED
720 minute summer	141	675	98.760	1.866	207.0	0.0000	0.0000	FLOOD RISK
1440 minute winter	142	1410	98.880	2.030	124.1	0.0000	0.0000	OK
1440 minute winter	143	1410	98.872	2.034	75.8	4604.9870	0.0000	SURCHARGED
1440 minute winter	144	1410	98.866	2.064	26.1	7.1498	0.0000	SURCHARGED
15 minute summer	145	42	96.878	0.123	26.0	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR17	S12.003	IR18	1183.7	2.856	0.666	12.8229	
15 minute summer	IR18	S12.004	IR19	1284.3	2.918	0.985	30.5056	
15 minute summer	IR19	S12.005	IR20	1445.4	3.524	1.109	7.4328	
15 minute summer	IR20	S12.006	141	1460.9	3.789	0.602	9.1152	
15 minute summer	141	9.010	142	1513.7	4.518	2.765	9.7619	
30 minute summer	143	14.000	144	30.9	0.461	0.437	0.6185	
15 minute summer	144	14.001	145	26.0	0.898	0.365	0.3280	380.3

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.600
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	150.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
201	0.162	5.00	106.000	1350	537282.965	138522.107	1.575	104.425
202	0.137	5.00	108.195	1500	537207.408	138535.203	4.559	103.636
203			108.310	1500	537131.793	138548.070	4.830	103.480
204	0.119	5.00	108.168	1500	537125.586	138555.197	4.708	103.460
205	0.181	5.00	105.410	1350	537137.193	138623.382	2.250	103.160
206			102.055	1350	537150.920	138700.611	1.957	100.098
IR31			101.690		537154.083	138711.634	1.883	99.807
IR32	0.400	5.00	103.059		537251.771	138692.712	1.723	101.336
IR33	0.006	5.00	102.746	1350	537252.057	138702.445	1.862	100.884
IR34	0.035	5.00	102.061	1350	537210.651	138707.370	1.725	100.336
IR35	0.155	5.00	101.380		537174.959	138725.732	1.500	99.880
IR36	0.045	5.00	101.559	1500	537172.739	138717.554	1.939	99.620
IR37	0.023	5.00	101.370	1500	537156.881	138721.385	1.933	99.437
IR38	0.155	5.00	100.720		537124.429	138739.198	1.500	99.220
IR39	0.050	5.00	100.908	1500	537122.172	138730.937	2.098	98.810
207	0.083	5.00	106.800	1200	536918.882	138562.933	1.500	105.300
208			108.000	1200	536936.853	138563.139	2.880	105.120
209			109.168	1200	536966.436	138559.695	4.346	104.822
210	0.110	5.00	108.972	1200	536981.861	138560.373	4.304	104.668
211	0.122	5.00	106.730	1350	536980.434	138620.684	2.384	104.346
212	0.097	5.00	106.469	1500	537006.363	138621.629	2.428	104.041
213			106.251	1500	537026.262	138624.120	2.245	104.006
214	0.069	5.00	108.000	1200	537073.549	138557.524	1.425	106.575
215	0.055	5.00	108.616	1200	537041.236	138561.630	2.308	106.308
216	0.027	5.00	107.589	1200	537042.933	138587.255	1.500	106.089
217	0.027	5.00	106.652	1200	537042.212	138610.547	1.500	105.152
218	0.052	5.00	105.966	1500	537037.782	138626.864	1.981	103.985
219	0.051	5.00	106.600	1200	537101.446	138599.356	2.146	104.454
220	0.074	5.00	105.127	1200	537106.639	138628.480	1.500	103.627
221	0.061	5.00	105.272	1350	537072.492	138634.701	1.862	103.410
222			105.052	1500	537063.814	138640.658	1.825	103.227
223	0.049	5.00	104.631	1500	537060.159	138650.384	1.725	102.906
224			103.132	1500	537059.508	138680.647	1.734	101.398
225	0.111	5.00	106.380	1200	536938.265	138619.324	1.437	104.943
226			106.031	1200	536921.086	138618.687	1.462	104.569
227	0.145	5.00	105.809	1200	536914.083	138623.367	1.936	103.873
228			103.990	1200	536912.313	138678.208	1.500	102.490
229	0.182	5.00	103.866	1500	536916.360	138684.525	1.725	102.141
230	0.157	5.00	103.563	1500	536988.946	138687.288	1.725	101.838
231	0.140	5.00	102.646	1500	537061.593	138690.053	2.992	99.654
IR40			100.571		537071.004	138732.501	1.812	98.759
IR41	0.106	5.00	100.564	1200	536949.622	138752.253	1.500	99.064
IR42	0.100	5.00	100.162	1350	536981.964	138753.109	1.650	98.512
IR43	0.128	5.00	99.885	1200	537004.034	138752.589	1.769	98.116
IR44	0.097	5.00	99.900	1500	537042.710	138748.825	2.118	97.782
IR45	0.052	5.00	100.289	1800	537073.184	138742.332	2.711	97.578
IR46	0.063	5.00	100.640	1950	537100.728	138736.225	3.441	97.199
IR47			100.460		537102.840	138744.924	3.279	97.181
232	0.103	5.00	100.156	1950	537105.147	138756.168	2.998	97.158

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
233	0.222	5.00	98.591	1950	537113.687	138798.749	2.263	96.328
234	0.184	5.00	97.711	1950	537044.356	138812.473	2.275	95.436
235			96.856	1950	537048.657	138841.782	2.298	94.558
IR48	0.187	5.00	98.813	1200	536918.097	138800.197	1.488	97.325
IR49	0.015	5.00	97.504	1200	536917.314	138818.579	1.550	95.954
IR50	0.133	5.00	96.613	1350	536919.673	138835.557	1.625	94.988
IR51	0.032	5.00	94.365	1350	536933.500	138902.539	1.739	92.626
IR52	0.065	5.00	94.400		536947.531	138899.869	2.019	92.381
236	0.154	5.00	97.790	1200	536948.811	138810.460	1.511	96.279
237	0.121	5.00	97.473	1200	537023.131	138813.121	1.648	95.825
238	0.083	5.00	97.284	1350	536987.753	138812.921	1.679	95.605
239	0.105	5.00	96.207	1350	536986.128	138847.327	1.595	94.612
240	0.073	5.00	94.830	1800	536994.761	138890.878	2.757	92.073
241			95.829	1950	537055.496	138876.991	4.053	91.776
242			94.300		537061.354	138898.606	2.700	91.600
243		5.00	94.300		537041.682	138913.641	2.700	91.600
245			92.200	1200	536975.712	138978.138	1.029	91.171
246			92.050	1200	536977.285	138982.924	0.900	91.150
247	0.102	5.00	97.500	1200	537119.544	138826.121	1.425	96.075
248			96.650	1200	537126.432	138864.064	1.425	95.225
249			94.300		537115.178	138896.228	2.700	91.600
244			94.300	2100	537033.738	138919.007	2.740	91.560

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)
1.000	76.684	120.0	375	Circular	106.000	104.425	1.200	108.195	103.786	4.034
1.001	76.702	491.7	525	Circular	108.195	103.636	4.034	108.310	103.480	4.305
1.002	9.451	472.5	525	Circular	108.310	103.480	4.305	108.168	103.460	4.183
1.003	69.166	230.6	450	Circular	108.168	103.460	4.258	105.410	103.160	1.800
1.004	78.439	26.9	450	Circular	105.410	103.160	1.800	102.055	100.248	1.357
1.005	11.468	39.5	600	Circular	102.055	100.098	1.357	101.690	99.807	1.283
S8.000	10.144	34.4	600	Circular	101.690	99.807	1.283	101.370	99.512	1.258
S6.000	9.737	21.5	450	Circular	103.059	101.336	1.273	102.746	100.884	1.412
S6.001	41.698	88.2	450	Circular	102.746	100.884	1.412	102.061	100.411	1.200
S6.002	39.256	54.8	525	Circular	102.061	100.336	1.200	101.559	99.620	1.414
S7.000	8.474	242.1	300	Circular	101.380	99.880	1.200	101.559	99.845	1.414
S6.003	16.314	494.4	525	Circular	101.559	99.620	1.414	101.370	99.587	1.258
S6.004	35.999	57.4	675	Circular	101.370	99.437	1.258	100.908	98.810	1.423
S9.000	8.564	244.7	300	Circular	100.720	99.220	1.200	100.908	99.185	1.423

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	201	1350	Manhole	Adoptable	202	1500	Manhole	Adoptable
1.001	202	1500	Manhole	Adoptable	203	1500	Manhole	Adoptable
1.002	203	1500	Manhole	Adoptable	204	1500	Manhole	Adoptable
1.003	204	1500	Manhole	Adoptable	205	1350	Manhole	Adoptable
1.004	205	1350	Manhole	Adoptable	206	1350	Manhole	Adoptable
1.005	206	1350	Manhole	Adoptable	IR31		Junction	
S8.000	IR31		Junction		IR37	1500	Manhole	Adoptable
S6.000	IR32		Junction		IR33	1350	Manhole	Adoptable
S6.001	IR33	1350	Manhole	Adoptable	IR34	1350	Manhole	Adoptable
S6.002	IR34	1350	Manhole	Adoptable	IR36	1500	Manhole	Adoptable
S7.000	IR35		Junction		IR36	1500	Manhole	Adoptable
S6.003	IR36	1500	Manhole	Adoptable	IR37	1500	Manhole	Adoptable
S6.004	IR37	1500	Manhole	Adoptable	IR39	1500	Manhole	Adoptable
S9.000	IR38		Junction		IR39	1500	Manhole	Adoptable

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)
S6.005	22.086	17.9	675	Circular	100.908	98.810	1.423	100.640	97.574	2.391
5.000	17.972	100.0	300	Circular	106.800	105.300	1.200	108.000	105.120	2.580
5.001	29.783	100.0	300	Circular	108.000	105.120	2.580	109.168	104.822	4.046
5.002	15.440	100.0	300	Circular	109.168	104.822	4.046	108.972	104.668	4.004
5.003	60.328	244.2	300	Circular	108.972	104.668	4.004	106.730	104.421	2.009
5.004	25.946	324.3	375	Circular	106.730	104.346	2.009	106.469	104.266	1.828
5.005	20.054	573.0	600	Circular	106.469	104.041	1.828	106.251	104.006	1.645
5.006	11.842	563.9	600	Circular	106.251	104.006	1.645	105.966	103.985	1.381
6.000	32.573	169.7	225	Circular	108.000	106.575	1.200	108.616	106.383	2.008
6.001	25.681	117.3	300	Circular	108.616	106.308	2.008	107.589	106.089	1.200
6.002	23.303	24.9	300	Circular	107.589	106.089	1.200	106.652	105.152	1.200
6.003	16.908	16.6	300	Circular	106.652	105.152	1.200	105.966	104.135	1.531
5.007	29.461	43.1	450	Circular	105.966	103.985	1.531	105.052	103.302	1.300
7.000	29.583	39.3	225	Circular	106.600	104.454	1.921	105.127	103.702	1.200
7.001	34.709	244.4	300	Circular	105.127	103.627	1.200	105.272	103.485	1.487
7.002	10.526	319.0	375	Circular	105.272	103.410	1.487	105.052	103.377	1.300
5.008	10.390	32.4	525	Circular	105.052	103.227	1.300	104.631	102.906	1.200
5.009	30.270	20.1	525	Circular	104.631	102.906	1.200	103.132	101.398	1.209
5.010	9.634	5.8	525	Circular	103.132	101.398	1.209	102.646	99.729	2.392
8.000	17.191	45.9	225	Circular	106.380	104.943	1.212	106.031	104.569	1.237
8.001	8.423	13.6	225	Circular	106.031	104.569	1.237	105.809	103.948	1.636
8.002	54.870	39.7	300	Circular	105.809	103.873	1.636	103.990	102.490	1.200
8.003	7.502	60.5	300	Circular	103.990	102.490	1.200	103.866	102.366	1.200
8.004	72.639	239.7	525	Circular	103.866	102.141	1.200	103.563	101.838	1.200
8.005	72.700	34.5	525	Circular	103.563	101.838	1.200	102.646	99.729	2.392
5.011	43.479	48.6	600	Circular	102.646	99.654	2.392	100.571	98.759	1.212
S11.000	10.070	37.2	600	Circular	100.571	98.759	1.212	100.289	98.489	1.200
S10.000	32.353	80.5	300	Circular	100.564	99.064	1.200	100.162	98.662	1.200

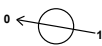
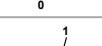
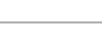
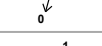
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
S6.005	IR39	1500	Manhole	Adoptable	IR46	1950	Manhole	Adoptable
5.000	207	1200	Manhole	Adoptable	208	1200	Manhole	Adoptable
5.001	208	1200	Manhole	Adoptable	209	1200	Manhole	Adoptable
5.002	209	1200	Manhole	Adoptable	210	1200	Manhole	Adoptable
5.003	210	1200	Manhole	Adoptable	211	1350	Manhole	Adoptable
5.004	211	1350	Manhole	Adoptable	212	1500	Manhole	Adoptable
5.005	212	1500	Manhole	Adoptable	213	1500	Manhole	Adoptable
5.006	213	1500	Manhole	Adoptable	218	1500	Manhole	Adoptable
6.000	214	1200	Manhole	Adoptable	215	1200	Manhole	Adoptable
6.001	215	1200	Manhole	Adoptable	216	1200	Manhole	Adoptable
6.002	216	1200	Manhole	Adoptable	217	1200	Manhole	Adoptable
6.003	217	1200	Manhole	Adoptable	218	1500	Manhole	Adoptable
5.007	218	1500	Manhole	Adoptable	222	1500	Manhole	Adoptable
7.000	219	1200	Manhole	Adoptable	220	1200	Manhole	Adoptable
7.001	220	1200	Manhole	Adoptable	221	1350	Manhole	Adoptable
7.002	221	1350	Manhole	Adoptable	222	1500	Manhole	Adoptable
5.008	222	1500	Manhole	Adoptable	223	1500	Manhole	Adoptable
5.009	223	1500	Manhole	Adoptable	224	1500	Manhole	Adoptable
5.010	224	1500	Manhole	Adoptable	231	1500	Manhole	Adoptable
8.000	225	1200	Manhole	Adoptable	226	1200	Manhole	Adoptable
8.001	226	1200	Manhole	Adoptable	227	1200	Manhole	Adoptable
8.002	227	1200	Manhole	Adoptable	228	1200	Manhole	Adoptable
8.003	228	1200	Manhole	Adoptable	229	1500	Manhole	Adoptable
8.004	229	1500	Manhole	Adoptable	230	1500	Manhole	Adoptable
8.005	230	1500	Manhole	Adoptable	231	1500	Manhole	Adoptable
5.011	231	1500	Manhole	Adoptable	IR40		Junction	
S11.000	IR40		Junction		IR45	1800	Manhole	Adoptable
S10.000	IR41	1200	Manhole	Adoptable	IR42	1350	Manhole	Adoptable

Pipeline Schedule

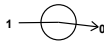
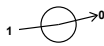
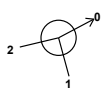
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
S10.001	22.076	68.7	450	Circular	100.162	98.512	1.200	99.885	98.191	1.244
S10.002	38.859	150.0	525	Circular	99.885	98.116	1.244	99.900	97.857	1.518
S10.003	31.158	577.0	600	Circular	99.900	97.782	1.518	100.289	97.728	1.961
S10.004	28.213	503.8	750	Circular	100.289	97.578	1.961	100.640	97.522	2.368
S6.006	8.952	500.0	1050	Circular	100.640	97.199	2.391	100.460	97.181	2.229
1.010	11.478	500.0	1050	Circular	100.460	97.181	2.229	100.156	97.158	1.948
1.011	43.429	52.3	1050	Circular	100.156	97.158	1.948	98.591	96.328	1.213
1.012	70.676	79.2	1050	Circular	98.591	96.328	1.213	97.711	95.436	1.225
1.013	29.623	33.7	1050	Circular	97.711	95.436	1.225	96.856	94.558	1.248
1.014	35.867	36.6	1050	Circular	96.856	94.558	1.248	95.829	93.579	1.200
10.000	18.399	14.2	225	Circular	98.813	97.325	1.263	97.504	96.029	1.250
10.001	17.141	19.2	300	Circular	97.504	95.954	1.250	96.613	95.063	1.250
10.002	68.394	29.9	375	Circular	96.613	94.988	1.250	94.365	92.701	1.289
10.003	14.283	150.3	450	Circular	94.365	92.626	1.289	94.400	92.531	1.419
10.004	48.078	579.3	600	Circular	94.400	92.381	1.419	94.830	92.298	1.932
11.000	39.020	65.2	300	Circular	97.790	96.279	1.211	97.284	95.680	1.304
12.000	35.379	244.0	300	Circular	97.473	95.825	1.348	97.284	95.680	1.304
11.001	34.444	34.7	375	Circular	97.284	95.605	1.304	96.207	94.612	1.220
11.002	44.398	32.7	375	Circular	96.207	94.612	1.220	94.830	93.255	1.200
10.005	62.302	865.3	825	Circular	94.830	92.073	1.932	95.829	92.001	3.003
1.015	22.395	1017.9	1050	Circular	95.829	91.776	3.003	94.300	91.754	1.496
13.000	9.587	239.7	300	Circular	94.300	91.600	2.400	94.300	91.560	2.440
13.002	5.038	239.9	300	Circular	92.200	91.171	0.729	92.050	91.150	0.600
14.000	38.563	45.4	225	Circular	97.500	96.075	1.200	96.650	95.225	1.200
14.001	34.076	14.5	225	Circular	96.650	95.225	1.200	94.300	92.875	1.200
13.001	82.846	213.0	300	Circular	94.300	91.560	2.440	92.200	91.171	0.729

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
S10.001	IR42	1350	Manhole	Adoptable	IR43	1200	Manhole	Adoptable
S10.002	IR43	1200	Manhole	Adoptable	IR44	1500	Manhole	Adoptable
S10.003	IR44	1500	Manhole	Adoptable	IR45	1800	Manhole	Adoptable
S10.004	IR45	1800	Manhole	Adoptable	IR46	1950	Manhole	Adoptable
S6.006	IR46	1950	Manhole	Adoptable	IR47		Junction	
1.010	IR47		Junction		232	1950	Manhole	Adoptable
1.011	232	1950	Manhole	Adoptable	233	1950	Manhole	Adoptable
1.012	233	1950	Manhole	Adoptable	234	1950	Manhole	Adoptable
1.013	234	1950	Manhole	Adoptable	235	1950	Manhole	Adoptable
1.014	235	1950	Manhole	Adoptable	241	1950	Manhole	Adoptable
10.000	IR48	1200	Manhole	Adoptable	IR49	1200	Manhole	Adoptable
10.001	IR49	1200	Manhole	Adoptable	IR50	1350	Manhole	Adoptable
10.002	IR50	1350	Manhole	Adoptable	IR51	1350	Manhole	Adoptable
10.003	IR51	1350	Manhole	Adoptable	IR52		Junction	
10.004	IR52		Junction		240	1800	Manhole	Adoptable
11.000	236	1200	Manhole	Adoptable	238	1350	Manhole	Adoptable
12.000	237	1200	Manhole	Adoptable	238	1350	Manhole	Adoptable
11.001	238	1350	Manhole	Adoptable	239	1350	Manhole	Adoptable
11.002	239	1350	Manhole	Adoptable	240	1800	Manhole	Adoptable
10.005	240	1800	Manhole	Adoptable	241	1950	Manhole	Adoptable
1.015	241	1950	Manhole	Adoptable	242		Junction	
13.000	243		Junction		244	2100	Manhole	Adoptable
13.002	245	1200	Manhole	Adoptable	246	1200	Manhole	Adoptable
14.000	247	1200	Manhole	Adoptable	248	1200	Manhole	Adoptable
14.001	248	1200	Manhole	Adoptable	249		Junction	
13.001	244	2100	Manhole	Adoptable	245	1200	Manhole	Adoptable

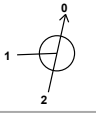
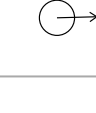
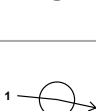
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
201	537282.965	138522.107	106.000	1.575	1350	Manhole	Adoptable		0	1.000	104.425	375 Circular
202	537207.408	138535.203	108.195	4.559	1500	Manhole	Adoptable		1	1.000	103.786	375 Circular
203	537131.793	138548.070	108.310	4.830	1500	Manhole	Adoptable		0	1.001	103.636	525 Circular
204	537125.586	138555.197	108.168	4.708	1500	Manhole	Adoptable		1	1.001	103.480	525 Circular
205	537137.193	138623.382	105.410	2.250	1350	Manhole	Adoptable		0	1.002	103.480	525 Circular
206	537150.920	138700.611	102.055	1.957	1350	Manhole	Adoptable		1	1.002	103.460	525 Circular
IR31	537154.083	138711.634	101.690	1.883		Junction			0	1.003	103.460	450 Circular
IR32	537251.771	138692.712	103.059	1.723		Junction			1	1.003	103.160	450 Circular
IR33	537252.057	138702.445	102.746	1.862	1350	Manhole	Adoptable		0	1.004	103.160	450 Circular
IR34	537210.651	138707.370	102.061	1.725	1350	Manhole	Adoptable		1	1.004	100.248	450 Circular
IR35	537174.959	138725.732	101.380	1.500		Junction			0	1.005	100.098	600 Circular
IR36	537172.739	138717.554	101.559	1.939	1500	Manhole	Adoptable		1	1.005	99.807	600 Circular
IR37	537156.881	138721.385	101.370	1.933	1500	Manhole	Adoptable		0	S8.000	99.807	600 Circular
IR38	537124.429	138739.198	100.720	1.500		Junction			0	S6.000	101.336	450 Circular
IR39	537122.172	138730.937	100.908	2.098	1500	Manhole	Adoptable		1	S6.000	100.884	450 Circular
									2	S6.001	100.884	450 Circular
									0	S6.001	100.411	450 Circular
									2	S6.002	100.336	525 Circular
									0	S7.000	99.880	300 Circular
									1	S7.000	99.845	300 Circular
									2	S6.002	99.620	525 Circular
									0	S6.003	99.620	525 Circular
									1	S6.003	99.587	525 Circular
									2	S8.000	99.512	600 Circular
									0	S6.004	99.437	675 Circular
									0	S9.000	99.220	300 Circular
									1	S9.000	99.185	300 Circular
									2	S6.004	98.810	675 Circular
									0	S6.005	98.810	675 Circular

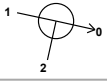
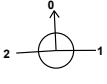
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
207	536918.882	138562.933	106.800	1.500	1200	Manhole	Adoptable		0	5.000	105.300	300 Circular
208	536936.853	138563.139	108.000	2.880	1200	Manhole	Adoptable		1	5.000	105.120	300 Circular
									0	5.001	105.120	300 Circular
209	536966.436	138559.695	109.168	4.346	1200	Manhole	Adoptable		1	5.001	104.822	300 Circular
									0	5.002	104.822	300 Circular
210	536981.861	138560.373	108.972	4.304	1200	Manhole	Adoptable		1	5.002	104.668	300 Circular
									0	5.003	104.668	300 Circular
211	536980.434	138620.684	106.730	2.384	1350	Manhole	Adoptable		1	5.003	104.421	300 Circular
									0	5.004	104.346	375 Circular
212	537006.363	138621.629	106.469	2.428	1500	Manhole	Adoptable		1	5.004	104.266	375 Circular
									0	5.005	104.041	600 Circular
213	537026.262	138624.120	106.251	2.245	1500	Manhole	Adoptable		1	5.005	104.006	600 Circular
									0	5.006	104.006	600 Circular
214	537073.549	138557.524	108.000	1.425	1200	Manhole	Adoptable		0	6.000	106.575	225 Circular
215	537041.236	138561.630	108.616	2.308	1200	Manhole	Adoptable		1	6.000	106.383	225 Circular
									0	6.001	106.308	300 Circular
216	537042.933	138587.255	107.589	1.500	1200	Manhole	Adoptable		1	6.001	106.089	300 Circular
									0	6.002	106.089	300 Circular
217	537042.212	138610.547	106.652	1.500	1200	Manhole	Adoptable		1	6.002	105.152	300 Circular
									0	6.003	105.152	300 Circular
218	537037.782	138626.864	105.966	1.981	1500	Manhole	Adoptable		1	6.003	104.135	300 Circular
									2	5.006	103.985	600 Circular
									0	5.007	103.985	450 Circular
219	537101.446	138599.356	106.600	2.146	1200	Manhole	Adoptable		0	7.000	104.454	225 Circular
220	537106.639	138628.480	105.127	1.500	1200	Manhole	Adoptable		1	7.000	103.702	225 Circular
									0	7.001	103.627	300 Circular
221	537072.492	138634.701	105.272	1.862	1350	Manhole	Adoptable		1	7.001	103.485	300 Circular
									0	7.002	103.410	375 Circular

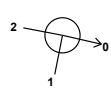
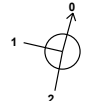
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type	
222	537063.814	138640.658	105.052	1.825	1500	Manhole	Adoptable		1	7.002	103.377	375	Circular
									2	5.007	103.302	450	Circular
									0	5.008	103.227	525	Circular
223	537060.159	138650.384	104.631	1.725	1500	Manhole	Adoptable		1	5.008	102.906	525	Circular
									0	5.009	102.906	525	Circular
224	537059.508	138680.647	103.132	1.734	1500	Manhole	Adoptable		1	5.009	101.398	525	Circular
									0	5.010	101.398	525	Circular
225	536938.265	138619.324	106.380	1.437	1200	Manhole	Adoptable		0	8.000	104.943	225	Circular
226	536921.086	138618.687	106.031	1.462	1200	Manhole	Adoptable		1	8.000	104.569	225	Circular
227	536914.083	138623.367	105.809	1.936	1200	Manhole	Adoptable		0	8.001	104.569	225	Circular
									1	8.001	103.948	225	Circular
228	536912.313	138678.208	103.990	1.500	1200	Manhole	Adoptable		1	8.002	103.873	300	Circular
									0	8.002	102.490	300	Circular
229	536916.360	138684.525	103.866	1.725	1500	Manhole	Adoptable		1	8.003	102.490	300	Circular
									0	8.003	102.366	300	Circular
230	536988.946	138687.288	103.563	1.725	1500	Manhole	Adoptable		1	8.004	102.141	525	Circular
									0	8.004	101.838	525	Circular
231	537061.593	138690.053	102.646	2.992	1500	Manhole	Adoptable		1	8.005	101.838	525	Circular
									2	5.010	99.729	525	Circular
IR40	537071.004	138732.501	100.571	1.812		Junction			0	5.011	99.654	600	Circular
									1	5.011	98.759	600	Circular
IR41	536949.622	138752.253	100.564	1.500	1200	Manhole	Adoptable		0	S11.000	98.759	600	Circular
IR42	536981.964	138753.109	100.162	1.650	1350	Manhole	Adoptable		1	S10.000	99.064	300	Circular
									0	S10.001	98.662	300	Circular
IR43	537004.034	138752.589	99.885	1.769	1200	Manhole	Adoptable		1	S10.001	98.512	450	Circular
									0	S10.001	98.191	450	Circular
IR44	537042.710	138748.825	99.900	2.118	1500	Manhole	Adoptable		1	S10.002	98.116	525	Circular
									0	S10.002	97.857	525	Circular
									0	S10.003	97.782	600	Circular

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
IR45	537073.184	138742.332	100.289	2.711	1800	Manhole	Adoptable		1 S10.003 97.728 600 Circular			
									2 S11.000 98.489 600 Circular			
									0 S10.004 97.578 750 Circular			
IR46	537100.728	138736.225	100.640	3.441	1950	Manhole	Adoptable		1 S10.004 97.522 750 Circular			
									2 S6.005 97.574 675 Circular			
									0 S6.006 97.199 1050 Circular			
IR47	537102.840	138744.924	100.460	3.279		Junction			1 S6.006 97.181 1050 Circular			
									0 1.010 97.181 1050 Circular			
232	537105.147	138756.168	100.156	2.998	1950	Manhole	Adoptable		1 1.010 97.158 1050 Circular			
									0 1.011 97.158 1050 Circular			
233	537113.687	138798.749	98.591	2.263	1950	Manhole	Adoptable		1 1.011 96.328 1050 Circular			
									0 1.012 96.328 1050 Circular			
234	537044.356	138812.473	97.711	2.275	1950	Manhole	Adoptable		1 1.012 95.436 1050 Circular			
									0 1.013 95.436 1050 Circular			
235	537048.657	138841.782	96.856	2.298	1950	Manhole	Adoptable		1 1.013 94.558 1050 Circular			
									0 1.014 94.558 1050 Circular			
IR48	536918.097	138800.197	98.813	1.488	1200	Manhole	Adoptable		0 10.000 97.325 225 Circular			
									1 10.000 96.029 225 Circular			
IR49	536917.314	138818.579	97.504	1.550	1200	Manhole	Adoptable		0 10.001 95.954 300 Circular			
									1 10.001 95.063 300 Circular			
IR50	536919.673	138835.557	96.613	1.625	1350	Manhole	Adoptable		0 10.002 94.988 375 Circular			
									1 10.002 92.701 375 Circular			
IR51	536933.500	138902.539	94.365	1.739	1350	Manhole	Adoptable		0 10.003 92.626 450 Circular			
									1 10.003 92.531 450 Circular			
IR52	536947.531	138899.869	94.400	2.019		Junction			0 10.004 92.381 600 Circular			
									1 10.003 92.531 450 Circular			
236	536948.811	138810.460	97.790	1.511	1200	Manhole	Adoptable		0 11.000 96.279 300 Circular			
									1 12.000 95.825 300 Circular			
237	537023.131	138813.121	97.473	1.648	1200	Manhole	Adoptable		0 12.000 95.825 300 Circular			
									1 11.000 95.605 375 Circular			
238	536987.753	138812.921	97.284	1.679	1350	Manhole	Adoptable		0 11.001 95.605 375 Circular			
									1 12.000 95.680 300 Circular			
									2 11.000 95.680 300 Circular			

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type	
239	536986.128	138847.327	96.207	1.595	1350	Manhole	Adoptable		1	11.001	94.612	375	Circular
240	536994.761	138890.878	94.830	2.757	1800	Manhole	Adoptable		1	11.002	93.255	375	Circular
									2	10.004	92.298	600	Circular
									0	10.005	92.073	825	Circular
									0	10.005	92.001	825	Circular
241	537055.496	138876.991	95.829	4.053	1950	Manhole	Adoptable		2	1.014	93.579	1050	Circular
242	537061.354	138898.606	94.300	2.700		Junction			0	1.015	91.776	1050	Circular
									1	1.015	91.754	1050	Circular
243	537041.682	138913.641	94.300	2.700		Junction			0	13.000	91.600	300	Circular
245	536975.712	138978.138	92.200	1.029	1200	Manhole	Adoptable		1	13.001	91.171	300	Circular
246	536977.285	138982.924	92.050	0.900	1200	Manhole	Adoptable		0	13.002	91.171	300	Circular
									1	13.002	91.150	300	Circular
247	537119.544	138826.121	97.500	1.425	1200	Manhole	Adoptable		0	14.000	96.075	225	Circular
248	537126.432	138864.064	96.650	1.425	1200	Manhole	Adoptable		1	14.000	95.225	225	Circular
									0	14.001	95.225	225	Circular
249	537115.178	138896.228	94.300	2.700		Junction			1	14.001	92.875	225	Circular
244	537033.738	138919.007	94.300	2.740	2100	Manhole	Adoptable		1	13.000	91.560	300	Circular
									0	13.001	91.560	300	Circular

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s) x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume x
Winter CV	1.000	Additional Storage (m³/ha)	20.0	

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	45	0	0
30	0	0	0				

Node 244 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	13.001	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0207-2730-2400-2730
Invert Level (m)	91.560	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.400	Min Node Diameter (mm)	2100
Design Flow (l/s)	27.3		

Node 243 Pond Storage Structure

Invert Level (m) 91.600 | Time to half empty (mins) | Analyse flow through structure x

Inlets

249 | 242

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1763.0	2.400	3294.4

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	201	11	104.505	0.080	19.3	0.2806	0.0000	OK
15 minute summer	202	11	103.777	0.140	33.9	0.3327	0.0000	OK
15 minute summer	203	12	103.631	0.151	34.1	0.2667	0.0000	OK
15 minute summer	204	12	103.605	0.145	44.0	0.3287	0.0000	OK
15 minute summer	205	12	103.255	0.095	60.7	0.2874	0.0000	OK
15 minute summer	206	12	100.196	0.098	59.9	0.1405	0.0000	OK
15 minute summer	IR31	12	99.903	0.096	59.9	0.0000	0.0000	OK
15 minute summer	IR32	10	101.414	0.078	47.5	0.3637	0.0000	OK
15 minute summer	IR33	10	100.999	0.115	48.0	0.1722	0.0000	OK
15 minute summer	IR34	11	100.434	0.098	51.2	0.1795	0.0000	OK
15 minute summer	IR35	10	99.987	0.107	18.4	0.2217	0.0000	OK
15 minute summer	IR36	11	99.834	0.214	74.3	0.4764	0.0000	OK
15 minute summer	IR37	12	99.595	0.158	132.7	0.3172	0.0000	OK
15 minute summer	IR38	10	99.327	0.107	18.4	0.2221	0.0000	OK
15 minute summer	IR39	12	98.937	0.127	153.4	0.2857	0.0000	OK
15 minute summer	207	10	105.362	0.062	9.9	0.1384	0.0000	OK
15 minute summer	208	10	105.181	0.061	9.8	0.0688	0.0000	OK
15 minute summer	209	11	104.882	0.060	9.7	0.0674	0.0000	OK
15 minute summer	210	11	104.783	0.114	22.3	0.1879	0.0000	OK
15 minute summer	211	11	104.495	0.149	34.9	0.3656	0.0000	OK
15 minute summer	212	11	104.207	0.166	45.2	0.4261	0.0000	OK
15 minute summer	213	11	104.155	0.149	44.7	0.2632	0.0000	OK
15 minute summer	214	11	106.644	0.069	8.2	0.1453	0.0000	OK
15 minute summer	215	11	106.388	0.080	14.2	0.1280	0.0000	OK
15 minute summer	216	11	106.147	0.058	17.4	0.0860	0.0000	OK
15 minute summer	217	11	105.210	0.057	20.5	0.0857	0.0000	OK
15 minute summer	218	11	104.104	0.119	70.5	0.2726	0.0000	OK
15 minute summer	219	10	104.495	0.041	6.1	0.0664	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	201	1.000	202	18.3	1.072	0.100	1.3118	
15 minute summer	202	1.001	203	34.1	0.724	0.157	3.6475	
15 minute summer	203	1.002	204	32.9	0.665	0.148	0.4703	
15 minute summer	204	1.003	205	43.8	1.301	0.206	2.3550	
15 minute summer	205	1.004	206	59.9	2.513	0.096	1.8711	
15 minute summer	206	1.005	IR31	59.9	2.032	0.055	0.3378	
15 minute summer	IR31	S8.000	IR37	59.6	2.154	0.051	0.2811	
15 minute summer	IR32	S6.000	IR33	47.3	1.901	0.068	0.2452	
15 minute summer	IR33	S6.001	IR34	47.1	1.521	0.137	1.2951	
15 minute summer	IR34	S6.002	IR36	51.4	0.973	0.078	2.1603	
15 minute summer	IR35	S7.000	IR36	18.2	0.832	0.256	0.1855	
15 minute summer	IR36	S6.003	IR37	74.6	1.010	0.345	1.2066	
15 minute summer	IR37	S6.004	IR39	133.4	2.431	0.108	1.9822	
15 minute summer	IR38	S9.000	IR39	18.2	0.830	0.257	0.1878	
15 minute summer	IR39	S6.005	IR46	154.4	3.499	0.069	0.9750	
15 minute summer	207	5.000	208	9.8	0.947	0.088	0.1856	
15 minute summer	208	5.001	209	9.7	0.974	0.087	0.2989	
15 minute summer	209	5.002	210	9.7	0.585	0.088	0.2670	
15 minute summer	210	5.003	211	21.2	0.886	0.300	1.4545	
15 minute summer	211	5.004	212	34.1	0.911	0.309	0.9811	
15 minute summer	212	5.005	213	44.7	0.761	0.156	1.1820	
15 minute summer	213	5.006	218	44.9	0.966	0.156	0.5561	
15 minute summer	214	6.000	215	8.0	0.781	0.200	0.3321	
15 minute summer	215	6.001	216	14.3	1.177	0.139	0.3134	
15 minute summer	216	6.002	217	17.4	1.849	0.078	0.2198	
15 minute summer	217	6.003	218	20.6	2.247	0.075	0.1548	
15 minute summer	218	5.007	222	70.1	2.173	0.142	0.9498	
15 minute summer	219	7.000	220	6.0	1.210	0.072	0.1458	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	220	11	103.721	0.094	14.8	0.1988	0.0000	OK
15 minute summer	221	11	103.527	0.117	21.4	0.2443	0.0000	OK
15 minute summer	222	11	103.357	0.130	90.8	0.2303	0.0000	OK
15 minute summer	223	11	103.020	0.114	96.1	0.2670	0.0000	OK
15 minute summer	224	12	101.478	0.081	95.8	0.1425	0.0000	OK
15 minute summer	225	10	105.011	0.068	13.2	0.1816	0.0000	OK
15 minute summer	226	10	104.617	0.049	13.1	0.0551	0.0000	OK
15 minute summer	227	10	103.955	0.083	30.2	0.2173	0.0000	OK
15 minute summer	228	11	102.594	0.104	29.8	0.1179	0.0000	OK
15 minute summer	229	11	102.289	0.148	50.5	0.5743	0.0000	OK
15 minute summer	230	11	101.940	0.102	68.8	0.3641	0.0000	OK
15 minute summer	231	11	99.827	0.173	177.9	0.4678	0.0000	OK
15 minute summer	IR40	12	98.935	0.176	176.9	0.0000	0.0000	OK
15 minute summer	IR41	10	99.129	0.065	12.6	0.1650	0.0000	OK
15 minute summer	IR42	10	98.590	0.078	24.1	0.2052	0.0000	OK
15 minute summer	IR43	11	98.229	0.113	38.9	0.2913	0.0000	OK
15 minute summer	IR44	11	97.958	0.177	49.8	0.4739	0.0000	OK
15 minute summer	IR45	12	97.922	0.344	229.8	1.0073	0.0000	OK
15 minute summer	IR46	12	97.588	0.389	393.0	1.3038	0.0000	OK
15 minute summer	IR47	12	97.539	0.358	392.0	0.0000	0.0000	OK
15 minute summer	232	12	97.386	0.228	404.4	0.8381	0.0000	OK
15 minute summer	233	12	96.591	0.263	425.3	1.3014	0.0000	OK
15 minute summer	234	12	95.657	0.221	440.8	1.0160	0.0000	OK
15 minute summer	235	12	94.782	0.224	437.9	0.6702	0.0000	OK
15 minute summer	IR48	10	97.388	0.063	22.2	0.2290	0.0000	OK
15 minute summer	IR49	10	96.018	0.064	23.8	0.0850	0.0000	OK
15 minute summer	IR50	11	95.071	0.083	39.4	0.2541	0.0000	OK
15 minute summer	IR51	11	92.752	0.126	42.5	0.2263	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	220	7.001	221	14.5	0.788	0.205	0.6399	
15 minute summer	221	7.002	222	21.5	0.791	0.193	0.2860	
15 minute summer	222	5.008	223	90.5	2.388	0.106	0.3964	
15 minute summer	223	5.009	224	95.8	3.487	0.088	0.8380	
15 minute summer	224	5.010	231	96.1	4.156	0.047	0.2334	
15 minute summer	225	8.000	226	13.1	1.607	0.170	0.1407	
15 minute summer	226	8.001	227	13.0	2.149	0.091	0.0509	
15 minute summer	227	8.002	228	29.8	1.611	0.168	1.0257	
15 minute summer	228	8.003	229	29.8	1.490	0.208	0.1503	
15 minute summer	229	8.004	230	51.0	1.300	0.163	2.8740	
15 minute summer	230	8.005	231	67.0	2.329	0.081	2.0904	
15 minute summer	231	5.011	IR40	176.9	2.617	0.179	2.9426	
15 minute summer	IR40	S11.000	IR45	178.4	2.791	0.158	0.6440	
15 minute summer	IR41	S10.000	IR42	12.3	1.120	0.099	0.3550	
15 minute summer	IR42	S10.001	IR43	23.8	1.353	0.061	0.3891	
15 minute summer	IR43	S10.002	IR44	38.8	1.170	0.098	1.2905	
15 minute summer	IR44	S10.003	IR45	49.1	0.752	0.172	2.2873	
15 minute summer	IR45	S10.004	IR46	232.6	1.308	0.425	5.0206	
15 minute summer	IR46	S6.006	IR47	392.0	1.426	0.295	2.4612	
15 minute summer	IR47	1.010	232	394.8	2.008	0.297	2.2810	
15 minute summer	232	1.011	233	404.5	2.640	0.098	6.6633	
15 minute summer	233	1.012	234	423.6	2.832	0.126	10.6168	
15 minute summer	234	1.013	235	437.9	3.288	0.085	3.9454	
15 minute summer	235	1.014	241	436.4	3.467	0.088	4.5171	
15 minute summer	IR48	10.000	IR49	22.0	2.501	0.159	0.1619	
15 minute summer	IR49	10.001	IR50	23.7	2.216	0.093	0.1830	
15 minute summer	IR50	10.002	IR51	38.9	2.184	0.106	1.2190	
15 minute summer	IR51	10.003	IR52	42.8	1.217	0.162	0.5022	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR52	11	92.550	0.169	50.2	0.1088	0.0000	OK
15 minute summer	236	10	96.353	0.074	18.3	0.2350	0.0000	OK
15 minute summer	237	11	95.917	0.092	14.4	0.2390	0.0000	OK
15 minute summer	238	11	95.693	0.088	41.3	0.2124	0.0000	OK
15 minute summer	239	11	94.713	0.101	53.4	0.2777	0.0000	OK
15 minute summer	240	12	92.323	0.250	111.4	0.7699	0.0000	OK
15 minute summer	241	12	92.246	0.470	541.1	1.4046	0.0000	OK
960 minute summer	242	630	92.072	0.472	99.2	0.0000	0.0000	OK
960 minute summer	243	630	92.061	0.461	72.6	887.4077	0.0000	SURCHARGED
960 minute summer	245	630	91.309	0.138	25.6	0.1556	0.0000	OK
960 minute summer	246	630	91.272	0.122	25.6	0.0000	0.0000	OK
15 minute summer	247	10	96.139	0.064	12.1	0.1638	0.0000	OK
15 minute summer	248	11	95.270	0.045	12.0	0.0508	0.0000	OK
960 minute summer	249	660	92.061	0.461	25.6	0.0000	0.0000	OK
960 minute summer	244	630	92.054	0.494	25.6	1.7126	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR52	10.004	240	49.4	0.872	0.174	2.7613	
15 minute summer	236	11.000	238	17.8	1.346	0.129	0.5181	
15 minute summer	237	12.000	238	14.0	0.781	0.198	0.6345	
15 minute summer	238	11.001	239	41.5	1.911	0.122	0.7485	
15 minute summer	239	11.002	240	53.7	2.296	0.153	1.0384	
15 minute summer	240	10.005	241	108.6	0.882	0.203	8.3859	
15 minute summer	241	1.015	242	543.1	1.586	0.585	7.6749	
960 minute summer	243	13.000	244	25.6	0.364	0.358	0.6751	
960 minute summer	245	13.002	246	25.6	0.876	0.358	0.1472	1145.0
15 minute summer	247	14.000	248	12.0	1.626	0.155	0.2861	
15 minute summer	248	14.001	249	11.9	2.126	0.087	0.1906	
960 minute summer	244	13.001	245	25.6	0.893	0.337	2.3770	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	201	11	104.596	0.171	77.6	0.5962	0.0000	OK
15 minute summer	202	11	103.951	0.315	139.4	0.7470	0.0000	OK
15 minute summer	203	11	103.829	0.349	138.7	0.6164	0.0000	OK
15 minute summer	204	11	103.791	0.331	188.3	0.7530	0.0000	OK
15 minute summer	205	11	103.369	0.209	267.4	0.6346	0.0000	OK
15 minute summer	206	11	100.316	0.218	261.6	0.3118	0.0000	OK
15 minute summer	IR31	11	100.020	0.213	262.2	0.0000	0.0000	OK
15 minute summer	IR32	10	101.504	0.168	191.7	0.7780	0.0000	OK
15 minute summer	IR33	10	101.140	0.257	194.0	0.3838	0.0000	OK
15 minute summer	IR34	10	100.535	0.199	208.3	0.3652	0.0000	OK
15 minute summer	IR35	11	100.158	0.278	74.2	0.5751	0.0000	OK
15 minute summer	IR36	11	100.111	0.491	302.0	1.0943	0.0000	OK
15 minute summer	IR37	11	99.800	0.363	571.0	0.7281	0.0000	OK
15 minute summer	IR38	10	99.465	0.245	74.2	0.5072	0.0000	OK
15 minute summer	IR39	11	99.082	0.272	664.3	0.6105	0.0000	OK
15 minute summer	207	10	105.433	0.132	39.8	0.2964	0.0000	OK
15 minute summer	208	10	105.247	0.127	39.5	0.1433	0.0000	OK
15 minute summer	209	12	105.104	0.281	39.4	0.3184	0.0000	OK
15 minute summer	210	11	105.077	0.409	83.0	0.6713	0.0000	SURCHARGED
15 minute summer	211	11	104.718	0.372	136.9	0.9124	0.0000	OK
15 minute summer	212	11	104.404	0.363	179.3	0.9312	0.0000	OK
15 minute summer	213	11	104.335	0.329	178.9	0.5811	0.0000	OK
15 minute summer	214	10	106.736	0.161	33.1	0.3380	0.0000	OK
15 minute summer	215	10	106.481	0.173	58.4	0.2783	0.0000	OK
15 minute summer	216	11	106.211	0.122	70.7	0.1813	0.0000	OK
15 minute summer	217	10	105.274	0.122	83.1	0.1822	0.0000	OK
15 minute summer	218	11	104.259	0.274	285.9	0.6276	0.0000	OK
15 minute summer	219	10	104.537	0.083	24.5	0.1331	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	201	1.000	202	75.8	1.583	0.416	3.6746	
15 minute summer	202	1.001	203	138.7	0.982	0.639	11.0374	
15 minute summer	203	1.002	204	136.6	0.945	0.616	1.3982	
15 minute summer	204	1.003	205	186.4	1.896	0.878	6.8143	
15 minute summer	205	1.004	206	261.6	3.754	0.419	5.4726	
15 minute summer	206	1.005	IR31	262.2	2.890	0.239	1.0430	
15 minute summer	IR31	S8.000	IR37	263.1	2.649	0.223	1.1325	
15 minute summer	IR32	S6.000	IR33	191.1	2.603	0.273	0.7160	
15 minute summer	IR33	S6.001	IR34	191.5	2.172	0.556	3.6917	
15 minute summer	IR34	S6.002	IR36	207.4	1.392	0.316	5.5854	
15 minute summer	IR35	S7.000	IR36	73.0	1.192	1.027	0.5682	
15 minute summer	IR36	S6.003	IR37	302.0	1.590	1.395	3.0508	
15 minute summer	IR37	S6.004	IR39	569.9	3.494	0.460	5.9428	
15 minute summer	IR38	S9.000	IR39	73.7	1.279	1.042	0.4919	
15 minute summer	IR39	S6.005	IR46	662.4	4.102	0.298	4.6646	
15 minute summer	207	5.000	208	39.5	1.377	0.355	0.5235	
15 minute summer	208	5.001	209	39.4	1.380	0.355	1.4160	
15 minute summer	209	5.002	210	42.7	0.722	0.385	1.0736	
15 minute summer	210	5.003	211	83.1	1.207	1.174	4.2444	
15 minute summer	211	5.004	212	134.9	1.344	1.221	2.5354	
15 minute summer	212	5.005	213	178.9	1.066	0.626	3.3723	
15 minute summer	213	5.006	218	178.7	1.320	0.621	1.6776	
15 minute summer	214	6.000	215	32.3	1.103	0.812	0.9538	
15 minute summer	215	6.001	216	57.9	1.691	0.565	0.8823	
15 minute summer	216	6.002	217	70.7	2.649	0.316	0.6243	
15 minute summer	217	6.003	218	83.3	3.162	0.304	0.4566	
15 minute summer	218	5.007	222	286.5	3.053	0.581	2.7640	
15 minute summer	219	7.000	220	24.3	1.486	0.292	0.5832	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	220	11	103.845	0.217	59.8	0.4606	0.0000	OK
15 minute summer	221	11	103.668	0.258	86.5	0.5383	0.0000	OK
15 minute summer	222	11	103.538	0.311	373.5	0.5488	0.0000	OK
15 minute summer	223	11	103.159	0.253	396.1	0.5907	0.0000	OK
15 minute summer	224	11	101.566	0.168	396.6	0.2977	0.0000	OK
15 minute summer	225	10	105.098	0.155	53.2	0.4145	0.0000	OK
15 minute summer	226	10	104.675	0.106	52.8	0.1201	0.0000	OK
15 minute summer	227	10	104.053	0.180	122.0	0.4736	0.0000	OK
15 minute summer	228	11	102.754	0.264	121.0	0.2981	0.0000	OK
15 minute summer	229	10	102.458	0.317	206.1	1.2282	0.0000	OK
15 minute summer	230	11	102.044	0.206	278.4	0.7388	0.0000	OK
15 minute summer	231	11	100.060	0.405	740.2	1.0957	0.0000	OK
15 minute summer	IR40	11	99.190	0.430	742.2	0.0000	0.0000	OK
15 minute summer	IR41	10	99.203	0.139	50.8	0.3534	0.0000	OK
15 minute summer	IR42	10	98.677	0.165	98.0	0.4372	0.0000	OK
15 minute summer	IR43	11	98.525	0.410	159.1	1.0564	0.0000	OK
15 minute summer	IR44	11	98.485	0.703	191.5	1.8872	0.0000	SURCHARGED
15 minute summer	IR45	11	98.445	0.867	938.9	2.5399	0.0000	SURCHARGED
15 minute summer	IR46	12	98.091	0.892	1631.4	2.9922	0.0000	OK
30 minute summer	IR47	19	97.984	0.803	1544.7	0.0000	0.0000	OK
15 minute summer	232	11	97.691	0.533	1737.4	1.9587	0.0000	OK
15 minute summer	233	12	96.919	0.591	1763.6	2.9228	0.0000	OK
15 minute summer	234	12	95.961	0.525	1850.3	2.4148	0.0000	OK
15 minute summer	235	12	95.087	0.530	1864.9	1.5813	0.0000	OK
15 minute summer	IR48	10	97.469	0.144	89.6	0.5260	0.0000	OK
15 minute summer	IR49	10	96.094	0.140	96.2	0.1857	0.0000	OK
15 minute summer	IR50	10	95.159	0.171	159.5	0.5232	0.0000	OK
15 minute summer	IR51	12	92.992	0.366	173.8	0.6590	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	220	7.001	221	58.6	1.156	0.828	1.7578	
15 minute summer	221	7.002	222	86.9	1.184	0.780	0.7717	
15 minute summer	222	5.008	223	373.7	3.167	0.437	1.2253	
15 minute summer	223	5.009	224	396.6	4.899	0.365	2.4612	
15 minute summer	224	5.010	231	396.7	4.266	0.196	0.9768	
15 minute summer	225	8.000	226	52.8	2.210	0.685	0.4089	
15 minute summer	226	8.001	227	52.6	2.906	0.370	0.1542	
15 minute summer	227	8.002	228	121.0	2.184	0.684	3.0017	
15 minute summer	228	8.003	229	120.3	2.026	0.840	0.4411	
15 minute summer	229	8.004	230	206.5	1.927	0.662	7.7861	
15 minute summer	230	8.005	231	279.4	2.544	0.338	8.0546	
15 minute summer	231	5.011	IR40	742.2	3.543	0.750	9.1068	
15 minute summer	IR40	S11.000	IR45	742.3	3.854	0.657	1.9342	
15 minute summer	IR41	S10.000	IR42	50.0	1.628	0.404	0.9950	
15 minute summer	IR42	S10.001	IR43	97.7	1.876	0.250	1.9088	
15 minute summer	IR43	S10.002	IR44	154.0	1.268	0.390	7.7112	
15 minute summer	IR44	S10.003	IR45	196.5	0.781	0.691	8.7765	
15 minute summer	IR45	S10.004	IR46	940.1	2.177	1.717	11.5301	
15 minute summer	IR46	S6.006	IR47	1617.0	2.172	1.217	6.6508	
15 minute summer	IR47	1.010	232	1690.3	2.938	1.273	6.5488	
15 minute summer	232	1.011	233	1661.9	3.539	0.402	20.3929	
15 minute summer	233	1.012	234	1781.0	3.826	0.531	32.8935	
15 minute summer	234	1.013	235	1864.9	4.302	0.362	12.8421	
15 minute summer	235	1.014	241	1862.0	4.847	0.377	13.7894	
15 minute summer	IR48	10.000	IR49	89.0	3.510	0.641	0.4663	
15 minute summer	IR49	10.001	IR50	95.8	3.168	0.376	0.5182	
15 minute summer	IR50	10.002	IR51	158.6	2.892	0.432	4.6098	
15 minute summer	IR51	10.003	IR52	171.6	1.734	0.652	2.0776	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR52	12	92.946	0.565	202.8	0.3636	0.0000	OK
15 minute summer	236	10	96.442	0.162	73.8	0.5149	0.0000	OK
15 minute summer	237	10	96.038	0.213	58.0	0.5529	0.0000	OK
15 minute summer	238	10	95.798	0.193	168.7	0.4671	0.0000	OK
15 minute summer	239	11	94.839	0.227	218.1	0.6237	0.0000	OK
15 minute summer	240	12	92.914	0.841	446.1	2.5855	0.0000	SURCHARGED
15 minute summer	241	12	92.862	1.086	2262.6	3.2427	0.0000	SURCHARGED
720 minute winter	242	690	92.807	1.207	192.8	0.0000	0.0000	OK
720 minute winter	243	705	92.794	1.194	135.0	2570.1170	0.0000	SURCHARGED
60 minute summer	245	165	91.314	0.143	27.3	0.1612	0.0000	OK
60 minute summer	246	164	91.276	0.126	27.3	0.0000	0.0000	OK
15 minute summer	247	10	96.217	0.142	48.9	0.3639	0.0000	OK
15 minute summer	248	10	95.318	0.093	48.4	0.1053	0.0000	OK
720 minute winter	249	720	92.793	1.193	55.5	0.0000	0.0000	OK
720 minute winter	244	705	92.787	1.227	27.5	4.2511	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR52	10.004	240	197.2	1.146	0.694	13.3836	
15 minute summer	236	11.000	238	72.7	1.940	0.527	1.4647	
15 minute summer	237	12.000	238	56.7	1.147	0.801	1.7479	
15 minute summer	238	11.001	239	167.8	2.652	0.492	2.1781	
15 minute summer	239	11.002	240	217.7	3.265	0.620	2.9607	
15 minute summer	240	10.005	241	400.6	0.972	0.749	33.2153	
15 minute summer	241	1.015	242	2258.5	2.713	2.434	18.0617	
60 minute summer	243	13.000	244	28.8	0.459	0.403	0.6751	
60 minute summer	245	13.002	246	27.3	0.892	0.382	0.1539	443.1
15 minute summer	247	14.000	248	48.4	2.308	0.625	0.8075	
15 minute summer	248	14.001	249	47.9	3.135	0.349	0.5210	
60 minute summer	244	13.001	245	27.3	0.908	0.359	2.4886	

Results for 100 year +45% CC 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 summer	201	12	104.768	0.343	142.7	1.1979	0.0000	OK
15 minute summer	202	11	104.505	0.869	265.4	2.0580	0.0000	SURCHARGED
15 minute summer	203	11	104.329	0.849	224.3	1.5006	0.0000	SURCHARGED
15 minute summer	204	11	104.283	0.823	320.9	1.8710	0.0000	SURCHARGED
15 minute summer	205	11	103.457	0.297	462.1	0.9032	0.0000	OK
15 minute summer	206	11	100.410	0.312	450.9	0.4463	0.0000	OK
15 minute summer	IR31	11	100.141	0.333	452.3	0.0000	0.0000	OK
15 minute summer	IR32	11	101.609	0.273	352.6	1.2677	0.0000	OK
15 minute summer	IR33	11	101.370	0.486	355.6	0.7266	0.0000	SURCHARGED
15 minute summer	IR34	11	100.705	0.369	374.6	0.6771	0.0000	OK
15 minute summer	IR35	10	100.620	0.740	136.6	1.5286	0.0000	SURCHARGED
15 minute summer	IR36	11	100.446	0.826	544.0	1.8428	0.0000	SURCHARGED
15 minute summer	IR37	11	99.983	0.546	1007.6	1.0951	0.0000	OK
15 minute summer	IR38	10	99.648	0.428	136.6	0.8849	0.0000	SURCHARGED
15 minute summer	IR39	11	99.268	0.458	1176.2	1.0282	0.0000	OK
15 minute summer	207	12	106.589	1.289	73.2	2.8840	0.0000	FLOOD RISK
15 minute summer	208	12	106.518	1.398	60.0	1.5806	0.0000	SURCHARGED
15 minute summer	209	12	106.405	1.582	66.7	1.7898	0.0000	SURCHARGED
15 minute summer	210	12	106.332	1.664	142.5	2.7322	0.0000	SURCHARGED
15 minute summer	211	12	105.228	0.882	237.7	2.1656	0.0000	SURCHARGED
15 minute summer	212	12	104.767	0.726	311.8	1.8621	0.0000	SURCHARGED
15 minute summer	213	12	104.700	0.694	307.7	1.2265	0.0000	SURCHARGED
15 minute summer	214	11	107.025	0.450	60.8	0.9445	0.0000	SURCHARGED
15 minute summer	215	11	106.578	0.270	105.3	0.4347	0.0000	OK
15 minute summer	216	10	106.266	0.176	128.4	0.2631	0.0000	OK
15 minute summer	217	11	105.332	0.180	151.9	0.2681	0.0000	OK
15 minute summer	218	12	104.647	0.662	497.2	1.5165	0.0000	SURCHARGED
15 minute summer	219	11	104.577	0.123	45.0	0.1969	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	201	1.000	202	144.6	1.598	0.792	8.2846	
15 minute winter	202	1.001	203	224.6	1.043	1.034	16.5701	
15 minute summer	203	1.002	204	220.7	1.022	0.996	2.0417	
15 minute summer	204	1.003	205	312.6	2.121	1.473	9.3190	
15 minute summer	205	1.004	206	450.9	4.241	0.722	8.3527	
15 minute summer	206	1.005	IR31	452.3	3.070	0.412	1.7703	
15 minute summer	IR31	S8.000	IR37	454.8	2.841	0.386	2.0196	
15 minute summer	IR32	S6.000	IR33	350.3	2.784	0.501	1.2613	
15 minute summer	IR33	S6.001	IR34	343.7	2.427	0.998	6.4151	
15 minute summer	IR34	S6.002	IR36	374.8	1.840	0.572	7.4195	
15 minute summer	IR35	S7.000	IR36	134.1	1.904	1.886	0.5967	
15 minute summer	IR36	S6.003	IR37	544.6	2.522	2.515	3.4495	
15 minute summer	IR37	S6.004	IR39	1002.8	3.713	0.809	10.2117	
15 minute summer	IR38	S9.000	IR39	135.9	1.931	1.922	0.5911	
15 minute summer	IR39	S6.005	IR46	1165.0	3.939	0.524	6.7903	
15 minute summer	207	5.000	208	60.0	1.439	0.540	1.2656	
15 minute summer	208	5.001	209	66.7	1.320	0.600	2.0973	
15 minute summer	209	5.002	210	76.8	1.091	0.691	1.0873	
15 minute summer	210	5.003	211	139.8	1.986	1.975	4.2483	
15 minute summer	211	5.004	212	230.4	2.090	2.086	2.8618	
15 minute summer	212	5.005	213	307.7	1.159	1.077	5.6488	
15 minute summer	213	5.006	218	306.4	1.428	1.064	3.3356	
15 minute summer	214	6.000	215	58.7	1.479	1.476	1.2525	
15 minute summer	215	6.001	216	105.7	1.893	1.031	1.4101	
15 minute summer	216	6.002	217	129.2	3.065	0.577	1.0140	
15 minute summer	217	6.003	218	150.7	3.266	0.550	0.9679	
15 minute summer	218	5.007	222	489.8	3.183	0.993	4.6608	
15 minute summer	219	7.000	220	43.8	1.464	0.527	0.9153	

Results for 100 year +45% CC 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 summer	220	11	104.222	0.595	109.0	1.2606	0.0000	SURCHARGED
15 minute summer	221	11	103.835	0.425	157.7	0.8861	0.0000	SURCHARGED
15 minute summer	222	11	103.711	0.484	645.5	0.8545	0.0000	OK
15 minute summer	223	10	103.245	0.339	686.7	0.7926	0.0000	OK
15 minute summer	224	12	101.839	0.442	687.8	0.7803	0.0000	OK
15 minute summer	225	12	106.001	1.057	97.9	2.8289	0.0000	SURCHARGED
15 minute summer	226	12	105.414	0.846	84.2	0.9565	0.0000	SURCHARGED
15 minute summer	227	11	105.080	1.207	202.0	3.1736	0.0000	SURCHARGED
15 minute summer	228	11	103.093	0.603	196.0	0.6819	0.0000	SURCHARGED
15 minute summer	229	11	102.612	0.471	348.7	1.8255	0.0000	OK
15 minute summer	230	12	102.193	0.355	476.9	1.2727	0.0000	OK
15 minute summer	231	12	101.424	1.770	1240.1	4.7845	0.0000	SURCHARGED
15 minute summer	IR40	12	99.810	1.050	1225.2	0.0000	0.0000	SURCHARGED
15 minute summer	IR41	11	99.810	0.746	93.5	1.8979	0.0000	SURCHARGED
15 minute summer	IR42	11	99.569	1.057	169.3	2.7958	0.0000	SURCHARGED
15 minute summer	IR43	11	99.483	1.367	272.9	3.5249	0.0000	SURCHARGED
15 minute summer	IR44	12	99.345	1.563	349.7	4.1946	0.0000	SURCHARGED
15 minute summer	IR45	12	99.248	1.671	1584.5	4.8918	0.0000	SURCHARGED
15 minute summer	IR46	12	98.462	1.263	2789.0	4.2340	0.0000	SURCHARGED
15 minute summer	IR47	12	98.257	1.076	2797.8	0.0000	0.0000	SURCHARGED
15 minute summer	232	12	97.983	0.825	2871.4	3.0323	0.0000	OK
15 minute summer	233	12	97.243	0.915	3035.4	4.5274	0.0000	OK
15 minute summer	234	12	96.225	0.789	3179.0	3.6324	0.0000	OK
15 minute summer	235	12	95.334	0.776	3185.8	2.3175	0.0000	OK
15 minute summer	IR48	11	98.239	0.914	164.8	3.3295	0.0000	SURCHARGED
15 minute summer	IR49	11	96.151	0.197	166.1	0.2609	0.0000	OK
15 minute summer	IR50	11	95.280	0.292	278.1	0.8946	0.0000	OK
1440 minute winter	IR51	1380	93.914	1.288	15.7	2.3170	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	220	7.001	221	106.4	1.511	1.504	2.4442	
15 minute summer	221	7.002	222	157.4	1.446	1.413	1.1258	
15 minute summer	222	5.008	223	645.5	3.616	0.756	1.8462	
15 minute summer	223	5.009	224	687.8	5.132	0.633	5.0524	
15 minute summer	224	5.010	231	675.3	4.377	0.333	1.9746	
15 minute summer	225	8.000	226	84.2	2.250	1.093	0.6837	
15 minute summer	226	8.001	227	90.7	2.853	0.639	0.3350	
15 minute summer	227	8.002	228	196.0	2.784	1.108	3.8639	
15 minute summer	228	8.003	229	195.7	2.780	1.368	0.5229	
15 minute summer	229	8.004	230	344.8	2.064	1.105	12.9257	
15 minute summer	230	8.005	231	456.7	2.538	0.552	13.4973	
15 minute summer	231	5.011	IR40	1225.2	4.350	1.239	12.2470	
15 minute summer	IR40	S11.000	IR45	1226.4	4.354	1.085	2.8365	
15 minute summer	IR41	S10.000	IR42	85.1	1.686	0.687	2.2783	
15 minute summer	IR42	S10.001	IR43	165.1	1.836	0.423	3.4978	
15 minute summer	IR43	S10.002	IR44	268.0	1.277	0.678	8.3948	
15 minute summer	IR44	S10.003	IR45	343.8	1.221	1.208	8.7765	
15 minute summer	IR45	S10.004	IR46	1588.9	3.610	2.901	12.4171	
15 minute summer	IR46	S6.006	IR47	2797.8	3.244	2.106	7.7223	
15 minute summer	IR47	1.010	232	2800.0	3.450	2.108	9.1273	
15 minute summer	232	1.011	233	2881.5	3.808	0.698	33.1331	
15 minute summer	233	1.012	234	3051.4	4.121	0.910	52.7876	
15 minute summer	234	1.013	235	3185.8	4.618	0.619	20.4348	
15 minute summer	235	1.014	241	3189.7	5.376	0.646	21.1823	
15 minute summer	IR48	10.000	IR49	153.5	3.861	1.106	0.7313	
15 minute summer	IR49	10.001	IR50	166.1	3.430	0.653	0.8869	
15 minute summer	IR50	10.002	IR51	275.9	2.994	0.752	6.9167	
15 minute summer	IR51	10.003	IR52	296.9	1.874	1.128	2.2630	

Results for 100 year +45% CC 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
1440 minute winter	IR52	1380	93.914	1.533	17.4	0.9872	0.0000	SURCHARGED
15 minute summer	236	11	96.750	0.471	135.7	1.4926	0.0000	SURCHARGED
15 minute summer	237	11	96.529	0.703	106.7	1.8286	0.0000	SURCHARGED
15 minute summer	238	11	96.208	0.602	309.1	1.4572	0.0000	SURCHARGED
15 minute summer	239	11	95.354	0.742	373.8	2.0387	0.0000	SURCHARGED
1440 minute winter	240	1380	93.914	1.841	40.5	5.6589	0.0000	SURCHARGED
1440 minute winter	241	1380	93.914	2.138	217.6	6.3838	0.0000	SURCHARGED
1440 minute winter	242	1380	93.914	2.314	217.7	0.0000	0.0000	OK
1440 minute winter	243	1410	93.899	2.299	150.9	5753.6880	0.0000	SURCHARGED
15 minute summer	245	240	91.314	0.143	27.3	0.1612	0.0000	OK
15 minute summer	246	239	91.276	0.126	27.3	0.0000	0.0000	OK
15 minute summer	247	11	96.636	0.561	89.9	1.4368	0.0000	SURCHARGED
15 minute summer	248	11	95.352	0.128	82.1	0.1443	0.0000	OK
1440 minute winter	249	1410	93.898	2.298	65.4	0.0000	0.0000	OK
1440 minute winter	244	1410	93.892	2.332	27.5	8.0776	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR52	10.004	240	350.0	1.243	1.232	13.5425	
15 minute summer	236	11.000	238	133.6	2.112	0.970	2.7478	
15 minute summer	237	12.000	238	102.3	1.453	1.445	2.4914	
15 minute winter	238	11.001	239	285.5	2.807	0.838	3.6708	
15 minute summer	239	11.002	240	362.8	3.404	1.034	4.8967	
15 minute summer	240	10.005	241	769.8	1.444	1.439	33.2153	
15 minute summer	241	1.015	242	3949.2	4.579	4.257	19.1233	
30 minute summer	243	13.000	244	33.1	0.601	0.463	0.6751	
15 minute summer	245	13.002	246	27.3	0.892	0.382	0.1539	397.4
15 minute summer	247	14.000	248	82.1	2.395	1.060	1.2146	
15 minute summer	248	14.001	249	81.5	3.579	0.594	0.7777	
15 minute summer	244	13.001	245	27.3	0.978	0.359	2.4886	

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.600
CV	0.950	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	150.0		

Nodes

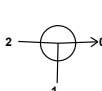
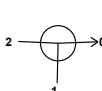
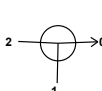
Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
IR51	0.014	5.00	102.588	1200	537289.487	138701.247	1.464	101.124
IR52	0.120	5.00	101.790		537316.315	138689.996	1.030	100.760
IR53	0.029	5.00	101.757	1200	537316.538	138700.025	1.425	100.332
IR54	0.036	5.00	101.365	1200	537336.196	138700.085	1.135	100.230
IR55	0.029	5.00	101.588	1200	537322.503	138700.244	1.524	100.064
301			100.600		537322.423	138717.230	1.000	99.600
302		5.00	100.600		537340.677	138721.235	1.000	99.600
303			100.600	1200	537345.258	138721.833	2.131	98.469
304			99.300		537354.917	138722.527	1.000	98.300

Pipeline Schedule

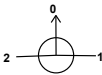
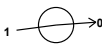
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
S4.000	27.079	34.2	225	Circular	102.588	101.124	1.239	101.757	100.332	1.200
S5.000	10.031	149.7	225	Circular	101.790	100.760	0.805	101.757	100.693	0.839
S4.001	5.969	30.9	225	Circular	101.757	100.332	1.200	101.588	100.139	1.224
S3.000	13.694	150.5	225	Circular	101.365	100.230	0.910	101.588	100.139	1.224
S3.001	16.986	50.9	300	Circular	101.588	100.064	1.224	100.600	99.730	0.570
4.000	4.620	48.6	225	Circular	100.600	99.600	0.775	100.600	99.505	0.870
1.005	5.909	35.0	300	Circular	100.600	98.469	1.831	99.300	98.300	0.700

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
S4.000	IR51	1200	Manhole	Adoptable	IR53	1200	Manhole	Adoptable
S5.000	IR52		Junction		IR53	1200	Manhole	Adoptable
S4.001	IR53	1200	Manhole	Adoptable	IR55	1200	Manhole	Adoptable
S3.000	IR54	1200	Manhole	Adoptable	IR55	1200	Manhole	Adoptable
S3.001	IR55	1200	Manhole	Adoptable	301		Junction	
4.000	302		Junction		303	1200	Manhole	Adoptable
1.005	303	1200	Manhole	Adoptable	304		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type	
IR51	537289.487	138701.247	102.588	1.464	1200	Manhole	Adoptable		0	S4.000	101.124	225	Circular
IR52	537316.315	138689.996	101.790	1.030		Junction			0	S5.000	100.760	225	Circular
IR53	537316.538	138700.025	101.757	1.425	1200	Manhole	Adoptable		1	S5.000	100.693	225	Circular
									2	S4.000	100.332	225	Circular
									0	S4.001	100.332	225	Circular

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	Link Type
IR54	537336.196	138700.085	101.365	1.135	1200	Manhole	Adoptable		0	S3.000	100.230	225 Circular
IR55	537322.503	138700.244	101.588	1.524	1200	Manhole	Adoptable		1 2	S3.000 S4.001	100.139 100.139	225 Circular 225 Circular
301	537322.423	138717.230	100.600	1.000		Junction			1	S3.001	100.064 99.730	300 Circular 300 Circular
302	537340.677	138721.235	100.600	1.000		Junction			0	4.000	99.600	225 Circular
303	537345.258	138721.833	100.600	2.131	1200	Manhole	Adoptable		1	4.000	99.505	225 Circular
304	537354.917	138722.527	99.300	1.000		Junction			0 1	1.005 1.005	98.469 98.300	300 Circular 300 Circular

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m ³ /ha)	20.0		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	45	0	0
30	0	0	0				

Node 303 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.005	Sump Available	✓
Replaces Downstream Link	x	Product Number	CTL-SHE-0041-1000-1771-1000
Invert Level (m)	98.469	Min Outlet Diameter (m)	0.075
Design Depth (m)	1.771	Min Node Diameter (mm)	1200
Design Flow (l/s)	1.0		

Node IR52 Online Orifice Control

Flap Valve	x	Invert Level (m)	100.760	Diameter (m)	0.015
Downstream Link	S5.000	Design Depth (m)	1.030	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.5		

Node IR52 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	100.760
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	254.4	254.4	0.800	254.4	299.6	0.801	0.0	299.6	1.030	0.0	299.6

Node 302 Pond Storage Structure

Invert Level (m) 99.600 | Time to half empty (mins) 0 | Analyse flow through structure x

Inlets
301

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	258.8	1.000	485.1

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR51	10	101.145	0.021	1.7	0.0282	0.0000	OK
10080 minute summer	IR52	6480	100.933	0.173	0.6	42.1155	0.0000	OK
15 minute summer	IR53	10	100.369	0.037	5.1	0.0573	0.0000	OK
15 minute summer	IR54	10	100.279	0.049	4.2	0.0863	0.0000	OK
15 minute summer	IR55	11	100.122	0.058	12.5	0.0878	0.0000	OK
600 minute summer	301	405	99.654	0.054	3.0	0.0000	0.0000	OK
600 minute summer	302	405	99.652	0.052	5.2	13.9740	0.0000	OK
600 minute summer	303	435	99.695	1.226	8.6	1.3866	0.0000	SURCHARGED
360 minute summer	304	256	98.321	0.021	0.8	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR51	S4.000	IR53	1.7	0.550	0.019	0.0838	
10080 minute summer	IR52	S5.000	IR53	0.2	0.273	0.004	0.0070	
15 minute summer	IR53	S4.001	IR55	5.0	1.213	0.053	0.0246	
15 minute summer	IR54	S3.000	IR55	4.1	0.670	0.098	0.0848	
15 minute summer	IR55	S3.001	301	12.5	1.327	0.080	0.1600	
600 minute summer	302	4.000	303	8.6	0.725	0.115	0.0981	
360 minute summer	303	1.005	304	0.8	0.359	0.012	0.0138	22.8

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR51	10	101.165	0.041	6.7	0.0547	0.0000	OK
8640 minute summer	IR52	5700	101.110	0.350	1.2	85.4065	0.0000	SURCHARGED
15 minute summer	IR53	10	100.412	0.080	20.6	0.1237	0.0000	OK
15 minute summer	IR54	10	100.336	0.106	17.3	0.1867	0.0000	OK
15 minute summer	IR55	10	100.186	0.122	51.4	0.1850	0.0000	OK
480 minute winter	301	464	99.779	0.179	6.0	0.0000	0.0000	OK
480 minute winter	302	472	99.777	0.177	8.8	49.6672	0.0000	OK
480 minute winter	303	472	99.777	1.308	7.7	1.4792	0.0000	SURCHARGED
480 minute winter	304	472	98.321	0.021	0.9	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR51	S4.000	IR53	6.6	0.766	0.074	0.2400	
8640 minute summer	IR52	S5.000	IR53	0.3	0.306	0.006	0.0089	
15 minute summer	IR53	S4.001	IR55	20.4	1.742	0.217	0.0700	
15 minute summer	IR54	S3.000	IR55	17.1	0.974	0.403	0.2399	
15 minute summer	IR55	S3.001	301	51.0	1.949	0.327	0.4448	
15 minute winter	302	4.000	303	9.9	1.222	0.133	0.1122	
480 minute winter	303	1.005	304	0.9	0.362	0.012	0.0141	31.9

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	IR51	10	101.180	0.056	12.4	0.0743	0.0000	OK
4320 minute winter	IR52	4020	101.454	0.694	2.3	169.3117	0.0000	SURCHARGED
15 minute summer	IR53	10	100.449	0.117	38.0	0.1801	0.0000	OK
15 minute summer	IR54	10	100.387	0.157	31.8	0.2769	0.0000	OK
15 minute summer	IR55	10	100.241	0.177	94.6	0.2679	0.0000	OK
2160 minute winter	301	2040	99.971	0.371	3.6	0.0000	0.0000	OK
2160 minute winter	302	2040	99.968	0.368	6.9	111.0147	0.0000	SURCHARGED
2160 minute winter	303	2040	99.968	1.499	4.4	1.6953	0.0000	SURCHARGED
2160 minute winter	304	2040	98.322	0.022	0.9	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	IR51	S4.000	IR53	12.3	0.873	0.138	0.3873	
4320 minute winter	IR52	S5.000	IR53	0.4	0.339	0.009	0.0115	
15 minute summer	IR53	S4.001	IR55	37.7	1.972	0.402	0.1146	
15 minute summer	IR54	S3.000	IR55	31.3	1.119	0.741	0.3839	
15 minute summer	IR55	S3.001	301	94.0	2.258	0.602	0.7072	
15 minute summer	302	4.000	303	14.9	1.331	0.199	0.1522	
2160 minute winter	303	1.005	304	0.9	0.367	0.013	0.0148	112.4

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.600
CV	0.950	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	150.0		

Nodes

Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
S278 01	0.087	5.00		124.433	1200	537656.783	138268.547	1.678	122.755
S279 02	0.003	5.00		123.809	1200	537636.223	138290.038	1.425	122.384
S278 03		5.00		124.256	1200	537663.984	138310.984	1.678	122.578
S278 04				123.910	1200	537650.063	138305.811	2.207	121.703
S278 05				123.644	1200	537637.305	138322.044	2.026	121.618
IR61	0.042	5.00		122.230	1200	537611.046	138343.916	1.736	120.494
IR62	0.016	5.00		120.666	1200	537562.418	138354.607	1.425	119.241
IR63	0.032	5.00		119.386	1200	537532.845	138354.950	1.448	117.938
IR64	0.016	5.00		118.268	1200	537510.229	138350.900	1.454	116.814
IR65				117.487	1200	537493.502	138346.965	1.533	115.954
IR66	0.018	5.00		116.896	1200	537472.950	138353.944	1.600	115.296
IR67		5.00	1.5	116.620	1200	537455.157	138365.104	2.150	114.470
IR68	0.020	5.00		116.545	1200	537462.687	138371.287	2.215	114.330
IR69	0.070	5.00		114.272	1200	537461.974	138446.105	1.606	112.666
IR70	0.020	5.00		113.598	1200	537467.173	138469.608	1.525	112.073
IR71	0.062	5.00		112.801	1350	537473.247	138489.251	1.600	111.201
IR72	0.335	5.00		111.241	1350	537479.596	138527.641	1.600	109.641
IR73	0.105	5.00		108.091	1500	537493.206	138610.240	1.675	106.416
IR74	0.057	5.00		106.944	1500	537497.908	138642.619	1.777	105.167
IR75	0.062	5.00		106.127	1500	537492.585	138664.773	1.854	104.273
IR76	0.044	5.00		105.175	1500	537477.627	138688.230	1.748	103.427
IR77	0.054	5.00		104.452	1500	537461.048	138698.052	1.725	102.727
401	0.120	5.00		112.743	1200	537437.568	138479.095	2.350	110.393
402	0.102	5.00		109.420	1200	537355.921	138505.230	1.500	107.920
403				110.314	1350	537390.718	138494.092	2.619	107.695
404	0.024	5.00		109.691	1350	537398.674	138517.987	2.074	107.617
405	0.069	5.00		108.997	1500	537406.333	138540.513	2.130	106.867
406	0.126	5.00		110.526	1200	537454.249	138531.484	1.718	108.808
407				109.019	1200	537418.996	138542.846	1.526	107.493
408	0.026	5.00		108.651	1500	537411.833	138549.714	1.806	106.845
409	0.152	5.00		108.348	1350	537416.780	138557.990	2.550	105.798
410				106.669	1500	537426.252	138614.151	1.650	105.019
411	0.130	5.00		107.851	1200	537472.036	138612.780	2.351	105.500
412				106.669	1350	537432.885	138619.091	2.135	104.534
413	0.083	5.00		107.211	1200	537404.169	138579.850	2.723	104.488
414	0.068	5.00		106.700	1200	537352.770	138552.947	1.844	104.856
415	0.104	5.00		104.662	1350	537358.200	138587.588	2.942	101.720
416				103.161	1350	537367.169	138641.118	1.684	101.477
417	0.128	5.00		103.369	1500	537375.044	138646.460	2.201	101.168
418				105.797	1500	537427.027	138637.823	5.507	100.290
419	0.107	5.00		105.819	1500	537430.830	138640.426	5.781	100.038
IR78				104.065	1500	537439.458	138693.367	5.212	98.853
IR79	0.015	5.00		103.686	1800	537440.224	138703.650	5.705	97.981
IR80	0.123	5.00		103.076	1800	537423.948	138704.877	5.128	97.948
IR81				101.634	1800	537376.143	138701.013	3.782	97.852
420				100.650		537374.060	138726.780	2.850	97.800
421	0.160	5.00		105.029	1200	537488.915	138699.678	1.425	103.604
422				104.459	1200	537502.301	138709.100	1.425	103.034
423				104.144	1200	537504.958	138717.183	1.500	102.644