


Project:	Date: 09/10/2023			
	Designed by:	Checked by:	Approved By:	
Report Details:			Company Address:	
Type: Stormwater Controls Storm Phase: Phase				



Pond

Type : Pond

**Dimensions**

Exceedance Level (m)	68.650
Depth (m)	1.500
Base Level (m)	67.150
Freeboard (mm)	300
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	4.074
Total Volume (m³)	1284.123

Depth (m)	Area (m²)	Volume (m³)
0.000	800.00	0.000
1.500	1530.00	1718.173

**Inlets**

**Inlet**

Inlet Type	Point Inflow
Incoming Item(s)	AS1.008
Bypass Destination	(None)
Capacity Type	No Restriction

**Outlets**

**Outlet**

Outgoing Connection	AS1.009
Outlet Type	Free Discharge

**Advanced**

Perimeter	Circular
Length (m)	76.944
Friction Scheme	Manning's n
n	0.03

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Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		



Pond (1)

Type : Pond

**Dimensions**

Exceedance Level (m)	68.500
Depth (m)	1.500
Base Level (m)	67.000
Freeboard (mm)	300
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	6.004
Total Volume (m³)	202.843

Depth (m)	Area (m²)	Volume (m³)
0.000	37.00	0.000
1.500	486.00	328.548

**Inlets**

**Inlet**

Inlet Type	Point Inflow
Incoming Item(s)	BS1.002
Bypass Destination	(None)
Capacity Type	No Restriction

**Outlets**

**Outlet**

Outgoing Connection	BS1.003
Outlet Type	Free Discharge

**Advanced**

Perimeter	Circular
Length (m)	49.961
Friction Scheme	Manning's n
n	0.03

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Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
65% Impermeable	AS3		Time of Concentration	0.193	80	0	80	0.154
65% Impermeable (1)	AS1		Time of Concentration	0.120	80	0	80	0.096
65% Impermeable (2)	AS2		Time of Concentration	0.071	80	0	80	0.057
65% Impermeable (3)	AS4		Time of Concentration	0.071	80	0	80	0.057
65% Impermeable (4)	AS2		Time of Concentration	0.030	80	0	80	0.024
65% Impermeable (5)	AS4		Time of Concentration	0.064	80	0	80	0.051
65% Impermeable (6)	AS6		Time of Concentration	0.042	80	0	80	0.033
65% Impermeable (7)	AS8		Time of Concentration	0.038	80	0	80	0.030
65% Impermeable (8)	AS7		Time of Concentration	0.050	80	0	80	0.040
65% Impermeable (9)	AS7		Time of Concentration	0.035	80	0	80	0.028
65% Impermeable (10)	AS9		Time of Concentration	0.042	80	0	80	0.033
65% Impermeable (11)	AS6		Time of Concentration	0.065	80	0	80	0.052
65% Impermeable (12)	AS12		Time of Concentration	0.110	80	0	80	0.088
65% Impermeable (13)	AS12		Time of Concentration	0.042	80	0	80	0.033
65% Impermeable (14)	AS13		Time of Concentration	0.057	80	0	80	0.046
65% Impermeable (15)	AS14		Time of Concentration	0.084	80	0	80	0.067
65% Impermeable (16)	AS16		Time of Concentration	0.104	80	0	80	0.083
65% Impermeable (17)	AS11		Time of Concentration	0.094	80	0	80	0.075
65% Impermeable (18)	AS17		Time of Concentration	0.095	80	0	80	0.076
65% Impermeable (19)	AS17		Time of Concentration	0.063	80	0	80	0.050
65% Impermeable (20)	BS3		Time of Concentration	0.116	80	0	80	0.093
65% Impermeable (21)	BS2		Time of Concentration	0.064	80	0	80	0.052

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65% Impermeable (22)	AS10		Time of Concentration	0.026	80	0	80	0.021
100% Impermeable	AS12		Time of Concentration	0.030	100	0	100	0.030
100% Impermeable (1)	AS13		Time of Concentration	0.010	100	0	100	0.010
100% Impermeable (2)	AS14		Time of Concentration	0.020	100	0	100	0.020
100% Impermeable (3)	AS15		Time of Concentration	0.010	100	0	100	0.010
100% Impermeable (4)	AS16		Time of Concentration	0.028	100	0	100	0.028
100% Impermeable (5)	AS1		Time of Concentration	0.011	100	0	100	0.011
100% Impermeable (6)	AS2		Time of Concentration	0.016	100	0	100	0.016
100% Impermeable (7)	AS2		Time of Concentration	0.012	100	0	100	0.012
100% Impermeable (8)	AS4		Time of Concentration	0.022	100	0	100	0.022
100% Impermeable (9)	AS5		Time of Concentration	0.013	100	0	100	0.013
100% Impermeable (10)	AS7		Time of Concentration	0.044	100	0	100	0.044
100% Impermeable (11)	AS8		Time of Concentration	0.021	100	0	100	0.021
100% Impermeable (12)	AS6		Time of Concentration	0.011	100	0	100	0.011
100% Impermeable (13)	AS9		Time of Concentration	0.036	100	0	100	0.036
100% Impermeable (14)	AS10		Time of Concentration	0.008	100	0	100	0.008
100% Impermeable (15)	AS11		Time of Concentration	0.023	100	0	100	0.023
100% Impermeable (16)	AS17		Time of Concentration	0.002	100	0	100	0.002
100% Impermeable (17)	BS1		Time of Concentration	0.023	100	0	100	0.023
100% Impermeable (18)	BS2		Time of Concentration	0.013	100	0	100	0.013
100% Impermeable (19)	BS3		Time of Concentration	0.036	100	0	100	0.036
<b>TOTAL</b>		<b>0.0</b>		<b>2.066</b>				<b>1.731</b>

Project:	Date: 09/10/2023		
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**Flow Options**

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

**FSR**

Type: FSR

Return Period (years)	30.0
Region	England And Wales
M5-60 (mm)	18.9
Ratio R	0.396

**Pipe Options**


Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	<input type="checkbox"/>
Reduce Channel Depths	<input type="checkbox"/>

**Pipe Size Library**

**Default**

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
150	0.00	0.00

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**Manhole Options**

Apply Offset

**Manhole Size Library**

**Default**

**Diameter / Width**

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

**Additional Sizing**

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

**Depth**


Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

**Access**

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230


**Benching Requirements**

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date: 09/10/2023			
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Report Details:	Company Address:			
Type: Outfall Details Storm Phase: Phase	User			

**Outfalls**

Outfall	Outfall Type	Fixed Surcharged Level (m)	Level Curve
BS5	Free Discharge		
AS19	Free Discharge		

Project:	Date: 09/10/2023			
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Report Title: Rainfall Analysis Criteria	User Company Address:			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	<input type="checkbox"/>

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
AS2	FEH: 2 years: +0 %: 15 mins: Summer	72.73 2	70.77 0	70.893	0.123	55.5	0.139	0.000	54.7	24.599	OK
AS4	FEH: 2 years: +0 %: 15 mins: Summer	72.09 6	70.32 6	70.467	0.141	74.5	0.159	0.000	72.5	33.218	OK
AS5	FEH: 2 years: +0 %: 15 mins: Summer	71.27 3	69.55 8	69.716	0.158	74.5	0.179	0.000	71.2	34.032	OK
AS6	FEH: 2 years: +0 %: 15 mins: Summer	70.90 3	68.88 8	69.022	0.134	108.7	0.192	0.000	107.8	51.303	OK
AS9	FEH: 2 years: +0 %: 15 mins: Summer	70.61 7	68.51 7	68.662	0.145	118.4	0.208	0.000	116.0	55.930	OK
AS10	FEH: 2 years: +0 %: 15 mins: Summer	69.93 9	67.98 3	68.135	0.152	120.4	0.218	0.000	117.1	57.854	OK
AS11	FEH: 2 years: +0 %: 15 mins: Summer	69.51 6	67.66 1	67.900	0.239	186.6	0.342	0.000	175.7	91.894	OK
AS17	FEH: 2 years: +0 %: 15 mins: Summer	68.78 4	67.45 0	67.668	0.218	195.4	0.385	0.000	190.0	100.498	OK
AS12	FEH: 2 years: +0 %: 15 mins: Summer	69.91 0	68.46 4	68.586	0.122	23.2	0.138	0.000	21.8	10.095	OK
AS13	FEH: 2 years: +0 %: 15 mins: Summer	70.25 2	68.22 7	68.380	0.153	30.4	0.173	0.000	29.6	13.827	OK
AS14	FEH: 2 years: +0 %: 15 mins: Summer	70.25 6	68.17 4	68.326	0.152	42.9	0.172	0.000	40.3	19.576	OK
AS15	FEH: 2 years: +0 %: 15 mins: Summer	69.88 9	67.96 4	68.087	0.123	41.9	0.139	0.000	41.0	20.254	OK
AS16	FEH: 2 years: +0 %: 15 mins: Summer	69.65 0	67.87 6	68.009	0.133	57.9	0.191	0.000	54.5	27.615	OK
AS7	FEH: 2 years: +0 %: 15 mins: Summer	71.48 9	69.84 9	69.954	0.104	17.1	0.118	0.000	16.4	7.448	OK
AS8	FEH: 2 years: +0 %: 15 mins: Summer	71.52 6	69.66 1	69.747	0.086	24.2	0.098	0.000	22.8	10.848	OK
BS1	FEH: 2 years: +0 %: 15 mins: Summer	69.94 6	68.59 6	68.632	0.036	3.5	0.041	0.000	3.3	1.517	OK
BS2	FEH: 2 years: +0 %: 15 mins: Summer	69.53 6	68.111	68.172	0.061	13.3	0.070	0.000	13.0	5.838	OK
BS3	FEH: 2 years: +0 %: 15 mins: Summer	69.17 4	67.74 9	67.824	0.075	32.7	0.085	0.000	32.3	14.424	OK
AS1	FEH: 2 years: +0 %: 15 mins: Summer	72.80 0	70.92 6	71.030	0.104	16.3	0.118	0.000	15.6	7.099	OK
AS3	FEH: 2 years: +0 %: 15 mins: Summer	73.18 7	71.31 3	71.390	0.077	23.6	0.087	0.000	23.1	10.251	OK
BS5	FEH: 2 years: +0 %: 15 mins: Summer	67.44 4	66.97 0	66.987	0.017	0.4	0.000	0.000	0.4	0.489	OK
AS19	FEH: 2 years: +0 %: 15 mins: Summer	67.61 5	67.10 0	67.130	0.030	1.9	0.000	0.000	1.9	1.721	OK
BS4	FEH: 2 years: +0 %: 15 mins: Summer	68.50 0	66.84 0	67.241	0.401	4.7	0.709	0.000	0.5	0.579	Surcharged
AS18	FEH: 2 years: +0 %: 15 mins: Summer	68.65 0	66.98 0	67.269	0.289	5.5	0.510	0.000	1.9	1.896	OK

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Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		



FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Flooded Volume

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
AS2	FEH: 30 years: +35 %: 15 mins: Summer	72.73 2	70.77 0	71.360	0.590	136.4	0.667	0.000	130.4	68.210	Surcharged
AS4	FEH: 30 years: +35 %: 15 mins: Summer	72.09 6	70.32 6	71.034	0.708	185.4	0.801	0.000	176.0	92.070	Surcharged
AS5	FEH: 30 years: +35 %: 15 mins: Summer	71.27 3	69.55 8	70.113	0.555	181.4	0.628	0.000	176.8	94.502	Surcharged
AS6	FEH: 30 years: +35 %: 15 mins: Summer	70.90 3	68.88 8	69.126	0.238	280.5	0.341	0.000	278.6	142.384	OK
AS9	FEH: 30 years: +35 %: 15 mins: Summer	70.61 7	68.51 7	68.772	0.255	308.2	0.365	0.000	303.3	155.225	OK
AS10	FEH: 30 years: +35 %: 15 mins: Summer	69.93 9	67.98 3	68.285	0.302	315.8	0.431	0.000	312.1	160.579	OK
AS11	FEH: 30 years: +35 %: 15 mins: Summer	69.51 6	67.66 1	68.113	0.452	499.5	0.647	0.000	476.1	255.213	OK
AS17	FEH: 30 years: +35 %: 15 mins: Summer	68.78 4	67.45 0	67.836	0.386	530.6	0.682	0.000	519.5	279.039	OK
AS12	FEH: 30 years: +35 %: 15 mins: Summer	69.91 0	68.46 4	68.949	0.485	64.5	0.549	0.000	60.3	28.006	Surcharged
AS13	FEH: 30 years: +35 %: 15 mins: Summer	70.25 2	68.22 7	68.566	0.338	84.2	0.383	0.000	82.0	38.353	Surcharged
AS14	FEH: 30 years: +35 %: 15 mins: Summer	70.25 6	68.17 4	68.449	0.275	118.9	0.312	0.000	114.7	54.333	OK
AS15	FEH: 30 years: +35 %: 15 mins: Summer	69.88 9	67.96 4	68.200	0.236	119.1	0.267	0.000	116.4	56.230	OK
AS16	FEH: 30 years: +35 %: 15 mins: Summer	69.65 0	67.87 6	68.156	0.280	163.6	0.401	0.000	145.7	76.671	OK
AS7	FEH: 30 years: +35 %: 15 mins: Summer	71.48 9	69.84 9	70.084	0.235	47.5	0.265	0.000	43.8	20.617	Surcharged
AS8	FEH: 30 years: +35 %: 15 mins: Summer	71.52 6	69.66 1	69.827	0.166	65.6	0.188	0.000	62.7	30.079	OK
BS1	FEH: 30 years: +35 %: 15 mins: Summer	69.94 6	68.59 6	68.659	0.063	9.7	0.071	0.000	9.3	4.205	OK
BS2	FEH: 30 years: +35 %: 15 mins: Summer	69.53 6	68.111	68.223	0.112	36.9	0.127	0.000	36.3	16.173	OK
BS3	FEH: 30 years: +35 %: 15 mins: Summer	69.17 4	67.74 9	67.890	0.141	91.1	0.159	0.000	94.2	39.878	OK
AS1	FEH: 30 years: +35 %: 15 mins: Summer	72.80 0	70.92 6	71.455	0.530	45.4	0.599	0.000	35.7	19.692	Surcharged
AS3	FEH: 30 years: +35 %: 15 mins: Summer	73.18 7	71.31 3	71.468	0.156	65.4	0.176	0.000	54.4	28.390	OK

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BS5	FEH: 30 years: +35 %: 15 mins: Summer	67.44 4	66.97 0	66.990	0.020	0.6	0.000	0.000	0.6	0.735	OK
AS19	FEH: 30 years: +35 %: 15 mins: Summer	67.61 5	67.10 0	67.130	0.030	1.9	0.000	0.000	1.9	2.182	OK
BS4	FEH: 30 years: +35 %: 15 mins: Summer	68.50 0	66.84 0	67.490	0.650	2.2	1.148	0.000	0.6	0.811	Surcharged
AS18	FEH: 30 years: +35 %: 15 mins: Summer	68.65 0	66.98 0	67.468	0.488	8.5	0.862	0.000	1.9	2.516	Surcharged

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**FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flooded Volume**


Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
AS2	FEH: 100 years: +40 %: 15 mins: Summer	72.73 2	70.77 0	72.265	1.495	174.5	1.691	0.000	159.0	89.784	Surcharged
AS4	FEH: 100 years: +40 %: 15 mins: Summer	72.09 6	70.32 6	71.808	1.482	231.4	1.676	0.000	218.1	121.198	Flood Risk
AS5	FEH: 100 years: +40 %: 15 mins: Summer	71.27 3	69.55 8	70.466	0.908	225.2	1.027	0.000	219.1	124.415	Surcharged
AS6	FEH: 100 years: +40 %: 15 mins: Summer	70.90 3	68.88 8	69.164	0.276	350.2	0.395	0.000	347.0	187.465	OK
AS9	FEH: 100 years: +40 %: 15 mins: Summer	70.61 7	68.51 7	68.815	0.298	385.9	0.426	0.000	381.7	204.361	OK
AS10	FEH: 100 years: +40 %: 15 mins: Summer	69.93 9	67.98 3	68.336	0.353	398.0	0.505	0.000	390.4	211.416	OK
AS11	FEH: 100 years: +40 %: 15 mins: Summer	69.51 6	67.66 1	68.218	0.557	631.0	0.797	0.000	605.0	336.094	OK
AS17	FEH: 100 years: +40 %: 15 mins: Summer	68.78 4	67.45 0	67.904	0.454	676.7	0.803	0.000	665.7	366.612	OK
AS12	FEH: 100 years: +40 %: 15 mins: Summer	69.91 0	68.46 4	69.332	0.867	84.8	0.981	0.000	79.4	36.858	Surcharged
AS13	FEH: 100 years: +40 %: 15 mins: Summer	70.25 2	68.22 7	68.681	0.454	110.7	0.514	0.000	108.7	50.482	Surcharged
AS14	FEH: 100 years: +40 %: 15 mins: Summer	70.25 6	68.17 4	68.503	0.329	157.2	0.372	0.000	152.1	71.523	OK
AS15	FEH: 100 years: +40 %: 15 mins: Summer	69.88 9	67.96 4	68.276	0.312	157.9	0.353	0.000	151.8	74.027	OK
AS16	FEH: 100 years: +40 %: 15 mins: Summer	69.65 0	67.87 6	68.261	0.385	213.8	0.550	0.000	185.8	100.947	OK
AS7	FEH: 100 years: +40 %: 15 mins: Summer	71.48 9	69.84 9	70.331	0.482	62.4	0.545	0.000	57.8	27.124	Surcharged
AS8	FEH: 100 years: +40 %: 15 mins: Summer	71.52 6	69.66 1	69.914	0.253	86.5	0.287	0.000	77.1	39.613	Surcharged
BS1	FEH: 100 years: +40 %: 15 mins: Summer	69.94 6	68.59 6	68.670	0.074	12.7	0.083	0.000	12.3	5.534	OK
BS2	FEH: 100 years: +40 %: 15 mins: Summer	69.53 6	68.111	68.247	0.136	48.5	0.154	0.000	47.6	21.268	OK
BS3	FEH: 100 years: +40 %: 15 mins: Summer	69.17 4	67.74 9	67.939	0.190	119.6	0.215	0.000	109.5	52.498	OK
AS1	FEH: 100 years: +40 %: 15 mins: Summer	72.80 0	70.92 6	72.380	1.454	59.6	1.644	0.000	43.9	25.933	Surcharged
AS3	FEH: 100 years: +40 %: 15 mins: Summer	73.18 7	71.31 3	72.523	1.210	86.0	1.369	0.000	69.7	37.347	Surcharged

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BS5	FEH: 100 years: +40 %: 15 mins: Summer	67.44 4	66.97 0	66.990	0.020	0.6	0.000	0.000	0.6	0.809	OK
AS19	FEH: 100 years: +40 %: 15 mins: Summer	67.61 5	67.10 0	67.131	0.031	1.9	0.000	0.000	1.9	2.375	OK
BS4	FEH: 100 years: +40 %: 15 mins: Summer	68.50 0	66.84 0	67.579	0.739	3.0	1.306	0.000	0.6	0.910	Surcharged
AS18	FEH: 100 years: +40 %: 15 mins: Summer	68.65 0	66.98 0	67.559	0.579	2.5	1.023	0.000	2.9	2.782	Surcharged

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	Designed by: User	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		




**FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth**

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Pond	FEH: 2 years: +0 %: 1440 mins: Winter	67.566	67.566	0.416	0.416	14.5	369.666	0.000	0.000	2.9	287.766	71.213	OK
Pond (1)	FEH: 2 years: +0 %: 480 mins: Winter	67.503	67.503	0.503	0.503	4.7	39.833	0.000	0.000	0.6	29.201	80.363	OK

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		



**FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Avg. Depth**

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Pond	FEH: 30 years: +35 %: 1440 mins: Winter	68.110	68.110	0.960	0.960	34.1	971.895	0.000	0.000	3.0	430.063	24.315	OK
Pond (1)	FEH: 30 years: +35 %: 960 mins: Winter	67.922	67.922	0.922	0.922	6.8	118.703	0.000	0.000	0.8	78.050	41.480	OK

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		



FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By:  
Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Pond	FEH: 100 years: +40 %: 1440 mins: Winter	68.376	68.376	1.226	1.226	44.6	1319.502	0.000	0.000	3.4	488.343	-2.755	Flood Risk
Pond (1)	FEH: 100 years: +40 %: 960 mins: Winter	68.093	68.093	1.093	1.093	9.0	167.162	0.000	0.000	0.9	85.677	17.591	OK

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
AS1.001	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS2	AS4	72.732	70.897	0.136	27.567	1.8	0.33	57.7	OK
AS1.002	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS4	AS5	72.096	70.471	0.155	37.228	2.1	0.43	76.7	OK
AS1.003	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS5	AS6	71.273	69.722	0.156	38.144	2.0	0.49	75.4	OK
AS1.004	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS6	AS9	70.903	69.026	0.144	57.494	2.2	0.09	114.1	OK
AS1.005	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS9	AS10	70.617	68.667	0.154	62.673	2.1	0.12	122.9	OK
AS1.006	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS10	AS11	69.939	68.141	0.203	64.829	1.5	0.11	124.3	OK
AS1.007	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS11	AS17	69.516	67.909	0.237	102.983	1.8	0.29	187.6	OK
AS4.000	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS12	AS13	69.910	68.591	0.122	11.312	1.0	0.54	23.1	OK
AS4.001	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS13	AS14	70.252	68.385	0.158	15.488	0.8	0.44	31.3	OK
AS4.002	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS14	AS15	70.256	68.331	0.149	21.936	0.9	0.23	42.7	OK
AS4.003	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS15	AS16	69.889	68.091	0.133	22.698	0.9	0.08	43.5	OK
AS4.004	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS16	AS11	69.650	68.014	0.193	30.946	0.7	0.12	58.1	OK
AS3.000	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS7	AS8	71.489	69.957	0.098	8.336	1.0	0.42	17.3	OK
AS3.001	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS8	AS6	71.526	69.750	0.087	12.153	1.7	0.3	24.2	OK
BS1.000	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	BS1	BS2	69.946	68.633	0.036	1.697	1.1	0.13	3.5	OK
BS1.001	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	BS2	BS3	69.536	68.174	0.070	6.527	1.3	0.17	13.7	OK
AS1.000	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS1	AS2	72.800	71.033	0.103	7.959	0.9	0.41	16.5	OK
AS2.000	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS3	AS2	73.187	71.392	0.076	11.483	2.1	0.23	24.4	OK
BS1.004	FEH: 2 years: +0 %: 480 mins: Winter	Pipe	BS4	BS5	68.500	67.503	0.020	28.099	0.4	0.04	0.6	Surcharged

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase		Company Address:	



AS1.010	FEH: 2 years: +0 %: 120 mins: Summer	Pipe	AS18	AS19	68.650	67.382	0.040	31.427	0.8	0.14	2.9	Surcharged
BS1.002	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	BS3	Pond (1)	69.174	67.826	0.142	16.141	1.7	0.25	34.1	OK
BS1.003	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	Pond (1)	BS4	67.000	67.241	0.225	1.372	0.1	0.05	4.7	Surcharged
AS1.009	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	Pond	AS18	67.150	67.269	0.204	2.496	0.1	0.03	5.5	OK
AS1.008	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	AS17	Pond	68.784	67.676	0.159	112.626	3.4	0.24	203.1	OK

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		



**FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Flow**

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
AS1.001	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS2	AS4	72.732	71.503	0.300	76.403	1.9	0.76	133.5	Surcharged
AS1.002	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS4	AS5	72.096	71.156	0.300	103.146	2.6	1.04	182.9	Surcharged
AS1.003	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS5	AS6	71.273	70.176	0.300	105.864	2.6	1.2	185.2	Surcharged
AS1.004	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS6	AS9	70.903	69.134	0.255	159.519	2.6	0.24	292.6	OK
AS1.005	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS9	AS10	70.617	68.781	0.287	173.899	2.4	0.31	318.7	OK
AS1.006	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS10	AS11	69.939	68.293	0.391	179.899	1.7	0.29	325.4	OK
AS1.007	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS11	AS17	69.516	68.132	0.436	285.955	2.3	0.78	504.5	OK
AS4.000	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS12	AS13	69.910	69.021	0.225	31.372	1.6	1.51	63.9	Surcharged
AS4.001	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS13	AS14	70.252	68.585	0.300	42.963	1.2	1.22	87.4	Surcharged
AS4.002	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS14	AS15	70.256	68.459	0.264	60.870	1.3	0.65	121.4	OK
AS4.003	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS15	AS16	69.889	68.213	0.274	62.997	1.0	0.22	122.9	OK
AS4.004	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS16	AS11	69.650	68.175	0.385	85.891	0.8	0.32	155.5	OK
AS3.000	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS7	AS8	71.489	70.114	0.220	23.106	1.2	1.14	46.8	Surcharged
AS3.001	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS8	AS6	71.526	69.835	0.165	33.708	2.1	0.83	66.1	OK

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		




BS1.000	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	BS1	BS2	69.946	68.660	0.063	4.710	1.4	0.35	9.8	OK
BS1.001	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	BS2	BS3	69.536	68.227	0.129	18.115	1.6	0.46	38.3	OK
AS1.000	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS1	AS2	72.800	71.588	0.225	22.061	1.0	0.96	38.7	Surcharged
AS2.000	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS3	AS2	73.187	71.698	0.225	31.806	2.0	0.53	56.3	Surcharged
BS1.004	FEH: 30 years: +35 %: 960 mins: Winter	Pipe	BS4	BS5	68.500	67.922	0.023	76.302	0.4	0.05	0.8	Surcharged
AS1.010	FEH: 30 years: +35 %: 1440 mins: Winter	Pipe	AS18	AS19	68.650	68.110	0.040	428.093	0.8	0.14	3.0	Surcharged
BS1.002	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	BS3	Pond (1)	69.174	67.890	0.225	44.678	2.4	0.7	94.9	OK
BS1.003	FEH: 30 years: +35 %: 60 mins: Winter	Pipe	Pond (1)	BS4	67.000	67.690	0.225	5.695	0.4	0.06	4.9	Surcharged
AS1.009	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	Pond	AS18	67.150	67.503	0.300	3.497	0.7	0.16	30.0	Surcharged
AS1.008	FEH: 30 years: +35 %: 15 mins: Winter	Pipe	AS17	Pond	68.784	67.851	0.298	312.304	4.2	0.66	552.5	OK

Project:	Date: 09/10/2023		
	Designed by: User	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		



FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
AS1.001	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS2	AS4	72.732	72.540	0.300	100.538	2.4	0.95	168.0	Flood Risk
AS1.002	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS4	AS5	72.096	72.041	0.300	135.628	3.3	1.31	230.3	Flood Risk
AS1.003	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS5	AS6	71.273	70.571	0.300	139.204	3.3	1.5	231.3	Surcharged
AS1.004	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS6	AS9	70.903	69.175	0.298	209.826	2.6	0.3	365.7	OK
AS1.005	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS9	AS10	70.617	68.825	0.337	228.755	2.4	0.39	399.0	OK
AS1.006	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS10	AS11	69.939	68.350	0.480	236.648	1.7	0.36	406.9	OK
AS1.007	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS11	AS17	69.516	68.255	0.531	376.284	2.4	0.96	624.8	OK
AS4.000	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS12	AS13	69.910	69.427	0.225	41.288	2.1	1.97	83.6	Surcharged
AS4.001	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS13	AS14	70.252	68.713	0.300	56.544	1.6	1.6	114.6	Surcharged
AS4.002	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS14	AS15	70.256	68.515	0.311	79.878	1.4	0.86	160.6	OK
AS4.003	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS15	AS16	69.889	68.312	0.385	82.849	0.9	0.28	157.1	OK
AS4.004	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS16	AS11	69.650	68.297	0.507	113.023	0.8	0.39	187.9	OK
AS3.000	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS7	AS8	71.489	70.437	0.225	30.385	1.5	1.42	58.3	Surcharged
AS3.001	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS8	AS6	71.526	70.007	0.225	44.371	2.0	1.02	81.3	Surcharged

Project:	Date: 09/10/2023			
	Designed by: User	Checked by:	Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:			

BS1.000	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	BS1	BS2	69.946	68.672	0.074	6.182	1.5	0.47	13.0	OK
BS1.001	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	BS2	BS3	69.536	68.241	0.225	23.815	1.4	0.61	51.0	OK
AS1.000	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS1	AS2	72.800	72.664	0.225	29.030	1.2	1.15	46.5	Flood Risk
AS2.000	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS3	AS2	73.187	72.819	0.225	41.828	2.1	0.7	73.5	Surcharged
BS1.004	FEH: 100 years: +40 %: 960 mins: Winter	Pipe	BS4	BS5	68.500	68.093	0.025	83.577	0.5	0.06	0.9	Surcharged
AS1.010	FEH: 100 years: +40 %: 1440 mins: Winter	Pipe	AS18	AS19	68.650	68.376	0.042	485.905	0.8	0.16	3.4	Flood Risk
BS1.002	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	BS3	Pond (1)	69.174	68.129	0.225	58.799	2.9	0.84	113.5	Surcharged
BS1.003	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Pond (1)	BS4	67.000	67.619	0.225	2.402	1.0	0.11	9.4	Surcharged
AS1.009	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	Pond	AS18	67.150	67.603	0.300	3.939	0.1	0.03	6.2	Surcharged
AS1.008	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	AS17	Pond	68.784	67.917	0.380	409.831	4.3	0.83	695.7	OK