

Project:	Date: 26/03/2024		
	Designed by: LukeFalgate	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Gravity	Company Address:		





AT.10

Type : Porous Paving

Dimensions	
Exceedance Level (m)	238.700
Depth (m)	0.300
Base Level (m)	238.400
Paving Layer Depth (mm)	1
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	123.727
Long. Slope (1:X)	200.00
Width (m)	3.937
Total Volume (m³)	44.801

Under Drain	
Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	2
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets	
Inlet	
Inlet Type	Lateral Inflow
Incoming Item(s)	CA7.03
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets	
Outlet	
Outgoing Connection	Pipe (3)
Outlet Type	Under Drain

Advanced	
Conductivity (m/hr)	300.0

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AT.01

Type : Porous Paving

Dimensions

Exceedance Level (m)	240.200
Depth (m)	0.300
Base Level (m)	239.900
Paving Layer Depth (mm)	1
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	34.160
Long. Slope (1:X)	100.00
Width (m)	7.394
Total Volume (m³)	23.211

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	2
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	CA2.02
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	Pipe (5)
Outlet Type	Under Drain

Advanced

Conductivity (m/hr)	300.0
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Storage area

Type : Porous Paving

Dimensions	
Exceedance Level (m)	240.310
Depth (m)	0.300
Base Level (m)	240.010
Paving Layer Depth (mm)	1
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	73.762
Long. Slope (1:X)	100.00
Width (m)	25.494
Total Volume (m³)	169.791

Under Drain	
Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	4
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet	
Inlet Type	Lateral Inflow
Incoming Item(s)	CA.LD
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet	
Outgoing Connection	Pipe (6)
Outlet Type	Under Drain

Advanced	
Conductivity (m/hr)	300.0

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Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
P2.03	49.665	Pipe	78.213		0.6	375	240.220	238.235
P5.02	9.595	Pipe	95.953		0.6	150	240.300	238.700
P2.04	46.948	Pipe	37.710		0.6	375	239.360	237.600
P2.01	13.802	Pipe	153.360		0.6	150	240.200	238.850
P2.02	23.846	Pipe	79.488		0.6	225	240.200	238.685
P4.01	30.157	Pipe	120.626		0.6	225	240.800	239.000
P7.02	9.824	Pipe	122.803		0.6	150	239.080	237.730
P6.02	7.216	Pipe	23.658		0.6	150	239.330	237.905
P5.03	56.429	Pipe	225.715		0.6	150	240.180	238.600
P6.03	58.739	Pipe	213.597		0.6	150	239.200	237.600
P7.03	56.241	Pipe	173.050		0.6	150	239.080	237.650
P1.01	76.660	Pipe	71.246		0.6	225	239.651	238.226
PP.05	17.424	Pipe	11.169		0.6	225	239.862	238.810
P6.04	67.748	Pipe	90.938		0.6	225	238.930	237.250
PP.04	22.190	Pipe	7.409		0.6	225	239.926	239.500
P5.04	67.667	Pipe	128.890		0.6	300	239.900	238.200
P4.02	74.992	Pipe	205.458		0.6	375	240.400	238.600
Outlet	59.329	Pipe	16.480		0.6	375	236.000	236.600
PAT.02	18.490	Pipe	8.366		0.6	150	241.578	240.670
PAT.03	6.490	Pipe	3.294		0.6	150	241.178	240.670
PAT.04	7.401	Pipe	5.287		0.6	150	240.405	240.000
PAT.05	3.242	Pipe	2.092		0.6	150	240.818	239.900
PAT.06	9.132	Pipe	5.518		0.6	150	240.000	239.560
PAT.07	4.481	Pipe	3.133		0.6	150	239.437	239.030
PAT.09	9.785	Pipe	8.363		0.6	150	239.401	238.900
Pipe (1)	13.725	Pipe	5.625		0.6	300	241.650	240.640
Pipe (2)	25.573	Pipe	11.417		0.6	150	239.738	238.820
Pipe (3)	14.600	Pipe	13.582		0.6	150	239.319	238.400
Pipe (5)	2.976	Pipe	2.611		0.6	150	240.512	239.900
Pipe (6)	11.943	Pipe	7.705		0.6	150	239.818	240.010
Rising Main.01	5.848	No Delay						
Pipe	24.882	Pipe	124.410		0.6	300	234.700	233.600
P2.05	46.950	Pipe	45.805		0.6	450	238.300	236.280
P7.04	65.477	Pipe	36.993		0.6	300	239.080	237.175
P2.06	55.127	Pipe	196.884		0.6	525	236.980	235.180
Pipe (4)	19.174	Pipe	6.489		0.6	150	239.606	238.510
Rising Main.02	99.895	No Delay						
Pipe (9)	17.118	Pipe	7.208		0.6	150	240.502	239.700
Pipe (8)	19.758	Pipe	8.685		0.6	100	241.245	240.100
Pipe (11)	6.832	Pipe	4.408		0.6	300	239.000	238.100
P1.02	104.897	Pipe	174.828		0.6	225	239.400	237.150

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Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
P2.03	239.360	237.600		All		(None)	(None)
P5.02	240.180	238.600		All		(None)	(None)
P2.04	238.300	236.355		All		(None)	(None)
P2.01	240.200	238.760		All		(None)	(None)
P2.02	240.220	238.385		All		(None)	(None)
P4.01	240.400	238.750		All		(None)	(None)
P7.02	239.080	237.650		All		(None)	(None)
P6.02	239.200	237.600		All		(None)	(None)
P5.03	239.900	238.350		All		(None)	(None)
P6.03	238.930	237.325		All		(None)	(None)
P7.03	239.080	237.325		All		(None)	(None)
P1.01	239.400	237.150		All		(None)	(None)
PP.05	239.080	237.250		All	0.0	(None)	(None)
P6.04	238.300	236.505		All		(None)	(None)
PP.04	238.300	236.505		All	0.0	(None)	(None)
P5.04	239.360	237.675		All		(None)	(None)
P4.02	240.220	238.235		All		(None)	(None)
Outlet	234.606	233.000		All	16.4	(None)	(None)
PAT.02	240.220	238.460		None	0.0	(None)	(None)
PAT.03	240.300	238.700		None	0.0	(None)	(None)
PAT.04	240.180	238.600		None	0.0	(None)	(None)
PAT.05	239.900	238.350		None		(None)	(None)
PAT.06	239.330	237.905		None	0.0	(None)	(None)
PAT.07	239.200	237.600		None	0.0	(None)	(None)
PAT.09	239.080	237.730		None	0.0	(None)	(None)
Pipe (1)	239.900	238.200		None	0.0	(None)	(None)
Pipe (2)	238.300	236.580		None	0.0	(None)	(None)
Pipe (3)	239.080	237.325		None	0.0	(None)	(None)
Pipe (5)	240.200	238.760		None	0.0	(None)	(None)
Pipe (6)	240.220	238.460		None	0.0	(None)	(None)
Rising Main.01							
Pipe	234.700	233.400		None		(None)	(None)
P2.05	236.980	235.255		None		(None)	(None)
P7.04	236.980	235.405		None		(None)	(None)
P2.06	237.691	234.900		None		(None)	(None)
Pipe (4)	236.980	235.555		None	0.0	(None)	(None)
Rising Main.02							
Pipe (9)	238.930	237.325		None	0.0	(None)	(None)
Pipe (8)	239.360	237.825		None	0.0	(None)	(None)
Pipe (11)	236.000	236.550		None		(None)	(None)
P1.02	237.750	236.550		None		(None)	(None)

Project:	Date: 26/03/2024			
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Report Title: Rainfall Analysis Criteria	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
Prefill Manhole Sumps	☐
Perform No Discharge Analysis	☐

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Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
CA.BS.03	FEH: 100 years: +40 %: 15 mins: Winter	0.18	104.1	48.044
CA.BS.06	FEH: 100 years: +40 %: 15 mins: Winter	0.18	103.9	47.913
CA.BS.07	FEH: 100 years: +40 %: 15 mins: Winter	0.21	118.4	54.606
CA.BS.09	FEH: 100 years: +40 %: 15 mins: Winter	0.09	50.6	23.344
CA.BS.11	FEH: 100 years: +40 %: 15 mins: Winter	0.18	102.2	47.162
CA1.02	FEH: 100 years: +40 %: 15 mins: Winter	0.05	29.9	13.779
CA2.01	FEH: 100 years: +40 %: 15 mins: Winter	0.03	17.3	7.965
CA3.01	FEH: 100 years: +40 %: 15 mins: Winter	0.06	37.0	17.061
CA2.02	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.9	5.485
CA4.03	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.6	5.368
CA4.01	FEH: 100 years: +40 %: 15 mins: Winter	0.01	3.7	1.714
CA.BS.08	FEH: 100 years: +40 %: 15 mins: Winter	0.09	51.1	23.560
CA6.02	FEH: 100 years: +40 %: 15 mins: Winter	0.02	10.7	4.955
CA.BS.02	FEH: 100 years: +40 %: 15 mins: Winter	0.18	105.7	48.777
CA.BS.04	FEH: 100 years: +40 %: 15 mins: Winter	0.10	55.2	25.472

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CA.BS.10	FEH: 100 years: +40 %: 15 mins: Winter	0.22	124.3	57.368
CA.BS.12	FEH: 100 years: +40 %: 15 mins: Winter	0.08	48.0	22.145
CA4.04	FEH: 100 years: +40 %: 15 mins: Winter	0.01	5.5	2.546
CA1.01	FEH: 100 years: +40 %: 15 mins: Winter	0.03	16.0	7.382
CA5.02	FEH: 100 years: +40 %: 15 mins: Winter	0.02	10.9	5.039
CA6.01	FEH: 100 years: +40 %: 15 mins: Winter	0.01	6.4	2.941
CA7.01	FEH: 100 years: +40 %: 15 mins: Winter	0.01	6.3	2.905
CA5.03	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.0	5.075
CA5.04	FEH: 100 years: +40 %: 15 mins: Winter	0.03	14.5	6.684
CA7.02	FEH: 100 years: +40 %: 15 mins: Winter	0.01	6.7	3.109
CA7.03	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.4	5.263
CA7.04	FEH: 100 years: +40 %: 15 mins: Winter	0.02	13.2	6.074
CA.LD	FEH: 100 years: +40 %: 15 mins: Winter	0.19	107.7	49.669
CA3.02	FEH: 100 years: +40 %: 15 mins: Winter	0.03	18.5	8.551
CA3.03	FEH: 100 years: +40 %: 15 mins: Winter	0.09	53.6	24.754
CA.BS.05	FEH: 100 years: +40 %: 15 mins: Winter	0.09	50.9	23.506
CA6.04	FEH: 100 years: +40 %: 15 mins: Winter	0.02	14.1	6.517

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CA.BS.01	FEH: 100 years: +40 %: 15 mins: Winter	0.10	59.6	27.492
CA4.02	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.0	5.075
CA5.01	FEH: 100 years: +40 %: 15 mins: Winter	0.01	6.6	3.025
CA6.03	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.2	5.164
GIS Sub	FEH: 100 years: +40 %: 15 mins: Winter	0.05	27.7	12.776
Option 1 Pond	FEH: 100 years: +40 %: 15 mins: Summer	0.17	92.6	40.084

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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
P2.03	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	2.03	2.04	240.220	238.417	0.177	75.325	1.9	0.43	98.2	OK
P5.02	FEH: 100 years: +40 %: 120 mins: Winter	Pipe	5.01	5.02	240.300	238.727	0.038	8.246	0.4	0.07	1.3	OK
P2.04	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	2.04	2.05	239.360	237.766	0.173	89.045	2.6	0.37	120.5	OK
P2.01	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	2.01	2.02	240.200	239.012	0.140	7.594	0.9	1.12	15.9	Surcharged
P2.02	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	2.02	2.03	240.200	238.768	0.081	8.095	1.2	0.26	15.4	OK
P4.01	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	4.01	4.02	240.800	239.074	0.072	4.584	0.9	0.22	10.2	OK
P7.02	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	7.01	7.02	239.080	237.763	0.035	5.829	0.6	0.1	1.7	OK
P6.02	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	6.01	6.02	239.330	237.921	0.031	2.605	0.3	0.02	0.9	OK
P5.03	FEH: 100 years: +40 %: 120 mins: Winter	Pipe	5.02	5.03	240.180	238.650	0.049	16.841	0.6	0.23	2.7	OK
P6.03	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	6.02	6.03	239.200	237.648	0.046	8.042	0.5	0.21	2.6	OK
P7.03	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	7.02	7.03	239.080	237.686	0.036	5.366	0.5	0.12	1.6	OK
P1.01	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	1.01	1.02	239.651	238.300	0.130	7.325	0.6	0.24	15.0	OK
PP.05	FEH: 100 years: +40 %: 960 mins: Winter	Pipe	BS.05	7.03	239.862	239.013	0.025	264.929	1.7	0.03	4.0	OK
P6.04	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	6.03	2.05	238.930	237.317	0.066	7.301	1.0	0.18	10.1	OK

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PP.04	FEH: 100 years: +40 %: 960 mins: Winter	Pipe	BS.04	2.05	239.926	239.559	0.013	74.414	1.3	0.01	1.2	OK
P5.04	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	5.03	2.04	239.900	238.266	0.078	7.122	0.7	0.11	10.4	OK
P4.02	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	4.02	2.03	240.400	238.819	0.214	65.246	1.3	0.6	83.8	OK
Outlet	FEH: 100 years: +40 %: 1440 mins: Winter	Pipe	Pond	Outfall	236.000	237.610	0.050	2468.357	2.2	0.04	19.3	Flood Risk
PAT.02	FEH: 100 years: +40 %: 360 mins: Winter	Pipe	AT.02	2.03	241.578	240.748	0.015	20.769	1.4	0.02	1.2	OK
PAT.03	FEH: 100 years: +40 %: 120 mins: Winter	Pipe	AT.03	5.01	241.178	240.785	0.019	8.617	1.3	0.01	1.3	OK
PAT.04	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	AT.04	5.02	240.405	240.134	0.033	6.100	1.4	0.02	1.8	OK
PAT.05	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	AT.05	5.03	240.818	239.900	0.000	0.000	0.0	0	0.0	OK
PAT.06	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	AT.06	6.01	240.000	239.665	0.013	2.968	1.3	0.01	0.9	OK
PAT.07	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	AT.07	6.02	239.437	239.161	0.031	5.943	1.7	0.02	1.7	OK
PAT.09	FEH: 100 years: +40 %: 60 mins: Winter	Pipe	AT.09	7.01	239.401	239.046	0.025	6.228	1.2	0.03	1.7	OK
Pipe (1)	FEH: 100 years: +40 %: 480 mins: Winter	Pipe	BS.01	5.03	241.650	240.841	0.037	198.731	1.1	0.01	4.9	OK
Pipe (2)	FEH: 100 years: +40 %: 15 mins: Summer	Pipe	AT.08	2.05	239.738	238.820	0.000	0.000	0.0	0	0.0	OK
Pipe (3)	FEH: 100 years: +40 %: 120 mins: Winter	Pipe	AT.10	7.03	239.319	238.461	0.011	3.976	0.9	0.01	0.5	OK
Pipe (5)	FEH: 100 years: +40 %: 120 mins: Winter	Pipe	AT.01	2.02	240.512	239.992	0.012	9.888	2.1	0.01	1.4	OK
Pipe (6)	FEH: 100 years: +40 %: 480 mins: Winter	Pipe	Storage area	2.03	239.818	240.173	0.026	137.936	2.0	0.06	4.1	Surcharged
Rising Main.01	FEH: 100 years: +40 %: 15 mins: Summer	No Delay	3.03	4.02		233.723	0.193	55.419	0.0		75.0	

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Pipe	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	3.01	3.03	234.700	234.476	0.300	61.776	1.9	1.34	133.6	Flood Risk
P2.05	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	2.05	2.06	238.300	236.554	0.450	142.105	2.6	0.48	228.7	OK
P7.04	FEH: 100 years: +40 %: 360 mins: Winter	Pipe	7.03	2.06	239.080	237.210	0.035	150.216	1.2	0.03	5.3	OK
P2.06	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	2.06	2.07	236.980	236.492	0.525	148.120	1.6	0.63	217.6	Surcharged
Pipe (4)	FEH: 100 years: +40 %: 960 mins: Winter	Pipe	BS.06	2.06	239.606	238.680	0.023	226.860	2.1	0.05	3.5	Surcharged
Rising Main.02	FEH: 100 years: +40 %: 15 mins: Summer	No Delay	2.07	Manhole		235.945	0.042	134.563	0.0		115.0	
Pipe (9)	FEH: 100 years: +40 %: 960 mins: Winter	Pipe	BS.03	6.03	240.502	239.910	0.025	257.727	2.1	0.06	4.1	Surcharged
Pipe (8)	FEH: 100 years: +40 %: 480 mins: Winter	Pipe	BS.02	2.04	241.245	240.266	0.032	184.622	2.1	0.22	4.7	Surcharged
Pipe (11)	FEH: 30 years: +0 %: 15 mins: Winter	Pipe	Manhole	Pond	239.000	238.210	0.124	80.413	5.4	0.22	115.1	OK
P1.02	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	1.02	Pond	239.400	237.336	0.160	20.774	1.2	0.92	35.9	OK

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Report Details:	Company Address:			
Type: Stormwater Control Results Storm Phase: Gravity				



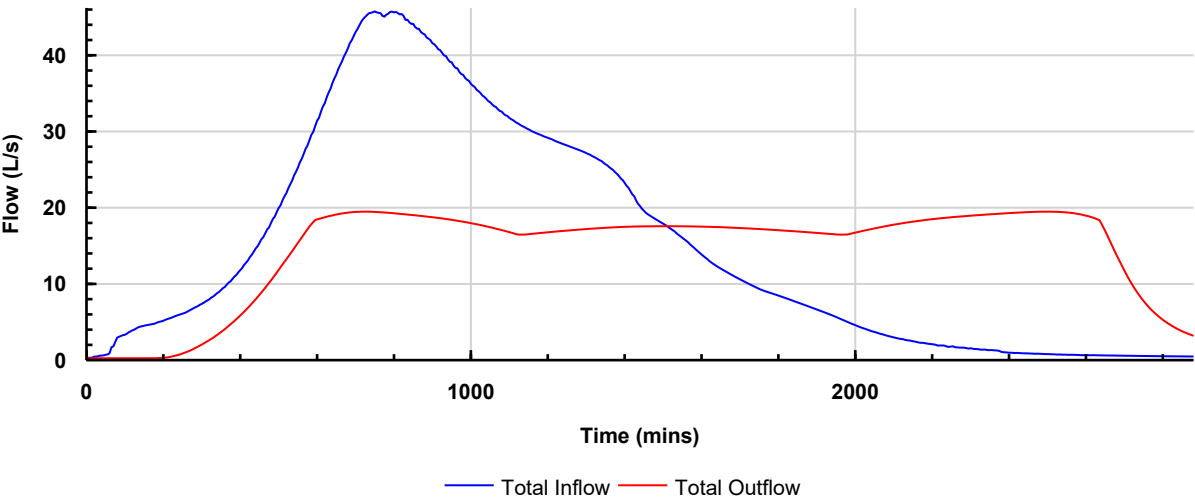
Pond

Critical Storm: FEH: 100 years: Increase Rainfall (%): +40: 1440 mins: Winter

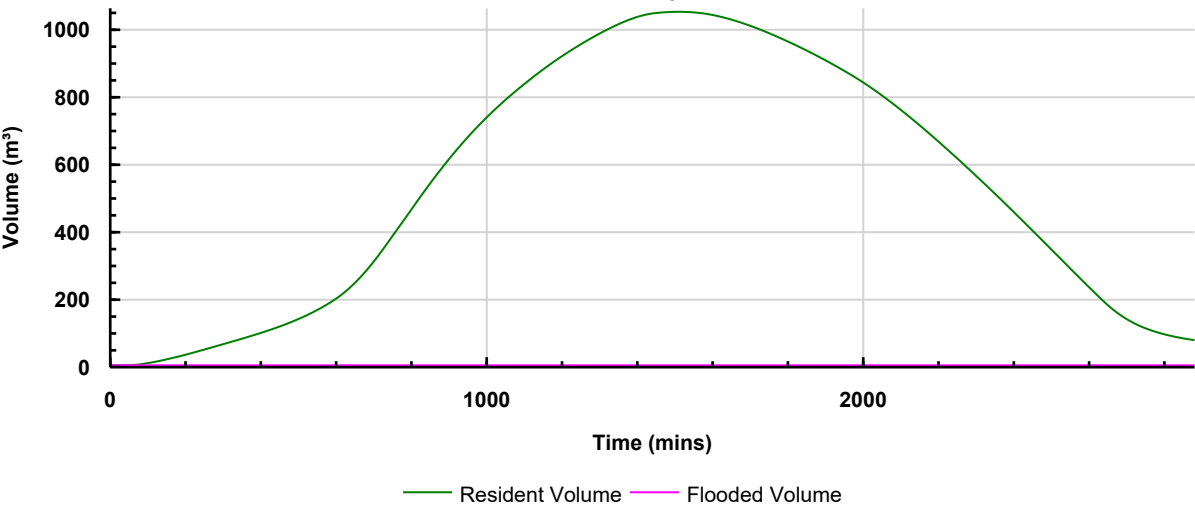
Type : Pond

Graphs

Flow Graph



Volume Graph



Project:	Date: 26/03/2024			
	Designed by: LukeFalgate	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Stormwater Control Results Storm Phase: Gravity				

