

Project: Regent's Park James Avenue Calne		Date: 05/12/2025			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: TF	Checked by: AM		Approved By: RB
		Company Address: 2 York House Dorcan Way Swindon			

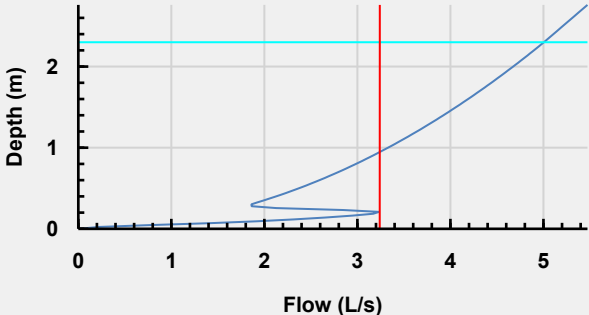
Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
EX MH	Manhole	400783.709	171173.077	74.000	2.100	71.900	Circular	1.200
FC	Manhole	400772.108	171169.269	74.000	1.973	72.027	Circular	1.200
S6	Manhole	400760.745	171165.537	74.000	1.950	72.050	Circular	1.200
S5	Manhole	400755.521	171160.955	74.000	1.940	72.060	Circular	1.200
S4	Manhole	400753.648	171155.238	74.000	1.930	72.070	Circular	1.200
S3	Manhole	400755.570	171148.684	74.000	1.920	72.080	Circular	1.200
S2	Manhole	400768.722	171134.845	74.300	2.180	72.120	Circular	1.200
S1	Manhole	400778.399	171114.767	74.500	2.330	72.170	Circular	1.200
Manhole (11)	Manhole	400762.615	171131.482	74.250	0.750	73.500	Circular	1.200
Manhole (13)	Manhole	400794.572	171118.271	74.800	0.450	74.350	Circular	1.200
Manhole (15)	Manhole	400804.412	171127.759	74.800	0.450	74.350	Circular	1.200
Manhole (18)	Manhole	400784.689	171128.301	74.950	0.850	74.100	Circular	1.200
Manhole (20)	Manhole	400776.062	171136.576	74.850	1.300	73.550	Circular	1.200
Manhole (22)	Manhole	400777.452	171164.211	74.450	0.800	73.650	Circular	1.200
Manhole (25)	Manhole	400728.052	171136.543	74.000	1.050	72.950	Circular	1.200
Manhole (26)	Manhole	400727.186	171124.800	73.950	0.600	73.350	Circular	1.200
Manhole (28)	Manhole	400737.060	171108.453	74.300	0.700	73.600	Circular	1.200
Manhole (29)	Manhole	400760.504	171107.554	74.850	0.850	74.000	Circular	1.200
Manhole (31)	Manhole	400726.091	171100.390	74.300	0.550	73.750	Circular	1.200
Manhole (34)	Manhole	400754.796	171115.057	74.500	0.900	73.600	Circular	1.200
Manhole (14)	Manhole	400754.870	171141.904	74.300	1.000	73.300	Circular	1.200
Manhole (29) (1)	Manhole	400769.706	171104.479	74.950	1.750	73.200	Circular	1.200
Manhole (34) (1)	Manhole	400746.329	171125.070	74.600	0.800	73.800	Circular	1.200
Manhole (22) (1)	Manhole	400774.092	171164.193	74.450	0.900	73.550	Circular	1.200
Manhole	Manhole	400793.754	171114.133	74.700	0.900	73.800	Circular	1.200
Manhole (1)	Manhole	400749.414	171155.943	74.100	1.600	72.500	Circular	1.200

Name	Lock
EX MH	None
FC	None
S6	None
S5	None
S4	None
S3	None
S2	None
S1	None
Manhole (11)	None
Manhole (13)	None
Manhole (15)	None
Manhole (18)	None
Manhole (20)	None
Manhole (22)	None
Manhole (25)	None
Manhole (26)	None
Manhole (28)	None
Manhole (29)	None
Manhole (31)	None
Manhole (34)	None
Manhole (14)	None
Manhole (29) (1)	None
Manhole (34) (1)	None
Manhole (22) (1)	None
Manhole	None
Manhole (1)	None

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Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
FC	Outlet	Pipe (16)	Hydro-Brake®
	Invert Level (m)	72.027	
	Design Depth (m)	2.300	
	Design Flow (L/s)	5.0	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☐	
	Unit Reference	CHE-0083-5000-2300-5000	
			
S6	Outlet	1.005	Free Discharge
S5	Outlet	1.004	Free Discharge
S4	Outlet	1.003	Free Discharge
S3	Outlet	1.002	Free Discharge
S2	Outlet	1.001	Free Discharge
S1	Outlet	1.000	Free Discharge
Manhole (11)	Outlet	Pipe (24)	Free Discharge
Manhole (13)	Outlet	Pipe (33)	Free Discharge
Manhole (15)	Outlet	Pipe (31)	Free Discharge
Manhole (18)	Outlet	Pipe (29)	Free Discharge
Manhole (20)	Outlet	Pipe (21)	Free Discharge
Manhole (22)	Outlet	Pipe (17)	Free Discharge
Manhole (25)	Outlet	Pipe (20)	Free Discharge
Manhole (26)	Outlet	Pipe (5)	Free Discharge
Manhole (28)	Outlet	Pipe (18)	Free Discharge
Manhole (29)	Outlet	Pipe (1)	Free Discharge
Manhole (31)	Outlet	Pipe (3)	Free Discharge
Manhole (34)	Outlet	Pipe (6)	Free Discharge
Manhole (14)	Outlet	Pipe (8)	Free Discharge
Manhole (29) (1)	Outlet	Pipe (4)	Free Discharge
Manhole (34) (1)	Outlet	Pipe (7)	Free Discharge
Manhole (22) (1)	Outlet	Pipe (23)	Free Discharge
Manhole	Outlet	Pipe (9)	Free Discharge
Manhole (1)	Outlet	Pipe (10)	Free Discharge

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Porous Paving 7

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.700
Depth (m)	0.900
Base Level (m)	73.800
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	28.035
Long. Slope (1:X)	10000.00
Width (m)	8.848
Total Volume (m³)	57.651

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Outlets

Outlet

Outgoing Connection	Pipe
Outlet Type	Under Drain

Advanced

Conductivity (m/hr)	500.0
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Porous Paving 6

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.300
Depth (m)	1.100
Base Level (m)	73.200
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	40.443
Long. Slope (1:X)	10000.00
Width (m)	7.224
Total Volume (m³)	85.523

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Outlets

Outlet

Outgoing Connection	Pipe (2)
Outlet Type	Under Drain

Advanced

Conductivity (m/hr)	500.0
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Porous Paving 4

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.250
Depth (m)	0.480
Base Level (m)	73.770
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	12.705
Long. Slope (1:X)	10000.00
Width (m)	3.024
Total Volume (m³)	4.034

Outlets

Outlet

Outgoing Connection	Pipe (25)
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	500.0
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Porous Paving 2

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.100
Depth (m)	0.480
Base Level (m)	73.620
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	6.912
Long. Slope (1:X)	10000.00
Width (m)	3.392
Total Volume (m³)	2.462

Outlets

Outlet

Outgoing Connection	Pipe (26)
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	500.0
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Porous Paving 3

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.050
Depth (m)	0.480
Base Level (m)	73.570
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	8.367
Long. Slope (1:X)	10000.00
Width (m)	8.183
Total Volume (m³)	7.189

Outlets

Outlet

Outgoing Connection	Pipe (19)
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	500.0
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Porous Paving 5

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.450
Depth (m)	0.480
Base Level (m)	73.970
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	10.742
Long. Slope (1:X)	10000.00
Width (m)	4.267
Total Volume (m³)	4.813

Outlets

Outlet

Outgoing Connection	Pipe (27)
Outlet Type	Free Discharge

Advanced

Conductivity (m/hr)	500.0
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Porous Paving 1

Type : Porous Paving

Dimensions

Exceedance Level (m)	74.150
Depth (m)	1.650
Base Level (m)	72.500
Paving Layer Depth (mm)	130
Membrane Percolation (m/hr)	2.5
Porosity (%)	30
Length (m)	30.453
Long. Slope (1:X)	10000.00
Width (m)	8.651
Total Volume (m³)	120.518

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Outlets

Outlet

Outgoing Connection	Pipe (22)
Outlet Type	Under Drain

Advanced

Conductivity (m/hr)	500.0
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Project: Regent's Park James Avenue Calne	Date: 05/12/2025		
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Report Title: Rainfall Analysis Criteria	Company Address: 2 York House Dorcan Way Swindon		

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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	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	21.0
Ratio R	0.400
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640
5760	11520
7200	14400
8640	17280
10080	20160

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Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. Avg. Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Avg. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)
Porous Paving 7	FSR: 100 years: +45 %: 30 mins: Winter	73.938	73.920	73.930	0.135	0.120	0.130	15.8	9.683	0.000	0.000	6.3	10.484	20
Porous Paving 6	FSR: 100 years: +45 %: 240 mins: Winter	73.887	73.887	73.885	0.683	0.687	0.685	9.1	60.054	0.000	0.000	4.5	33.741	1030
Porous Paving 4	FSR: 100 years: +45 %: 180 mins: Winter	74.026	73.881	73.938	0.255	0.111	0.168	1.2	1.938	0.000	0.000	0.7	4.511	30
Porous Paving 2	FSR: 100 years: +45 %: 240 mins: Winter	73.899	73.885	73.891	0.278	0.265	0.271	1.1	1.909	0.000	0.000	1.0	6.033	27
Porous Paving 3	FSR: 100 years: +45 %: 240 mins: Winter	73.892	73.885	73.888	0.321	0.315	0.318	1.9	6.531	0.000	0.000	1.4	10.499	160
Porous Paving 5	FSR: 100 years: +45 %: 60 mins: Winter	74.298	73.989	74.174	0.327	0.019	0.204	4.1	2.808	0.000	0.000	2.2	5.659	17
Porous Paving 1	FSR: 100 years: +45 %: 240 mins: Winter	73.886	73.886	73.884	1.383	1.386	1.384	14.7	109.427	0.000	0.000	2.6	27.396	

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Percentage Available (%)	Status
83.204	OK
29.781	OK
51.971	OK
22.472	OK
9.159	OK
41.653	OK
9.203	OK