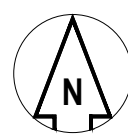


Appendix H – Drainage Strategy Plans and Calculations



DO NOT SCALE OFF THIS DRAWING

GENERAL NOTES:

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- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

CDM 2015 RESIDUAL RISKS

- All areas of live traffic and pedestrian movements shall be subject to appropriate traffic management barriers and signs.
- Access points onto live public highway.
- Unauthorised access to the site must be prevented at all times.
- Existing road drainage to be maintained.
- Be aware of possible live drainage flows and foul effluent during construction. The Contractor shall assess and implement a safe working system and equipment (PPE) as necessary.

The above residual risks are for non-standard hazards. It is assumed that a competent contractor familiar with the construction of this type of work will be appointed who will be aware of the standard hazards.

DRAINAGE KEY	
	Site Boundary
	Existing Foul Water Sewer
	Adoptable S104 Foul Water Manhole & Pipe Refer to schedule for size/ types and cover details
	Adoptable S104 Foul Water Rising Main
	Adoptable S104 Surface Water Manhole & Pipe Refer to schedule for size/ types and cover details
	Hydrobrake Manhole (see plan for restricted rate)
	Surface Water Road Gully
	Private Foul Water Inspection Chamber & Pipe
	Private Surface Water Inspection Chamber & Pipe
	Private Surface Water Rodding Eye
	Proposed Fin Drain
	Precast Concrete Headwall
	Minimum 300mm Deep Permeable Block Paving
	Tree Root Protection Area
	Existing Vegetation To Be Retained
	Proposed Rain Garden - Depth Varies - See drawing 3195-015-5014 for catchment areas
	Proposed Dropped Kerb - 0mm Upstand

A01	RAIN GARDENS AMENDED	NS	HA	SB	25/09/2026
A02	UPDATED HEADWALL LEVELS LOCATION	NS	TZ	SB	27/07/2026
A02	UPDATED HEADWALL LOCATION	NS	TZ	SB	23/07/2026
A01	ISSUED FOR APPROVAL	NS	TZ	SB	21/07/2026
Rev	Comment	By	Chkd	Appr	Date

APPROVAL

THAKEHAM HOMES

robert west
proesgroup

1 Paris Garden
London
SE1 8ND
t: 0203 773 7880
www.robertwest.co.uk

Project
COLLEGE LANE
HURSTPIERPOINT

Drawing Title
PROPOSED DRAINAGE LAYOUT

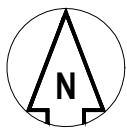
RWCL Internal Register reference: 3195 -015

Scales @ A1

5001 -A04

Scale 1:500 @ A1 - 1:1000 @ A3

10m 0 10m 20m 30m 40m 50m



Positively Drained Surface Area	Interception method	Details of How Standard 2 is Met
Driveways and Private Roads	Permeable surfaces	No additional area drained. 6012m ² of permeable paving provides 6012m ² of interception
Roads and Footways, Houses	Rain Gardens	1995m ² of rain gardens provide 9975m ² of interception. This is from 36 separate rain gardens. Rain gardens intercept via vegetation, mulch and engineered soil.
Houses, Roads, Footways	Basins with Bioretention	531m ² of basins (excluding permanently wetted areas) with bioretention media provide 2655m ² of interception. This is via 2 basins. Basins with bioretention media provides interception via vegetation, surface storage layer and filter media.

Item	Factor	Area	total
Basin w/ Bioretention	5	531	2655
PP	1	6012	6012
Rain Gardens	5	1995	9975
SUM			18642
Total Area to be Drained (including SuDS)			21549
Percentage Interception Provided			87%

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CDM 2015 RESIDUAL RISKS

- All areas of live traffic and pedestrian movements shall be subject to appropriate traffic management barriers and signs.
- Access points onto live public highway.
- Unauthorised access to the site must be prevented at all times
- Existing road drainage to be maintained.
- Be aware of possible live drainage flows and foul effluent during construction. The Contractor shall assess and implement a safe working system and equipment (PPE) as necessary.

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Key:

- Site Boundary
- Surface Water Flood Extant
- Self Servicing Permeable Paving with 300mm Deep 30% Voided Subbase
- Rain Gardens with Fully Perforated Pipe Running at Invert
- Rain Gardens Catchment Areas

AM	ISSUED FOR APPROVAL	HA	HA	SB	25/09/2026
A03	ISSUED FOR APPROVAL	HA	SB	SB	23/09/2026
A02	ISSUED FOR APPROVAL	HA	SB	SB	21/09/2026
A01	ISSUED FOR APPROVAL	HA	SB	SB	20/08/2026
Rev	Comment	By	Chkd	Appr	Date

APPROVAL

THAKEHAM HOMES

robert west
proesgroup

1 Paris Garden
London
SE1 1ND
t: 0203 773 7880
www.robertwest.co.uk

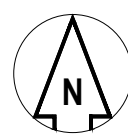
Project
COLLEGE LANE
HURSTPIERPOINT

Drawing Title
INTERCEPTION AREAS PLAN

RWCL Internal Register reference: 3195 -015 Scales @ A1

5014 -A02

Scale 1:500 @ A1 - 1:1000 @ A3
10m 0 10m 20m 30m 40m 50m



DO NOT SCALE OFF THIS DRAWING

GENERAL NOTES:

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- The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
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CDM 2015 RESIDUAL RISKS

- All areas of live traffic and pedestrian movements shall be subject to appropriate traffic management barriers and signs.
- Access points onto live public highway.
- Unauthorised access to the site must be prevented at all times.
- Existing road drainage to be maintained.
- Be aware of possible live drainage flows and foul effluent during construction. The Contractor shall assess and implement a safe working system and equipment (PPE) as necessary.

The above residual risks are for non-standard hazards. It is assumed that a competent contractor familiar with the construction of this type of work will be appointed who will be aware of the standard hazards.

LEVELS KEY

- Site Boundary
- Existing Topographical Survey Level
- Proposed Spot Level around building edge
- Proposed Gradient & direction of fall
- Finished Floor Level
- Contours at 50mm intervals
- Proposed Bank
- Proposed Steps & Number
- Max 450mm Gravel Board
- Proposed Retaining Wall
- Proposed Extra Facing Brickwork with Number of Courses
- Proposed Stepped DPC with Number of Courses
- Proposed Tanking with Number of Courses
- Tree Root Protection

- Part M Level Access - Indicates the gradient is less than or equal to 1:20
- Part M Ramped Access - Indicates the gradient is between 1:20 & 1:12. Ramp length of 2m at a gradient of 1:12, increasing linearly to a maximum of 10m at 1:20
- Part M Stepped Access - Indicates steps required

Front Entrances

- All Plots, except M4(3) have been provided with a 1.2m x 1.2m level access landing (not exceeding 1:60) as per Part M requirements.
- All M4(3) Plots have been provided with a 1.5m x 1.5m level access landing (not exceeding 1:60) as per Part M requirements.

Rear Entrances

- All Plots, except M4(3) have been provided with a 150mm step down to the patio
- All M4(3) Plots have been provided with a level threshold
- All rear patios to fall 1:60 away from property.

NOTE:
All levels subject to changes of plus or minus 300mm at detailed design stage

A03	UPDATED TO NEW SITE LAYOUT	NS	HA	SB	23/09/2026
A02	UPDATED TO NEW SITE LAYOUT	NS	PJ	SB	21/09/2026
A01	ISSUED FOR APPROVAL	NS	TZ	SB	21/07/2026
P01	ISSUED FOR INFORMATION	NS	SB	SB	23/04/2026
Rev	Comment	By	Chkd	Appr	Date

APPROVAL

THAKEHAM HOMES

robert west
proesgroup
1 Paris Garden
London
SE1 1ND
t: 0203 773 7880
www.robertwest.co.uk

Project
COLLEGE LANE
HURSTPIERPOINT

Drawing Title
PROPOSED LEVELS

RWCL Internal Register reference: 3195 -015

Scales @ A1

5011 -A03

Scale 1:500 @ A1 - 1:1000 @ A3

10m 0 10m 20m 30m 40m 50m

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Size (mm)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
S13	0.065	1500	Type B	49.046	46.266	2.255	529177.748	116029.914
S12	0.269	1500	Type B	49.206	45.862	2.819	529164.226	116036.272
S29	0.022	1500	Type B	49.004	45.828	2.651	529161.501	116049.417
S15	0.058	1500	Type B	48.750	45.795	2.430	529165.434	116062.163
S14	0.111	1200	Type B	47.850	45.850	1.775	529207.824	116077.808
S16	0.040	1500	Type B	48.093	45.568	2.300	529183.896	116088.210
S17	0.015	1500	Type B	47.816	45.483	1.808	529182.360	116100.846
S21	0.110	1350	Type C	47.831	46.406	1.200	529131.806	116131.661
S18	0.025	1500	Type B	47.693	45.056	2.412	529172.955	116108.920
S19	0.000	1500	Type B	47.827	45.002	2.300	529176.524	116116.142
S20	0.455	---	Type C	46.235	44.700	1.009	529181.745	116126.926
S22	0.000	---	Type C	46.235	44.700	1.010	529258.859	116103.261
S23	0.080	---	Type C	46.200	44.630	1.045	529281.280	116088.787
S32	0.120	1350	Type C	51.278	49.573	1.480	529232.344	115932.357
S1	0.040	1200	Type B	51.310	49.360	1.725	529217.350	115938.858
S2	0.051	1200	Type C	50.802	49.227	1.350	529194.738	115950.110
S3	0.091	1350	Type C	49.734	48.234	1.200	529203.979	115974.245
S4	0.056	1350	Type B	48.402	46.235	1.867	529221.807	116007.415
S36	0.078	1350	Type C	48.310	46.875	1.210	529316.409	115960.195
S9	0.059	1350	Type C	47.753	46.023	1.417	529313.397	115980.206
S10	0.068	1350	Type B	47.973	45.964	1.634	529295.273	115982.781
S34	0.118	1350	Type B	48.407	45.882	2.075	529260.881	115992.435
S11	0.008	1350	Type B	48.556	45.800	2.305	529235.771	115999.450
S5	0.148	1350	Type B	48.394	45.774	2.170	529236.287	116007.034
S6	0.064	1350	Type B	47.278	45.248	1.580	529259.385	116053.779
S7	0.043	1350	Type B	46.784	44.664	1.670	529269.512	116073.674
S8	0.000	---	Unknown	46.200	44.630	1.120	529279.570	116079.855
S38	0.056	1350	Type C	46.398	44.882	1.292	529323.043	116033.314
S37	0.017	1350	Type C	45.832	44.817	0.790	529325.895	116046.482
S30	0.084	1350	Type C	46.184	44.699	1.260	529302.878	116059.682
S31	0.000	---	Type C	46.200	44.630	1.345	529298.269	116071.304
S24	0.000	---	Type C	46.200	44.630	1.045	529307.223	116071.004
S28	0.000	2100	Type C	45.789	44.587	0.977	529310.089	116064.672
S26	0.000	1350	Type C	45.800	44.540	1.035	529320.470	116060.181
S39	0.000	1350	Type C	45.311	44.441	0.645	529340.130	116053.908
S27	0.000	1350	Type C	44.908	44.337	0.346	529362.859	116056.147
S25	0.000	---	Type C	44.800	44.290	0.285	529366.404	116065.855

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (mm)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	S13	46.266	S12	45.862	Circ	525	14.942	37	0.600	2.255	2.819
1.001	S12	45.862	S29	45.828	Circ	525	13.425	395	0.600	2.819	2.651
1.002	S29	45.828	S15	45.795	Circ	525	13.338	400	0.600	2.651	2.430
1.003	S15	45.795	S16	45.568	Circ	525	31.927	141	0.600	2.430	2.000
2.000	S14	45.850	S16	45.568	Circ	225	26.091	93	0.600	1.775	2.300
1.004	S16	45.568	S17	45.483	Circ	525	12.729	150	0.600	2.000	1.808
1.005	S17	45.483	S18	45.056	Circ	525	12.395	29	0.600	1.808	2.112
3.000	S21	46.406	S18	45.056	Circ	225	47.015	35	0.600	1.200	2.412
1.006	S18	45.056	S19	45.002	Circ	525	8.056	149	0.600	2.112	2.300
1.007	S19	45.002	S20	44.700	Circ	525	11.981	40	0.600	2.300	1.009
1.008	S20	44.700	S22	44.700	Circ	525	80.664	Flat	0.600	1.009	1.010
1.009	S22	44.700	S23	44.630	Circ	525	26.687	383	0.600	1.010	1.045
1.010	S23	44.630	S24	44.630	Circ	525	31.452	Flat	0.600	1.045	1.045
4.000	S32	49.573	S1	49.360	Circ	225	16.342	77	0.600	1.480	1.725
4.001	S1	49.360	S2	49.227	Circ	225	25.257	189	0.600	1.725	1.350
4.002	S2	49.227	S3	48.309	Circ	225	25.843	28	0.600	1.350	1.200
4.003	S3	48.234	S4	46.235	Circ	300	37.658	19	0.600	1.200	1.867
4.004	S4	46.235	S5	45.774	Circ	450	14.484	31	0.600	1.717	2.170
5.000	S36	46.875	S9	46.112	Circ	225	20.236	27	0.600	1.210	1.417
5.001	S9	46.023	S10	45.964	Circ	375	18.306	311	0.600	1.355	1.634

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (mm)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
5.002	S10	45.964	S34	45.882	Circ	450	35.722	435	0.600	1.559	2.075
5.003	S34	45.882	S11	45.800	Circ	450	26.071	319	0.600	2.075	2.305
5.004	S11	45.800	S5	45.774	Circ	450	7.601	289	0.600	2.305	2.170
4.005	S5	45.774	S6	45.248	Circ	450	52.141	99	0.600	2.170	1.580
4.006	S6	45.248	S7	44.664	Circ	450	22.324	38	0.600	1.580	1.670
4.007	S7	44.664	S8	44.630	Circ	450	11.805	351	0.600	1.670	1.120
4.008	S8	44.630	S24	44.630	Circ	525	29.035	Flat	0.600	1.045	1.045
6.000	S38	44.882	S37	44.817	Circ	225	13.473	209	0.600	1.292	0.790
6.001	S37	44.817	S30	44.699	Circ	225	26.533	225	0.600	0.790	1.260
6.002	S30	44.699	S31	44.630	Circ	225	12.502	182	0.600	1.260	1.345
6.003	S31	44.630	S24	44.630	Circ	525	8.958	Flat	0.600	1.045	1.045
1.011	S24	44.630	S28	44.587	Circ	525	6.950	161	0.600	1.045	0.677
1.012	S28	44.587	S26	44.540	Circ	225	11.311	241	0.600	0.977	1.035
1.013	S26	44.540	S39	44.441	Circ	225	20.636	208	0.600	1.035	0.645
1.014	S39	44.441	S27	44.337	Circ	225	22.839	220	0.600	0.645	0.346
1.015	S27	44.337	S25	44.290	Circ	225	10.335	220	0.600	0.346	0.285

Permeable Paving Schedule

Permeable Paving	Assigned Manhole	Effective Storage Volume (m3)	CL (m)	IL (m)	Storage Infil Rate (m/hr)	Safety Factor	Easting (m)	Northing (m)
Permeable Paving 41	S13	7.949	49.046	48.666	0.00000000	2.00	529201.553	116007.190
Permeable Paving 40	S13	3.150	49.046	48.666	0.00000000	2.00	529187.444	116014.674
Permeable Paving 4	S12	4.725	49.206	48.576	0.00000000	2.00	529137.569	116010.390
Permeable Paving 5	S12	14.098	49.206	48.576	0.00000000	2.00	529144.566	116034.229
Permeable Paving 42	S12	4.725	49.206	48.576	0.00000000	2.00	529143.918	116022.632
Permeable Paving 54	S12	178.603	49.206	48.576	0.00000000	2.00	529151.072	115982.586
Permeable Paving 39	S15	7.564	48.750	48.320	0.00000000	2.00	529153.308	116056.501
Permeable Paving 34	S14	7.621	47.850	47.470	0.00000000	2.00	529200.221	116044.741
Permeable Paving 35	S14	7.232	47.850	47.470	0.00000000	2.00	529212.795	116068.716
Permeable Paving 36	S14	3.654	47.850	47.470	0.00000000	2.00	529225.316	116082.696
Permeable Paving 55	S14	52.080	47.850	47.470	0.00000000	2.00	529211.191	116086.683
Permeable Paving 38	S16	8.017	48.093	47.663	0.00000000	2.00	529160.732	116079.395
Permeable Paving 37	S18	10.833	47.693	47.313	0.00000000	2.00	529166.289	116099.928
Permeable Paving 6	S32	5.902	51.278	50.898	0.00000000	2.00	529269.775	115927.728
Permeable Paving 7	S32	6.266	51.278	50.898	0.00000000	2.00	529246.718	115935.592
Permeable Paving 56	S32	26.719	51.278	50.898	0.00000000	2.00	529266.785	115920.288
Permeable Paving 8	S1	3.809	51.310	50.930	0.00000000	2.00	529235.964	115949.442
Permeable Paving 44	S2	2.637	50.802	50.422	0.00000000	2.00	529183.590	115956.118
Permeable Paving 43	S2	3.307	50.802	50.422	0.00000000	2.00	529187.021	115959.022
Permeable Paving 10	S3	5.328	49.734	49.354	0.00000000	2.00	529192.895	115965.846
Permeable Paving 12	S3	5.328	49.734	49.354	0.00000000	2.00	529199.248	115978.097
Permeable Paving 13	S3	6.301	49.734	49.354	0.00000000	2.00	529216.485	115975.600
Permeable Paving 14	S3	3.153	49.734	49.354	0.00000000	2.00	529200.738	115987.169
Permeable Paving 11	S3	7.942	49.734	49.354	0.00000000	2.00	529209.504	115961.824
Permeable Paving 50	S4	3.150	48.402	48.022	0.00000000	2.00	529210.721	116025.135
Permeable Paving 19	S36	13.735	48.310	47.930	0.00000000	2.00	529308.177	115948.961
Permeable Paving 20	S36	6.563	48.310	47.930	0.00000000	2.00	529302.780	115925.469
Permeable Paving 59	S36	28.681	48.310	47.930	0.00000000	2.00	529316.517	115950.557
Permeable Paving 18	S9	3.171	47.753	47.373	0.00000000	2.00	529301.598	115973.521
Permeable Paving 17	S10	6.300	47.973	47.593	0.00000000	2.00	529283.885	115975.828
Permeable Paving 23	S34	3.207	48.407	48.027	0.00000000	2.00	529283.893	115998.068
Permeable Paving 25	S34	6.303	48.407	48.027	0.00000000	2.00	529268.665	116000.350
Permeable Paving 45	S34	46.432	48.407	47.977	0.00000000	2.00	529255.709	115960.962
Permeable Paving 15	S11	8.313	48.556	48.176	0.00000000	2.00	529237.021	115988.011
Permeable Paving 48	S5	4.993	48.394	48.014	0.00000000	2.00	529253.646	116024.635
Permeable Paving 49	S5	3.157	48.394	48.014	0.00000000	2.00	529252.194	116015.610
Permeable Paving 32	S6	5.043	47.278	46.898	0.00000000	2.00	529240.971	116031.246
Permeable Paving 33	S6	3.150	47.278	46.898	0.00000000	2.00	529234.429	116024.823
Permeable Paving 46	S6	5.041	47.278	46.898	0.00000000	2.00	529262.510	116041.709
Permeable Paving 47	S6	2.733	47.278	46.898	0.00000000	2.00	529258.089	116033.187
Permeable Paving 51	S6	2.736	47.278	46.898	0.00000000	2.00	529245.393	116039.771
Permeable Paving 52	S6	5.040	47.278	46.898	0.00000000	2.00	529250.949	116050.486
Permeable Paving 53	S6	3.255	47.278	46.898	0.00000000	2.00	529251.201	116057.543
Permeable Paving 30	S7	9.007	46.784	46.404	0.00000000	2.00	529246.440	116075.100
Permeable Paving 58	S7	12.635	46.784	46.404	0.00000000	2.00	529251.463	116086.916

Permeable Paving Schedule

Permeable Paving	Assigned Manhole	Effective Storage Volume (m3)	CL (m)	IL (m)	Storage Infil Rate (m/hr)	Safety Factor	Easting (m)	Northing (m)
Permeable Paving 21	S38	7.744	46.398	46.018	0.00000000	2.00	529299.692	116001.124
Permeable Paving 22	S38	3.836	46.398	46.018	0.00000000	2.00	529303.957	116016.645
Permeable Paving 60	S38	20.291	46.398	46.018	0.00000000	2.00	529312.582	116015.038
Permeable Paving 27	S30	10.853	46.184	45.804	0.00000000	2.00	529312.434	116048.505
Permeable Paving 28	S30	8.489	46.184	45.804	0.00000000	2.00	529295.797	116048.629
Permeable Paving 29	S30	10.572	46.184	45.804	0.00000000	2.00	529282.996	116058.369
Permeable Paving 57	S30	30.325	46.184	45.804	0.00000000	2.00	529310.972	116057.688

Outfall Details

Outfall Manhole S25 : Surcharged (Constant Level)

Surcharged Constant

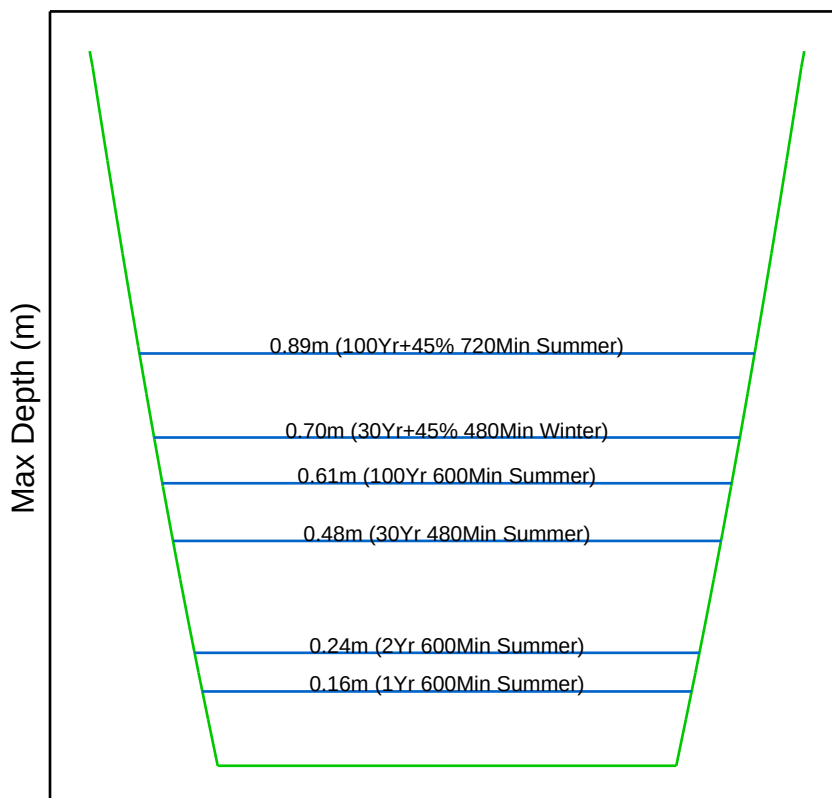
Water Elevation (m)	Water Depth (m)
44.660	0.370

Flow Control Details

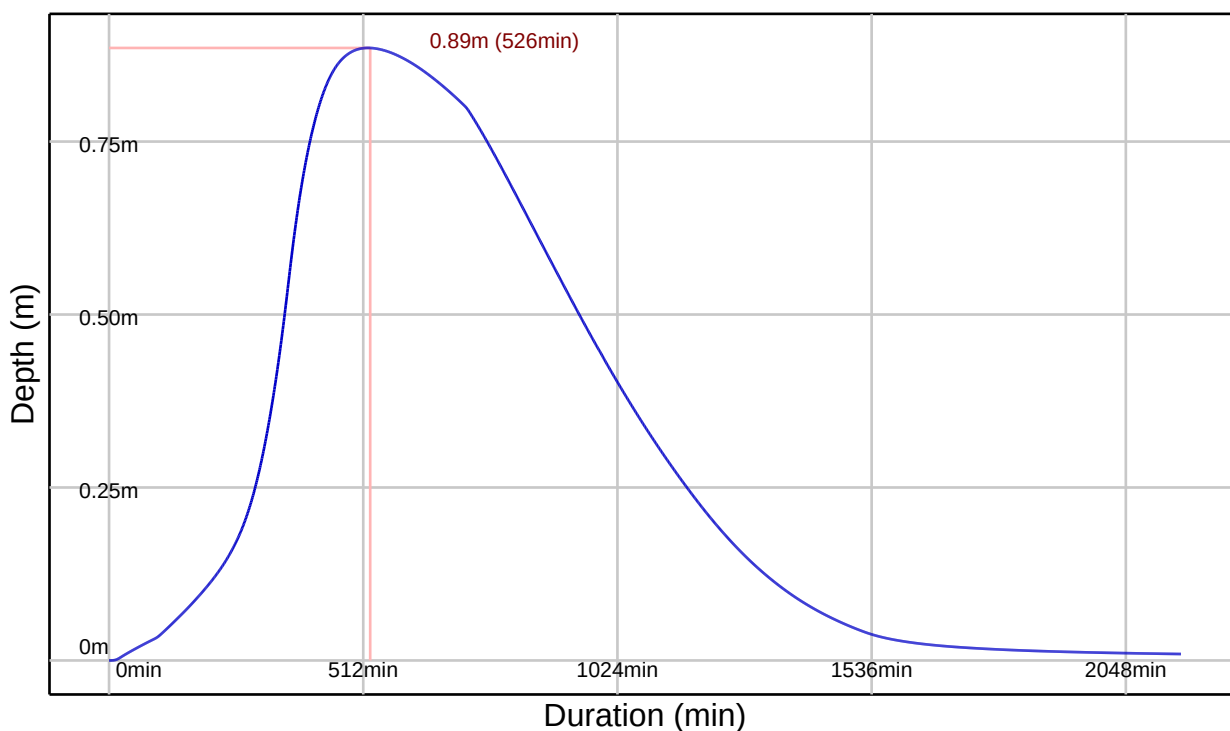
Pond Structure at Manhole S22

Pond Invert (m)	Max Depth (m)	Volume To Water Level (m3)	Water Level (m)	Freeboard (m)	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
44.700	1.535	1205.659	45.885	0.350	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at S22



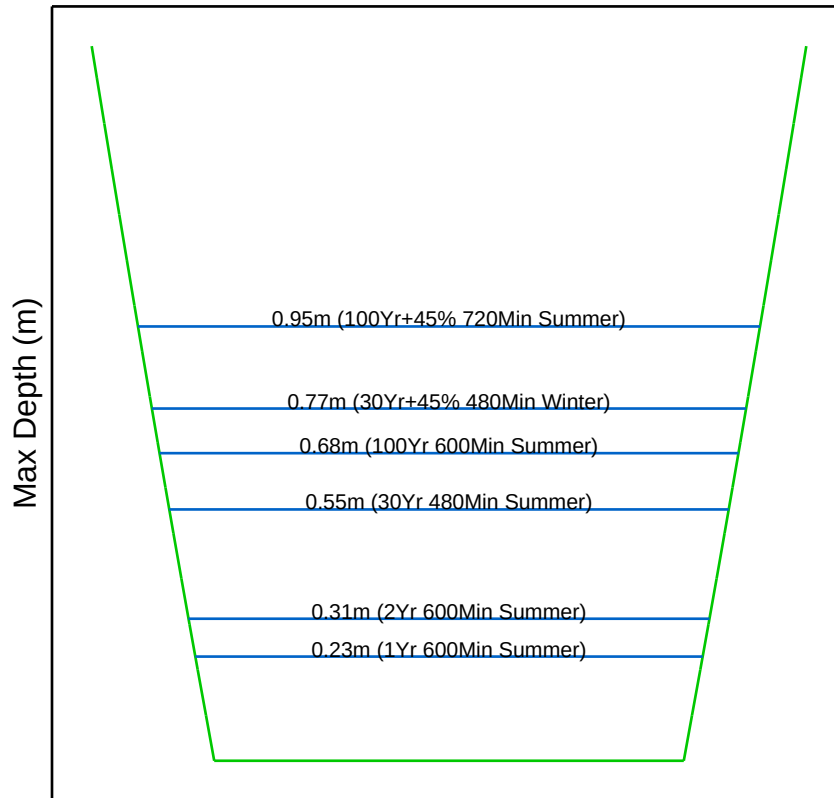
Pond 5 at S22 (100Yr+45% 720Min Summer)



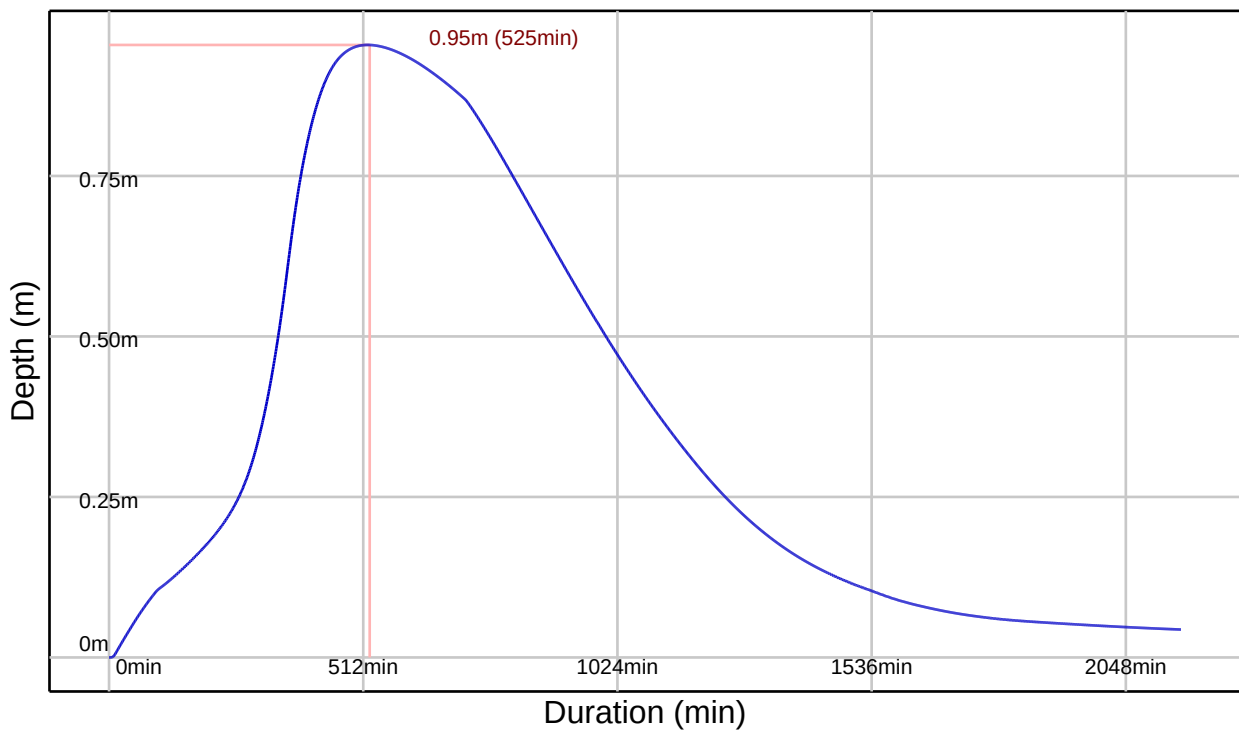
Pond Structure at Manhole S24

Pond Invert (m)	Max Depth (m)	Volume To Water Level (m3)	Water Level (m)	Freeboard (m)	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
44.630	1.570	620.758	45.850	0.350	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at S24



Pond 4 at S24 (100Yr+45% 720Min Summer)

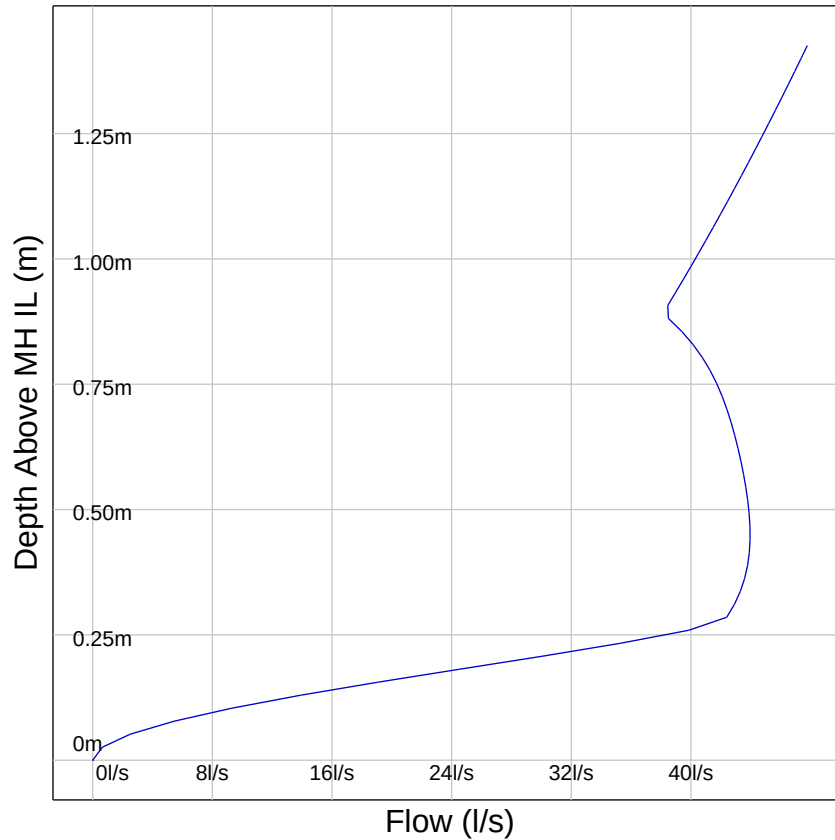


Controls within Manhole S28

Hydro-Brake® Optimum Control

Model Ref	Design Depth (m)	Design Flow (l/s)	Invert Offset (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
SHE-0277-4400-1200-4400	1.200	44.000	0.000	0.449	43.959	0.890	38.104

Hydro-Brake® Optimum Control from S28 to S26



Simulation Settings

FEH2022 (point): Filename=FEH_Point_Descriptors_529190_115961_v5_1_0.xml

Summer (Cv min: 0.30, max: 1.00), Winter (Cv min: 0.30, max: 1.00)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880

Return Periods (yrs) + Climate Change: (1, +0%), (2, +0%), (30, +0%), (30, +45%), (100, +0%), (100, +45%)

Manhole Flood Risk Freeboard: 0.300m

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
1Yr 15Min Winter	15.840	0.00	0.61	30Yr+45% 15Min Summer	116.504	0.00	0.35
1Yr 15Min Summer	15.840	0.00	0.62	30Yr+45% 15Min Winter	116.504	0.00	0.35
1Yr 30Min Winter	10.609	0.00	0.52	30Yr+45% 30Min Summer	77.675	0.00	0.27
1Yr 30Min Summer	10.609	0.00	0.52	30Yr+45% 30Min Winter	77.675	0.00	0.26
1Yr 60Min Winter	6.689	0.00	0.41	30Yr+45% 60Min Summer	49.190	0.00	0.33
1Yr 60Min Summer	6.689	0.00	0.43	30Yr+45% 60Min Winter	49.190	0.00	0.26
1Yr 120Min Summer	5.523	0.00	0.26	30Yr+45% 120Min Summer	30.236	0.00	0.21
1Yr 120Min Winter	5.523	0.00	0.25	30Yr+45% 120Min Winter	30.236	0.00	0.21
1Yr 180Min Summer	4.763	0.00	0.19	30Yr+45% 180Min Winter	22.605	0.00	0.16
1Yr 180Min Winter	4.763	0.00	0.20	30Yr+45% 180Min Summer	22.605	0.00	0.17
1Yr 240Min Winter	4.038	0.00	0.16	30Yr+45% 240Min Summer	18.363	0.00	0.16
1Yr 240Min Summer	4.038	0.00	0.15	30Yr+45% 240Min Winter	18.363	0.00	0.14
1Yr 360Min Summer	3.249	0.00	0.12	30Yr+45% 360Min Summer	13.603	0.00	0.10
1Yr 360Min Winter	3.249	0.00	0.10	30Yr+45% 360Min Winter	13.603	0.00	0.14
1Yr 480Min Summer	2.749	0.00	0.09	30Yr+45% 480Min Summer	10.972	0.00	0.11
1Yr 480Min Winter	2.749	0.00	0.07	30Yr+45% 480Min Winter	10.972	0.00	0.13
1Yr 600Min Winter	2.369	0.00	0.05	30Yr+45% 600Min Summer	9.271	0.00	0.10
1Yr 600Min Summer	2.369	0.00	0.08	30Yr+45% 600Min Winter	9.271	0.00	0.12
1Yr 720Min Summer	2.083	0.00	0.07	30Yr+45% 720Min Winter	8.067	0.00	0.11
1Yr 720Min Winter	2.083	0.00	0.03	30Yr+45% 720Min Summer	8.067	0.00	0.09
1Yr 960Min Summer	1.715	0.00	0.04	30Yr+45% 960Min Winter	6.473	0.00	0.07
1Yr 960Min Winter	1.715	0.00	0.01	30Yr+45% 960Min Summer	6.473	0.00	0.10
1Yr 1440Min Summer	1.305	0.00	0.01	30Yr+45% 1440Min Winter	4.742	0.00	0.12
1Yr 1440Min Winter	1.305	0.00	-0.03	30Yr+45% 1440Min Summer	4.742	0.00	0.06
1Yr 2160Min Summer	1.001	0.00	-0.04	30Yr+45% 2160Min Winter	3.489	0.00	0.15
1Yr 2160Min Winter	1.001	0.00	-0.06	30Yr+45% 2160Min Summer	3.489	0.00	0.07
1Yr 2880Min Winter	0.841	0.00	-0.03	30Yr+45% 2880Min Winter	2.816	0.00	0.08
1Yr 2880Min Summer	0.841	0.00	-0.08	30Yr+45% 2880Min Summer	2.816	0.00	0.11
2Yr 15Min Summer	32.400	0.00	0.52	100Yr 15Min Winter	101.090	0.00	0.35
2Yr 15Min Winter	32.400	0.00	0.49	100Yr 15Min Summer	101.090	0.00	0.35
2Yr 30Min Summer	21.200	0.00	0.43	100Yr 30Min Winter	67.770	0.00	0.27
2Yr 30Min Winter	21.200	0.00	0.42	100Yr 30Min Summer	67.770	0.00	0.26
2Yr 60Min Summer	13.400	0.00	0.30	100Yr 60Min Winter	43.185	0.00	0.48
2Yr 60Min Winter	13.400	0.00	0.32	100Yr 60Min Summer	43.185	0.00	0.42
2Yr 120Min Summer	9.461	0.00	0.21	100Yr 120Min Summer	26.025	0.00	0.26
2Yr 120Min Winter	9.461	0.00	0.22	100Yr 120Min Winter	26.025	0.00	0.25
2Yr 180Min Summer	7.617	0.00	0.17	100Yr 180Min Summer	19.277	0.00	0.22
2Yr 180Min Winter	7.617	0.00	0.18	100Yr 180Min Winter	19.277	0.00	0.22
2Yr 240Min Summer	6.309	0.00	0.15	100Yr 240Min Summer	15.641	0.00	0.18
2Yr 240Min Winter	6.309	0.00	0.15	100Yr 240Min Winter	15.641	0.00	0.19
2Yr 360Min Summer	4.856	0.00	0.12	100Yr 360Min Summer	11.613	0.00	0.16
2Yr 360Min Winter	4.856	0.00	0.12	100Yr 360Min Winter	11.613	0.00	0.16
2Yr 480Min Summer	4.009	0.00	0.10	100Yr 480Min Summer	9.413	0.00	0.14
2Yr 480Min Winter	4.009	0.00	0.09	100Yr 480Min Winter	9.413	0.00	0.16
2Yr 600Min Winter	3.421	0.00	0.07	100Yr 600Min Summer	8.004	0.00	0.11
2Yr 600Min Summer	3.421	0.00	0.09	100Yr 600Min Winter	8.004	0.00	0.14
2Yr 720Min Summer	2.991	0.00	0.08	100Yr 720Min Summer	7.006	0.00	0.11
2Yr 720Min Winter	2.991	0.00	0.06	100Yr 720Min Winter	7.006	0.00	0.14
2Yr 960Min Summer	2.426	0.00	0.06	100Yr 960Min Summer	5.667	0.00	0.13
2Yr 960Min Winter	2.426	0.00	0.02	100Yr 960Min Winter	5.667	0.00	0.13
2Yr 1440Min Summer	1.807	0.00	0.02	100Yr 1440Min Summer	4.194	0.00	0.09
2Yr 1440Min Winter	1.807	0.00	-0.00	100Yr 1440Min Winter	4.194	0.00	0.16
2Yr 2160Min Summer	1.357	0.00	-0.03	100Yr 2160Min Winter	3.101	0.00	0.05
2Yr 2160Min Winter	1.357	0.00	-0.11	100Yr 2160Min Summer	3.101	0.00	0.11

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
2Yr 2880Min Summer	1.119	0.00	-0.06	100Yr 2880Min Summer	2.496	0.00	0.47
2Yr 2880Min Winter	1.119	0.00	-0.05	100Yr 2880Min Winter	2.496	0.00	-0.02
30Yr 15Min Summer	80.348	0.00	0.34	100Yr+45% 15Min Summer	146.581	0.00	0.36
30Yr 15Min Winter	80.348	0.00	0.35	100Yr+45% 15Min Winter	146.581	0.00	0.36
30Yr 30Min Summer	53.569	0.00	0.29	100Yr+45% 30Min Summer	98.266	0.00	0.37
30Yr 30Min Winter	53.569	0.00	0.29	100Yr+45% 30Min Winter	98.266	0.00	0.32
30Yr 60Min Summer	33.924	0.00	0.22	100Yr+45% 60Min Summer	62.618	0.00	0.23
30Yr 60Min Winter	33.924	0.00	0.22	100Yr+45% 60Min Winter	62.618	0.00	0.23
30Yr 120Min Summer	20.852	0.00	0.21	100Yr+45% 120Min Winter	37.737	0.00	0.17
30Yr 120Min Winter	20.852	0.00	0.20	100Yr+45% 120Min Summer	37.737	0.00	0.17
30Yr 180Min Winter	15.590	0.00	0.39	100Yr+45% 180Min Winter	27.952	0.00	0.14
30Yr 180Min Summer	15.590	0.00	0.35	100Yr+45% 180Min Summer	27.952	0.00	0.13
30Yr 240Min Summer	12.664	0.00	0.32	100Yr+45% 240Min Winter	22.679	0.00	0.11
30Yr 240Min Winter	12.664	0.00	0.30	100Yr+45% 240Min Summer	22.679	0.00	0.12
30Yr 360Min Summer	9.382	0.00	0.23	100Yr+45% 360Min Summer	16.838	0.00	0.10
30Yr 360Min Winter	9.382	0.00	0.24	100Yr+45% 360Min Winter	16.838	0.00	0.10
30Yr 480Min Summer	7.567	0.00	0.22	100Yr+45% 480Min Winter	13.649	0.00	0.09
30Yr 480Min Winter	7.567	0.00	0.23	100Yr+45% 480Min Summer	13.649	0.00	0.10
30Yr 600Min Summer	6.394	0.00	0.26	100Yr+45% 600Min Winter	11.605	0.00	0.09
30Yr 600Min Winter	6.394	0.00	0.27	100Yr+45% 600Min Summer	11.605	0.00	0.08
30Yr 720Min Summer	5.564	0.00	0.25	100Yr+45% 720Min Winter	10.158	0.00	0.08
30Yr 720Min Winter	5.564	0.00	0.28	100Yr+45% 720Min Summer	10.158	0.00	0.09
30Yr 960Min Summer	4.464	0.00	0.27	100Yr+45% 960Min Winter	8.218	0.00	0.08
30Yr 960Min Winter	4.464	0.00	0.18	100Yr+45% 960Min Summer	8.218	0.00	0.07
30Yr 1440Min Summer	3.270	0.00	0.07	100Yr+45% 1440Min Winter	6.082	0.00	0.05
30Yr 1440Min Winter	3.270	0.00	0.03	100Yr+45% 1440Min Summer	6.082	0.00	0.07
30Yr 2160Min Summer	2.407	0.00	0.01	100Yr+45% 2160Min Winter	4.497	0.00	0.08
30Yr 2160Min Winter	2.407	0.00	-0.01	100Yr+45% 2160Min Summer	4.497	0.00	0.05
30Yr 2880Min Summer	1.942	0.00	0.00	100Yr+45% 2880Min Summer	3.619	0.00	0.06
30Yr 2880Min Winter	1.942	0.00	-0.04	100Yr+45% 2880Min Winter	3.619	0.00	0.08

Simulation Results

Return Period (yrs) + Climate Change (%):

1yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S13	15 min Summer	8	46.294	0.028	5.003		OK
S12	15 min Summer	9	45.918	0.056	6.095		OK
S29	15 min Summer	9	45.892	0.064	8.201		OK
S15	15 min Summer	9	45.853	0.059	11.518		OK
S14	15 min Summer	8	45.889	0.039	3.753		OK
S16	15 min Summer	9	45.642	0.074	17.758		OK
S17	15 min Summer	9	45.533	0.050	19.019		OK
S21	15 min Summer	8	46.456	0.051	10.282		OK
S18	15 min Summer	10	45.155	0.099	28.061		OK
S19	15 min Summer	11	45.128	0.126	23.873		OK
S20	15 min Summer	11	45.122	0.422	38.793		OK
S22	600 min Summer	392	44.860	0.160	6.989		OK
S23	720 min Summer	461	44.860	0.229	6.575		OK
S32	15 min Summer	8	49.626	0.053	7.609		OK
S1	15 min Summer	8	49.444	0.083	10.941		OK
S2	15 min Summer	9	49.286	0.059	14.800		OK
S3	15 min Summer	9	48.290	0.056	20.618		OK
S4	15 min Summer	9	46.297	0.062	25.416		OK
S36	15 min Summer	8	46.900	0.025	2.696		OK
S9	15 min Summer	8	46.087	0.064	7.863		OK
S10	15 min Summer	9	46.052	0.088	13.197		OK
S34	15 min Summer	9	45.974	0.092	17.171		OK
S11	15 min Summer	9	45.908	0.108	17.017		OK
S5	15 min Summer	9	45.901	0.128	54.904		OK
S6	15 min Summer	9	45.345	0.097	57.940		OK
S7	15 min Summer	10	44.877	0.213	58.087		OK
S8	720 min Summer	459	44.860	0.229	7.200		OK
S38	15 min Summer	8	44.918	0.036	2.220		OK
S37	15 min Summer	9	44.866	0.049	3.694		OK
S30	600 min Summer	397	44.859	0.160	1.328		OK
S31	600 min Summer	395	44.859	0.229	1.330		OK
S24	600 min Summer	395	44.859	0.229	16.354		OK
S28	480 min Summer	348	44.879	0.292	15.095		Surcharged
S26	600 min Summer	399	44.711	0.171	16.127		OK
S39	600 min Summer	394	44.694	0.253	15.937		Surcharged
S27	600 min Summer	389	44.671	0.334	15.921		Flood Risk
S25	15 min Winter	0	44.660	0.370	7.475		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	S13	S12	0.042	0.615	4.969	0.006	OK
1.001	15 min Summer	9	S12	S29	0.060	0.450	6.196	0.026	OK
1.002	15 min Summer	9	S29	S15	0.061	0.582	8.259	0.034	OK
1.003	15 min Summer	9	S15	S16	0.066	0.723	11.500	0.028	OK
2.000	15 min Summer	9	S14	S16	0.056	0.508	3.702	0.069	OK
1.004	15 min Summer	9	S16	S17	0.062	1.224	17.681	0.045	OK
1.005	15 min Summer	10	S17	S18	0.074	1.063	18.971	0.021	OK
3.000	15 min Summer	10	S21	S18	0.073	0.992	10.169	0.115	OK
1.006	15 min Summer	11	S18	S19	0.110	1.405	30.120	0.076	OK
1.007	15 min Summer	11	S19	S20	0.274	0.426	32.083	0.042	OK
1.008	15 min Summer	14	S20	S22	0.215	1.293	55.823	8.929	OK
1.009	720 min Summer	528	S22	S23	0.194	0.170	9.507	0.039	OK
1.010	600 min Summer	443	S23	S24	0.229	0.120	9.675	0.918	OK
4.000	15 min Summer	8	S32	S1	0.068	0.747	7.554	0.127	OK
4.001	15 min Summer	9	S1	S2	0.071	1.005	10.779	0.286	OK
4.002	15 min Summer	9	S2	S3	0.059	1.816	14.932	0.152	OK
4.003	15 min Summer	9	S3	S4	0.059	2.101	20.687	0.080	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
4.004	15 min Summer	9	S4	S5	0.095	1.069	25.507	0.044	OK
5.000	15 min Summer	8	S36	S9	0.025	1.125	2.659	0.026	OK
5.001	15 min Summer	9	S9	S10	0.076	0.485	7.759	0.069	OK
5.002	15 min Summer	9	S10	S34	0.090	0.596	13.446	0.087	OK
5.003	15 min Summer	9	S34	S11	0.100	0.650	17.017	0.095	OK
5.004	15 min Summer	10	S11	S5	0.118	0.561	17.228	0.091	OK
4.005	15 min Summer	9	S5	S6	0.112	1.757	54.620	0.168	OK
4.006	15 min Summer	10	S6	S7	0.155	1.217	57.410	0.110	OK
4.007	15 min Summer	10	S7	S8	0.221	0.768	58.596	0.342	OK
4.008	720 min Summer	459	S8	S24	0.229	0.307	18.822	1.709	OK
6.000	15 min Summer	9	S38	S37	0.042	0.425	2.184	0.061	OK
6.001	600 min Summer	397	S37	S30	0.101	0.245	1.513	0.044	OK
6.002	600 min Summer	397	S30	S31	0.192	0.205	3.096	0.081	OK
6.003	600 min Summer	395	S31	S24	0.229	0.126	3.447	0.165	OK
1.011	600 min Summer	397	S24	S28	0.259	0.519	37.375	0.098	OK
1.012	600 min Summer	407	S28	S26	0.155	0.630	17.877	0.537	OK
1.013	600 min Summer	399	S26	S39	0.198	0.441	16.305	0.455	OK
1.014	600 min Summer	397	S39	S27	0.225	0.403	16.008	0.459	OK
1.015	720 min Summer	458	S27	S25	0.225	0.402	15.976	0.459	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 41	360 min Summer	201	48.678	0.012	0.186			OK
Permeable Paving 40	180 min Summer	103	48.674	0.008	0.099			OK
Permeable Paving 4	180 min Summer	100	48.584	0.008	0.113			OK
Permeable Paving 5	180 min Summer	103	48.598	0.023	0.517			OK
Permeable Paving 42	180 min Summer	100	48.584	0.008	0.113			OK
Permeable Paving 54	480 min Summer	294	48.645	0.069	2.718			OK
Permeable Paving 39	180 min Summer	101	48.351	0.031	0.797			OK
Permeable Paving 34	360 min Summer	200	47.482	0.012	0.182			OK
Permeable Paving 35	360 min Summer	199	47.481	0.011	0.177			OK
Permeable Paving 36	240 min Summer	133	47.478	0.008	0.113			OK
Permeable Paving 55	600 min Summer	363	47.494	0.024	0.545			OK
Permeable Paving 38	180 min Summer	105	47.680	0.017	0.335			OK
Permeable Paving 37	360 min Summer	205	47.327	0.013	0.221			OK
Permeable Paving 6	360 min Summer	196	50.908	0.010	0.153			OK
Permeable Paving 7	360 min Summer	197	50.908	0.011	0.160			OK
Permeable Paving 56	480 min Summer	282	50.917	0.019	0.397			OK
Permeable Paving 8	240 min Summer	133	50.939	0.008	0.118			OK
Permeable Paving 44	180 min Summer	102	50.429	0.007	0.091			OK
Permeable Paving 43	180 min Summer	103	50.430	0.008	0.104			OK
Permeable Paving 10	240 min Summer	136	49.364	0.010	0.143			OK
Permeable Paving 12	240 min Summer	136	49.364	0.010	0.143			OK
Permeable Paving 13	360 min Summer	197	49.364	0.011	0.161			OK
Permeable Paving 14	180 min Summer	103	49.362	0.008	0.099			OK
Permeable Paving 11	360 min Summer	201	49.366	0.012	0.186			OK
Permeable Paving 50	180 min Summer	103	48.030	0.008	0.099			OK
Permeable Paving 19	360 min Summer	208	47.945	0.015	0.263			OK
Permeable Paving 20	360 min Summer	198	47.941	0.011	0.164			OK
Permeable Paving 59	480 min Summer	283	47.950	0.020	0.409			OK
Permeable Paving 18	180 min Summer	103	47.381	0.008	0.100			OK
Permeable Paving 17	360 min Summer	197	47.604	0.011	0.161			OK
Permeable Paving 23	180 min Summer	103	48.035	0.008	0.101			OK
Permeable Paving 25	360 min Summer	197	48.037	0.011	0.161			OK
Permeable Paving 45	480 min Summer	282	48.013	0.036	1.007			OK
Permeable Paving 15	360 min Summer	201	48.188	0.012	0.194			OK
Permeable Paving 48	240 min Summer	136	48.023	0.009	0.134			OK
Permeable Paving 49	180 min Summer	103	48.022	0.008	0.099			OK
Permeable Paving 32	240 min Summer	136	46.907	0.010	0.135			OK
Permeable Paving 33	180 min Summer	103	46.905	0.008	0.099			OK
Permeable Paving 46	240 min Summer	136	46.907	0.010	0.135			OK
Permeable Paving 47	180 min Summer	102	46.905	0.007	0.094			OK
Permeable Paving 51	180 min Summer	102	46.905	0.007	0.094			OK
Permeable Paving 52	240 min Summer	136	46.907	0.010	0.135			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 53	180 min Summer	103	46.905	0.008	0.103			OK
Permeable Paving 30	360 min Summer	202	46.416	0.012	0.206			OK
Permeable Paving 58	360 min Summer	207	46.418	0.014	0.248			OK
Permeable Paving 21	360 min Summer	200	46.030	0.012	0.185			OK
Permeable Paving 22	240 min Summer	133	46.027	0.008	0.119			OK
Permeable Paving 60	480 min Summer	276	46.036	0.017	0.338			OK
Permeable Paving 27	360 min Summer	205	45.818	0.013	0.222			OK
Permeable Paving 28	360 min Summer	202	45.816	0.012	0.194			OK
Permeable Paving 29	360 min Summer	204	45.817	0.013	0.231			OK
Permeable Paving 57	480 min Summer	285	45.824	0.020	0.420			OK

Return Period (yrs) + Climate Change (%):

2yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S13	15 min Summer	8	46.306	0.040	10.233		OK
S12	15 min Summer	8	45.944	0.082	12.862		OK
S29	15 min Summer	9	45.919	0.091	16.754		OK
S15	15 min Summer	9	45.878	0.083	23.619		OK
S14	15 min Summer	8	45.906	0.056	7.675		OK
S16	15 min Summer	9	45.673	0.105	36.583		OK
S17	15 min Summer	9	45.554	0.071	39.484		OK
S21	15 min Summer	8	46.479	0.073	21.026		OK
S18	15 min Summer	10	45.327	0.271	56.820		OK
S19	15 min Summer	10	45.333	0.331	75.324		OK
S20	15 min Summer	10	45.330	0.630	69.204		Surcharged
S22	600 min Summer	399	44.943	0.243	9.700		OK
S23	600 min Summer	398	44.942	0.312	10.360		OK
S32	15 min Summer	8	49.650	0.077	15.561		OK
S1	15 min Summer	8	49.483	0.123	22.384		OK
S2	15 min Summer	9	49.313	0.086	30.244		OK
S3	15 min Summer	8	48.315	0.081	42.459		OK
S4	15 min Summer	9	46.323	0.088	52.019		OK
S36	15 min Summer	8	46.910	0.035	5.514		OK
S9	15 min Summer	8	46.119	0.096	16.101		OK
S10	15 min Summer	9	46.092	0.127	27.003		OK
S34	15 min Summer	9	46.019	0.137	35.105		OK
S11	15 min Summer	9	45.969	0.169	35.117		OK
S5	15 min Summer	9	45.961	0.187	113.124		OK
S6	15 min Summer	9	45.392	0.144	120.229		OK
S7	15 min Summer	9	44.988	0.324	123.919		OK
S8	15 min Summer	10	44.953	0.322	120.605		OK
S38	600 min Summer	398	44.942	0.061	0.662		OK
S37	600 min Summer	398	44.942	0.125	0.801		OK
S30	600 min Summer	398	44.942	0.243	1.913		Surcharged
S31	600 min Summer	398	44.942	0.312	1.913		OK
S24	600 min Summer	398	44.942	0.312	21.928		OK
S28	600 min Summer	398	44.942	0.355	21.910		Surcharged
S26	600 min Summer	398	44.757	0.217	21.911		OK
S39	600 min Summer	399	44.723	0.282	21.911		Surcharged
S27	600 min Summer	399	44.681	0.344	21.911		Flood Risk
S25	15 min Summer	0	44.660	0.370	7.475		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	S13	S12	0.061	0.730	10.183	0.013	OK
1.001	15 min Summer	9	S12	S29	0.086	0.544	12.652	0.052	OK
1.002	15 min Summer	9	S29	S15	0.087	0.718	16.940	0.070	OK
1.003	15 min Summer	9	S15	S16	0.094	0.901	23.799	0.058	OK
2.000	15 min Summer	9	S14	S16	0.080	0.617	7.601	0.141	OK
1.004	15 min Summer	9	S16	S17	0.088	1.530	36.746	0.093	OK
1.005	15 min Summer	10	S17	S18	0.170	1.187	39.506	0.044	OK
3.000	15 min Summer	9	S21	S18	0.149	1.207	20.851	0.236	OK
1.006	15 min Summer	10	S18	S19	0.301	1.528	75.324	0.190	OK
1.007	15 min Summer	11	S19	S20	0.428	0.555	88.095	0.114	OK
1.008	15 min Summer	12	S20	S22	0.275	1.810	143.959	23.028	OK
1.009	600 min Summer	457	S22	S23	0.277	0.171	11.215	0.046	OK
1.010	600 min Summer	457	S23	S24	0.312	0.115	11.695	1.110	OK
4.000	15 min Summer	8	S32	S1	0.100	0.903	15.456	0.261	OK
4.001	15 min Summer	8	S1	S2	0.105	1.224	22.133	0.588	OK
4.002	15 min Summer	9	S2	S3	0.085	2.209	30.544	0.311	OK
4.003	15 min Summer	9	S3	S4	0.084	2.606	42.346	0.165	OK
4.004	15 min Summer	9	S4	S5	0.137	1.287	52.216	0.090	OK
5.000	15 min Summer	8	S36	S9	0.035	1.394	5.458	0.054	OK
5.001	15 min Summer	8	S9	S10	0.112	0.578	15.914	0.141	OK
5.002	15 min Summer	9	S10	S34	0.132	0.710	27.483	0.179	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
5.003	15 min Summer	9	S34	S11	0.153	0.742	35.117	0.195	OK
5.004	15 min Summer	9	S11	S5	0.178	0.669	35.170	0.186	OK
4.005	15 min Summer	9	S5	S6	0.166	2.136	113.437	0.350	OK
4.006	15 min Summer	9	S6	S7	0.234	1.445	119.996	0.229	OK
4.007	15 min Summer	9	S7	S8	0.322	1.005	122.547	0.715	OK
4.008	600 min Summer	398	S8	S24	0.312	0.361	30.924	2.809	OK
6.000	600 min Summer	398	S38	S37	0.093	0.420	1.665	0.047	OK
6.001	600 min Summer	398	S37	S30	0.175	0.230	2.285	0.066	OK
6.002	480 min Summer	288	S30	S31	0.225	0.235	4.937	0.129	OK
6.003	600 min Summer	398	S31	S24	0.312	0.143	4.490	0.215	OK
1.011	600 min Summer	398	S24	S28	0.334	0.512	37.488	0.098	OK
1.012	600 min Summer	398	S28	S26	0.201	0.642	22.283	0.670	OK
1.013	600 min Summer	399	S26	S39	0.221	0.553	21.911	0.612	OK
1.014	600 min Summer	399	S39	S27	0.225	0.551	21.911	0.629	OK
1.015	600 min Summer	399	S27	S25	0.225	0.551	21.911	0.629	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 41	180 min Summer	105	48.684	0.018	0.371			OK
Permeable Paving 40	120 min Summer	69	48.678	0.012	0.203			OK
Permeable Paving 4	120 min Summer	67	48.589	0.014	0.239			OK
Permeable Paving 5	120 min Summer	70	48.610	0.035	0.982			OK
Permeable Paving 42	120 min Summer	67	48.589	0.014	0.239			OK
Permeable Paving 54	360 min Summer	223	48.673	0.097	4.593			OK
Permeable Paving 39	120 min Summer	72	48.368	0.047	1.636			OK
Permeable Paving 34	180 min Summer	105	47.488	0.018	0.355			OK
Permeable Paving 35	180 min Summer	104	47.488	0.018	0.339			OK
Permeable Paving 36	120 min Summer	70	47.483	0.013	0.213			OK
Permeable Paving 55	480 min Summer	289	47.505	0.035	0.970			OK
Permeable Paving 38	180 min Summer	101	47.689	0.026	0.645			OK
Permeable Paving 37	180 min Summer	107	47.334	0.020	0.427			OK
Permeable Paving 6	180 min Summer	102	50.914	0.016	0.303			OK
Permeable Paving 7	180 min Summer	103	50.914	0.017	0.320			OK
Permeable Paving 56	360 min Summer	212	50.925	0.028	0.671			OK
Permeable Paving 8	120 min Summer	70	50.944	0.013	0.222			OK
Permeable Paving 44	120 min Summer	68	50.433	0.011	0.181			OK
Permeable Paving 43	120 min Summer	69	50.434	0.013	0.213			OK
Permeable Paving 10	180 min Summer	102	49.369	0.015	0.274			OK
Permeable Paving 12	180 min Summer	102	49.369	0.015	0.274			OK
Permeable Paving 13	180 min Summer	103	49.370	0.017	0.321			OK
Permeable Paving 14	120 min Summer	69	49.366	0.012	0.203			OK
Permeable Paving 11	180 min Summer	105	49.372	0.018	0.371			OK
Permeable Paving 50	120 min Summer	69	48.035	0.012	0.203			OK
Permeable Paving 19	180 min Summer	110	47.952	0.022	0.485			OK
Permeable Paving 20	180 min Summer	103	47.947	0.017	0.334			OK
Permeable Paving 59	360 min Summer	214	47.959	0.029	0.707			OK
Permeable Paving 18	120 min Summer	69	47.386	0.012	0.204			OK
Permeable Paving 17	180 min Summer	103	47.610	0.017	0.321			OK
Permeable Paving 23	120 min Summer	69	48.039	0.012	0.206			OK
Permeable Paving 25	180 min Summer	103	48.044	0.017	0.321			OK
Permeable Paving 45	360 min Summer	212	48.028	0.051	1.709			OK
Permeable Paving 15	180 min Summer	105	48.194	0.019	0.388			OK
Permeable Paving 48	180 min Summer	101	48.029	0.015	0.278			OK
Permeable Paving 49	120 min Summer	69	48.026	0.012	0.203			OK
Permeable Paving 32	180 min Summer	101	46.913	0.015	0.280			OK
Permeable Paving 33	120 min Summer	69	46.910	0.012	0.203			OK
Permeable Paving 46	180 min Summer	101	46.913	0.015	0.280			OK
Permeable Paving 47	120 min Summer	68	46.909	0.012	0.187			OK
Permeable Paving 51	120 min Summer	68	46.909	0.012	0.188			OK
Permeable Paving 52	180 min Summer	101	46.913	0.015	0.280			OK
Permeable Paving 53	120 min Summer	69	46.910	0.012	0.210			OK
Permeable Paving 30	180 min Summer	106	46.423	0.019	0.386			OK
Permeable Paving 58	180 min Summer	109	46.425	0.022	0.452			OK
Permeable Paving 21	180 min Summer	105	46.036	0.018	0.362			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 22	120 min Summer	70	46.032	0.013	0.223			OK
Permeable Paving 60	240 min Summer	145	46.044	0.025	0.615			OK
Permeable Paving 27	180 min Summer	107	45.825	0.020	0.428			OK
Permeable Paving 28	180 min Summer	106	45.823	0.019	0.365			OK
Permeable Paving 29	180 min Summer	107	45.824	0.020	0.417			OK
Permeable Paving 57	360 min Summer	215	45.833	0.029	0.724			OK

Return Period (yrs) + Climate Change (%):

30yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S13	15 min Summer	8	46.327	0.061	25.403		OK
S12	15 min Summer	8	45.998	0.136	32.068		OK
S29	15 min Summer	8	45.974	0.146	42.206		OK
S15	15 min Summer	8	45.930	0.135	59.023		OK
S14	15 min Summer	8	45.940	0.090	19.071		OK
S16	15 min Summer	9	45.766	0.198	91.336		OK
S17	15 min Summer	8	45.737	0.254	86.195		OK
S21	15 min Summer	8	46.537	0.131	52.166		OK
S18	15 min Summer	8	45.724	0.668	141.591		Surcharged
S19	15 min Summer	8	45.698	0.696	139.334		Surcharged
S20	15 min Summer	8	45.677	0.977	210.304		Surcharged
S22	480 min Summer	352	45.183	0.483	10.617		OK
S23	480 min Summer	352	45.183	0.552	17.312		Surcharged
S32	15 min Summer	9	49.752	0.179	37.185		OK
S1	15 min Summer	9	49.682	0.321	53.713		Surcharged
S2	15 min Summer	9	49.376	0.149	74.115		OK
S3	15 min Summer	9	48.363	0.130	103.213		OK
S4	15 min Summer	9	46.386	0.151	127.308		OK
S36	15 min Summer	8	46.929	0.054	13.702		OK
S9	15 min Summer	9	46.200	0.177	38.694		OK
S10	15 min Summer	9	46.185	0.220	66.756		OK
S34	15 min Summer	9	46.140	0.258	86.200		OK
S11	15 min Summer	9	46.112	0.311	85.742		OK
S5	15 min Summer	9	46.100	0.327	277.099		OK
S6	15 min Summer	9	45.568	0.320	294.270		OK
S7	15 min Summer	9	45.317	0.653	300.029		Surcharged
S8	480 min Summer	346	45.182	0.552	14.782		Surcharged
S38	480 min Summer	346	45.183	0.301	1.008		Surcharged
S37	480 min Summer	346	45.183	0.366	1.222		Surcharged
S30	480 min Summer	346	45.183	0.484	2.960		Surcharged
S31	480 min Summer	348	45.182	0.552	2.893		Surcharged
S24	480 min Summer	348	45.182	0.552	34.094		Surcharged
S28	240 min Summer	181	45.193	0.606	28.796		Surcharged
S26	480 min Summer	348	44.903	0.363	34.126		Surcharged
S39	480 min Summer	348	44.812	0.371	34.125		Surcharged
S27	480 min Summer	347	44.711	0.374	34.125		Flood Risk
S25	15 min Summer	0	44.660	0.370	7.475		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	S13	S12	0.099	0.904	25.312	0.032	OK
1.001	15 min Summer	9	S12	S29	0.141	0.688	31.772	0.131	OK
1.002	15 min Summer	9	S29	S15	0.141	0.925	42.229	0.175	OK
1.003	15 min Summer	9	S15	S16	0.165	1.138	59.456	0.146	OK
2.000	15 min Summer	9	S14	S16	0.143	0.819	18.926	0.350	OK
1.004	15 min Summer	9	S16	S17	0.221	2.018	93.681	0.237	OK
1.005	15 min Summer	9	S17	S18	0.390	1.472	109.249	0.121	OK
3.000	15 min Summer	8	S21	S18	0.178	1.513	50.904	0.576	OK
1.006	15 min Winter	9	S18	S19	0.525	1.920	174.943	0.442	OK
1.007	15 min Winter	9	S19	S20	0.525	0.969	180.450	0.234	OK
1.008	480 min Summer	345	S20	S22	0.498	0.443	52.031	8.323	OK
1.009	480 min Summer	486	S22	S23	0.504	0.170	21.593	0.088	OK
1.010	240 min Winter	274	S23	S24	0.525	0.178	22.450	2.130	OK
4.000	15 min Summer	9	S32	S1	0.202	1.055	37.175	0.627	OK
4.001	15 min Summer	9	S1	S2	0.187	1.517	53.631	1.425	OK
4.002	15 min Summer	9	S2	S3	0.146	2.724	74.148	0.754	OK
4.003	15 min Summer	9	S3	S4	0.141	3.179	103.284	0.402	OK
4.004	15 min Summer	9	S4	S5	0.239	1.537	127.509	0.220	OK
5.000	15 min Summer	9	S36	S9	0.071	1.614	13.632	0.134	OK
5.001	15 min Summer	9	S9	S10	0.199	0.680	39.202	0.348	OK
5.002	15 min Summer	9	S10	S34	0.239	0.820	67.129	0.436	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
5.003	15 min Summer	9	S34	S11	0.285	0.847	85.695	0.476	OK
5.004	15 min Summer	10	S11	S5	0.319	0.829	86.993	0.460	OK
4.005	15 min Summer	9	S5	S6	0.323	2.377	277.113	0.854	OK
4.006	15 min Summer	9	S6	S7	0.385	2.004	290.212	0.554	OK
4.007	15 min Winter	9	S7	S8	0.450	1.739	276.593	1.614	OK
4.008	360 min Summer	235	S8	S24	0.525	0.549	83.180	7.555	OK
6.000	180 min Summer	122	S38	S37	0.225	0.536	5.720	0.160	OK
6.001	60 min Winter	55	S37	S30	0.225	0.592	10.333	0.300	OK
6.002	15 min Winter	14	S30	S31	0.225	1.033	27.556	0.719	OK
6.003	360 min Summer	235	S31	S24	0.525	0.208	10.719	0.514	OK
1.011	360 min Summer	235	S24	S28	0.525	0.511	65.902	0.173	OK
1.012	360 min Summer	225	S28	S26	0.225	0.882	35.074	1.054	OK
1.013	480 min Summer	348	S26	S39	0.225	0.858	34.125	0.953	OK
1.014	480 min Summer	348	S39	S27	0.225	0.858	34.125	0.979	OK
1.015	480 min Summer	349	S27	S25	0.225	0.858	34.125	0.979	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 41	60 min Summer	41	48.706	0.040	1.346			OK
Permeable Paving 40	60 min Summer	40	48.693	0.027	0.639			OK
Permeable Paving 4	30 min Summer	23	48.605	0.029	0.744			OK
Permeable Paving 5	60 min Summer	41	48.646	0.070	2.806			OK
Permeable Paving 42	30 min Summer	23	48.605	0.029	0.744			OK
Permeable Paving 54	240 min Summer	159	48.770	0.195	7.741			OK
Permeable Paving 39	60 min Summer	40	48.414	0.094	4.104			OK
Permeable Paving 34	60 min Summer	41	47.509	0.039	1.291			OK
Permeable Paving 35	60 min Summer	41	47.508	0.038	1.224			OK
Permeable Paving 36	60 min Summer	40	47.499	0.029	0.741			OK
Permeable Paving 55	240 min Summer	150	47.535	0.065	2.458			OK
Permeable Paving 38	60 min Summer	42	47.719	0.056	1.936			OK
Permeable Paving 37	60 min Summer	42	47.357	0.043	0.898			OK
Permeable Paving 6	60 min Summer	41	50.933	0.036	1.000			OK
Permeable Paving 7	60 min Summer	41	50.934	0.036	1.061			OK
Permeable Paving 56	120 min Summer	77	50.952	0.055	1.923			OK
Permeable Paving 8	60 min Summer	40	50.960	0.029	0.773			OK
Permeable Paving 44	30 min Summer	24	50.446	0.025	0.569			OK
Permeable Paving 43	60 min Summer	40	50.449	0.028	0.671			OK
Permeable Paving 10	60 min Summer	41	49.388	0.034	0.902			OK
Permeable Paving 12	60 min Summer	41	49.388	0.034	0.902			OK
Permeable Paving 13	60 min Summer	41	49.390	0.037	1.067			OK
Permeable Paving 14	60 min Summer	40	49.381	0.027	0.639			OK
Permeable Paving 11	60 min Summer	41	49.393	0.040	1.346			OK
Permeable Paving 50	60 min Summer	40	48.049	0.027	0.639			OK
Permeable Paving 19	60 min Summer	42	47.977	0.046	1.139			OK
Permeable Paving 20	60 min Summer	41	47.967	0.037	1.112			OK
Permeable Paving 59	120 min Summer	78	47.986	0.056	1.853			OK
Permeable Paving 18	60 min Summer	40	47.400	0.027	0.643			OK
Permeable Paving 17	60 min Summer	41	47.630	0.037	1.067			OK
Permeable Paving 23	60 min Summer	40	48.054	0.027	0.650			OK
Permeable Paving 25	60 min Summer	41	48.063	0.037	1.068			OK
Permeable Paving 45	120 min Summer	78	48.077	0.101	4.550			OK
Permeable Paving 15	60 min Summer	41	48.216	0.040	1.409			OK
Permeable Paving 48	60 min Summer	41	48.047	0.033	0.845			OK
Permeable Paving 49	60 min Summer	40	48.041	0.027	0.640			OK
Permeable Paving 32	60 min Summer	41	46.931	0.033	0.854			OK
Permeable Paving 33	60 min Summer	40	46.924	0.027	0.639			OK
Permeable Paving 46	60 min Summer	41	46.931	0.033	0.854			OK
Permeable Paving 47	30 min Summer	24	46.923	0.025	0.590			OK
Permeable Paving 51	30 min Summer	24	46.923	0.025	0.590			OK
Permeable Paving 52	60 min Summer	41	46.931	0.033	0.855			OK
Permeable Paving 53	60 min Summer	40	46.925	0.027	0.660			OK
Permeable Paving 30	60 min Summer	41	46.445	0.041	1.526			OK
Permeable Paving 58	60 min Summer	42	46.449	0.045	1.048			OK
Permeable Paving 21	60 min Summer	41	46.058	0.039	1.312			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 22	60 min Summer	40	46.048	0.030	0.778			OK
Permeable Paving 60	120 min Summer	75	46.069	0.051	1.747			OK
Permeable Paving 27	60 min Summer	42	45.848	0.043	0.900			OK
Permeable Paving 28	60 min Summer	41	45.845	0.040	1.437			OK
Permeable Paving 29	60 min Summer	42	45.847	0.043	0.876			OK
Permeable Paving 57	120 min Summer	78	45.861	0.057	1.960			OK

Return Period (yrs) + Climate Change (%):

30yr+45%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S13	15 min Summer	8	46.339	0.073	36.855		OK
S12	15 min Summer	8	46.029	0.167	46.708		OK
S29	15 min Summer	8	46.002	0.174	62.032		OK
S15	30 min Summer	16	45.957	0.162	81.450		OK
S14	15 min Summer	9	45.997	0.147	26.880		OK
S16	15 min Summer	9	45.933	0.365	132.517		OK
S17	15 min Summer	9	45.928	0.445	147.321		OK
S21	15 min Summer	9	46.765	0.359	72.557		Surcharged
S18	15 min Summer	9	45.913	0.857	227.992		Surcharged
S19	15 min Summer	9	45.879	0.877	234.713		Surcharged
S20	15 min Summer	8	45.851	1.151	285.346		Surcharged
S22	480 min Winter	381	45.405	0.705	19.972		Surcharged
S23	480 min Winter	381	45.405	0.774	21.230		Surcharged
S32	15 min Summer	9	50.163	0.590	53.997		Surcharged
S1	15 min Summer	9	49.985	0.624	77.243		Surcharged
S2	15 min Summer	10	49.488	0.262	97.242		Surcharged
S3	15 min Summer	8	48.392	0.159	142.564		OK
S4	15 min Summer	10	46.450	0.215	164.699		OK
S36	15 min Summer	8	46.941	0.066	19.914		OK
S9	15 min Summer	10	46.488	0.465	47.784		Surcharged
S10	15 min Summer	10	46.479	0.515	81.947		Surcharged
S34	15 min Summer	10	46.460	0.578	107.835		Surcharged
S11	15 min Summer	10	46.430	0.630	105.026		Surcharged
S5	15 min Summer	10	46.417	0.643	344.951		Surcharged
S6	15 min Summer	10	45.816	0.568	365.357		Surcharged
S7	15 min Summer	10	45.491	0.827	374.503		Surcharged
S8	480 min Winter	377	45.404	0.774	18.524		Surcharged
S38	480 min Winter	379	45.405	0.523	1.202		Surcharged
S37	480 min Winter	379	45.405	0.588	1.473		Surcharged
S30	480 min Winter	380	45.404	0.705	3.487		Surcharged
S31	480 min Winter	380	45.404	0.773	3.485		Surcharged
S24	480 min Winter	380	45.404	0.774	42.470		Surcharged
S28	480 min Winter	380	45.403	0.816	42.451		Surcharged
S26	480 min Winter	381	45.036	0.496	42.451		Surcharged
S39	480 min Winter	381	44.895	0.454	42.451		Surcharged
S27	480 min Winter	381	44.740	0.402	42.451		Flood Risk
S25	15 min Summer	0	44.660	0.370	7.475		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	S13	S12	0.120	0.984	36.752	0.046	OK
1.001	15 min Summer	8	S12	S29	0.171	0.765	46.671	0.193	OK
1.002	30 min Summer	16	S29	S15	0.168	0.974	57.837	0.240	OK
1.003	15 min Summer	9	S15	S16	0.261	1.073	86.030	0.211	OK
2.000	15 min Summer	9	S14	S16	0.186	0.903	27.086	0.502	OK
1.004	15 min Summer	10	S16	S17	0.405	1.859	144.008	0.364	OK
1.005	15 min Summer	10	S17	S18	0.485	1.528	166.618	0.185	OK
3.000	15 min Summer	10	S21	S18	0.225	1.769	70.354	0.796	OK
1.006	15 min Winter	10	S18	S19	0.525	1.963	241.083	0.609	OK
1.007	15 min Winter	10	S19	S20	0.525	1.146	248.178	0.322	OK
1.008	180 min Summer	110	S20	S22	0.525	0.906	135.286	21.640	OK
1.009	360 min Summer	368	S22	S23	0.525	0.170	27.602	0.112	OK
1.010	360 min Summer	368	S23	S24	0.525	0.182	27.713	2.630	OK
4.000	15 min Winter	9	S32	S1	0.225	1.234	49.066	0.828	OK
4.001	15 min Summer	9	S1	S2	0.225	1.878	74.661	1.984	OK
4.002	15 min Summer	10	S2	S3	0.202	2.873	98.885	1.005	OK
4.003	15 min Summer	10	S3	S4	0.183	3.492	141.588	0.551	OK
4.004	15 min Summer	10	S4	S5	0.332	1.564	177.428	0.307	OK
5.000	15 min Summer	9	S36	S9	0.145	1.569	19.828	0.196	OK
5.001	15 min Summer	9	S9	S10	0.375	0.706	52.984	0.470	Surcharged
5.002	15 min Summer	10	S10	S34	0.450	0.833	83.973	0.546	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
5.003	15 min Winter	11	S34	S11	0.450	0.943	110.130	0.612	OK
5.004	30 min Summer	19	S11	S5	0.450	0.982	125.478	0.664	OK
4.005	15 min Winter	9	S5	S6	0.450	2.379	336.194	1.036	OK
4.006	30 min Summer	18	S6	S7	0.450	2.177	346.268	0.661	OK
4.007	30 min Summer	17	S7	S8	0.450	2.248	357.560	2.087	OK
4.008	60 min Winter	49	S8	S24	0.525	1.302	239.052	21.712	OK
6.000	30 min Winter	21	S38	S37	0.225	0.660	12.237	0.342	OK
6.001	15 min Winter	14	S37	S30	0.225	0.783	25.230	0.733	OK
6.002	15 min Winter	9	S30	S31	0.225	1.140	38.778	1.012	OK
6.003	120 min Summer	73	S31	S24	0.525	0.298	25.151	1.207	OK
1.011	2160 min Summer	1111	S24	S28	0.525	0.516	52.425	0.137	OK
1.012	480 min Winter	380	S28	S26	0.225	1.068	42.451	1.276	OK
1.013	480 min Winter	381	S26	S39	0.225	1.068	42.451	1.185	OK
1.014	480 min Winter	381	S39	S27	0.225	1.068	42.451	1.218	OK
1.015	480 min Winter	381	S27	S25	0.225	1.068	42.451	1.218	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 41	60 min Summer	42	48.719	0.053	1.825			OK
Permeable Paving 40	30 min Summer	23	48.701	0.035	0.981			OK
Permeable Paving 4	30 min Summer	22	48.614	0.039	1.110			OK
Permeable Paving 5	60 min Summer	40	48.670	0.094	4.119			OK
Permeable Paving 42	30 min Summer	22	48.614	0.039	1.110			OK
Permeable Paving 54	240 min Summer	162	48.868	0.292	10.539			OK
Permeable Paving 39	60 min Summer	46	48.436	0.116	5.836			OK
Permeable Paving 34	60 min Summer	42	47.522	0.052	1.750			OK
Permeable Paving 35	60 min Summer	42	47.521	0.051	1.660			OK
Permeable Paving 36	30 min Summer	24	47.507	0.037	1.013			OK
Permeable Paving 55	180 min Summer	114	47.563	0.093	4.138			OK
Permeable Paving 38	60 min Summer	40	47.737	0.074	3.031			OK
Permeable Paving 37	60 min Summer	44	47.373	0.060	2.140			OK
Permeable Paving 6	60 min Summer	41	50.944	0.047	1.469			OK
Permeable Paving 7	60 min Summer	41	50.945	0.048	1.559			OK
Permeable Paving 56	120 min Summer	76	50.977	0.079	3.216			OK
Permeable Paving 8	30 min Summer	24	50.969	0.038	1.056			OK
Permeable Paving 44	30 min Summer	23	50.454	0.032	0.821			OK
Permeable Paving 43	30 min Summer	23	50.458	0.036	1.030			OK
Permeable Paving 10	60 min Summer	40	49.398	0.044	1.440			OK
Permeable Paving 12	60 min Summer	40	49.398	0.044	1.440			OK
Permeable Paving 13	60 min Summer	41	49.402	0.048	1.568			OK
Permeable Paving 14	30 min Summer	23	49.389	0.035	0.982			OK
Permeable Paving 11	60 min Summer	42	49.407	0.053	1.823			OK
Permeable Paving 50	30 min Summer	23	48.057	0.035	0.981			OK
Permeable Paving 19	60 min Summer	44	47.995	0.065	2.713			OK
Permeable Paving 20	60 min Summer	41	47.979	0.049	1.633			OK
Permeable Paving 59	120 min Summer	76	48.011	0.081	3.451			OK
Permeable Paving 18	30 min Summer	23	47.409	0.035	0.987			OK
Permeable Paving 17	60 min Summer	41	47.641	0.048	1.568			OK
Permeable Paving 23	30 min Summer	23	48.062	0.035	0.998			OK
Permeable Paving 25	60 min Summer	41	48.075	0.048	1.568			OK
Permeable Paving 45	120 min Summer	80	48.125	0.148	7.295			OK
Permeable Paving 15	60 min Summer	42	48.229	0.054	1.909			OK
Permeable Paving 48	60 min Summer	40	48.057	0.043	1.350			OK
Permeable Paving 49	30 min Summer	23	48.049	0.035	0.983			OK
Permeable Paving 32	60 min Summer	40	46.941	0.043	1.363			OK
Permeable Paving 33	30 min Summer	23	46.933	0.035	0.981			OK
Permeable Paving 46	60 min Summer	40	46.941	0.043	1.363			OK
Permeable Paving 47	30 min Summer	23	46.931	0.033	0.851			OK
Permeable Paving 51	30 min Summer	23	46.931	0.033	0.852			OK
Permeable Paving 52	60 min Summer	40	46.941	0.043	1.363			OK
Permeable Paving 53	30 min Summer	23	46.933	0.036	1.014			OK
Permeable Paving 30	60 min Summer	43	46.459	0.056	1.914			OK
Permeable Paving 58	60 min Summer	44	46.467	0.063	2.496			OK
Permeable Paving 21	60 min Summer	42	46.071	0.052	1.778			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 22	30 min Summer	24	46.057	0.038	1.063			OK
Permeable Paving 60	120 min Summer	76	46.092	0.073	2.442			OK
Permeable Paving 27	60 min Summer	44	45.864	0.060	2.144			OK
Permeable Paving 28	60 min Summer	43	45.858	0.054	1.804			OK
Permeable Paving 29	60 min Summer	44	45.863	0.059	2.088			OK
Permeable Paving 57	120 min Summer	76	45.886	0.082	3.650			OK

Return Period (yrs) + Climate Change (%):

100yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S13	15 min Summer	8	46.334	0.068	31.968		OK
S12	15 min Summer	8	46.017	0.155	40.415		OK
S29	15 min Summer	8	45.990	0.162	53.445		OK
S15	30 min Summer	16	45.944	0.149	70.760		OK
S14	15 min Summer	8	45.952	0.102	23.999		OK
S16	15 min Summer	9	45.849	0.281	114.779		OK
S17	15 min Summer	8	45.838	0.355	118.639		OK
S21	15 min Summer	8	46.577	0.171	65.645		OK
S18	15 min Summer	8	45.839	0.783	189.686		Surcharged
S19	15 min Summer	8	45.814	0.812	171.595		Surcharged
S20	15 min Summer	8	45.779	1.079	250.032		Surcharged
S22	600 min Summer	422	45.307	0.607	18.408		Surcharged
S23	600 min Summer	422	45.306	0.676	19.513		Surcharged
S32	15 min Summer	9	49.984	0.411	46.778		Surcharged
S1	15 min Summer	9	49.848	0.487	67.079		Surcharged
S2	15 min Summer	9	49.405	0.178	92.025		OK
S3	15 min Summer	9	48.382	0.148	128.334		OK
S4	15 min Summer	8	46.410	0.175	155.795		OK
S36	15 min Summer	8	46.936	0.061	17.242		OK
S9	15 min Summer	10	46.255	0.232	41.219		OK
S10	15 min Summer	10	46.252	0.288	69.826		OK
S34	15 min Summer	10	46.240	0.358	87.860		OK
S11	15 min Summer	10	46.211	0.410	94.879		OK
S5	15 min Summer	10	46.197	0.423	313.773		OK
S6	15 min Summer	9	45.734	0.486	347.228		Surcharged
S7	15 min Summer	9	45.441	0.777	355.473		Surcharged
S8	600 min Summer	422	45.306	0.676	16.487		Surcharged
S38	600 min Summer	421	45.307	0.425	1.112		Surcharged
S37	600 min Summer	421	45.306	0.489	1.359		Surcharged
S30	600 min Summer	421	45.306	0.607	3.262		Surcharged
S31	600 min Summer	421	45.306	0.675	3.261		Surcharged
S24	600 min Summer	421	45.306	0.676	39.319		Surcharged
S28	600 min Summer	421	45.305	0.718	39.260		Surcharged
S26	600 min Summer	422	44.982	0.442	39.259		Surcharged
S39	600 min Summer	422	44.861	0.420	39.259		Surcharged
S27	600 min Summer	422	44.728	0.391	39.259		Flood Risk
S25	15 min Winter	0	44.660	0.370	7.475		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	S13	S12	0.112	0.948	31.864	0.040	OK
1.001	15 min Summer	8	S12	S29	0.159	0.735	40.109	0.166	OK
1.002	30 min Summer	16	S29	S15	0.155	0.942	50.232	0.209	OK
1.003	15 min Summer	9	S15	S16	0.214	1.161	75.407	0.185	OK
2.000	15 min Summer	8	S14	S16	0.164	0.859	23.831	0.441	OK
1.004	15 min Summer	9	S16	S17	0.315	1.996	119.917	0.303	OK
1.005	15 min Summer	10	S17	S18	0.440	1.460	145.882	0.162	OK
3.000	15 min Summer	8	S21	S18	0.198	1.730	64.133	0.726	OK
1.006	15 min Summer	10	S18	S19	0.525	2.003	227.512	0.574	OK
1.007	15 min Summer	10	S19	S20	0.525	1.092	236.352	0.307	OK
1.008	180 min Summer	134	S20	S22	0.525	0.880	116.033	18.561	OK
1.009	360 min Summer	368	S22	S23	0.525	0.170	25.082	0.102	OK
1.010	360 min Summer	368	S23	S24	0.525	0.174	25.195	2.391	OK
4.000	15 min Summer	9	S32	S1	0.225	1.164	46.275	0.781	OK
4.001	15 min Summer	9	S1	S2	0.202	1.764	66.256	1.761	OK
4.002	15 min Summer	9	S2	S3	0.172	2.808	91.763	0.933	OK
4.003	15 min Summer	9	S3	S4	0.160	3.523	128.063	0.498	OK
4.004	15 min Summer	9	S4	S5	0.293	1.536	161.093	0.279	OK
5.000	15 min Summer	10	S36	S9	0.100	1.506	17.160	0.169	OK
5.001	15 min Summer	10	S9	S10	0.260	0.706	48.028	0.426	OK
5.002	15 min Summer	10	S10	S34	0.323	0.829	80.252	0.522	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
5.003	15 min Summer	11	S34	S11	0.384	0.902	101.910	0.566	OK
5.004	15 min Summer	11	S11	S5	0.417	0.918	114.061	0.603	OK
4.005	15 min Summer	10	S5	S6	0.437	2.352	325.631	1.004	OK
4.006	15 min Summer	9	S6	S7	0.450	2.157	343.120	0.655	OK
4.007	15 min Summer	9	S7	S8	0.450	2.219	352.865	2.060	OK
4.008	180 min Summer	111	S8	S24	0.525	0.910	159.282	14.467	OK
6.000	60 min Summer	38	S38	S37	0.225	0.635	10.522	0.294	OK
6.001	30 min Summer	20	S37	S30	0.225	0.728	21.114	0.613	OK
6.002	15 min Summer	10	S30	S31	0.225	1.131	37.027	0.966	OK
6.003	180 min Summer	111	S31	S24	0.525	0.244	18.823	0.903	OK
1.011	2160 min Summer	1162	S24	S28	0.525	0.523	62.908	0.165	OK
1.012	600 min Summer	421	S28	S26	0.225	0.987	39.260	1.180	OK
1.013	600 min Summer	421	S26	S39	0.225	0.987	39.259	1.096	OK
1.014	600 min Summer	422	S39	S27	0.225	0.987	39.259	1.127	OK
1.015	600 min Summer	422	S27	S25	0.225	0.987	39.259	1.127	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 41	60 min Summer	43	48.714	0.048	1.550			OK
Permeable Paving 40	30 min Summer	24	48.697	0.032	0.798			OK
Permeable Paving 4	30 min Summer	22	48.610	0.035	0.994			OK
Permeable Paving 5	60 min Summer	40	48.660	0.085	3.734			OK
Permeable Paving 42	30 min Summer	22	48.610	0.035	0.994			OK
Permeable Paving 54	240 min Summer	160	48.821	0.245	9.479			OK
Permeable Paving 39	60 min Summer	43	48.430	0.110	5.581			OK
Permeable Paving 34	60 min Summer	43	47.517	0.047	1.487			OK
Permeable Paving 35	60 min Summer	42	47.516	0.046	1.515			OK
Permeable Paving 36	60 min Summer	40	47.504	0.034	0.893			OK
Permeable Paving 55	180 min Summer	115	47.550	0.080	3.411			OK
Permeable Paving 38	60 min Summer	41	47.730	0.067	2.506			OK
Permeable Paving 37	60 min Summer	43	47.367	0.054	2.113			OK
Permeable Paving 6	60 min Summer	41	50.940	0.042	1.334			OK
Permeable Paving 7	60 min Summer	42	50.941	0.043	1.313			OK
Permeable Paving 56	120 min Summer	76	50.966	0.068	2.581			OK
Permeable Paving 8	60 min Summer	40	50.965	0.035	0.931			OK
Permeable Paving 44	30 min Summer	23	50.451	0.029	0.743			OK
Permeable Paving 43	30 min Summer	24	50.454	0.032	0.838			OK
Permeable Paving 10	60 min Summer	41	49.394	0.040	1.204			OK
Permeable Paving 12	60 min Summer	41	49.394	0.040	1.204			OK
Permeable Paving 13	60 min Summer	42	49.397	0.044	1.320			OK
Permeable Paving 14	30 min Summer	24	49.385	0.032	0.799			OK
Permeable Paving 11	60 min Summer	43	49.402	0.048	1.549			OK
Permeable Paving 50	30 min Summer	24	48.054	0.032	0.798			OK
Permeable Paving 19	60 min Summer	43	47.988	0.058	2.679			OK
Permeable Paving 20	60 min Summer	42	47.975	0.044	1.375			OK
Permeable Paving 59	120 min Summer	76	48.000	0.070	2.771			OK
Permeable Paving 18	30 min Summer	24	47.405	0.032	0.803			OK
Permeable Paving 17	60 min Summer	42	47.637	0.044	1.320			OK
Permeable Paving 23	30 min Summer	24	48.059	0.032	0.812			OK
Permeable Paving 25	60 min Summer	42	48.071	0.044	1.321			OK
Permeable Paving 45	120 min Summer	79	48.104	0.127	5.187			OK
Permeable Paving 15	60 min Summer	43	48.225	0.049	1.622			OK
Permeable Paving 48	60 min Summer	41	48.053	0.039	1.129			OK
Permeable Paving 49	30 min Summer	24	48.046	0.032	0.800			OK
Permeable Paving 32	60 min Summer	41	46.937	0.039	1.140			OK
Permeable Paving 33	30 min Summer	24	46.929	0.032	0.798			OK
Permeable Paving 46	60 min Summer	41	46.937	0.039	1.140			OK
Permeable Paving 47	30 min Summer	23	46.927	0.030	0.770			OK
Permeable Paving 51	30 min Summer	23	46.927	0.030	0.770			OK
Permeable Paving 52	60 min Summer	41	46.937	0.039	1.139			OK
Permeable Paving 53	30 min Summer	24	46.930	0.032	0.825			OK
Permeable Paving 30	60 min Summer	43	46.454	0.050	1.757			OK
Permeable Paving 58	60 min Summer	43	46.460	0.057	2.464			OK
Permeable Paving 21	60 min Summer	43	46.066	0.048	1.511			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 22	60 min Summer	40	46.053	0.035	0.937			OK
Permeable Paving 60	60 min Summer	44	46.082	0.064	2.059			OK
Permeable Paving 27	60 min Summer	43	45.858	0.054	2.117			OK
Permeable Paving 28	60 min Summer	43	45.853	0.049	1.656			OK
Permeable Paving 29	60 min Summer	43	45.858	0.053	2.062			OK
Permeable Paving 57	120 min Summer	77	45.875	0.071	2.706			OK

Return Period (yrs) + Climate Change (%):

100yr+45%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S13	15 min Summer	8	46.348	0.082	46.410		OK
S12	15 min Summer	9	46.119	0.257	57.799		OK
S29	15 min Summer	9	46.105	0.277	74.541		OK
S15	15 min Summer	9	46.090	0.295	94.316		OK
S14	15 min Summer	9	46.191	0.341	33.918		Surcharged
S16	15 min Summer	9	46.079	0.511	148.897		OK
S17	15 min Summer	9	46.059	0.576	159.822		Surcharged
S21	15 min Summer	9	47.300	0.895	91.285		Surcharged
S18	15 min Summer	9	46.037	0.981	258.165		Surcharged
S19	15 min Summer	9	45.998	0.996	258.960		Surcharged
S20	15 min Summer	8	45.962	1.262	337.283		Flood Risk
S22	720 min Summer	522	45.585	0.885	21.356		Surcharged
S23	720 min Summer	521	45.585	0.954	22.624		Surcharged
S32	15 min Summer	10	50.743	1.170	57.391		Surcharged
S1	15 min Summer	10	50.526	1.165	84.385		Surcharged
S2	15 min Summer	10	49.838	0.611	116.610		Surcharged
S3	15 min Summer	10	48.406	0.172	161.264		OK
S4	15 min Summer	10	46.879	0.644	198.313		Surcharged
S36	15 min Summer	8	46.949	0.074	25.106		OK
S9	15 min Summer	10	46.914	0.891	59.138		Surcharged
S10	15 min Summer	10	46.899	0.935	97.227		Surcharged
S34	15 min Summer	10	46.867	0.985	120.320		Surcharged
S11	15 min Summer	10	46.828	1.028	110.730		Surcharged
S5	15 min Summer	10	46.814	1.040	396.036		Surcharged
S6	15 min Summer	10	46.043	0.795	416.111		Surcharged
S7	15 min Summer	10	45.626	0.962	425.888		Surcharged
S8	720 min Summer	520	45.585	0.954	18.065		Surcharged
S38	720 min Summer	519	45.585	0.703	1.167		Surcharged
S37	720 min Summer	519	45.585	0.768	1.453		Flood Risk
S30	720 min Summer	520	45.585	0.886	3.394		Surcharged
S31	720 min Summer	521	45.584	0.954	3.366		Surcharged
S24	720 min Summer	521	45.584	0.954	43.920		Surcharged
S28	720 min Summer	521	45.584	0.997	43.946		Flood Risk
S26	720 min Summer	522	45.063	0.523	43.947		Surcharged
S39	720 min Summer	522	44.912	0.471	43.947		Surcharged
S27	720 min Summer	522	44.745	0.408	43.947		Flood Risk
S25	15 min Summer	0	44.660	0.370	7.472		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	9	S13	S12	0.169	1.033	46.280	0.058	OK
1.001	15 min Summer	9	S12	S29	0.267	0.771	56.974	0.235	OK
1.002	15 min Summer	10	S29	S15	0.286	1.090	76.586	0.318	OK
1.003	15 min Summer	10	S15	S16	0.403	1.110	112.331	0.275	OK
2.000	15 min Winter	9	S14	S16	0.225	0.875	31.266	0.579	OK
1.004	15 min Summer	11	S16	S17	0.518	1.831	183.926	0.465	OK
1.005	15 min Winter	11	S17	S18	0.525	1.612	191.415	0.212	OK
3.000	30 min Summer	17	S21	S18	0.225	2.163	82.046	0.928	OK
1.006	15 min Winter	11	S18	S19	0.525	1.930	288.037	0.727	OK
1.007	15 min Winter	11	S19	S20	0.525	1.371	296.847	0.385	OK
1.008	60 min Winter	44	S20	S22	0.525	1.615	221.315	35.402	OK
1.009	360 min Winter	410	S22	S23	0.525	0.169	29.906	0.122	OK
1.010	360 min Winter	410	S23	S24	0.525	0.188	30.014	2.848	OK
4.000	15 min Winter	9	S32	S1	0.225	1.461	58.084	0.980	OK
4.001	30 min Summer	17	S1	S2	0.225	2.027	80.599	2.142	OK
4.002	30 min Summer	18	S2	S3	0.225	2.787	109.833	1.117	OK
4.003	15 min Summer	10	S3	S4	0.236	3.430	165.342	0.643	OK
4.004	30 min Summer	17	S4	S5	0.450	1.540	184.401	0.319	OK
5.000	15 min Summer	8	S36	S9	0.150	1.600	24.999	0.247	OK
5.001	15 min Winter	9	S9	S10	0.375	0.716	57.532	0.511	Surcharged
5.002	15 min Winter	9	S10	S34	0.450	0.832	94.932	0.617	OK

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
5.003	30 min Summer	22	S34	S11	0.450	1.025	126.386	0.702	OK
5.004	30 min Summer	22	S11	S5	0.450	1.085	146.558	0.775	OK
4.005	30 min Summer	18	S5	S6	0.450	2.358	375.032	1.156	OK
4.006	30 min Summer	18	S6	S7	0.450	2.515	400.065	0.763	OK
4.007	30 min Summer	18	S7	S8	0.450	2.601	413.647	2.414	OK
4.008	30 min Winter	22	S8	S24	0.525	1.830	376.520	34.197	OK
6.000	15 min Winter	10	S38	S37	0.225	0.667	17.583	0.492	OK
6.001	15 min Winter	9	S37	S30	0.225	0.801	28.140	0.817	OK
6.002	15 min Winter	9	S30	S31	0.225	1.203	45.954	1.199	OK
6.003	30 min Winter	22	S31	S24	0.525	0.534	39.501	1.895	OK
1.011	30 min Winter	22	S24	S28	0.525	0.505	52.986	0.139	OK
1.012	720 min Summer	521	S28	S26	0.225	1.105	43.947	1.321	OK
1.013	720 min Summer	522	S26	S39	0.225	1.105	43.947	1.227	OK
1.014	720 min Summer	522	S39	S27	0.225	1.105	43.947	1.261	OK
1.015	720 min Summer	522	S27	S25	0.225	1.105	43.947	1.261	OK

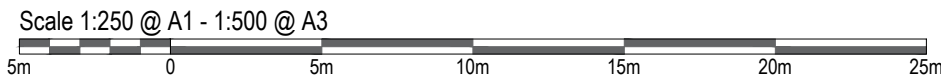
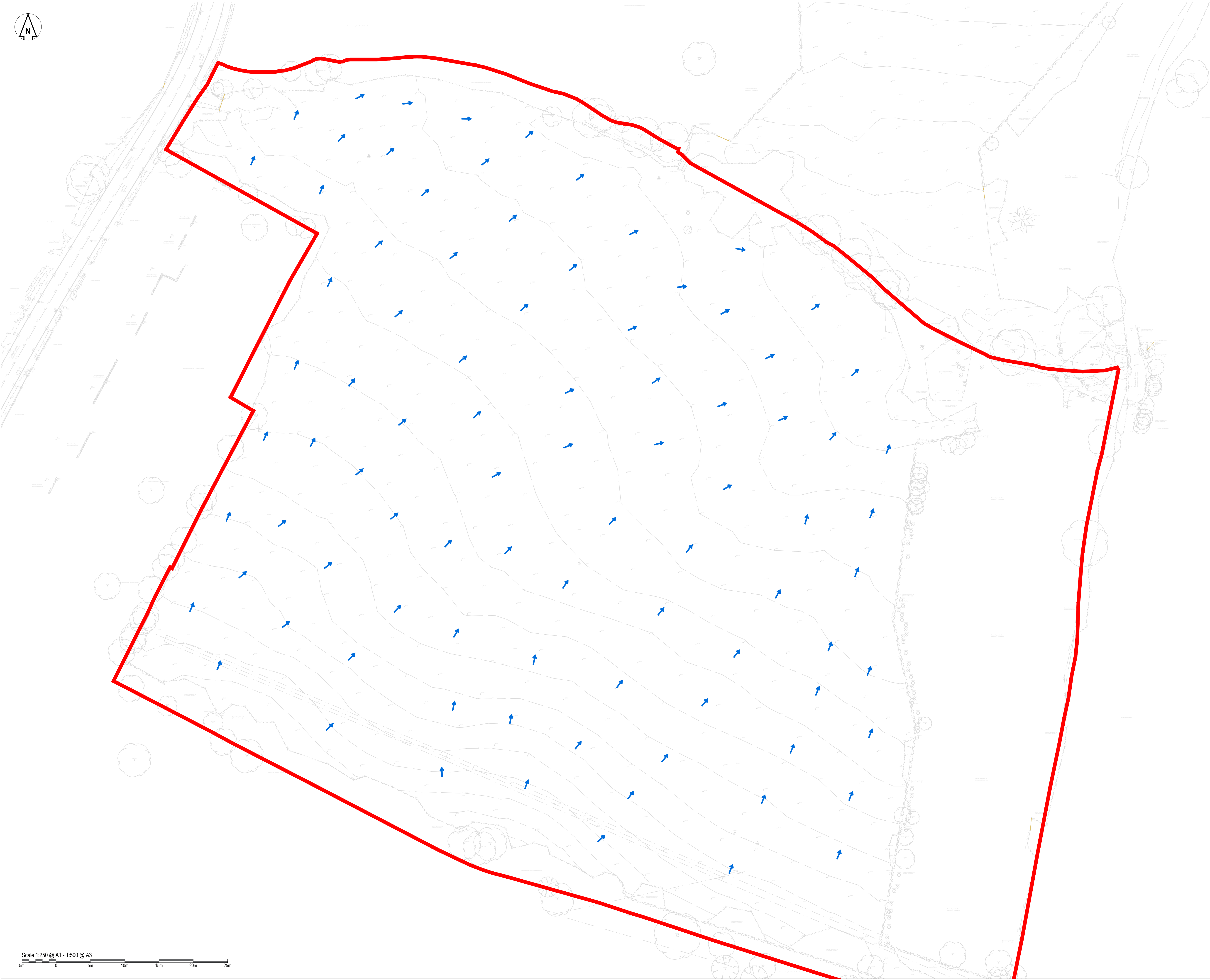
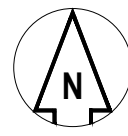
Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 41	60 min Summer	41	48.730	0.064	2.359			OK
Permeable Paving 40	30 min Summer	22	48.709	0.043	1.336			OK
Permeable Paving 4	30 min Summer	21	48.623	0.047	1.561			OK
Permeable Paving 5	60 min Summer	42	48.690	0.114	5.151			OK
Permeable Paving 42	30 min Summer	21	48.623	0.047	1.561			OK
Permeable Paving 54	240 min Summer	164	48.944	0.369	11.710			OK
Permeable Paving 39	60 min Winter	45	48.444	0.124	8.754			OK
Permeable Paving 34	60 min Summer	41	47.533	0.063	2.262			OK
Permeable Paving 35	60 min Summer	41	47.531	0.061	2.146			OK
Permeable Paving 36	30 min Summer	23	47.515	0.045	1.341			OK
Permeable Paving 55	120 min Summer	80	47.586	0.116	5.323			OK
Permeable Paving 38	60 min Summer	39	47.753	0.090	4.064			OK
Permeable Paving 37	60 min Summer	42	47.385	0.072	2.938			OK
Permeable Paving 6	60 min Summer	40	50.954	0.056	1.921			OK
Permeable Paving 7	60 min Summer	40	50.955	0.058	2.040			OK
Permeable Paving 56	120 min Summer	79	50.994	0.097	3.649			OK
Permeable Paving 8	30 min Summer	23	50.977	0.046	1.398			OK
Permeable Paving 44	30 min Summer	22	50.461	0.040	1.118			OK
Permeable Paving 43	30 min Summer	22	50.465	0.044	1.402			OK
Permeable Paving 10	60 min Summer	39	49.407	0.054	1.916			OK
Permeable Paving 12	60 min Summer	39	49.407	0.054	1.916			OK
Permeable Paving 13	60 min Summer	40	49.412	0.058	2.051			OK
Permeable Paving 14	30 min Summer	22	49.397	0.043	1.337			OK
Permeable Paving 11	60 min Summer	41	49.418	0.064	2.357			OK
Permeable Paving 50	30 min Summer	22	48.065	0.043	1.336			OK
Permeable Paving 19	60 min Summer	44	48.009	0.078	3.155			OK
Permeable Paving 20	60 min Summer	40	47.989	0.059	2.136			OK
Permeable Paving 59	120 min Summer	79	48.029	0.099	3.917			OK
Permeable Paving 18	30 min Summer	22	47.416	0.043	1.344			OK
Permeable Paving 17	60 min Summer	40	47.651	0.058	2.051			OK
Permeable Paving 23	30 min Summer	22	48.070	0.043	1.359			OK
Permeable Paving 25	60 min Summer	40	48.085	0.058	2.052			OK
Permeable Paving 45	120 min Summer	83	48.164	0.187	6.974			OK
Permeable Paving 15	60 min Summer	41	48.241	0.065	2.467			OK
Permeable Paving 48	60 min Summer	39	48.066	0.052	1.795			OK
Permeable Paving 49	30 min Summer	22	48.057	0.043	1.339			OK
Permeable Paving 32	60 min Summer	39	46.950	0.052	1.813			OK
Permeable Paving 33	30 min Summer	22	46.940	0.043	1.336			OK
Permeable Paving 46	60 min Summer	39	46.950	0.052	1.812			OK
Permeable Paving 47	30 min Summer	22	46.938	0.040	1.159			OK
Permeable Paving 51	30 min Summer	22	46.938	0.040	1.160			OK
Permeable Paving 52	60 min Summer	39	46.950	0.052	1.812			OK
Permeable Paving 53	30 min Summer	22	46.941	0.043	1.380			OK
Permeable Paving 30	60 min Summer	41	46.471	0.067	2.673			OK
Permeable Paving 58	60 min Summer	43	46.480	0.076	3.140			OK
Permeable Paving 21	60 min Summer	41	46.081	0.063	2.298			OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 22	30 min Summer	23	46.065	0.046	1.408			OK
Permeable Paving 60	60 min Summer	46	46.107	0.089	4.036			OK
Permeable Paving 27	60 min Summer	42	45.876	0.072	2.944			OK
Permeable Paving 28	60 min Summer	41	45.870	0.065	2.519			OK
Permeable Paving 29	60 min Summer	42	45.875	0.071	2.867			OK
Permeable Paving 57	120 min Summer	79	45.905	0.100	4.141			OK

Appendix J – Exceedance Route Plans



DO NOT SCALE OFF THIS DRAWING

GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

CDM 2015 RESIDUAL RISKS

1. All areas of live traffic and pedestrian movements shall be subject to appropriate traffic management barriers and signs.
2. Access points onto live public highway.
3. Unauthorised access to the site must be prevented at all times
4. Existing road drainage to be maintained.
5. Be aware of possible live drainage flows and foul effluent during construction. The Contractor shall assess and implement a safe working system and equipment (PPE) as necessary.

The above residual risks are for non-standard hazards. It is assumed that a competent contractor familiar with the construction of this type of work will be appointed who will be aware of the standard hazards.

Key:	
	Site Boundary
	Existing Contour
	Existing Exceedance Flow Route

A01 ISSUED FOR APPROVAL		NS	TZ	SB	21/07/2026
Rev	Comment	By	Chkd	Appr	Date

Revision History

APPROVAL

THAKEHAM HOMES

robert west
proesgroup

1 Paris Garden
London
SE1 8ND
t: 0203 773 7880
www.robertwest.co.uk

Project
COLLEGE LANE
HURSTPIERPOINT

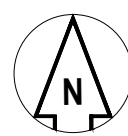
Drawing Title
EXISTING EXCEEDANCE FLOW PLAN

RWCL Internal Register reference: 3195-015

Scales @ A1

5003-A01

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DO NOT SCALE OFF THIS DRAWING

GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub-Contractors work must be checked and agreed between the sub-Contractor or supplier and the general Contractor.
2. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and specification.
3. The main Contractor is responsible for ensuring the stability of the structure whilst the works are in progress.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority. No liability is accepted by the Consultant and the main Contractor is responsible for obtaining and checking all information and taking due care and attention whilst undertaking the works.

CDM 2015 RESIDUAL RISKS

1. All areas of live traffic and pedestrian movements shall be subject to appropriate traffic management barriers and signs.
2. Access points onto live public highway.
3. Unauthorised access to the site must be prevented at all times.
4. Existing road drainage to be maintained.
5. Be aware of possible live drainage flows and foul effluent during construction. The Contractor shall assess and implement a safe working system and equipment (PPE) as necessary.

The above residual risks are for non-standard hazards. It is assumed that a competent contractor familiar with the construction of this type of work will be appointed who will be aware of the standard hazards.

Key:	
	Site Boundary
	Proposed Major Contour
	Proposed Minor Contour
	Proposed Exceedance Flow Route

A03	ISSUED FOR APPROVAL	NS	TZ	SB	23/09/2026
A02	EXISTING WATERCOURSE ADDED	NS	MK	MK	23/07/2026
A01	ISSUED FOR APPROVAL	NS	TZ	SB	21/07/2026
Rev	Comment	By	Chkd	Appr	Date
Revision History					

APPROVAL

THAKEHAM HOMES

robert west
proesgroup
1 Paris Garden
London
SE1 1ND
t: 0203 773 7880
www.robertwest.co.uk

Project
COLLEGE LANE
HURSTPIERPOINT

Drawing Title
PROPOSED EXCEEDANCE FLOW PLAN

RWCL Internal Register reference: 3195-015

Scales @ A1

5004 -A03

Scale 1:500 @ A1 - 1:1000 @ A3
10m 0 10m 20m 30m 40m 50m