

FONTWELL PARK RACECOURSE

A23 FONTWELL AVENUE

Claremont Gardens

1 to 5

6 to 21

9

NOTES

Contributing area for infiltration basin :
9,843m²
Area 1, Area 2, Area 4, Area 8, Area 9
(part), Area 11 (part), Area 24, Area 17,
Area 30, Area 30A
Area of basin: 1,217m²
Total Area contributing to basin: 11,060m²

Area 5: 226m²

Area 7: 618m²

Area 6: 708m²

Area 10: 1,328m²

Area 13: 1,889m²

Area 15: 565m²

Area 21: 1,383m²

Area 26: 871m²

Area 22: 1,230m²

Area 29: 1,670m²

Area 18: 1,309m²

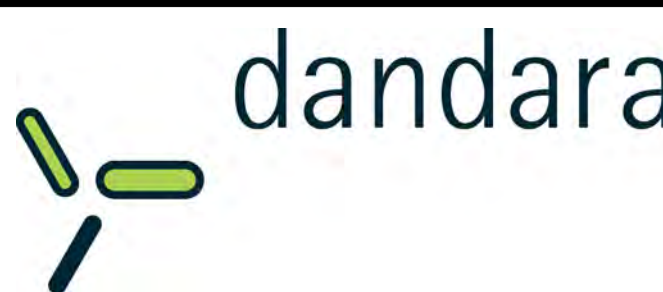
Area 19: 777m²

SCALE BAR 1:500 at A1

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Rev.	Date	Details	By	Chk'd	App'd
J	01.04.22	Area 6 Updated	KJA	LD	TRS
H	30.10.20	Updated to latest Site Layout received 26.10.20.	LD	PJ	TRS
G	24.08.20	Areas updated.	GD-I	LD	TRS
F	21.08.20	Areas updated. Colours revised.	GD-I	LD	TRS
E	14.08.20	Updated to latest Site Layout received 06.08.20.	GD-I	LD	TRS
D	30.06.20	Updated to latest Site Layout received 29.06.20.	TRS	TRS	TRS
C	25.06.20	Updated to suite latest site layout	TRS	TRS	TRS
B	26.05.20	Key Updated with areas	TRS	TRS	TRS
A	12.03.20	Plots 115 - 117 Areas revised.	WD	LD	TRS

Client:-



Site:-

Fontwell
Eastergate
Arundel

Drawing Title:-

Area
Take Off Plan

Sheet 3 of 4

Date: January 2020 Scales: 1:500 at A1
Drawn: GD-I Checked: LD Approved: TRS

Drawing No.

DAN/E4736/048 J

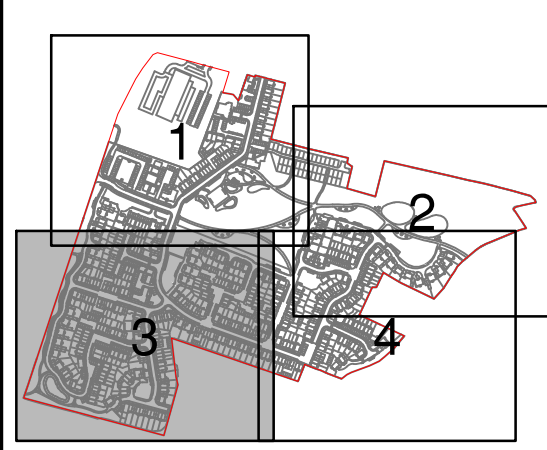
FOR INFORMATION ONLY



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1:500 KEYPLAN





NOTES

Contributing area for infiltration basin :
9,843m²
Area 1, Area 2, Area 4, Area 8, Area 9
(part), Area 11 (part), Area 24, Area 17,
Area 30, Area 30A
Area of basin: 1,217m²
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- Area 5: 226m²
- Area 7: 618m²
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- Area 19: 777m²



SCALE BAR 1:500 at A1
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B	25.06.20	Updated to suite latest site layout	TRS	TRS	TRS
A	26.05.20	Key Updated with areas	TRS	TRS	TRS

Client:-



Site:-
Fontwell
Eastergate
Arundel

Drawing Title:-
Area
Take Off Plan

Sheet 4 of 4

Date:	January 2020	Scales:	1:500 at A1
Drawn:	GD-I	Checked:	LD
		Approved:	TRS

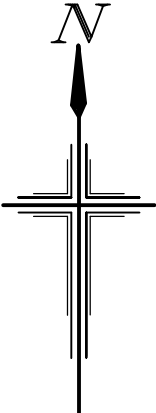
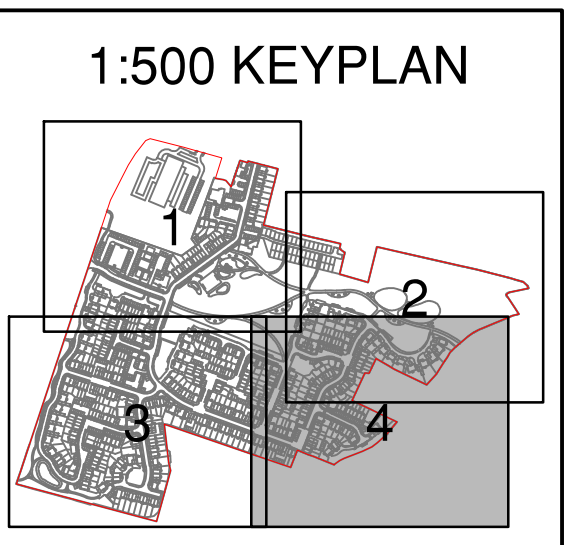
Drawing No. DAN/E4736/049 H

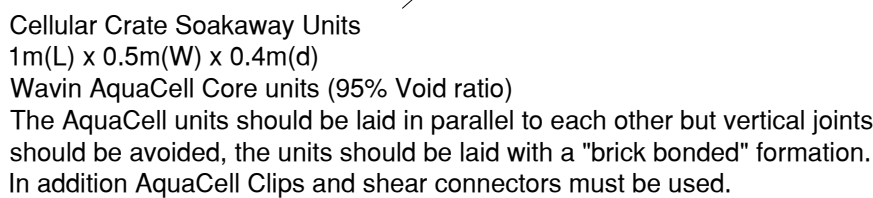
FOR INFORMATION ONLY



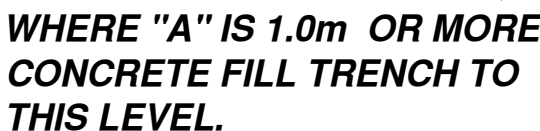
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Scale 1:50



1. This drawing is to be read in conjunction with Foul Water Sewer Longitudinal Sections (FON-160-01 to 04), Surface Water Sewer Longitudinal Sections (FON-161-01 to 03), Highways Construction Details (FON-160-01 to 02), Highways Contours Layouts (FON-121-01 to 18), Highways Setting out Layout (FON-115-01 to 02), Highways Setting Out Coordinate Listings (FON-113-03), Drainage Construction Details (FON-181-01 to 02), Foul Water Manhole Schedules (FON-140-01 to 03), Surface Water Manhole Schedules (FON-140-01 to 02), Domestic Drainage Layouts (FON-130-01 to 18), Domestic Drainage Layouts (FON-182-01 to 02), Surface Water Attenuation Details (FON-183-01 to 02) and Building Setting Out Layouts (FON-110-01 to 18).
2. All dimensions are in millimetres unless stated otherwise.
3. Do not scale from this drawing. Only written dimensions are to be used.
4. **All construction to be in accordance with Sewers for Adoption - 6th Edition & Interim Addendum and ICOSA Water specific requirements**, and Part H of the Building Regulations
5. Refer to geotechnical report for sulphate resisting class and AECB class.
6. Insitu concrete generally to be GEN 4 Designated Mix.
7. Insitu reinforced concrete to be RC 35 Designated Mix only when specified.
8. Where sulphate present, Consulting Engineer to confirm concrete and mortar specification.
9. All insitu concrete to be thoroughly compacted.
10. Typical domestic inspection chamber and manhole details shown on this drawing, widths and lengths will vary as follows:-
11. All covers to be stamped "FW" or "SW", as appropriate.
12. For Manufacturer and specification of pipes and fittings refer to drainage layout and schedule.
13. Drainage pipes and fittings to be Hepworth vitrified clay and PVCu or Wavin Osma PVCu or other equivalent approved. Refer to drainage layout and schedules for details of manufacturer and specification.
14. Mild steel fabrication to be hot dip galvanised to BS EN 1461.
15. ***Outgoing pipes greater than 600mm dia. should be fitted with guard bars, safety chains to BS4942-2:1 and BS 7291 or other safety devices in accordance with the Southern Water safety policy.***

The minimum depth of pipe cover to the crown of gravity pipes without protection should be as follows:

- domestic gardens and pathways without any possibility of vehicular access, 0.35m;
- domestic driveways, parking areas and yards with height restrictions to prevent entry by vehicles with a gross weight in excess of 7.5 tonnes, 0.5m;
- domestic driveways, parking areas and narrow streets without footways (e.g., mews developments) with limited access for vehicles with a gross weight in excess of 7.5 tonnes 0.9m;
- agricultural land and public open space, 0.9m;
- other highways and parking areas with unrestricted access to vehicles with a gross vehicle weight in excess of 7.5 tonnes, 1.2m.

1. **EXISTING SERVICES.** Depth of existing services must be determined prior to works commencing. The contractor is responsible for establishing underground services in accordance with HSE Guidance note HS (G) 47. Any services which would be within the proposed construction layers must be lowered to below the sub-base.

A	26.05.20	Soakaway details updated, Drawing number revised	TRS	TRS	TRS
Rev.	Date	Details	By	Chkd	Appd

Client:-



Site:-
Fontwell
Eastergate
Arundel

Drawing Title:-
DOMESTIC DRAINAGE
CONSTRUCTION
DETAILS

Date:	March 2020	Scales:	Not to scale at A1
Drawn:	GD-I	Checked:	LD
		Approved:	TRS
Drawing No.			

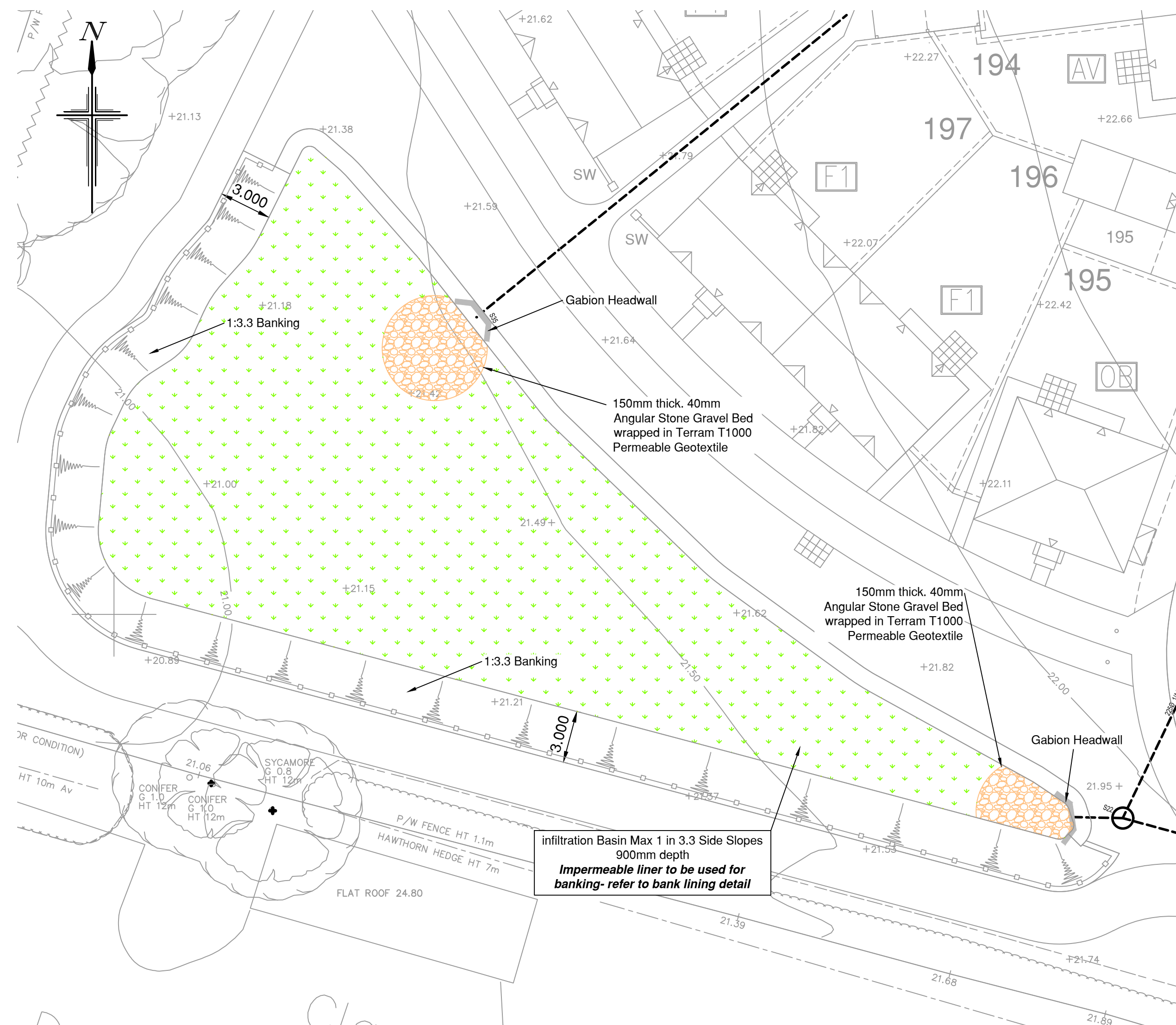
INITIAL TENDER ISSUE

SUBJECT TO PLANNING APPROVAL



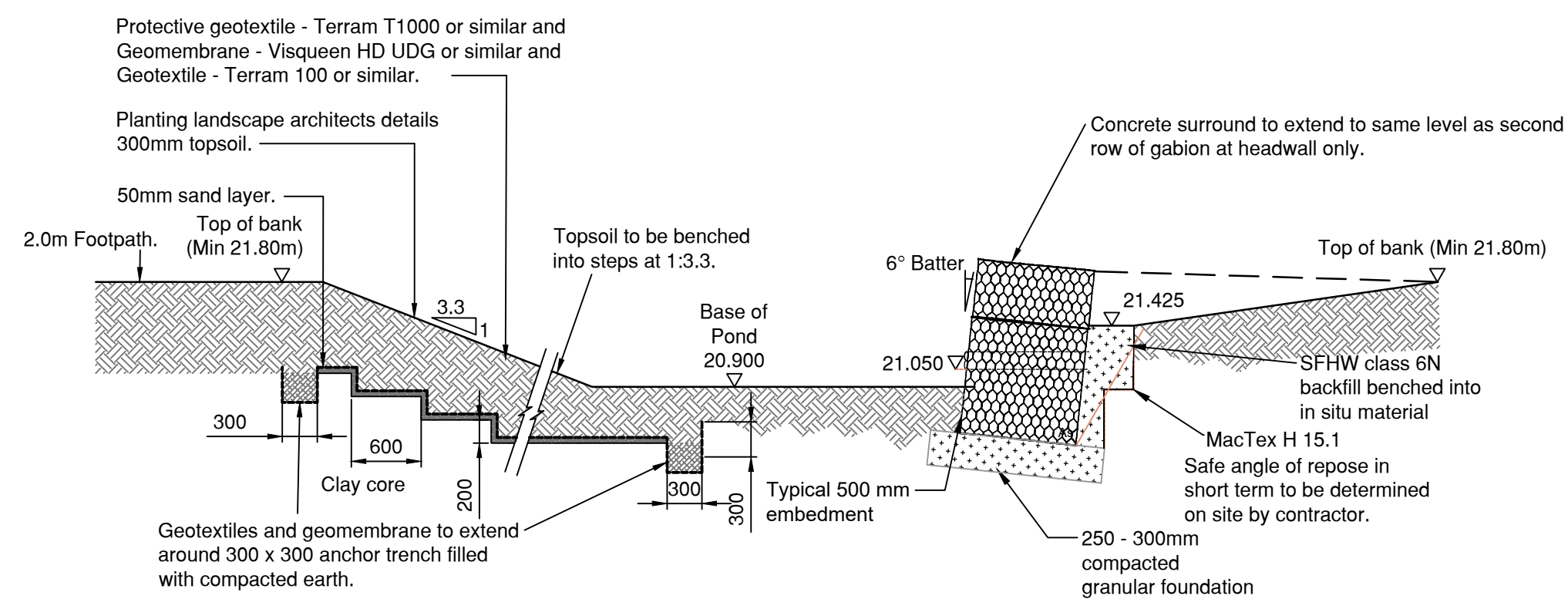
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Infiltration Basin Plan

Scale 1:200

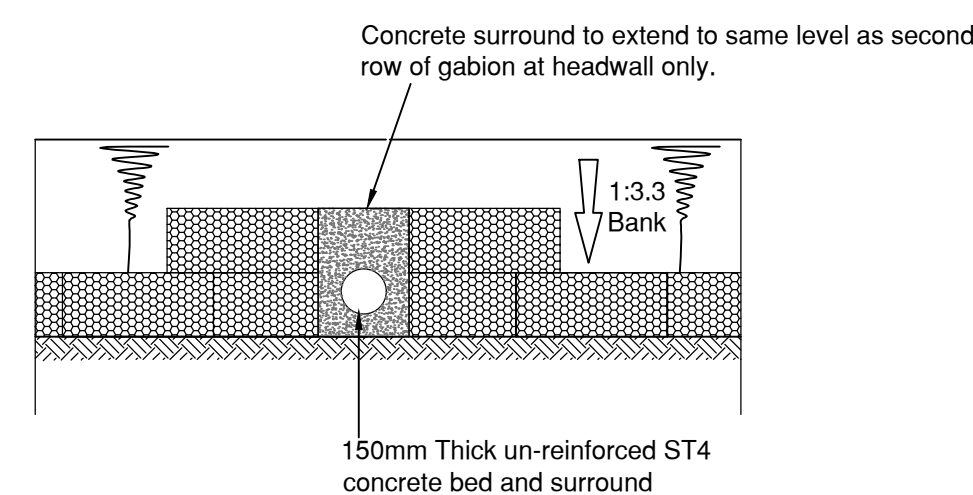


2.0m x 1.0m x 1.0m Gabion basket supplied by Environmesh or similar approved.
Fill to gabion to comprise of Class 6/3 material to the Series 600 of the S.H.W (MCDHW or equivalent).

The grading of the stone to vary from a minimum size larger than the gabion apertures up to 200mm size stone. Gabion to be Hexagonal Woven Mesh (ENV-P27-HEX (Polymer powder coated grey). Mesh fabric to have net pattern of nominal size 80mmx100mm. Nominal wire diameter shall be 2.7mm to 3.4mm to BS EN 10218-2:2012 and BS EN 10223-3:2013 with an ultimate tensile strength that falls in the range of 350 to 550 N/mm². Reference must be made to the gabion manufacturers specification and installation guidance

Typical Gabion Headwall and Basin Bank Benching Detail

Scale 1:20



Typical Gabion Headwall Elevation Detail

Scale 1:20

NOTES

1. All dimensions are in metres unless stated otherwise.
2. Do not scale from this drawing. Only written dimensions are to be used.
3. This drawing should be read in conjunction with the Architect's and Structural Engineer's design drawings and specification.
4. Site Layout and boundary based on AAP Architecture Proposed Site Layout, drawing number P1549.11 Revision ZZZQ received on 06.08.2020.
5. Topographic Survey taken from mksurveys Topographical Survey drawing number 25802, Sheets 1-3, dated 05.10.18.
6. For Root Protection Areas refer to FPCF Environment & Design Ltd Tree survey information drawing received from Dandara 19.08.20.
7. All concrete products should be sulphate resisting.
8. Pipework should have spigot and socket flexible joints.
9. Refer to Geotechnical report for sulphate resisting class and AECCE class.
10. **ANY VARIANCE OR DISCREPANCY MUST BE REPORTED BACK TO RCP ENGINEERING BEFORE WORK BEGINS.**

DEPTH OF PIPE COVER

The minimum depth of pipe cover to the crown of gravity pipes without protection should be as follows:

- domestic gardens and pathways without any possibility of vehicular access, 0,35m;
- domestic driveways, parking areas and yards with height restrictions to prevent entry by vehicles with a gross weight in excess of 7,5 tonnes, 0,5m;
- domestic driveways, parking areas and narrow streets without footways (e.g., mews developments) with limited access for vehicles with a gross weight in excess of 7,5 tonnes, 0,9m;
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- other highways and parking areas with unrestricted access to vehicles with a gross vehicle weight in excess of 7,5 tonnes, 1,2m.

KEY

Infiltration Basin



CDM NOTES

1. EXISTING SERVICES. Depth of existing services must be determined prior to works commencing. The contractor is responsible for establishing underground services in accordance with HSE Guidance note HS (G) 47. Any services which would be within the proposed construction layers must be lowered to below the sub-base.



B	20.10.20	Grading revised to Basin. Key updated.		LD	PJ TRS
A	26.05.20	Gabion Details and outfall elevation added		TRS	TRS TRS
Rev.	Date	Details		By	Chkd Appd

Client:-



Site:-
Fontwell
Eastergate
Arundel

Drawing Title:-
SUDS
FEATURE
DETAILS

Sheet 1 of 2

Date:	March 2020	Scales:	As Shown at A1
Drawn:	GD-I	Checked:	ID
		Approved:	TRB

Drawing No.

FON-183-01-B

INITIAL TENDER ISSUE
SUBJECT TO PLANNING APPROVAL



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Appendix (D)

MicroDrainage Calculations

Rogers Cory Ptn Ltd										Page 1	
The Old School Old School Road Hook RG27 9NJ											
Date 28/10/2020 00:28											
File SW1G.mdx											
Micro Drainage							Network 2017.1.2				
STORM SEWER DESIGN by the Modified Rational Method											
Design Criteria for Storm											
Pipe Sizes STANDARD Manhole Sizes STANDARD											
FSR Rainfall Model - England and Wales											
Return Period (years)	2	Foul Sewage (l/s/ha) 0.000				Maximum Backdrop Height (m) 1.500					
M5-60 (mm)	19.300	Volumetric Runoff Coeff. 0.750				Min Design Depth for Optimisation (m) 1.200					
Ratio R	0.348	PIMP (%) 100				Min Vel for Auto Design only (m/s) 1.00					
Maximum Rainfall (mm/hr)	50	Add Flow / Climate Change (%) 10				Min Slope for Optimisation (1:X) 500					
Maximum Time of Concentration (mins)	30	Minimum Backdrop Height (m) 0.600									
Designed with Level Soffits											
Network Design Table for Storm											
« - Indicates pipe capacity < flow											
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
S1.000	63.568	1.087	58.5	0.117	5.00	0.0	0.600	o	300	Pipe/Conduit	
S1.001	22.780	0.389	58.6	0.060	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.002	24.765	0.423	58.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.003	53.305	0.911	58.5	0.041	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.004	43.357	0.741	58.5	0.040	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.005	16.187	0.277	58.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.006	86.089	1.472	58.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.007	11.421	0.195	58.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.008	16.500	0.757	21.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S2.000	18.986	0.078	243.4	0.030	5.00	0.0	0.600	o	300	Pipe/Conduit	
S2.001	21.530	0.088	244.7	0.020	0.00	0.0	0.600	o	300	Pipe/Conduit	
S2.002	12.589	0.052	242.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S2.003	37.709	0.154	244.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S2.004	40.499	0.165	245.4	0.035	0.00	0.0	0.600	o	300	Pipe/Conduit	
S2.005	16.422	0.067	245.1	0.009	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.000	37.878	0.694	54.6	0.050	5.00	0.0	0.600	o	300	Pipe/Conduit	
S3.001	11.023	0.045	245.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.002	20.416	0.083	246.0	0.041	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.003	25.487	0.104	245.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.004	10.499	0.043	244.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.005	12.913	0.053	243.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.006	19.998	0.082	243.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.007	17.545	0.076	230.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.008	24.545	0.100	245.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S3.009	9.668	1.157	8.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S2.006	6.425	0.026	247.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
Network Results Table											
PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	
S1.000	50.00	5.51	29.869	0.117	0.0	0.0	1.6	2.06	145.6	17.4	
S1.001	50.00	5.70	28.782	0.177	0.0	0.0	2.4	2.06	145.5	26.4	
S1.002	50.00	5.90	28.393	0.177	0.0	0.0	2.4	2.06	145.5	26.4	
S1.003	50.00	6.33	27.970	0.218	0.0	0.0	3.0	2.06	145.6	32.5	
S1.004	50.00	6.68	27.059	0.258	0.0	0.0	3.5	2.06	145.6	38.4	
S1.005	50.00	6.81	26.318	0.258	0.0	0.0	3.5	2.06	145.7	38.4	
S1.006	50.00	7.51	26.041	0.258	0.0	0.0	3.5	2.06	145.6	38.4	
S1.007	50.00	7.60	24.569	0.258	0.0	0.0	3.5	2.06	145.5	38.4	
S1.008	50.00	7.68	24.374	0.258	0.0	0.0	3.5	3.38	239.1	38.4	
S2.000	50.00	5.32	23.322	0.030	0.0	0.0	0.4	1.00	70.9	4.5	
S2.001	50.00	5.67	23.244	0.050	0.0	0.0	0.7	1.00	70.7	7.4	
S2.002	50.00	5.88	23.156	0.050	0.0	0.0	0.7	1.01	71.1	7.4	
S2.003	50.00	6.51	23.104	0.050	0.0	0.0	0.7	1.00	70.7	7.4	
S2.004	50.00	7.19	22.950	0.085	0.0	0.0	1.2	1.00	70.6	12.7	
S2.005	50.00	7.46	22.785	0.094	0.0	0.0	1.3	1.00	70.7	14.0	
S3.000	50.00	5.30	25.155	0.050	0.0	0.0	0.7	2.13	150.8	7.4	
S3.001	50.00	5.48	24.461	0.050	0.0	0.0	0.7	1.00	70.7	7.4	
S3.002	50.00	5.82	24.416	0.091	0.0	0.0	1.2	1.00	70.5	13.6	
S3.003	50.00	6.25	24.333	0.091	0.0	0.0	1.2	1.00	70.7	13.6	
S3.004	50.00	6.42	24.229	0.091	0.0	0.0	1.2	1.00	70.8	13.6	
S3.005	50.00	6.63	24.186	0.091	0.0	0.0	1.2	1.00	70.9	13.6	
S3.006	50.00	6.97	24.133	0.091	0.0	0.0	1.2	1.00	70.9	13.6	
S3.007	50.00	7.25	24.051	0.091	0.0	0.0	1.2	1.03	72.8	13.6	
S3.008	50.00	7.66	23.975	0.091	0.0	0.0	1.2	1.00	70.6	13.6	
S3.009	50.00	7.69	23.875	0.091	0.0	0.0	1.2	5.47	386.7	13.6	
S2.006	50.00	7.80	22.718	0.185	0.0	0.0	2.5	1.00	70.4	27.6	
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Rogers Cory Ptn Ltd											Page 2	
The Old School Old School Road Hook RG27 9NJ												
Date 28/10/2020 00:28 File SW1G.mdx						Designed by Leon Checked by						
Micro Drainage						Network 2017.1.2						
Network Design Table for Storm												
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design	
S2.007	30.960	0.126	245.7	0.034	0.00	0.0	0.600	o	300	Pipe/Conduit		
S2.008	21.713	0.089	244.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S2.009	31.085	0.126	246.7	0.039	0.00	0.0	0.600	o	300	Pipe/Conduit		
S2.010	15.735	0.064	245.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S2.011	17.280	0.071	243.4	0.037	0.00	0.0	0.600	o	300	Pipe/Conduit		
S2.012	19.280	0.078	247.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S2.013	9.481	0.038	249.5	0.018	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.009	21.634	0.087	248.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.010	15.917	0.065	244.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.011	19.348	0.079	244.9	0.018	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.012	48.776	0.198	246.3	0.046	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.013	7.684	0.031	247.9	0.020	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.014	21.644	0.088	246.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.015	17.006	0.069	246.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S4.000	17.548	0.320	54.8	0.056	5.00	0.0	0.600	o	300	Pipe/Conduit		
S1.016	11.585	0.047	246.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.017	14.801	0.060	246.7	0.025	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.018	12.558	0.051	246.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.019	16.604	0.067	247.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S1.020	18.356	0.075	244.7	0.015	0.00	0.0	0.600	o	300	Pipe/Conduit		
S5.000	19.609	0.735	26.7	0.016	5.00	0.0	0.600	o	225	Pipe/Conduit		
S5.001	8.980	0.090	99.8	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit		
S5.002	29.138	0.172	169.4	0.037	0.00	0.0	0.600	o	225	Pipe/Conduit		
S5.003	14.499	0.102	142.1	0.068	0.00	0.0	0.600	o	225	Pipe/Conduit		
S1.021	27.790	0.087	319.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.000	15.517	0.627	24.7	0.061	5.00	0.0	0.600	o	300	Pipe/Conduit		
S6.001	15.647	0.064	244.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.002	5.455	0.023	237.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.003	21.798	0.089	244.9	0.009	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.004	17.453	0.072	242.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.005	15.369	0.081	189.7	0.030	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.006	32.517	0.131	248.2	0.014	0.00	0.0	0.600	o	300	Pipe/Conduit		
S6.007	21.759	0.088	247.3	0.021	0.00	0.0	0.600	o	300	Pipe/Conduit		
Network Results Table												
PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)		
S2.007	50.00	8.31	22.692	0.219	0.0	0.0	3.0	1.00	70.6	32.6		
S2.008	49.25	8.68	22.566	0.219	0.0	0.0	3.0	1.00	70.8	32.6		
S2.009	47.83	9.20	22.477	0.258	0.0	0.0	3.3	1.00	70.4	36.8		
S2.010	47.16	9.46	22.351	0.258	0.0	0.0	3.3	1.00	70.6	36.8		
S2.011	46.44	9.75	22.287	0.295	0.0	0.0	3.7	1.00	70.9	40.8		
S2.012	45.67	10.07	22.216	0.295	0.0	0.0	3.7	1.00	70.4	40.8		
S2.013	45.30	10.23	22.138	0.313	0.0	0.0	3.8	0.99	70.0	42.2		
S1.009	44.48	10.59	22.100	0.571	0.0	0.0	6.9	0.99	70.2«	75.7		
S1.010	43.91	10.86	22.013	0.571	0.0	0.0	6.9	1.00	70.7«	75.7		
S1.011	43.24	11.18	21.948	0.589	0.0	0.0	6.9	1.00	70.7«	75.9		
S1.012	41.67	11.99	21.869	0.635	0.0	0.0	7.2	1.00	70.5«	78.8		
S1.013	41.44	12.12	21.670	0.655	0.0	0.0	7.4	0.99	70.3«	80.9		
S1.014	40.79	12.48	21.637	0.655	0.0	0.0	7.4	1.00	70.5«	80.9		
S1.015	40.30	12.77	21.549	0.655	0.0	0.0	7.4	1.00	70.5«	80.9		
S4.000	50.00	5.14	21.800	0.056	0.0	0.0	0.8	2.13	150.4	8.3		
S1.016	39.97	12.96	21.480	0.711	0.0	0.0	7.7	1.00	70.5«	84.7		
S1.017	39.57	13.21	21.433	0.736	0.0	0.0	7.9	1.00	70.4«	86.8		
S1.018	39.23	13.42	21.373	0.736	0.0	0.0	7.9	1.00	70.5«	86.8		
S1.019	38.79	13.70	21.322	0.736	0.0	0.0	7.9	0.99	70.3«	86.8		
S1.020	38.32	14.00	21.255	0.751	0.0	0.0	7.9	1.00	70.7«	86.8		
S5.000	50.00	5.13	22.328	0.016	0.0	0.0	0.2	2.54	101.1	2.4		
S5.001	50.00	5.24	21.593	0.016	0.0	0.0	0.2	1.31	52.0	2.4		
S5.002	50.00	5.73	21.503	0.053	0.0	0.0	0.7	1.00	39.8	7.9		
S5.003	50.00	5.95	21.331	0.121	0.0	0.0	1.6	1.09	43.5	18.0		
S1.021	37.54	14.53	21.154	0.872	0.0	0.0	8.9	0.87	61.8«	97.5		
S6.000	50.00	5.08	22.654	0.061	0.0	0.0	0.8	3.17	224.3	9.1		
S6.001	50.00	5.34	22.027	0.061	0.0	0.0	0.8	1.00	70.8	9.1		
S6.002	50.00	5.43	21.954	0.061	0.0	0.0	0.8	1.02	71.9	9.1		
S6.003	50.00	5.79	21.931	0.070	0.0	0.0	0.9	1.00	70.7	10.4		
S6.004	50.00	6.08	21.842	0.070	0.0	0.0	0.9	1.01	71.1	10.4		
S6.005	50.00	6.31	21.777	0.100	0.0	0.0	1.4	1.14	80.4	14.9		
S6.006	50.00	6.85	21.696	0.114	0.0	0.0	1.5	0.99	70.2	17.0		
S6.007	50.00	7.22	21.565	0.135	0.0	0.0	1.8	1.00	70.4	20.1		
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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
S6.008	14.639	0.060	244.0	0.015	0.00	0.0	0.600	o	300	Pipe/Conduit	
S6.009	16.912	0.069	245.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S6.010	23.588	0.096	245.7	0.018	0.00	0.0	0.600	o	300	Pipe/Conduit	
S6.011	27.300	0.111	245.9	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit	
S6.012	22.313	0.091	245.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.022	1.989	0.022	90.4	0.075	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S6.008	50.00	7.46	21.477	0.150	0.0	0.0	2.0	1.00	70.8	22.3
S6.009	50.00	7.74	21.417	0.150	0.0	0.0	2.0	1.00	70.7	22.3
S6.010	50.00	8.14	21.348	0.168	0.0	0.0	2.3	1.00	70.6	25.0
S6.011	49.48	8.59	21.252	0.195	0.0	0.0	2.6	1.00	70.5	28.7
S6.012	48.45	8.97	21.141	0.195	0.0	0.0	2.6	1.00	70.7	28.7
S1.022	37.51	14.55	21.050	1.142	0.0	0.0	11.6	1.65	116.9«	127.6

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Manhole Schedules for Storm											
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
S1	31.639	1.770	Open Manhole	1200	S1.000	29.869	300				
S2	30.562	1.780	Open Manhole	1200	S1.001	28.782	300	S1.000	28.782	300	
S3	30.041	1.648	Open Manhole	1200	S1.002	28.393	300	S1.001	28.393	300	
S4	29.557	1.587	Open Manhole	1200	S1.003	27.970	300	S1.002	27.970	300	
S5	28.855	1.796	Open Manhole	1200	S1.004	27.059	300	S1.003	27.059	300	
S6	28.061	1.743	Open Manhole	1200	S1.005	26.318	300	S1.004	26.318	300	
S7	28.340	2.299	Open Manhole	1200	S1.006	26.041	300	S1.005	26.041	300	
S8	27.381	2.812	Open Manhole	1200	S1.007	24.569	300	S1.006	24.569	300	
S9	27.298	2.924	Open Manhole	1200	S1.008	24.374	300	S1.007	24.374	300	
S22	24.457	1.135	Open Manhole	1200	S2.000	23.322	300				
S23	24.402	1.158	Open Manhole	1200	S2.001	23.244	300	S2.000	23.244	300	
S24	24.709	1.553	Open Manhole	1200	S2.002	23.156	300	S2.001	23.156	300	
S25	24.925	1.821	Open Manhole	1200	S2.003	23.104	300	S2.002	23.104	300	
S26	25.952	3.002	Open Manhole	1200	S2.004	22.950	300	S2.003	22.950	300	
S27	26.318	3.533	Open Manhole	1200	S2.005	22.785	300	S2.004	22.785	300	
S36	26.664	1.509	Open Manhole	1200	S3.000	25.155	300				
S37	26.261	1.800	Open Manhole	1200	S3.001	24.461	300	S3.000	24.461	300	
S38	26.235	1.819	Open Manhole	1200	S3.002	24.416	300	S3.001	24.416	300	
S39	26.305	1.972	Open Manhole	1200	S3.003	24.333	300	S3.002	24.333	300	
S40	26.911	2.682	Open Manhole	1200	S3.004	24.229	300	S3.003	24.229	300	
S41	27.076	2.890	Open Manhole	1200	S3.005	24.186	300	S3.004	24.186	300	
S42	27.073	2.940	Open Manhole	1200	S3.006	24.133	300	S3.005	24.133	300	
S43	26.933	2.882	Open Manhole	1200	S3.007	24.051	300	S3.006	24.051	300	
S44	26.807	2.832	Open Manhole	1200	S3.008	23.975	300	S3.007	23.975	300	
S45	26.620	2.745	Open Manhole	1200	S3.009	23.875	300	S3.008	23.875	300	
S28	26.632	3.914	Open Manhole	1200	S2.006	22.718	300	S2.005	22.718	300	
								S3.009	22.718	300	
S29	26.627	3.935	Open Manhole	1200	S2.007	22.692	300	S2.006	22.692	300	
S30	26.716	4.150	Open Manhole	1200	S2.008	22.566	300	S2.007	22.566	300	
S31	26.813	4.336	Open Manhole	1200	S2.009	22.477	300	S2.008	22.477	300	
S32	26.953	4.602	Open Manhole	1200	S2.010	22.351	300	S2.009	22.351	300	
S33	27.003	4.716	Open Manhole	1200	S2.011	22.287	300	S2.010	22.287	300	
S34	27.094	4.878	Open Manhole	1200	S2.012	22.216	300	S2.011	22.216	300	
S35	27.175	5.037	Open Manhole	1200	S2.013	22.138	300	S2.012	22.138	300	
S10	27.132	5.032	Open Manhole	1200	S1.009	22.100	300	S1.008	23.617	300	1517
								S2.013	22.100	300	
S11	26.729	4.716	Open Manhole	1200	S1.010	22.013	300	S1.009	22.013	300	
S12	26.426	4.478	Open Manhole	1200	S1.011	21.948	300	S1.010	21.948	300	
S13	26.122	4.253	Open Manhole	1200	S1.012	21.869	300	S1.011	21.869	300	
S14	24.751	3.081	Open Manhole	1200	S1.013	21.670	300	S1.012	21.671	300	1
S15	24.504	2.867	Open Manhole	1200	S1.014	21.637	300	S1.013	21.639	300	2
S16	23.848	2.299	Open Manhole	1200	S1.015	21.549	300	S1.014	21.549	300	
S46	23.600	1.800	Open Manhole	1200	S4.000	21.800	300				
S17	23.492	2.012	Open Manhole	1200	S1.016	21.480	300	S1.015	21.480	300	
								S4.000	21.480	300	
S18	23.271	1.838	Open Manhole	1200	S1.017	21.433	300	S1.016	21.433	300	
S19	22.828	1.455	Open Manhole	1200	S1.018	21.373	300	S1.017	21.373	300	
S20	22.416	1.094	Open Manhole	1200	S1.019	21.322	300	S1.018	21.322	300	
S21	22.383	1.128	Open Manhole	1200	S1.020	21.255	300	S1.019	21.255	300	
S47	23.753	1.425	Open Manhole	1200	S5.000	22.328	225				
S48	23.400	1.807	Open Manhole	1200	S5.001	21.593	225	S5.000	21.593	225	
S49	23.203	1.700	Open Manhole	1200	S5.002	21.503	225	S5.001	21.503	225	
S50	22.312	0.981	Open Manhole	1200	S5.003	21.331	225	S5.002	21.331	225	
S22	22.017	0.863	Open Manhole	1200	S1.021	21.154	300	S1.020	21.180	300	26
								S5.003	21.229	225	
S51	24.447	1.793	Open Manhole	1200	S6.000	22.654	300				
S52	23.684	1.657	Open Manhole	1200	S6.001	22.027	300	S6.000	22.027	300	
S53	23.512	1.558	Open Manhole	1200	S6.002	21.954	300	S6.001	21.963	300	9
S54	23.435	1.504	Open Manhole	1200	S6.003	21.931	300	S6.002	21.931	300	
S55	23.206	1.364	Open Manhole	1200	S6.004	21.842	300	S6.003	21.842	300	
S56	22.992	1.222	Open Manhole	1200	S6.005	21.777	300	S6.004	21.770	300	
S57	23.728	2.032	Open Manhole	1200	S6.006	21.696	300	S6.005	21.696	300	
S58	22.650	1.085	Open Manhole	1200	S6.007	21.565	300	S6.006	21.565	300	
S59	22.771	1.294	Open Manhole	1200	S6.008	21.477	300	S6.007	21.477	300	
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Micro Drainage

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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
S60	23.000	1.583	Open Manhole	1200	S6.009	21.417	300	S6.008	21.417	300	
S61	22.248	0.900	Open Manhole	1200	S6.010	21.348	300	S6.009	21.348	300	
S62	22.152	0.900	Open Manhole	1200	S6.011	21.252	300	S6.010	21.252	300	
S63	22.066	0.925	Open Manhole	1200	S6.012	21.141	300	S6.011	21.141	300	
S22	22.000	0.950	Open Manhole	1200	S1.022	21.050	300	S1.021	21.067	300	17
								S6.012	21.050	300	
S	22.000	0.972	Open Manhole	0		OUTFALL		S1.022	21.028	300	

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D, L (mm)	W (mm)
S1.022	S	22.000	21.028	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff 0.840

Manhole Headloss Coeff (Global) 0.500

Inlet Coefficient 0.800

Areal Reduction Factor 1.000

Foul Sewage per hectare (l/s) 0.000

Flow per Person per Day (l/per/day) 0.000

Hot Start (mins) 0

Additional Flow - % of Total Flow 10.000

Run Time (mins) 60

Hot Start Level (mm) 0

MADD Factor * 10m³/ha Storage 2.000

Output Interval (mins) 1

Number of Input Hydrographs 0

Number of Offline Controls 1

Number of Time/Area Diagrams 0

Number of Online Controls 2

Number of Storage Structures 3

Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR

M5-60 (mm) 19.300

Cv (Summer) 0.750

Return Period (years) 100

Ratio R 0.348

Cv (Winter) 0.840

Region England and Wales

Profile Type Winter Storm

Duration (mins) 30

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Micro Drainage Network 2017.1.2																																						
Online Controls for Storm Orifice Manhole: S23, DS/PN: S2.001, Volume (m³): 2.6 Diameter (m) 0.225 Discharge Coefficient 0.600 Invert Level (m) 23.244 Depth/Flow Relationship Manhole: S22, DS/PN: S1.022, Volume (m³): 4.4 Invert Level (m) 21.050 <table><thead><tr><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th></tr></thead><tbody><tr><td>0.100</td><td>0.0000</td><td>0.300</td><td>0.0000</td><td>0.500</td><td>0.0000</td><td>0.700</td><td>0.0000</td><td>0.900</td><td>0.0000</td><td>1.100</td><td>0.0000</td></tr><tr><td>0.200</td><td>0.0000</td><td>0.400</td><td>0.0000</td><td>0.600</td><td>0.0000</td><td>0.800</td><td>0.0000</td><td>1.000</td><td>0.0000</td><td>1.200</td><td>0.0000</td></tr></tbody></table>			Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	0.0000	0.300	0.0000	0.500	0.0000	0.700	0.0000	0.900	0.0000	1.100	0.0000	0.200	0.0000	0.400	0.0000	0.600	0.0000	0.800	0.0000	1.000	0.0000	1.200	0.0000
Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)																											
0.100	0.0000	0.300	0.0000	0.500	0.0000	0.700	0.0000	0.900	0.0000	1.100	0.0000																											
0.200	0.0000	0.400	0.0000	0.600	0.0000	0.800	0.0000	1.000	0.0000	1.200	0.0000																											
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Micro Drainage	Network 2017.1.2																																	
Storage Structures for Storm Tank or Pond Manhole: S23, DS/PN: S2.001 Invert Level (m) 23.257 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr><tr><td>0.000</td><td>43.5</td><td>0.400</td><td>43.5</td><td>0.401</td><td>0.0</td></tr></table> Tank or Pond Manhole: S20, DS/PN: S1.019 Invert Level (m) 21.322 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr><tr><td>0.000</td><td>8.0</td><td>0.400</td><td>8.0</td><td>0.401</td><td>0.0</td></tr></table> Infiltration Basin Manhole: S22, DS/PN: S1.022 Invert Level (m) 20.900 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 1.00 Infiltration Coefficient Base (m/hr) 0.10700 Safety Factor 2.0 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr><tr><td>0.000</td><td>749.0</td><td>0.600</td><td>1217.0</td></tr></table>			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	43.5	0.400	43.5	0.401	0.0	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	8.0	0.400	8.0	0.401	0.0	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	749.0	0.600	1217.0
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																													
0.000	43.5	0.400	43.5	0.401	0.0																													
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																													
0.000	8.0	0.400	8.0	0.401	0.0																													
Depth (m)	Area (m²)	Depth (m)	Area (m²)																															
0.000	749.0	0.600	1217.0																															
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Date 28/10/2020 00:28							Designed by Leon							
File SW1G.mdx							Checked by							
Micro Drainage							Network 2017.1.2							
<u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u> <u>Simulation Criteria</u> Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000 Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coeffiecient 0.800 Hot Start Level (mm) 0 Additional Flow - % of Total Flow 10.000 Flow per Person per Day (l/per/day) 0.000 Number of Input Hydrographs 0 Number of Offline Controls 1 Number of Time/Area Diagrams 0 Number of Online Controls 2 Number of Storage Structures 3 Number of Real Time Controls 0 <u>Synthetic Rainfall Details</u> Rainfall Model FSR M5-60 (mm) 19.300 Cv (Summer) 0.750 Region England and Wales Ratio R 0.348 Cv (Winter) 0.840 Margin for Flood Risk Warning (mm) 300.0 DTS Status ON Inertia Status OFF Analysis Timestep Fine DVD Status ON Profile(s) Summer and Winter Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080 Return Period(s) (years) 100 Climate Change (%) 40														
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)
S1.000	S1	15 Winter	100	+40%					30.025	-0.144	0.000	0.52		71.6
S1.001	S2	15 Winter	100	+40%					29.001	-0.081	0.000	0.85		109.6
S1.002	S3	15 Winter	100	+40%					28.609	-0.084	0.000	0.84		109.7
S1.003	S4	15 Winter	100	+40%	100/15 Summer				28.331	0.061	0.000	0.93		127.6
S1.004	S5	15 Winter	100	+40%	100/15 Summer				27.554	0.195	0.000	1.06		144.6
S1.005	S6	15 Winter	100	+40%	100/15 Summer				26.756	0.138	0.000	1.15		141.7
S1.006	S7	15 Winter	100	+40%	100/15 Summer				26.436	0.095	0.000	0.97		136.4
S1.007	S8	30 Winter	100	+40%	100/15 Summer				25.398	0.529	0.000	1.08		119.4
S1.008	S9	30 Winter	100	+40%	100/15 Summer				25.225	0.551	0.000	0.54		109.9
S2.000	S22	30 Winter	100	+40%	100/15 Summer	100/15 Winter			24.456	0.834	0.000	0.24		14.4
S2.001	S23	30 Winter	100	+40%	100/15 Summer				24.454	0.910	13.438	0.71		43.9
S2.002	S24	30 Winter	100	+40%	100/15 Summer				24.565	1.109	0.000	0.77		44.7
S2.003	S25	30 Winter	100	+40%	100/15 Summer				24.620	1.216	0.000	0.68		44.5
S2.004	S26	30 Winter	100	+40%	100/15 Summer				24.708	1.458	0.000	0.70		45.8
S2.005	S27	30 Winter	100	+40%	100/15 Summer				24.771	1.686	0.000	0.77		46.3
S3.000	S36	15 Winter	100	+40%					25.251	-0.204	0.000	0.22		30.9
S3.001	S37	30 Winter	100	+40%	100/30 Winter				24.933	0.172	0.000	0.45		25.1
S3.002	S38	30 Winter	100	+40%	100/15 Winter				24.926	0.210	0.000	0.74		45.6
S3.003	S39	30 Winter	100	+40%	100/15 Winter				24.908	0.275	0.000	0.71		45.0
S3.004	S40	30 Winter	100	+40%	100/15 Winter				24.889	0.360	0.000	0.76		42.5
S3.005	S41	30 Winter	100	+40%	100/15 Summer				24.877	0.391	0.000	0.71		41.2
S3.006	S42	30 Winter	100	+40%	100/15 Summer				24.864	0.431	0.000	0.62		38.6
S3.007	S43	30 Winter	100	+40%	100/15 Summer				24.846	0.495	0.000	0.65		40.5
S3.008	S44	30 Winter	100	+40%	100/15 Summer				24.832	0.557	0.000	0.66		41.6
S3.009	S45	30 Winter	100	+40%	100/15 Summer				24.817	0.642	0.000	0.18		49.2
S2.006	S28	30 Winter	100	+40%	100/15 Summer				24.810	1.792	0.000	1.48		73.8
S2.007	S29	30 Winter	100	+40%	100/15 Summer				24.823	1.831	0.000	1.15		73.8
S2.008	S30	30 Winter	100	+40%	100/15 Summer				24.836	1.970	0.000	1.19		74.0
S2.009	S31	30 Winter	100	+40%	100/15 Summer				24.861	2.084	0.000	1.15		73.8
S2.010	S32	30 Winter	100	+40%	100/15 Summer				24.898	2.247	0.000	1.24		74.1
S2.011	S33	30 Winter	100	+40%	100/15 Summer				24.928	2.341	0.000	1.22		74.1
S2.012	S34	30 Winter	100	+40%	100/15 Summer				24.940	2.424	0.000	1.22		74.6
S2.013	S35	30 Winter	100	+40%	100/15 Summer				24.953	2.515	0.000	1.38		74.9
S1.009	S10	30 Winter	100	+40%	100/15 Summer				24.955	2.555	0.000	1.72		105.9
S1.010	S11	30 Winter	100	+40%	100/15 Summer				24.705	2.392	0.000	1.75		104.4
S1.011	S12	30 Winter	100	+40%	100/15 Summer				24.510	2.262	0.000	1.76		107.9
S1.012	S13	30 Winter	100	+40%	100/15 Summer				24.268	2.099	0.000	1.76		116.8
S1.013	S14	30 Winter	100	+40%	100/15 Summer				23.646	1.676	0.000	2.33		120.9
S1.014	S15	30 Winter	100	+40%	100/15 Summer				23.411	1.474	0.000	1.95		121.2
S1.015	S16	30 Winter	100	+40%	100/15 Summer				23.077	1.228	0.000	2.03		121.9
S4.000	S46	30 Winter	100	+40%	100/15 Summer				22.824	0.724	0.000	0.17		22.3
S1.016	S17	30 Winter	100	+40%	100/15 Summer				22.809	1.029	0.000	2.37		134.0
S1.017	S18	30 Winter	100	+40%	100/15 Summer				22.523	0.790	0.000	2.36		139.3
S1.018	S19	30 Winter	100	+40%	100/15 Summer				22.187	0.514	0.000	2.43		139.5
S1.019	S20	30 Winter	100	+40%	100/15 Summer		100/15 Summer	38	21.879	0.257	0.000	1.21	70.4	72.3
S1.020	S21	30 Winter	100	+40%	100/15 Summer				21.798	0.243	0.000	1.22		74.7
S5.000	S47	15 Winter	100	+40%					22.378	-0.175	0.000	0.11		10.0
S5.001	S48	15 Winter	100	+40%	100/15 Summer				22.024	0.206	0.000	0.26		10.9
S5.002	S49	15 Winter	100	+40%	100/15 Summer				22.014	0.286	0.000	0.79		29.3
S5.003	S50	15 Winter	100	+40%	100/15 Summer				21.906	0.350	0.000	1.76		67.3
S1.021	S22	30 Winter	100	+40%	100/15 Summer				21.704	0.250	0.000	2.00		111.8
S6.000	S51	15 Winter	100	+40%					22.746	-0.208	0.000	0.20		38.2
S6.001	S52	15 Winter	100	+40%					22.299	-0.028	0.000	0.63		37.5
S6.002	S53	15 Winter	100	+40%					22.254	0.000	0.000	0.78		37.9
S6.003	S54	15 Winter	100	+40%	100/15 Winter				22.239	0.008	0.000	0.68		42.6
S6.004	S55	15 Winter	100	+40%	100/15 Winter				22.186	0.044	0.000	0.63		38.3
S6.005	S56	15 Winter	100	+40%	100/15 Winter				22.132	0.055	0.000	0.76		51.1
S6.006	S57	15 Winter	100	+40%	100/15 Winter				22.042	0.046	0.000	0.87		55.7
S6.007	S58	15 Winter	100	+40%	100/15 Summer				21.954	0.089	0.000	0.93		57.6
S6.008	S59	15 Winter	100	+40%	100/15 Summer				21.872	0.095	0.000	1.06		62.5
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Micro Drainage		
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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Status	Level Exceeded
S1.000	S1	OK	
S1.001	S2	OK	
S1.002	S3	OK	
S1.003	S4	SURCHARGED	
S1.004	S5	SURCHARGED	
S1.005	S6	SURCHARGED	
S1.006	S7	SURCHARGED	
S1.007	S8	SURCHARGED	
S1.008	S9	SURCHARGED	
S2.000	S22	FLOOD RISK	
S2.001	S23	FLOOD	5
S2.002	S24	FLOOD RISK	
S2.003	S25	SURCHARGED	
S2.004	S26	SURCHARGED	
S2.005	S27	SURCHARGED	
S3.000	S36	OK	
S3.001	S37	SURCHARGED	
S3.002	S38	SURCHARGED	
S3.003	S39	SURCHARGED	
S3.004	S40	SURCHARGED	
S3.005	S41	SURCHARGED	
S3.006	S42	SURCHARGED	
S3.007	S43	SURCHARGED	
S3.008	S44	SURCHARGED	
S3.009	S45	SURCHARGED	
S2.006	S28	SURCHARGED	
S2.007	S29	SURCHARGED	
S2.008	S30	SURCHARGED	
S2.009	S31	SURCHARGED	
S2.010	S32	SURCHARGED	
S2.011	S33	SURCHARGED	
S2.012	S34	SURCHARGED	
S2.013	S35	SURCHARGED	
S1.009	S10	SURCHARGED	
S1.010	S11	SURCHARGED	
S1.011	S12	SURCHARGED	
S1.012	S13	SURCHARGED	
S1.013	S14	SURCHARGED	
S1.014	S15	SURCHARGED	
S1.015	S16	SURCHARGED	
S4.000	S46	SURCHARGED	
S1.016	S17	SURCHARGED	
S1.017	S18	SURCHARGED	
S1.018	S19	SURCHARGED	
S1.019	S20	SURCHARGED	
S1.020	S21	SURCHARGED	
S5.000	S47	OK	
S5.001	S48	SURCHARGED	
S5.002	S49	SURCHARGED	
S5.003	S50	SURCHARGED	
S1.021	S22	SURCHARGED	
S6.000	S51	OK	
S6.001	S52	OK	
S6.002	S53	OK	
S6.003	S54	SURCHARGED	
S6.004	S55	SURCHARGED	
S6.005	S56	SURCHARGED	
S6.006	S57	SURCHARGED	
S6.007	S58	SURCHARGED	
S6.008	S59	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm														
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)
S6.009	S60	15 Winter	100	+40%	100/15 Summer				21.797	0.080	0.000	1.00		60.4
S6.010	S61	15 Winter	100	+40%	100/15 Summer				21.718	0.070	0.000	1.05		65.6
S6.011	S62	15 Winter	100	+40%	100/15 Summer				21.609	0.057	0.000	1.16		73.5
S6.012	S63	15 Winter	100	+40%	100/15 Summer				21.461	0.020	0.000	1.17		73.1
S1.022	S22	360 Winter	100	+40%	100/120 Winter				21.388	0.038	0.000	0.00		0.0
PN	US/MH Name	Status	Level Exceeded											
S6.009	S60	SURCHARGED												
S6.010	S61	SURCHARGED												
S6.011	S62	SURCHARGED												
S6.012	S63	SURCHARGED												
S1.022	S22	SURCHARGED												

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 752 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	28.967	0.267	0.1	3.5	O K
30 min Summer	29.048	0.348	0.1	4.6	O K
60 min Summer	29.133	0.433	0.1	5.7	O K
120 min Summer	29.218	0.518	0.1	6.8	O K
180 min Summer	29.265	0.565	0.1	7.5	O K
240 min Summer	29.293	0.593	0.1	7.8	O K
360 min Summer	29.325	0.625	0.1	8.3	O K
480 min Summer	29.339	0.639	0.1	8.5	O K
600 min Summer	29.344	0.644	0.1	8.5	O K
720 min Summer	29.346	0.646	0.1	8.5	O K
960 min Summer	29.345	0.645	0.1	8.5	O K
1440 min Summer	29.333	0.633	0.1	8.4	O K
2160 min Summer	29.305	0.605	0.1	8.0	O K
2880 min Summer	29.275	0.575	0.1	7.6	O K
4320 min Summer	29.215	0.515	0.1	6.8	O K
5760 min Summer	29.159	0.459	0.1	6.1	O K
7200 min Summer	29.108	0.408	0.1	5.4	O K
8640 min Summer	29.063	0.363	0.1	4.8	O K
10080 min Summer	29.022	0.322	0.1	4.2	O K
15 min Winter	28.999	0.299	0.1	3.9	O K
30 min Winter	29.091	0.391	0.1	5.1	O K
60 min Winter	29.187	0.487	0.1	6.4	O K
120 min Winter	29.285	0.585	0.1	7.7	O K
180 min Winter	29.339	0.639	0.1	8.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	122
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	360
480 min Summer	7.922	0.0	480
600 min Summer	6.730	0.0	548
720 min Summer	5.890	0.0	606
960 min Summer	4.770	0.0	732
1440 min Summer	3.540	0.0	998
2160 min Summer	2.625	0.0	1424
2880 min Summer	2.123	0.0	1840
4320 min Summer	1.572	0.0	2640
5760 min Summer	1.270	0.0	3456
7200 min Summer	1.076	0.0	4184
8640 min Summer	0.940	0.0	4936
10080 min Summer	0.839	0.0	5744
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	120
180 min Winter	16.130	0.0	180

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 5 - Soakaway	
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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 10 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
240 min Winter	29.373	0.673	0.1	8.9	O K
360 min Winter	29.414	0.714	0.1	9.4	O K
480 min Winter	29.434	0.734	0.1	9.7	O K
600 min Winter	29.443	0.743	0.1	9.8	O K
720 min Winter	29.445	0.745	0.1	9.9	O K
960 min Winter	29.442	0.742	0.1	9.8	O K
1440 min Winter	29.425	0.725	0.1	9.6	O K
2160 min Winter	29.381	0.681	0.1	9.0	O K
2880 min Winter	29.333	0.633	0.1	8.4	O K
4320 min Winter	29.240	0.540	0.1	7.1	O K
5760 min Winter	29.157	0.457	0.1	6.0	O K
7200 min Winter	29.084	0.384	0.1	5.1	O K
8640 min Winter	29.021	0.321	0.1	4.2	O K
10080 min Winter	28.966	0.266	0.1	3.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	352
480 min Winter	7.922	0.0	464
600 min Winter	6.730	0.0	572
720 min Winter	5.890	0.0	674
960 min Winter	4.770	0.0	764
1440 min Winter	3.540	0.0	1070
2160 min Winter	2.625	0.0	1536
2880 min Winter	2.123	0.0	1988
4320 min Winter	1.572	0.0	2848
5760 min Winter	1.270	0.0	3640
7200 min Winter	1.076	0.0	4464
8640 min Winter	0.940	0.0	5192
10080 min Winter	0.839	0.0	5952

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

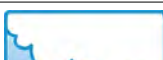
Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.023

Time (mins)	Area
From:	To: (ha)

0	4 0.023
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Model Details

Storage is Online Cover Level (m) 30.500

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr)	0.16500	Trench Width (m)	2.0
Infiltration Coefficient Side (m/hr)	0.16500	Trench Length (m)	7.0
Safety Factor	10.0	Slope (1:X)	1000.0
Porosity	0.95	Cap Volume Depth (m)	1.600
Invert Level (m)	28.700	Cap Infiltration Depth (m)	1.600

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1004 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	29.137	0.437	0.1	5.8	O K
30 min Summer	29.283	0.583	0.1	7.7	O K
60 min Summer	29.438	0.738	0.1	9.8	O K
120 min Summer	29.591	0.891	0.1	11.8	O K
180 min Summer	29.672	0.972	0.1	12.9	O K
240 min Summer	29.719	1.019	0.1	13.5	O K
360 min Summer	29.776	1.076	0.2	14.3	O K
480 min Summer	29.804	1.104	0.2	14.6	O K
600 min Summer	29.815	1.115	0.2	14.8	O K
720 min Summer	29.816	1.116	0.2	14.8	O K
960 min Summer	29.812	1.112	0.2	14.7	O K
1440 min Summer	29.792	1.092	0.2	14.5	O K
2160 min Summer	29.744	1.044	0.1	13.8	O K
2880 min Summer	29.691	0.991	0.1	13.1	O K
4320 min Summer	29.595	0.895	0.1	11.9	O K
5760 min Summer	29.511	0.811	0.1	10.7	O K
7200 min Summer	29.436	0.736	0.1	9.7	O K
8640 min Summer	29.370	0.670	0.1	8.9	O K
10080 min Summer	29.311	0.611	0.1	8.1	O K
15 min Winter	29.190	0.490	0.1	6.5	O K
30 min Winter	29.354	0.654	0.1	8.6	O K
60 min Winter	29.528	0.828	0.1	11.0	O K
120 min Winter	29.703	1.003	0.1	13.3	O K
180 min Winter	29.796	1.096	0.2	14.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	480
600 min Summer	10.849	0.0	600
720 min Summer	9.435	0.0	686
960 min Summer	7.561	0.0	796
1440 min Summer	5.523	0.0	1042
2160 min Summer	4.026	0.0	1468
2880 min Summer	3.213	0.0	1876
4320 min Summer	2.333	0.0	2684
5760 min Summer	1.857	0.0	3512
7200 min Summer	1.555	0.0	4320
8640 min Summer	1.347	0.0	5096
10080 min Summer	1.192	0.0	5848
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	62
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 5 - Soakaway	
Date 25/06/2020 18:32 File Area 5.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
240 min Winter	29.851	1.151	0.2	15.3	O K
360 min Winter	29.920	1.220	0.2	16.2	O K
480 min Winter	29.957	1.257	0.2	16.7	O K
600 min Winter	29.976	1.276	0.2	16.9	O K
720 min Winter	29.983	1.283	0.2	17.0	O K
960 min Winter	29.976	1.276	0.2	16.9	O K
1440 min Winter	29.950	1.250	0.2	16.6	O K
2160 min Winter	29.886	1.186	0.2	15.7	O K
2880 min Winter	29.811	1.111	0.2	14.7	O K
4320 min Winter	29.671	0.971	0.1	12.9	O K
5760 min Winter	29.549	0.849	0.1	11.2	O K
7200 min Winter	29.443	0.743	0.1	9.8	O K
8640 min Winter	29.352	0.652	0.1	8.6	O K
10080 min Winter	29.272	0.572	0.1	7.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	21.749	0.0	238
360 min Winter	16.006	0.0	354
480 min Winter	12.864	0.0	468
600 min Winter	10.849	0.0	578
720 min Winter	9.435	0.0	686
960 min Winter	7.561	0.0	886
1440 min Winter	5.523	0.0	1108
2160 min Winter	4.026	0.0	1576
2880 min Winter	3.213	0.0	2020
4320 min Winter	2.333	0.0	2896
5760 min Winter	1.857	0.0	3744
7200 min Winter	1.555	0.0	4544
8640 min Winter	1.347	0.0	5360
10080 min Winter	1.192	0.0	6152

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.023

Time (mins)	Area
From:	To: (ha)

0	4 0.023
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Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 30.500

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr)	0.16500	Trench Width (m)	2.0
Infiltration Coefficient Side (m/hr)	0.16500	Trench Length (m)	7.0
Safety Factor	10.0	Slope (1:X)	1000.0
Porosity	0.95	Cap Volume Depth (m)	1.600
Invert Level (m)	28.700	Cap Infiltration Depth (m)	1.600

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 668 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	24.005	0.305	0.3	10.8	0 K
30 min Summer	24.092	0.392	0.3	14.1	0 K
60 min Summer	24.183	0.483	0.3	17.6	0 K
120 min Summer	24.274	0.574	0.4	21.0	0 K
180 min Summer	24.322	0.622	0.4	22.9	0 K
240 min Summer	24.350	0.650	0.4	24.0	0 K
360 min Summer	24.381	0.681	0.4	25.1	0 K
480 min Summer	24.392	0.692	0.4	25.5	0 K
600 min Summer	24.397	0.697	0.4	25.7	0 K
720 min Summer	24.399	0.699	0.4	25.8	0 K
960 min Summer	24.399	0.699	0.4	25.8	0 K
1440 min Summer	24.384	0.684	0.4	25.2	0 K
2160 min Summer	24.351	0.651	0.4	24.0	0 K
2880 min Summer	24.317	0.617	0.4	22.7	0 K
4320 min Summer	24.255	0.555	0.4	20.3	0 K
5760 min Summer	24.198	0.498	0.3	18.2	0 K
7200 min Summer	24.148	0.448	0.3	16.3	0 K
8640 min Summer	24.104	0.404	0.3	14.6	0 K
10080 min Summer	24.064	0.364	0.3	13.1	0 K
15 min Winter	24.039	0.339	0.3	12.1	0 K
30 min Winter	24.138	0.438	0.3	15.9	0 K
60 min Winter	24.241	0.541	0.4	19.8	0 K
120 min Winter	24.345	0.645	0.4	23.7	0 K
180 min Winter	24.401	0.701	0.4	25.9	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	122
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	360
480 min Summer	7.922	0.0	458
600 min Summer	6.730	0.0	510
720 min Summer	5.890	0.0	572
960 min Summer	4.770	0.0	702
1440 min Summer	3.540	0.0	980
2160 min Summer	2.625	0.0	1388
2880 min Summer	2.123	0.0	1812
4320 min Summer	1.572	0.0	2596
5760 min Summer	1.270	0.0	3400
7200 min Summer	1.076	0.0	4176
8640 min Summer	0.940	0.0	4928
10080 min Summer	0.839	0.0	5656
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	120
180 min Winter	16.130	0.0	178

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 10 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
240 min Winter	24.436	0.736	0.4	27.2	0 K
360 min Winter	24.475	0.775	0.4	28.7	0 K
480 min Winter	24.493	0.793	0.4	29.4	0 K
600 min Winter	24.498	0.798	0.4	29.6	0 K
720 min Winter	24.498	0.798	0.4	29.6	0 K
960 min Winter	24.497	0.797	0.4	29.5	0 K
1440 min Winter	24.475	0.775	0.4	28.7	0 K
2160 min Winter	24.423	0.723	0.4	26.7	0 K
2880 min Winter	24.370	0.670	0.4	24.7	0 K
4320 min Winter	24.275	0.575	0.4	21.1	0 K
5760 min Winter	24.193	0.493	0.3	18.0	0 K
7200 min Winter	24.123	0.423	0.3	15.3	0 K
8640 min Winter	24.064	0.364	0.3	13.1	0 K
10080 min Winter	24.012	0.312	0.3	11.1	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
240 min Winter	13.106	0.0	236
360 min Winter	9.767	0.0	350
480 min Winter	7.922	0.0	458
600 min Winter	6.730	0.0	562
720 min Winter	5.890	0.0	596
960 min Winter	4.770	0.0	740
1440 min Winter	3.540	0.0	1052
2160 min Winter	2.625	0.0	1496
2880 min Winter	2.123	0.0	1936
4320 min Winter	1.572	0.0	2772
5760 min Winter	1.270	0.0	3584
7200 min Winter	1.076	0.0	4392
8640 min Winter	0.940	0.0	5184
10080 min Winter	0.839	0.0	5944

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.071

Time (mins)	Area
From:	To: (ha)
0	4 0.071

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 6 Soakaway	
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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 856 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	24.188	0.488	0.3	17.8	0 K
30 min Summer	24.345	0.645	0.4	23.8	0 K
60 min Summer	24.511	0.811	0.4	30.0	0 K
120 min Summer	24.673	0.973	0.5	36.2	0 K
180 min Summer	24.756	1.056	0.5	39.4	0 K
240 min Summer	24.802	1.102	0.5	41.1	0 K
360 min Summer	24.854	1.154	0.6	43.1	0 K
480 min Summer	24.875	1.175	0.6	43.9	0 K
600 min Summer	24.880	1.180	0.6	44.1	0 K
720 min Summer	24.882	1.182	0.6	44.2	0 K
960 min Summer	24.879	1.179	0.6	44.0	0 K
1440 min Summer	24.855	1.155	0.6	43.1	0 K
2160 min Summer	24.800	1.100	0.5	41.0	0 K
2880 min Summer	24.740	1.040	0.5	38.8	0 K
4320 min Summer	24.633	0.933	0.5	34.7	0 K
5760 min Summer	24.543	0.843	0.5	31.3	0 K
7200 min Summer	24.465	0.765	0.4	28.3	0 K
8640 min Summer	24.399	0.699	0.4	25.8	0 K
10080 min Summer	24.340	0.640	0.4	23.6	0 K
15 min Winter	24.245	0.545	0.4	19.9	0 K
30 min Winter	24.421	0.721	0.4	26.7	0 K
60 min Winter	24.608	0.908	0.5	33.7	0 K
120 min Winter	24.792	1.092	0.5	40.8	0 K
180 min Winter	24.888	1.188	0.6	44.4	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	122
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	480
600 min Summer	10.849	0.0	558
720 min Summer	9.435	0.0	608
960 min Summer	7.561	0.0	732
1440 min Summer	5.523	0.0	996
2160 min Summer	4.026	0.0	1408
2880 min Summer	3.213	0.0	1820
4320 min Summer	2.333	0.0	2640
5760 min Summer	1.857	0.0	3456
7200 min Summer	1.555	0.0	4248
8640 min Summer	1.347	0.0	5008
10080 min Summer	1.192	0.0	5752
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	62
120 min Winter	36.294	0.0	120
180 min Winter	27.017	0.0	180

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
240 min Winter	25.777	2.077	0.6	46.5	Flood Risk
360 min Winter	25.852	2.152	0.6	49.0	FLOOD
480 min Winter	25.854	2.154	0.6	50.3	FLOOD
600 min Winter	25.854	2.154	0.6	50.8	FLOOD
720 min Winter	25.854	2.154	0.6	50.9	FLOOD
960 min Winter	25.854	2.154	0.6	50.4	FLOOD
1440 min Winter	25.853	2.153	0.6	49.1	FLOOD
2160 min Winter	25.253	1.553	0.6	46.0	0 K
2880 min Winter	24.844	1.144	0.6	42.7	0 K
4320 min Winter	24.688	0.988	0.5	36.8	0 K
5760 min Winter	24.561	0.861	0.5	32.0	0 K
7200 min Winter	24.456	0.756	0.4	28.0	0 K
8640 min Winter	24.367	0.667	0.4	24.6	0 K
10080 min Winter	24.292	0.592	0.4	21.7	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
240 min Winter	21.749	0.0	238
360 min Winter	16.006	3.4	352
480 min Winter	12.864	4.7	464
600 min Winter	10.849	5.2	574
720 min Winter	9.435	5.3	678
960 min Winter	7.561	4.8	778
1440 min Winter	5.523	3.5	1080
2160 min Winter	4.026	0.0	1516
2880 min Winter	3.213	0.0	1964
4320 min Winter	2.333	0.0	2812
5760 min Winter	1.857	0.0	3640
7200 min Winter	1.555	0.0	4464
8640 min Winter	1.347	0.0	5264
10080 min Winter	1.192	0.0	6048

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Date 01/04/2022 11:53 File AREA 6.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.071

Time (mins)	Area
From:	To: (ha)
0	4 0.071

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 205 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	23.903	0.403	0.7	9.3	0 K
30 min Summer	24.014	0.514	0.7	11.9	0 K
60 min Summer	24.115	0.615	0.8	14.3	0 K
120 min Summer	24.184	0.684	0.9	15.9	0 K
180 min Summer	24.201	0.701	0.9	16.4	0 K
240 min Summer	24.207	0.707	0.9	16.5	0 K
360 min Summer	24.203	0.703	0.9	16.4	0 K
480 min Summer	24.189	0.689	0.9	16.1	0 K
600 min Summer	24.171	0.671	0.9	15.7	0 K
720 min Summer	24.153	0.653	0.8	15.2	0 K
960 min Summer	24.116	0.616	0.8	14.3	0 K
1440 min Summer	24.047	0.547	0.8	12.7	0 K
2160 min Summer	23.958	0.458	0.7	10.6	0 K
2880 min Summer	23.885	0.385	0.6	8.9	0 K
4320 min Summer	23.775	0.275	0.6	6.2	0 K
5760 min Summer	23.695	0.195	0.5	4.3	0 K
7200 min Summer	23.638	0.138	0.5	3.0	0 K
8640 min Summer	23.596	0.096	0.4	2.0	0 K
10080 min Summer	23.567	0.067	0.4	1.3	0 K
15 min Winter	23.952	0.452	0.7	10.4	0 K
30 min Winter	24.078	0.578	0.8	13.4	0 K
60 min Winter	24.195	0.695	0.9	16.2	0 K
120 min Winter	24.281	0.781	0.9	18.3	0 K
180 min Winter	24.303	0.803	1.0	18.8	0 K
240 min Winter	24.307	0.807	1.0	18.9	0 K
360 min Winter	24.299	0.799	1.0	18.7	0 K
480 min Winter	24.277	0.777	0.9	18.2	0 K
600 min Winter	24.248	0.748	0.9	17.5	0 K
720 min Winter	24.218	0.718	0.9	16.8	0 K
960 min Winter	24.160	0.660	0.9	15.4	0 K
1440 min Winter	24.056	0.556	0.8	12.9	0 K
2160 min Winter	23.931	0.431	0.7	9.9	0 K
2880 min Winter	23.835	0.335	0.6	7.6	0 K
4320 min Winter	23.697	0.197	0.5	4.4	0 K
5760 min Winter	23.608	0.108	0.4	2.3	0 K
7200 min Winter	23.553	0.053	0.4	1.0	0 K
8640 min Winter	23.545	0.045	0.3	0.8	0 K
10080 min Winter	23.540	0.040	0.3	0.7	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	18
30 min Summer	54.698	0.0	33
60 min Summer	34.733	0.0	62
120 min Summer	21.518	0.0	120
180 min Summer	16.130	0.0	152
240 min Summer	13.106	0.0	184
360 min Summer	9.767	0.0	252
480 min Summer	7.922	0.0	322
600 min Summer	6.730	0.0	390
720 min Summer	5.890	0.0	460
960 min Summer	4.770	0.0	596
1440 min Summer	3.540	0.0	866
2160 min Summer	2.625	0.0	1252
2880 min Summer	2.123	0.0	1616
4320 min Summer	1.572	0.0	2376
5760 min Summer	1.270	0.0	3064
7200 min Summer	1.076	0.0	3816
8640 min Summer	0.940	0.0	4496
10080 min Summer	0.839	0.0	5152
15 min Winter	82.824	0.0	18
30 min Winter	54.698	0.0	32
60 min Winter	34.733	0.0	60
120 min Winter	21.518	0.0	116
180 min Winter	16.130	0.0	170
240 min Winter	13.106	0.0	192
360 min Winter	9.767	0.0	270
480 min Winter	7.922	0.0	346
600 min Winter	6.730	0.0	422
720 min Winter	5.890	0.0	494
960 min Winter	4.770	0.0	638
1440 min Winter	3.540	0.0	912
2160 min Winter	2.625	0.0	1316
2880 min Winter	2.123	0.0	1700
4320 min Winter	1.572	0.0	2424
5760 min Winter	1.270	0.0	3120
7200 min Winter	1.076	0.0	3744
8640 min Winter	0.940	0.0	4408
10080 min Winter	0.839	0.0	5120

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.063

Time (mins)		Area
From:	To:	(ha)
0	4	0.063

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Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 25.850

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.52200	Invert Level (m)	23.500	Cap Volume Depth (m)	1.600
Infiltration Coefficient Side (m/hr)	0.52200	Trench Width (m)	1.0	Cap Infiltration Depth (m)	1.600
Safety Factor	10.0	Trench Length (m)	25.0		
Porosity	0.95	Slope (1:X)	1000.0		

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 252 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	24.160	0.660	0.9	15.4	0 K
30 min Summer	24.365	0.865	1.0	20.2	0 K
60 min Summer	24.560	1.060	1.2	24.9	0 K
120 min Summer	24.705	1.205	1.3	28.3	0 K
180 min Summer	24.741	1.241	1.3	29.2	0 K
240 min Summer	24.749	1.249	1.3	29.4	0 K
360 min Summer	24.746	1.246	1.3	29.3	0 K
480 min Summer	24.727	1.227	1.3	28.9	0 K
600 min Summer	24.700	1.200	1.3	28.2	0 K
720 min Summer	24.669	1.169	1.2	27.5	0 K
960 min Summer	24.606	1.106	1.2	26.0	0 K
1440 min Summer	24.490	0.990	1.1	23.2	0 K
2160 min Summer	24.349	0.849	1.0	19.9	0 K
2880 min Summer	24.235	0.735	0.9	17.2	0 K
4320 min Summer	24.063	0.563	0.8	13.1	0 K
5760 min Summer	23.938	0.438	0.7	10.1	0 K
7200 min Summer	23.843	0.343	0.6	7.9	0 K
8640 min Summer	23.771	0.271	0.6	6.1	0 K
10080 min Summer	23.712	0.212	0.5	4.7	0 K
15 min Winter	24.240	0.740	0.9	17.3	0 K
30 min Winter	24.472	0.972	1.1	22.8	0 K
60 min Winter	24.694	1.194	1.3	28.1	0 K
120 min Winter	24.869	1.369	1.4	32.2	0 K
180 min Winter	24.918	1.418	1.4	33.4	0 K
240 min Winter	24.919	1.419	1.4	33.4	0 K
360 min Winter	24.912	1.412	1.4	33.2	0 K
480 min Winter	24.883	1.383	1.4	32.5	0 K
600 min Winter	24.842	1.342	1.4	31.6	0 K
720 min Winter	24.796	1.296	1.3	30.5	0 K
960 min Winter	24.703	1.203	1.3	28.3	0 K
1440 min Winter	24.534	1.034	1.1	24.3	0 K
2160 min Winter	24.339	0.839	1.0	19.6	0 K
2880 min Winter	24.189	0.689	0.9	16.1	0 K
4320 min Winter	23.975	0.475	0.7	11.0	0 K
5760 min Winter	23.831	0.331	0.6	7.6	0 K
7200 min Winter	23.728	0.228	0.5	5.1	0 K
8640 min Winter	23.652	0.152	0.5	3.3	0 K
10080 min Winter	23.594	0.094	0.4	1.9	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	18
30 min Summer	91.216	0.0	33
60 min Summer	58.567	0.0	62
120 min Summer	36.294	0.0	120
180 min Summer	27.017	0.0	166
240 min Summer	21.749	0.0	194
360 min Summer	16.006	0.0	258
480 min Summer	12.864	0.0	328
600 min Summer	10.849	0.0	398
720 min Summer	9.435	0.0	466
960 min Summer	7.561	0.0	606
1440 min Summer	5.523	0.0	878
2160 min Summer	4.026	0.0	1272
2880 min Summer	3.213	0.0	1644
4320 min Summer	2.333	0.0	2380
5760 min Summer	1.857	0.0	3120
7200 min Summer	1.555	0.0	3888
8640 min Summer	1.347	0.0	4584
10080 min Summer	1.192	0.0	5336
15 min Winter	135.580	0.0	18
30 min Winter	91.216	0.0	32
60 min Winter	58.567	0.0	62
120 min Winter	36.294	0.0	118
180 min Winter	27.017	0.0	172
240 min Winter	21.749	0.0	214
360 min Winter	16.006	0.0	274
480 min Winter	12.864	0.0	352
600 min Winter	10.849	0.0	428
720 min Winter	9.435	0.0	502
960 min Winter	7.561	0.0	646
1440 min Winter	5.523	0.0	926
2160 min Winter	4.026	0.0	1340
2880 min Winter	3.213	0.0	1728
4320 min Winter	2.333	0.0	2468
5760 min Winter	1.857	0.0	3232
7200 min Winter	1.555	0.0	3960
8640 min Winter	1.347	0.0	4664
10080 min Winter	1.192	0.0	5344

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 7 - Soakaway	
Date 21/08/2020 21:55 File AREA 7.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.063

Time (mins)		Area
From:	To:	(ha)
0	4	0.063

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 7 - Soakaway	
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Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 25.850

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.52200	Invert Level (m)	23.500	Cap Volume Depth (m)	1.600
Infiltration Coefficient Side (m/hr)	0.52200	Trench Width (m)	1.0	Cap Infiltration Depth (m)	1.600
Safety Factor	10.0	Trench Length (m)	25.0		
Porosity	0.95	Slope (1:X)	1000.0		

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 10 Soakaway	
Date 25/06/2020 19:13 File Area 10.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 1299 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	25.572	0.272	0.4	20.2	O K
30 min Summer	25.653	0.353	0.4	26.5	O K
60 min Summer	25.741	0.441	0.4	33.2	O K
120 min Summer	25.832	0.532	0.4	40.2	O K
180 min Summer	25.885	0.585	0.4	44.3	O K
240 min Summer	25.920	0.620	0.4	47.0	O K
360 min Summer	25.967	0.667	0.4	50.6	O K
480 min Summer	25.995	0.695	0.4	52.8	O K
600 min Summer	26.013	0.713	0.4	54.1	O K
720 min Summer	26.023	0.723	0.4	54.9	O K
960 min Summer	26.030	0.730	0.4	55.5	O K
1440 min Summer	26.026	0.726	0.4	55.2	O K
2160 min Summer	26.009	0.709	0.4	53.9	O K
2880 min Summer	25.989	0.689	0.4	52.3	O K
4320 min Summer	25.945	0.645	0.4	49.0	O K
5760 min Summer	25.901	0.601	0.4	45.5	O K
7200 min Summer	25.856	0.556	0.4	42.1	O K
8640 min Summer	25.814	0.514	0.4	38.8	O K
10080 min Summer	25.773	0.473	0.4	35.7	O K
15 min Winter	25.603	0.303	0.4	22.7	O K
30 min Winter	25.696	0.396	0.4	29.7	O K
60 min Winter	25.794	0.494	0.4	37.3	O K
120 min Winter	25.898	0.598	0.4	45.3	O K
180 min Winter	25.959	0.659	0.4	50.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	124
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	482
600 min Summer	6.730	0.0	602
720 min Summer	5.890	0.0	720
960 min Summer	4.770	0.0	952
1440 min Summer	3.540	0.0	1170
2160 min Summer	2.625	0.0	1560
2880 min Summer	2.123	0.0	1964
4320 min Summer	1.572	0.0	2808
5760 min Summer	1.270	0.0	3632
7200 min Summer	1.076	0.0	4464
8640 min Summer	0.940	0.0	5264
10080 min Summer	0.839	0.0	6048
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 10 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
240 min Winter	26.001	0.701	0.4	53.3	O K
360 min Winter	26.057	0.757	0.4	57.6	O K
480 min Winter	26.093	0.793	0.4	60.3	O K
600 min Winter	26.116	0.816	0.4	62.1	O K
720 min Winter	26.131	0.831	0.4	63.3	O K
960 min Winter	26.147	0.847	0.4	64.5	O K
1440 min Winter	26.145	0.845	0.4	64.3	O K
2160 min Winter	26.123	0.823	0.4	62.6	O K
2880 min Winter	26.093	0.793	0.4	60.3	O K
4320 min Winter	26.024	0.724	0.4	55.0	O K
5760 min Winter	25.953	0.653	0.4	49.5	O K
7200 min Winter	25.883	0.583	0.4	44.2	O K
8640 min Winter	25.818	0.518	0.4	39.2	O K
10080 min Winter	25.757	0.457	0.4	34.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	13.106	0.0	240
360 min Winter	9.767	0.0	356
480 min Winter	7.922	0.0	472
600 min Winter	6.730	0.0	586
720 min Winter	5.890	0.0	700
960 min Winter	4.770	0.0	922
1440 min Winter	3.540	0.0	1338
2160 min Winter	2.625	0.0	1664
2880 min Winter	2.123	0.0	2132
4320 min Winter	1.572	0.0	3028
5760 min Winter	1.270	0.0	3920
7200 min Winter	1.076	0.0	4760
8640 min Winter	0.940	0.0	5616
10080 min Winter	0.839	0.0	6360

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.132

Time (mins)	Area
From:	To: (ha)

0	4 0.132
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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 10 Soakaway	
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Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 27.300

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.13640	Trench Width (m)	4.5
Infiltration Coefficient Side (m/hr)	0.13640	Trench Length (m)	18.0
Safety Factor	10.0	Slope (1:X)	1000.0
Porosity	0.95	Cap Volume Depth (m)	1.500
Invert Level (m)	25.300	Cap Infiltration Depth (m)	1.500

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 10 Soakaway	
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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1904 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	25.741	0.441	0.4	33.2	O K
30 min Summer	25.887	0.587	0.4	44.5	O K
60 min Summer	26.045	0.745	0.4	56.7	O K
120 min Summer	26.208	0.908	0.5	69.2	O K
180 min Summer	26.298	0.998	0.5	76.1	O K
240 min Summer	26.356	1.056	0.5	80.6	O K
360 min Summer	26.434	1.134	0.5	86.6	O K
480 min Summer	26.485	1.185	0.5	90.5	O K
600 min Summer	26.518	1.218	0.5	93.0	O K
720 min Summer	26.540	1.240	0.5	94.7	O K
960 min Summer	26.562	1.262	0.5	96.4	O K
1440 min Summer	26.559	1.259	0.5	96.2	O K
2160 min Summer	26.528	1.228	0.5	93.8	O K
2880 min Summer	26.490	1.190	0.5	90.8	O K
4320 min Summer	26.413	1.113	0.5	85.0	O K
5760 min Summer	26.343	1.043	0.5	79.6	O K
7200 min Summer	26.279	0.979	0.5	74.6	O K
8640 min Summer	26.220	0.920	0.5	70.1	O K
10080 min Summer	26.163	0.863	0.5	65.8	O K
15 min Winter	25.793	0.493	0.4	37.2	O K
30 min Winter	25.958	0.658	0.4	49.9	O K
60 min Winter	26.136	0.836	0.4	63.6	O K
120 min Winter	26.320	1.020	0.5	77.8	O K
180 min Winter	26.423	1.123	0.5	85.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	184
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	602
720 min Summer	9.435	0.0	722
960 min Summer	7.561	0.0	960
1440 min Summer	5.523	0.0	1372
2160 min Summer	4.026	0.0	1712
2880 min Summer	3.213	0.0	2104
4320 min Summer	2.333	0.0	2936
5760 min Summer	1.857	0.0	3752
7200 min Summer	1.555	0.0	4544
8640 min Summer	1.347	0.0	5368
10080 min Summer	1.192	0.0	6160
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	34
60 min Winter	58.567	0.0	64
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
240 min Winter	26.490	1.190	0.5	90.9	O K
360 min Winter	26.582	1.282	0.5	97.9	O K
480 min Winter	26.642	1.342	0.5	102.6	O K
600 min Winter	26.683	1.383	0.5	105.7	O K
720 min Winter	26.712	1.412	0.5	108.0	O K
960 min Winter	26.746	1.446	0.6	110.6	O K
1440 min Winter	26.760	1.460	0.6	111.7	O K
2160 min Winter	26.722	1.422	0.5	108.7	O K
2880 min Winter	26.680	1.380	0.5	105.5	O K
4320 min Winter	26.575	1.275	0.5	97.5	O K
5760 min Winter	26.474	1.174	0.5	89.7	O K
7200 min Winter	26.379	1.079	0.5	82.4	O K
8640 min Winter	26.291	0.991	0.5	75.6	O K
10080 min Winter	26.209	0.909	0.5	69.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	21.749	0.0	240
360 min Winter	16.006	0.0	358
480 min Winter	12.864	0.0	474
600 min Winter	10.849	0.0	590
720 min Winter	9.435	0.0	706
960 min Winter	7.561	0.0	934
1440 min Winter	5.523	0.0	1372
2160 min Winter	4.026	0.0	1944
2880 min Winter	3.213	0.0	2220
4320 min Winter	2.333	0.0	3156
5760 min Winter	1.857	0.0	4040
7200 min Winter	1.555	0.0	4968
8640 min Winter	1.347	0.0	5792
10080 min Winter	1.192	0.0	6656

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.132

Time (mins)	Area
From:	To: (ha)

0	4 0.132
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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 10 Soakaway	
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Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 27.300

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.13640	Trench Width (m)	4.5
Infiltration Coefficient Side (m/hr)	0.13640	Trench Length (m)	18.0
Safety Factor	10.0	Slope (1:X)	1000.0
Porosity	0.95	Cap Volume Depth (m)	1.500
Invert Level (m)	25.300	Cap Infiltration Depth (m)	1.500

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 63 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	23.700	0.400	5.2	25.9	0 K
30 min Summer	23.789	0.489	5.7	31.6	0 K
60 min Summer	23.839	0.539	6.0	34.8	0 K
120 min Summer	23.852	0.552	6.1	35.7	0 K
180 min Summer	23.836	0.536	6.0	34.6	0 K
240 min Summer	23.814	0.514	5.9	33.2	0 K
360 min Summer	23.768	0.468	5.6	30.2	0 K
480 min Summer	23.723	0.423	5.3	27.3	0 K
600 min Summer	23.683	0.383	5.1	24.7	0 K
720 min Summer	23.646	0.346	4.9	22.4	0 K
960 min Summer	23.583	0.283	4.5	18.3	0 K
1440 min Summer	23.489	0.189	4.0	12.2	0 K
2160 min Summer	23.400	0.100	3.4	6.4	0 K
2880 min Summer	23.355	0.055	3.2	3.5	0 K
4320 min Summer	23.339	0.039	2.4	2.5	0 K
5760 min Summer	23.331	0.031	2.0	2.0	0 K
7200 min Summer	23.327	0.027	1.7	1.7	0 K
8640 min Summer	23.323	0.023	1.5	1.5	0 K
10080 min Summer	23.321	0.021	1.3	1.3	0 K
15 min Winter	23.753	0.453	5.5	29.3	0 K
30 min Winter	23.858	0.558	6.1	36.0	0 K
60 min Winter	23.918	0.618	6.5	39.9	0 K
120 min Winter	23.927	0.627	6.5	40.5	0 K
180 min Winter	23.900	0.600	6.4	38.7	0 K
240 min Winter	23.863	0.563	6.1	36.4	0 K
360 min Winter	23.790	0.490	5.7	31.6	0 K
480 min Winter	23.724	0.424	5.3	27.4	0 K
600 min Winter	23.665	0.365	5.0	23.6	0 K
720 min Winter	23.615	0.315	4.7	20.3	0 K
960 min Winter	23.531	0.231	4.2	14.9	0 K
1440 min Winter	23.415	0.115	3.5	7.5	0 K
2160 min Winter	23.347	0.047	2.9	3.0	0 K
2880 min Winter	23.338	0.038	2.4	2.4	0 K
4320 min Winter	23.328	0.028	1.8	1.8	0 K
5760 min Winter	23.323	0.023	1.4	1.5	0 K
7200 min Winter	23.319	0.019	1.2	1.2	0 K
8640 min Winter	23.317	0.017	1.1	1.1	0 K
10080 min Winter	23.315	0.015	1.0	1.0	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	17
30 min Summer	54.698	0.0	31
60 min Summer	34.733	0.0	52
120 min Summer	21.518	0.0	84
180 min Summer	16.130	0.0	120
240 min Summer	13.106	0.0	154
360 min Summer	9.767	0.0	222
480 min Summer	7.922	0.0	288
600 min Summer	6.730	0.0	352
720 min Summer	5.890	0.0	414
960 min Summer	4.770	0.0	540
1440 min Summer	3.540	0.0	780
2160 min Summer	2.625	0.0	1128
2880 min Summer	2.123	0.0	1468
4320 min Summer	1.572	0.0	2200
5760 min Summer	1.270	0.0	2936
7200 min Summer	1.076	0.0	3584
8640 min Summer	0.940	0.0	4288
10080 min Summer	0.839	0.0	5072
15 min Winter	82.824	0.0	17
30 min Winter	54.698	0.0	31
60 min Winter	34.733	0.0	56
120 min Winter	21.518	0.0	90
180 min Winter	16.130	0.0	128
240 min Winter	13.106	0.0	166
360 min Winter	9.767	0.0	236
480 min Winter	7.922	0.0	304
600 min Winter	6.730	0.0	372
720 min Winter	5.890	0.0	436
960 min Winter	4.770	0.0	560
1440 min Winter	3.540	0.0	796
2160 min Winter	2.625	0.0	1100
2880 min Winter	2.123	0.0	1476
4320 min Winter	1.572	0.0	2196
5760 min Winter	1.270	0.0	2928
7200 min Winter	1.076	0.0	3664
8640 min Winter	0.940	0.0	4400
10080 min Winter	0.839	0.0	5128

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.190

Time (mins)		Area
From:	To:	(ha)
0	4	0.190

Model Details

Storage is Online Cover Level (m) 25.200

Complex Structure

Cellular Storage

Invert Level (m) 23.300 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 10.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	11.0	0.0	1.600	11.0	0.0	1.601	0.0	0.0

Trench Soakaway

Infiltration Coefficient Base (m/hr) 1.80700 Invert Level (m) 23.300 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 1.80700 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 57.0
Porosity 0.95 Slope (1:X) 0.0

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 80 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	23.974	0.674	6.8	43.6	0 K
30 min Summer	24.154	0.854	7.8	55.2	0 K
60 min Summer	24.275	0.975	8.5	63.0	0 K
120 min Summer	24.325	1.025	8.8	66.2	0 K
180 min Summer	24.311	1.011	8.7	65.3	0 K
240 min Summer	24.275	0.975	8.5	63.0	0 K
360 min Summer	24.200	0.900	8.1	58.1	0 K
480 min Summer	24.131	0.831	7.7	53.7	0 K
600 min Summer	24.069	0.769	7.3	49.7	0 K
720 min Summer	24.012	0.712	7.0	46.0	0 K
960 min Summer	23.914	0.614	6.4	39.7	0 K
1440 min Summer	23.764	0.464	5.6	30.0	0 K
2160 min Summer	23.609	0.309	4.7	20.0	0 K
2880 min Summer	23.506	0.206	4.1	13.3	0 K
4320 min Summer	23.383	0.083	3.3	5.3	0 K
5760 min Summer	23.346	0.046	2.9	2.9	0 K
7200 min Summer	23.338	0.038	2.4	2.5	0 K
8640 min Summer	23.333	0.033	2.1	2.1	0 K
10080 min Summer	23.330	0.030	1.9	1.9	0 K
15 min Winter	24.061	0.761	7.3	49.1	0 K
30 min Winter	24.269	0.969	8.5	62.6	0 K
60 min Winter	24.415	1.115	9.4	72.1	0 K
120 min Winter	24.464	1.164	9.6	75.2	0 K
180 min Winter	24.438	1.138	9.5	73.5	0 K
240 min Winter	24.383	1.083	9.2	69.9	0 K
360 min Winter	24.269	0.969	8.5	62.6	0 K
480 min Winter	24.168	0.868	7.9	56.1	0 K
600 min Winter	24.079	0.779	7.4	50.3	0 K
720 min Winter	24.001	0.701	6.9	45.3	0 K
960 min Winter	23.870	0.570	6.2	36.8	0 K
1440 min Winter	23.681	0.381	5.1	24.6	0 K
2160 min Winter	23.504	0.204	4.0	13.2	0 K
2880 min Winter	23.395	0.095	3.4	6.1	0 K
4320 min Winter	23.342	0.042	2.6	2.7	0 K
5760 min Winter	23.333	0.033	2.1	2.1	0 K
7200 min Winter	23.328	0.028	1.7	1.8	0 K
8640 min Winter	23.324	0.024	1.5	1.6	0 K
10080 min Winter	23.321	0.021	1.3	1.4	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	18
30 min Summer	91.216	0.0	31
60 min Summer	58.567	0.0	56
120 min Summer	36.294	0.0	88
180 min Summer	27.017	0.0	122
240 min Summer	21.749	0.0	158
360 min Summer	16.006	0.0	226
480 min Summer	12.864	0.0	292
600 min Summer	10.849	0.0	358
720 min Summer	9.435	0.0	424
960 min Summer	7.561	0.0	550
1440 min Summer	5.523	0.0	796
2160 min Summer	4.026	0.0	1168
2880 min Summer	3.213	0.0	1528
4320 min Summer	2.333	0.0	2208
5760 min Summer	1.857	0.0	2880
7200 min Summer	1.555	0.0	3672
8640 min Summer	1.347	0.0	4312
10080 min Summer	1.192	0.0	5072
15 min Winter	135.580	0.0	17
30 min Winter	91.216	0.0	31
60 min Winter	58.567	0.0	58
120 min Winter	36.294	0.0	92
180 min Winter	27.017	0.0	132
240 min Winter	21.749	0.0	170
360 min Winter	16.006	0.0	242
480 min Winter	12.864	0.0	312
600 min Winter	10.849	0.0	380
720 min Winter	9.435	0.0	448
960 min Winter	7.561	0.0	578
1440 min Winter	5.523	0.0	826
2160 min Winter	4.026	0.0	1192
2880 min Winter	3.213	0.0	1532
4320 min Winter	2.333	0.0	2156
5760 min Winter	1.857	0.0	2920
7200 min Winter	1.555	0.0	3632
8640 min Winter	1.347	0.0	4400
10080 min Winter	1.192	0.0	4960

Rogers Cory Ptn Ltd		Page 2
The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 13 Soakaway	
Date 14/08/2020 16:29 File AREA 13.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.190

Time (mins)		Area
From:	To:	(ha)
0	4	0.190

Model Details

Storage is Online Cover Level (m) 25.200

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr)

1.80700

Invert Level (m)

23.300

Cap Volume Depth (m)

1.600

Infiltration Coefficient Side (m/hr)

1.80700

Trench Width (m)

1.0

Cap Infiltration Depth (m)

1.600

Safety Factor

10.0

Trench Length (m)

57.0

Porosity

0.95

Slope (1:X)

0.0

Cellular Storage

Invert Level (m)

23.300

Infiltration Coefficient Side (m/hr)

0.00000

Porosity

0.95

Infiltration Coefficient Base (m/hr)

0.00000

Safety Factor

10.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	11.0	0.0	1.600	11.0	0.0	1.601	0.0	0.0

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 1038 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	22.267	0.317	0.1	9.1	0 K
30 min Summer	22.365	0.415	0.2	11.9	0 K
60 min Summer	22.469	0.519	0.2	14.9	0 K
120 min Summer	22.576	0.626	0.2	18.0	0 K
180 min Summer	22.638	0.688	0.2	19.8	0 K
240 min Summer	22.679	0.729	0.2	21.0	0 K
360 min Summer	22.731	0.781	0.2	22.5	0 K
480 min Summer	22.761	0.811	0.2	23.4	0 K
600 min Summer	22.777	0.827	0.2	23.8	0 K
720 min Summer	22.785	0.835	0.2	24.1	0 K
960 min Summer	22.795	0.845	0.2	24.3	0 K
1440 min Summer	22.800	0.850	0.2	24.5	0 K
2160 min Summer	22.788	0.838	0.2	24.1	0 K
2880 min Summer	22.765	0.815	0.2	23.5	0 K
4320 min Summer	22.712	0.762	0.2	22.0	0 K
5760 min Summer	22.663	0.713	0.2	20.5	0 K
7200 min Summer	22.616	0.666	0.2	19.2	0 K
8640 min Summer	22.574	0.624	0.2	17.9	0 K
10080 min Summer	22.534	0.584	0.2	16.8	0 K
15 min Winter	22.305	0.355	0.2	10.1	0 K
30 min Winter	22.414	0.464	0.2	13.3	0 K
60 min Winter	22.532	0.582	0.2	16.7	0 K
120 min Winter	22.654	0.704	0.2	20.3	0 K
180 min Winter	22.725	0.775	0.2	22.3	0 K
240 min Winter	22.773	0.823	0.2	23.7	0 K
360 min Winter	22.834	0.884	0.3	25.5	0 K
480 min Winter	22.871	0.921	0.3	26.6	0 K
600 min Winter	22.894	0.944	0.3	27.2	0 K
720 min Winter	22.907	0.957	0.3	27.6	0 K
960 min Winter	22.916	0.966	0.3	27.9	0 K
1440 min Winter	22.918	0.968	0.3	27.9	0 K
2160 min Winter	22.897	0.947	0.3	27.3	0 K
2880 min Winter	22.861	0.911	0.3	26.2	0 K
4320 min Winter	22.778	0.828	0.2	23.9	0 K
5760 min Winter	22.702	0.752	0.2	21.7	0 K
7200 min Winter	22.633	0.683	0.2	19.7	0 K
8640 min Winter	22.572	0.622	0.2	17.9	0 K
10080 min Winter	22.517	0.567	0.2	16.3	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	124
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	480
600 min Summer	6.730	0.0	600
720 min Summer	5.890	0.0	698
960 min Summer	4.770	0.0	800
1440 min Summer	3.540	0.0	1052
2160 min Summer	2.625	0.0	1468
2880 min Summer	2.123	0.0	1876
4320 min Summer	1.572	0.0	2720
5760 min Summer	1.270	0.0	3520
7200 min Summer	1.076	0.0	4320
8640 min Summer	0.940	0.0	5104
10080 min Summer	0.839	0.0	5856
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	354
480 min Winter	7.922	0.0	468
600 min Winter	6.730	0.0	578
720 min Winter	5.890	0.0	688
960 min Winter	4.770	0.0	892
1440 min Winter	3.540	0.0	1110
2160 min Winter	2.625	0.0	1576
2880 min Winter	2.123	0.0	2020
4320 min Winter	1.572	0.0	2900
5760 min Winter	1.270	0.0	3752
7200 min Winter	1.076	0.0	4608
8640 min Winter	0.940	0.0	5368
10080 min Winter	0.839	0.0	6160

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 15 soakaway	
Date 03/08/2020 20:39 File AREA 15.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.059

Time (mins)		Area
From:	To:	(ha)
0	4	0.059

Model Details

Storage is Online Cover Level (m) 23.850

Complex Structure

Cellular Storage

Invert Level (m) 21.950 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 10.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	13.5	0.0	1.600	13.5	0.0	1.601	0.0	0.0

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.18940 Invert Level (m) 21.950 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.18940 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 17.0
Porosity 0.95 Slope (1:X) 1000.0

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1239 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	22.468	0.518	0.2	14.9	0 K
30 min Summer	22.641	0.691	0.2	19.9	0 K
60 min Summer	22.828	0.878	0.3	25.3	0 K
120 min Summer	23.016	1.066	0.3	30.8	0 K
180 min Summer	23.118	1.168	0.3	33.7	0 K
240 min Summer	23.181	1.231	0.3	35.5	0 K
360 min Summer	23.262	1.312	0.3	37.9	0 K
480 min Summer	23.308	1.358	0.3	39.2	0 K
600 min Summer	23.334	1.384	0.4	40.0	0 K
720 min Summer	23.347	1.397	0.4	40.3	0 K
960 min Summer	23.354	1.404	0.4	40.5	0 K
1440 min Summer	23.352	1.402	0.4	40.5	0 K
2160 min Summer	23.326	1.376	0.3	39.7	0 K
2880 min Summer	23.286	1.336	0.3	38.6	0 K
4320 min Summer	23.194	1.244	0.3	35.9	0 K
5760 min Summer	23.105	1.155	0.3	33.3	0 K
7200 min Summer	23.027	1.077	0.3	31.1	0 K
8640 min Summer	22.960	1.010	0.3	29.1	0 K
10080 min Summer	22.899	0.949	0.3	27.4	0 K
15 min Winter	22.529	0.579	0.2	16.7	0 K
30 min Winter	22.724	0.774	0.2	22.3	0 K
60 min Winter	22.934	0.984	0.3	28.4	0 K
120 min Winter	23.147	1.197	0.3	34.5	0 K
180 min Winter	23.263	1.313	0.3	37.9	0 K
240 min Winter	23.336	1.386	0.4	40.0	0 K
360 min Winter	23.430	1.480	0.4	42.8	0 K
480 min Winter	23.486	1.536	0.4	44.4	0 K
600 min Winter	23.520	1.570	0.4	45.4	0 K
720 min Winter	23.540	1.590	0.4	45.9	0 K
960 min Winter	23.554	1.604	0.4	46.3	Flood Risk
1440 min Winter	23.541	1.591	0.4	46.0	0 K
2160 min Winter	23.502	1.552	0.4	44.8	0 K
2880 min Winter	23.443	1.493	0.4	43.1	0 K
4320 min Winter	23.311	1.361	0.3	39.3	0 K
5760 min Winter	23.185	1.235	0.3	35.7	0 K
7200 min Winter	23.074	1.124	0.3	32.4	0 K
8640 min Winter	22.981	1.031	0.3	29.7	0 K
10080 min Winter	22.898	0.948	0.3	27.3	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	600
720 min Summer	9.435	0.0	720
960 min Summer	7.561	0.0	840
1440 min Summer	5.523	0.0	1084
2160 min Summer	4.026	0.0	1492
2880 min Summer	3.213	0.0	1904
4320 min Summer	2.333	0.0	2724
5760 min Summer	1.857	0.0	3568
7200 min Summer	1.555	0.0	4328
8640 min Summer	1.347	0.0	5184
10080 min Summer	1.192	0.0	5952
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	64
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180
240 min Winter	21.749	0.0	238
360 min Winter	16.006	0.0	354
480 min Winter	12.864	0.0	470
600 min Winter	10.849	0.0	582
720 min Winter	9.435	0.0	694
960 min Winter	7.561	0.0	904
1440 min Winter	5.523	0.0	1128
2160 min Winter	4.026	0.0	1596
2880 min Winter	3.213	0.0	2048
4320 min Winter	2.333	0.0	2940
5760 min Winter	1.857	0.0	3800
7200 min Winter	1.555	0.0	4616
8640 min Winter	1.347	0.0	5448
10080 min Winter	1.192	0.0	6256

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 15 soakaway	
Date 03/08/2020 20:38 File AREA 15.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.059

Time (mins)		Area
From:	To:	(ha)
0	4	0.059

Model Details

Storage is Online Cover Level (m) 23.850

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.18940 Invert Level (m) 21.950 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.18940 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 17.0
Porosity 0.95 Slope (1:X) 1000.0

Cellular Storage

Invert Level (m) 21.950 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 10.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	13.5	0.0	1.600	13.5	0.0	1.601	0.0	0.0

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 961 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	26.621	0.221	0.5	20.6	0 K
30 min Summer	26.684	0.284	0.5	26.9	0 K
60 min Summer	26.750	0.350	0.5	33.6	0 K
120 min Summer	26.818	0.418	0.5	40.5	0 K
180 min Summer	26.855	0.455	0.5	44.3	0 K
240 min Summer	26.880	0.480	0.5	46.7	0 K
360 min Summer	26.909	0.509	0.5	49.7	0 K
480 min Summer	26.924	0.524	0.5	51.3	0 K
600 min Summer	26.931	0.531	0.6	52.0	0 K
720 min Summer	26.933	0.533	0.6	52.1	0 K
960 min Summer	26.932	0.532	0.6	52.0	0 K
1440 min Summer	26.922	0.522	0.5	51.1	0 K
2160 min Summer	26.903	0.503	0.5	49.1	0 K
2880 min Summer	26.881	0.481	0.5	46.9	0 K
4320 min Summer	26.837	0.437	0.5	42.5	0 K
5760 min Summer	26.794	0.394	0.5	38.1	0 K
7200 min Summer	26.753	0.353	0.5	33.9	0 K
8640 min Summer	26.715	0.315	0.5	30.1	0 K
10080 min Summer	26.680	0.280	0.5	26.5	0 K
15 min Winter	26.646	0.246	0.5	23.1	0 K
30 min Winter	26.717	0.317	0.5	30.3	0 K
60 min Winter	26.792	0.392	0.5	37.9	0 K
120 min Winter	26.869	0.469	0.5	45.7	0 K
180 min Winter	26.913	0.513	0.5	50.2	0 K
240 min Winter	26.943	0.543	0.6	53.1	0 K
360 min Winter	26.979	0.579	0.6	56.8	0 K
480 min Winter	27.000	0.600	0.6	58.9	0 K
600 min Winter	27.012	0.612	0.6	60.1	0 K
720 min Winter	27.018	0.618	0.6	60.7	0 K
960 min Winter	27.018	0.618	0.6	60.8	0 K
1440 min Winter	27.005	0.605	0.6	59.4	0 K
2160 min Winter	26.976	0.576	0.6	56.5	0 K
2880 min Winter	26.942	0.542	0.6	53.1	0 K
4320 min Winter	26.873	0.473	0.5	46.0	0 K
5760 min Winter	26.805	0.405	0.5	39.2	0 K
7200 min Winter	26.743	0.343	0.5	32.9	0 K
8640 min Winter	26.687	0.287	0.5	27.2	0 K
10080 min Winter	26.637	0.237	0.5	22.1	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	122
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	480
600 min Summer	6.730	0.0	600
720 min Summer	5.890	0.0	702
960 min Summer	4.770	0.0	810
1440 min Summer	3.540	0.0	1068
2160 min Summer	2.625	0.0	1472
2880 min Summer	2.123	0.0	1900
4320 min Summer	1.572	0.0	2724
5760 min Summer	1.270	0.0	3520
7200 min Summer	1.076	0.0	4320
8640 min Summer	0.940	0.0	5096
10080 min Summer	0.839	0.0	5848
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	354
480 min Winter	7.922	0.0	468
600 min Winter	6.730	0.0	582
720 min Winter	5.890	0.0	692
960 min Winter	4.770	0.0	904
1440 min Winter	3.540	0.0	1126
2160 min Winter	2.625	0.0	1600
2880 min Winter	2.123	0.0	2048
4320 min Winter	1.572	0.0	2940
5760 min Winter	1.270	0.0	3800
7200 min Winter	1.076	0.0	4608
8640 min Winter	0.940	0.0	5360
10080 min Winter	0.839	0.0	6144

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 18 Soakaway	
Date 20/08/2020 16:12 File AREA 18.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.135

Time (mins)		Area
From:	To:	(ha)
0	4	0.135

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 18 Soakaway	
Date 20/08/2020 16:12 File AREA 18.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 28.000

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.13600	Invert Level (m)	26.400	Cap Volume Depth (m)	1.200
Infiltration Coefficient Side (m/hr)	0.13600	Trench Width (m)	3.0	Cap Infiltration Depth (m)	1.200
Safety Factor	10.0	Trench Length (m)	35.5		
Porosity	0.95	Slope (1:X)	1000.0		

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1417 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	26.753	0.353	0.5	33.9	0 K
30 min Summer	26.866	0.466	0.5	45.3	0 K
60 min Summer	26.987	0.587	0.6	57.6	0 K
120 min Summer	27.109	0.709	0.6	70.0	0 K
180 min Summer	27.176	0.776	0.6	76.7	0 K
240 min Summer	27.217	0.817	0.6	80.8	0 K
360 min Summer	27.270	0.870	0.7	86.2	0 K
480 min Summer	27.301	0.901	0.7	89.3	0 K
600 min Summer	27.318	0.918	0.7	91.1	0 K
720 min Summer	27.328	0.928	0.7	92.1	0 K
960 min Summer	27.330	0.930	0.7	92.3	0 K
1440 min Summer	27.313	0.913	0.7	90.5	0 K
2160 min Summer	27.277	0.877	0.7	87.0	0 K
2880 min Summer	27.240	0.840	0.6	83.2	0 K
4320 min Summer	27.172	0.772	0.6	76.3	0 K
5760 min Summer	27.110	0.710	0.6	70.0	0 K
7200 min Summer	27.051	0.651	0.6	64.1	0 K
8640 min Summer	26.999	0.599	0.6	58.8	0 K
10080 min Summer	26.949	0.549	0.6	53.8	0 K
15 min Winter	26.793	0.393	0.5	38.0	0 K
30 min Winter	26.920	0.520	0.5	50.9	0 K
60 min Winter	27.057	0.657	0.6	64.7	0 K
120 min Winter	27.196	0.796	0.6	78.8	0 K
180 min Winter	27.273	0.873	0.7	86.5	0 K
240 min Winter	27.321	0.921	0.7	91.3	0 K
360 min Winter	27.384	0.984	0.7	97.7	0 K
480 min Winter	27.423	1.023	0.7	101.7	0 K
600 min Winter	27.447	1.047	0.7	104.1	0 K
720 min Winter	27.462	1.062	0.7	105.6	0 K
960 min Winter	27.474	1.074	0.7	106.8	0 K
1440 min Winter	27.459	1.059	0.7	105.3	0 K
2160 min Winter	27.416	1.016	0.7	101.0	0 K
2880 min Winter	27.367	0.967	0.7	96.0	0 K
4320 min Winter	27.268	0.868	0.6	86.0	0 K
5760 min Winter	27.175	0.775	0.6	76.6	0 K
7200 min Winter	27.089	0.689	0.6	68.0	0 K
8640 min Winter	27.012	0.612	0.6	60.1	0 K
10080 min Winter	26.941	0.541	0.6	52.9	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	602
720 min Summer	9.435	0.0	720
960 min Summer	7.561	0.0	960
1440 min Summer	5.523	0.0	1196
2160 min Summer	4.026	0.0	1576
2880 min Summer	3.213	0.0	1988
4320 min Summer	2.333	0.0	2812
5760 min Summer	1.857	0.0	3632
7200 min Summer	1.555	0.0	4464
8640 min Summer	1.347	0.0	5264
10080 min Summer	1.192	0.0	6048
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	64
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180
240 min Winter	21.749	0.0	240
360 min Winter	16.006	0.0	356
480 min Winter	12.864	0.0	472
600 min Winter	10.849	0.0	588
720 min Winter	9.435	0.0	700
960 min Winter	7.561	0.0	924
1440 min Winter	5.523	0.0	1340
2160 min Winter	4.026	0.0	1668
2880 min Winter	3.213	0.0	2132
4320 min Winter	2.333	0.0	3028
5760 min Winter	1.857	0.0	3920
7200 min Winter	1.555	0.0	4760
8640 min Winter	1.347	0.0	5616
10080 min Winter	1.192	0.0	6448

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.135

Time (mins)		Area
From:	To:	(ha)
0	4	0.135

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 18 Soakaway	
Date 20/08/2020 16:27 File AREA 18.SRCX	Designed by Terry Seymour Checked by Terry Seymour	
Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 28.000

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.13600	Invert Level (m)	26.400	Cap Volume Depth (m)	1.200
Infiltration Coefficient Side (m/hr)	0.13600	Trench Width (m)	3.0	Cap Infiltration Depth (m)	1.200
Safety Factor	10.0	Trench Length (m)	35.5		
Porosity	0.95	Slope (1:X)	1000.0		

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 1141 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	25.592	0.342	0.2	12.0	0 K
30 min Summer	25.696	0.446	0.2	15.7	0 K
60 min Summer	25.807	0.557	0.2	19.7	0 K
120 min Summer	25.923	0.673	0.3	23.9	0 K
180 min Summer	25.990	0.740	0.3	26.4	0 K
240 min Summer	26.036	0.786	0.3	28.0	0 K
360 min Summer	26.094	0.844	0.3	30.1	0 K
480 min Summer	26.129	0.879	0.3	31.4	0 K
600 min Summer	26.149	0.899	0.3	32.1	0 K
720 min Summer	26.161	0.911	0.3	32.5	0 K
960 min Summer	26.172	0.922	0.3	32.9	0 K
1440 min Summer	26.181	0.931	0.3	33.2	0 K
2160 min Summer	26.173	0.923	0.3	32.9	0 K
2880 min Summer	26.152	0.902	0.3	32.2	0 K
4320 min Summer	26.101	0.851	0.3	30.4	0 K
5760 min Summer	26.051	0.801	0.3	28.5	0 K
7200 min Summer	26.004	0.754	0.3	26.9	0 K
8640 min Summer	25.961	0.711	0.3	25.3	0 K
10080 min Summer	25.921	0.671	0.2	23.9	0 K
15 min Winter	25.632	0.382	0.2	13.4	0 K
30 min Winter	25.749	0.499	0.2	17.6	0 K
60 min Winter	25.874	0.624	0.2	22.1	0 K
120 min Winter	26.006	0.756	0.3	26.9	0 K
180 min Winter	26.083	0.833	0.3	29.7	0 K
240 min Winter	26.135	0.885	0.3	31.6	0 K
360 min Winter	26.204	0.954	0.3	34.1	0 K
480 min Winter	26.246	0.996	0.3	35.6	0 K
600 min Winter	26.273	1.023	0.3	36.6	0 K
720 min Winter	26.290	1.040	0.3	37.2	0 K
960 min Winter	26.306	1.056	0.3	37.7	0 K
1440 min Winter	26.310	1.060	0.3	37.9	0 K
2160 min Winter	26.296	1.046	0.3	37.4	0 K
2880 min Winter	26.263	1.013	0.3	36.2	0 K
4320 min Winter	26.183	0.933	0.3	33.3	0 K
5760 min Winter	26.105	0.855	0.3	30.5	0 K
7200 min Winter	26.035	0.785	0.3	28.0	0 K
8640 min Winter	25.972	0.722	0.3	25.7	0 K
10080 min Winter	25.915	0.665	0.2	23.6	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	124
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	482
600 min Summer	6.730	0.0	600
720 min Summer	5.890	0.0	720
960 min Summer	4.770	0.0	828
1440 min Summer	3.540	0.0	1082
2160 min Summer	2.625	0.0	1488
2880 min Summer	2.123	0.0	1904
4320 min Summer	1.572	0.0	2724
5760 min Summer	1.270	0.0	3568
7200 min Summer	1.076	0.0	4328
8640 min Summer	0.940	0.0	5184
10080 min Summer	0.839	0.0	5944
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	354
480 min Winter	7.922	0.0	468
600 min Winter	6.730	0.0	582
720 min Winter	5.890	0.0	692
960 min Winter	4.770	0.0	904
1440 min Winter	3.540	0.0	1126
2160 min Winter	2.625	0.0	1596
2880 min Winter	2.123	0.0	2048
4320 min Winter	1.572	0.0	2940
5760 min Winter	1.270	0.0	3808
7200 min Winter	1.076	0.0	4616
8640 min Winter	0.940	0.0	5448
10080 min Winter	0.839	0.0	6256

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.078

Time (mins)		Area
From:	To:	(ha)
0	4	0.078

Model Details

Storage is Online Cover Level (m) 27.500

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.13600 Invert Level (m) 25.250 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.13600 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 28.0
Porosity 0.95 Slope (1:X) 1000.0

Cellular Storage

Invert Level (m) 25.250 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	10.0	0.0	1.600	10.0	0.0

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1393 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	25.805	0.555	0.2	19.7	0 K
30 min Summer	25.990	0.740	0.3	26.3	0 K
60 min Summer	26.188	0.938	0.3	33.5	0 K
120 min Summer	26.391	1.141	0.4	40.8	0 K
180 min Summer	26.501	1.251	0.4	44.8	0 K
240 min Summer	26.571	1.321	0.4	47.3	0 K
360 min Summer	26.661	1.411	0.4	50.6	0 K
480 min Summer	26.714	1.464	0.4	52.5	0 K
600 min Summer	26.746	1.496	0.4	53.6	0 K
720 min Summer	26.764	1.514	0.4	54.3	0 K
960 min Summer	26.775	1.525	0.4	54.7	0 K
1440 min Summer	26.777	1.527	0.4	54.7	0 K
2160 min Summer	26.756	1.506	0.4	54.0	0 K
2880 min Summer	26.719	1.469	0.4	52.7	0 K
4320 min Summer	26.630	1.380	0.4	49.4	0 K
5760 min Summer	26.539	1.289	0.4	46.2	0 K
7200 min Summer	26.458	1.208	0.4	43.3	0 K
8640 min Summer	26.388	1.138	0.4	40.7	0 K
10080 min Summer	26.325	1.075	0.3	38.4	0 K
15 min Winter	25.871	0.621	0.2	22.0	0 K
30 min Winter	26.078	0.828	0.3	29.5	0 K
60 min Winter	26.301	1.051	0.3	37.6	0 K
120 min Winter	26.530	1.280	0.4	45.8	0 K
180 min Winter	26.656	1.406	0.4	50.4	0 K
240 min Winter	26.735	1.485	0.4	53.2	0 K
360 min Winter	26.840	1.590	0.5	57.0	0 K
480 min Winter	27.017	1.767	0.5	59.3	0 K
600 min Winter	27.176	1.926	0.5	60.9	0 K
720 min Winter	27.279	2.029	0.5	61.8	Flood Risk
960 min Winter	27.374	2.124	0.5	62.7	Flood Risk
1440 min Winter	27.337	2.087	0.5	62.4	Flood Risk
2160 min Winter	27.212	1.962	0.5	61.2	Flood Risk
2880 min Winter	26.991	1.741	0.5	59.1	0 K
4320 min Winter	26.767	1.517	0.4	54.4	0 K
5760 min Winter	26.640	1.390	0.4	49.8	0 K
7200 min Winter	26.524	1.274	0.4	45.6	0 K
8640 min Winter	26.425	1.175	0.4	42.0	0 K
10080 min Winter	26.338	1.088	0.3	38.9	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	600
720 min Summer	9.435	0.0	720
960 min Summer	7.561	0.0	894
1440 min Summer	5.523	0.0	1124
2160 min Summer	4.026	0.0	1512
2880 min Summer	3.213	0.0	1932
4320 min Summer	2.333	0.0	2764
5760 min Summer	1.857	0.0	3576
7200 min Summer	1.555	0.0	4392
8640 min Summer	1.347	0.0	5192
10080 min Summer	1.192	0.0	5952
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	34
60 min Winter	58.567	0.0	64
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180
240 min Winter	21.749	0.0	238
360 min Winter	16.006	0.0	356
480 min Winter	12.864	0.0	470
600 min Winter	10.849	0.0	584
720 min Winter	9.435	0.0	698
960 min Winter	7.561	0.0	916
1440 min Winter	5.523	0.0	1184
2160 min Winter	4.026	0.0	1624
2880 min Winter	3.213	0.0	2076
4320 min Winter	2.333	0.0	2980
5760 min Winter	1.857	0.0	3816
7200 min Winter	1.555	0.0	4680
8640 min Winter	1.347	0.0	5528
10080 min Winter	1.192	0.0	6344

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.078

Time (mins)		Area
From:	To:	(ha)
0	4	0.078

Model Details

Storage is Online Cover Level (m) 27.500

Complex Structure

Cellular Storage

Invert Level (m) 25.250 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	10.0	0.0	1.600	10.0	0.0

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.13600 Invert Level (m) 25.250 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.13600 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 28.0
Porosity 0.95 Slope (1:X) 1000.0

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 919 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	26.334	0.334	0.4	21.1	0 K
30 min Summer	26.432	0.432	0.5	27.6	0 K
60 min Summer	26.536	0.536	0.5	34.5	0 K
120 min Summer	26.642	0.642	0.5	41.5	0 K
180 min Summer	26.701	0.701	0.6	45.4	0 K
240 min Summer	26.739	0.739	0.6	48.0	0 K
360 min Summer	26.785	0.785	0.6	51.0	0 K
480 min Summer	26.809	0.809	0.6	52.6	0 K
600 min Summer	26.819	0.819	0.6	53.3	0 K
720 min Summer	26.823	0.823	0.6	53.6	0 K
960 min Summer	26.825	0.825	0.6	53.7	0 K
1440 min Summer	26.815	0.815	0.6	53.0	0 K
2160 min Summer	26.786	0.786	0.6	51.1	0 K
2880 min Summer	26.755	0.755	0.6	49.1	0 K
4320 min Summer	26.694	0.694	0.6	45.0	0 K
5760 min Summer	26.635	0.635	0.5	41.0	0 K
7200 min Summer	26.579	0.579	0.5	37.3	0 K
8640 min Summer	26.528	0.528	0.5	33.9	0 K
10080 min Summer	26.481	0.481	0.5	30.8	0 K
15 min Winter	26.373	0.373	0.4	23.6	0 K
30 min Winter	26.483	0.483	0.5	31.0	0 K
60 min Winter	26.601	0.601	0.5	38.8	0 K
120 min Winter	26.722	0.722	0.6	46.8	0 K
180 min Winter	26.790	0.790	0.6	51.4	0 K
240 min Winter	26.836	0.836	0.6	54.4	0 K
360 min Winter	26.892	0.892	0.6	58.2	0 K
480 min Winter	26.924	0.924	0.6	60.3	0 K
600 min Winter	26.942	0.942	0.6	61.5	0 K
720 min Winter	26.950	0.950	0.6	62.0	0 K
960 min Winter	26.951	0.951	0.6	62.1	0 K
1440 min Winter	26.939	0.939	0.6	61.3	0 K
2160 min Winter	26.897	0.897	0.6	58.5	0 K
2880 min Winter	26.848	0.848	0.6	55.2	0 K
4320 min Winter	26.750	0.750	0.6	48.7	0 K
5760 min Winter	26.660	0.660	0.5	42.7	0 K
7200 min Winter	26.577	0.577	0.5	37.2	0 K
8640 min Winter	26.504	0.504	0.5	32.3	0 K
10080 min Winter	26.438	0.438	0.5	28.0	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	122
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	480
600 min Summer	6.730	0.0	600
720 min Summer	5.890	0.0	672
960 min Summer	4.770	0.0	788
1440 min Summer	3.540	0.0	1040
2160 min Summer	2.625	0.0	1468
2880 min Summer	2.123	0.0	1876
4320 min Summer	1.572	0.0	2684
5760 min Summer	1.270	0.0	3512
7200 min Summer	1.076	0.0	4320
8640 min Summer	0.940	0.0	5096
10080 min Summer	0.839	0.0	5848
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	354
480 min Winter	7.922	0.0	466
600 min Winter	6.730	0.0	578
720 min Winter	5.890	0.0	686
960 min Winter	4.770	0.0	886
1440 min Winter	3.540	0.0	1110
2160 min Winter	2.625	0.0	1576
2880 min Winter	2.123	0.0	2020
4320 min Winter	1.572	0.0	2900
5760 min Winter	1.270	0.0	3752
7200 min Winter	1.076	0.0	4544
8640 min Winter	0.940	0.0	5360
10080 min Winter	0.839	0.0	6152

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 21 Soakaway	
Date 03/08/2020 21:30 File AREA 21.SRCX	Designed by Terry Seymour Checked by Terry Seymor	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.138

Time (mins)		Area
From:	To:	(ha)
0	4	0.138

Rogers Cory Ptn Ltd		Page 3
The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 21 Soakaway	
Date 03/08/2020 21:30 File AREA 21.SRCX	Designed by Terry Seymour Checked by Terry Seymor	
Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 28.000

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.16700	Invert Level (m)	26.000	Cap Volume Depth (m)	1.600
Infiltration Coefficient Side (m/hr)	0.16700	Trench Width (m)	2.0	Cap Infiltration Depth (m)	1.600
Safety Factor	10.0	Trench Length (m)	35.0		
Porosity	0.95	Slope (1:X)	1000.0		

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1210 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	26.539	0.539	0.5	34.7	0 K
30 min Summer	26.715	0.715	0.6	46.4	0 K
60 min Summer	26.903	0.903	0.6	58.9	0 K
120 min Summer	27.092	1.092	0.7	71.5	0 K
180 min Summer	27.194	1.194	0.7	78.2	0 K
240 min Summer	27.256	1.256	0.7	82.3	0 K
360 min Summer	27.334	1.334	0.8	87.5	0 K
480 min Summer	27.377	1.377	0.8	90.4	0 K
600 min Summer	27.401	1.401	0.8	92.0	0 K
720 min Summer	27.411	1.411	0.8	92.6	0 K
960 min Summer	27.410	1.410	0.8	92.6	0 K
1440 min Summer	27.393	1.393	0.8	91.5	0 K
2160 min Summer	27.347	1.347	0.8	88.4	0 K
2880 min Summer	27.290	1.290	0.8	84.6	0 K
4320 min Summer	27.184	1.184	0.7	77.6	0 K
5760 min Summer	27.090	1.090	0.7	71.3	0 K
7200 min Summer	27.006	1.006	0.7	65.8	0 K
8640 min Summer	26.932	0.932	0.6	60.8	0 K
10080 min Summer	26.864	0.864	0.6	56.3	0 K
15 min Winter	26.602	0.602	0.5	38.9	0 K
30 min Winter	26.800	0.800	0.6	52.0	0 K
60 min Winter	27.011	1.011	0.7	66.1	0 K
120 min Winter	27.226	1.226	0.7	80.4	0 K
180 min Winter	27.343	1.343	0.8	88.1	0 K
240 min Winter	27.415	1.415	0.8	92.9	0 K
360 min Winter	27.508	1.508	0.8	99.1	0 K
480 min Winter	27.563	1.563	0.9	102.8	0 K
600 min Winter	27.595	1.595	0.9	104.9	0 K
720 min Winter	27.616	1.616	0.9	106.1	0 K
960 min Winter	27.833	1.833	0.9	106.6	Flood Risk
1440 min Winter	27.595	1.595	0.9	104.9	0 K
2160 min Winter	27.540	1.540	0.8	101.2	0 K
2880 min Winter	27.465	1.465	0.8	96.3	0 K
4320 min Winter	27.308	1.308	0.8	85.8	0 K
5760 min Winter	27.172	1.172	0.7	76.8	0 K
7200 min Winter	27.052	1.052	0.7	68.8	0 K
8640 min Winter	26.946	0.946	0.6	61.8	0 K
10080 min Winter	26.852	0.852	0.6	55.5	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	600
720 min Summer	9.435	0.0	720
960 min Summer	7.561	0.0	874
1440 min Summer	5.523	0.0	1110
2160 min Summer	4.026	0.0	1512
2880 min Summer	3.213	0.0	1928
4320 min Summer	2.333	0.0	2764
5760 min Summer	1.857	0.0	3576
7200 min Summer	1.555	0.0	4392
8640 min Summer	1.347	0.0	5184
10080 min Summer	1.192	0.0	5952
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	62
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180
240 min Winter	21.749	0.0	238
360 min Winter	16.006	0.0	356
480 min Winter	12.864	0.0	470
600 min Winter	10.849	0.0	584
720 min Winter	9.435	0.0	694
960 min Winter	7.561	0.0	912
1440 min Winter	5.523	0.0	1152
2160 min Winter	4.026	0.0	1604
2880 min Winter	3.213	0.0	2076
4320 min Winter	2.333	0.0	2980
5760 min Winter	1.857	0.0	3816
7200 min Winter	1.555	0.0	4680
8640 min Winter	1.347	0.0	5456
10080 min Winter	1.192	0.0	6256

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.138

Time (mins)		Area
From:	To:	(ha)
0	4	0.138

Rogers Cory Ptn Ltd		Page 3
The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 21 Soakaway	
Date 03/08/2020 21:29 File AREA 21.SRCX	Designed by Terry Seymour Checked by Terry Seymor	
Micro Drainage	Source Control 2017.1.2	

Model Details

Storage is Online Cover Level (m) 28.000

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.16700	Invert Level (m)	26.000	Cap Volume Depth (m)	1.600
Infiltration Coefficient Side (m/hr)	0.16700	Trench Width (m)	2.0	Cap Infiltration Depth (m)	1.600
Safety Factor	10.0	Trench Length (m)	35.0		
Porosity	0.95	Slope (1:X)	1000.0		

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 1223 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	26.122	0.272	0.3	18.9	0 K
30 min Summer	26.208	0.358	0.3	24.8	0 K
60 min Summer	26.299	0.449	0.3	31.2	0 K
120 min Summer	26.395	0.545	0.4	37.8	0 K
180 min Summer	26.452	0.602	0.4	41.7	0 K
240 min Summer	26.490	0.640	0.4	44.4	0 K
360 min Summer	26.540	0.690	0.4	47.8	0 K
480 min Summer	26.570	0.720	0.4	49.9	0 K
600 min Summer	26.589	0.739	0.4	51.2	0 K
720 min Summer	26.600	0.750	0.4	52.0	0 K
960 min Summer	26.610	0.760	0.5	52.7	0 K
1440 min Summer	26.618	0.768	0.5	53.3	0 K
2160 min Summer	26.613	0.763	0.5	52.9	0 K
2880 min Summer	26.598	0.748	0.4	51.9	0 K
4320 min Summer	26.559	0.709	0.4	49.1	0 K
5760 min Summer	26.518	0.668	0.4	46.3	0 K
7200 min Summer	26.480	0.630	0.4	43.7	0 K
8640 min Summer	26.444	0.594	0.4	41.2	0 K
10080 min Summer	26.411	0.561	0.4	38.9	0 K
15 min Winter	26.155	0.305	0.3	21.2	0 K
30 min Winter	26.251	0.401	0.3	27.8	0 K
60 min Winter	26.354	0.504	0.4	35.0	0 K
120 min Winter	26.463	0.613	0.4	42.5	0 K
180 min Winter	26.527	0.677	0.4	47.0	0 K
240 min Winter	26.571	0.721	0.4	50.0	0 K
360 min Winter	26.630	0.780	0.5	54.1	0 K
480 min Winter	26.666	0.816	0.5	56.6	0 K
600 min Winter	26.691	0.841	0.5	58.3	0 K
720 min Winter	26.706	0.856	0.5	59.4	0 K
960 min Winter	26.722	0.872	0.5	60.5	0 K
1440 min Winter	26.727	0.877	0.5	60.8	0 K
2160 min Winter	26.718	0.868	0.5	60.2	0 K
2880 min Winter	26.693	0.843	0.5	58.5	0 K
4320 min Winter	26.631	0.781	0.5	54.2	0 K
5760 min Winter	26.568	0.718	0.4	49.8	0 K
7200 min Winter	26.510	0.660	0.4	45.8	0 K
8640 min Winter	26.457	0.607	0.4	42.1	0 K
10080 min Winter	26.408	0.558	0.4	38.7	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	124
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	482
600 min Summer	6.730	0.0	600
720 min Summer	5.890	0.0	720
960 min Summer	4.770	0.0	860
1440 min Summer	3.540	0.0	1110
2160 min Summer	2.625	0.0	1512
2880 min Summer	2.123	0.0	1928
4320 min Summer	1.572	0.0	2764
5760 min Summer	1.270	0.0	3576
7200 min Summer	1.076	0.0	4392
8640 min Summer	0.940	0.0	5184
10080 min Summer	0.839	0.0	5952
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	354
480 min Winter	7.922	0.0	470
600 min Winter	6.730	0.0	584
720 min Winter	5.890	0.0	694
960 min Winter	4.770	0.0	912
1440 min Winter	3.540	0.0	1152
2160 min Winter	2.625	0.0	1604
2880 min Winter	2.123	0.0	2076
4320 min Winter	1.572	0.0	2980
5760 min Winter	1.270	0.0	3856
7200 min Winter	1.076	0.0	4680
8640 min Winter	0.940	0.0	5528
10080 min Winter	0.839	0.0	6344

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.123

Time (mins)		Area
From:	To:	(ha)
0	4	0.123

Model Details

Storage is Online Cover Level (m) 27.750

Complex Structure

Cellular Storage

Invert Level (m) 25.850 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	50.0	0.0	1.600	50.0	0.0	1.601	0.0	0.0

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.27400 Invert Level (m) 25.850 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.27400 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 23.0
Porosity 0.95 Slope (1:X) 0.0

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1479 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	26.297	0.447	0.3	31.0	0 K
30 min Summer	26.449	0.599	0.4	41.5	0 K
60 min Summer	26.613	0.763	0.5	52.9	0 K
120 min Summer	26.780	0.930	0.5	64.5	0 K
180 min Summer	26.872	1.022	0.5	70.9	0 K
240 min Summer	26.931	1.081	0.6	74.9	0 K
360 min Summer	27.008	1.158	0.6	80.3	0 K
480 min Summer	27.055	1.205	0.6	83.6	0 K
600 min Summer	27.084	1.234	0.6	85.6	0 K
720 min Summer	27.102	1.252	0.6	86.8	0 K
960 min Summer	27.115	1.265	0.6	87.7	0 K
1440 min Summer	27.117	1.267	0.6	87.9	0 K
2160 min Summer	27.102	1.252	0.6	86.8	0 K
2880 min Summer	27.074	1.224	0.6	84.9	0 K
4320 min Summer	27.004	1.154	0.6	80.0	0 K
5760 min Summer	26.932	1.082	0.6	75.0	0 K
7200 min Summer	26.866	1.016	0.5	70.5	0 K
8640 min Summer	26.809	0.959	0.5	66.5	0 K
10080 min Summer	26.757	0.907	0.5	62.9	0 K
15 min Winter	26.351	0.501	0.4	34.8	0 K
30 min Winter	26.522	0.672	0.4	46.6	0 K
60 min Winter	26.705	0.855	0.5	59.3	0 K
120 min Winter	26.894	1.044	0.6	72.4	0 K
180 min Winter	26.999	1.149	0.6	79.7	0 K
240 min Winter	27.066	1.216	0.6	84.3	0 K
360 min Winter	27.155	1.305	0.7	90.5	0 K
480 min Winter	27.212	1.362	0.7	94.4	0 K
600 min Winter	27.248	1.398	0.7	96.9	0 K
720 min Winter	27.272	1.422	0.7	98.6	0 K
960 min Winter	27.294	1.444	0.7	100.2	0 K
1440 min Winter	27.290	1.440	0.7	99.9	0 K
2160 min Winter	27.269	1.419	0.7	98.4	0 K
2880 min Winter	27.229	1.379	0.7	95.6	0 K
4320 min Winter	27.129	1.279	0.6	88.7	0 K
5760 min Winter	27.026	1.176	0.6	81.6	0 K
7200 min Winter	26.932	1.082	0.6	75.0	0 K
8640 min Winter	26.850	1.000	0.5	69.4	0 K
10080 min Winter	26.778	0.928	0.5	64.4	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	184
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	602
720 min Summer	9.435	0.0	720
960 min Summer	7.561	0.0	950
1440 min Summer	5.523	0.0	1156
2160 min Summer	4.026	0.0	1540
2880 min Summer	3.213	0.0	1960
4320 min Summer	2.333	0.0	2772
5760 min Summer	1.857	0.0	3632
7200 min Summer	1.555	0.0	4400
8640 min Summer	1.347	0.0	5192
10080 min Summer	1.192	0.0	6048
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	34
60 min Winter	58.567	0.0	64
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180
240 min Winter	21.749	0.0	240
360 min Winter	16.006	0.0	356
480 min Winter	12.864	0.0	472
600 min Winter	10.849	0.0	586
720 min Winter	9.435	0.0	700
960 min Winter	7.561	0.0	916
1440 min Winter	5.523	0.0	1296
2160 min Winter	4.026	0.0	1640
2880 min Winter	3.213	0.0	2104
4320 min Winter	2.333	0.0	2988
5760 min Winter	1.857	0.0	3864
7200 min Winter	1.555	0.0	4752
8640 min Winter	1.347	0.0	5536
10080 min Winter	1.192	0.0	6360

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The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 22 Soakaway	
Date 03/08/2020 22:00 File AREA 22.SRCX	Designed by Terry Seymour Checked by Terry Seymor	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.123

Time (mins)		Area
From:	To:	(ha)
0	4	0.123

Model Details

Storage is Online Cover Level (m) 27.750

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.27400

Infiltration Coefficient Side (m/hr) 0.27400

Safety Factor 10.0

Porosity 0.95

Invert Level (m) 25.850

Trench Width (m) 1.0

Trench Length (m) 23.0

Slope (1:X) 0.0

Cap Volume Depth (m) 1.600

Cap Infiltration Depth (m) 1.600

Cellular Storage

Invert Level (m) 25.850

Infiltration Coefficient Side (m/hr) 0.00000

Infiltration Coefficient Base (m/hr) 0.00000

Porosity 0.95

Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	50.0	0.0	1.600	50.0	0.0	1.601	0.0	0.0

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 857 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	25.714	0.314	0.3	13.3	0 K
30 min Summer	25.810	0.410	0.3	17.4	0 K
60 min Summer	25.911	0.511	0.3	21.7	0 K
120 min Summer	26.014	0.614	0.4	26.1	0 K
180 min Summer	26.071	0.671	0.4	28.5	0 K
240 min Summer	26.107	0.707	0.4	30.0	0 K
360 min Summer	26.149	0.749	0.4	31.9	0 K
480 min Summer	26.170	0.770	0.4	32.7	0 K
600 min Summer	26.178	0.778	0.4	33.1	0 K
720 min Summer	26.181	0.781	0.4	33.2	0 K
960 min Summer	26.182	0.782	0.4	33.2	0 K
1440 min Summer	26.170	0.770	0.4	32.7	0 K
2160 min Summer	26.140	0.740	0.4	31.5	0 K
2880 min Summer	26.107	0.707	0.4	30.1	0 K
4320 min Summer	26.042	0.642	0.4	27.3	0 K
5760 min Summer	25.980	0.580	0.4	24.6	0 K
7200 min Summer	25.922	0.522	0.3	22.1	0 K
8640 min Summer	25.869	0.469	0.3	19.9	0 K
10080 min Summer	25.820	0.420	0.3	17.8	0 K
15 min Winter	25.752	0.352	0.3	14.9	0 K
30 min Winter	25.860	0.460	0.3	19.5	0 K
60 min Winter	25.975	0.575	0.4	24.4	0 K
120 min Winter	26.092	0.692	0.4	29.4	0 K
180 min Winter	26.158	0.758	0.4	32.2	0 K
240 min Winter	26.201	0.801	0.4	34.1	0 K
360 min Winter	26.254	0.854	0.4	36.3	0 K
480 min Winter	26.283	0.883	0.4	37.6	0 K
600 min Winter	26.298	0.898	0.4	38.2	0 K
720 min Winter	26.304	0.904	0.4	38.5	0 K
960 min Winter	26.301	0.901	0.4	38.3	0 K
1440 min Winter	26.286	0.886	0.4	37.7	0 K
2160 min Winter	26.241	0.841	0.4	35.8	0 K
2880 min Winter	26.190	0.790	0.4	33.6	0 K
4320 min Winter	26.087	0.687	0.4	29.2	0 K
5760 min Winter	25.992	0.592	0.4	25.1	0 K
7200 min Winter	25.907	0.507	0.3	21.5	0 K
8640 min Winter	25.831	0.431	0.3	18.3	0 K
10080 min Winter	25.765	0.365	0.3	15.4	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	122
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	480
600 min Summer	6.730	0.0	596
720 min Summer	5.890	0.0	644
960 min Summer	4.770	0.0	762
1440 min Summer	3.540	0.0	1026
2160 min Summer	2.625	0.0	1448
2880 min Summer	2.123	0.0	1848
4320 min Summer	1.572	0.0	2680
5760 min Summer	1.270	0.0	3464
7200 min Summer	1.076	0.0	4256
8640 min Summer	0.940	0.0	5016
10080 min Summer	0.839	0.0	5752
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	120
180 min Winter	16.130	0.0	180
240 min Winter	13.106	0.0	238
360 min Winter	9.767	0.0	352
480 min Winter	7.922	0.0	466
600 min Winter	6.730	0.0	576
720 min Winter	5.890	0.0	684
960 min Winter	4.770	0.0	866
1440 min Winter	3.540	0.0	1096
2160 min Winter	2.625	0.0	1560
2880 min Winter	2.123	0.0	2016
4320 min Winter	1.572	0.0	2892
5760 min Winter	1.270	0.0	3696
7200 min Winter	1.076	0.0	4536
8640 min Winter	0.940	0.0	5280
10080 min Winter	0.839	0.0	6056

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.087

Time (mins)		Area
From:	To:	(ha)
0	4	0.087

Model Details

Storage is Online Cover Level (m) 27.500

Complex Structure

Cellular Storage

Invert Level (m) 25.400 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	15.0	0.0	1.600	15.0	0.0	1.601	0.0	0.0

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.27400 Invert Level (m) 25.400 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.27400 Trench Width (m) 2.5 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 12.0
Porosity 0.95 Slope (1:X) 1000.0

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 1141 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	25.915	0.515	0.3	21.8	0 K
30 min Summer	26.087	0.687	0.4	29.2	0 K
60 min Summer	26.271	0.871	0.4	37.1	0 K
120 min Summer	26.455	1.055	0.5	44.9	0 K
180 min Summer	26.553	1.153	0.5	49.1	0 K
240 min Summer	26.612	1.212	0.5	51.7	0 K
360 min Summer	26.686	1.286	0.5	54.8	0 K
480 min Summer	26.726	1.326	0.5	56.5	0 K
600 min Summer	26.746	1.346	0.5	57.4	0 K
720 min Summer	26.753	1.353	0.5	57.7	0 K
960 min Summer	26.750	1.350	0.5	57.5	0 K
1440 min Summer	26.729	1.329	0.5	56.6	0 K
2160 min Summer	26.679	1.279	0.5	54.5	0 K
2880 min Summer	26.621	1.221	0.5	52.0	0 K
4320 min Summer	26.514	1.114	0.5	47.4	0 K
5760 min Summer	26.418	1.018	0.5	43.4	0 K
7200 min Summer	26.332	0.932	0.4	39.7	0 K
8640 min Summer	26.256	0.856	0.4	36.4	0 K
10080 min Summer	26.187	0.787	0.4	33.5	0 K
15 min Winter	25.977	0.577	0.4	24.5	0 K
30 min Winter	26.170	0.770	0.4	32.8	0 K
60 min Winter	26.377	0.977	0.4	41.6	0 K
120 min Winter	26.587	1.187	0.5	50.6	0 K
180 min Winter	26.699	1.299	0.5	55.4	0 K
240 min Winter	26.769	1.369	0.5	58.3	0 K
360 min Winter	26.857	1.457	0.5	62.1	0 K
480 min Winter	26.908	1.508	0.6	64.3	0 K
600 min Winter	26.937	1.537	0.6	65.5	0 K
720 min Winter	26.951	1.551	0.6	66.1	0 K
960 min Winter	26.955	1.555	0.6	66.3	0 K
1440 min Winter	26.926	1.526	0.6	65.0	0 K
2160 min Winter	26.864	1.464	0.6	62.4	0 K
2880 min Winter	26.784	1.384	0.5	59.0	0 K
4320 min Winter	26.625	1.225	0.5	52.2	0 K
5760 min Winter	26.487	1.087	0.5	46.3	0 K
7200 min Winter	26.364	0.964	0.4	41.0	0 K
8640 min Winter	26.257	0.857	0.4	36.5	0 K
10080 min Winter	26.161	0.761	0.4	32.4	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	34
60 min Summer	58.567	0.0	64
120 min Summer	36.294	0.0	124
180 min Summer	27.017	0.0	182
240 min Summer	21.749	0.0	242
360 min Summer	16.006	0.0	362
480 min Summer	12.864	0.0	482
600 min Summer	10.849	0.0	600
720 min Summer	9.435	0.0	720
960 min Summer	7.561	0.0	838
1440 min Summer	5.523	0.0	1094
2160 min Summer	4.026	0.0	1492
2880 min Summer	3.213	0.0	1904
4320 min Summer	2.333	0.0	2728
5760 min Summer	1.857	0.0	3568
7200 min Summer	1.555	0.0	4328
8640 min Summer	1.347	0.0	5112
10080 min Summer	1.192	0.0	5944
15 min Winter	135.580	0.0	19
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	62
120 min Winter	36.294	0.0	122
180 min Winter	27.017	0.0	180
240 min Winter	21.749	0.0	238
360 min Winter	16.006	0.0	354
480 min Winter	12.864	0.0	470
600 min Winter	10.849	0.0	582
720 min Winter	9.435	0.0	694
960 min Winter	7.561	0.0	906
1440 min Winter	5.523	0.0	1138
2160 min Winter	4.026	0.0	1600
2880 min Winter	3.213	0.0	2052
4320 min Winter	2.333	0.0	2940
5760 min Winter	1.857	0.0	3808
7200 min Winter	1.555	0.0	4616
8640 min Winter	1.347	0.0	5448
10080 min Winter	1.192	0.0	6256

Rogers Cory Ptn Ltd		Page 2
The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 26 Soakaway	
Date 03/08/2020 22:28 File AREA 26.SRCX	Designed by Terry Seymour Checked by Terry Seymor	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.087

Time (mins)		Area
From:	To:	(ha)
0	4	0.087

Model Details

Storage is Online Cover Level (m) 27.500

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.27400 Invert Level (m) 25.400 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.27400 Trench Width (m) 2.5 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 12.0
Porosity 0.95 Slope (1:X) 1000.0

Cellular Storage

Invert Level (m) 25.400 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	15.0	0.0	1.600	15.0	0.0	1.601	0.0	0.0

Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 319 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	23.799	0.399	1.1	25.1	0 K
30 min Summer	23.914	0.514	1.3	32.5	0 K
60 min Summer	24.027	0.627	1.4	39.8	0 K
120 min Summer	24.124	0.724	1.6	46.1	0 K
180 min Summer	24.163	0.763	1.6	48.6	0 K
240 min Summer	24.176	0.776	1.6	49.5	0 K
360 min Summer	24.189	0.789	1.7	50.3	0 K
480 min Summer	24.190	0.790	1.7	50.3	0 K
600 min Summer	24.184	0.784	1.7	50.0	0 K
720 min Summer	24.175	0.775	1.6	49.4	0 K
960 min Summer	24.151	0.751	1.6	47.8	0 K
1440 min Summer	24.100	0.700	1.5	44.5	0 K
2160 min Summer	24.028	0.628	1.4	39.9	0 K
2880 min Summer	23.964	0.564	1.4	35.8	0 K
4320 min Summer	23.858	0.458	1.2	28.9	0 K
5760 min Summer	23.774	0.374	1.1	23.5	0 K
7200 min Summer	23.707	0.307	1.0	19.2	0 K
8640 min Summer	23.653	0.253	1.0	15.7	0 K
10080 min Summer	23.608	0.208	0.9	12.7	0 K
15 min Winter	23.846	0.446	1.2	28.2	0 K
30 min Winter	23.977	0.577	1.4	36.6	0 K
60 min Winter	24.106	0.706	1.5	44.9	0 K
120 min Winter	24.221	0.821	1.7	52.3	0 K
180 min Winter	24.269	0.869	1.8	55.5	0 K
240 min Winter	24.290	0.890	1.8	56.8	0 K
360 min Winter	24.299	0.899	1.8	57.4	0 K
480 min Winter	24.300	0.900	1.8	57.4	0 K
600 min Winter	24.290	0.890	1.8	56.8	0 K
720 min Winter	24.275	0.875	1.8	55.9	0 K
960 min Winter	24.237	0.837	1.7	53.4	0 K
1440 min Winter	24.156	0.756	1.6	48.1	0 K
2160 min Winter	24.047	0.647	1.5	41.1	0 K
2880 min Winter	23.955	0.555	1.3	35.2	0 K
4320 min Winter	23.811	0.411	1.2	25.9	0 K
5760 min Winter	23.705	0.305	1.0	19.0	0 K
7200 min Winter	23.624	0.224	0.9	13.8	0 K
8640 min Winter	23.562	0.162	0.8	9.8	0 K
10080 min Winter	23.512	0.112	0.8	6.6	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	33
60 min Summer	34.733	0.0	62
120 min Summer	21.518	0.0	122
180 min Summer	16.130	0.0	180
240 min Summer	13.106	0.0	222
360 min Summer	9.767	0.0	282
480 min Summer	7.922	0.0	346
600 min Summer	6.730	0.0	416
720 min Summer	5.890	0.0	486
960 min Summer	4.770	0.0	626
1440 min Summer	3.540	0.0	896
2160 min Summer	2.625	0.0	1300
2880 min Summer	2.123	0.0	1700
4320 min Summer	1.572	0.0	2464
5760 min Summer	1.270	0.0	3176
7200 min Summer	1.076	0.0	3960
8640 min Summer	0.940	0.0	4664
10080 min Summer	0.839	0.0	5352
15 min Winter	82.824	0.0	18
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	118
180 min Winter	16.130	0.0	176
240 min Winter	13.106	0.0	230
360 min Winter	9.767	0.0	292
480 min Winter	7.922	0.0	368
600 min Winter	6.730	0.0	446
720 min Winter	5.890	0.0	522
960 min Winter	4.770	0.0	674
1440 min Winter	3.540	0.0	966
2160 min Winter	2.625	0.0	1384
2880 min Winter	2.123	0.0	1788
4320 min Winter	1.572	0.0	2552
5760 min Winter	1.270	0.0	3336
7200 min Winter	1.076	0.0	4040
8640 min Winter	0.940	0.0	4760
10080 min Winter	0.839	0.0	5448

Rogers Cory Ptn Ltd		Page 2
The Old School Old School Road Hook RG27 9NJ	Fontwell Eastergate Area 29 Soakaway	
Date 14/08/2020 17:00 File AREA 29.SRCX	Designed by Terry Seymour Checked by Terry Seymor	
Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	10	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.167

Time (mins)		Area
From:	To:	(ha)
0	4	0.167

Model Details

Storage is Online Cover Level (m) 25.600

Complex Structure

Cellular Storage

Invert Level (m) 23.400 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	0.0	1.600	30.0	0.0	1.601	0.0	0.0

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.60840 Invert Level (m) 23.400 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.60840 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 38.0
Porosity 0.95 Slope (1:X) 1000.0

Summary of Results for 100 year Return Period (+50%)

Half Drain Time : 390 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	24.051	0.651	1.5	41.4	0 K
30 min Summer	24.260	0.860	1.8	54.9	0 K
60 min Summer	24.470	1.070	2.0	68.4	0 K
120 min Summer	24.654	1.254	2.3	80.3	0 K
180 min Summer	24.727	1.327	2.4	85.0	0 K
240 min Summer	24.751	1.351	2.4	86.6	0 K
360 min Summer	24.765	1.365	2.4	87.5	0 K
480 min Summer	24.767	1.367	2.4	87.6	0 K
600 min Summer	24.760	1.360	2.4	87.2	0 K
720 min Summer	24.746	1.346	2.4	86.3	0 K
960 min Summer	24.709	1.309	2.3	83.9	0 K
1440 min Summer	24.621	1.221	2.2	78.2	0 K
2160 min Summer	24.497	1.097	2.1	70.2	0 K
2880 min Summer	24.393	0.993	1.9	63.4	0 K
4320 min Summer	24.225	0.825	1.7	52.6	0 K
5760 min Summer	24.096	0.696	1.5	44.3	0 K
7200 min Summer	23.993	0.593	1.4	37.6	0 K
8640 min Summer	23.909	0.509	1.3	32.2	0 K
10080 min Summer	23.841	0.441	1.2	27.8	0 K
15 min Winter	24.129	0.729	1.6	46.4	0 K
30 min Winter	24.365	0.965	1.9	61.6	0 K
60 min Winter	24.603	1.203	2.2	77.1	0 K
120 min Winter	24.816	1.416	2.5	90.8	0 K
180 min Winter	24.905	1.505	2.6	96.5	0 K
240 min Winter	24.939	1.539	2.6	98.8	0 K
360 min Winter	24.953	1.553	2.7	99.6	0 K
480 min Winter	24.951	1.551	2.7	99.5	0 K
600 min Winter	24.939	1.539	2.6	98.7	0 K
720 min Winter	24.918	1.518	2.6	97.3	0 K
960 min Winter	24.861	1.461	2.5	93.7	0 K
1440 min Winter	24.733	1.333	2.4	85.4	0 K
2160 min Winter	24.553	1.153	2.1	73.8	0 K
2880 min Winter	24.408	1.008	1.9	64.4	0 K
4320 min Winter	24.185	0.785	1.7	50.0	0 K
5760 min Winter	24.021	0.621	1.4	39.4	0 K
7200 min Winter	23.897	0.497	1.3	31.4	0 K
8640 min Winter	23.801	0.401	1.1	25.2	0 K
10080 min Winter	23.723	0.323	1.0	20.2	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	135.580	0.0	19
30 min Summer	91.216	0.0	33
60 min Summer	58.567	0.0	62
120 min Summer	36.294	0.0	122
180 min Summer	27.017	0.0	180
240 min Summer	21.749	0.0	240
360 min Summer	16.006	0.0	298
480 min Summer	12.864	0.0	360
600 min Summer	10.849	0.0	426
720 min Summer	9.435	0.0	494
960 min Summer	7.561	0.0	634
1440 min Summer	5.523	0.0	910
2160 min Summer	4.026	0.0	1316
2880 min Summer	3.213	0.0	1704
4320 min Summer	2.333	0.0	2468
5760 min Summer	1.857	0.0	3232
7200 min Summer	1.555	0.0	3968
8640 min Summer	1.347	0.0	4680
10080 min Summer	1.192	0.0	5448
15 min Winter	135.580	0.0	18
30 min Winter	91.216	0.0	33
60 min Winter	58.567	0.0	62
120 min Winter	36.294	0.0	120
180 min Winter	27.017	0.0	176
240 min Winter	21.749	0.0	232
360 min Winter	16.006	0.0	332
480 min Winter	12.864	0.0	374
600 min Winter	10.849	0.0	452
720 min Winter	9.435	0.0	528
960 min Winter	7.561	0.0	682
1440 min Winter	5.523	0.0	980
2160 min Winter	4.026	0.0	1404
2880 min Winter	3.213	0.0	1816
4320 min Winter	2.333	0.0	2596
5760 min Winter	1.857	0.0	3352
7200 min Winter	1.555	0.0	4112
8640 min Winter	1.347	0.0	4848
10080 min Winter	1.192	0.0	5552

Rainfall Details

Rainfall Model	FSR	Ratio R	0.348	Cv (Winter)	0.840
Return Period (years)	100	Summer Storms	Yes	Shortest Storm (mins)	15
Region	England and Wales	Winter Storms	Yes	Longest Storm (mins)	10080
M5-60 (mm)	19.300	Cv (Summer)	0.750	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.167

Time (mins)		Area
From:	To:	(ha)
0	4	0.167

Model Details

Storage is Online Cover Level (m) 25.600

Complex Structure

Trench Soakaway

Infiltration Coefficient Base (m/hr) 0.60840 Invert Level (m) 23.400 Cap Volume Depth (m) 1.600
Infiltration Coefficient Side (m/hr) 0.60840 Trench Width (m) 1.0 Cap Infiltration Depth (m) 1.600
Safety Factor 10.0 Trench Length (m) 38.0
Porosity 0.95 Slope (1:X) 1000.0

Cellular Storage

Invert Level (m) 23.400 Infiltration Coefficient Side (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	0.0	1.600	30.0	0.0	1.601	0.0	0.0

Appendix (E)

Arun District Council Drainage Officer Correspondence

From: [Laura Gibbons](#)
To: [Christian O'Brien](#)
Cc: [Leon Darrell](#); [Terry Seymour](#); [Chris Harrison](#); [John Richards](#); [Paul Cann](#); [Sarah Burrow](#)
Subject: RE: Fontwell - Drainage Strategy
Date: 15 October 2019 12:56:39

Hi Christian,

I have reviewed the infiltration test results, these are okay. When a revised submission is provided please include these rates on a layout drawing summarising groundwater and infiltration test results.

The following points should be used in design:

1. Closest infiltration testing results should be used in design with the worst infiltration rate used.
2. If the base of infiltrating structures is included within design, the factor of safety applied must be in accordance with the following:

Factor of Safety Table						
Size of Area to be Drained	Consequences of failure					
	No damage or inconvenience		Minor inconvenience, e.g. surface water on car park		Damage to buildings or structures or roads.	
	Cv=1.0	Cv=0.75	Cv=1.0	Cv=0.75	Cv=1.0	Cv=0.75
<100 m ²	1.5	2	2	3	10	13
100m ² to 1000m ²	1.5	2	3	4	10	13
>1000m ²	1.5	2	5	6.5	10	13

3. An allowance for the rainfall falling directly upon the infiltration basin must be included in calculations.
4. The soakaway nearest to a property should be the one serving that property.
5. 5m easement between soakaways and the red line site boundary should be provided.
6. If the infiltrating structure does not half drain in 24 hours for the 100 year plus climate change event please provide half drain time results for the 1 in 10 year plus climate change event. It is likely if this drain time is less than 24 hours that it will be accepted.
7. A minimum of 100mm freeboard will be provided between the base of infiltrating structures and maximum recorded groundwater level.
8. I note that you stated that layout revisions are to occur and this will therefore have a knock on impact upon the surface water drainage design.

The outstanding points from my previous consultation response are as follows:

1. Calculations are missing for areas 9 and 11.
2. The infiltration rate used in the design of the soakaway for area 14 appears to be incorrect (significant overestimation).
3. Soakaways for areas 24 are within 10m of existing buildings and therefore need to be moved/ re-designed.
4. Soakaways for areas 6, 7, 8, 24, 26, 31A are in close proximity to the red line boundary. Is there any opportunity to increase these easements?
5. Has the rain falling directly onto the infiltration basin been accounted for in design?
6. I presume from impermeable areas, and location that area 22 also serves plots 309-313

- despite this not being stated in the plot numbers column. Please confirm.
7. The soakaway for area 26 has a modelled water depth which exceeds the crate depth.
 8. Plots 322 and 323 and 332 and 333 are not draining to the soakaways adjacent to them. Have you considered swapping these over so they do?
 9. The infiltration rate used for area 27 appears to be incorrect. Please review.
 10. Draining plots 347-350 to area 29 seems optimistic, please demonstrate how you would get the water here.
 11. The soakaway for area 30a is set too deep.
 12. As discussed previously some of the soakaways as currently proposed will not work if infiltration rates are found to be near the lower end of the range observed between nearby test locations. When is infiltration testing going to be completed? I would be keen to see these results before determination of the application.
 13. Some of the soakaways are located considerable distances away from the properties which they are serving. Are you confident that connections can be made and minimum falls achieved?
 14. Are covenants going to be put in place to ensure householders permit access for maintenance?

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

[Laura Gibbons](#) | Engineer (Drainage & Coastal), Engineering Services, [Arun District Council](#) |
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Save the environment - think before you print.

From: Christian O'Brien <cobrien@dandara.com>
Sent: 14 October 2019 16:06
To: Laura Gibbons <Laura.Gibbons@arun.gov.uk>
Cc: 'Leon Darrell' <Leon@rcpconsultants.co.uk>; 'Terry Seymour' <Terry@rcpconsultants.co.uk>;
Chris Harrison <charrison@dandara.com>; John Richards <jrichards@dandara.com>
Subject: RE: Fontwell - Drainage Strategy

Hi Laura,

Please can you also confirm the acceptance and requirements of the following principles:

- 1) all hard standing areas to be permeable
- 2) all roof drainage to infiltration trenches, which are to be offset from proposed units, existing buildings and boundaries
- 3) residual roof drainage to attenuation basis in south west catchment

Kind regards,

Christian O'Brien

Engineering Manager

[Dandara logo](#)



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From: Christian O'Brien

Sent: 14 October 2019 15:24

To: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Cc: Leon Darrell <Leon@rcpconsultants.co.uk>; Terry Seymour <Terry@rcpconsultants.co.uk>

Subject: Fontwell - Drainage Strategy

Importance: High

Hi Laura,

Many thanks for the meeting last week with myself and Leon at RCP with regards our site at Fontwell.

With your departure only days away, we would very much appreciate a position statement which makes it crystal clear which aspects of the drainage strategy are agreed and where there are any outstanding matters in your view.

We would also appreciate confirmation that the most recent testing results that I sent over to you are acceptable with our proposed drainage strategy and that we have acquired sufficient testing across the site to advise the detailed design of the drainage strategy, even if the layout is to change slightly.

Kind regards,

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