

Title	Farmers Stores, Goddards Green, BN6 9LE	Job No:	E9427
Description :	Surface Water Storage Calculations	By:	JWM
	Gatehouse 2 Development Site	Date:	May-25
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.350

Design Criteria

Design Storm = 100Yr + 45% Climate Change

Design Storm = 30Yr + 35% Climate Change

CV Value 1.0 (in accordance MSDC Flood Risk and Drainage Requirements)

Discharge Point

Surface Water ditch on south-western boundary of Gatehouse 2 area

Design Discharge Rate

Restricted to 3.3l/s Qbar (for all storms up to and including the 1:100yr event = 45% climate change allowance) using orifice flow restriction devices

Total Impermeable Area = 5,300m² or 0.530Ha

Results

Development Site has been split in to 3No. Catchment Areas each with it's own flow restriction device and attenuation within the voided sub-base of hard paved areas.

Discharge to existing ditch via new headwall on the existing ditch

Development Site catchments are as follows.

Catchment Area	Contributing Area (m ²)	Discharge Rate (l/s)	Permeable Paving Depth	Sub-Base Depth	Orifice Diameter
Catchment A:	1,700	1.0	950mm	750mm	24mm
Catchment B:	1,630	1.0	950mm	750mm	23mm
Catchment C:	1,910	1.3	1000mm	800mm	26mm
Total	5,240	3.3			

Please refer to attached sheets

Calculated by: James Maddin

Site name: Gatehouse 2

Site location: Goddards Green

Site Details

Latitude: 50.96394° N

Longitude: 0.16639° W

Reference: 3894378053

Date: Oct 01 2024 14:16

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013) , the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

IH124

Site characteristics

Total site area (ha): .521

Methodology

Q_{BAR} estimation method: Calculate from SPR and SAAR

SPR estimation method: Calculate from SOIL type

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

Soil characteristics

	Default	Edited
SOIL type:	4	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.47	0.47

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
SAAR (mm):	821	821
Hydrological region:	7	7
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

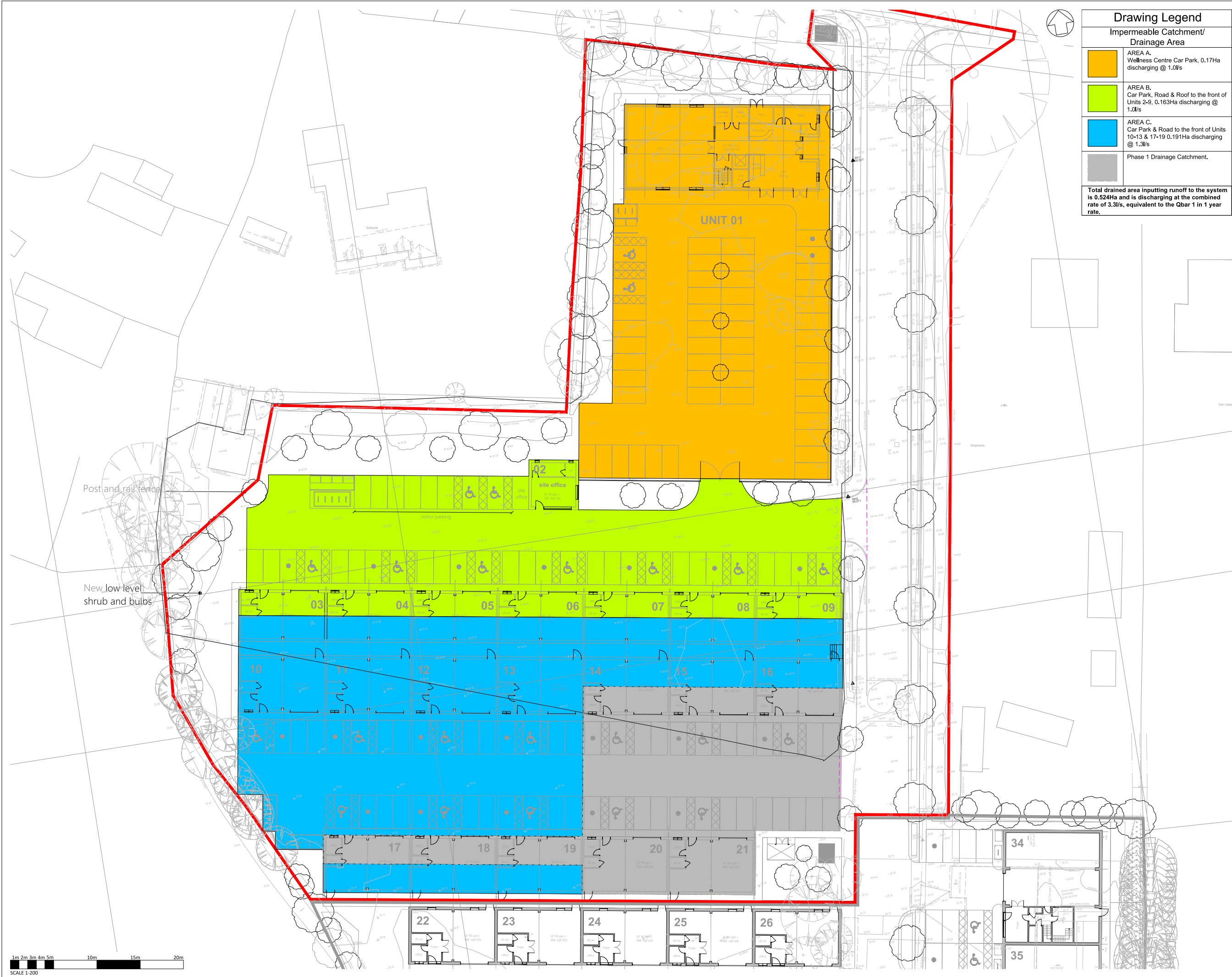
(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates	Default	Edited
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Q_{BAR} (l/s):	3.32	3.32
1 in 1 year (l/s):	2.73	2.73
1 in 30 years (l/s):	7.4	7.4
1 in 100 year (l/s):	10.26	10.26
1 in 200 years (l/s):	12.03	12.03

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.



Drawing Legend	
Impermeable Catchment/ Drainage Area	
	AREA A. Wellness Centre Car Park, 0.17Ha discharging @ 1.0l/s
	AREA B. Car Park, Road & Roof to the front of Units 2-9, 0.163Ha discharging @ 1.0l/s
	AREA C. Car Park & Road to the front of Units 10-13 & 17-19 0.191Ha discharging @ 1.3l/s
	Phase 1 Drainage Catchment.
Total drained area inputting runoff to the system is 0.524Ha and is discharging at the combined rate of 3.3l/s, equivalent to the Qbar 1 in 1 year rate.	

- NOTES:
1. This drawing is to be read in conjunction with all other SWP drawings, and with all relevant architect's and engineer's drawings and specification and any discrepancies found are to be reported immediately to the engineer.
 2. No dimensions are to be scaled from this drawing, unless noted otherwise all dimensions are in millimeters and all levels are in metres from the site datum.
 3. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
 4. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact, figured dimensions must be used for setting out and detailing. swp logos and company information must be removed from copies if information is re-used.
 5. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.
 6. The main contractor is responsible for all occurrences of ground water during the construction period.
 7. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care and attention whilst undertaking the works.
 8. The contractor must comply with all current legislation relating to health & safety.
 9. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any swp drawings, the manufacturers instructions must be used.

P02	14.08.2025	CATCHMENT AREAS UPDATED
P01	20.05.2025	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION
PRELIMINARY		
SWP STEPHEN WILSON PARTNERSHIP LTD Chalvington Barn, Dittons Business Park, Dittons Road, POLEGATE, BN26 6HY Telephone: 01323 412020 E-mail: info@swpeast.co.uk • Website: www.swpeast.co.uk		
CLIENT BEDFORD PARK DEVELOPMENTS		
ARCHITECT THE ORANGERY		
JOB TITLE GATEHOUSE LANE DEVELOPMENT, GODDARDS GREEN, BN6 9LE		
DRAWING TITLE PHASE 2 IMPERMEABLE CATCHMENT AREAS		
SCALE AT A1 1:250	DATE MAY 25	DRAWN JWM
	ENG. JWM	CHECKED DMG
RIBA STATUS S3	STAGE3 - SPATIAL COORDINATION REVIEW AND COMMENT	
JOB No. E9427	DRAWING No. PROJECT - ORIGINATOR - VOLUME - LEVEL - FORM - DESCRIPTION - NUMBER 9427-SWP-ZZ-XX-DP-C-1102	REV. P02

Title	Farmers Stores, Goddards Green, BN6 9LE	Job No:	E9427
Description :	Surface Water Storage Calculations	By:	JWM
Catchment/ Area A		Date:	May-25
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.350

Design Criteria

Design Storm = 100Yr + 45% Climate Change

Design Storm = 30Yr + 35% Climate Change

CV Value 1.0 (in accordance MSDC Flood Risk and Drainage Requirements)

Design Discharge Rate

Discharge Rate = 1.0l/s - restricted using 24mmØ orifice plate

Total Contributing Impermeable Area = 1,700m² or 0.170Ha

Results

Provision of permeable subbase material 1,283m² x .075m(Deep) & provides 317.540m³ of storage based on a 33% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd

99 South Street
Eastbourne
BN20 4LU

Date 14/08/2025 14:00
File WELLNESS PP ORP 1.0LS.SRCX

Micro Drainage

E9427 Farmers Stores
Goddards Green, BN6 9LE
Area A 1:100 +45%CC @1.0l/s

Designed by SWP Ltd
Checked by SWP Ltd

Source Control 2020.1.3

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Summary of Results for 100 year Return Period (+45%)

Half Drain Time : 1436 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	29.646	0.391	0.0	0.7	0.7	50.8	O K
30 min Summer	29.715	0.460	0.0	0.8	0.8	70.2	O K
60 min Summer	29.778	0.523	0.0	0.9	0.9	90.9	O K
120 min Summer	29.835	0.580	0.0	0.9	0.9	111.8	O K
180 min Summer	29.864	0.609	0.0	0.9	0.9	123.2	O K
240 min Summer	29.881	0.626	0.0	0.9	0.9	130.4	Flood Risk
360 min Summer	29.905	0.650	0.0	1.0	1.0	140.4	Flood Risk
480 min Summer	29.919	0.664	0.0	1.0	1.0	146.5	Flood Risk
600 min Summer	29.928	0.673	0.0	1.0	1.0	150.4	Flood Risk
720 min Summer	29.934	0.679	0.0	1.0	1.0	152.8	Flood Risk
960 min Summer	29.939	0.684	0.0	1.0	1.0	154.8	Flood Risk
1440 min Summer	29.937	0.682	0.0	1.0	1.0	153.8	Flood Risk
2160 min Summer	29.928	0.673	0.0	1.0	1.0	150.1	Flood Risk
2880 min Summer	29.916	0.661	0.0	1.0	1.0	145.3	Flood Risk
4320 min Summer	29.890	0.635	0.0	0.9	0.9	134.2	Flood Risk
5760 min Summer	29.865	0.610	0.0	0.9	0.9	123.5	O K
7200 min Summer	29.840	0.585	0.0	0.9	0.9	113.9	O K
8640 min Summer	29.817	0.562	0.0	0.9	0.9	105.1	O K
10080 min Summer	29.795	0.540	0.0	0.9	0.9	97.0	O K
15 min Winter	29.646	0.391	0.0	0.7	0.7	50.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	136.560	0.0	49.6	27
30 min Summer	91.729	0.0	58.4	41
60 min Summer	58.739	0.0	93.2	70
120 min Summer	36.254	0.0	116.2	130
180 min Summer	26.900	0.0	124.9	190
240 min Summer	21.623	0.0	129.5	248
360 min Summer	15.914	0.0	135.1	366
480 min Summer	12.782	0.0	138.0	486
600 min Summer	10.774	0.0	139.8	604
720 min Summer	9.365	0.0	140.7	724
960 min Summer	7.499	0.0	141.0	962
1440 min Summer	5.473	0.0	138.3	1240
2160 min Summer	3.985	0.0	231.7	1608
2880 min Summer	3.178	0.0	242.5	2016
4320 min Summer	2.306	0.0	235.5	2820
5760 min Summer	1.834	0.0	277.4	3640
7200 min Summer	1.536	0.0	287.7	4472
8640 min Summer	1.330	0.0	296.0	5272
10080 min Summer	1.178	0.0	302.9	6048
15 min Winter	136.560	0.0	49.6	26

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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:100 +45%CC @1.0l/s	
Date 14/08/2025 14:00	Designed by SWP Ltd	
File WELLNESS PP ORP 1.0LS.SRCX	Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Summary of Results for 100 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.715	0.460	0.0	0.8	0.8	70.2	O K
60 min Winter	29.778	0.523	0.0	0.9	0.9	90.9	O K
120 min Winter	29.835	0.580	0.0	0.9	0.9	111.9	O K
180 min Winter	29.864	0.609	0.0	0.9	0.9	123.3	O K
240 min Winter	29.882	0.627	0.0	0.9	0.9	130.6	Flood Risk
360 min Winter	29.905	0.650	0.0	1.0	1.0	140.6	Flood Risk
480 min Winter	29.920	0.665	0.0	1.0	1.0	146.8	Flood Risk
600 min Winter	29.930	0.675	0.0	1.0	1.0	150.9	Flood Risk
720 min Winter	29.936	0.681	0.0	1.0	1.0	153.4	Flood Risk
960 min Winter	29.941	0.686	0.0	1.0	1.0	155.8	Flood Risk
1440 min Winter	29.939	0.684	0.0	1.0	1.0	154.7	Flood Risk
2160 min Winter	29.926	0.671	0.0	1.0	1.0	149.4	Flood Risk
2880 min Winter	29.911	0.656	0.0	1.0	1.0	143.0	Flood Risk
4320 min Winter	29.875	0.620	0.0	0.9	0.9	127.9	Flood Risk
5760 min Winter	29.838	0.583	0.0	0.9	0.9	113.1	O K
7200 min Winter	29.803	0.548	0.0	0.9	0.9	99.9	O K
8640 min Winter	29.770	0.515	0.0	0.9	0.9	88.1	O K
10080 min Winter	29.738	0.483	0.0	0.8	0.8	77.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	91.729	0.0	58.4	41
60 min Winter	58.739	0.0	93.2	70
120 min Winter	36.254	0.0	116.2	128
180 min Winter	26.900	0.0	125.0	186
240 min Winter	21.623	0.0	129.6	244
360 min Winter	15.914	0.0	135.1	360
480 min Winter	12.782	0.0	138.1	476
600 min Winter	10.774	0.0	139.8	592
720 min Winter	9.365	0.0	140.7	706
960 min Winter	7.499	0.0	141.1	928
1440 min Winter	5.473	0.0	138.5	1348
2160 min Winter	3.985	0.0	231.7	1672
2880 min Winter	3.178	0.0	242.7	2136
4320 min Winter	2.306	0.0	236.5	3032
5760 min Winter	1.834	0.0	277.5	3920
7200 min Winter	1.536	0.0	287.9	4752
8640 min Winter	1.330	0.0	296.3	5536
10080 min Winter	1.178	0.0	303.2	6352

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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:100 +45%CC @1.0l/s	
Date 14/08/2025 14:00 File WELLNESS PP ORP 1.0LS.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.170

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.057	4	8	0.057	8	12	0.056

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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:100 +45%CC @1.0l/s	
Date 14/08/2025 14:00 File WELLNESS PP ORP 1.0LS.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.175

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	31.0
Membrane Percolation (mm/hr)	1000	Length (m)	41.5
Max Percolation (l/s)	357.4	Slope (1:X)	65.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	29.255	Cap Volume Depth (m)	0.750

Orifice Outflow Control

Diameter (m) 0.024 Discharge Coefficient 0.600 Invert Level (m) 29.255

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<u>Summary of Results for 100 year Return Period</u> Half Drain Time : 1030 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max Σ Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>29.570</td><td>0.315</td><td>0.0</td><td>0.7</td><td>0.7</td><td>32.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>29.628</td><td>0.373</td><td>0.0</td><td>0.7</td><td>0.7</td><td>46.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>29.681</td><td>0.426</td><td>0.0</td><td>0.8</td><td>0.8</td><td>60.3</td><td>O K</td></tr><tr><td>120 min Summer</td><td>29.727</td><td>0.472</td><td>0.0</td><td>0.8</td><td>0.8</td><td>74.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>29.750</td><td>0.495</td><td>0.0</td><td>0.8</td><td>0.8</td><td>81.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>29.764</td><td>0.509</td><td>0.0</td><td>0.8</td><td>0.8</td><td>86.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>29.781</td><td>0.526</td><td>0.0</td><td>0.9</td><td>0.9</td><td>92.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>29.790</td><td>0.535</td><td>0.0</td><td>0.9</td><td>0.9</td><td>95.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>29.795</td><td>0.540</td><td>0.0</td><td>0.9</td><td>0.9</td><td>96.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>29.797</td><td>0.542</td><td>0.0</td><td>0.9</td><td>0.9</td><td>97.6</td><td>O K</td></tr><tr><td>960 min Summer</td><td>29.796</td><td>0.541</td><td>0.0</td><td>0.9</td><td>0.9</td><td>97.5</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>29.792</td><td>0.537</td><td>0.0</td><td>0.9</td><td>0.9</td><td>96.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>29.782</td><td>0.527</td><td>0.0</td><td>0.9</td><td>0.9</td><td>92.3</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>29.769</td><td>0.514</td><td>0.0</td><td>0.9</td><td>0.9</td><td>87.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>29.741</td><td>0.486</td><td>0.0</td><td>0.8</td><td>0.8</td><td>78.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>29.714</td><td>0.459</td><td>0.0</td><td>0.8</td><td>0.8</td><td>69.9</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>29.689</td><td>0.434</td><td>0.0</td><td>0.8</td><td>0.8</td><td>62.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>29.665</td><td>0.410</td><td>0.0</td><td>0.8</td><td>0.8</td><td>55.9</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>29.643</td><td>0.388</td><td>0.0</td><td>0.7</td><td>0.7</td><td>50.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>29.570</td><td>0.315</td><td>0.0</td><td>0.7</td><td>0.7</td><td>32.9</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>94.179</td><td>0.0</td><td>33.5</td><td>26</td></tr><tr><td>30 min Summer</td><td>63.261</td><td>0.0</td><td>46.7</td><td>41</td></tr><tr><td>60 min Summer</td><td>40.510</td><td>0.0</td><td>62.3</td><td>70</td></tr><tr><td>120 min Summer</td><td>25.003</td><td>0.0</td><td>78.2</td><td>130</td></tr><tr><td>180 min Summer</td><td>18.552</td><td>0.0</td><td>87.7</td><td>188</td></tr><tr><td>240 min Summer</td><td>14.912</td><td>0.0</td><td>94.3</td><td>248</td></tr><tr><td>360 min Summer</td><td>10.975</td><td>0.0</td><td>104.5</td><td>366</td></tr><tr><td>480 min Summer</td><td>8.815</td><td>0.0</td><td>111.3</td><td>484</td></tr><tr><td>600 min Summer</td><td>7.430</td><td>0.0</td><td>114.6</td><td>602</td></tr><tr><td>720 min Summer</td><td>6.458</td><td>0.0</td><td>116.5</td><td>720</td></tr><tr><td>960 min Summer</td><td>5.172</td><td>0.0</td><td>118.1</td><td>858</td></tr><tr><td>1440 min Summer</td><td>3.774</td><td>0.0</td><td>117.0</td><td>1102</td></tr><tr><td>2160 min Summer</td><td>2.748</td><td>0.0</td><td>156.0</td><td>1496</td></tr><tr><td>2880 min Summer</td><td>2.192</td><td>0.0</td><td>164.7</td><td>1908</td></tr><tr><td>4320 min Summer</td><td>1.590</td><td>0.0</td><td>176.6</td><td>2728</td></tr><tr><td>5760 min Summer</td><td>1.265</td><td>0.0</td><td>184.5</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.060</td><td>0.0</td><td>190.4</td><td>4320</td></tr><tr><td>8640 min Summer</td><td>0.917</td><td>0.0</td><td>195.0</td><td>5096</td></tr><tr><td>10080 min Summer</td><td>0.812</td><td>0.0</td><td>198.5</td><td>5848</td></tr><tr><td>15 min Winter</td><td>94.179</td><td>0.0</td><td>33.5</td><td>26</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status	15 min Summer	29.570	0.315	0.0	0.7	0.7	32.9	O K	30 min Summer	29.628	0.373	0.0	0.7	0.7	46.2	O K	60 min Summer	29.681	0.426	0.0	0.8	0.8	60.3	O K	120 min Summer	29.727	0.472	0.0	0.8	0.8	74.2	O K	180 min Summer	29.750	0.495	0.0	0.8	0.8	81.6	O K	240 min Summer	29.764	0.509	0.0	0.8	0.8	86.1	O K	360 min Summer	29.781	0.526	0.0	0.9	0.9	92.0	O K	480 min Summer	29.790	0.535	0.0	0.9	0.9	95.2	O K	600 min Summer	29.795	0.540	0.0	0.9	0.9	96.9	O K	720 min Summer	29.797	0.542	0.0	0.9	0.9	97.6	O K	960 min Summer	29.796	0.541	0.0	0.9	0.9	97.5	O K	1440 min Summer	29.792	0.537	0.0	0.9	0.9	96.1	O K	2160 min Summer	29.782	0.527	0.0	0.9	0.9	92.3	O K	2880 min Summer	29.769	0.514	0.0	0.9	0.9	87.7	O K	4320 min Summer	29.741	0.486	0.0	0.8	0.8	78.4	O K	5760 min Summer	29.714	0.459	0.0	0.8	0.8	69.9	O K	7200 min Summer	29.689	0.434	0.0	0.8	0.8	62.5	O K	8640 min Summer	29.665	0.410	0.0	0.8	0.8	55.9	O K	10080 min Summer	29.643	0.388	0.0	0.7	0.7	50.0	O K	15 min Winter	29.570	0.315	0.0	0.7	0.7	32.9	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	94.179	0.0	33.5	26	30 min Summer	63.261	0.0	46.7	41	60 min Summer	40.510	0.0	62.3	70	120 min Summer	25.003	0.0	78.2	130	180 min Summer	18.552	0.0	87.7	188	240 min Summer	14.912	0.0	94.3	248	360 min Summer	10.975	0.0	104.5	366	480 min Summer	8.815	0.0	111.3	484	600 min Summer	7.430	0.0	114.6	602	720 min Summer	6.458	0.0	116.5	720	960 min Summer	5.172	0.0	118.1	858	1440 min Summer	3.774	0.0	117.0	1102	2160 min Summer	2.748	0.0	156.0	1496	2880 min Summer	2.192	0.0	164.7	1908	4320 min Summer	1.590	0.0	176.6	2728	5760 min Summer	1.265	0.0	184.5	3520	7200 min Summer	1.060	0.0	190.4	4320	8640 min Summer	0.917	0.0	195.0	5096	10080 min Summer	0.812	0.0	198.5	5848	15 min Winter	94.179	0.0	33.5	26
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																																																																																	
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30 min Summer	29.628	0.373	0.0	0.7	0.7	46.2	O K																																																																																																																																																																																																																																																																																	
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240 min Summer	29.764	0.509	0.0	0.8	0.8	86.1	O K																																																																																																																																																																																																																																																																																	
360 min Summer	29.781	0.526	0.0	0.9	0.9	92.0	O K																																																																																																																																																																																																																																																																																	
480 min Summer	29.790	0.535	0.0	0.9	0.9	95.2	O K																																																																																																																																																																																																																																																																																	
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960 min Summer	29.796	0.541	0.0	0.9	0.9	97.5	O K																																																																																																																																																																																																																																																																																	
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180 min Summer	18.552	0.0	87.7	188																																																																																																																																																																																																																																																																																				
240 min Summer	14.912	0.0	94.3	248																																																																																																																																																																																																																																																																																				
360 min Summer	10.975	0.0	104.5	366																																																																																																																																																																																																																																																																																				
480 min Summer	8.815	0.0	111.3	484																																																																																																																																																																																																																																																																																				
600 min Summer	7.430	0.0	114.6	602																																																																																																																																																																																																																																																																																				
720 min Summer	6.458	0.0	116.5	720																																																																																																																																																																																																																																																																																				
960 min Summer	5.172	0.0	118.1	858																																																																																																																																																																																																																																																																																				
1440 min Summer	3.774	0.0	117.0	1102																																																																																																																																																																																																																																																																																				
2160 min Summer	2.748	0.0	156.0	1496																																																																																																																																																																																																																																																																																				
2880 min Summer	2.192	0.0	164.7	1908																																																																																																																																																																																																																																																																																				
4320 min Summer	1.590	0.0	176.6	2728																																																																																																																																																																																																																																																																																				
5760 min Summer	1.265	0.0	184.5	3520																																																																																																																																																																																																																																																																																				
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10080 min Summer	0.812	0.0	198.5	5848																																																																																																																																																																																																																																																																																				
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Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:100 @1.0l/s				
Date 14/08/2025 13:59 File WELLNESS PP ORP 1.0LS.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 100 year Return Period</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.628	0.373	0.0	0.7	0.7	46.2	O K
60 min Winter	29.681	0.426	0.0	0.8	0.8	60.3	O K
120 min Winter	29.728	0.473	0.0	0.8	0.8	74.3	O K
180 min Winter	29.751	0.496	0.0	0.8	0.8	81.7	O K
240 min Winter	29.764	0.509	0.0	0.8	0.8	86.2	O K
360 min Winter	29.782	0.527	0.0	0.9	0.9	92.2	O K
480 min Winter	29.791	0.536	0.0	0.9	0.9	95.5	O K
600 min Winter	29.796	0.541	0.0	0.9	0.9	97.3	O K
720 min Winter	29.798	0.543	0.0	0.9	0.9	98.2	O K
960 min Winter	29.798	0.543	0.0	0.9	0.9	98.1	O K
1440 min Winter	29.791	0.536	0.0	0.9	0.9	95.6	O K
2160 min Winter	29.777	0.522	0.0	0.9	0.9	90.5	O K
2880 min Winter	29.758	0.503	0.0	0.8	0.8	84.1	O K
4320 min Winter	29.718	0.463	0.0	0.8	0.8	71.2	O K
5760 min Winter	29.679	0.424	0.0	0.8	0.8	59.7	O K
7200 min Winter	29.643	0.388	0.0	0.7	0.7	50.0	O K
8640 min Winter	29.609	0.354	0.0	0.7	0.7	41.8	O K
10080 min Winter	29.579	0.324	0.0	0.7	0.7	34.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	63.261	0.0	46.7	40			
60 min Winter	40.510	0.0	62.3	70			
120 min Winter	25.003	0.0	78.2	126			
180 min Winter	18.552	0.0	87.7	184			
240 min Winter	14.912	0.0	94.3	242			
360 min Winter	10.975	0.0	104.5	358			
480 min Winter	8.815	0.0	111.3	472			
600 min Winter	7.430	0.0	114.6	586			
720 min Winter	6.458	0.0	116.5	696			
960 min Winter	5.172	0.0	118.2	908			
1440 min Winter	3.774	0.0	117.3	1134			
2160 min Winter	2.748	0.0	156.0	1596			
2880 min Winter	2.192	0.0	164.7	2048			
4320 min Winter	1.590	0.0	176.7	2904			
5760 min Winter	1.265	0.0	184.7	3744			
7200 min Winter	1.060	0.0	190.7	4536			
8640 min Winter	0.917	0.0	195.3	5280			
10080 min Winter	0.812	0.0	198.9	6048			
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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:100 @1.0l/s	
Date 14/08/2025 13:59	Designed by SWP Ltd	
File WELLNESS PP ORP 1.0LS.SRCX	Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.170

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.057	4	8	0.057	8	12	0.056

Stephen Wilson Partnership Ltd		Page 4																								
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:100 @1.0l/s																									
Date 14/08/2025 13:59	Designed by SWP Ltd																									
File WELLNESS PP ORP 1.0LS.SRCX	Checked by SWP Ltd																									
Micro Drainage	Source Control 2020.1.3																									
Model Details Storage is Online Cover Level (m) 30.175 Porous Car Park Structure <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>31.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>41.5</td></tr><tr><td>Max Percolation (l/s)</td><td>357.4</td><td>Slope (1:X)</td><td>65.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.33</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>29.255</td><td>Cap Volume Depth (m)</td><td>0.750</td></tr></table> Orifice Outflow Control Diameter (m) 0.024 Discharge Coefficient 0.600 Invert Level (m) 29.255			Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	31.0	Membrane Percolation (mm/hr)	1000	Length (m)	41.5	Max Percolation (l/s)	357.4	Slope (1:X)	65.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.33	Evaporation (mm/day)	3	Invert Level (m)	29.255	Cap Volume Depth (m)	0.750
Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	31.0																							
Membrane Percolation (mm/hr)	1000	Length (m)	41.5																							
Max Percolation (l/s)	357.4	Slope (1:X)	65.0																							
Safety Factor	2.0	Depression Storage (mm)	5																							
Porosity	0.33	Evaporation (mm/day)	3																							
Invert Level (m)	29.255	Cap Volume Depth (m)	0.750																							
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Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:30 +35%CC @1.0l/s																																																																																																																																																																																																																																																																																					
Date 14/08/2025 14:02 File WELLNESS PP ORP 1.0LS.SRCX			Designed by SWP Ltd Checked by SWP Ltd																																																																																																																																																																																																																																																																																					
Micro Drainage			Source Control 2020.1.3																																																																																																																																																																																																																																																																																					
<u>Summary of Results for 30 year Return Period (+35%)</u> Half Drain Time : 1079 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max Σ Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>29.577</td><td>0.322</td><td>0.0</td><td>0.7</td><td>0.7</td><td>34.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>29.635</td><td>0.380</td><td>0.0</td><td>0.7</td><td>0.7</td><td>47.9</td><td>O K</td></tr><tr><td>60 min Summer</td><td>29.687</td><td>0.432</td><td>0.0</td><td>0.8</td><td>0.8</td><td>62.1</td><td>O K</td></tr><tr><td>120 min Summer</td><td>29.735</td><td>0.480</td><td>0.0</td><td>0.8</td><td>0.8</td><td>76.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>29.759</td><td>0.504</td><td>0.0</td><td>0.8</td><td>0.8</td><td>84.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>29.775</td><td>0.520</td><td>0.0</td><td>0.9</td><td>0.9</td><td>89.8</td><td>O K</td></tr><tr><td>360 min Summer</td><td>29.794</td><td>0.539</td><td>0.0</td><td>0.9</td><td>0.9</td><td>96.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>29.806</td><td>0.551</td><td>0.0</td><td>0.9</td><td>0.9</td><td>100.8</td><td>O K</td></tr><tr><td>600 min Summer</td><td>29.812</td><td>0.557</td><td>0.0</td><td>0.9</td><td>0.9</td><td>103.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>29.816</td><td>0.561</td><td>0.0</td><td>0.9</td><td>0.9</td><td>104.6</td><td>O K</td></tr><tr><td>960 min Summer</td><td>29.818</td><td>0.563</td><td>0.0</td><td>0.9</td><td>0.9</td><td>105.3</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>29.817</td><td>0.562</td><td>0.0</td><td>0.9</td><td>0.9</td><td>105.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>29.810</td><td>0.555</td><td>0.0</td><td>0.9</td><td>0.9</td><td>102.5</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>29.800</td><td>0.545</td><td>0.0</td><td>0.9</td><td>0.9</td><td>98.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>29.777</td><td>0.522</td><td>0.0</td><td>0.9</td><td>0.9</td><td>90.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>29.753</td><td>0.498</td><td>0.0</td><td>0.8</td><td>0.8</td><td>82.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>29.730</td><td>0.475</td><td>0.0</td><td>0.8</td><td>0.8</td><td>75.1</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>29.709</td><td>0.454</td><td>0.0</td><td>0.8</td><td>0.8</td><td>68.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>29.688</td><td>0.433</td><td>0.0</td><td>0.8</td><td>0.8</td><td>62.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>29.577</td><td>0.322</td><td>0.0</td><td>0.7</td><td>0.7</td><td>34.6</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>98.120</td><td>0.0</td><td>35.2</td><td>26</td></tr><tr><td>30 min Summer</td><td>65.290</td><td>0.0</td><td>47.9</td><td>41</td></tr><tr><td>60 min Summer</td><td>41.595</td><td>0.0</td><td>64.1</td><td>70</td></tr><tr><td>120 min Summer</td><td>25.699</td><td>0.0</td><td>80.6</td><td>130</td></tr><tr><td>180 min Summer</td><td>19.158</td><td>0.0</td><td>90.8</td><td>188</td></tr><tr><td>240 min Summer</td><td>15.481</td><td>0.0</td><td>98.2</td><td>248</td></tr><tr><td>360 min Summer</td><td>11.466</td><td>0.0</td><td>109.5</td><td>366</td></tr><tr><td>480 min Summer</td><td>9.254</td><td>0.0</td><td>115.4</td><td>484</td></tr><tr><td>600 min Summer</td><td>7.831</td><td>0.0</td><td>118.5</td><td>602</td></tr><tr><td>720 min Summer</td><td>6.830</td><td>0.0</td><td>120.4</td><td>722</td></tr><tr><td>960 min Summer</td><td>5.500</td><td>0.0</td><td>122.0</td><td>884</td></tr><tr><td>1440 min Summer</td><td>4.048</td><td>0.0</td><td>121.1</td><td>1122</td></tr><tr><td>2160 min Summer</td><td>2.975</td><td>0.0</td><td>169.8</td><td>1516</td></tr><tr><td>2880 min Summer</td><td>2.389</td><td>0.0</td><td>180.7</td><td>1932</td></tr><tr><td>4320 min Summer</td><td>1.751</td><td>0.0</td><td>195.4</td><td>2764</td></tr><tr><td>5760 min Summer</td><td>1.404</td><td>0.0</td><td>207.2</td><td>3576</td></tr><tr><td>7200 min Summer</td><td>1.183</td><td>0.0</td><td>215.6</td><td>4336</td></tr><tr><td>8640 min Summer</td><td>1.029</td><td>0.0</td><td>222.3</td><td>5112</td></tr><tr><td>10080 min Summer</td><td>0.915</td><td>0.0</td><td>227.8</td><td>5856</td></tr><tr><td>15 min Winter</td><td>98.120</td><td>0.0</td><td>35.2</td><td>26</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status	15 min Summer	29.577	0.322	0.0	0.7	0.7	34.6	O K	30 min Summer	29.635	0.380	0.0	0.7	0.7	47.9	O K	60 min Summer	29.687	0.432	0.0	0.8	0.8	62.1	O K	120 min Summer	29.735	0.480	0.0	0.8	0.8	76.5	O K	180 min Summer	29.759	0.504	0.0	0.8	0.8	84.6	O K	240 min Summer	29.775	0.520	0.0	0.9	0.9	89.8	O K	360 min Summer	29.794	0.539	0.0	0.9	0.9	96.7	O K	480 min Summer	29.806	0.551	0.0	0.9	0.9	100.8	O K	600 min Summer	29.812	0.557	0.0	0.9	0.9	103.2	O K	720 min Summer	29.816	0.561	0.0	0.9	0.9	104.6	O K	960 min Summer	29.818	0.563	0.0	0.9	0.9	105.3	O K	1440 min Summer	29.817	0.562	0.0	0.9	0.9	105.1	O K	2160 min Summer	29.810	0.555	0.0	0.9	0.9	102.5	O K	2880 min Summer	29.800	0.545	0.0	0.9	0.9	98.8	O K	4320 min Summer	29.777	0.522	0.0	0.9	0.9	90.5	O K	5760 min Summer	29.753	0.498	0.0	0.8	0.8	82.4	O K	7200 min Summer	29.730	0.475	0.0	0.8	0.8	75.1	O K	8640 min Summer	29.709	0.454	0.0	0.8	0.8	68.4	O K	10080 min Summer	29.688	0.433	0.0	0.8	0.8	62.3	O K	15 min Winter	29.577	0.322	0.0	0.7	0.7	34.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	98.120	0.0	35.2	26	30 min Summer	65.290	0.0	47.9	41	60 min Summer	41.595	0.0	64.1	70	120 min Summer	25.699	0.0	80.6	130	180 min Summer	19.158	0.0	90.8	188	240 min Summer	15.481	0.0	98.2	248	360 min Summer	11.466	0.0	109.5	366	480 min Summer	9.254	0.0	115.4	484	600 min Summer	7.831	0.0	118.5	602	720 min Summer	6.830	0.0	120.4	722	960 min Summer	5.500	0.0	122.0	884	1440 min Summer	4.048	0.0	121.1	1122	2160 min Summer	2.975	0.0	169.8	1516	2880 min Summer	2.389	0.0	180.7	1932	4320 min Summer	1.751	0.0	195.4	2764	5760 min Summer	1.404	0.0	207.2	3576	7200 min Summer	1.183	0.0	215.6	4336	8640 min Summer	1.029	0.0	222.3	5112	10080 min Summer	0.915	0.0	227.8	5856	15 min Winter	98.120	0.0	35.2	26
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																																																																																	
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2160 min Summer	2.975	0.0	169.8	1516																																																																																																																																																																																																																																																																																				
2880 min Summer	2.389	0.0	180.7	1932																																																																																																																																																																																																																																																																																				
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Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:30 +35%CC @1.0l/s				
Date 14/08/2025 14:02 File WELLNESS PP ORP 1.0LS.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 30 year Return Period (+35%)</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.635	0.380	0.0	0.7	0.7	47.9	O K
60 min Winter	29.687	0.432	0.0	0.8	0.8	62.1	O K
120 min Winter	29.735	0.480	0.0	0.8	0.8	76.6	O K
180 min Winter	29.760	0.505	0.0	0.8	0.8	84.7	O K
240 min Winter	29.775	0.520	0.0	0.9	0.9	90.0	O K
360 min Winter	29.795	0.540	0.0	0.9	0.9	97.0	O K
480 min Winter	29.807	0.552	0.0	0.9	0.9	101.2	O K
600 min Winter	29.813	0.558	0.0	0.9	0.9	103.7	O K
720 min Winter	29.817	0.562	0.0	0.9	0.9	105.2	O K
960 min Winter	29.820	0.565	0.0	0.9	0.9	106.1	O K
1440 min Winter	29.816	0.561	0.0	0.9	0.9	104.7	O K
2160 min Winter	29.806	0.551	0.0	0.9	0.9	100.9	O K
2880 min Winter	29.791	0.536	0.0	0.9	0.9	95.4	O K
4320 min Winter	29.756	0.501	0.0	0.8	0.8	83.4	O K
5760 min Winter	29.720	0.465	0.0	0.8	0.8	72.0	O K
7200 min Winter	29.687	0.432	0.0	0.8	0.8	62.0	O K
8640 min Winter	29.655	0.400	0.0	0.7	0.7	53.2	O K
10080 min Winter	29.625	0.370	0.0	0.7	0.7	45.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	65.290	0.0	47.9	41			
60 min Winter	41.595	0.0	64.1	70			
120 min Winter	25.699	0.0	80.6	126			
180 min Winter	19.158	0.0	90.8	184			
240 min Winter	15.481	0.0	98.2	242			
360 min Winter	11.466	0.0	109.5	358			
480 min Winter	9.254	0.0	115.4	474			
600 min Winter	7.831	0.0	118.5	586			
720 min Winter	6.830	0.0	120.4	698			
960 min Winter	5.500	0.0	122.2	914			
1440 min Winter	4.048	0.0	121.3	1148			
2160 min Winter	2.975	0.0	169.8	1608			
2880 min Winter	2.389	0.0	180.8	2072			
4320 min Winter	1.751	0.0	195.9	2944			
5760 min Winter	1.404	0.0	207.4	3800			
7200 min Winter	1.183	0.0	215.9	4608			
8640 min Winter	1.029	0.0	222.6	5360			
10080 min Winter	0.915	0.0	228.1	6144			
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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:30 +35%CC @1.0l/s	
Date 14/08/2025 14:02 File WELLNESS PP ORP 1.0LS.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+35

Time Area Diagram

Total Area (ha) 0.170

Time (mins)	Area	Time (mins)	Area	Time (mins)	Area
From: To: (ha)	From: To: (ha)	From: To: (ha)	From: To: (ha)	From: To: (ha)	From: To: (ha)
0 4 0.057	4 8 0.057	8 12 0.056			

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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:30 +35%CC @1.0l/s	
Date 14/08/2025 14:02 File WELLNESS PP ORP 1.0LS.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.175

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	31.0
Membrane Percolation (mm/hr)	1000	Length (m)	41.5
Max Percolation (l/s)	357.4	Slope (1:X)	65.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	29.255	Cap Volume Depth (m)	0.750

Orifice Outflow Control

Diameter (m) 0.024 Discharge Coefficient 0.600 Invert Level (m) 29.255

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Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
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<u>Summary of Results for 2 year Return Period</u> Half Drain Time : 488 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max Σ Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>29.423</td><td>0.168</td><td>0.0</td><td>0.5</td><td>0.5</td><td>9.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>29.463</td><td>0.208</td><td>0.0</td><td>0.5</td><td>0.5</td><td>14.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>29.498</td><td>0.243</td><td>0.0</td><td>0.6</td><td>0.6</td><td>19.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>29.530</td><td>0.275</td><td>0.0</td><td>0.6</td><td>0.6</td><td>25.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>29.546</td><td>0.291</td><td>0.0</td><td>0.6</td><td>0.6</td><td>28.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>29.557</td><td>0.302</td><td>0.0</td><td>0.6</td><td>0.6</td><td>30.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>29.567</td><td>0.312</td><td>0.0</td><td>0.7</td><td>0.7</td><td>32.4</td><td>O K</td></tr><tr><td>480 min Summer</td><td>29.572</td><td>0.317</td><td>0.0</td><td>0.7</td><td>0.7</td><td>33.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>29.576</td><td>0.321</td><td>0.0</td><td>0.7</td><td>0.7</td><td>34.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>29.578</td><td>0.323</td><td>0.0</td><td>0.7</td><td>0.7</td><td>34.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>29.581</td><td>0.326</td><td>0.0</td><td>0.7</td><td>0.7</td><td>35.2</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>29.580</td><td>0.325</td><td>0.0</td><td>0.7</td><td>0.7</td><td>35.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>29.572</td><td>0.317</td><td>0.0</td><td>0.7</td><td>0.7</td><td>33.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>29.561</td><td>0.306</td><td>0.0</td><td>0.7</td><td>0.7</td><td>31.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>29.539</td><td>0.284</td><td>0.0</td><td>0.6</td><td>0.6</td><td>26.8</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>29.518</td><td>0.263</td><td>0.0</td><td>0.6</td><td>0.6</td><td>22.9</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>29.498</td><td>0.243</td><td>0.0</td><td>0.6</td><td>0.6</td><td>19.6</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>29.479</td><td>0.224</td><td>0.0</td><td>0.6</td><td>0.6</td><td>16.7</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>29.462</td><td>0.207</td><td>0.0</td><td>0.5</td><td>0.5</td><td>14.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>29.423</td><td>0.168</td><td>0.0</td><td>0.5</td><td>0.5</td><td>9.4</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>38.338</td><td>0.0</td><td>9.8</td><td>26</td></tr><tr><td>30 min Summer</td><td>25.371</td><td>0.0</td><td>15.0</td><td>40</td></tr><tr><td>60 min Summer</td><td>16.200</td><td>0.0</td><td>20.9</td><td>70</td></tr><tr><td>120 min Summer</td><td>10.143</td><td>0.0</td><td>27.7</td><td>126</td></tr><tr><td>180 min Summer</td><td>7.675</td><td>0.0</td><td>32.2</td><td>186</td></tr><tr><td>240 min Summer</td><td>6.288</td><td>0.0</td><td>35.7</td><td>244</td></tr><tr><td>360 min Summer</td><td>4.725</td><td>0.0</td><td>40.8</td><td>360</td></tr><tr><td>480 min Summer</td><td>3.856</td><td>0.0</td><td>44.7</td><td>422</td></tr><tr><td>600 min Summer</td><td>3.293</td><td>0.0</td><td>47.9</td><td>484</td></tr><tr><td>720 min Summer</td><td>2.894</td><td>0.0</td><td>50.7</td><td>548</td></tr><tr><td>960 min Summer</td><td>2.361</td><td>0.0</td><td>55.2</td><td>682</td></tr><tr><td>1440 min Summer</td><td>1.772</td><td>0.0</td><td>62.0</td><td>960</td></tr><tr><td>2160 min Summer</td><td>1.329</td><td>0.0</td><td>69.1</td><td>1372</td></tr><tr><td>2880 min Summer</td><td>1.083</td><td>0.0</td><td>74.2</td><td>1772</td></tr><tr><td>4320 min Summer</td><td>0.813</td><td>0.0</td><td>81.5</td><td>2556</td></tr><tr><td>5760 min Summer</td><td>0.663</td><td>0.0</td><td>86.4</td><td>3336</td></tr><tr><td>7200 min Summer</td><td>0.566</td><td>0.0</td><td>89.7</td><td>4040</td></tr><tr><td>8640 min Summer</td><td>0.497</td><td>0.0</td><td>92.0</td><td>4760</td></tr><tr><td>10080 min Summer</td><td>0.445</td><td>0.0</td><td>93.6</td><td>5464</td></tr><tr><td>15 min Winter</td><td>38.338</td><td>0.0</td><td>9.8</td><td>26</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status	15 min Summer	29.423	0.168	0.0	0.5	0.5	9.4	O K	30 min Summer	29.463	0.208	0.0	0.5	0.5	14.4	O K	60 min Summer	29.498	0.243	0.0	0.6	0.6	19.6	O K	120 min Summer	29.530	0.275	0.0	0.6	0.6	25.1	O K	180 min Summer	29.546	0.291	0.0	0.6	0.6	28.2	O K	240 min Summer	29.557	0.302	0.0	0.6	0.6	30.2	O K	360 min Summer	29.567	0.312	0.0	0.7	0.7	32.4	O K	480 min Summer	29.572	0.317	0.0	0.7	0.7	33.5	O K	600 min Summer	29.576	0.321	0.0	0.7	0.7	34.2	O K	720 min Summer	29.578	0.323	0.0	0.7	0.7	34.7	O K	960 min Summer	29.581	0.326	0.0	0.7	0.7	35.2	O K	1440 min Summer	29.580	0.325	0.0	0.7	0.7	35.1	O K	2160 min Summer	29.572	0.317	0.0	0.7	0.7	33.4	O K	2880 min Summer	29.561	0.306	0.0	0.7	0.7	31.2	O K	4320 min Summer	29.539	0.284	0.0	0.6	0.6	26.8	O K	5760 min Summer	29.518	0.263	0.0	0.6	0.6	22.9	O K	7200 min Summer	29.498	0.243	0.0	0.6	0.6	19.6	O K	8640 min Summer	29.479	0.224	0.0	0.6	0.6	16.7	O K	10080 min Summer	29.462	0.207	0.0	0.5	0.5	14.3	O K	15 min Winter	29.423	0.168	0.0	0.5	0.5	9.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	38.338	0.0	9.8	26	30 min Summer	25.371	0.0	15.0	40	60 min Summer	16.200	0.0	20.9	70	120 min Summer	10.143	0.0	27.7	126	180 min Summer	7.675	0.0	32.2	186	240 min Summer	6.288	0.0	35.7	244	360 min Summer	4.725	0.0	40.8	360	480 min Summer	3.856	0.0	44.7	422	600 min Summer	3.293	0.0	47.9	484	720 min Summer	2.894	0.0	50.7	548	960 min Summer	2.361	0.0	55.2	682	1440 min Summer	1.772	0.0	62.0	960	2160 min Summer	1.329	0.0	69.1	1372	2880 min Summer	1.083	0.0	74.2	1772	4320 min Summer	0.813	0.0	81.5	2556	5760 min Summer	0.663	0.0	86.4	3336	7200 min Summer	0.566	0.0	89.7	4040	8640 min Summer	0.497	0.0	92.0	4760	10080 min Summer	0.445	0.0	93.6	5464	15 min Winter	38.338	0.0	9.8	26
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																																																																																	
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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:2 @1.0l/s				
Date 14/08/2025 14:03 File WELLNESS PP ORP 1.0LS.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 2 year Return Period</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.463	0.208	0.0	0.5	0.5	14.4	O K
60 min Winter	29.498	0.243	0.0	0.6	0.6	19.7	O K
120 min Winter	29.530	0.275	0.0	0.6	0.6	25.1	O K
180 min Winter	29.547	0.292	0.0	0.6	0.6	28.3	O K
240 min Winter	29.557	0.302	0.0	0.6	0.6	30.3	O K
360 min Winter	29.568	0.313	0.0	0.7	0.7	32.5	O K
480 min Winter	29.573	0.318	0.0	0.7	0.7	33.5	O K
600 min Winter	29.575	0.320	0.0	0.7	0.7	34.0	O K
720 min Winter	29.577	0.322	0.0	0.7	0.7	34.4	O K
960 min Winter	29.577	0.322	0.0	0.7	0.7	34.5	O K
1440 min Winter	29.572	0.317	0.0	0.7	0.7	33.5	O K
2160 min Winter	29.557	0.302	0.0	0.6	0.6	30.4	O K
2880 min Winter	29.540	0.285	0.0	0.6	0.6	27.0	O K
4320 min Winter	29.505	0.250	0.0	0.6	0.6	20.8	O K
5760 min Winter	29.473	0.218	0.0	0.5	0.5	15.8	O K
7200 min Winter	29.445	0.190	0.0	0.5	0.5	12.0	O K
8640 min Winter	29.420	0.165	0.0	0.5	0.5	9.1	O K
10080 min Winter	29.399	0.144	0.0	0.4	0.4	6.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.371	0.0	15.0	40			
60 min Winter	16.200	0.0	20.9	68			
120 min Winter	10.143	0.0	27.7	124			
180 min Winter	7.675	0.0	32.2	182			
240 min Winter	6.288	0.0	35.7	238			
360 min Winter	4.725	0.0	40.8	350			
480 min Winter	3.856	0.0	44.7	454			
600 min Winter	3.293	0.0	47.9	496			
720 min Winter	2.894	0.0	50.7	568			
960 min Winter	2.361	0.0	55.2	722			
1440 min Winter	1.772	0.0	62.0	1028			
2160 min Winter	1.329	0.0	69.1	1468			
2880 min Winter	1.083	0.0	74.3	1880			
4320 min Winter	0.813	0.0	81.7	2684			
5760 min Winter	0.663	0.0	86.7	3416			
7200 min Winter	0.566	0.0	90.1	4176			
8640 min Winter	0.497	0.0	92.5	4848			
10080 min Winter	0.445	0.0	94.3	5544			
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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:2 @1.0l/s	
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Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	2	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.170

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.057	4	8	0.057	8	12	0.056

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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area A 1:2 @1.0l/s	
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Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.175

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	31.0
Membrane Percolation (mm/hr)	1000	Length (m)	41.5
Max Percolation (l/s)	357.4	Slope (1:X)	65.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	29.255	Cap Volume Depth (m)	0.750

Orifice Outflow Control

Diameter (m) 0.024 Discharge Coefficient 0.600 Invert Level (m) 29.255

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Title	Farmers Stores, Goddards Green, BN6 9LE	Job No:	E9427
Description :	Surface Water Storage Calculations	By:	JWM
	Catchment/ Area B	Date:	May-25
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.350

Design Criteria

Design Storm = 100Yr + 45% Climate Change

Design Storm = 30Yr + 35% Climate Change

CV Value 1.0 (in accordance MSDC Flood Risk and Drainage Requirements)

Design Discharge Rate

Discharge Rate = 1.0l/s - restricted using 23mmØ orifice plate

Total Contributing Impermeable Area = 1,630m² or 0.163Ha

Results

Provision of permeable subbase material 1,133m² x .075m(Deep) & provides 280.41m³ of storage based on a 33% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:100 +45%CC @ 1.0l/s																																																																																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+45%)</u> Half Drain Time : 1314 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max E Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>29.598</td><td>0.498</td><td>0.0</td><td>0.8</td><td>0.8</td><td>49.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>29.685</td><td>0.585</td><td>0.0</td><td>0.8</td><td>0.8</td><td>67.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>29.764</td><td>0.664</td><td>0.0</td><td>0.9</td><td>0.9</td><td>87.4</td><td>Flood Risk</td></tr><tr><td>120 min Summer</td><td>29.836</td><td>0.736</td><td>0.0</td><td>0.9</td><td>0.9</td><td>107.3</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>29.872</td><td>0.772</td><td>0.0</td><td>1.0</td><td>1.0</td><td>117.9</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>29.895</td><td>0.795</td><td>0.0</td><td>1.0</td><td>1.0</td><td>124.7</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>29.925</td><td>0.825</td><td>0.0</td><td>1.0</td><td>1.0</td><td>133.8</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>29.944</td><td>0.844</td><td>0.0</td><td>1.0</td><td>1.0</td><td>139.3</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>29.955</td><td>0.855</td><td>0.0</td><td>1.0</td><td>1.0</td><td>142.6</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>29.961</td><td>0.861</td><td>0.0</td><td>1.0</td><td>1.0</td><td>144.6</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>29.965</td><td>0.865</td><td>0.0</td><td>1.0</td><td>1.0</td><td>145.8</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>29.960</td><td>0.860</td><td>0.0</td><td>1.0</td><td>1.0</td><td>144.3</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>29.947</td><td>0.847</td><td>0.0</td><td>1.0</td><td>1.0</td><td>140.2</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>29.929</td><td>0.829</td><td>0.0</td><td>1.0</td><td>1.0</td><td>135.0</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>29.891</td><td>0.791</td><td>0.0</td><td>1.0</td><td>1.0</td><td>123.7</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>29.856</td><td>0.756</td><td>0.0</td><td>1.0</td><td>1.0</td><td>113.0</td><td>Flood Risk</td></tr><tr><td>7200 min Summer</td><td>29.823</td><td>0.723</td><td>0.0</td><td>0.9</td><td>0.9</td><td>103.4</td><td>Flood Risk</td></tr><tr><td>8640 min Summer</td><td>29.792</td><td>0.692</td><td>0.0</td><td>0.9</td><td>0.9</td><td>94.8</td><td>Flood Risk</td></tr><tr><td>10080 min Summer</td><td>29.762</td><td>0.662</td><td>0.0</td><td>0.9</td><td>0.9</td><td>86.9</td><td>Flood Risk</td></tr><tr><td>15 min 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Summer</td><td>10.774</td><td>0.0</td><td>142.6</td><td>604</td></tr><tr><td>720 min Summer</td><td>9.365</td><td>0.0</td><td>143.8</td><td>722</td></tr><tr><td>960 min Summer</td><td>7.499</td><td>0.0</td><td>144.5</td><td>960</td></tr><tr><td>1440 min Summer</td><td>5.473</td><td>0.0</td><td>142.2</td><td>1200</td></tr><tr><td>2160 min Summer</td><td>3.985</td><td>0.0</td><td>223.0</td><td>1568</td></tr><tr><td>2880 min Summer</td><td>3.178</td><td>0.0</td><td>236.0</td><td>1972</td></tr><tr><td>4320 min Summer</td><td>2.306</td><td>0.0</td><td>238.0</td><td>2812</td></tr><tr><td>5760 min Summer</td><td>1.834</td><td>0.0</td><td>267.5</td><td>3632</td></tr><tr><td>7200 min Summer</td><td>1.536</td><td>0.0</td><td>277.6</td><td>4400</td></tr><tr><td>8640 min Summer</td><td>1.330</td><td>0.0</td><td>285.9</td><td>5192</td></tr><tr><td>10080 min Summer</td><td>1.178</td><td>0.0</td><td>292.7</td><td>5960</td></tr><tr><td>15 min 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Date 14/08/2025 14:08 File 2-9.SRCX			Designed by SWP Ltd Checked by SWP Ltd					
Micro Drainage			Source Control 2020.1.3					
Summary of Results for 100 year Return Period (+45%)								
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status	
30 min Winter	29.685	0.585	0.0	0.8	0.8	67.7	O K	
60 min Winter	29.765	0.665	0.0	0.9	0.9	87.4	Flood Risk	
120 min Winter	29.836	0.736	0.0	0.9	0.9	107.4	Flood Risk	
180 min Winter	29.873	0.773	0.0	1.0	1.0	118.1	Flood Risk	
240 min Winter	29.895	0.795	0.0	1.0	1.0	124.9	Flood Risk	
360 min Winter	29.926	0.826	0.0	1.0	1.0	134.1	Flood Risk	
480 min Winter	29.945	0.845	0.0	1.0	1.0	139.7	Flood Risk	
600 min Winter	29.957	0.857	0.0	1.0	1.0	143.2	Flood Risk	
720 min Winter	29.964	0.864	0.0	1.0	1.0	145.3	Flood Risk	
960 min Winter	29.969	0.869	0.0	1.0	1.0	146.9	Flood Risk	
1440 min Winter	29.962	0.862	0.0	1.0	1.0	144.6	Flood Risk	
2160 min Winter	29.943	0.843	0.0	1.0	1.0	139.2	Flood Risk	
2880 min Winter	29.920	0.820	0.0	1.0	1.0	132.2	Flood Risk	
4320 min Winter	29.868	0.768	0.0	1.0	1.0	116.7	Flood Risk	
5760 min Winter	29.818	0.718	0.0	0.9	0.9	101.9	Flood Risk	
7200 min Winter	29.770	0.670	0.0	0.9	0.9	88.9	Flood Risk	
8640 min Winter	29.725	0.625	0.0	0.9	0.9	77.5	Flood Risk	
10080 min Winter	29.683	0.583	0.0	0.8	0.8	67.4	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)				
30 min Winter	91.729	0.0	59.6	41				
60 min Winter	58.739	0.0	89.9	70				
120 min Winter	36.254	0.0	112.2	128				
180 min Winter	26.900	0.0	124.7	186				
240 min Winter	21.623	0.0	130.5	244				
360 min Winter	15.914	0.0	137.0	360				
480 min Winter	12.782	0.0	140.6	476				
600 min Winter	10.774	0.0	142.7	590				
720 min Winter	9.365	0.0	143.8	702				
960 min Winter	7.499	0.0	144.6	924				
1440 min Winter	5.473	0.0	142.3	1326				
2160 min Winter	3.985	0.0	223.0	1648				
2880 min Winter	3.178	0.0	236.0	2112				
4320 min Winter	2.306	0.0	238.9	2992				
5760 min Winter	1.834	0.0	267.6	3864				
7200 min Winter	1.536	0.0	277.8	4688				
8640 min Winter	1.330	0.0	286.1	5456				
10080 min Winter	1.178	0.0	293.0	6256				
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Date 14/08/2025 14:08 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.163

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.055	4	8	0.054	8	12	0.054

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:100 +45%CC @ 1.0l/s	
Date 14/08/2025 14:08 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.020

Porous Car Park Structure

Infiltration Coefficient Base (m/hr) 0.00000	Width (m) 12.0
Membrane Percolation (mm/hr) 1000	Length (m) 95.5
Max Percolation (l/s) 318.3	Slope (1:X) 100.0
Safety Factor 2.0	Depression Storage (mm) 5
Porosity 0.33	Evaporation (mm/day) 3
Invert Level (m) 29.100	Cap Volume Depth (m) 0.750

Orifice Outflow Control

Diameter (m) 0.023 Discharge Coefficient 0.600 Invert Level (m) 29.100

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99 South Street
Eastbourne
BN20 4LU

E9427 Farmers Stores
Goddards Green, BN6 9LE
Area B 1:100 @ 1.0l/s

Date 14/08/2025 14:09
File 2-9.SRCX

Designed by SWP Ltd
Checked by SWP Ltd

Micro Drainage

Source Control 2020.1.3

Micro Drainage

Source Control 2020.1.3

Summary of Results for 100 year Return Period

Half Drain Time : 932 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	29.502	0.402	0.0	0.7	0.7	31.9	O K
30 min Summer	29.575	0.475	0.0	0.8	0.8	44.6	O K
60 min Summer	29.641	0.541	0.0	0.8	0.8	58.0	O K
120 min Summer	29.700	0.600	0.0	0.8	0.8	71.3	O K
180 min Summer	29.728	0.628	0.0	0.9	0.9	78.1	Flood Risk
240 min Summer	29.745	0.645	0.0	0.9	0.9	82.3	Flood Risk
360 min Summer	29.765	0.665	0.0	0.9	0.9	87.6	Flood Risk
480 min Summer	29.775	0.675	0.0	0.9	0.9	90.3	Flood Risk
600 min Summer	29.780	0.680	0.0	0.9	0.9	91.6	Flood Risk
720 min Summer	29.782	0.682	0.0	0.9	0.9	92.0	Flood Risk
960 min Summer	29.780	0.680	0.0	0.9	0.9	91.7	Flood Risk
1440 min Summer	29.774	0.674	0.0	0.9	0.9	89.9	Flood Risk
2160 min Summer	29.758	0.658	0.0	0.9	0.9	85.8	Flood Risk
2880 min Summer	29.740	0.640	0.0	0.9	0.9	81.0	Flood Risk
4320 min Summer	29.702	0.602	0.0	0.8	0.8	71.6	O K
5760 min Summer	29.665	0.565	0.0	0.8	0.8	63.3	O K
7200 min Summer	29.632	0.532	0.0	0.8	0.8	56.0	O K
8640 min Summer	29.601	0.501	0.0	0.8	0.8	49.6	O K
10080 min Summer	29.571	0.471	0.0	0.7	0.7	44.0	O K
15 min Winter	29.502	0.402	0.0	0.7	0.7	31.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	94.179	0.0	32.6	26
30 min Summer	63.261	0.0	45.7	41
60 min Summer	40.510	0.0	60.1	70
120 min Summer	25.003	0.0	75.5	130
180 min Summer	18.552	0.0	84.5	188
240 min Summer	14.912	0.0	90.9	246
360 min Summer	10.975	0.0	100.7	366
480 min Summer	8.815	0.0	108.1	484
600 min Summer	7.430	0.0	113.8	602
720 min Summer	6.458	0.0	116.9	720
960 min Summer	5.172	0.0	119.6	824
1440 min Summer	3.774	0.0	119.5	1072
2160 min Summer	2.748	0.0	150.4	1476
2880 min Summer	2.192	0.0	158.9	1884
4320 min Summer	1.590	0.0	170.6	2692
5760 min Summer	1.265	0.0	178.4	3512
7200 min Summer	1.060	0.0	184.3	4256
8640 min Summer	0.917	0.0	189.0	5016
10080 min Summer	0.812	0.0	192.6	5752
15 min Winter	94.179	0.0	32.6	26

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Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:100 @ 1.0l/s				
Date 14/08/2025 14:09 File 2-9.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 100 year Return Period</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.575	0.475	0.0	0.8	0.8	44.6	O K
60 min Winter	29.641	0.541	0.0	0.8	0.8	58.1	O K
120 min Winter	29.700	0.600	0.0	0.8	0.8	71.3	O K
180 min Winter	29.729	0.629	0.0	0.9	0.9	78.3	Flood Risk
240 min Winter	29.745	0.645	0.0	0.9	0.9	82.5	Flood Risk
360 min Winter	29.766	0.666	0.0	0.9	0.9	87.8	Flood Risk
480 min Winter	29.777	0.677	0.0	0.9	0.9	90.7	Flood Risk
600 min Winter	29.782	0.682	0.0	0.9	0.9	92.1	Flood Risk
720 min Winter	29.784	0.684	0.0	0.9	0.9	92.7	Flood Risk
960 min Winter	29.782	0.682	0.0	0.9	0.9	92.1	Flood Risk
1440 min Winter	29.772	0.672	0.0	0.9	0.9	89.4	Flood Risk
2160 min Winter	29.750	0.650	0.0	0.9	0.9	83.7	Flood Risk
2880 min Winter	29.724	0.624	0.0	0.9	0.9	77.0	Flood Risk
4320 min Winter	29.669	0.569	0.0	0.8	0.8	64.1	O K
5760 min Winter	29.616	0.516	0.0	0.8	0.8	52.8	O K
7200 min Winter	29.568	0.468	0.0	0.7	0.7	43.4	O K
8640 min Winter	29.524	0.424	0.0	0.7	0.7	35.7	O K
10080 min Winter	29.484	0.384	0.0	0.7	0.7	29.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	63.261	0.0	45.7	40			
60 min Winter	40.510	0.0	60.1	70			
120 min Winter	25.003	0.0	75.5	126			
180 min Winter	18.552	0.0	84.5	184			
240 min Winter	14.912	0.0	90.9	242			
360 min Winter	10.975	0.0	100.7	358			
480 min Winter	8.815	0.0	108.1	472			
600 min Winter	7.430	0.0	113.8	584			
720 min Winter	6.458	0.0	117.0	694			
960 min Winter	5.172	0.0	119.7	898			
1440 min Winter	3.774	0.0	119.7	1116			
2160 min Winter	2.748	0.0	150.4	1580			
2880 min Winter	2.192	0.0	158.9	2024			
4320 min Winter	1.590	0.0	170.6	2892			
5760 min Winter	1.265	0.0	178.6	3696			
7200 min Winter	1.060	0.0	184.6	4472			
8640 min Winter	0.917	0.0	189.2	5192			
10080 min Winter	0.812	0.0	192.9	5952			
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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:100 @ 1.0l/s	
Date 14/08/2025 14:09 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		
Source Control 2020.1.3		

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.163

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.055	4	8	0.054	8	12	0.054

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:100 @ 1.0l/s	
Date 14/08/2025 14:09 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.020

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	12.0
Membrane Percolation (mm/hr)	1000	Length (m)	95.5
Max Percolation (l/s)	318.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	29.100	Cap Volume Depth (m)	0.750

Orifice Outflow Control

Diameter (m) 0.023 Discharge Coefficient 0.600 Invert Level (m) 29.100

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99 South Street
Eastbourne
BN20 4LU

E9427 Farmers Stores
Goddards Green, BN6 9LE
Area B 1:30 +35%CC @ 1.0l/s

Date 14/08/2025 14:10
File 2-9.SRCX

Designed by SWP Ltd
Checked by SWP Ltd

Micro Drainage

Source Control 2020.1.3

Summary of Results for 30 year Return Period (+35%)

Half Drain Time : 984 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	29.512	0.412	0.0	0.7	0.7	33.5	O K
30 min Summer	29.583	0.483	0.0	0.8	0.8	46.3	O K
60 min Summer	29.650	0.550	0.0	0.8	0.8	59.8	O K
120 min Summer	29.709	0.609	0.0	0.9	0.9	73.5	O K
180 min Summer	29.740	0.640	0.0	0.9	0.9	81.0	Flood Risk
240 min Summer	29.759	0.659	0.0	0.9	0.9	85.9	Flood Risk
360 min Summer	29.782	0.682	0.0	0.9	0.9	92.2	Flood Risk
480 min Summer	29.795	0.695	0.0	0.9	0.9	95.7	Flood Risk
600 min Summer	29.802	0.702	0.0	0.9	0.9	97.7	Flood Risk
720 min Summer	29.806	0.706	0.0	0.9	0.9	98.6	Flood Risk
960 min Summer	29.807	0.707	0.0	0.9	0.9	99.0	Flood Risk
1440 min Summer	29.805	0.705	0.0	0.9	0.9	98.4	Flood Risk
2160 min Summer	29.794	0.694	0.0	0.9	0.9	95.4	Flood Risk
2880 min Summer	29.779	0.679	0.0	0.9	0.9	91.4	Flood Risk
4320 min Summer	29.747	0.647	0.0	0.9	0.9	82.9	Flood Risk
5760 min Summer	29.715	0.615	0.0	0.9	0.9	74.8	O K
7200 min Summer	29.684	0.584	0.0	0.8	0.8	67.6	O K
8640 min Summer	29.655	0.555	0.0	0.8	0.8	61.0	O K
10080 min Summer	29.628	0.528	0.0	0.8	0.8	55.2	O K
15 min Winter	29.512	0.412	0.0	0.7	0.7	33.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	98.120	0.0	34.2	26
30 min Summer	65.290	0.0	47.4	41
60 min Summer	41.595	0.0	61.9	70
120 min Summer	25.699	0.0	77.7	130
180 min Summer	19.158	0.0	87.5	188
240 min Summer	15.481	0.0	94.6	248
360 min Summer	11.466	0.0	105.5	366
480 min Summer	9.254	0.0	113.8	484
600 min Summer	7.831	0.0	118.8	602
720 min Summer	6.830	0.0	121.5	720
960 min Summer	5.500	0.0	124.0	840
1440 min Summer	4.048	0.0	123.8	1090
2160 min Summer	2.975	0.0	163.7	1496
2880 min Summer	2.389	0.0	174.3	1908
4320 min Summer	1.751	0.0	189.5	2728
5760 min Summer	1.404	0.0	200.2	3520
7200 min Summer	1.183	0.0	208.5	4328
8640 min Summer	1.029	0.0	215.2	5096
10080 min Summer	0.915	0.0	220.7	5848
15 min Winter	98.120	0.0	34.2	26

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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:30 +35%CC @ 1.0l/s				
Date 14/08/2025 14:10 File 2-9.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 30 year Return Period (+35%)</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.583	0.483	0.0	0.8	0.8	46.3	O K
60 min Winter	29.650	0.550	0.0	0.8	0.8	59.8	O K
120 min Winter	29.709	0.609	0.0	0.9	0.9	73.6	O K
180 min Winter	29.740	0.640	0.0	0.9	0.9	81.1	Flood Risk
240 min Winter	29.759	0.659	0.0	0.9	0.9	86.0	Flood Risk
360 min Winter	29.783	0.683	0.0	0.9	0.9	92.4	Flood Risk
480 min Winter	29.797	0.697	0.0	0.9	0.9	96.1	Flood Risk
600 min Winter	29.804	0.704	0.0	0.9	0.9	98.2	Flood Risk
720 min Winter	29.808	0.708	0.0	0.9	0.9	99.3	Flood Risk
960 min Winter	29.809	0.709	0.0	0.9	0.9	99.7	Flood Risk
1440 min Winter	29.803	0.703	0.0	0.9	0.9	98.0	Flood Risk
2160 min Winter	29.787	0.687	0.0	0.9	0.9	93.5	Flood Risk
2880 min Winter	29.765	0.665	0.0	0.9	0.9	87.6	Flood Risk
4320 min Winter	29.717	0.617	0.0	0.9	0.9	75.3	O K
5760 min Winter	29.669	0.569	0.0	0.8	0.8	64.1	O K
7200 min Winter	29.624	0.524	0.0	0.8	0.8	54.3	O K
8640 min Winter	29.582	0.482	0.0	0.8	0.8	45.9	O K
10080 min Winter	29.543	0.443	0.0	0.7	0.7	38.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	65.290	0.0	47.4	40			
60 min Winter	41.595	0.0	61.9	70			
120 min Winter	25.699	0.0	77.7	126			
180 min Winter	19.158	0.0	87.5	184			
240 min Winter	15.481	0.0	94.6	242			
360 min Winter	11.466	0.0	105.5	358			
480 min Winter	9.254	0.0	113.8	472			
600 min Winter	7.831	0.0	118.9	584			
720 min Winter	6.830	0.0	121.5	694			
960 min Winter	5.500	0.0	124.1	906			
1440 min Winter	4.048	0.0	124.1	1128			
2160 min Winter	2.975	0.0	163.7	1588			
2880 min Winter	2.389	0.0	174.3	2048			
4320 min Winter	1.751	0.0	189.5	2904			
5760 min Winter	1.404	0.0	200.3	3744			
7200 min Winter	1.183	0.0	208.7	4536			
8640 min Winter	1.029	0.0	215.5	5280			
10080 min Winter	0.915	0.0	221.0	6048			
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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:30 +35%CC @ 1.01/s	
Date 14/08/2025 14:10 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+35

Time Area Diagram

Total Area (ha) 0.163

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.055	4	8	0.054	8	12	0.054

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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:30 +35%CC @ 1.0l/s	
Date 14/08/2025 14:10 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.020

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	12.0
Membrane Percolation (mm/hr)	1000	Length (m)	95.5
Max Percolation (l/s)	318.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	29.100	Cap Volume Depth (m)	0.750

Orifice Outflow Control

Diameter (m) 0.023 Discharge Coefficient 0.600 Invert Level (m) 29.100

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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:2 @ 1.0l/s				
Date 14/08/2025 14:11 File 2-9.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 2 year Return Period</u>							
Half Drain Time : 437 minutes.							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	29.318	0.218	0.0	0.5	0.5	9.4	O K
30 min Summer	29.367	0.267	0.0	0.6	0.6	14.1	O K
60 min Summer	29.411	0.311	0.0	0.6	0.6	19.1	O K
120 min Summer	29.450	0.350	0.0	0.6	0.6	24.3	O K
180 min Summer	29.470	0.370	0.0	0.7	0.7	27.1	O K
240 min Summer	29.482	0.382	0.0	0.7	0.7	29.0	O K
360 min Summer	29.494	0.394	0.0	0.7	0.7	30.8	O K
480 min Summer	29.500	0.400	0.0	0.7	0.7	31.7	O K
600 min Summer	29.504	0.404	0.0	0.7	0.7	32.4	O K
720 min Summer	29.507	0.407	0.0	0.7	0.7	32.8	O K
960 min Summer	29.509	0.409	0.0	0.7	0.7	33.1	O K
1440 min Summer	29.505	0.405	0.0	0.7	0.7	32.5	O K
2160 min Summer	29.493	0.393	0.0	0.7	0.7	30.6	O K
2880 min Summer	29.478	0.378	0.0	0.7	0.7	28.3	O K
4320 min Summer	29.447	0.347	0.0	0.6	0.6	23.9	O K
5760 min Summer	29.419	0.319	0.0	0.6	0.6	20.1	O K
7200 min Summer	29.392	0.292	0.0	0.6	0.6	16.9	O K
8640 min Summer	29.368	0.268	0.0	0.6	0.6	14.2	O K
10080 min Summer	29.346	0.246	0.0	0.5	0.5	12.0	O K
15 min Winter	29.318	0.218	0.0	0.5	0.5	9.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	38.338	0.0	9.8	26			
30 min Summer	25.371	0.0	14.9	40			
60 min Summer	16.200	0.0	20.5	68			
120 min Summer	10.143	0.0	27.0	126			
180 min Summer	7.675	0.0	31.4	184			
240 min Summer	6.288	0.0	34.7	242			
360 min Summer	4.725	0.0	39.6	352			
480 min Summer	3.856	0.0	43.4	408			
600 min Summer	3.293	0.0	46.5	472			
720 min Summer	2.894	0.0	49.1	536			
960 min Summer	2.361	0.0	53.5	672			
1440 min Summer	1.772	0.0	60.1	948			
2160 min Summer	1.329	0.0	67.1	1364			
2880 min Summer	1.083	0.0	72.1	1764			
4320 min Summer	0.813	0.0	79.3	2552			
5760 min Summer	0.663	0.0	84.3	3288			
7200 min Summer	0.566	0.0	87.8	4032			
8640 min Summer	0.497	0.0	90.2	4752			
10080 min Summer	0.445	0.0	92.0	5448			
15 min Winter	38.338	0.0	9.8	26			

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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:2 @ 1.0l/s				
Date 14/08/2025 14:11 File 2-9.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 2 year Return Period</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.367	0.267	0.0	0.6	0.6	14.2	O K
60 min Winter	29.411	0.311	0.0	0.6	0.6	19.2	O K
120 min Winter	29.450	0.350	0.0	0.6	0.6	24.3	O K
180 min Winter	29.471	0.371	0.0	0.7	0.7	27.2	O K
240 min Winter	29.483	0.383	0.0	0.7	0.7	29.0	O K
360 min Winter	29.495	0.395	0.0	0.7	0.7	30.9	O K
480 min Winter	29.500	0.400	0.0	0.7	0.7	31.7	O K
600 min Winter	29.503	0.403	0.0	0.7	0.7	32.1	O K
720 min Winter	29.504	0.404	0.0	0.7	0.7	32.4	O K
960 min Winter	29.504	0.404	0.0	0.7	0.7	32.3	O K
1440 min Winter	29.495	0.395	0.0	0.7	0.7	30.8	O K
2160 min Winter	29.473	0.373	0.0	0.7	0.7	27.5	O K
2880 min Winter	29.448	0.348	0.0	0.6	0.6	24.0	O K
4320 min Winter	29.401	0.301	0.0	0.6	0.6	17.9	O K
5760 min Winter	29.359	0.259	0.0	0.5	0.5	13.2	O K
7200 min Winter	29.322	0.222	0.0	0.5	0.5	9.7	O K
8640 min Winter	29.291	0.191	0.0	0.5	0.5	7.2	O K
10080 min Winter	29.264	0.164	0.0	0.4	0.4	5.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.371	0.0	14.9	40			
60 min Winter	16.200	0.0	20.5	68			
120 min Winter	10.143	0.0	27.0	124			
180 min Winter	7.675	0.0	31.4	182			
240 min Winter	6.288	0.0	34.7	238			
360 min Winter	4.725	0.0	39.6	348			
480 min Winter	3.856	0.0	43.4	448			
600 min Winter	3.293	0.0	46.5	482			
720 min Winter	2.894	0.0	49.2	558			
960 min Winter	2.361	0.0	53.6	714			
1440 min Winter	1.772	0.0	60.2	1016			
2160 min Winter	1.329	0.0	67.1	1452			
2880 min Winter	1.083	0.0	72.2	1856			
4320 min Winter	0.813	0.0	79.5	2644			
5760 min Winter	0.663	0.0	84.5	3400			
7200 min Winter	0.566	0.0	88.1	4104			
8640 min Winter	0.497	0.0	90.7	4760			
10080 min Winter	0.445	0.0	92.6	5456			
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Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:2 @ 1.0l/s	
Date 14/08/2025 14:11 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	2	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.163

Time (mins)	Area	Time (mins)	Area	Time (mins)	Area
From: To: (ha)		From: To: (ha)		From: To: (ha)	
0 4 0.055		4 8 0.054		8 12 0.054	

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green, BN6 9LE Area B 1:2 @ 1.0l/s	
Date 14/08/2025 14:11 File 2-9.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 30.020

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	12.0
Membrane Percolation (mm/hr)	1000	Length (m)	95.5
Max Percolation (l/s)	318.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	29.100	Cap Volume Depth (m)	0.750

Orifice Outflow Control

Diameter (m) 0.023 Discharge Coefficient 0.600 Invert Level (m) 29.100

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Title	Farmers Stores, Goddards Green, BN6 9LE	Job No:	E9427
Description :	Surface Water Storage Calculations	By:	JWM
Catchment/ Area C		Date:	May-25
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.350

Design Criteria

Design Storm = 100Yr + 45% Climate Change

Design Storm = 30Yr + 35% Climate Change

CV Value 1.0 (in accordance MSDC Flood Risk and Drainage Requirements)

Design Discharge Rate

Discharge Rate = 1.3l/s - restricted using 26mmØ orifice plate

Total Contributing Impermeable Area = 1,910m² or 0.191Ha

Results

Provision of permeable subbase material 748.0m² x 0.8m(Deep) & provides 197.47m³ of storage based on a 33% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 +45%CC @1.31/s																																																																																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+45%)</u> Half Drain Time : 1276 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max E Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>28.542</td><td>0.487</td><td>0.0</td><td>0.9</td><td>0.9</td><td>61.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>28.630</td><td>0.575</td><td>0.0</td><td>1.0</td><td>1.0</td><td>82.7</td><td>O K</td></tr><tr><td>60 min Summer</td><td>28.721</td><td>0.666</td><td>0.0</td><td>1.1</td><td>1.1</td><td>105.3</td><td>O K</td></tr><tr><td>120 min Summer</td><td>28.813</td><td>0.758</td><td>0.0</td><td>1.1</td><td>1.1</td><td>127.9</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>28.861</td><td>0.806</td><td>0.0</td><td>1.2</td><td>1.2</td><td>140.0</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>28.893</td><td>0.838</td><td>0.0</td><td>1.2</td><td>1.2</td><td>147.4</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>28.939</td><td>0.884</td><td>0.0</td><td>1.2</td><td>1.2</td><td>157.4</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>28.968</td><td>0.913</td><td>0.0</td><td>1.2</td><td>1.2</td><td>163.2</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>28.986</td><td>0.931</td><td>0.0</td><td>1.3</td><td>1.3</td><td>166.5</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>28.996</td><td>0.941</td><td>0.0</td><td>1.3</td><td>1.3</td><td>168.3</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>28.999</td><td>0.944</td><td>0.0</td><td>1.3</td><td>1.3</td><td>168.8</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>28.987</td><td>0.932</td><td>0.0</td><td>1.3</td><td>1.3</td><td>166.7</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>28.960</td><td>0.905</td><td>0.0</td><td>1.2</td><td>1.2</td><td>161.6</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>28.929</td><td>0.874</td><td>0.0</td><td>1.2</td><td>1.2</td><td>155.4</td><td>Flood Risk</td></tr><tr><td>4320 min Summer</td><td>28.871</td><td>0.816</td><td>0.0</td><td>1.2</td><td>1.2</td><td>142.2</td><td>Flood Risk</td></tr><tr><td>5760 min Summer</td><td>28.821</td><td>0.766</td><td>0.0</td><td>1.1</td><td>1.1</td><td>130.0</td><td>Flood Risk</td></tr><tr><td>7200 min Summer</td><td>28.777</td><td>0.722</td><td>0.0</td><td>1.1</td><td>1.1</td><td>119.1</td><td>Flood Risk</td></tr><tr><td>8640 min Summer</td><td>28.737</td><td>0.682</td><td>0.0</td><td>1.1</td><td>1.1</td><td>109.3</td><td>Flood Risk</td></tr><tr><td>10080 min Summer</td><td>28.701</td><td>0.646</td><td>0.0</td><td>1.0</td><td>1.0</td><td>100.4</td><td>O K</td></tr><tr><td>15 min 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Summer</td><td>10.626</td><td>0.0</td><td>168.5</td><td>604</td></tr><tr><td>720 min Summer</td><td>9.227</td><td>0.0</td><td>170.2</td><td>722</td></tr><tr><td>960 min Summer</td><td>7.378</td><td>0.0</td><td>171.8</td><td>952</td></tr><tr><td>1440 min Summer</td><td>5.373</td><td>0.0</td><td>170.2</td><td>1168</td></tr><tr><td>2160 min Summer</td><td>3.905</td><td>0.0</td><td>261.4</td><td>1556</td></tr><tr><td>2880 min Summer</td><td>3.110</td><td>0.0</td><td>276.9</td><td>1964</td></tr><tr><td>4320 min Summer</td><td>2.252</td><td>0.0</td><td>280.6</td><td>2776</td></tr><tr><td>5760 min Summer</td><td>1.789</td><td>0.0</td><td>315.3</td><td>3624</td></tr><tr><td>7200 min Summer</td><td>1.496</td><td>0.0</td><td>327.9</td><td>4400</td></tr><tr><td>8640 min Summer</td><td>1.294</td><td>0.0</td><td>338.6</td><td>5192</td></tr><tr><td>10080 min Summer</td><td>1.144</td><td>0.0</td><td>347.8</td><td>5960</td></tr><tr><td>15 min 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5760 min Summer	1.789	0.0	315.3	3624																																																																																																																																																																																																																																																																																				
7200 min Summer	1.496	0.0	327.9	4400																																																																																																																																																																																																																																																																																				
8640 min Summer	1.294	0.0	338.6	5192																																																																																																																																																																																																																																																																																				
10080 min Summer	1.144	0.0	347.8	5960																																																																																																																																																																																																																																																																																				
15 min Winter	137.912	0.0	60.1	26																																																																																																																																																																																																																																																																																				
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Stephen Wilson Partnership Ltd

99 South Street
Eastbourne
BN20 4LU

Date 14/08/2025 14:16
File LOWER AUG 2025.SRCX

Micro Drainage

E9427 Farmers Stores
Goddards Green BN6 9LE
Area C 1:100 +45%CC @1.3l/s

Designed by SWP Ltd
Checked by SWP Ltd

Source Control 2020.1.3

Page 2



Summary of Results for 100 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	28.630	0.575	0.0	1.0	1.0	82.7	O K
60 min Winter	28.722	0.667	0.0	1.1	1.1	105.4	O K
120 min Winter	28.813	0.758	0.0	1.1	1.1	128.1	Flood Risk
180 min Winter	28.862	0.807	0.0	1.2	1.2	140.2	Flood Risk
240 min Winter	28.894	0.839	0.0	1.2	1.2	147.6	Flood Risk
360 min Winter	28.941	0.886	0.0	1.2	1.2	157.9	Flood Risk
480 min Winter	28.972	0.917	0.0	1.2	1.2	163.8	Flood Risk
600 min Winter	28.991	0.936	0.0	1.3	1.3	167.3	Flood Risk
720 min Winter	29.002	0.947	0.0	1.3	1.3	169.3	Flood Risk
960 min Winter	29.009	0.954	0.0	1.3	1.3	170.5	Flood Risk
1440 min Winter	28.989	0.934	0.0	1.3	1.3	167.0	Flood Risk
2160 min Winter	28.955	0.900	0.0	1.2	1.2	160.7	Flood Risk
2880 min Winter	28.915	0.860	0.0	1.2	1.2	152.3	Flood Risk
4320 min Winter	28.839	0.784	0.0	1.1	1.1	134.5	Flood Risk
5760 min Winter	28.772	0.717	0.0	1.1	1.1	117.9	Flood Risk
7200 min Winter	28.712	0.657	0.0	1.0	1.0	103.1	O K
8640 min Winter	28.660	0.605	0.0	1.0	1.0	90.3	O K
10080 min Winter	28.615	0.560	0.0	1.0	1.0	79.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	92.192	0.0	70.3	41
60 min Winter	58.739	0.0	108.3	70
120 min Winter	36.088	0.0	133.9	128
180 min Winter	26.720	0.0	147.2	186
240 min Winter	21.428	0.0	153.4	244
360 min Winter	15.741	0.0	161.2	360
480 min Winter	12.622	0.0	165.6	474
600 min Winter	10.626	0.0	168.4	590
720 min Winter	9.227	0.0	170.2	702
960 min Winter	7.378	0.0	171.7	922
1440 min Winter	5.373	0.0	170.1	1204
2160 min Winter	3.905	0.0	261.4	1632
2880 min Winter	3.110	0.0	276.9	2104
4320 min Winter	2.252	0.0	281.3	2988
5760 min Winter	1.789	0.0	315.3	3864
7200 min Winter	1.496	0.0	327.9	4688
8640 min Winter	1.294	0.0	338.7	5456
10080 min Winter	1.144	0.0	347.8	6256

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Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 +45%CC @1.3l/s	
Date 14/08/2025 14:16 File LOWER AUG 2025.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.360	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.191

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.064	4	8	0.064	8	12	0.063

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 +45%CC @1.3l/s	
Date 14/08/2025 14:16 File LOWER AUG 2025.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 29.025

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	15.6
Membrane Percolation (mm/hr)	1000	Length (m)	48.0
Max Percolation (l/s)	208.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	28.055	Cap Volume Depth (m)	0.800

Orifice Outflow Control

Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 28.055

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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 @1.3l/s																																																																																																																																																																																																																																																																																					
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Micro Drainage			Source Control 2020.1.3																																																																																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period</u> Half Drain Time : 940 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max E Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>28.453</td><td>0.398</td><td>0.0</td><td>0.8</td><td>0.8</td><td>40.8</td><td>O K</td></tr><tr><td>30 min Summer</td><td>28.520</td><td>0.465</td><td>0.0</td><td>0.9</td><td>0.9</td><td>55.6</td><td>O K</td></tr><tr><td>60 min Summer</td><td>28.582</td><td>0.527</td><td>0.0</td><td>0.9</td><td>0.9</td><td>70.9</td><td>O K</td></tr><tr><td>120 min Summer</td><td>28.643</td><td>0.588</td><td>0.0</td><td>1.0</td><td>1.0</td><td>85.9</td><td>O K</td></tr><tr><td>180 min Summer</td><td>28.674</td><td>0.619</td><td>0.0</td><td>1.0</td><td>1.0</td><td>93.7</td><td>O K</td></tr><tr><td>240 min Summer</td><td>28.693</td><td>0.638</td><td>0.0</td><td>1.0</td><td>1.0</td><td>98.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>28.716</td><td>0.661</td><td>0.0</td><td>1.1</td><td>1.1</td><td>104.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>28.728</td><td>0.673</td><td>0.0</td><td>1.1</td><td>1.1</td><td>106.9</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>28.733</td><td>0.678</td><td>0.0</td><td>1.1</td><td>1.1</td><td>108.2</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>28.733</td><td>0.678</td><td>0.0</td><td>1.1</td><td>1.1</td><td>108.3</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>28.731</td><td>0.676</td><td>0.0</td><td>1.1</td><td>1.1</td><td>107.6</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>28.720</td><td>0.665</td><td>0.0</td><td>1.1</td><td>1.1</td><td>105.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>28.700</td><td>0.645</td><td>0.0</td><td>1.0</td><td>1.0</td><td>100.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>28.677</td><td>0.622</td><td>0.0</td><td>1.0</td><td>1.0</td><td>94.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>28.633</td><td>0.578</td><td>0.0</td><td>1.0</td><td>1.0</td><td>83.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>28.594</td><td>0.539</td><td>0.0</td><td>0.9</td><td>0.9</td><td>73.9</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>28.560</td><td>0.505</td><td>0.0</td><td>0.9</td><td>0.9</td><td>65.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>28.530</td><td>0.475</td><td>0.0</td><td>0.9</td><td>0.9</td><td>58.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>28.503</td><td>0.448</td><td>0.0</td><td>0.9</td><td>0.9</td><td>51.7</td><td>O K</td></tr><tr><td>15 min Winter</td><td>28.453</td><td>0.398</td><td>0.0</td><td>0.8</td><td>0.8</td><td>40.8</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>95.112</td><td>0.0</td><td>41.6</td><td>26</td></tr><tr><td>30 min Summer</td><td>63.581</td><td>0.0</td><td>56.5</td><td>41</td></tr><tr><td>60 min Summer</td><td>40.510</td><td>0.0</td><td>73.5</td><td>70</td></tr><tr><td>120 min Summer</td><td>24.888</td><td>0.0</td><td>91.1</td><td>130</td></tr><tr><td>180 min Summer</td><td>18.428</td><td>0.0</td><td>101.6</td><td>188</td></tr><tr><td>240 min Summer</td><td>14.778</td><td>0.0</td><td>108.8</td><td>246</td></tr><tr><td>360 min Summer</td><td>10.856</td><td>0.0</td><td>120.1</td><td>366</td></tr><tr><td>480 min Summer</td><td>8.705</td><td>0.0</td><td>128.5</td><td>484</td></tr><tr><td>600 min Summer</td><td>7.328</td><td>0.0</td><td>134.5</td><td>602</td></tr><tr><td>720 min Summer</td><td>6.363</td><td>0.0</td><td>137.6</td><td>720</td></tr><tr><td>960 min Summer</td><td>5.088</td><td>0.0</td><td>140.6</td><td>824</td></tr><tr><td>1440 min Summer</td><td>3.705</td><td>0.0</td><td>140.7</td><td>1072</td></tr><tr><td>2160 min Summer</td><td>2.693</td><td>0.0</td><td>178.1</td><td>1476</td></tr><tr><td>2880 min Summer</td><td>2.145</td><td>0.0</td><td>188.4</td><td>1884</td></tr><tr><td>4320 min Summer</td><td>1.553</td><td>0.0</td><td>203.1</td><td>2720</td></tr><tr><td>5760 min Summer</td><td>1.234</td><td>0.0</td><td>213.5</td><td>3512</td></tr><tr><td>7200 min Summer</td><td>1.032</td><td>0.0</td><td>221.5</td><td>4264</td></tr><tr><td>8640 min Summer</td><td>0.892</td><td>0.0</td><td>228.2</td><td>5024</td></tr><tr><td>10080 min Summer</td><td>0.789</td><td>0.0</td><td>233.8</td><td>5760</td></tr><tr><td>15 min Winter</td><td>95.112</td><td>0.0</td><td>41.6</td><td>26</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status	15 min Summer	28.453	0.398	0.0	0.8	0.8	40.8	O K	30 min Summer	28.520	0.465	0.0	0.9	0.9	55.6	O K	60 min Summer	28.582	0.527	0.0	0.9	0.9	70.9	O K	120 min Summer	28.643	0.588	0.0	1.0	1.0	85.9	O K	180 min Summer	28.674	0.619	0.0	1.0	1.0	93.7	O K	240 min Summer	28.693	0.638	0.0	1.0	1.0	98.2	O K	360 min Summer	28.716	0.661	0.0	1.1	1.1	104.0	O K	480 min Summer	28.728	0.673	0.0	1.1	1.1	106.9	Flood Risk	600 min Summer	28.733	0.678	0.0	1.1	1.1	108.2	Flood Risk	720 min Summer	28.733	0.678	0.0	1.1	1.1	108.3	Flood Risk	960 min Summer	28.731	0.676	0.0	1.1	1.1	107.6	Flood Risk	1440 min Summer	28.720	0.665	0.0	1.1	1.1	105.1	O K	2160 min Summer	28.700	0.645	0.0	1.0	1.0	100.0	O K	2880 min Summer	28.677	0.622	0.0	1.0	1.0	94.3	O K	4320 min Summer	28.633	0.578	0.0	1.0	1.0	83.5	O K	5760 min Summer	28.594	0.539	0.0	0.9	0.9	73.9	O K	7200 min Summer	28.560	0.505	0.0	0.9	0.9	65.5	O K	8640 min Summer	28.530	0.475	0.0	0.9	0.9	58.1	O K	10080 min Summer	28.503	0.448	0.0	0.9	0.9	51.7	O K	15 min Winter	28.453	0.398	0.0	0.8	0.8	40.8	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	95.112	0.0	41.6	26	30 min Summer	63.581	0.0	56.5	41	60 min Summer	40.510	0.0	73.5	70	120 min Summer	24.888	0.0	91.1	130	180 min Summer	18.428	0.0	101.6	188	240 min Summer	14.778	0.0	108.8	246	360 min Summer	10.856	0.0	120.1	366	480 min Summer	8.705	0.0	128.5	484	600 min Summer	7.328	0.0	134.5	602	720 min Summer	6.363	0.0	137.6	720	960 min Summer	5.088	0.0	140.6	824	1440 min Summer	3.705	0.0	140.7	1072	2160 min Summer	2.693	0.0	178.1	1476	2880 min Summer	2.145	0.0	188.4	1884	4320 min Summer	1.553	0.0	203.1	2720	5760 min Summer	1.234	0.0	213.5	3512	7200 min Summer	1.032	0.0	221.5	4264	8640 min Summer	0.892	0.0	228.2	5024	10080 min Summer	0.789	0.0	233.8	5760	15 min Winter	95.112	0.0	41.6	26
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2160 min Summer	2.693	0.0	178.1	1476																																																																																																																																																																																																																																																																																				
2880 min Summer	2.145	0.0	188.4	1884																																																																																																																																																																																																																																																																																				
4320 min Summer	1.553	0.0	203.1	2720																																																																																																																																																																																																																																																																																				
5760 min Summer	1.234	0.0	213.5	3512																																																																																																																																																																																																																																																																																				
7200 min Summer	1.032	0.0	221.5	4264																																																																																																																																																																																																																																																																																				
8640 min Summer	0.892	0.0	228.2	5024																																																																																																																																																																																																																																																																																				
10080 min Summer	0.789	0.0	233.8	5760																																																																																																																																																																																																																																																																																				
15 min Winter	95.112	0.0	41.6	26																																																																																																																																																																																																																																																																																				
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Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 @1.3l/s				
Date 14/08/2025 14:18 File LOWER AUG 2025.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
Summary of Results for 100 year Return Period							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	28.520	0.465	0.0	0.9	0.9	55.6	O K
60 min Winter	28.582	0.527	0.0	0.9	0.9	71.0	O K
120 min Winter	28.643	0.588	0.0	1.0	1.0	86.1	O K
180 min Winter	28.675	0.620	0.0	1.0	1.0	93.9	O K
240 min Winter	28.693	0.638	0.0	1.0	1.0	98.5	O K
360 min Winter	28.718	0.663	0.0	1.1	1.1	104.4	O K
480 min Winter	28.730	0.675	0.0	1.1	1.1	107.4	Flood Risk
600 min Winter	28.736	0.681	0.0	1.1	1.1	108.9	Flood Risk
720 min Winter	28.737	0.682	0.0	1.1	1.1	109.3	Flood Risk
960 min Winter	28.733	0.678	0.0	1.1	1.1	108.3	Flood Risk
1440 min Winter	28.719	0.664	0.0	1.1	1.1	104.7	O K
2160 min Winter	28.691	0.636	0.0	1.0	1.0	97.8	O K
2880 min Winter	28.659	0.604	0.0	1.0	1.0	90.0	O K
4320 min Winter	28.599	0.544	0.0	1.0	1.0	75.2	O K
5760 min Winter	28.547	0.492	0.0	0.9	0.9	62.3	O K
7200 min Winter	28.502	0.447	0.0	0.9	0.9	51.4	O K
8640 min Winter	28.461	0.406	0.0	0.8	0.8	42.4	O K
10080 min Winter	28.424	0.369	0.0	0.8	0.8	35.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	63.581	0.0	56.5	40			
60 min Winter	40.510	0.0	73.5	70			
120 min Winter	24.888	0.0	91.1	126			
180 min Winter	18.428	0.0	101.6	184			
240 min Winter	14.778	0.0	108.8	242			
360 min Winter	10.856	0.0	120.1	358			
480 min Winter	8.705	0.0	128.5	472			
600 min Winter	7.328	0.0	134.5	584			
720 min Winter	6.363	0.0	137.6	694			
960 min Winter	5.088	0.0	140.7	898			
1440 min Winter	3.705	0.0	140.8	1116			
2160 min Winter	2.693	0.0	178.1	1580			
2880 min Winter	2.145	0.0	188.4	2024			
4320 min Winter	1.553	0.0	203.1	2896			
5760 min Winter	1.234	0.0	213.6	3696			
7200 min Winter	1.032	0.0	221.6	4472			
8640 min Winter	0.892	0.0	228.3	5200			
10080 min Winter	0.789	0.0	233.9	5952			
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99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 @1.3l/s	
Date 14/08/2025 14:18 File LOWER AUG 2025.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.360	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.191

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.064	4	8	0.064	8	12	0.063

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:100 @1.3l/s	
Date 14/08/2025 14:18 File LOWER AUG 2025.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 29.025

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	15.6
Membrane Percolation (mm/hr)	1000	Length (m)	48.0
Max Percolation (l/s)	208.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	28.055	Cap Volume Depth (m)	0.800

Orifice Outflow Control

Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 28.055

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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:30 +35%CC @1.31/s																																																																																																																																																																																																																																																																																					
Date 14/08/2025 14:17 File LOWER AUG 2025.SRCX			Designed by SWP Ltd Checked by SWP Ltd																																																																																																																																																																																																																																																																																					
Micro Drainage			Source Control 2020.1.3																																																																																																																																																																																																																																																																																					
<u>Summary of Results for 30 year Return Period (+35%)</u> Half Drain Time : 996 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Control (l/s)</th><th>Max E Outflow (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>28.462</td><td>0.407</td><td>0.0</td><td>0.8</td><td>0.8</td><td>42.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>28.528</td><td>0.473</td><td>0.0</td><td>0.9</td><td>0.9</td><td>57.5</td><td>O K</td></tr><tr><td>60 min Summer</td><td>28.590</td><td>0.535</td><td>0.0</td><td>0.9</td><td>0.9</td><td>73.0</td><td>O K</td></tr><tr><td>120 min Summer</td><td>28.653</td><td>0.598</td><td>0.0</td><td>1.0</td><td>1.0</td><td>88.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>28.688</td><td>0.633</td><td>0.0</td><td>1.0</td><td>1.0</td><td>97.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>28.709</td><td>0.654</td><td>0.0</td><td>1.0</td><td>1.0</td><td>102.3</td><td>O K</td></tr><tr><td>360 min Summer</td><td>28.737</td><td>0.682</td><td>0.0</td><td>1.1</td><td>1.1</td><td>109.2</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>28.752</td><td>0.697</td><td>0.0</td><td>1.1</td><td>1.1</td><td>113.0</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>28.760</td><td>0.705</td><td>0.0</td><td>1.1</td><td>1.1</td><td>115.0</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>28.764</td><td>0.709</td><td>0.0</td><td>1.1</td><td>1.1</td><td>115.8</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>28.764</td><td>0.709</td><td>0.0</td><td>1.1</td><td>1.1</td><td>115.9</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>28.759</td><td>0.704</td><td>0.0</td><td>1.1</td><td>1.1</td><td>114.6</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>28.743</td><td>0.688</td><td>0.0</td><td>1.1</td><td>1.1</td><td>110.6</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>28.723</td><td>0.668</td><td>0.0</td><td>1.1</td><td>1.1</td><td>105.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>28.683</td><td>0.628</td><td>0.0</td><td>1.0</td><td>1.0</td><td>95.8</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>28.646</td><td>0.591</td><td>0.0</td><td>1.0</td><td>1.0</td><td>86.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>28.612</td><td>0.557</td><td>0.0</td><td>1.0</td><td>1.0</td><td>78.4</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>28.582</td><td>0.527</td><td>0.0</td><td>0.9</td><td>0.9</td><td>70.9</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>28.555</td><td>0.500</td><td>0.0</td><td>0.9</td><td>0.9</td><td>64.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>28.462</td><td>0.407</td><td>0.0</td><td>0.8</td><td>0.8</td><td>42.7</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>99.059</td><td>0.0</td><td>43.5</td><td>26</td></tr><tr><td>30 min Summer</td><td>65.611</td><td>0.0</td><td>57.9</td><td>41</td></tr><tr><td>60 min Summer</td><td>41.595</td><td>0.0</td><td>75.6</td><td>70</td></tr><tr><td>120 min Summer</td><td>25.578</td><td>0.0</td><td>93.8</td><td>130</td></tr><tr><td>180 min Summer</td><td>19.022</td><td>0.0</td><td>105.0</td><td>188</td></tr><tr><td>240 min Summer</td><td>15.336</td><td>0.0</td><td>113.0</td><td>248</td></tr><tr><td>360 min Summer</td><td>11.333</td><td>0.0</td><td>125.6</td><td>366</td></tr><tr><td>480 min Summer</td><td>9.129</td><td>0.0</td><td>134.8</td><td>484</td></tr><tr><td>600 min Summer</td><td>7.715</td><td>0.0</td><td>139.7</td><td>602</td></tr><tr><td>720 min Summer</td><td>6.721</td><td>0.0</td><td>142.6</td><td>720</td></tr><tr><td>960 min Summer</td><td>5.403</td><td>0.0</td><td>145.6</td><td>838</td></tr><tr><td>1440 min Summer</td><td>3.967</td><td>0.0</td><td>145.8</td><td>1088</td></tr><tr><td>2160 min Summer</td><td>2.908</td><td>0.0</td><td>192.9</td><td>1492</td></tr><tr><td>2880 min Summer</td><td>2.332</td><td>0.0</td><td>205.5</td><td>1908</td></tr><tr><td>4320 min Summer</td><td>1.706</td><td>0.0</td><td>224.1</td><td>2728</td></tr><tr><td>5760 min Summer</td><td>1.365</td><td>0.0</td><td>237.6</td><td>3520</td></tr><tr><td>7200 min Summer</td><td>1.148</td><td>0.0</td><td>248.2</td><td>4328</td></tr><tr><td>8640 min Summer</td><td>0.998</td><td>0.0</td><td>257.2</td><td>5104</td></tr><tr><td>10080 min Summer</td><td>0.886</td><td>0.0</td><td>264.8</td><td>5848</td></tr><tr><td>15 min Winter</td><td>99.059</td><td>0.0</td><td>43.5</td><td>26</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status	15 min Summer	28.462	0.407	0.0	0.8	0.8	42.7	O K	30 min Summer	28.528	0.473	0.0	0.9	0.9	57.5	O K	60 min Summer	28.590	0.535	0.0	0.9	0.9	73.0	O K	120 min Summer	28.653	0.598	0.0	1.0	1.0	88.5	O K	180 min Summer	28.688	0.633	0.0	1.0	1.0	97.0	O K	240 min Summer	28.709	0.654	0.0	1.0	1.0	102.3	O K	360 min Summer	28.737	0.682	0.0	1.1	1.1	109.2	Flood Risk	480 min Summer	28.752	0.697	0.0	1.1	1.1	113.0	Flood Risk	600 min Summer	28.760	0.705	0.0	1.1	1.1	115.0	Flood Risk	720 min Summer	28.764	0.709	0.0	1.1	1.1	115.8	Flood Risk	960 min Summer	28.764	0.709	0.0	1.1	1.1	115.9	Flood Risk	1440 min Summer	28.759	0.704	0.0	1.1	1.1	114.6	Flood Risk	2160 min Summer	28.743	0.688	0.0	1.1	1.1	110.6	Flood Risk	2880 min Summer	28.723	0.668	0.0	1.1	1.1	105.8	O K	4320 min Summer	28.683	0.628	0.0	1.0	1.0	95.8	O K	5760 min Summer	28.646	0.591	0.0	1.0	1.0	86.7	O K	7200 min Summer	28.612	0.557	0.0	1.0	1.0	78.4	O K	8640 min Summer	28.582	0.527	0.0	0.9	0.9	70.9	O K	10080 min Summer	28.555	0.500	0.0	0.9	0.9	64.1	O K	15 min Winter	28.462	0.407	0.0	0.8	0.8	42.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	99.059	0.0	43.5	26	30 min Summer	65.611	0.0	57.9	41	60 min Summer	41.595	0.0	75.6	70	120 min Summer	25.578	0.0	93.8	130	180 min Summer	19.022	0.0	105.0	188	240 min Summer	15.336	0.0	113.0	248	360 min Summer	11.333	0.0	125.6	366	480 min Summer	9.129	0.0	134.8	484	600 min Summer	7.715	0.0	139.7	602	720 min Summer	6.721	0.0	142.6	720	960 min Summer	5.403	0.0	145.6	838	1440 min Summer	3.967	0.0	145.8	1088	2160 min Summer	2.908	0.0	192.9	1492	2880 min Summer	2.332	0.0	205.5	1908	4320 min Summer	1.706	0.0	224.1	2728	5760 min Summer	1.365	0.0	237.6	3520	7200 min Summer	1.148	0.0	248.2	4328	8640 min Summer	0.998	0.0	257.2	5104	10080 min Summer	0.886	0.0	264.8	5848	15 min Winter	99.059	0.0	43.5	26
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																																																																																	
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360 min Summer	11.333	0.0	125.6	366																																																																																																																																																																																																																																																																																				
480 min Summer	9.129	0.0	134.8	484																																																																																																																																																																																																																																																																																				
600 min Summer	7.715	0.0	139.7	602																																																																																																																																																																																																																																																																																				
720 min Summer	6.721	0.0	142.6	720																																																																																																																																																																																																																																																																																				
960 min Summer	5.403	0.0	145.6	838																																																																																																																																																																																																																																																																																				
1440 min Summer	3.967	0.0	145.8	1088																																																																																																																																																																																																																																																																																				
2160 min Summer	2.908	0.0	192.9	1492																																																																																																																																																																																																																																																																																				
2880 min Summer	2.332	0.0	205.5	1908																																																																																																																																																																																																																																																																																				
4320 min Summer	1.706	0.0	224.1	2728																																																																																																																																																																																																																																																																																				
5760 min Summer	1.365	0.0	237.6	3520																																																																																																																																																																																																																																																																																				
7200 min Summer	1.148	0.0	248.2	4328																																																																																																																																																																																																																																																																																				
8640 min Summer	0.998	0.0	257.2	5104																																																																																																																																																																																																																																																																																				
10080 min Summer	0.886	0.0	264.8	5848																																																																																																																																																																																																																																																																																				
15 min Winter	99.059	0.0	43.5	26																																																																																																																																																																																																																																																																																				
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Stephen Wilson Partnership Ltd

Page 2

99 South Street
Eastbourne
BN20 4LU

E9427 Farmers Stores
Goddards Green BN6 9LE
Area C 1:30 +35%CC @1.31/s

Date 14/08/2025 14:17
File LOWER AUG 2025.SRCX

Designed by SWP Ltd
Checked by SWP Ltd

Micro Drainage

Source Control 2020.1.3

Summary of Results for 30 year Return Period (+35%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max E Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	28.528	0.473	0.0	0.9	0.9	57.5	O K
60 min Winter	28.590	0.535	0.0	0.9	0.9	73.0	O K
120 min Winter	28.654	0.599	0.0	1.0	1.0	88.6	O K
180 min Winter	28.688	0.633	0.0	1.0	1.0	97.2	O K
240 min Winter	28.710	0.655	0.0	1.0	1.0	102.6	O K
360 min Winter	28.739	0.684	0.0	1.1	1.1	109.6	Flood Risk
480 min Winter	28.754	0.699	0.0	1.1	1.1	113.5	Flood Risk
600 min Winter	28.763	0.708	0.0	1.1	1.1	115.7	Flood Risk
720 min Winter	28.767	0.712	0.0	1.1	1.1	116.7	Flood Risk
960 min Winter	28.767	0.712	0.0	1.1	1.1	116.7	Flood Risk
1440 min Winter	28.758	0.703	0.0	1.1	1.1	114.3	Flood Risk
2160 min Winter	28.735	0.680	0.0	1.1	1.1	108.7	Flood Risk
2880 min Winter	28.707	0.652	0.0	1.0	1.0	101.7	O K
4320 min Winter	28.649	0.594	0.0	1.0	1.0	87.6	O K
5760 min Winter	28.598	0.543	0.0	0.9	0.9	74.8	O K
7200 min Winter	28.552	0.497	0.0	0.9	0.9	63.6	O K
8640 min Winter	28.513	0.458	0.0	0.9	0.9	53.9	O K
10080 min Winter	28.477	0.422	0.0	0.8	0.8	45.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	65.611	0.0	57.9	40
60 min Winter	41.595	0.0	75.6	70
120 min Winter	25.578	0.0	93.8	126
180 min Winter	19.022	0.0	105.0	184
240 min Winter	15.336	0.0	113.0	242
360 min Winter	11.333	0.0	125.6	358
480 min Winter	9.129	0.0	134.8	472
600 min Winter	7.715	0.0	139.7	584
720 min Winter	6.721	0.0	142.6	694
960 min Winter	5.403	0.0	145.6	904
1440 min Winter	3.967	0.0	145.9	1126
2160 min Winter	2.908	0.0	192.9	1588
2880 min Winter	2.332	0.0	205.5	2048
4320 min Winter	1.706	0.0	224.1	2904
5760 min Winter	1.365	0.0	237.6	3752
7200 min Winter	1.148	0.0	248.3	4544
8640 min Winter	0.998	0.0	257.3	5280
10080 min Winter	0.886	0.0	264.9	6056

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Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:30 +35%CC @1.3l/s	
Date 14/08/2025 14:17 File LOWER AUG 2025.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.360	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+35

Time Area Diagram

Total Area (ha) 0.191

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.064	4	8	0.064	8	12	0.063

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:30 +35%CC @1.3l/s	
Date 14/08/2025 14:17 File LOWER AUG 2025.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 29.025

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	15.6
Membrane Percolation (mm/hr)	1000	Length (m)	48.0
Max Percolation (l/s)	208.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	28.055	Cap Volume Depth (m)	0.800

Orifice Outflow Control

Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 28.055

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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:2 @1.31/s																																																																																																																																																																																																																																																																																					
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Micro Drainage			Source Control 2020.1.3																																																																																																																																																																																																																																																																																					
<u>Summary of Results for 2 year Return Period</u> Half Drain Time : 449 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (1/s)</th><th>Max Control (1/s)</th><th>Max Σ Outflow (1/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>28.289</td><td>0.234</td><td>0.0</td><td>0.6</td><td>0.6</td><td>14.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>28.331</td><td>0.276</td><td>0.0</td><td>0.7</td><td>0.7</td><td>19.6</td><td>O K</td></tr><tr><td>60 min Summer</td><td>28.369</td><td>0.314</td><td>0.0</td><td>0.7</td><td>0.7</td><td>25.3</td><td>O K</td></tr><tr><td>120 min Summer</td><td>28.402</td><td>0.347</td><td>0.0</td><td>0.8</td><td>0.8</td><td>31.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>28.419</td><td>0.364</td><td>0.0</td><td>0.8</td><td>0.8</td><td>34.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>28.429</td><td>0.374</td><td>0.0</td><td>0.8</td><td>0.8</td><td>36.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>28.439</td><td>0.384</td><td>0.0</td><td>0.8</td><td>0.8</td><td>37.9</td><td>O K</td></tr><tr><td>480 min Summer</td><td>28.443</td><td>0.388</td><td>0.0</td><td>0.8</td><td>0.8</td><td>38.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>28.445</td><td>0.390</td><td>0.0</td><td>0.8</td><td>0.8</td><td>39.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>28.446</td><td>0.391</td><td>0.0</td><td>0.8</td><td>0.8</td><td>39.4</td><td>O K</td></tr><tr><td>960 min Summer</td><td>28.446</td><td>0.391</td><td>0.0</td><td>0.8</td><td>0.8</td><td>39.4</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>28.441</td><td>0.386</td><td>0.0</td><td>0.8</td><td>0.8</td><td>38.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>28.427</td><td>0.372</td><td>0.0</td><td>0.8</td><td>0.8</td><td>35.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>28.413</td><td>0.358</td><td>0.0</td><td>0.8</td><td>0.8</td><td>33.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>28.384</td><td>0.329</td><td>0.0</td><td>0.7</td><td>0.7</td><td>27.9</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>28.357</td><td>0.302</td><td>0.0</td><td>0.7</td><td>0.7</td><td>23.5</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>28.333</td><td>0.278</td><td>0.0</td><td>0.7</td><td>0.7</td><td>19.9</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>28.311</td><td>0.256</td><td>0.0</td><td>0.6</td><td>0.6</td><td>16.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>28.290</td><td>0.235</td><td>0.0</td><td>0.6</td><td>0.6</td><td>14.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>28.290</td><td>0.235</td><td>0.0</td><td>0.6</td><td>0.6</td><td>14.2</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Discharge Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>38.694</td><td>0.0</td><td>14.7</td><td>26</td></tr><tr><td>30 min Summer</td><td>25.495</td><td>0.0</td><td>20.5</td><td>40</td></tr><tr><td>60 min Summer</td><td>16.200</td><td>0.0</td><td>27.1</td><td>68</td></tr><tr><td>120 min Summer</td><td>10.090</td><td>0.0</td><td>34.6</td><td>126</td></tr><tr><td>180 min Summer</td><td>7.612</td><td>0.0</td><td>39.6</td><td>184</td></tr><tr><td>240 min Summer</td><td>6.224</td><td>0.0</td><td>43.4</td><td>244</td></tr><tr><td>360 min Summer</td><td>4.662</td><td>0.0</td><td>49.1</td><td>358</td></tr><tr><td>480 min Summer</td><td>3.796</td><td>0.0</td><td>53.5</td><td>412</td></tr><tr><td>600 min Summer</td><td>3.236</td><td>0.0</td><td>57.1</td><td>476</td></tr><tr><td>720 min Summer</td><td>2.840</td><td>0.0</td><td>60.2</td><td>538</td></tr><tr><td>960 min Summer</td><td>2.311</td><td>0.0</td><td>65.4</td><td>674</td></tr><tr><td>1440 min Summer</td><td>1.729</td><td>0.0</td><td>73.3</td><td>952</td></tr><tr><td>2160 min Summer</td><td>1.293</td><td>0.0</td><td>81.8</td><td>1364</td></tr><tr><td>2880 min Summer</td><td>1.052</td><td>0.0</td><td>88.2</td><td>1764</td></tr><tr><td>4320 min Summer</td><td>0.786</td><td>0.0</td><td>97.7</td><td>2552</td></tr><tr><td>5760 min Summer</td><td>0.640</td><td>0.0</td><td>104.6</td><td>3296</td></tr><tr><td>7200 min Summer</td><td>0.546</td><td>0.0</td><td>110.1</td><td>4040</td></tr><tr><td>8640 min Summer</td><td>0.478</td><td>0.0</td><td>114.3</td><td>4760</td></tr><tr><td>10080 min Summer</td><td>0.428</td><td>0.0</td><td>117.8</td><td>5456</td></tr><tr><td>15 min Winter</td><td>38.694</td><td>0.0</td><td>14.7</td><td>26</td></tr></table>								Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Control (1/s)	Max Σ Outflow (1/s)	Max Volume (m³)	Status	15 min Summer	28.289	0.234	0.0	0.6	0.6	14.2	O K	30 min Summer	28.331	0.276	0.0	0.7	0.7	19.6	O K	60 min Summer	28.369	0.314	0.0	0.7	0.7	25.3	O K	120 min Summer	28.402	0.347	0.0	0.8	0.8	31.1	O K	180 min Summer	28.419	0.364	0.0	0.8	0.8	34.2	O K	240 min Summer	28.429	0.374	0.0	0.8	0.8	36.1	O K	360 min Summer	28.439	0.384	0.0	0.8	0.8	37.9	O K	480 min Summer	28.443	0.388	0.0	0.8	0.8	38.7	O K	600 min Summer	28.445	0.390	0.0	0.8	0.8	39.2	O K	720 min Summer	28.446	0.391	0.0	0.8	0.8	39.4	O K	960 min Summer	28.446	0.391	0.0	0.8	0.8	39.4	O K	1440 min Summer	28.441	0.386	0.0	0.8	0.8	38.3	O K	2160 min Summer	28.427	0.372	0.0	0.8	0.8	35.7	O K	2880 min Summer	28.413	0.358	0.0	0.8	0.8	33.0	O K	4320 min Summer	28.384	0.329	0.0	0.7	0.7	27.9	O K	5760 min Summer	28.357	0.302	0.0	0.7	0.7	23.5	O K	7200 min Summer	28.333	0.278	0.0	0.7	0.7	19.9	O K	8640 min Summer	28.311	0.256	0.0	0.6	0.6	16.8	O K	10080 min Summer	28.290	0.235	0.0	0.6	0.6	14.3	O K	15 min Winter	28.290	0.235	0.0	0.6	0.6	14.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	38.694	0.0	14.7	26	30 min Summer	25.495	0.0	20.5	40	60 min Summer	16.200	0.0	27.1	68	120 min Summer	10.090	0.0	34.6	126	180 min Summer	7.612	0.0	39.6	184	240 min Summer	6.224	0.0	43.4	244	360 min Summer	4.662	0.0	49.1	358	480 min Summer	3.796	0.0	53.5	412	600 min Summer	3.236	0.0	57.1	476	720 min Summer	2.840	0.0	60.2	538	960 min Summer	2.311	0.0	65.4	674	1440 min Summer	1.729	0.0	73.3	952	2160 min Summer	1.293	0.0	81.8	1364	2880 min Summer	1.052	0.0	88.2	1764	4320 min Summer	0.786	0.0	97.7	2552	5760 min Summer	0.640	0.0	104.6	3296	7200 min Summer	0.546	0.0	110.1	4040	8640 min Summer	0.478	0.0	114.3	4760	10080 min Summer	0.428	0.0	117.8	5456	15 min Winter	38.694	0.0	14.7	26
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Control (1/s)	Max Σ Outflow (1/s)	Max Volume (m³)	Status																																																																																																																																																																																																																																																																																	
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480 min Summer	3.796	0.0	53.5	412																																																																																																																																																																																																																																																																																				
600 min Summer	3.236	0.0	57.1	476																																																																																																																																																																																																																																																																																				
720 min Summer	2.840	0.0	60.2	538																																																																																																																																																																																																																																																																																				
960 min Summer	2.311	0.0	65.4	674																																																																																																																																																																																																																																																																																				
1440 min Summer	1.729	0.0	73.3	952																																																																																																																																																																																																																																																																																				
2160 min Summer	1.293	0.0	81.8	1364																																																																																																																																																																																																																																																																																				
2880 min Summer	1.052	0.0	88.2	1764																																																																																																																																																																																																																																																																																				
4320 min Summer	0.786	0.0	97.7	2552																																																																																																																																																																																																																																																																																				
5760 min Summer	0.640	0.0	104.6	3296																																																																																																																																																																																																																																																																																				
7200 min Summer	0.546	0.0	110.1	4040																																																																																																																																																																																																																																																																																				
8640 min Summer	0.478	0.0	114.3	4760																																																																																																																																																																																																																																																																																				
10080 min Summer	0.428	0.0	117.8	5456																																																																																																																																																																																																																																																																																				
15 min Winter	38.694	0.0	14.7	26																																																																																																																																																																																																																																																																																				
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99 South Street Eastbourne BN20 4LU			E9427 Farmers Stores Goddards Green BN6 9LE Area C 1:2 @1.31/s				
Date 14/08/2025 14:18 File LOWER AUG 2025.SRCX			Designed by SWP Ltd Checked by SWP Ltd				
Micro Drainage			Source Control 2020.1.3				
<u>Summary of Results for 2 year Return Period</u>							
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	28.331	0.276	0.0	0.7	0.7	19.6	O K
60 min Winter	28.369	0.314	0.0	0.7	0.7	25.4	O K
120 min Winter	28.403	0.348	0.0	0.8	0.8	31.1	O K
180 min Winter	28.420	0.365	0.0	0.8	0.8	34.3	O K
240 min Winter	28.430	0.375	0.0	0.8	0.8	36.2	O K
360 min Winter	28.440	0.385	0.0	0.8	0.8	38.1	O K
480 min Winter	28.443	0.388	0.0	0.8	0.8	38.8	O K
600 min Winter	28.444	0.389	0.0	0.8	0.8	39.0	O K
720 min Winter	28.445	0.390	0.0	0.8	0.8	39.1	O K
960 min Winter	28.443	0.388	0.0	0.8	0.8	38.7	O K
1440 min Winter	28.432	0.377	0.0	0.8	0.8	36.5	O K
2160 min Winter	28.409	0.354	0.0	0.8	0.8	32.3	O K
2880 min Winter	28.386	0.331	0.0	0.7	0.7	28.2	O K
4320 min Winter	28.342	0.287	0.0	0.7	0.7	21.2	O K
5760 min Winter	28.303	0.248	0.0	0.6	0.6	15.8	O K
7200 min Winter	28.269	0.214	0.0	0.6	0.6	11.8	O K
8640 min Winter	28.240	0.185	0.0	0.5	0.5	8.8	O K
10080 min Winter	28.216	0.161	0.0	0.5	0.5	6.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.495	0.0	20.5	40			
60 min Winter	16.200	0.0	27.1	68			
120 min Winter	10.090	0.0	34.6	124			
180 min Winter	7.612	0.0	39.6	182			
240 min Winter	6.224	0.0	43.4	238			
360 min Winter	4.662	0.0	49.1	348			
480 min Winter	3.796	0.0	53.5	450			
600 min Winter	3.236	0.0	57.1	486			
720 min Winter	2.840	0.0	60.2	562			
960 min Winter	2.311	0.0	65.4	716			
1440 min Winter	1.729	0.0	73.3	1020			
2160 min Winter	1.293	0.0	81.8	1456			
2880 min Winter	1.052	0.0	88.2	1876			
4320 min Winter	0.786	0.0	97.7	2644			
5760 min Winter	0.640	0.0	104.7	3400			
7200 min Winter	0.546	0.0	110.2	4112			
8640 min Winter	0.478	0.0	114.5	4832			
10080 min Winter	0.428	0.0	118.1	5456			
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Micro Drainage		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	2	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.360	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.191

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.064	4	8	0.064	8	12	0.063

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Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 29.025

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	15.6
Membrane Percolation (mm/hr)	1000	Length (m)	48.0
Max Percolation (l/s)	208.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.33	Evaporation (mm/day)	3
Invert Level (m)	28.055	Cap Volume Depth (m)	0.800

Orifice Outflow Control

Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 28.055

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