

Job Title		Date	
Borde Hill Estate, Borde Hill Lane, Haywards Heath, RH17 5JN (Nearest).		30/03/2026	
Item	Surface & Foul Water Technical Response	Job No. E9459	Report No. RE005 A



Introduction

This drainage statement has been produced by Stephen Wilson Partnership Ltd (SWP) under appointment by Alex Goddard – Arley Hill Ventures Ltd. The aim of the document is to provide a description of the surface and foul drainage proposals for the proposed development of a parcel of land within the Borde Hill Estate and respond to comments presented by the Mid-Sussex District Council Flood Risk and Drainage Team (MSDC).

This document should be read in conjunction with the drainage drawings 9459-SWP-ZZ-XX-DP-C-1100 - 1104. Refer to Appendix 1.0

MSDC have provided to sets of comments via email, each comment will be numbered and will be followed by a response from SWP Ltd.

Email from MSDC Flood Risk and Drainage Team (Dated 26.11.2025)

The Flood Risk and Drainage Team have reviewed the submitted information and have the following comments.

It is proposed that surface water is discharged via a three-stage system comprising rainwater harvesting, irrigation, and then unattenuated discharge into a stream. It is proposed that foul water is discharged to the same stream via wastewater treatment plants.

- 1. It is not considered acceptable for surface water runoff to be managed solely through rainwater harvesting or an irrigation system. In addition, unattenuated discharge of surface water into the stream would not be acceptable.*

SWP Response – The surface water drainage strategy for each of the 4no. shepherd huts and single lodge have been amended as follows. As with the previous submission the surface water drainage is designed using a three stage approach

- Stage 1: The harvested water will be reused to supply water to the WC facilities in each of the short stay accommodations.
- Stage 2: An overflow outlet will be included on the harvesting system and will be connected to a gravity fed irrigation system. The irrigation system will be used to supply water to the saplings in

the replanted woodland surrounding the short stay accommodations.

Stage 3: In the event the harvesting system is surcharged, and the Site is subject to further rainfall events, which exceed the usage of water, an additional overflow outlet will be positioned above the Stage 2 outlet. This will connect to a new inspection chamber, which connects to a small geocellular storage tank. A further inspection chamber downstream of the tank will contain a Bespoke FlowBrake SuDS Attenuation Tank Orifice Plate with a 19mmØ orifice. This will restrict the maximum discharge rate to 0.6l/s per shepherd hut, while the balance is attenuated within the tank. Refer to Appendix 2.0 for surface water calculations up to and including the 1:100year event plus a 45% climate change allowance.

2. To ensure the drainage hierarchy is being followed, infiltration testing is required.

SWP Response – The Site is underlain by Weald clay formation, which generally does not provide adequate soakage for infiltration systems. A geotechnical assessment was undertaken by Ashdown Site Investigation, report ref: R16481. Infiltration testing results concluded that infiltration is not a viable option for this Site. Geotechnical Report can be found in Appendix 3.0.

3. No consideration has been provided regarding the impact of a flooded outfall.

SWP Response – The watercourse the Site will discharge to rarely exceeds a water depth of 150mm, the outfall has been positioned 290mm above this depth (total height above watercourse bed is 440mm). However, in the unlikely event that the outfall is flooded the combined flows will back up in the system to manhole C09, with the lowest cover level. Should this occur and water was to overtop this manhole the natural topography of the land owned by the client would guide these flows toward the dry ditch at the north of the Development boundary.

4. Details should be provided that show that the sewage treatment plants have sufficient offsets.

SWP Response – Following investigations by SWP and the Client it has been confirmed by both the treatment plant manufacturer (Marsh Industries) and Building Control (BC) that there are no specific requirements to provide an offset under these circumstances. Confirmation from Marsh Industries can be found in Appendix 5.0 and BC confirmation can be found in Appendix 6.0

5. The applicant needs to demonstrate whether the site meets all the criteria of the EA general binding rules.

SWP Response – Please refer to Appendix 4.0 for general binding rules checklist.

Email from MSDC Flood Risk and Drainage Team (Dated 13.01.2026)

The flood risk and drainage team have reviewed the updated information and email correspondence and have the following comments:

6. *It is agreed that as the areas being attenuated are small a rate larger than the greenfield runoff rate will be required. Calculations need to be provided that demonstrate the required storage and proposed discharge rate. The discharge rate should be kept as low as possible. Please note that the flood risk and drainage team would not accept a rate of 1.2l/s per plot.*

SWP Response – (see point 1 above) In response to the comment that the Flood Risk Team will not accept a rate of 1.2l/s, the discharge rate for each plot has been reduced to 0.6l/s. This has been achieved using a 19mmØ orifice and the provision of a geocellular storage tank for each plot. These amendments can be viewed on the drainage layout drawings in Appendix 1.0 and the surface water calculations in Appendix 2.0.

7. *It is for Building Control to determine the minimum offset distances for the sewage treatment plant. Therefore, any reduction to the minimum offsets would need to be discussed and agreed with them.*

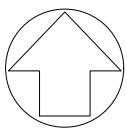
SWP Response – (see point 4 above) Confirmation from Compliance Building Control that no offset requirement is applicable for this Development can be found in Appendix 6.0.

In conclusion, the design of the surface water drainage system has been reviewed and amended based on the comments from the MSDC Flood Risk and Drainage Team and in accordance with the SuDS Manual. SWP believe that these amendments are sufficient for the LLFA to reconsider any objections and for the planning authority to grant planning approval.

Prepared By		Seen By	Date
James Maddin Civil Engineer		Dean Giles Managing Director (SWP Ltd)	30/03/2026
Copy to	Mr Alex Goddard – Arley Hill Ventures Ltd Mr Tim Rodway – Rodway Planning		

Appendix 1.0

Drainage Proposals



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.

COLOURED
DRAWING
REQUEST A COLOURED COPY IF
THIS STAMP IS NOT RED

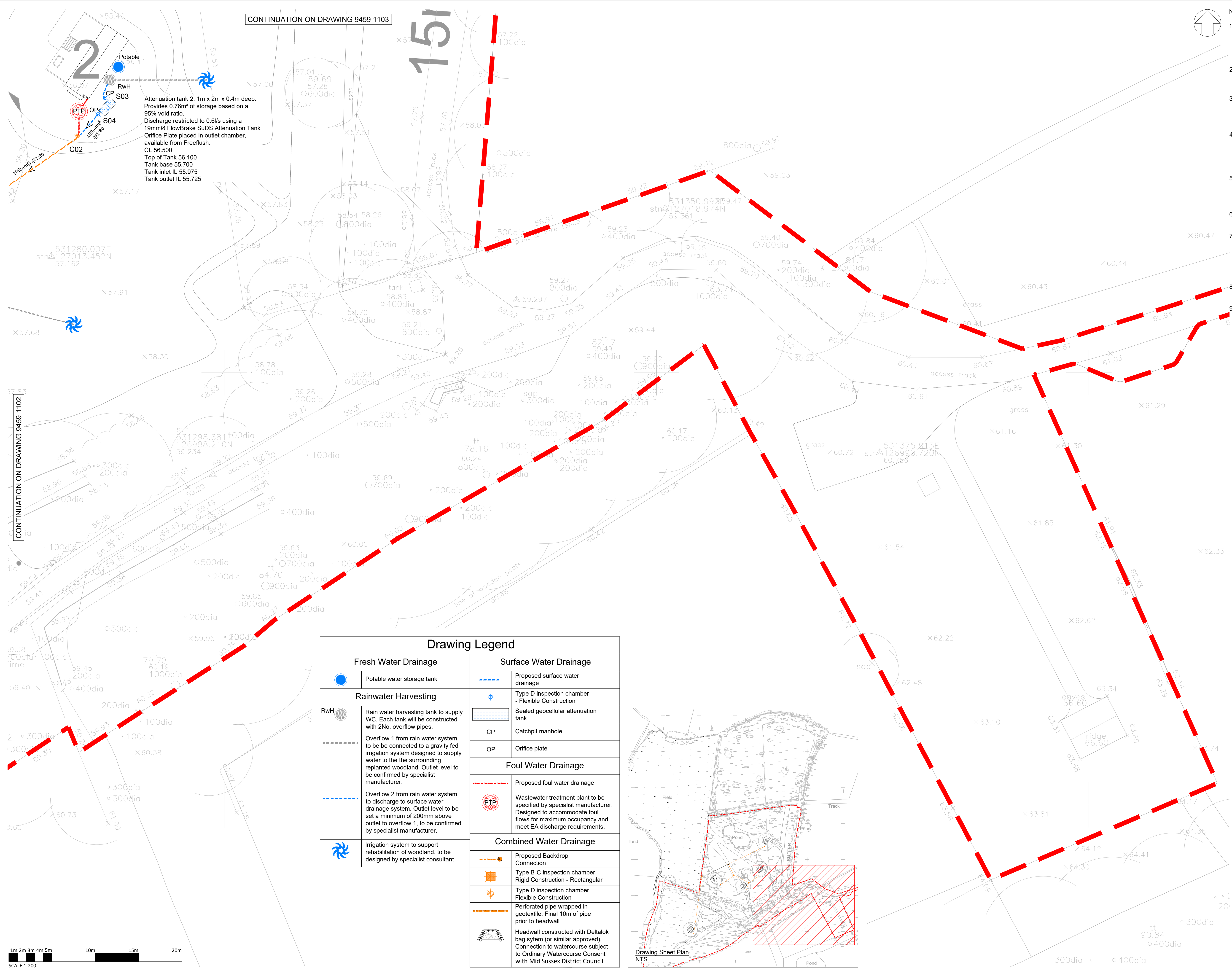
SHEET 4 OF 4
9459-SWP-ZZ-XX-DP-C-1104

SHEET 3 OF 4
9459-SWP-ZZ-XX-DP-C-1103

SHEET 1 OF 4
9459-SWP-ZZ-XX-DP-C-1101

SHEET 2 OF 4
9459-SWP-ZZ-XX-DP-C-1102

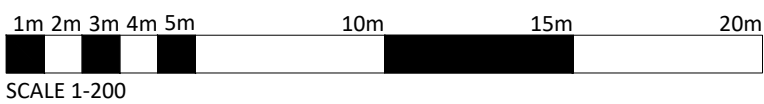
P05	17.03.2026	SURFACE WATER ATTENUATION AND FLOW RESTRICTION ADDED
P04	10.09.2025	DRAWING AMENDED TO SHOW COMBINED SEWERS
P03	01.09.2025	DRAINAGE DESIGN AMENDED IN ACCORDANCE WITH EVOLVED STRATEGY
P02	05.03.2025	TENDER ISSUE
P01	13.12.2024	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION
TENDER		
 STEPHEN WILSON 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	ALEX GODDARD	
ARCHITECT	TOM DUNN ARCHITECTS LTD	
JOB TITLE	BORDE HILL ESTATE HAYWARDS HEATH,	
DRAWING TITLE	PRELIMINARY DRAINAGE DRAWING SHEET PLAN	
SCALE AT A1	DATE	DEC '24
NTS	ENG.	JWM
	CHECKED	DMG
RIBA STATUS	STAGE 4 - TECHNICAL DESIGN	
DRAWING STATUS	S5	DRAWING SUFFICIENCY
JOB No.	TENDER	
E9459	9459-SWP-ZZ-XX-DP-C-1100	
	PROJECT - ORIGINATOR - VOLUME - LEVEL - FORM - DISCIPLINE - NUMBER	REV. P05



CONTINUATION ON DRAWING 9459 1103

CONTINUATION ON DRAWING 9459 1102

Attenuation tank 2: 1m x 2m x 0.4m deep.
Provides 0.76m³ of storage based on a 95% void ratio.
Discharge restricted to 0.6l/s using a 19mmØ FlowBrake SuDS Attenuation Tank Orifice Plate placed in outlet chamber, available from Freeflush.
CL 56.500
Top of Tank 56.100
Tank base 55.700
Tank inlet IL 55.975
Tank outlet IL 55.725

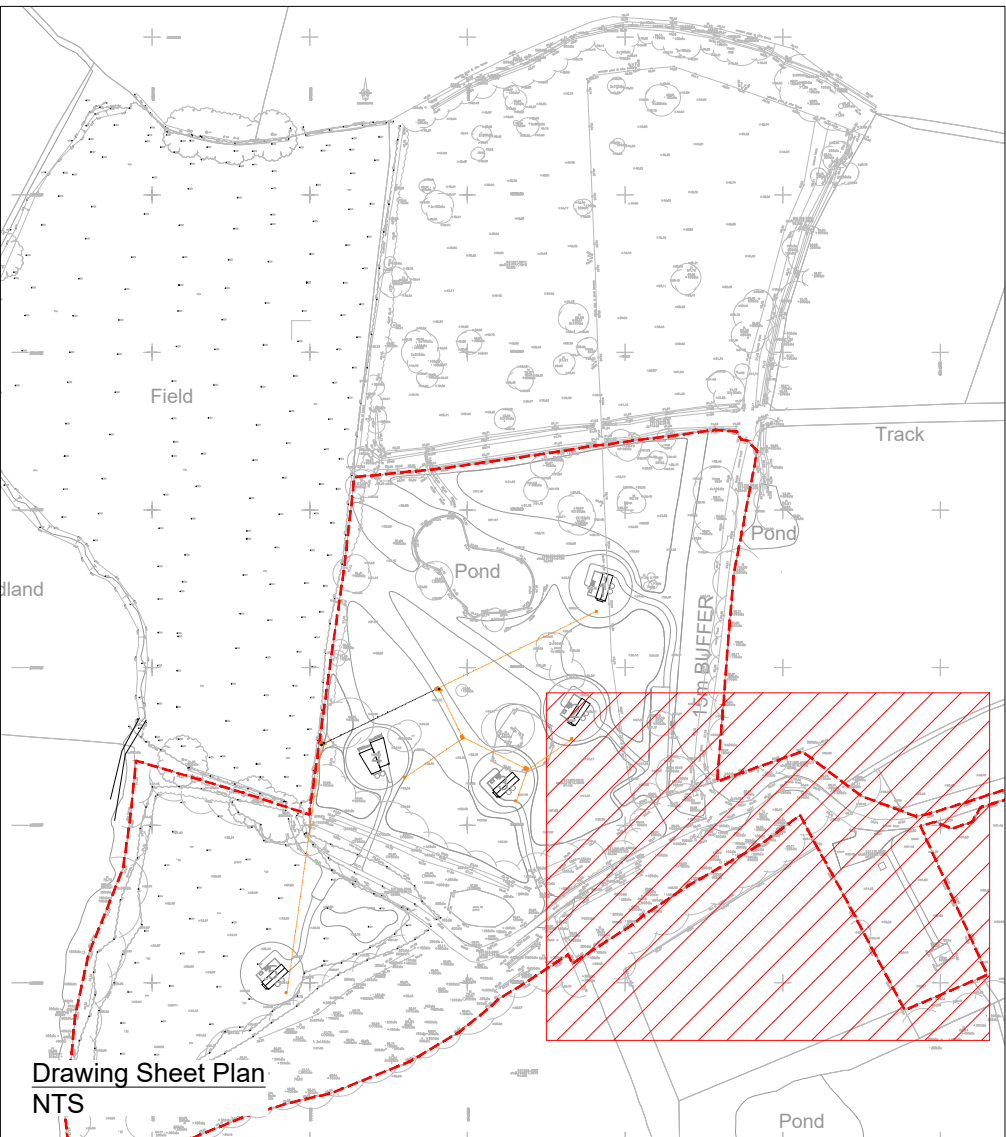


151

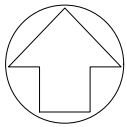
line of wooden posts

Drawing Legend

Fresh Water Drainage		Surface Water Drainage	
	Potable water storage tank		Proposed surface water drainage
Rainwater Harvesting			Type D inspection chamber - Flexible Construction
	RwH Rain water harvesting tank to supply WC. Each tank will be constructed with 2No. overflow pipes.		Sealed geocellular attenuation tank
	Overflow 1 from rain water system to be connected to a gravity fed irrigation system designed to supply water to the surrounding replanted woodland. Outlet level to be confirmed by specialist manufacturer.	CP	Catchpit manhole
	Overflow 2 from rain water system to discharge to surface water drainage system. Outlet level to be set a minimum of 200mm above outlet to overflow 1, to be confirmed by specialist manufacturer.	OP	Orifice plate
	Irrigation system to support rehabilitation of woodland, to be designed by specialist consultant	Foul Water Drainage	
			Proposed foul water drainage
			Wastewater treatment plant to be specified by specialist manufacturer. Designed to accommodate foul flows for maximum occupancy and meet EA discharge requirements.
Combined Water Drainage			
	Proposed Backdrop Connection		Type B-C inspection chamber Rigid Construction - Rectangular
	Type B-C inspection chamber Flexible Construction		Type D inspection chamber Flexible Construction
	Perforated pipe wrapped in geotextile. Final 10m of pipe prior to headwall		Headwall constructed with Deltalok bag system (or similar approved). Connection to watercourse subject to Ordinary Watercourse Consent with Mid Sussex District Council



Drawing Sheet Plan
NTS



NOTES:

- 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.
- 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.
- 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.
- 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.
- 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.
- The main contractor is responsible for all occurrences of ground water during the construction period.
- 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.
- The contractor must comply with all current legislation relating to health & safety.
- 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.

All RWP and SVP numbers and locations are indicative and will be confirmed by the Architect

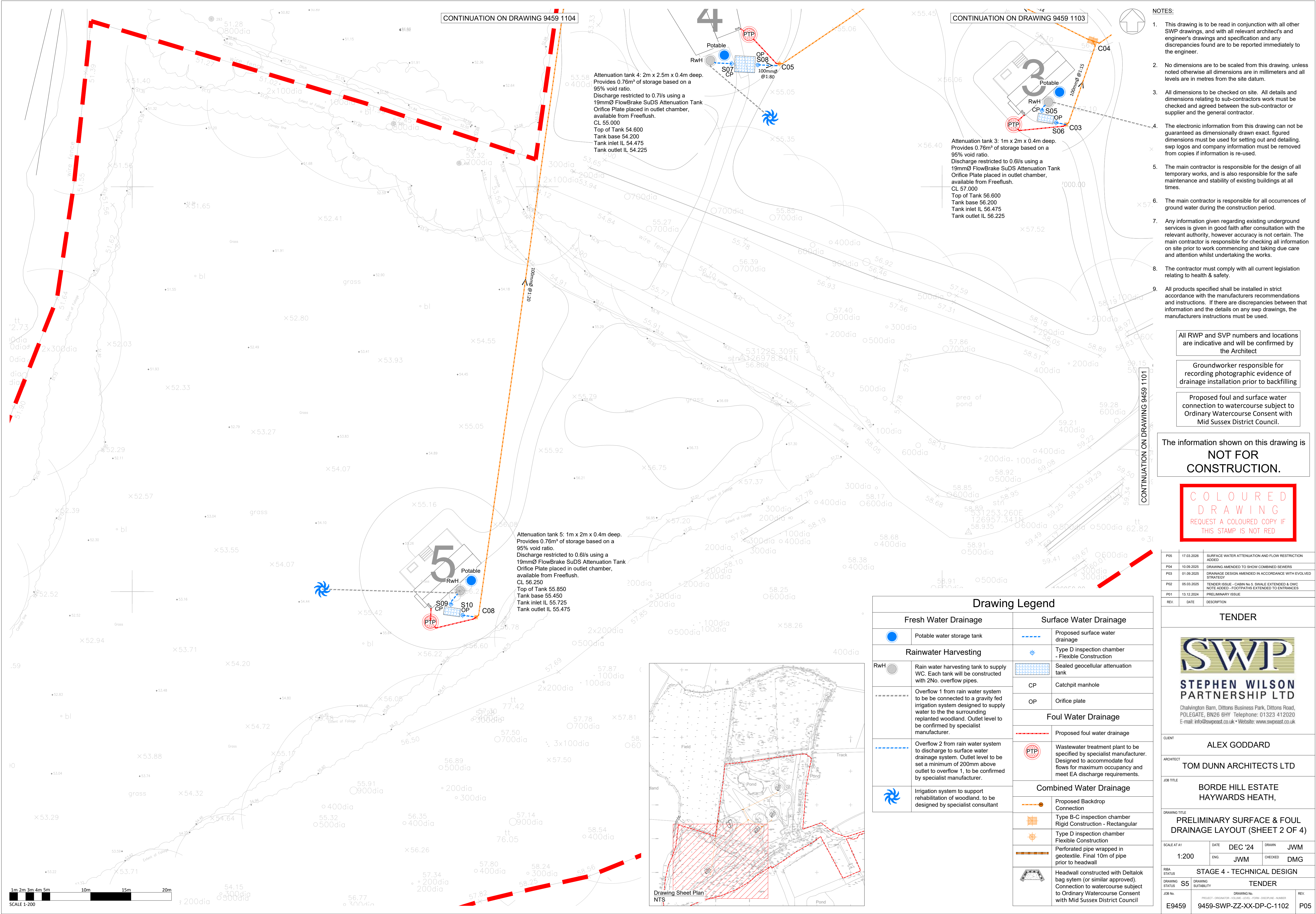
Groundworker responsible for recording photographic evidence of drainage installation prior to backfilling

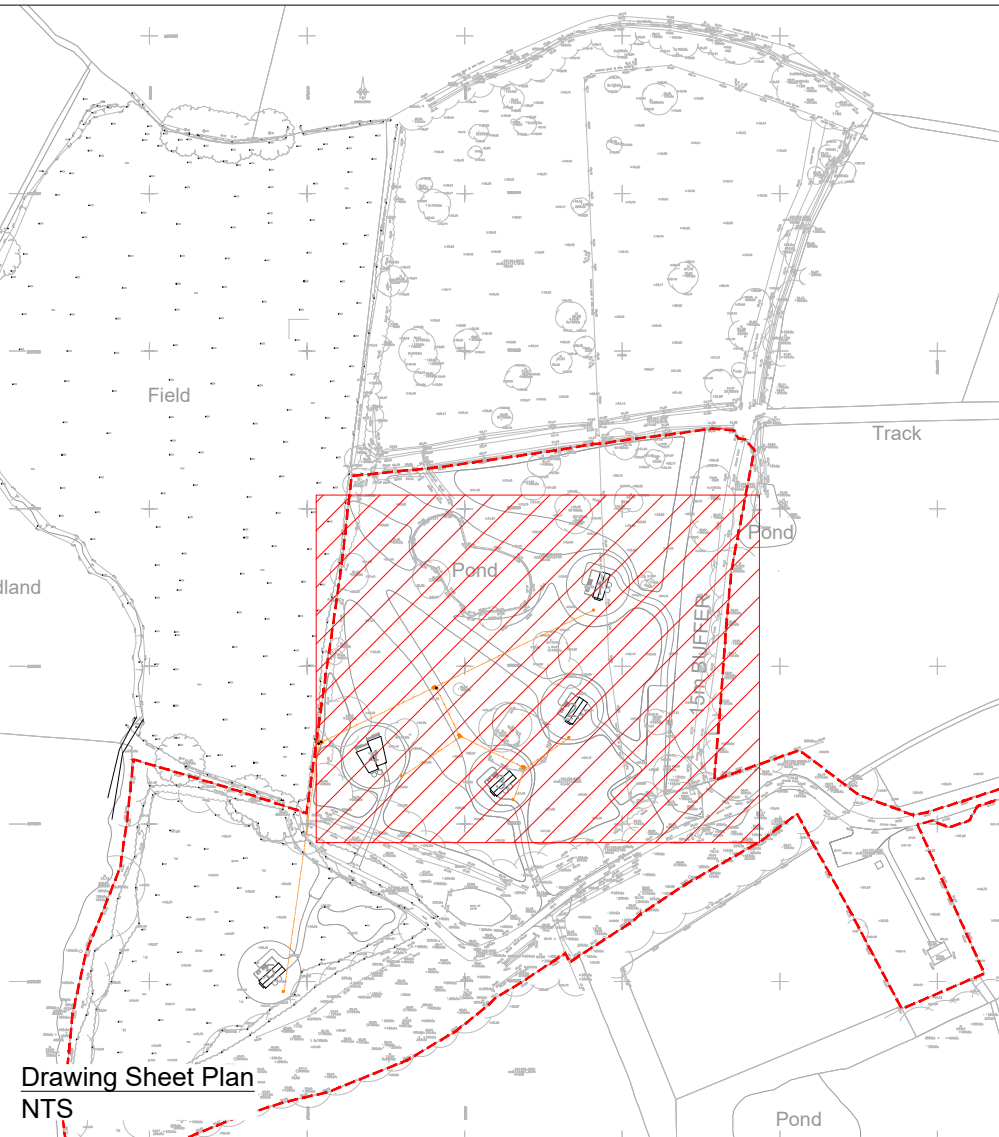
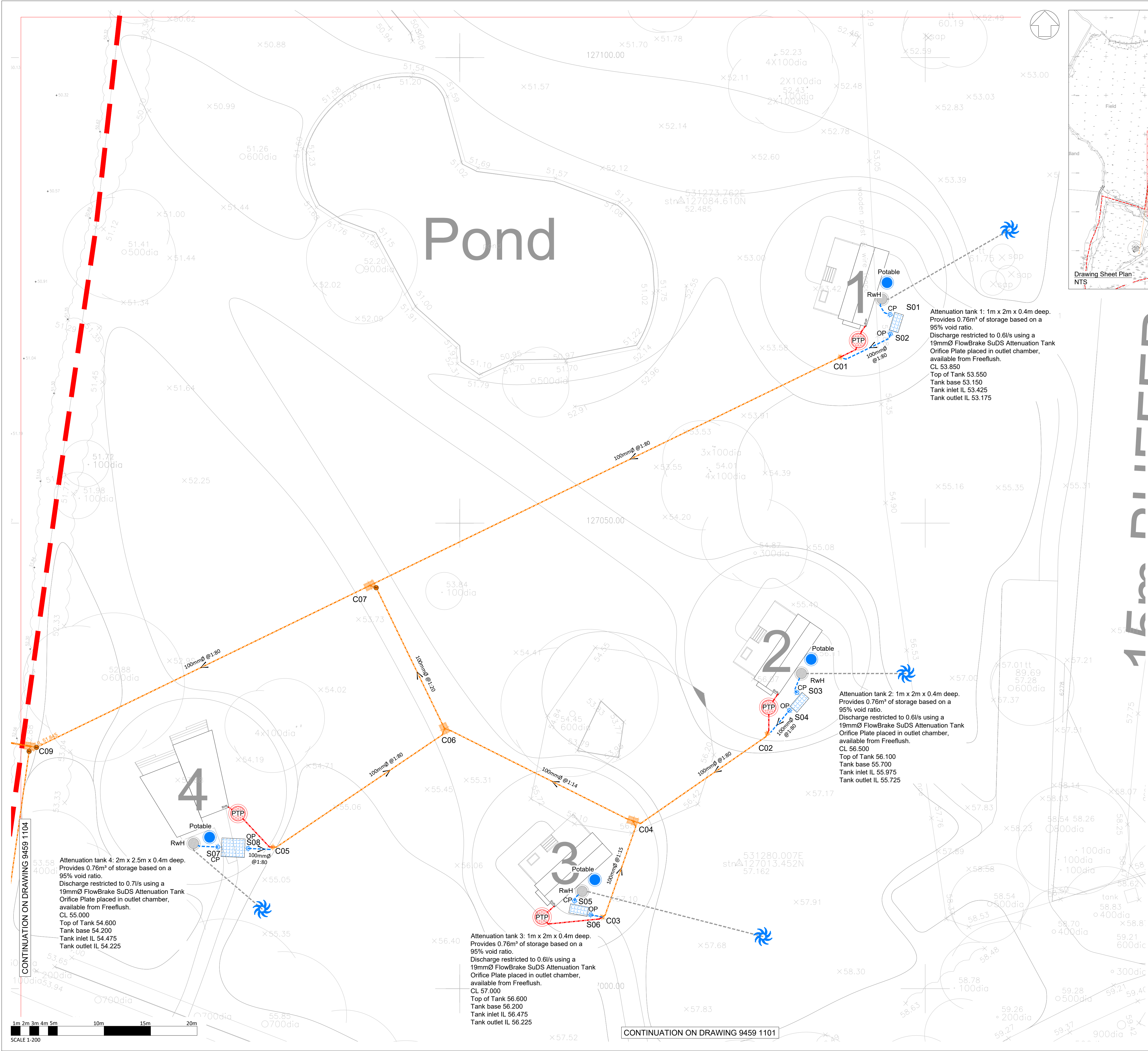
Proposed foul and surface water connection to watercourse subject to Ordinary Watercourse Consent with Mid Sussex District Council.

The information shown on this drawing is
NOT FOR CONSTRUCTION.

**COLOURED
DRAWING**
REQUEST A COLOURED COPY IF
THIS STAMP IS NOT RED

P05	17.03.2028	SURFACE WATER ATTENUATION AND FLOW RESTRICTION
P04	10.09.2025	AUGDED
P04	10.09.2025	DRAWING AMENDED TO SHOW COMBINED SEWERS
P03	01.09.2025	DRAINAGE DESIGN AMENDED IN ACCORDANCE WITH EVOLVED STRATEGY
P02	05.03.2025	TENDER ISSUE - OWC NOTE ADDED & FOOTPATHS EXTENDED TO ENTRANCES
P01	13.12.2024	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION
TENDER		
CLIENT	ALEX GODDARD	
ARCHITECT	TOM DUNN ARCHITECTS LTD	
JOB TITLE	BORDE HILL ESTATE HAYWARDS HEATH,	
DRAWING TITLE	PRELIMINARY SURFACE & FOUL DRAINAGE LAYOUT (SHEET 1 OF 4)	
SCALE AT A1	DATE	DEC '24
1:200	ENG.	JWM
DRAWING STATUS	DRAWING SUBMITTAL	TENDER
JOB No.	PROJECT - ORIGINATOR - VOLUME - LEVEL - FORM - DISCIPLINE - NUMBER	REV.
E9459	9459-SWP-ZX-XX-DP-C-1101	P05





- NOTES:**
- 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - The main contractor is responsible for all occurrences of ground water during the construction period.
 - 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.
 - The contractor must comply with all current legislation relating to health & safety.
 - 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.

All RWP and SVP numbers and locations are indicative and will be confirmed by the Architect

Groundworker responsible for recording photographic evidence of drainage installation prior to backfilling

Proposed foul and surface water connection to watercourse subject to Ordinary Watercourse Consent with Mid Sussex District Council.

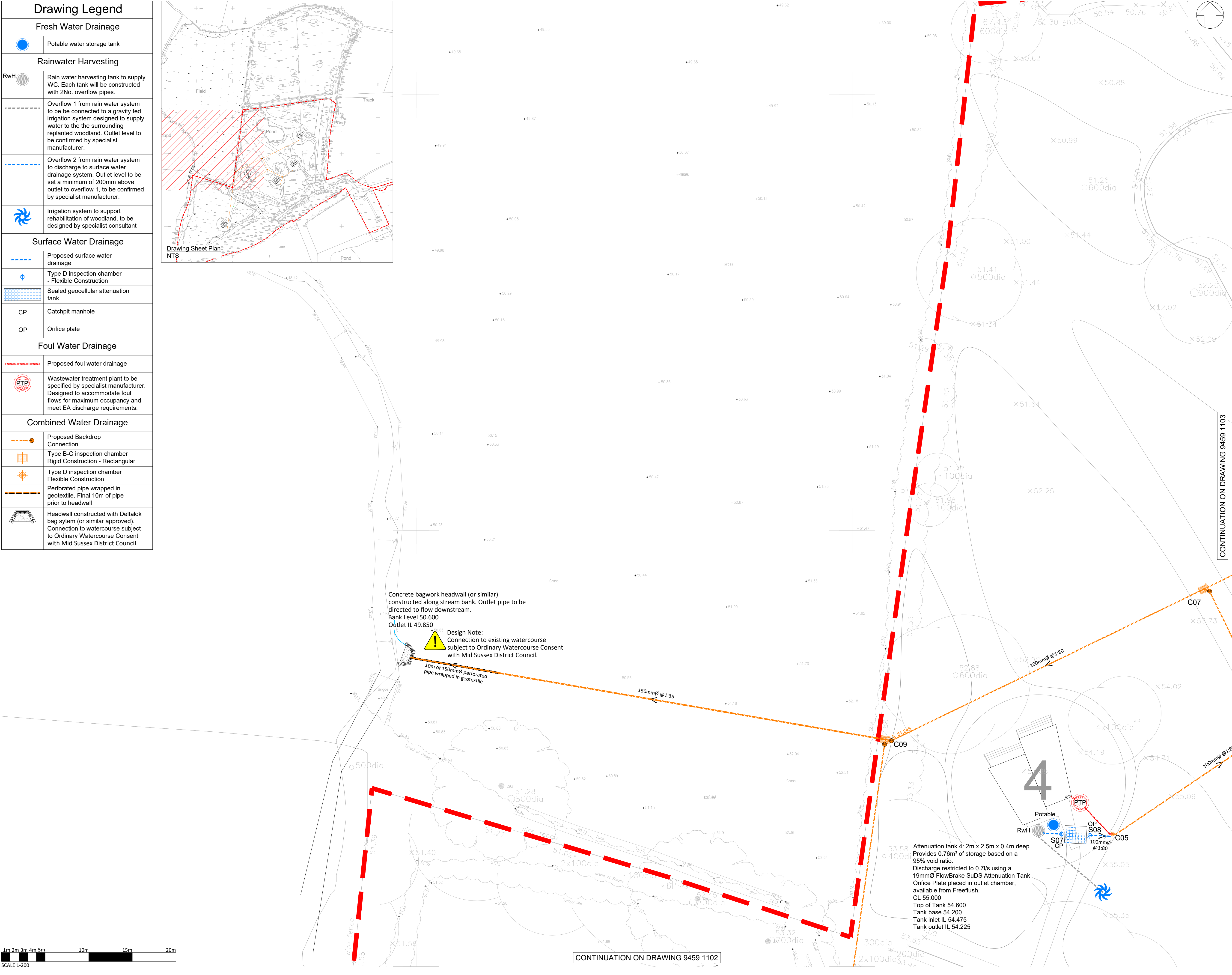
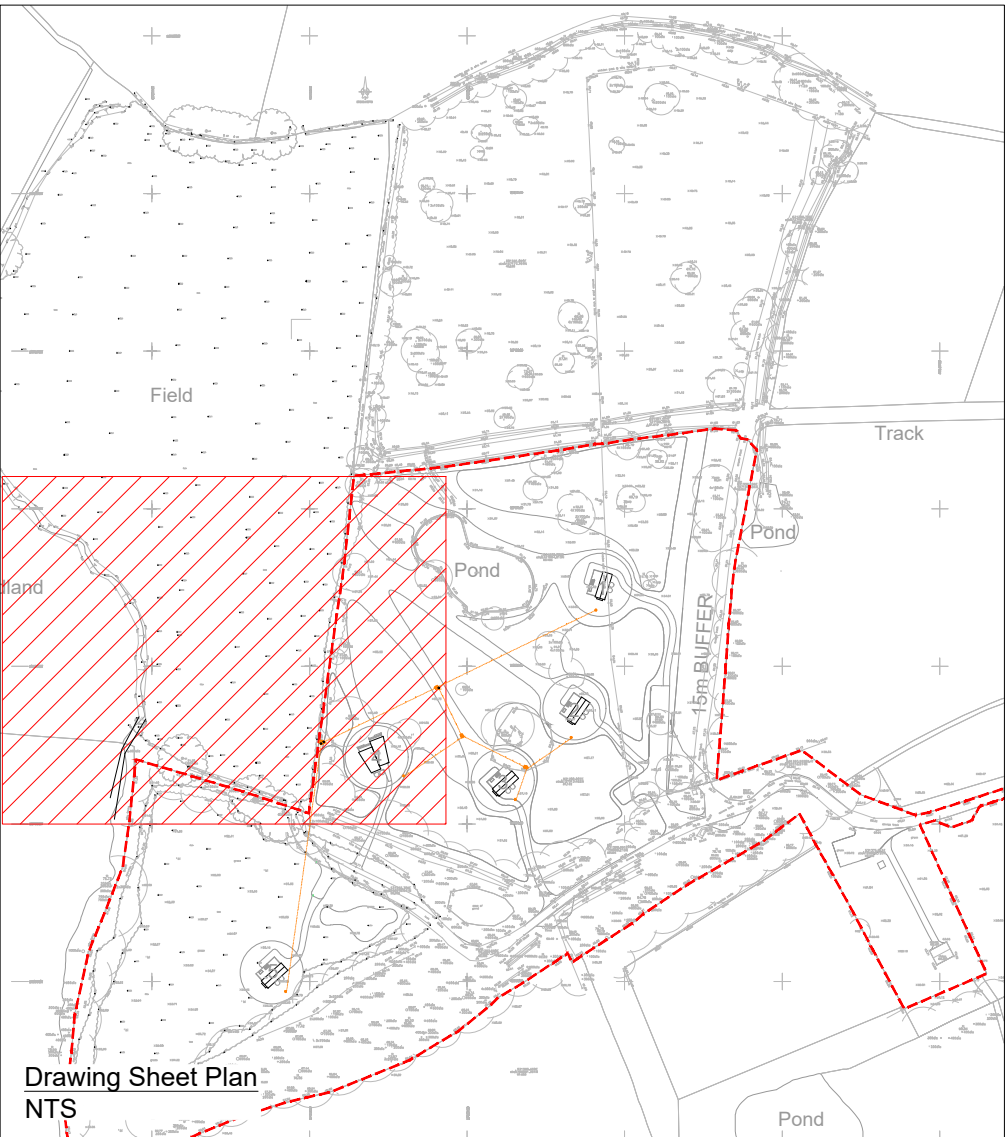
The information shown on this drawing is
NOT FOR CONSTRUCTION.

**COLOURED
DRAWING**
REQUEST A COLOURED COPY IF
THIS STAMP IS NOT RED

Drawing Legend	
Fresh Water Drainage	
	Potable water storage tank
Rainwater Harvesting	
	RwH
	Overflow 1 from rain water system to be connected to a gravity fed irrigation system designed to supply water to the surrounding replanted woodland. Outlet level to be confirmed by specialist manufacturer.
	Overflow 2 from rain water system to discharge to surface water drainage system. Outlet level to be set a minimum of 200mm above outlet to overflow 1, to be confirmed by specialist manufacturer.
	Irrigation system to support rehabilitation of woodland. to be designed by specialist consultant
Surface Water Drainage	
	Proposed surface water drainage
	Type D inspection chamber - Flexible Construction
	Sealed geocellular attenuation tank
	CP
	OP
Foul Water Drainage	
	Proposed foul water drainage
	PTP
Combined Water Drainage	
	Proposed Backdrop Connection
	Type B-C inspection chamber Rigid Construction - Rectangular
	Type D inspection chamber Flexible Construction
	Perforated pipe wrapped in geotextile. Final 10m of pipe prior to headwall
	Headwall constructed with Deltalok bag system (or similar approved) Connection to watercourse subject to Ordinary Watercourse Consent with Mid Sussex District Council

P05	17.03.2028	SURFACE WATER ATTENUATION AND FLOW RESTRICTION
P04	10.09.2025	DRAWING AMENDED TO SHOW COMBINED SEWERS
P03	01.09.2025	DRAINAGE DESIGN AMENDED IN ACCORDANCE WITH EVOLVED STRATEGY
P02	06.03.2025	TENDER ISSUE - GWC NOTE ADDED & FOOTPATHS EXTENDED TO ENTRANCES
P01	13.12.2024	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION
TENDER		
CLIENT	ALEX GODDARD	
ARCHITECT	TOM DUNN ARCHITECTS LTD	
JOB TITLE	BORDE HILL ESTATE HAYWARDS HEATH,	
DRAWING TITLE	PRELIMINARY SURFACE & FOUL DRAINAGE LAYOUT (SHEET 3 OF 4)	
SCALE AT A1	DATE	DRAWN
1:200	DEC '24	JWM
	ENG.	CHECKED
	JWM	DMG
RIBA STATUS	STAGE 4 - TECHNICAL DESIGN	
DRAWING STATUS	S5	DRAWING SUBMITTALITY
JOB No.	TENDER	
E9459	PROJECT - ORIGINATOR - VOLUME - LEVEL - FORM - DISCIPLINE - NUMBER	REV.
	9459-SWP-ZX-XX-DP-C-1103	P05

Drawing Legend	
Fresh Water Drainage	
	Potable water storage tank
Rainwater Harvesting	
	Rain water harvesting tank to supply WC. Each tank will be constructed with 2No. overflow pipes.
	Overflow 1 from rain water system to be connected to a gravity fed irrigation system designed to supply water to the the surrounding replanted woodland. Outlet level to be confirmed by specialist manufacturer.
	Overflow 2 from rain water system to discharge to surface water drainage system. Outlet level to be set a minimum of 200mm above outlet to overflow 1, to be confirmed by specialist manufacturer.
	Irrigation system to support rehabilitation of woodland, to be designed by specialist consultant
Surface Water Drainage	
	Proposed surface water drainage
	Type D inspection chamber - Flexible Construction
	Sealed geocellular attenuation tank
	Catchpit manhole
	Orifice plate
Foul Water Drainage	
	Proposed foul water drainage
	Wastewater treatment plant to be specified by specialist manufacturer. Designed to accommodate foul flows for maximum occupancy and meet EA discharge requirements.
Combined Water Drainage	
	Proposed Backdrop Connection
	Type B-C inspection chamber Rigid Construction - Rectangular
	Type D inspection chamber Flexible Construction
	Perforated pipe wrapped in geotextile. Final 10m of pipe prior to headwall
	Headwall constructed with Deltalok bag sytem (or similar approved). Connection to watercourse subject to Ordinary Watercourse Consent with Mid Sussex District Council



- NOTES:
- 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - The main contractor is responsible for all occurrences of ground water during the construction period.
 - 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.
 - The contractor must comply with all current legislation relating to health & safety.
 - 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.

All RWP and SVP numbers and locations are indicative and will be confirmed by the Architect

Groundworker responsible for recording photographic evidence of drainage installation prior to backfilling

Proposed foul and surface water connection to watercourse subject to Ordinary Watercourse Consent with Mid Sussex District Council.

The information shown on this drawing is
NOT FOR CONSTRUCTION.

**COLOURED
DRAWING**
REQUEST A COLOURED COPY IF
THIS STAMP IS NOT RED

P05	17.03.2026	SURFACE WATER ATTENUATION AND FLOW RESTRICTION
P04	10.09.2025	DRAWING AMENDED TO SHOW COMBINED SEWERS
P03	01.09.2025	DRAINAGE DESIGN AMENDED IN ACCORDANCE WITH EVOLVED STRATEGY
P02	06.03.2025	TENDER ISSUE - OWC NOTE ADDED & FOOTPATHS EXTENDED TO ENTRANCES
P01	13.12.2024	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION

TENDER

SWP
**STEPHEN WILSON
PARTNERSHIP LTD**
Chalvington Barn, Dittons Business Park, Dittons Road,
POLEGATE, BN26 6HY Telephone: 01323 412020
E-mail: info@swpwest.co.uk • Website: www.swpwest.co.uk

CLIENT	ALEX GODDARD
ARCHITECT	TOM DUNN ARCHITECTS LTD
JOB TITLE	BORDE HILL ESTATE HAYWARDS HEATH,

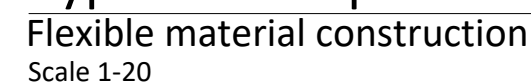
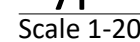
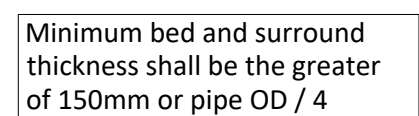
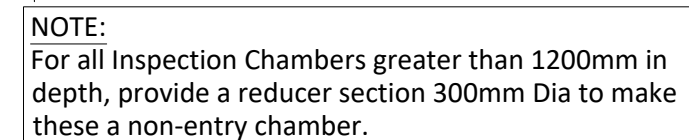
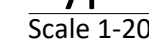
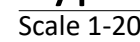
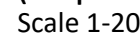
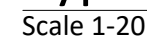
DRAWING TITLE PRELIMINARY SURFACE & FOUL DRAINAGE LAYOUT (SHEET 4 OF 4)			
SCALE AT A1 1:200	DATE DEC '24	DRAWN JWM	CHECKED DMG
RIBA STATUS S3	STAGE 4 - TECHNICAL DESIGN		
DRAWING STATUS S3	TENDER		
JOB No. E9459	DRAWING No. 9459-SWP-ZX-XX-DP-C-1104	REV. P05	

- NOTES:
- 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - The main contractor is responsible for all occurrences of ground water during the construction period.
 - 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.
 - The contractor must comply with all current legislation relating to health & safety.
 - 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.

COLOURED
DRAWING
REQUEST A COLOURED COPY IF
THIS STAMP IS NOT RED

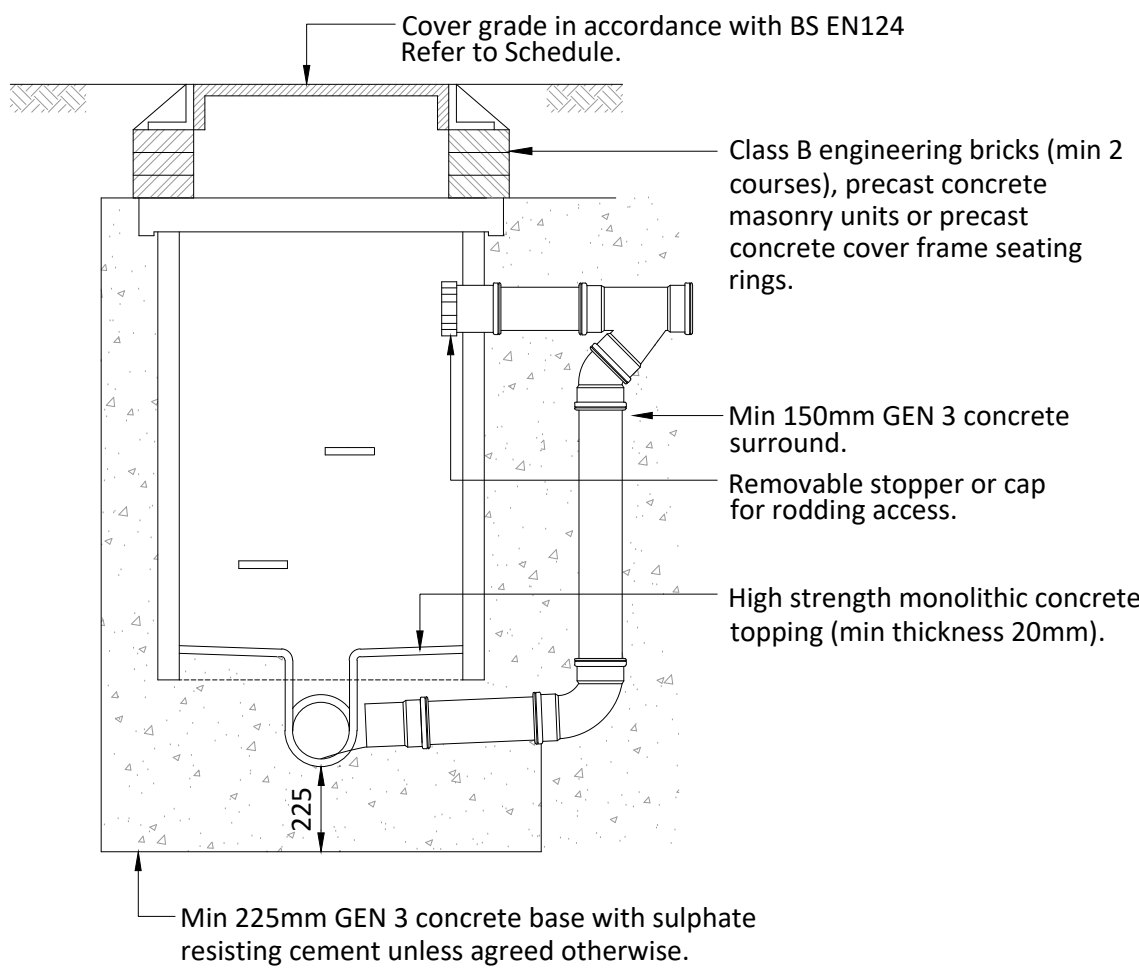
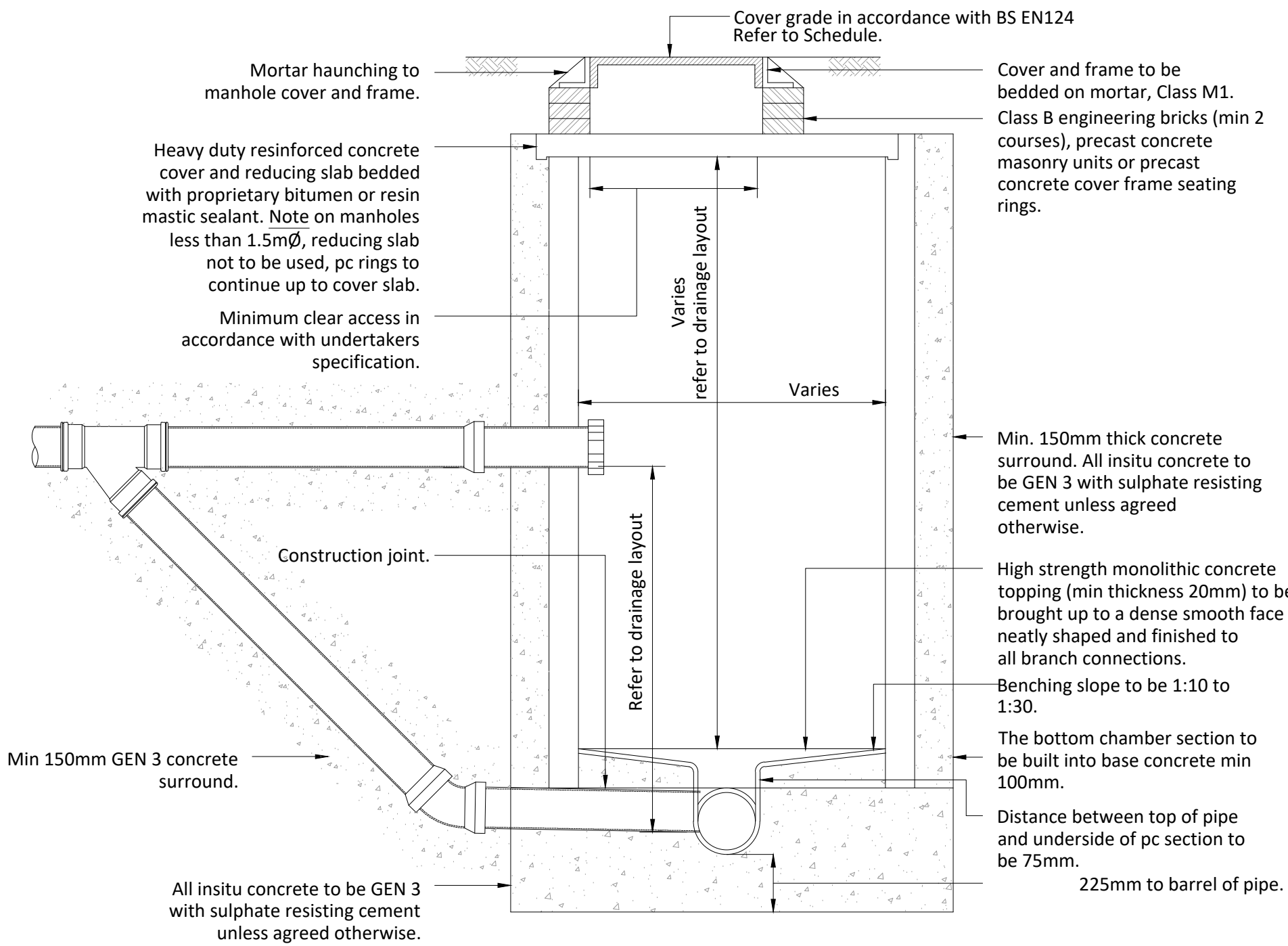
Combined Water Manhole Schedule											
Manhole Ref	Cover Level	Depth to Invert (M)	Depth to Soffit (M)	Pipe Out Dia (mm)	Pipe Out Invert Level	Pipe In Dia (mm)	Pipe In Invert Level	Manhole Type	Manhole Size (mm)	Cover Grade	Notes
C01	53.850	0.800	0.700	100	53.050	100	53.050	PPIC	450	B125	Connection from PTP
						100	53.150				SW connection from tank
C02	56.500	0.865	0.765	100	55.635	100	55.635	PPIC	450	B125	Connection from PTP
						100	55.685				SW connection from tank
C03	57.000	0.840	0.740	100	56.160	100	56.160	PPIC	450	B125	Connection from PTP
						100	56.210				SW connection from tank
C04	56.650	1.230	1.130	100	55.420	100	55.420	PC	1000x675	B125	
						100	55.420				
C05	54.950	0.805	0.705	100	54.145	100	54.145	PPIC	450	B125	Connection from PTP
						100	54.195				SW connection from tank
C06	55.200	1.340	1.240	100	53.860	100	53.860	PC	1000x675	B125	
						100	53.860				
C07	53.600	1.250	1.150	100	52.350	100	52.350	PC	1000x675	B125	
						100	52.985				Backdrop connection
C08	56.500	1.095	0.995	100	55.405	100	55.405	PPIC	600	B125	Connection from PTP
						100	55.455				SW connection from tank
C09	53.000	1.600	1.450	150	51.400	100	51.845	PC	1000x675	B125	Backdrop connection - connects downstream to headwall
						100	51.845				Backdrop connection
Surface Water Manhole Shedule											
Manhole Ref	Cover Level	Depth to Invert (M)	Depth to Soffit (M)	Pipe Out Dia (mm)	Pipe Out Invert Level	Pipe In Dia (mm)	Pipe In Invert Level	Manhole Type	Manhole Size (mm)	Cover Grade	Notes
S01	53.850	0.425	0.325	100	53.425	100	53.425	PPIC	450	B125	Catchpit manhole 300mm sump
S02	53.850	0.675	0.525	150	53.175	100	53.175	PPIC	450	B125	Connection from tank - 19mm flow restriction*
S03	56.500	0.525	0.425	100	55.975	100	55.975	PPIC	450	B125	Catchpit manhole 300mm sump
S04	56.500	0.775	0.675	100	55.725	100	55.725	PPIC	450	B125	Connection from tank - 19mm flow restriction*
S05	57.000	0.525	0.425	100	56.475	100	56.475	PPIC	450	B125	Catchpit manhole 300mm sump
S06	57.000	0.775	0.675	100	56.225	100	56.225	PPIC	450	B125	Connection from tank - 19mm flow restriction*
S07	55.000	0.525	0.425	100	54.475	100	54.475	PPIC	450	B125	Catchpit manhole 300mm sump
S08	55.000	0.775	0.675	100	54.225	100	54.225	PPIC	450	B125	Connection from tank - 19mm flow restriction*
S09	56.250	0.525	0.425	100	55.725	100	55.725	PPIC	450	B125	Catchpit manhole 300mm sump
S10	56.250	0.775	0.675	100	55.475	100	55.475	PPIC	450	B125	Connection from tank - 19mm flow restriction*
* Denotes Bespoke FlowBrake SuDS Attenuation Tank Orifice Plate: available at https://www.freeflush.co.uk/products/flowbrake-suds-attenuation-tank-orifice-plate?variant=40628437680215											

P01	17.03.2026	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION
TENDER		
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	ALEX GODDARD	
ARCHITECT	TOM DUNN ARCHITECTS LTD	
JOB TITLE	BORDE HILL ESTATE HAYWARDS HEATH,	
DRAWING TITLE	SURFACE & FOUL WATER MANHOLE SCHEDULE	
SCALE AT A1	DATE	DRAWN
NTS	MAR' 26	JWM
	ENG.	CHECKED
	JWM	DMG
RIBA STATUS	STAGE 4 - TECHNICAL DESIGN	
DRAWING STATUS	S5	DRAWING SUFFICIENCY
	TENDER	
JOB No.	PROJECT - ORIGINATOR - VOLUME - LEVEL - FORM - DISCIPLINE - NUMBER	
E9459	9459-SWP-ZZ-XX-SH-C-1108	REV. P01

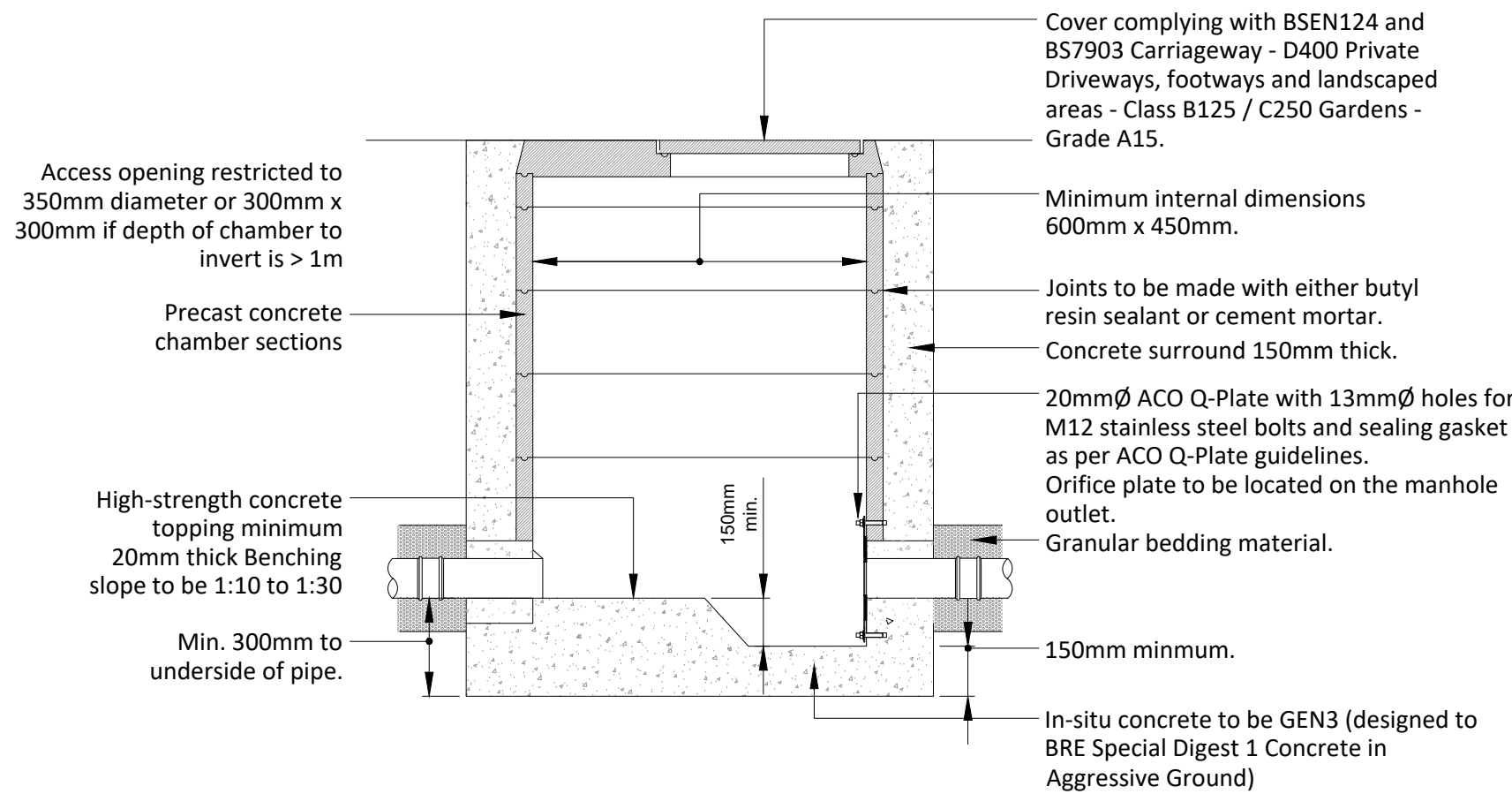


- NOTES:

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 millimetres 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.

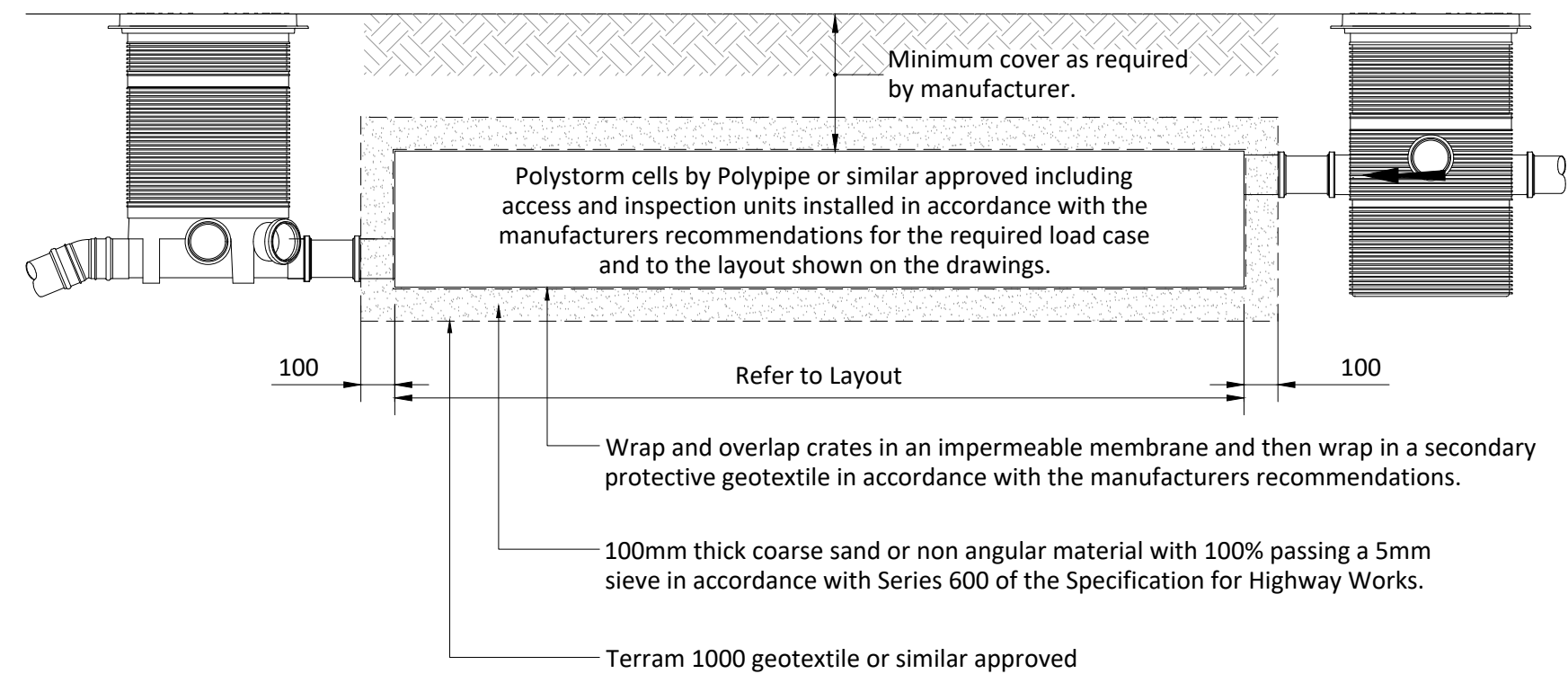


Typical External Backdrop
Scale 1-20

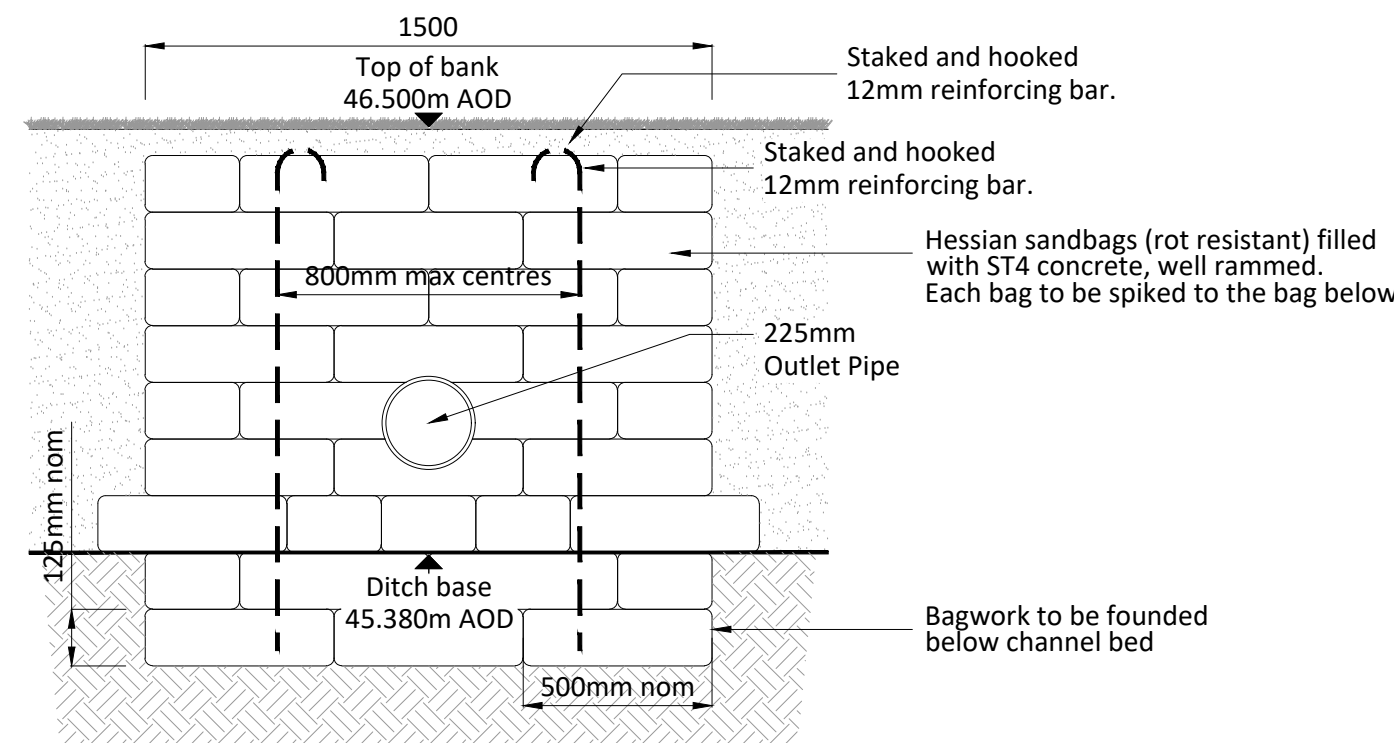


Typical Orifice Plate Detail
Aco Q-Plate or similar approved
Scale 1-20

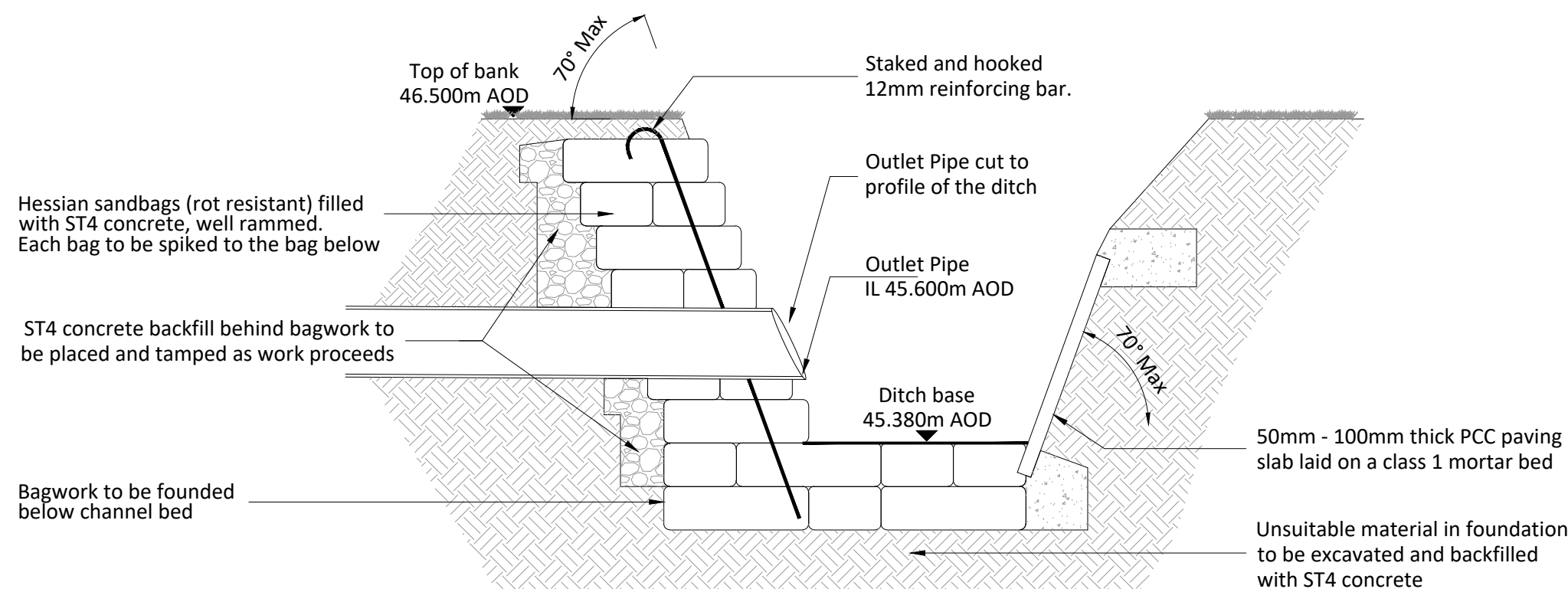
Typical External Ramped Backdrop
Scale 1-20



Typical Attenuation Tank Detail
Sealed Geo-Cellular System
Refer to Plan for Required Layout
Scale 1-20



Elevation of Headwall Outfall to Ditch
In accordance with WSCC standard details
Scale 1-20



Section Through Concrete Bagwork Outfall
In accordance with WSCC standard details
Scale 1-20

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.

P03	17.03.2026	TYPICAL ATTENUATION TANK DETAIL ADDED
P02	05.04.2025	TENDER ISSUE
P01	13.12.2024	PRELIMINARY ISSUE
REV.	DATE	DESCRIPTION
TENDER		
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	ALEX GODDARD	
ARCHITECT	TOM DUNN ARCHITECTS LTD	
JOB TITLE	BORDE HILL ESTATE HAYWARDS HEATH,	
DRAWING TITLE	CONSTRUCTION DETAILS SHEET 2	
SCALE AT A1	DATE	DEC '24
NTS	ENG.	JWM
	CHECKED	DMG
RIBA STATUS	STAGE 4 - TECHNICAL DESIGN	
DRAWING STATUS	S5	DRAWING SUITABILITY TENDER
JOB No.	PROJECT - ORIGINATOR - VOLUME - LEVEL - FORM - DISCIPLINE - NUMBER	
E9459	9459-SWP-ZZ-XX-DD-C-5111	
	REV.	P03

Appendix 2.0

Surface water Calculations

Title	Borde Hill Estate	Job No:	E9549
Description :	Surface Water Storage Calculations	By:	JWM
		Date:	Mar-26
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.329

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

Shepherd Hut 1 = 0.6l/s (max.) - restricted using 19mmØ orifice plate

Shepherd Hut 2 = 0.6l/s (max.) - restricted using 19mmØ orifice plate

Shepherd Hut 3 = 0.6l/s (max.) - restricted using 19mmØ orifice plate

Lodge 4 = 0.7l/s (max.) - restricted using 19mmØ orifice plate

Shepherd Hut 5 = 0.6l/s (max.) - restricted using 19mmØ orifice plate

Total Contributing Impermeable Area = 180m² or 0.018Ha

Results

Attenuation for Shepherd Huts 1, 2, 3 & 5 is provided by individual geocellular attenuation tanks 2.0m(L) x 1.0m(W) x 0.4m(deep) and provides 0.76m³ of storage base on a 95% void ratio.

Attenuation for the Lodge (No.4) is provided by individual geocellular attenuation tanks 2.0m(L) x 1.5m(W) x 0.4m(deep) and provides 1.9m³ of storage base on a 95% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd		Page 1
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	100	PIMP (%)	100
M5-60 (mm)	20.000	Add Flow / Climate Change (%)	0
Ratio R	0.329	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.005	4-8	0.006	8-12	0.005	12-16	0.002

Total Area Contributing (ha) = 0.018

Total Pipe Volume (m³) = 3.083

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	1.350	0.017	79.4	0.003	12.00	0.0	0.600	o	100	Pipe/Conduit	
1.001	0.500	0.006	83.3	0.000	0.00	0.0	0.600	o	100	Pipe/Conduit	
1.002	5.900	0.075	78.7	0.000	0.00	0.0	0.600	o	100	Pipe/Conduit	
1.003	56.150	0.700	80.2	0.000	0.00	0.0	0.600	o	100	Pipe/Conduit	
2.000	1.350	0.017	79.4	0.003	12.00	0.0	0.600	o	100	Pipe/Conduit	
2.001	0.500	0.006	83.3	0.000	0.00	0.0	0.600	o	100	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	I.Area (ha)	Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	12.03	53.440	0.003	0.0	0.0	0.0	0.86	6.8	0.4
1.001	50.00	12.04	53.425	0.003	0.0	0.0	0.0	0.84	6.6	0.4
1.002	50.00	12.15	53.175	0.003	0.0	0.0	0.0	0.87	6.8	0.4
1.003	50.00	13.24	53.050	0.003	0.0	0.0	0.0	0.86	6.8	0.4
2.000	50.00	12.03	55.990	0.003	0.0	0.0	0.0	0.86	6.8	0.4
2.001	50.00	12.04	55.975	0.003	0.0	0.0	0.0	0.84	6.6	0.4

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
5.003	80.100	3.560	22.5	0.000	0.00	0.0	0.600	o	100	Pipe/Conduit	
1.005	45.000	1.550	29.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
5.003	50.00	12.88	55.405	0.003	0.0	0.0	0.0	1.63	12.8	0.4
1.005	50.00	14.42	51.400	0.018	0.0	0.0	0.0	1.88	33.1	2.4

Stephen Wilson Partnership Ltd		Page 5
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:37 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage	Network 2017.1.2	

Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
C07	53.600	1.250	Open Manhole	1000 x 675	1.004	52.350	100	4.003	53.860	100	
								1.003	52.350	100	
								2.005	52.985	100	635
RwH 5	56.250	0.510	Open Manhole		5.000	55.740	100				
S09	56.250	0.527	Junction	0	5.001	55.725	100	5.000	55.723	100	
S10	56.250	0.775	Open Manhole	450	5.002	55.475	100	5.001	55.719	100	244
C08	56.500	1.095	Open Manhole	600	5.003	55.405	100	5.002	55.455	100	50
C09	53.000	1.600	Open Manhole	1000 x 675	1.005	51.400	150	1.004	51.845	100	395
								5.003	51.845	100	395
Headwall	50.600	0.750	Open Manhole	0		OUTFALL		1.005	49.850	150	

Stephen Wilson Partnership Ltd		Page 6
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	100	RwH 1	53.850	53.440	0.310	Open Manhole	450
1.001	o	100	S01	53.850	53.425	0.325	Junction	
1.002	o	100	S02	53.850	53.175	0.575	Open Manhole	450
1.003	o	100	C01	53.850	53.050	0.700	Open Manhole	450
2.000	o	100	RwH 2	56.500	55.990	0.410	Open Manhole	450
2.001	o	100	S03	56.500	55.975	0.425	Junction	
2.002	o	100	S04	56.500	55.725	0.675	Open Manhole	450
2.003	o	100	C02	56.500	55.635	0.765	Open Manhole	450
3.000	o	100	RwH 3	57.000	56.490	0.410	Open Manhole	450
3.001	o	100	S05	57.000	56.475	0.425	Junction	
3.002	o	100	S06	57.000	56.225	0.675	Open Manhole	450
3.003	o	100	C03	57.000	56.160	0.740	Open Manhole	450
2.004	o	100	C04	56.650	55.420	1.130	Open Manhole	1000 x 675
4.000	o	100	RwH 4	55.000	54.490	0.410	Open Manhole	450
4.001	o	100	S07	55.000	54.475	0.425	Junction	
4.002	o	100	S08	55.000	54.225	0.675	Open Manhole	450
4.003	o	100	C05	54.950	54.145	0.705	Open Manhole	450

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	1.350	79.4	S01	53.850	53.423	0.327	Junction	
1.001	0.500	83.3	S02	53.850	53.419	0.331	Open Manhole	450
1.002	5.900	78.7	C01	53.850	53.100	0.650	Open Manhole	450
1.003	56.150	80.2	C07	53.600	52.350	1.150	Open Manhole	1000 x 675
2.000	1.350	79.4	S03	56.500	55.973	0.427	Junction	
2.001	0.500	83.3	S04	56.500	55.969	0.431	Open Manhole	450
2.002	3.200	80.0	C02	56.500	55.685	0.715	Open Manhole	450
2.003	17.600	81.9	C04	56.650	55.420	1.130	Open Manhole	1000 x 675
3.000	1.350	79.4	S05	57.000	56.473	0.427	Junction	
3.001	0.500	83.3	S06	57.000	56.469	0.431	Open Manhole	450
3.002	1.250	83.3	C03	57.000	56.210	0.690	Open Manhole	450
3.003	11.100	15.0	C04	56.650	55.420	1.130	Open Manhole	1000 x 675
2.004	22.500	14.4	C06	55.200	53.860	1.240	Open Manhole	1000 x 675
4.000	1.350	79.4	S07	55.000	54.473	0.427	Junction	
4.001	0.500	83.3	S08	55.000	54.469	0.431	Open Manhole	450
4.002	2.300	76.7	C05	54.950	54.195	0.655	Open Manhole	450
4.003	22.600	79.3	C06	55.200	53.860	1.240	Open Manhole	1000 x 675

Stephen Wilson Partnership Ltd		Page 7
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
2.005	o	100	C06	55.200	53.860	1.240	Open Manhole	1000 x 675
1.004	o	100	C07	53.600	52.350	1.150	Open Manhole	1000 x 675
5.000	o	100	RwH 5	56.250	55.740	0.410	Open Manhole	450
5.001	o	100	S09	56.250	55.725	0.425	Junction	
5.002	o	100	S10	56.250	55.475	0.675	Open Manhole	450
5.003	o	100	C08	56.500	55.405	0.995	Open Manhole	600
1.005	o	150	C09	53.000	51.400	1.450	Open Manhole	1000 x 675

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
2.005	17.500	20.0	C07	53.600	52.985	0.515	Open Manhole	1000 x 675
1.004	40.500	80.2	C09	53.000	51.845	1.055	Open Manhole	1000 x 675
5.000	1.350	79.4	S09	56.250	55.723	0.427	Junction	
5.001	0.500	83.3	S10	56.250	55.719	0.431	Open Manhole	450
5.002	1.300	65.0	C08	56.500	55.455	0.945	Open Manhole	600
5.003	80.100	22.5	C09	53.000	51.845	1.055	Open Manhole	1000 x 675
1.005	45.000	29.0	Headwall	50.600	49.850	0.600	Open Manhole	0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.005	Headwall	50.600	49.850	0.000	0	0

Stephen Wilson Partnership Ltd		Page 8
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Network 2017.1.2		
<u>Simulation Criteria for Storm</u> Volumetric Runoff Coeff 0.750 Additional Flow - % of Total Flow 0.000 Areal Reduction Factor 1.000 MADD Factor * 10m³/ha Storage 2.000 Hot Start (mins) 0 Inlet Coefficient 0.800 Hot Start Level (mm) 0 Flow per Person per Day (l/per/day) 0.000 Manhole Headloss Coeff (Global) 0.500 Run Time (mins) 60 Foul Sewage per hectare (l/s) 0.000 Output Interval (mins) 1 Number of Input Hydrographs 0 Number of Storage Structures 5 Number of Online Controls 5 Number of Time/Area Diagrams 0 Number of Offline Controls 0 Number of Real Time Controls 0 <u>Synthetic Rainfall Details</u> Rainfall Model FSR Profile Type Summer Return Period (years) 100 Cv (Summer) 0.750 Region England and Wales Cv (Winter) 0.840 M5-60 (mm) 20.000 Storm Duration (mins) 30 Ratio R 0.329		
©1982-2017 XP Solutions		

Stephen Wilson Partnership Ltd		Page 9
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2
<u>Online Controls for Storm</u> <u>Orifice Manhole: S02, DS/PN: 1.002, Volume (m³): 0.1</u> Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 53.175 <u>Orifice Manhole: S04, DS/PN: 2.002, Volume (m³): 0.1</u> Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.725 <u>Orifice Manhole: S06, DS/PN: 3.002, Volume (m³): 0.1</u> Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 56.225 <u>Orifice Manhole: S08, DS/PN: 4.002, Volume (m³): 0.1</u> Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 54.225 <u>Orifice Manhole: S10, DS/PN: 5.002, Volume (m³): 0.1</u> Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.475		
©1982-2017 XP Solutions		

Stephen Wilson Partnership Ltd		Page 10																																																																								
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations																																																																									
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd																																																																									
Micro Drainage		Network 2017.1.2																																																																								
Storage Structures for Storm Cellular Storage Manhole: S01, DS/PN: 1.001 Invert Level (m) 53.175 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr><tr><td>0.000</td><td>2.0</td><td>2.0</td><td>0.401</td><td>0.0</td><td>4.4</td></tr><tr><td>0.400</td><td>2.0</td><td>4.4</td><td></td><td></td><td></td></tr></table> Cellular Storage Manhole: S03, DS/PN: 2.001 Invert Level (m) 55.725 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr><tr><td>0.000</td><td>2.0</td><td>2.0</td><td>0.401</td><td>0.0</td><td>4.4</td></tr><tr><td>0.400</td><td>2.0</td><td>4.4</td><td></td><td></td><td></td></tr></table> Cellular Storage Manhole: S05, DS/PN: 3.001 Invert Level (m) 56.225 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr><tr><td>0.000</td><td>2.0</td><td>2.0</td><td>0.401</td><td>0.0</td><td>4.4</td></tr><tr><td>0.400</td><td>2.0</td><td>4.4</td><td></td><td></td><td></td></tr></table> Cellular Storage Manhole: S07, DS/PN: 4.001 Invert Level (m) 54.225 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr><tr><td>0.000</td><td>5.0</td><td>5.0</td><td>0.401</td><td>0.0</td><td>8.6</td></tr><tr><td>0.400</td><td>5.0</td><td>8.6</td><td></td><td></td><td></td></tr></table> Cellular Storage Manhole: S09, DS/PN: 5.001 Invert Level (m) 55.475 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	2.0	2.0	0.401	0.0	4.4	0.400	2.0	4.4				Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	2.0	2.0	0.401	0.0	4.4	0.400	2.0	4.4				Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	2.0	2.0	0.401	0.0	4.4	0.400	2.0	4.4				Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	5.0	5.0	0.401	0.0	8.6	0.400	5.0	8.6			
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)																																																																					
0.000	2.0	2.0	0.401	0.0	4.4																																																																					
0.400	2.0	4.4																																																																								
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)																																																																					
0.000	2.0	2.0	0.401	0.0	4.4																																																																					
0.400	2.0	4.4																																																																								
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)																																																																					
0.000	2.0	2.0	0.401	0.0	4.4																																																																					
0.400	2.0	4.4																																																																								
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)																																																																					
0.000	5.0	5.0	0.401	0.0	8.6																																																																					
0.400	5.0	8.6																																																																								
©1982-2017 XP Solutions																																																																										

Stephen Wilson Partnership Ltd		Page 11
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

Cellular Storage Manhole: S09, DS/PN: 5.001

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Stephen Wilson Partnership Ltd		Page 12	
99 South Street Eastbourne BN20 4LU		E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX		Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2	

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	5
Number of Online Controls	5	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.329
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	20.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	OFF
Inertia Status	OFF

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 45

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	RwH 1	30 Summer	1	+0%	100/60 Summer				53.458
1.001	S01	1440 Summer	1	+0%	100/60 Summer				53.429
1.002	S02	1440 Summer	1	+0%	30/120 Summer				53.187
1.003	C01	1440 Summer	1	+0%					53.052
2.000	RwH 2	30 Summer	1	+0%	100/60 Summer				56.008
2.001	S03	1440 Summer	1	+0%	100/60 Summer				55.979
2.002	S04	1440 Summer	1	+0%	30/120 Summer				55.737
2.003	C02	1440 Summer	1	+0%					55.638
3.000	RwH 3	30 Summer	1	+0%	100/60 Summer				56.508
3.001	S05	1440 Summer	1	+0%	100/60 Summer				56.479
3.002	S06	1440 Summer	1	+0%	30/120 Summer				56.237
3.003	C03	1440 Summer	1	+0%					56.161
2.004	C04	1440 Summer	1	+0%					55.422
4.000	RwH 4	30 Summer	1	+0%	100/30 Summer				54.516
4.001	S07	1440 Summer	1	+0%	100/30 Summer				54.483
4.002	S08	1440 Summer	1	+0%	30/60 Summer				54.243
4.003	C05	1440 Summer	1	+0%					54.150
2.005	C06	1440 Summer	1	+0%					53.865
1.004	C07	1440 Summer	1	+0%					52.361

©1982-2017 XP Solutions

Stephen Wilson Partnership Ltd		Page 13
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
		Depth (m)	Volume (m³)					
1.000	RwH 1	-0.082	0.000	0.08		0.3	OK	
1.001	S01	-0.096	0.000	0.01		0.0	OK*	
1.002	S02	-0.088	0.000	0.01		0.0	OK	
1.003	C01	-0.098	0.000	0.01		0.0	OK	
2.000	RwH 2	-0.082	0.000	0.08		0.3	OK	
2.001	S03	-0.096	0.000	0.01		0.0	OK*	
2.002	S04	-0.088	0.000	0.01		0.0	OK	
2.003	C02	-0.097	0.000	0.01		0.0	OK	
3.000	RwH 3	-0.082	0.000	0.08		0.3	OK	
3.001	S05	-0.096	0.000	0.01		0.0	OK*	
3.002	S06	-0.088	0.000	0.01		0.0	OK	
3.003	C03	-0.099	0.000	0.00		0.0	OK	
2.004	C04	-0.098	0.000	0.00		0.1	OK	
4.000	RwH 4	-0.074	0.000	0.15		0.6	OK	
4.001	S07	-0.092	0.000	0.02		0.1	OK*	
4.002	S08	-0.082	0.000	0.01		0.1	OK	
4.003	C05	-0.095	0.000	0.01		0.1	OK	
2.005	C06	-0.095	0.000	0.01		0.1	OK	
1.004	C07	-0.089	0.000	0.02		0.2	OK	

Stephen Wilson Partnership Ltd		Page 14
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

									Water
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)
5.000	RwH 5	15 Summer	1	+0%	100/60 Summer				55.740
5.001	S09	1440 Summer	1	+0%	100/60 Summer				55.729
5.002	S10	1440 Summer	1	+0%	30/120 Summer				55.486
5.003	C08	1440 Summer	1	+0%					55.406
1.005	C09	1440 Summer	1	+0%					51.404

US/MH		Surcharged Flooded		Pipe		Level	
PN	Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status Exceeded
5.000	RwH 5	-0.100	0.000	0.00		0.0	OK
5.001	S09	-0.096	0.000	0.01		0.0	OK*
5.002	S10	-0.089	0.000	0.01		0.0	OK
5.003	C08	-0.099	0.000	0.00		0.0	OK
1.005	C09	-0.146	0.000	0.01		0.2	OK

Stephen Wilson Partnership Ltd		Page 15	
99 South Street Eastbourne BN20 4LU		E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX		Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	5
Number of Online Controls	5	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.329
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	20.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	OFF
Inertia Status	OFF

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440	Summer and Winter
Return Period(s) (years)	1, 30, 100	
Climate Change (%)	0, 0, 45	

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	RwH 1	30 Summer	30	+0%	100/60 Summer				53.469
1.001	S01	120 Summer	30	+0%	100/60 Summer				53.444
1.002	S02	120 Summer	30	+0%	30/120 Summer				53.307
1.003	C01	120 Summer	30	+0%					53.064
2.000	RwH 2	30 Summer	30	+0%	100/60 Summer				56.019
2.001	S03	120 Summer	30	+0%	100/60 Summer				55.994
2.002	S04	120 Summer	30	+0%	30/120 Summer				55.857
2.003	C02	120 Summer	30	+0%					55.649
3.000	RwH 3	30 Summer	30	+0%	100/60 Summer				56.519
3.001	S05	120 Summer	30	+0%	100/60 Summer				56.494
3.002	S06	120 Summer	30	+0%	30/120 Summer				56.357
3.003	C03	120 Summer	30	+0%					56.170
2.004	C04	120 Summer	30	+0%					55.433
4.000	RwH 4	30 Summer	30	+0%	100/30 Summer				54.532
4.001	S07	240 Summer	30	+0%	100/30 Summer				54.506
4.002	S08	240 Summer	30	+0%	30/60 Summer				54.508
4.003	C05	240 Summer	30	+0%					54.162
2.005	C06	120 Summer	30	+0%					53.879
1.004	C07	120 Summer	30	+0%					52.381

©1982-2017 XP Solutions

Stephen Wilson Partnership Ltd		Page 16
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
		Depth (m)	Volume (m³)					
1.000	RwH 1	-0.071	0.000	0.19		0.7	OK	
1.001	S01	-0.081	0.000	0.08		0.3	OK*	
1.002	S02	0.032	0.000	0.05		0.3	SURCHARGED	
1.003	C01	-0.086	0.000	0.05		0.3	OK	
2.000	RwH 2	-0.071	0.000	0.19		0.7	OK	
2.001	S03	-0.081	0.000	0.08		0.3	OK*	
2.002	S04	0.032	0.000	0.06		0.3	SURCHARGED	
2.003	C02	-0.086	0.000	0.05		0.3	OK	
3.000	RwH 3	-0.071	0.000	0.19		0.7	OK	
3.001	S05	-0.081	0.000	0.08		0.3	OK*	
3.002	S06	0.032	0.000	0.08		0.3	SURCHARGED	
3.003	C03	-0.090	0.000	0.02		0.3	OK	
2.004	C04	-0.087	0.000	0.04		0.6	OK	
4.000	RwH 4	-0.058	0.000	0.38		1.5	OK	
4.001	S07	-0.069	0.000	0.14		0.6	OK*	
4.002	S08	0.183	0.000	0.09		0.5	SURCHARGED	
4.003	C05	-0.083	0.000	0.07		0.5	OK	
2.005	C06	-0.081	0.000	0.08		1.1	OK	
1.004	C07	-0.069	0.000	0.21		1.4	OK	

Stephen Wilson Partnership Ltd		Page 17
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage	Network 2017.1.2	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1)
for Storm

US/MH		Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water
PN	Name								Level (m)
5.000	RwH 5	240	Summer	30	+0%	100/60	Summer		55.742
5.001	S09	120	Summer	30	+0%	100/60	Summer		55.743
5.002	S10	120	Summer	30	+0%	30/120	Summer		55.587
5.003	C08	240	Summer	30	+0%				55.415
1.005	C09	240	Summer	30	+0%				51.421

		Surcharged Flooded				Pipe		
US/MH	Depth	Volume	Flow /	Overflow	Pipe	Level		
PN	Name	(m)	(m³)	Cap.	(l/s)	(l/s)	Status	Exceeded
5.000	RwH 5	-0.098	0.000	0.00		0.0	OK	
5.001	S09	-0.082	0.000	0.08		0.3	OK*	
5.002	S10	0.012	0.000	0.07		0.3	SURCHARGED	
5.003	C08	-0.090	0.000	0.02		0.3	OK	
1.005	C09	-0.129	0.000	0.05		1.6	OK	

Stephen Wilson Partnership Ltd		Page 18	
99 South Street Eastbourne BN20 4LU		E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX		Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Network 2017.1.2	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	5
Number of Online Controls	5	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.329
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	20.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	OFF
Inertia Status	OFF

Profile(s)

Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 45

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	RwH 1	120 Summer	100	+45%	100/60 Summer				53.550
1.001	S01	120 Summer	100	+45%	100/60 Summer				53.550
1.002	S02	60 Summer	100	+45%	30/120 Summer				53.566
1.003	C01	120 Summer	100	+45%					53.069
2.000	RwH 2	120 Summer	100	+45%	100/60 Summer				56.098
2.001	S03	120 Summer	100	+45%	100/60 Summer				56.096
2.002	S04	60 Summer	100	+45%	30/120 Summer				56.112
2.003	C02	120 Summer	100	+45%					55.654
3.000	RwH 3	120 Summer	100	+45%	100/60 Summer				56.598
3.001	S05	120 Summer	100	+45%	100/60 Summer				56.596
3.002	S06	60 Summer	100	+45%	30/120 Summer				56.612
3.003	C03	120 Summer	100	+45%					56.172
2.004	C04	120 Summer	100	+45%					55.437
4.000	RwH 4	120 Summer	100	+45%	100/30 Summer				54.871
4.001	S07	60 Summer	100	+45%	100/30 Summer				54.626
4.002	S08	120 Summer	100	+45%	30/60 Summer				54.869
4.003	C05	120 Summer	100	+45%					54.167
2.005	C06	120 Summer	100	+45%					53.884
1.004	C07	120 Summer	100	+45%					52.390

©1982-2017 XP Solutions

Stephen Wilson Partnership Ltd		Page 19
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage	Network 2017.1.2	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Flooded		Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
		Depth (m)	Volume (m³)					
1.000	RwH 1	0.010	0.000	0.25		1.0	SURCHARGED	
1.001	S01	0.025	0.000	0.17		0.7	FLOOD RISK*	
1.002	S02	0.291	0.000	0.09		0.5	FLOOD RISK	
1.003	C01	-0.081	0.000	0.08		0.5	OK	
2.000	RwH 2	0.008	0.000	0.25		1.0	SURCHARGED	
2.001	S03	0.021	0.000	0.16		0.6	SURCHARGED*	
2.002	S04	0.287	0.000	0.09		0.5	SURCHARGED	
2.003	C02	-0.081	0.000	0.08		0.5	OK	
3.000	RwH 3	0.008	0.000	0.25		1.0	SURCHARGED	
3.001	S05	0.021	0.000	0.16		0.6	SURCHARGED*	
3.002	S06	0.287	0.000	0.13		0.5	SURCHARGED	
3.003	C03	-0.088	0.000	0.04		0.5	OK	
2.004	C04	-0.083	0.000	0.07		1.1	OK	
4.000	RwH 4	0.281	0.000	0.49		1.9	FLOOD RISK	
4.001	S07	0.051	0.000	0.25		1.0	SURCHARGED*	
4.002	S08	0.544	0.000	0.15		0.7	FLOOD RISK	
4.003	C05	-0.078	0.000	0.11		0.7	OK	
2.005	C06	-0.076	0.000	0.13		1.8	OK	
1.004	C07	-0.060	0.000	0.34		2.3	OK	

Stephen Wilson Partnership Ltd		Page 20
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill Estate Haywards Heath Surface Water Calculations	
Date 17/03/2026 16:35 File E9459 Surface Water.MDX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage	Network 2017.1.2	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Water
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	Level (m)
5.000	RwH 5	120 Summer	100	+45%	100/60 Summer				55.847
5.001	S09	120 Summer	100	+45%	100/60 Summer				55.848
5.002	S10	120 Summer	100	+45%	30/120 Summer				55.868
5.003	C08	120 Summer	100	+45%					55.418
1.005	C09	120 Summer	100	+45%					51.430

	US/MH	Depth	Volume	Flow /	Overflow	Pipe		Level
PN	Name	(m)	(m³)	Cap.	(l/s)	Flow (l/s)	Status	Exceeded
5.000	RwH 5	0.007	0.000	0.00		0.0	SURCHARGED	
5.001	S09	0.023	0.000	0.19		0.7	SURCHARGED*	
5.002	S10	0.293	0.000	0.13		0.5	SURCHARGED	
5.003	C08	-0.087	0.000	0.04		0.5	OK	
1.005	C09	-0.120	0.000	0.09		2.8	OK	

Title	Borde Hill Estate	Job No:	E9549
Description :	Surface Water Storage Calculations	By:	JWM
	Shepherd Hut 1	Date:	Mar-26
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.329

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

Shepherd Hut 1 = 0.6l/s (max.) - restricted using 19mmØ orifice plate



Bespoke FlowBrake SuDS Attenuation Tank orifice with 19mmØ orifice

<https://www.freeflush.co.uk/products/flowbrake-suds-attenuation-tank-orifice-plate?variant=40628437680215>

Total Contributing Impermeable Area = 30m² or 0.003Ha

Results

Attenuation is provided by individual geocellular attenuation tanks 2.0m(L) x 1.0m(W) x 0.4m(deep) and provides 0.76m³ of storage base on a 95% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr +45% Climate Change																																																																																																																																																																																																																																																																																					
Date 17/03/2026 13:28 File E9459 Hut 1.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%) Half Drain Time : 14 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>53.422</td><td>0.372</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>53.505</td><td>0.455</td><td>0.0</td><td>0.6</td><td>0.6</td><td>0.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>53.520</td><td>0.470</td><td>0.0</td><td>0.6</td><td>0.6</td><td>0.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>53.434</td><td>0.384</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.7</td><td>O K</td></tr><tr><td>180 min Summer</td><td>53.377</td><td>0.327</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>53.329</td><td>0.279</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>53.261</td><td>0.211</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>480 min Summer</td><td>53.216</td><td>0.166</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>53.185</td><td>0.135</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>53.163</td><td>0.113</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>53.133</td><td>0.083</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>53.103</td><td>0.053</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>53.083</td><td>0.033</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>53.076</td><td>0.026</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>53.071</td><td>0.021</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>53.068</td><td>0.018</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>53.066</td><td>0.016</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>53.065</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>53.064</td><td>0.014</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>53.422</td><td>0.372</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.7</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>133.635</td><td>0.0</td><td>1.0</td><td>14</td></tr><tr><td>30 min Summer</td><td>90.718</td><td>0.0</td><td>1.4</td><td>23</td></tr><tr><td>60 min Summer</td><td>58.739</td><td>0.0</td><td>1.8</td><td>40</td></tr><tr><td>120 min Summer</td><td>36.620</td><td>0.0</td><td>2.2</td><td>74</td></tr><tr><td>180 min Summer</td><td>27.295</td><td>0.0</td><td>2.5</td><td>104</td></tr><tr><td>240 min Summer</td><td>22.033</td><td>0.0</td><td>2.6</td><td>136</td></tr><tr><td>360 min Summer</td><td>16.301</td><td>0.0</td><td>2.9</td><td>196</td></tr><tr><td>480 min Summer</td><td>13.139</td><td>0.0</td><td>3.2</td><td>256</td></tr><tr><td>600 min Summer</td><td>11.105</td><td>0.0</td><td>3.3</td><td>314</td></tr><tr><td>720 min Summer</td><td>9.673</td><td>0.0</td><td>3.5</td><td>376</td></tr><tr><td>960 min Summer</td><td>7.772</td><td>0.0</td><td>3.7</td><td>492</td></tr><tr><td>1440 min Summer</td><td>5.697</td><td>0.0</td><td>4.1</td><td>736</td></tr><tr><td>2160 min Summer</td><td>4.166</td><td>0.0</td><td>4.5</td><td>1100</td></tr><tr><td>2880 min Summer</td><td>3.331</td><td>0.0</td><td>4.8</td><td>1468</td></tr><tr><td>4320 min Summer</td><td>2.426</td><td>0.0</td><td>5.2</td><td>2188</td></tr><tr><td>5760 min Summer</td><td>1.938</td><td>0.0</td><td>5.6</td><td>2864</td></tr><tr><td>7200 min Summer</td><td>1.629</td><td>0.0</td><td>5.9</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.414</td><td>0.0</td><td>6.1</td><td>4312</td></tr><tr><td>10080 min Summer</td><td>1.254</td><td>0.0</td><td>6.3</td><td>5120</td></tr><tr><td>15 min Winter</td><td>133.635</td><td>0.0</td><td>1.0</td><td>15</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	53.422	0.372	0.0	0.5	0.5	0.7	O K	30 min Summer	53.505	0.455	0.0	0.6	0.6	0.8	O K	60 min Summer	53.520	0.470	0.0	0.6	0.6	0.8	O K	120 min Summer	53.434	0.384	0.0	0.5	0.5	0.7	O K	180 min Summer	53.377	0.327	0.0	0.5	0.5	0.6	O K	240 min Summer	53.329	0.279	0.0	0.5	0.5	0.5	O K	360 min Summer	53.261	0.211	0.0	0.4	0.4	0.4	O K	480 min Summer	53.216	0.166	0.0	0.3	0.3	0.3	O K	600 min Summer	53.185	0.135	0.0	0.3	0.3	0.3	O K	720 min Summer	53.163	0.113	0.0	0.3	0.3	0.2	O K	960 min Summer	53.133	0.083	0.0	0.2	0.2	0.2	O K	1440 min Summer	53.103	0.053	0.0	0.2	0.2	0.1	O K	2160 min Summer	53.083	0.033	0.0	0.1	0.1	0.1	O K	2880 min Summer	53.076	0.026	0.0	0.1	0.1	0.0	O K	4320 min Summer	53.071	0.021	0.0	0.1	0.1	0.0	O K	5760 min Summer	53.068	0.018	0.0	0.1	0.1	0.0	O K	7200 min Summer	53.066	0.016	0.0	0.1	0.1	0.0	O K	8640 min Summer	53.065	0.015	0.0	0.0	0.0	0.0	O K	10080 min Summer	53.064	0.014	0.0	0.0	0.0	0.0	O K	15 min Winter	53.422	0.372	0.0	0.5	0.5	0.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	133.635	0.0	1.0	14	30 min Summer	90.718	0.0	1.4	23	60 min Summer	58.739	0.0	1.8	40	120 min Summer	36.620	0.0	2.2	74	180 min Summer	27.295	0.0	2.5	104	240 min Summer	22.033	0.0	2.6	136	360 min Summer	16.301	0.0	2.9	196	480 min Summer	13.139	0.0	3.2	256	600 min Summer	11.105	0.0	3.3	314	720 min Summer	9.673	0.0	3.5	376	960 min Summer	7.772	0.0	3.7	492	1440 min Summer	5.697	0.0	4.1	736	2160 min Summer	4.166	0.0	4.5	1100	2880 min Summer	3.331	0.0	4.8	1468	4320 min Summer	2.426	0.0	5.2	2188	5760 min Summer	1.938	0.0	5.6	2864	7200 min Summer	1.629	0.0	5.9	3672	8640 min Summer	1.414	0.0	6.1	4312	10080 min Summer	1.254	0.0	6.3	5120	15 min Winter	133.635	0.0	1.0	15
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	53.422	0.372	0.0	0.5	0.5	0.7	O K																																																																																																																																																																																																																																																																																	
30 min Summer	53.505	0.455	0.0	0.6	0.6	0.8	O K																																																																																																																																																																																																																																																																																	
60 min Summer	53.520	0.470	0.0	0.6	0.6	0.8	O K																																																																																																																																																																																																																																																																																	
120 min Summer	53.434	0.384	0.0	0.5	0.5	0.7	O K																																																																																																																																																																																																																																																																																	
180 min Summer	53.377	0.327	0.0	0.5	0.5	0.6	O K																																																																																																																																																																																																																																																																																	
240 min Summer	53.329	0.279	0.0	0.5	0.5	0.5	O K																																																																																																																																																																																																																																																																																	
360 min Summer	53.261	0.211	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
480 min Summer	53.216	0.166	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
600 min Summer	53.185	0.135	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
720 min Summer	53.163	0.113	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
960 min Summer	53.133	0.083	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
1440 min Summer	53.103	0.053	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
2160 min Summer	53.083	0.033	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
2880 min Summer	53.076	0.026	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
4320 min Summer	53.071	0.021	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
5760 min Summer	53.068	0.018	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
7200 min Summer	53.066	0.016	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
8640 min Summer	53.065	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
10080 min Summer	53.064	0.014	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
15 min Winter	53.422	0.372	0.0	0.5	0.5	0.7	O K																																																																																																																																																																																																																																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																				
15 min Summer	133.635	0.0	1.0	14																																																																																																																																																																																																																																																																																				
30 min Summer	90.718	0.0	1.4	23																																																																																																																																																																																																																																																																																				
60 min Summer	58.739	0.0	1.8	40																																																																																																																																																																																																																																																																																				
120 min Summer	36.620	0.0	2.2	74																																																																																																																																																																																																																																																																																				
180 min Summer	27.295	0.0	2.5	104																																																																																																																																																																																																																																																																																				
240 min Summer	22.033	0.0	2.6	136																																																																																																																																																																																																																																																																																				
360 min Summer	16.301	0.0	2.9	196																																																																																																																																																																																																																																																																																				
480 min Summer	13.139	0.0	3.2	256																																																																																																																																																																																																																																																																																				
600 min Summer	11.105	0.0	3.3	314																																																																																																																																																																																																																																																																																				
720 min Summer	9.673	0.0	3.5	376																																																																																																																																																																																																																																																																																				
960 min Summer	7.772	0.0	3.7	492																																																																																																																																																																																																																																																																																				
1440 min Summer	5.697	0.0	4.1	736																																																																																																																																																																																																																																																																																				
2160 min Summer	4.166	0.0	4.5	1100																																																																																																																																																																																																																																																																																				
2880 min Summer	3.331	0.0	4.8	1468																																																																																																																																																																																																																																																																																				
4320 min Summer	2.426	0.0	5.2	2188																																																																																																																																																																																																																																																																																				
5760 min Summer	1.938	0.0	5.6	2864																																																																																																																																																																																																																																																																																				
7200 min Summer	1.629	0.0	5.9	3672																																																																																																																																																																																																																																																																																				
8640 min Summer	1.414	0.0	6.1	4312																																																																																																																																																																																																																																																																																				
10080 min Summer	1.254	0.0	6.3	5120																																																																																																																																																																																																																																																																																				
15 min Winter	133.635	0.0	1.0	15																																																																																																																																																																																																																																																																																				
©1982-2020 Innovzye																																																																																																																																																																																																																																																																																								

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr +45% Climate Change				
Date 17/03/2026 13:28 File E9459 Hut 1.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 (+45%)</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	53.490	0.440	0.0	0.6	0.6	0.8	O K
60 min Winter	53.470	0.420	0.0	0.6	0.6	0.8	O K
120 min Winter	53.377	0.327	0.0	0.5	0.5	0.6	O K
180 min Winter	53.305	0.255	0.0	0.4	0.4	0.5	O K
240 min Winter	53.252	0.202	0.0	0.4	0.4	0.4	O K
360 min Winter	53.186	0.136	0.0	0.3	0.3	0.3	O K
480 min Winter	53.149	0.099	0.0	0.3	0.3	0.2	O K
600 min Winter	53.126	0.076	0.0	0.2	0.2	0.1	O K
720 min Winter	53.111	0.061	0.0	0.2	0.2	0.1	O K
960 min Winter	53.094	0.044	0.0	0.2	0.2	0.1	O K
1440 min Winter	53.078	0.028	0.0	0.1	0.1	0.1	O K
2160 min Winter	53.072	0.022	0.0	0.1	0.1	0.0	O K
2880 min Winter	53.069	0.019	0.0	0.1	0.1	0.0	O K
4320 min Winter	53.066	0.016	0.0	0.1	0.1	0.0	O K
5760 min Winter	53.064	0.014	0.0	0.0	0.0	0.0	O K
7200 min Winter	53.062	0.012	0.0	0.0	0.0	0.0	O K
8640 min Winter	53.061	0.011	0.0	0.0	0.0	0.0	O K
10080 min Winter	53.061	0.011	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	90.718	0.0	1.4	24			
60 min Winter	58.739	0.0	1.8	42			
120 min Winter	36.620	0.0	2.2	76			
180 min Winter	27.295	0.0	2.5	108			
240 min Winter	22.033	0.0	2.6	140			
360 min Winter	16.301	0.0	2.9	198			
480 min Winter	13.139	0.0	3.2	258			
600 min Winter	11.105	0.0	3.3	316			
720 min Winter	9.673	0.0	3.5	376			
960 min Winter	7.772	0.0	3.7	492			
1440 min Winter	5.697	0.0	4.1	732			
2160 min Winter	4.166	0.0	4.5	1060			
2880 min Winter	3.331	0.0	4.8	1416			
4320 min Winter	2.426	0.0	5.2	2160			
5760 min Winter	1.938	0.0	5.6	2856			
7200 min Winter	1.629	0.0	5.9	3560			
8640 min Winter	1.414	0.0	6.1	4408			
10080 min Winter	1.254	0.0	6.3	4832			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr +45% Climate Change	
Date 17/03/2026 13:28 File E9459 Hut 1.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr +45% Climate Change	
Date 17/03/2026 13:28 File E9459 Hut 1.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 53.850

Cellular Storage Structure

Invert Level (m) 53.050 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 53.050

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr				
Date 17/03/2026 13:30 File E9459 Hut 1.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> Half Drain Time : 11 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	53.295	0.245	0.0	0.4	0.4	0.5	O K
30 min Summer	53.329	0.279	0.0	0.5	0.5	0.5	O K
60 min Summer	53.326	0.276	0.0	0.5	0.5	0.5	O K
120 min Summer	53.284	0.234	0.0	0.4	0.4	0.4	O K
180 min Summer	53.243	0.193	0.0	0.4	0.4	0.4	O K
240 min Summer	53.212	0.162	0.0	0.3	0.3	0.3	O K
360 min Summer	53.169	0.119	0.0	0.3	0.3	0.2	O K
480 min Summer	53.143	0.093	0.0	0.3	0.3	0.2	O K
600 min Summer	53.125	0.075	0.0	0.2	0.2	0.1	O K
720 min Summer	53.112	0.062	0.0	0.2	0.2	0.1	O K
960 min Summer	53.096	0.046	0.0	0.2	0.2	0.1	O K
1440 min Summer	53.081	0.031	0.0	0.1	0.1	0.1	O K
2160 min Summer	53.073	0.023	0.0	0.1	0.1	0.0	O K
2880 min Summer	53.070	0.020	0.0	0.1	0.1	0.0	O K
4320 min Summer	53.067	0.017	0.0	0.1	0.1	0.0	O K
5760 min Summer	53.065	0.015	0.0	0.0	0.0	0.0	O K
7200 min Summer	53.063	0.013	0.0	0.0	0.0	0.0	O K
8640 min Summer	53.062	0.012	0.0	0.0	0.0	0.0	O K
10080 min Summer	53.061	0.011	0.0	0.0	0.0	0.0	O K
15 min Winter	53.294	0.244	0.0	0.4	0.4	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	92.162	0.0	0.7	14			
30 min Summer	62.564	0.0	0.9	22			
60 min Summer	40.510	0.0	1.2	40			
120 min Summer	25.255	0.0	1.5	72			
180 min Summer	18.824	0.0	1.7	102			
240 min Summer	15.195	0.0	1.8	134			
360 min Summer	11.242	0.0	2.0	194			
480 min Summer	9.062	0.0	2.2	252			
600 min Summer	7.659	0.0	2.3	312			
720 min Summer	6.671	0.0	2.4	370			
960 min Summer	5.360	0.0	2.6	492			
1440 min Summer	3.929	0.0	2.8	734			
2160 min Summer	2.873	0.0	3.1	1100			
2880 min Summer	2.297	0.0	3.3	1436			
4320 min Summer	1.673	0.0	3.6	2172			
5760 min Summer	1.336	0.0	3.8	2856			
7200 min Summer	1.123	0.0	4.0	3600			
8640 min Summer	0.975	0.0	4.2	4400			
10080 min Summer	0.865	0.0	4.4	5104			
15 min Winter	92.162	0.0	0.7	14			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr				
Date 17/03/2026 13:30 File E9459 Hut 1.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	53.320	0.270	0.0	0.4	0.4	0.5	O K
60 min Winter	53.303	0.253	0.0	0.4	0.4	0.5	O K
120 min Winter	53.241	0.191	0.0	0.4	0.4	0.4	O K
180 min Winter	53.194	0.144	0.0	0.3	0.3	0.3	O K
240 min Winter	53.161	0.111	0.0	0.3	0.3	0.2	O K
360 min Winter	53.124	0.074	0.0	0.2	0.2	0.1	O K
480 min Winter	53.104	0.054	0.0	0.2	0.2	0.1	O K
600 min Winter	53.092	0.042	0.0	0.2	0.2	0.1	O K
720 min Winter	53.085	0.035	0.0	0.1	0.1	0.1	O K
960 min Winter	53.077	0.027	0.0	0.1	0.1	0.1	O K
1440 min Winter	53.072	0.022	0.0	0.1	0.1	0.0	O K
2160 min Winter	53.068	0.018	0.0	0.1	0.1	0.0	O K
2880 min Winter	53.066	0.016	0.0	0.1	0.1	0.0	O K
4320 min Winter	53.063	0.013	0.0	0.0	0.0	0.0	O K
5760 min Winter	53.061	0.011	0.0	0.0	0.0	0.0	O K
7200 min Winter	53.060	0.010	0.0	0.0	0.0	0.0	O K
8640 min Winter	53.060	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	53.059	0.009	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	62.564	0.0	0.9	23			
60 min Winter	40.510	0.0	1.2	42			
120 min Winter	25.255	0.0	1.5	74			
180 min Winter	18.824	0.0	1.7	106			
240 min Winter	15.195	0.0	1.8	136			
360 min Winter	11.242	0.0	2.0	196			
480 min Winter	9.062	0.0	2.2	254			
600 min Winter	7.659	0.0	2.3	312			
720 min Winter	6.671	0.0	2.4	370			
960 min Winter	5.360	0.0	2.6	482			
1440 min Winter	3.929	0.0	2.8	738			
2160 min Winter	2.873	0.0	3.1	1096			
2880 min Winter	2.297	0.0	3.3	1472			
4320 min Winter	1.673	0.0	3.6	2192			
5760 min Winter	1.336	0.0	3.8	2952			
7200 min Winter	1.123	0.0	4.0	3520			
8640 min Winter	0.975	0.0	4.2	4416			
10080 min Winter	0.865	0.0	4.4	4984			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr	
Date 17/03/2026 13:30 File E9459 Hut 1.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:100yr	
Date 17/03/2026 13:30 File E9459 Hut 1.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 53.850

Cellular Storage Structure

Invert Level (m) 53.050 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 53.050

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr +45% Climate Change				
Date 17/03/2026 13:29 File E9459 Hut 1.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 (+45%)</u>							
Half Drain Time : 12 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	53.328	0.278	0.0	0.5	0.5	0.5	O K
30 min Summer	53.364	0.314	0.0	0.5	0.5	0.6	O K
60 min Summer	53.362	0.312	0.0	0.5	0.5	0.6	O K
120 min Summer	53.317	0.267	0.0	0.4	0.4	0.5	O K
180 min Summer	53.274	0.224	0.0	0.4	0.4	0.4	O K
240 min Summer	53.240	0.190	0.0	0.4	0.4	0.4	O K
360 min Summer	53.193	0.143	0.0	0.3	0.3	0.3	O K
480 min Summer	53.162	0.112	0.0	0.3	0.3	0.2	O K
600 min Summer	53.141	0.091	0.0	0.3	0.3	0.2	O K
720 min Summer	53.126	0.076	0.0	0.2	0.2	0.1	O K
960 min Summer	53.107	0.057	0.0	0.2	0.2	0.1	O K
1440 min Summer	53.087	0.037	0.0	0.1	0.1	0.1	O K
2160 min Summer	53.076	0.026	0.0	0.1	0.1	0.0	O K
2880 min Summer	53.073	0.023	0.0	0.1	0.1	0.0	O K
4320 min Summer	53.069	0.019	0.0	0.1	0.1	0.0	O K
5760 min Summer	53.066	0.016	0.0	0.1	0.1	0.0	O K
7200 min Summer	53.065	0.015	0.0	0.0	0.0	0.0	O K
8640 min Summer	53.063	0.013	0.0	0.0	0.0	0.0	O K
10080 min Summer	53.062	0.012	0.0	0.0	0.0	0.0	O K
15 min Winter	53.327	0.277	0.0	0.5	0.5	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	103.208	0.0	0.8	14			
30 min Summer	69.375	0.0	1.0	22			
60 min Summer	44.676	0.0	1.3	40			
120 min Summer	27.889	0.0	1.7	72			
180 min Summer	20.900	0.0	1.9	104			
240 min Summer	16.962	0.0	2.0	134			
360 min Summer	12.635	0.0	2.3	194			
480 min Summer	10.238	0.0	2.5	254			
600 min Summer	8.690	0.0	2.6	314			
720 min Summer	7.598	0.0	2.7	372			
960 min Summer	6.142	0.0	2.9	492			
1440 min Summer	4.544	0.0	3.3	734			
2160 min Summer	3.357	0.0	3.6	1092			
2880 min Summer	2.705	0.0	3.9	1444			
4320 min Summer	1.993	0.0	4.3	2180			
5760 min Summer	1.605	0.0	4.6	2864			
7200 min Summer	1.357	0.0	4.9	3632			
8640 min Summer	1.183	0.0	5.1	4376			
10080 min Summer	1.054	0.0	5.3	5096			
15 min Winter	103.208	0.0	0.8	14			

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr +45% Climate Change				
Date 17/03/2026 13:29 File E9459 Hut 1.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 (+45%)</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	53.356	0.306	0.0	0.5	0.5	0.6	O K
60 min Winter	53.338	0.288	0.0	0.5	0.5	0.5	O K
120 min Winter	53.271	0.221	0.0	0.4	0.4	0.4	O K
180 min Winter	53.219	0.169	0.0	0.4	0.4	0.3	O K
240 min Winter	53.183	0.133	0.0	0.3	0.3	0.3	O K
360 min Winter	53.139	0.089	0.0	0.2	0.2	0.2	O K
480 min Winter	53.115	0.065	0.0	0.2	0.2	0.1	O K
600 min Winter	53.101	0.051	0.0	0.2	0.2	0.1	O K
720 min Winter	53.092	0.042	0.0	0.2	0.2	0.1	O K
960 min Winter	53.081	0.031	0.0	0.1	0.1	0.1	O K
1440 min Winter	53.074	0.024	0.0	0.1	0.1	0.0	O K
2160 min Winter	53.070	0.020	0.0	0.1	0.1	0.0	O K
2880 min Winter	53.067	0.017	0.0	0.1	0.1	0.0	O K
4320 min Winter	53.064	0.014	0.0	0.0	0.0	0.0	O K
5760 min Winter	53.062	0.012	0.0	0.0	0.0	0.0	O K
7200 min Winter	53.061	0.011	0.0	0.0	0.0	0.0	O K
8640 min Winter	53.060	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	53.060	0.010	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	69.375	0.0	1.0	24			
60 min Winter	44.676	0.0	1.3	42			
120 min Winter	27.889	0.0	1.7	76			
180 min Winter	20.900	0.0	1.9	106			
240 min Winter	16.962	0.0	2.0	136			
360 min Winter	12.635	0.0	2.3	196			
480 min Winter	10.238	0.0	2.5	256			
600 min Winter	8.690	0.0	2.6	314			
720 min Winter	7.598	0.0	2.7	374			
960 min Winter	6.142	0.0	2.9	490			
1440 min Winter	4.544	0.0	3.3	724			
2160 min Winter	3.357	0.0	3.6	1084			
2880 min Winter	2.705	0.0	3.9	1440			
4320 min Winter	1.993	0.0	4.3	2120			
5760 min Winter	1.605	0.0	4.6	2952			
7200 min Winter	1.357	0.0	4.9	3632			
8640 min Winter	1.183	0.0	5.1	4400			
10080 min Winter	1.054	0.0	5.3	5136			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr +45% Climate Change	
Date 17/03/2026 13:29 File E9459 Hut 1.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr +45% Climate Change	
Date 17/03/2026 13:29 File E9459 Hut 1.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 53.850

Cellular Storage Structure

Invert Level (m) 53.050 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 53.050

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr				
Date 17/03/2026 13:30 File E9459 Hut 1.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</u> Half Drain Time : 13 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	53.233	0.183	0.0	0.4	0.4	0.3	O K
30 min Summer	53.254	0.204	0.0	0.4	0.4	0.4	O K
60 min Summer	53.246	0.196	0.0	0.4	0.4	0.4	O K
120 min Summer	53.212	0.162	0.0	0.3	0.3	0.3	O K
180 min Summer	53.183	0.133	0.0	0.3	0.3	0.3	O K
240 min Summer	53.161	0.111	0.0	0.3	0.3	0.2	O K
360 min Summer	53.131	0.081	0.0	0.2	0.2	0.2	O K
480 min Summer	53.113	0.063	0.0	0.2	0.2	0.1	O K
600 min Summer	53.102	0.052	0.0	0.2	0.2	0.1	O K
720 min Summer	53.093	0.043	0.0	0.2	0.2	0.1	O K
960 min Summer	53.083	0.033	0.0	0.1	0.1	0.1	O K
1440 min Summer	53.075	0.025	0.0	0.1	0.1	0.0	O K
2160 min Summer	53.070	0.020	0.0	0.1	0.1	0.0	O K
2880 min Summer	53.068	0.018	0.0	0.1	0.1	0.0	O K
4320 min Summer	53.065	0.015	0.0	0.0	0.0	0.0	O K
5760 min Summer	53.063	0.013	0.0	0.0	0.0	0.0	O K
7200 min Summer	53.061	0.011	0.0	0.0	0.0	0.0	O K
8640 min Summer	53.061	0.011	0.0	0.0	0.0	0.0	O K
10080 min Summer	53.060	0.010	0.0	0.0	0.0	0.0	O K
15 min Winter	53.231	0.181	0.0	0.4	0.4	0.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	71.178	0.0	0.5	13			
30 min Summer	47.845	0.0	0.7	22			
60 min Summer	30.811	0.0	0.9	38			
120 min Summer	19.234	0.0	1.2	70			
180 min Summer	14.414	0.0	1.3	102			
240 min Summer	11.698	0.0	1.4	132			
360 min Summer	8.714	0.0	1.6	192			
480 min Summer	7.061	0.0	1.7	252			
600 min Summer	5.993	0.0	1.8	310			
720 min Summer	5.240	0.0	1.9	370			
960 min Summer	4.236	0.0	2.0	490			
1440 min Summer	3.134	0.0	2.3	722			
2160 min Summer	2.315	0.0	2.5	1088			
2880 min Summer	1.865	0.0	2.7	1460			
4320 min Summer	1.374	0.0	3.0	2144			
5760 min Summer	1.107	0.0	3.2	2872			
7200 min Summer	0.936	0.0	3.4	3560			
8640 min Summer	0.816	0.0	3.5	4352			
10080 min Summer	0.727	0.0	3.7	5104			
15 min Winter	71.178	0.0	0.5	14			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr				
Date 17/03/2026 13:30 File E9459 Hut 1.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</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	53.246	0.196	0.0	0.4	0.4	0.4	O K
60 min Winter	53.226	0.176	0.0	0.4	0.4	0.3	O K
120 min Winter	53.179	0.129	0.0	0.3	0.3	0.2	O K
180 min Winter	53.145	0.095	0.0	0.3	0.3	0.2	O K
240 min Winter	53.124	0.074	0.0	0.2	0.2	0.1	O K
360 min Winter	53.099	0.049	0.0	0.2	0.2	0.1	O K
480 min Winter	53.087	0.037	0.0	0.1	0.1	0.1	O K
600 min Winter	53.080	0.030	0.0	0.1	0.1	0.1	O K
720 min Winter	53.076	0.026	0.0	0.1	0.1	0.0	O K
960 min Winter	53.073	0.023	0.0	0.1	0.1	0.0	O K
1440 min Winter	53.069	0.019	0.0	0.1	0.1	0.0	O K
2160 min Winter	53.066	0.016	0.0	0.1	0.1	0.0	O K
2880 min Winter	53.063	0.013	0.0	0.0	0.0	0.0	O K
4320 min Winter	53.061	0.011	0.0	0.0	0.0	0.0	O K
5760 min Winter	53.060	0.010	0.0	0.0	0.0	0.0	O K
7200 min Winter	53.059	0.009	0.0	0.0	0.0	0.0	O K
8640 min Winter	53.059	0.009	0.0	0.0	0.0	0.0	O K
10080 min Winter	53.058	0.008	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	47.845	0.0	0.7	23			
60 min Winter	30.811	0.0	0.9	40			
120 min Winter	19.234	0.0	1.2	74			
180 min Winter	14.414	0.0	1.3	104			
240 min Winter	11.698	0.0	1.4	134			
360 min Winter	8.714	0.0	1.6	194			
480 min Winter	7.061	0.0	1.7	252			
600 min Winter	5.993	0.0	1.8	308			
720 min Winter	5.240	0.0	1.9	364			
960 min Winter	4.236	0.0	2.0	500			
1440 min Winter	3.134	0.0	2.3	732			
2160 min Winter	2.315	0.0	2.5	1096			
2880 min Winter	1.865	0.0	2.7	1472			
4320 min Winter	1.374	0.0	3.0	2164			
5760 min Winter	1.107	0.0	3.2	2832			
7200 min Winter	0.936	0.0	3.4	3608			
8640 min Winter	0.816	0.0	3.5	4344			
10080 min Winter	0.727	0.0	3.7	5080			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr	
Date 17/03/2026 13:30 File E9459 Hut 1.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:30yr	
Date 17/03/2026 13:30 File E9459 Hut 1.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 53.850

Cellular Storage Structure

Invert Level (m) 53.050 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 53.050

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:2yr				
Date 17/03/2026 13:31 File E9459 Hut 1.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 : 8 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	53.139	0.089	0.0	0.2	0.2	0.2	O K
30 min Summer	53.146	0.096	0.0	0.3	0.3	0.2	O K
60 min Summer	53.139	0.089	0.0	0.2	0.2	0.2	O K
120 min Summer	53.120	0.070	0.0	0.2	0.2	0.1	O K
180 min Summer	53.107	0.057	0.0	0.2	0.2	0.1	O K
240 min Summer	53.098	0.048	0.0	0.2	0.2	0.1	O K
360 min Summer	53.086	0.036	0.0	0.1	0.1	0.1	O K
480 min Summer	53.079	0.029	0.0	0.1	0.1	0.1	O K
600 min Summer	53.076	0.026	0.0	0.1	0.1	0.0	O K
720 min Summer	53.074	0.024	0.0	0.1	0.1	0.0	O K
960 min Summer	53.071	0.021	0.0	0.1	0.1	0.0	O K
1440 min Summer	53.068	0.018	0.0	0.1	0.1	0.0	O K
2160 min Summer	53.065	0.015	0.0	0.0	0.0	0.0	O K
2880 min Summer	53.063	0.013	0.0	0.0	0.0	0.0	O K
4320 min Summer	53.061	0.011	0.0	0.0	0.0	0.0	O K
5760 min Summer	53.060	0.010	0.0	0.0	0.0	0.0	O K
7200 min Summer	53.059	0.009	0.0	0.0	0.0	0.0	O K
8640 min Summer	53.059	0.009	0.0	0.0	0.0	0.0	O K
10080 min Summer	53.058	0.008	0.0	0.0	0.0	0.0	O K
15 min Winter	53.137	0.087	0.0	0.2	0.2	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	37.566	0.0	0.3	13			
30 min Summer	25.101	0.0	0.4	21			
60 min Summer	16.200	0.0	0.5	38			
120 min Summer	10.259	0.0	0.6	68			
180 min Summer	7.817	0.0	0.7	98			
240 min Summer	6.432	0.0	0.8	128			
360 min Summer	4.866	0.0	0.9	188			
480 min Summer	3.991	0.0	1.0	248			
600 min Summer	3.421	0.0	1.0	308			
720 min Summer	3.016	0.0	1.1	368			
960 min Summer	2.473	0.0	1.2	488			
1440 min Summer	1.869	0.0	1.3	724			
2160 min Summer	1.411	0.0	1.5	1088			
2880 min Summer	1.157	0.0	1.7	1464			
4320 min Summer	0.874	0.0	1.9	2180			
5760 min Summer	0.716	0.0	2.1	2880			
7200 min Summer	0.613	0.0	2.2	3544			
8640 min Summer	0.540	0.0	2.3	4304			
10080 min Summer	0.485	0.0	2.4	5136			
15 min Winter	37.566	0.0	0.3	13			
©1982-2020 Innovzye							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 1 1:2yr				
Date 17/03/2026 13:31 File E9459 Hut 1.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	53.140	0.090	0.0	0.2	0.2	0.2	O K
60 min Winter	53.126	0.076	0.0	0.2	0.2	0.1	O K
120 min Winter	53.102	0.052	0.0	0.2	0.2	0.1	O K
180 min Winter	53.089	0.039	0.0	0.2	0.2	0.1	O K
240 min Winter	53.081	0.031	0.0	0.1	0.1	0.1	O K
360 min Winter	53.075	0.025	0.0	0.1	0.1	0.0	O K
480 min Winter	53.072	0.022	0.0	0.1	0.1	0.0	O K
600 min Winter	53.070	0.020	0.0	0.1	0.1	0.0	O K
720 min Winter	53.068	0.018	0.0	0.1	0.1	0.0	O K
960 min Winter	53.066	0.016	0.0	0.1	0.1	0.0	O K
1440 min Winter	53.063	0.013	0.0	0.0	0.0	0.0	O K
2160 min Winter	53.061	0.011	0.0	0.0	0.0	0.0	O K
2880 min Winter	53.060	0.010	0.0	0.0	0.0	0.0	O K
4320 min Winter	53.059	0.009	0.0	0.0	0.0	0.0	O K
5760 min Winter	53.058	0.008	0.0	0.0	0.0	0.0	O K
7200 min Winter	53.058	0.008	0.0	0.0	0.0	0.0	O K
8640 min Winter	53.057	0.007	0.0	0.0	0.0	0.0	O K
10080 min Winter	53.057	0.007	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.101	0.0	0.4	22			
60 min Winter	16.200	0.0	0.5	38			
120 min Winter	10.259	0.0	0.6	70			
180 min Winter	7.817	0.0	0.7	100			
240 min Winter	6.432	0.0	0.8	130			
360 min Winter	4.866	0.0	0.9	188			
480 min Winter	3.991	0.0	1.0	244			
600 min Winter	3.421	0.0	1.0	310			
720 min Winter	3.016	0.0	1.1	362			
960 min Winter	2.473	0.0	1.2	482			
1440 min Winter	1.869	0.0	1.3	736			
2160 min Winter	1.411	0.0	1.5	1068			
2880 min Winter	1.157	0.0	1.7	1420			
4320 min Winter	0.874	0.0	1.9	2276			
5760 min Winter	0.716	0.0	2.1	2848			
7200 min Winter	0.613	0.0	2.2	3720			
8640 min Winter	0.540	0.0	2.3	4456			
10080 min Winter	0.485	0.0	2.4	4888			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:2yr	
Date 17/03/2026 13:31 File E9459 Hut 1.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 1 1:2yr	
Date 17/03/2026 13:31 File E9459 Hut 1.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 53.850

Cellular Storage Structure

Invert Level (m) 53.050 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 53.050

©1982-2020 Innovyze

Title	Borde Hill Estate	Job No:	E9549
Description :	Surface Water Storage Calculations	By:	JWM
	Shepherd Hut 2	Date:	Mar-26
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.329

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

Shepherd Hut 2 = 0.6l/s (max.) - restricted using 19mmØ orifice plate



Bespoke FlowBrake SuDS Attenuation Tank orifice with 19mmØ orifice

<https://www.freeflush.co.uk/products/flowbrake-suds-attenuation-tank-orifice-plate?variant=40628437680215>

Total Contributing Impermeable Area = 30m² or 0.003Ha

Results

Attenuation is provided by individual geocellular attenuation tanks 2.0m(L) x 1.0m(W) x 0.4m(deep) and provides 0.76m³ of storage base on a 95% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr +45% Climate Change																																																																																																																																																																																																																																																																																					
Date 17/03/2026 13:33 File E9459 HUT 2.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%) Half Drain Time : 14 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>56.072</td><td>0.372</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>56.155</td><td>0.455</td><td>0.0</td><td>0.6</td><td>0.6</td><td>0.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>56.170</td><td>0.470</td><td>0.0</td><td>0.6</td><td>0.6</td><td>0.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>56.084</td><td>0.384</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.7</td><td>O K</td></tr><tr><td>180 min Summer</td><td>56.027</td><td>0.327</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.6</td><td>O K</td></tr><tr><td>240 min Summer</td><td>55.979</td><td>0.279</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>55.911</td><td>0.211</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>480 min Summer</td><td>55.866</td><td>0.166</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>55.835</td><td>0.135</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>55.813</td><td>0.113</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>55.783</td><td>0.083</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>55.753</td><td>0.053</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>55.733</td><td>0.033</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>55.726</td><td>0.026</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>55.721</td><td>0.021</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>55.718</td><td>0.018</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>55.716</td><td>0.016</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>55.715</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>55.714</td><td>0.014</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>56.072</td><td>0.372</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.7</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>133.635</td><td>0.0</td><td>1.0</td><td>14</td></tr><tr><td>30 min Summer</td><td>90.718</td><td>0.0</td><td>1.4</td><td>23</td></tr><tr><td>60 min Summer</td><td>58.739</td><td>0.0</td><td>1.8</td><td>40</td></tr><tr><td>120 min Summer</td><td>36.620</td><td>0.0</td><td>2.2</td><td>74</td></tr><tr><td>180 min Summer</td><td>27.295</td><td>0.0</td><td>2.5</td><td>104</td></tr><tr><td>240 min Summer</td><td>22.033</td><td>0.0</td><td>2.6</td><td>136</td></tr><tr><td>360 min Summer</td><td>16.301</td><td>0.0</td><td>2.9</td><td>196</td></tr><tr><td>480 min Summer</td><td>13.139</td><td>0.0</td><td>3.2</td><td>256</td></tr><tr><td>600 min Summer</td><td>11.105</td><td>0.0</td><td>3.3</td><td>314</td></tr><tr><td>720 min Summer</td><td>9.673</td><td>0.0</td><td>3.5</td><td>376</td></tr><tr><td>960 min Summer</td><td>7.772</td><td>0.0</td><td>3.7</td><td>492</td></tr><tr><td>1440 min Summer</td><td>5.697</td><td>0.0</td><td>4.1</td><td>736</td></tr><tr><td>2160 min Summer</td><td>4.166</td><td>0.0</td><td>4.5</td><td>1100</td></tr><tr><td>2880 min Summer</td><td>3.331</td><td>0.0</td><td>4.8</td><td>1468</td></tr><tr><td>4320 min Summer</td><td>2.426</td><td>0.0</td><td>5.2</td><td>2188</td></tr><tr><td>5760 min Summer</td><td>1.938</td><td>0.0</td><td>5.6</td><td>2864</td></tr><tr><td>7200 min Summer</td><td>1.629</td><td>0.0</td><td>5.9</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.414</td><td>0.0</td><td>6.1</td><td>4312</td></tr><tr><td>10080 min Summer</td><td>1.254</td><td>0.0</td><td>6.3</td><td>5120</td></tr><tr><td>15 min Winter</td><td>133.635</td><td>0.0</td><td>1.0</td><td>15</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	56.072	0.372	0.0	0.5	0.5	0.7	O K	30 min Summer	56.155	0.455	0.0	0.6	0.6	0.8	O K	60 min Summer	56.170	0.470	0.0	0.6	0.6	0.8	O K	120 min Summer	56.084	0.384	0.0	0.5	0.5	0.7	O K	180 min Summer	56.027	0.327	0.0	0.5	0.5	0.6	O K	240 min Summer	55.979	0.279	0.0	0.5	0.5	0.5	O K	360 min Summer	55.911	0.211	0.0	0.4	0.4	0.4	O K	480 min Summer	55.866	0.166	0.0	0.3	0.3	0.3	O K	600 min Summer	55.835	0.135	0.0	0.3	0.3	0.3	O K	720 min Summer	55.813	0.113	0.0	0.3	0.3	0.2	O K	960 min Summer	55.783	0.083	0.0	0.2	0.2	0.2	O K	1440 min Summer	55.753	0.053	0.0	0.2	0.2	0.1	O K	2160 min Summer	55.733	0.033	0.0	0.1	0.1	0.1	O K	2880 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K	4320 min Summer	55.721	0.021	0.0	0.1	0.1	0.0	O K	5760 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K	7200 min Summer	55.716	0.016	0.0	0.1	0.1	0.0	O K	8640 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K	10080 min Summer	55.714	0.014	0.0	0.0	0.0	0.0	O K	15 min Winter	56.072	0.372	0.0	0.5	0.5	0.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	133.635	0.0	1.0	14	30 min Summer	90.718	0.0	1.4	23	60 min Summer	58.739	0.0	1.8	40	120 min Summer	36.620	0.0	2.2	74	180 min Summer	27.295	0.0	2.5	104	240 min Summer	22.033	0.0	2.6	136	360 min Summer	16.301	0.0	2.9	196	480 min Summer	13.139	0.0	3.2	256	600 min Summer	11.105	0.0	3.3	314	720 min Summer	9.673	0.0	3.5	376	960 min Summer	7.772	0.0	3.7	492	1440 min Summer	5.697	0.0	4.1	736	2160 min Summer	4.166	0.0	4.5	1100	2880 min Summer	3.331	0.0	4.8	1468	4320 min Summer	2.426	0.0	5.2	2188	5760 min Summer	1.938	0.0	5.6	2864	7200 min Summer	1.629	0.0	5.9	3672	8640 min Summer	1.414	0.0	6.1	4312	10080 min Summer	1.254	0.0	6.3	5120	15 min Winter	133.635	0.0	1.0	15
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	56.072	0.372	0.0	0.5	0.5	0.7	O K																																																																																																																																																																																																																																																																																	
30 min Summer	56.155	0.455	0.0	0.6	0.6	0.8	O K																																																																																																																																																																																																																																																																																	
60 min Summer	56.170	0.470	0.0	0.6	0.6	0.8	O K																																																																																																																																																																																																																																																																																	
120 min Summer	56.084	0.384	0.0	0.5	0.5	0.7	O K																																																																																																																																																																																																																																																																																	
180 min Summer	56.027	0.327	0.0	0.5	0.5	0.6	O K																																																																																																																																																																																																																																																																																	
240 min Summer	55.979	0.279	0.0	0.5	0.5	0.5	O K																																																																																																																																																																																																																																																																																	
360 min Summer	55.911	0.211	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
480 min Summer	55.866	0.166	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
600 min Summer	55.835	0.135	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
720 min Summer	55.813	0.113	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
960 min Summer	55.783	0.083	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
1440 min Summer	55.753	0.053	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
2160 min Summer	55.733	0.033	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
2880 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
4320 min Summer	55.721	0.021	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
5760 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
7200 min Summer	55.716	0.016	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
8640 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
10080 min Summer	55.714	0.014	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
15 min Winter	56.072	0.372	0.0	0.5	0.5	0.7	O K																																																																																																																																																																																																																																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																				
15 min Summer	133.635	0.0	1.0	14																																																																																																																																																																																																																																																																																				
30 min Summer	90.718	0.0	1.4	23																																																																																																																																																																																																																																																																																				
60 min Summer	58.739	0.0	1.8	40																																																																																																																																																																																																																																																																																				
120 min Summer	36.620	0.0	2.2	74																																																																																																																																																																																																																																																																																				
180 min Summer	27.295	0.0	2.5	104																																																																																																																																																																																																																																																																																				
240 min Summer	22.033	0.0	2.6	136																																																																																																																																																																																																																																																																																				
360 min Summer	16.301	0.0	2.9	196																																																																																																																																																																																																																																																																																				
480 min Summer	13.139	0.0	3.2	256																																																																																																																																																																																																																																																																																				
600 min Summer	11.105	0.0	3.3	314																																																																																																																																																																																																																																																																																				
720 min Summer	9.673	0.0	3.5	376																																																																																																																																																																																																																																																																																				
960 min Summer	7.772	0.0	3.7	492																																																																																																																																																																																																																																																																																				
1440 min Summer	5.697	0.0	4.1	736																																																																																																																																																																																																																																																																																				
2160 min Summer	4.166	0.0	4.5	1100																																																																																																																																																																																																																																																																																				
2880 min Summer	3.331	0.0	4.8	1468																																																																																																																																																																																																																																																																																				
4320 min Summer	2.426	0.0	5.2	2188																																																																																																																																																																																																																																																																																				
5760 min Summer	1.938	0.0	5.6	2864																																																																																																																																																																																																																																																																																				
7200 min Summer	1.629	0.0	5.9	3672																																																																																																																																																																																																																																																																																				
8640 min Summer	1.414	0.0	6.1	4312																																																																																																																																																																																																																																																																																				
10080 min Summer	1.254	0.0	6.3	5120																																																																																																																																																																																																																																																																																				
15 min Winter	133.635	0.0	1.0	15																																																																																																																																																																																																																																																																																				
©1982-2020 Innovzye																																																																																																																																																																																																																																																																																								

Stephen Wilson Partnership Ltd						Page 2	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr +45% Climate Change				
Date 17/03/2026 13:33 File E9459 HUT 2.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 (+45%)</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	56.140	0.440	0.0	0.6	0.6	0.8	O K
60 min Winter	56.120	0.420	0.0	0.6	0.6	0.8	O K
120 min Winter	56.027	0.327	0.0	0.5	0.5	0.6	O K
180 min Winter	55.955	0.255	0.0	0.4	0.4	0.5	O K
240 min Winter	55.902	0.202	0.0	0.4	0.4	0.4	O K
360 min Winter	55.836	0.136	0.0	0.3	0.3	0.3	O K
480 min Winter	55.799	0.099	0.0	0.3	0.3	0.2	O K
600 min Winter	55.776	0.076	0.0	0.2	0.2	0.1	O K
720 min Winter	55.761	0.061	0.0	0.2	0.2	0.1	O K
960 min Winter	55.744	0.044	0.0	0.2	0.2	0.1	O K
1440 min Winter	55.728	0.028	0.0	0.1	0.1	0.1	O K
2160 min Winter	55.722	0.022	0.0	0.1	0.1	0.0	O K
2880 min Winter	55.719	0.019	0.0	0.1	0.1	0.0	O K
4320 min Winter	55.716	0.016	0.0	0.1	0.1	0.0	O K
5760 min Winter	55.714	0.014	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.712	0.012	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.711	0.011	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.711	0.011	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	90.718	0.0	1.4	24			
60 min Winter	58.739	0.0	1.8	42			
120 min Winter	36.620	0.0	2.2	76			
180 min Winter	27.295	0.0	2.5	108			
240 min Winter	22.033	0.0	2.6	140			
360 min Winter	16.301	0.0	2.9	198			
480 min Winter	13.139	0.0	3.2	258			
600 min Winter	11.105	0.0	3.3	316			
720 min Winter	9.673	0.0	3.5	376			
960 min Winter	7.772	0.0	3.7	492			
1440 min Winter	5.697	0.0	4.1	732			
2160 min Winter	4.166	0.0	4.5	1060			
2880 min Winter	3.331	0.0	4.8	1416			
4320 min Winter	2.426	0.0	5.2	2160			
5760 min Winter	1.938	0.0	5.6	2856			
7200 min Winter	1.629	0.0	5.9	3560			
8640 min Winter	1.414	0.0	6.1	4408			
10080 min Winter	1.254	0.0	6.3	4832			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr +45% Climate Change	
Date 17/03/2026 13:33 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr +45% Climate Change	
Date 17/03/2026 13:33 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr				
Date 17/03/2026 13:34 File E9459 HUT 2.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> Half Drain Time : 11 minutes.							
Storm Event	Max Level	Max Depth	Max Infiltration	Max Control	Max Σ Outflow	Max Volume	Status
	(m)	(m)	(l/s)	(l/s)	(l/s)	(m³)	
15 min Summer	55.945	0.245	0.0	0.4	0.4	0.5	O K
30 min Summer	55.979	0.279	0.0	0.5	0.5	0.5	O K
60 min Summer	55.976	0.276	0.0	0.5	0.5	0.5	O K
120 min Summer	55.934	0.234	0.0	0.4	0.4	0.4	O K
180 min Summer	55.893	0.193	0.0	0.4	0.4	0.4	O K
240 min Summer	55.862	0.162	0.0	0.3	0.3	0.3	O K
360 min Summer	55.819	0.119	0.0	0.3	0.3	0.2	O K
480 min Summer	55.793	0.093	0.0	0.3	0.3	0.2	O K
600 min Summer	55.775	0.075	0.0	0.2	0.2	0.1	O K
720 min Summer	55.762	0.062	0.0	0.2	0.2	0.1	O K
960 min Summer	55.746	0.046	0.0	0.2	0.2	0.1	O K
1440 min Summer	55.731	0.031	0.0	0.1	0.1	0.1	O K
2160 min Summer	55.723	0.023	0.0	0.1	0.1	0.0	O K
2880 min Summer	55.720	0.020	0.0	0.1	0.1	0.0	O K
4320 min Summer	55.717	0.017	0.0	0.1	0.1	0.0	O K
5760 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K
7200 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K
8640 min Summer	55.712	0.012	0.0	0.0	0.0	0.0	O K
10080 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K
15 min Winter	55.944	0.244	0.0	0.4	0.4	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	92.162	0.0	0.7	14			
30 min Summer	62.564	0.0	0.9	22			
60 min Summer	40.510	0.0	1.2	40			
120 min Summer	25.255	0.0	1.5	72			
180 min Summer	18.824	0.0	1.7	102			
240 min Summer	15.195	0.0	1.8	134			
360 min Summer	11.242	0.0	2.0	194			
480 min Summer	9.062	0.0	2.2	252			
600 min Summer	7.659	0.0	2.3	312			
720 min Summer	6.671	0.0	2.4	370			
960 min Summer	5.360	0.0	2.6	492			
1440 min Summer	3.929	0.0	2.8	734			
2160 min Summer	2.873	0.0	3.1	1100			
2880 min Summer	2.297	0.0	3.3	1436			
4320 min Summer	1.673	0.0	3.6	2172			
5760 min Summer	1.336	0.0	3.8	2856			
7200 min Summer	1.123	0.0	4.0	3600			
8640 min Summer	0.975	0.0	4.2	4400			
10080 min Summer	0.865	0.0	4.4	5104			
15 min Winter	92.162	0.0	0.7	14			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr				
Date 17/03/2026 13:34 File E9459 HUT 2.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 Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	55.970	0.270	0.0	0.4	0.4	0.5	O K
60 min Winter	55.953	0.253	0.0	0.4	0.4	0.5	O K
120 min Winter	55.891	0.191	0.0	0.4	0.4	0.4	O K
180 min Winter	55.844	0.144	0.0	0.3	0.3	0.3	O K
240 min Winter	55.811	0.111	0.0	0.3	0.3	0.2	O K
360 min Winter	55.774	0.074	0.0	0.2	0.2	0.1	O K
480 min Winter	55.754	0.054	0.0	0.2	0.2	0.1	O K
600 min Winter	55.742	0.042	0.0	0.2	0.2	0.1	O K
720 min Winter	55.735	0.035	0.0	0.1	0.1	0.1	O K
960 min Winter	55.727	0.027	0.0	0.1	0.1	0.1	O K
1440 min Winter	55.722	0.022	0.0	0.1	0.1	0.0	O K
2160 min Winter	55.718	0.018	0.0	0.1	0.1	0.0	O K
2880 min Winter	55.716	0.016	0.0	0.1	0.1	0.0	O K
4320 min Winter	55.713	0.013	0.0	0.0	0.0	0.0	O K
5760 min Winter	55.711	0.011	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.710	0.010	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.710	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.709	0.009	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	62.564	0.0	0.9	23			
60 min Winter	40.510	0.0	1.2	42			
120 min Winter	25.255	0.0	1.5	74			
180 min Winter	18.824	0.0	1.7	106			
240 min Winter	15.195	0.0	1.8	136			
360 min Winter	11.242	0.0	2.0	196			
480 min Winter	9.062	0.0	2.2	254			
600 min Winter	7.659	0.0	2.3	312			
720 min Winter	6.671	0.0	2.4	370			
960 min Winter	5.360	0.0	2.6	482			
1440 min Winter	3.929	0.0	2.8	738			
2160 min Winter	2.873	0.0	3.1	1096			
2880 min Winter	2.297	0.0	3.3	1472			
4320 min Winter	1.673	0.0	3.6	2192			
5760 min Winter	1.336	0.0	3.8	2952			
7200 min Winter	1.123	0.0	4.0	3520			
8640 min Winter	0.975	0.0	4.2	4416			
10080 min Winter	0.865	0.0	4.4	4984			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr	
Date 17/03/2026 13:34 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:100yr	
Date 17/03/2026 13:34 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change																																																																																																																																																																																																																																																																																					
Date 17/03/2026 13:35 File E9459 HUT 2.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 (+45%)</u> Half Drain Time : 12 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>55.978</td><td>0.278</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>56.014</td><td>0.314</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.6</td><td>O K</td></tr><tr><td>60 min Summer</td><td>56.012</td><td>0.312</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>55.967</td><td>0.267</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>55.924</td><td>0.224</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>55.890</td><td>0.190</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>55.843</td><td>0.143</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>55.812</td><td>0.112</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>55.791</td><td>0.091</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>55.776</td><td>0.076</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>55.757</td><td>0.057</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>55.737</td><td>0.037</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>55.726</td><td>0.026</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>55.723</td><td>0.023</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>55.719</td><td>0.019</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>55.716</td><td>0.016</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>55.715</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>55.713</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>55.712</td><td>0.012</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>55.977</td><td>0.277</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.5</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>103.208</td><td>0.0</td><td>0.8</td><td>14</td></tr><tr><td>30 min Summer</td><td>69.375</td><td>0.0</td><td>1.0</td><td>22</td></tr><tr><td>60 min Summer</td><td>44.676</td><td>0.0</td><td>1.3</td><td>40</td></tr><tr><td>120 min Summer</td><td>27.889</td><td>0.0</td><td>1.7</td><td>72</td></tr><tr><td>180 min Summer</td><td>20.900</td><td>0.0</td><td>1.9</td><td>104</td></tr><tr><td>240 min Summer</td><td>16.962</td><td>0.0</td><td>2.0</td><td>134</td></tr><tr><td>360 min Summer</td><td>12.635</td><td>0.0</td><td>2.3</td><td>194</td></tr><tr><td>480 min Summer</td><td>10.238</td><td>0.0</td><td>2.5</td><td>254</td></tr><tr><td>600 min Summer</td><td>8.690</td><td>0.0</td><td>2.6</td><td>314</td></tr><tr><td>720 min Summer</td><td>7.598</td><td>0.0</td><td>2.7</td><td>372</td></tr><tr><td>960 min Summer</td><td>6.142</td><td>0.0</td><td>2.9</td><td>492</td></tr><tr><td>1440 min Summer</td><td>4.544</td><td>0.0</td><td>3.3</td><td>734</td></tr><tr><td>2160 min Summer</td><td>3.357</td><td>0.0</td><td>3.6</td><td>1092</td></tr><tr><td>2880 min Summer</td><td>2.705</td><td>0.0</td><td>3.9</td><td>1444</td></tr><tr><td>4320 min Summer</td><td>1.993</td><td>0.0</td><td>4.3</td><td>2180</td></tr><tr><td>5760 min Summer</td><td>1.605</td><td>0.0</td><td>4.6</td><td>2864</td></tr><tr><td>7200 min Summer</td><td>1.357</td><td>0.0</td><td>4.9</td><td>3632</td></tr><tr><td>8640 min Summer</td><td>1.183</td><td>0.0</td><td>5.1</td><td>4376</td></tr><tr><td>10080 min Summer</td><td>1.054</td><td>0.0</td><td>5.3</td><td>5096</td></tr><tr><td>15 min Winter</td><td>103.208</td><td>0.0</td><td>0.8</td><td>14</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	55.978	0.278	0.0	0.5	0.5	0.5	O K	30 min Summer	56.014	0.314	0.0	0.5	0.5	0.6	O K	60 min Summer	56.012	0.312	0.0	0.5	0.5	0.6	O K	120 min Summer	55.967	0.267	0.0	0.4	0.4	0.5	O K	180 min Summer	55.924	0.224	0.0	0.4	0.4	0.4	O K	240 min Summer	55.890	0.190	0.0	0.4	0.4	0.4	O K	360 min Summer	55.843	0.143	0.0	0.3	0.3	0.3	O K	480 min Summer	55.812	0.112	0.0	0.3	0.3	0.2	O K	600 min Summer	55.791	0.091	0.0	0.3	0.3	0.2	O K	720 min Summer	55.776	0.076	0.0	0.2	0.2	0.1	O K	960 min Summer	55.757	0.057	0.0	0.2	0.2	0.1	O K	1440 min Summer	55.737	0.037	0.0	0.1	0.1	0.1	O K	2160 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K	2880 min Summer	55.723	0.023	0.0	0.1	0.1	0.0	O K	4320 min Summer	55.719	0.019	0.0	0.1	0.1	0.0	O K	5760 min Summer	55.716	0.016	0.0	0.1	0.1	0.0	O K	7200 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K	8640 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K	10080 min Summer	55.712	0.012	0.0	0.0	0.0	0.0	O K	15 min Winter	55.977	0.277	0.0	0.5	0.5	0.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	103.208	0.0	0.8	14	30 min Summer	69.375	0.0	1.0	22	60 min Summer	44.676	0.0	1.3	40	120 min Summer	27.889	0.0	1.7	72	180 min Summer	20.900	0.0	1.9	104	240 min Summer	16.962	0.0	2.0	134	360 min Summer	12.635	0.0	2.3	194	480 min Summer	10.238	0.0	2.5	254	600 min Summer	8.690	0.0	2.6	314	720 min Summer	7.598	0.0	2.7	372	960 min Summer	6.142	0.0	2.9	492	1440 min Summer	4.544	0.0	3.3	734	2160 min Summer	3.357	0.0	3.6	1092	2880 min Summer	2.705	0.0	3.9	1444	4320 min Summer	1.993	0.0	4.3	2180	5760 min Summer	1.605	0.0	4.6	2864	7200 min Summer	1.357	0.0	4.9	3632	8640 min Summer	1.183	0.0	5.1	4376	10080 min Summer	1.054	0.0	5.3	5096	15 min Winter	103.208	0.0	0.8	14
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	55.978	0.278	0.0	0.5	0.5	0.5	O K																																																																																																																																																																																																																																																																																	
30 min Summer	56.014	0.314	0.0	0.5	0.5	0.6	O K																																																																																																																																																																																																																																																																																	
60 min Summer	56.012	0.312	0.0	0.5	0.5	0.6	O K																																																																																																																																																																																																																																																																																	
120 min Summer	55.967	0.267	0.0	0.4	0.4	0.5	O K																																																																																																																																																																																																																																																																																	
180 min Summer	55.924	0.224	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
240 min Summer	55.890	0.190	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
360 min Summer	55.843	0.143	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
480 min Summer	55.812	0.112	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
600 min Summer	55.791	0.091	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
720 min Summer	55.776	0.076	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
960 min Summer	55.757	0.057	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
1440 min Summer	55.737	0.037	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
2160 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
2880 min Summer	55.723	0.023	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
4320 min Summer	55.719	0.019	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
5760 min Summer	55.716	0.016	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
7200 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
8640 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
10080 min Summer	55.712	0.012	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
15 min Winter	55.977	0.277	0.0	0.5	0.5	0.5	O K																																																																																																																																																																																																																																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																				
15 min Summer	103.208	0.0	0.8	14																																																																																																																																																																																																																																																																																				
30 min Summer	69.375	0.0	1.0	22																																																																																																																																																																																																																																																																																				
60 min Summer	44.676	0.0	1.3	40																																																																																																																																																																																																																																																																																				
120 min Summer	27.889	0.0	1.7	72																																																																																																																																																																																																																																																																																				
180 min Summer	20.900	0.0	1.9	104																																																																																																																																																																																																																																																																																				
240 min Summer	16.962	0.0	2.0	134																																																																																																																																																																																																																																																																																				
360 min Summer	12.635	0.0	2.3	194																																																																																																																																																																																																																																																																																				
480 min Summer	10.238	0.0	2.5	254																																																																																																																																																																																																																																																																																				
600 min Summer	8.690	0.0	2.6	314																																																																																																																																																																																																																																																																																				
720 min Summer	7.598	0.0	2.7	372																																																																																																																																																																																																																																																																																				
960 min Summer	6.142	0.0	2.9	492																																																																																																																																																																																																																																																																																				
1440 min Summer	4.544	0.0	3.3	734																																																																																																																																																																																																																																																																																				
2160 min Summer	3.357	0.0	3.6	1092																																																																																																																																																																																																																																																																																				
2880 min Summer	2.705	0.0	3.9	1444																																																																																																																																																																																																																																																																																				
4320 min Summer	1.993	0.0	4.3	2180																																																																																																																																																																																																																																																																																				
5760 min Summer	1.605	0.0	4.6	2864																																																																																																																																																																																																																																																																																				
7200 min Summer	1.357	0.0	4.9	3632																																																																																																																																																																																																																																																																																				
8640 min Summer	1.183	0.0	5.1	4376																																																																																																																																																																																																																																																																																				
10080 min Summer	1.054	0.0	5.3	5096																																																																																																																																																																																																																																																																																				
15 min Winter	103.208	0.0	0.8	14																																																																																																																																																																																																																																																																																				
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																								

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change				
Date 17/03/2026 13:35 File E9459 HUT 2.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 (+45%)</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	56.006	0.306	0.0	0.5	0.5	0.6	O K
60 min Winter	55.988	0.288	0.0	0.5	0.5	0.5	O K
120 min Winter	55.921	0.221	0.0	0.4	0.4	0.4	O K
180 min Winter	55.869	0.169	0.0	0.4	0.4	0.3	O K
240 min Winter	55.833	0.133	0.0	0.3	0.3	0.3	O K
360 min Winter	55.789	0.089	0.0	0.2	0.2	0.2	O K
480 min Winter	55.765	0.065	0.0	0.2	0.2	0.1	O K
600 min Winter	55.751	0.051	0.0	0.2	0.2	0.1	O K
720 min Winter	55.742	0.042	0.0	0.2	0.2	0.1	O K
960 min Winter	55.731	0.031	0.0	0.1	0.1	0.1	O K
1440 min Winter	55.724	0.024	0.0	0.1	0.1	0.0	O K
2160 min Winter	55.720	0.020	0.0	0.1	0.1	0.0	O K
2880 min Winter	55.717	0.017	0.0	0.1	0.1	0.0	O K
4320 min Winter	55.714	0.014	0.0	0.0	0.0	0.0	O K
5760 min Winter	55.712	0.012	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.711	0.011	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.710	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.710	0.010	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	69.375	0.0	1.0	24			
60 min Winter	44.676	0.0	1.3	42			
120 min Winter	27.889	0.0	1.7	76			
180 min Winter	20.900	0.0	1.9	106			
240 min Winter	16.962	0.0	2.0	136			
360 min Winter	12.635	0.0	2.3	196			
480 min Winter	10.238	0.0	2.5	256			
600 min Winter	8.690	0.0	2.6	314			
720 min Winter	7.598	0.0	2.7	374			
960 min Winter	6.142	0.0	2.9	490			
1440 min Winter	4.544	0.0	3.3	724			
2160 min Winter	3.357	0.0	3.6	1084			
2880 min Winter	2.705	0.0	3.9	1440			
4320 min Winter	1.993	0.0	4.3	2120			
5760 min Winter	1.605	0.0	4.6	2952			
7200 min Winter	1.357	0.0	4.9	3632			
8640 min Winter	1.183	0.0	5.1	4400			
10080 min Winter	1.054	0.0	5.3	5136			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change	
Date 17/03/2026 13:35 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change	
Date 17/03/2026 13:35 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd

Page 1

99 South Street
Eastbourne
BN20 4LU

E9459 Borde Hill,
Haywards Heath - HUT 2
1:30yr

Date 17/03/2026 13:34
File E9459 HUT 2.SRCX

Designed by SWP Ltd
Checked by SWP Ltd

Micro Drainage

Source Control 2020.1.3

Summary of Results for 30 year Return Period

Half Drain Time : 13 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	55.883	0.183	0.0	0.4	0.4	0.3	O K
30 min Summer	55.904	0.204	0.0	0.4	0.4	0.4	O K
60 min Summer	55.896	0.196	0.0	0.4	0.4	0.4	O K
120 min Summer	55.862	0.162	0.0	0.3	0.3	0.3	O K
180 min Summer	55.833	0.133	0.0	0.3	0.3	0.3	O K
240 min Summer	55.811	0.111	0.0	0.3	0.3	0.2	O K
360 min Summer	55.781	0.081	0.0	0.2	0.2	0.2	O K
480 min Summer	55.763	0.063	0.0	0.2	0.2	0.1	O K
600 min Summer	55.752	0.052	0.0	0.2	0.2	0.1	O K
720 min Summer	55.743	0.043	0.0	0.2	0.2	0.1	O K
960 min Summer	55.733	0.033	0.0	0.1	0.1	0.1	O K
1440 min Summer	55.725	0.025	0.0	0.1	0.1	0.0	O K
2160 min Summer	55.720	0.020	0.0	0.1	0.1	0.0	O K
2880 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K
4320 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K
5760 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K
7200 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K
8640 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K
10080 min Summer	55.710	0.010	0.0	0.0	0.0	0.0	O K
15 min Winter	55.881	0.181	0.0	0.4	0.4	0.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	71.178	0.0	0.5	13
30 min Summer	47.845	0.0	0.7	22
60 min Summer	30.811	0.0	0.9	38
120 min Summer	19.234	0.0	1.2	70
180 min Summer	14.414	0.0	1.3	102
240 min Summer	11.698	0.0	1.4	132
360 min Summer	8.714	0.0	1.6	192
480 min Summer	7.061	0.0	1.7	252
600 min Summer	5.993	0.0	1.8	310
720 min Summer	5.240	0.0	1.9	370
960 min Summer	4.236	0.0	2.0	490
1440 min Summer	3.134	0.0	2.3	722
2160 min Summer	2.315	0.0	2.5	1088
2880 min Summer	1.865	0.0	2.7	1460
4320 min Summer	1.374	0.0	3.0	2144
5760 min Summer	1.107	0.0	3.2	2872
7200 min Summer	0.936	0.0	3.4	3560
8640 min Summer	0.816	0.0	3.5	4352
10080 min Summer	0.727	0.0	3.7	5104
15 min Winter	71.178	0.0	0.5	14

©1982-2020 Innovzye

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr	
Date 17/03/2026 13:34 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr	
Date 17/03/2026 13:34 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change				
Date 17/03/2026 13:36 File E9459 HUT 2.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 : 8 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	55.789	0.089	0.0	0.2	0.2	0.2	O K
30 min Summer	55.796	0.096	0.0	0.3	0.3	0.2	O K
60 min Summer	55.789	0.089	0.0	0.2	0.2	0.2	O K
120 min Summer	55.770	0.070	0.0	0.2	0.2	0.1	O K
180 min Summer	55.757	0.057	0.0	0.2	0.2	0.1	O K
240 min Summer	55.748	0.048	0.0	0.2	0.2	0.1	O K
360 min Summer	55.736	0.036	0.0	0.1	0.1	0.1	O K
480 min Summer	55.729	0.029	0.0	0.1	0.1	0.1	O K
600 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K
720 min Summer	55.724	0.024	0.0	0.1	0.1	0.0	O K
960 min Summer	55.721	0.021	0.0	0.1	0.1	0.0	O K
1440 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K
2160 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K
2880 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K
4320 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K
5760 min Summer	55.710	0.010	0.0	0.0	0.0	0.0	O K
7200 min Summer	55.709	0.009	0.0	0.0	0.0	0.0	O K
8640 min Summer	55.709	0.009	0.0	0.0	0.0	0.0	O K
10080 min Summer	55.708	0.008	0.0	0.0	0.0	0.0	O K
15 min Winter	55.787	0.087	0.0	0.2	0.2	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	37.566	0.0	0.3	13			
30 min Summer	25.101	0.0	0.4	21			
60 min Summer	16.200	0.0	0.5	38			
120 min Summer	10.259	0.0	0.6	68			
180 min Summer	7.817	0.0	0.7	98			
240 min Summer	6.432	0.0	0.8	128			
360 min Summer	4.866	0.0	0.9	188			
480 min Summer	3.991	0.0	1.0	248			
600 min Summer	3.421	0.0	1.0	308			
720 min Summer	3.016	0.0	1.1	368			
960 min Summer	2.473	0.0	1.2	488			
1440 min Summer	1.869	0.0	1.3	724			
2160 min Summer	1.411	0.0	1.5	1088			
2880 min Summer	1.157	0.0	1.7	1464			
4320 min Summer	0.874	0.0	1.9	2180			
5760 min Summer	0.716	0.0	2.1	2880			
7200 min Summer	0.613	0.0	2.2	3544			
8640 min Summer	0.540	0.0	2.3	4304			
10080 min Summer	0.485	0.0	2.4	5136			
15 min Winter	37.566	0.0	0.3	13			
©1982-2020 Innovzye							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change				
Date 17/03/2026 13:36 File E9459 HUT 2.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	55.790	0.090	0.0	0.2	0.2	0.2	O K
60 min Winter	55.776	0.076	0.0	0.2	0.2	0.1	O K
120 min Winter	55.752	0.052	0.0	0.2	0.2	0.1	O K
180 min Winter	55.739	0.039	0.0	0.2	0.2	0.1	O K
240 min Winter	55.731	0.031	0.0	0.1	0.1	0.1	O K
360 min Winter	55.725	0.025	0.0	0.1	0.1	0.0	O K
480 min Winter	55.722	0.022	0.0	0.1	0.1	0.0	O K
600 min Winter	55.720	0.020	0.0	0.1	0.1	0.0	O K
720 min Winter	55.718	0.018	0.0	0.1	0.1	0.0	O K
960 min Winter	55.716	0.016	0.0	0.1	0.1	0.0	O K
1440 min Winter	55.713	0.013	0.0	0.0	0.0	0.0	O K
2160 min Winter	55.711	0.011	0.0	0.0	0.0	0.0	O K
2880 min Winter	55.710	0.010	0.0	0.0	0.0	0.0	O K
4320 min Winter	55.709	0.009	0.0	0.0	0.0	0.0	O K
5760 min Winter	55.708	0.008	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.708	0.008	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.707	0.007	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.707	0.007	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.101	0.0	0.4	22			
60 min Winter	16.200	0.0	0.5	38			
120 min Winter	10.259	0.0	0.6	70			
180 min Winter	7.817	0.0	0.7	100			
240 min Winter	6.432	0.0	0.8	130			
360 min Winter	4.866	0.0	0.9	188			
480 min Winter	3.991	0.0	1.0	244			
600 min Winter	3.421	0.0	1.0	310			
720 min Winter	3.016	0.0	1.1	362			
960 min Winter	2.473	0.0	1.2	482			
1440 min Winter	1.869	0.0	1.3	736			
2160 min Winter	1.411	0.0	1.5	1068			
2880 min Winter	1.157	0.0	1.7	1420			
4320 min Winter	0.874	0.0	1.9	2276			
5760 min Winter	0.716	0.0	2.1	2848			
7200 min Winter	0.613	0.0	2.2	3720			
8640 min Winter	0.540	0.0	2.3	4456			
10080 min Winter	0.485	0.0	2.4	4888			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change	
Date 17/03/2026 13:36 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 2 1:30yr +45% Climate Change	
Date 17/03/2026 13:36 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Title	Borde Hill Estate	Job No:	E9549
Description :	Surface Water Storage Calculations	By:	JWM
	Shepherd Hut 3	Date:	Mar-26
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.329

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

Shepherd Hut 3 = 0.6l/s (max.) - restricted using 19mmØ orifice plate



Bespoke FlowBrake SuDS Attenuation Tank orifice with 19mmØ orifice

<https://www.freeflush.co.uk/products/flowbrake-suds-attenuation-tank-orifice-plate?variant=40628437680215>

Total Contributing Impermeable Area = 30m² or 0.003Ha

Results

Attenuation is provided by individual geocellular attenuation tanks 2.0m(L) x 1.0m(W) x 0.4m(deep) and provides 0.76m³ of storage base on a 95% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr +45% Climate Change				
Date 17/03/2026 13:37 File E9459 HUT 3.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 (+45%)</u> Half Drain Time : 14 minutes.							
Storm Event	Max Level	Max Depth	Max Infiltration	Max Control	Max Σ Outflow	Max Volume	Status
	(m)	(m)	(l/s)	(l/s)	(l/s)	(m³)	
15 min Summer	56.572	0.372	0.0	0.5	0.5	0.7	O K
30 min Summer	56.655	0.455	0.0	0.6	0.6	0.8	O K
60 min Summer	56.670	0.470	0.0	0.6	0.6	0.8	O K
120 min Summer	56.584	0.384	0.0	0.5	0.5	0.7	O K
180 min Summer	56.527	0.327	0.0	0.5	0.5	0.6	O K
240 min Summer	56.479	0.279	0.0	0.5	0.5	0.5	O K
360 min Summer	56.411	0.211	0.0	0.4	0.4	0.4	O K
480 min Summer	56.366	0.166	0.0	0.3	0.3	0.3	O K
600 min Summer	56.335	0.135	0.0	0.3	0.3	0.3	O K
720 min Summer	56.313	0.113	0.0	0.3	0.3	0.2	O K
960 min Summer	56.283	0.083	0.0	0.2	0.2	0.2	O K
1440 min Summer	56.253	0.053	0.0	0.2	0.2	0.1	O K
2160 min Summer	56.233	0.033	0.0	0.1	0.1	0.1	O K
2880 min Summer	56.226	0.026	0.0	0.1	0.1	0.0	O K
4320 min Summer	56.221	0.021	0.0	0.1	0.1	0.0	O K
5760 min Summer	56.218	0.018	0.0	0.1	0.1	0.0	O K
7200 min Summer	56.216	0.016	0.0	0.1	0.1	0.0	O K
8640 min Summer	56.215	0.015	0.0	0.0	0.0	0.0	O K
10080 min Summer	56.214	0.014	0.0	0.0	0.0	0.0	O K
15 min Winter	56.572	0.372	0.0	0.5	0.5	0.7	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	133.635	0.0	1.0	14			
30 min Summer	90.718	0.0	1.4	23			
60 min Summer	58.739	0.0	1.8	40			
120 min Summer	36.620	0.0	2.2	74			
180 min Summer	27.295	0.0	2.5	104			
240 min Summer	22.033	0.0	2.6	136			
360 min Summer	16.301	0.0	2.9	196			
480 min Summer	13.139	0.0	3.2	256			
600 min Summer	11.105	0.0	3.3	314			
720 min Summer	9.673	0.0	3.5	376			
960 min Summer	7.772	0.0	3.7	492			
1440 min Summer	5.697	0.0	4.1	736			
2160 min Summer	4.166	0.0	4.5	1100			
2880 min Summer	3.331	0.0	4.8	1468			
4320 min Summer	2.426	0.0	5.2	2188			
5760 min Summer	1.938	0.0	5.6	2864			
7200 min Summer	1.629	0.0	5.9	3672			
8640 min Summer	1.414	0.0	6.1	4312			
10080 min Summer	1.254	0.0	6.3	5120			
15 min Winter	133.635	0.0	1.0	15			
©1982-2020 Innovzye							

Stephen Wilson Partnership Ltd						Page 2	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr +45% Climate Change				
Date 17/03/2026 13:37 File E9459 HUT 3.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 (+45%)</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	56.640	0.440	0.0	0.6	0.6	0.8	O K
60 min Winter	56.620	0.420	0.0	0.6	0.6	0.8	O K
120 min Winter	56.527	0.327	0.0	0.5	0.5	0.6	O K
180 min Winter	56.455	0.255	0.0	0.4	0.4	0.5	O K
240 min Winter	56.402	0.202	0.0	0.4	0.4	0.4	O K
360 min Winter	56.336	0.136	0.0	0.3	0.3	0.3	O K
480 min Winter	56.299	0.099	0.0	0.3	0.3	0.2	O K
600 min Winter	56.276	0.076	0.0	0.2	0.2	0.1	O K
720 min Winter	56.261	0.061	0.0	0.2	0.2	0.1	O K
960 min Winter	56.244	0.044	0.0	0.2	0.2	0.1	O K
1440 min Winter	56.228	0.028	0.0	0.1	0.1	0.1	O K
2160 min Winter	56.222	0.022	0.0	0.1	0.1	0.0	O K
2880 min Winter	56.219	0.019	0.0	0.1	0.1	0.0	O K
4320 min Winter	56.216	0.016	0.0	0.1	0.1	0.0	O K
5760 min Winter	56.214	0.014	0.0	0.0	0.0	0.0	O K
7200 min Winter	56.212	0.012	0.0	0.0	0.0	0.0	O K
8640 min Winter	56.211	0.011	0.0	0.0	0.0	0.0	O K
10080 min Winter	56.211	0.011	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	90.718	0.0	1.4	24			
60 min Winter	58.739	0.0	1.8	42			
120 min Winter	36.620	0.0	2.2	76			
180 min Winter	27.295	0.0	2.5	108			
240 min Winter	22.033	0.0	2.6	140			
360 min Winter	16.301	0.0	2.9	198			
480 min Winter	13.139	0.0	3.2	258			
600 min Winter	11.105	0.0	3.3	316			
720 min Winter	9.673	0.0	3.5	376			
960 min Winter	7.772	0.0	3.7	492			
1440 min Winter	5.697	0.0	4.1	732			
2160 min Winter	4.166	0.0	4.5	1060			
2880 min Winter	3.331	0.0	4.8	1416			
4320 min Winter	2.426	0.0	5.2	2160			
5760 min Winter	1.938	0.0	5.6	2856			
7200 min Winter	1.629	0.0	5.9	3560			
8640 min Winter	1.414	0.0	6.1	4408			
10080 min Winter	1.254	0.0	6.3	4832			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr +45% Climate Change	
Date 17/03/2026 13:37 File E9459 HUT 3.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr +45% Climate Change	
Date 17/03/2026 13:37 File E9459 HUT 3.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 57.000

Cellular Storage Structure

Invert Level (m) 56.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 56.200

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr				
Date 17/03/2026 13:42 File E9459 HUT 3.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> Half Drain Time : 11 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	56.445	0.245	0.0	0.4	0.4	0.5	O K
30 min Summer	56.479	0.279	0.0	0.5	0.5	0.5	O K
60 min Summer	56.476	0.276	0.0	0.5	0.5	0.5	O K
120 min Summer	56.434	0.234	0.0	0.4	0.4	0.4	O K
180 min Summer	56.393	0.193	0.0	0.4	0.4	0.4	O K
240 min Summer	56.362	0.162	0.0	0.3	0.3	0.3	O K
360 min Summer	56.319	0.119	0.0	0.3	0.3	0.2	O K
480 min Summer	56.293	0.093	0.0	0.3	0.3	0.2	O K
600 min Summer	56.275	0.075	0.0	0.2	0.2	0.1	O K
720 min Summer	56.262	0.062	0.0	0.2	0.2	0.1	O K
960 min Summer	56.246	0.046	0.0	0.2	0.2	0.1	O K
1440 min Summer	56.231	0.031	0.0	0.1	0.1	0.1	O K
2160 min Summer	56.223	0.023	0.0	0.1	0.1	0.0	O K
2880 min Summer	56.220	0.020	0.0	0.1	0.1	0.0	O K
4320 min Summer	56.217	0.017	0.0	0.1	0.1	0.0	O K
5760 min Summer	56.215	0.015	0.0	0.0	0.0	0.0	O K
7200 min Summer	56.213	0.013	0.0	0.0	0.0	0.0	O K
8640 min Summer	56.212	0.012	0.0	0.0	0.0	0.0	O K
10080 min Summer	56.211	0.011	0.0	0.0	0.0	0.0	O K
15 min Winter	56.444	0.244	0.0	0.4	0.4	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	92.162	0.0	0.7	14			
30 min Summer	62.564	0.0	0.9	22			
60 min Summer	40.510	0.0	1.2	40			
120 min Summer	25.255	0.0	1.5	72			
180 min Summer	18.824	0.0	1.7	102			
240 min Summer	15.195	0.0	1.8	134			
360 min Summer	11.242	0.0	2.0	194			
480 min Summer	9.062	0.0	2.2	252			
600 min Summer	7.659	0.0	2.3	312			
720 min Summer	6.671	0.0	2.4	370			
960 min Summer	5.360	0.0	2.6	492			
1440 min Summer	3.929	0.0	2.8	734			
2160 min Summer	2.873	0.0	3.1	1100			
2880 min Summer	2.297	0.0	3.3	1436			
4320 min Summer	1.673	0.0	3.6	2172			
5760 min Summer	1.336	0.0	3.8	2856			
7200 min Summer	1.123	0.0	4.0	3600			
8640 min Summer	0.975	0.0	4.2	4400			
10080 min Summer	0.865	0.0	4.4	5104			
15 min Winter	92.162	0.0	0.7	14			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr				
Date 17/03/2026 13:42 File E9459 HUT 3.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	56.470	0.270	0.0	0.4	0.4	0.5	O K
60 min Winter	56.453	0.253	0.0	0.4	0.4	0.5	O K
120 min Winter	56.391	0.191	0.0	0.4	0.4	0.4	O K
180 min Winter	56.344	0.144	0.0	0.3	0.3	0.3	O K
240 min Winter	56.311	0.111	0.0	0.3	0.3	0.2	O K
360 min Winter	56.274	0.074	0.0	0.2	0.2	0.1	O K
480 min Winter	56.254	0.054	0.0	0.2	0.2	0.1	O K
600 min Winter	56.242	0.042	0.0	0.2	0.2	0.1	O K
720 min Winter	56.235	0.035	0.0	0.1	0.1	0.1	O K
960 min Winter	56.227	0.027	0.0	0.1	0.1	0.1	O K
1440 min Winter	56.222	0.022	0.0	0.1	0.1	0.0	O K
2160 min Winter	56.218	0.018	0.0	0.1	0.1	0.0	O K
2880 min Winter	56.216	0.016	0.0	0.1	0.1	0.0	O K
4320 min Winter	56.213	0.013	0.0	0.0	0.0	0.0	O K
5760 min Winter	56.211	0.011	0.0	0.0	0.0	0.0	O K
7200 min Winter	56.210	0.010	0.0	0.0	0.0	0.0	O K
8640 min Winter	56.210	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	56.209	0.009	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	62.564	0.0	0.9	23			
60 min Winter	40.510	0.0	1.2	42			
120 min Winter	25.255	0.0	1.5	74			
180 min Winter	18.824	0.0	1.7	106			
240 min Winter	15.195	0.0	1.8	136			
360 min Winter	11.242	0.0	2.0	196			
480 min Winter	9.062	0.0	2.2	254			
600 min Winter	7.659	0.0	2.3	312			
720 min Winter	6.671	0.0	2.4	370			
960 min Winter	5.360	0.0	2.6	482			
1440 min Winter	3.929	0.0	2.8	738			
2160 min Winter	2.873	0.0	3.1	1096			
2880 min Winter	2.297	0.0	3.3	1472			
4320 min Winter	1.673	0.0	3.6	2192			
5760 min Winter	1.336	0.0	3.8	2952			
7200 min Winter	1.123	0.0	4.0	3520			
8640 min Winter	0.975	0.0	4.2	4416			
10080 min Winter	0.865	0.0	4.4	4984			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr	
Date 17/03/2026 13:42 File E9459 HUT 3.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:100yr	
Date 17/03/2026 13:42 File E9459 HUT 3.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 57.000

Cellular Storage Structure

Invert Level (m) 56.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 56.200

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr +45% Climate Change																																																																																																																																																																																																																																																																																					
Date 17/03/2026 13:40 File E9459 HUT 3.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</u> Half Drain Time : 13 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>56.383</td><td>0.183</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>56.404</td><td>0.204</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>56.396</td><td>0.196</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>56.362</td><td>0.162</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>56.333</td><td>0.133</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>56.311</td><td>0.111</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>56.281</td><td>0.081</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>56.263</td><td>0.063</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>56.252</td><td>0.052</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>56.243</td><td>0.043</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>56.233</td><td>0.033</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>56.225</td><td>0.025</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>56.220</td><td>0.020</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>56.218</td><td>0.018</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>56.215</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>56.213</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>56.211</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>56.211</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>56.210</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>56.381</td><td>0.181</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.3</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>71.178</td><td>0.0</td><td>0.5</td><td>13</td></tr><tr><td>30 min Summer</td><td>47.845</td><td>0.0</td><td>0.7</td><td>22</td></tr><tr><td>60 min Summer</td><td>30.811</td><td>0.0</td><td>0.9</td><td>38</td></tr><tr><td>120 min Summer</td><td>19.234</td><td>0.0</td><td>1.2</td><td>70</td></tr><tr><td>180 min Summer</td><td>14.414</td><td>0.0</td><td>1.3</td><td>102</td></tr><tr><td>240 min Summer</td><td>11.698</td><td>0.0</td><td>1.4</td><td>132</td></tr><tr><td>360 min Summer</td><td>8.714</td><td>0.0</td><td>1.6</td><td>192</td></tr><tr><td>480 min Summer</td><td>7.061</td><td>0.0</td><td>1.7</td><td>252</td></tr><tr><td>600 min Summer</td><td>5.993</td><td>0.0</td><td>1.8</td><td>310</td></tr><tr><td>720 min Summer</td><td>5.240</td><td>0.0</td><td>1.9</td><td>370</td></tr><tr><td>960 min Summer</td><td>4.236</td><td>0.0</td><td>2.0</td><td>490</td></tr><tr><td>1440 min Summer</td><td>3.134</td><td>0.0</td><td>2.3</td><td>722</td></tr><tr><td>2160 min Summer</td><td>2.315</td><td>0.0</td><td>2.5</td><td>1088</td></tr><tr><td>2880 min Summer</td><td>1.865</td><td>0.0</td><td>2.7</td><td>1460</td></tr><tr><td>4320 min Summer</td><td>1.374</td><td>0.0</td><td>3.0</td><td>2144</td></tr><tr><td>5760 min Summer</td><td>1.107</td><td>0.0</td><td>3.2</td><td>2872</td></tr><tr><td>7200 min Summer</td><td>0.936</td><td>0.0</td><td>3.4</td><td>3560</td></tr><tr><td>8640 min Summer</td><td>0.816</td><td>0.0</td><td>3.5</td><td>4352</td></tr><tr><td>10080 min Summer</td><td>0.727</td><td>0.0</td><td>3.7</td><td>5104</td></tr><tr><td>15 min Winter</td><td>71.178</td><td>0.0</td><td>0.5</td><td>14</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	56.383	0.183	0.0	0.4	0.4	0.3	O K	30 min Summer	56.404	0.204	0.0	0.4	0.4	0.4	O K	60 min Summer	56.396	0.196	0.0	0.4	0.4	0.4	O K	120 min Summer	56.362	0.162	0.0	0.3	0.3	0.3	O K	180 min Summer	56.333	0.133	0.0	0.3	0.3	0.3	O K	240 min Summer	56.311	0.111	0.0	0.3	0.3	0.2	O K	360 min Summer	56.281	0.081	0.0	0.2	0.2	0.2	O K	480 min Summer	56.263	0.063	0.0	0.2	0.2	0.1	O K	600 min Summer	56.252	0.052	0.0	0.2	0.2	0.1	O K	720 min Summer	56.243	0.043	0.0	0.2	0.2	0.1	O K	960 min Summer	56.233	0.033	0.0	0.1	0.1	0.1	O K	1440 min Summer	56.225	0.025	0.0	0.1	0.1	0.0	O K	2160 min Summer	56.220	0.020	0.0	0.1	0.1	0.0	O K	2880 min Summer	56.218	0.018	0.0	0.1	0.1	0.0	O K	4320 min Summer	56.215	0.015	0.0	0.0	0.0	0.0	O K	5760 min Summer	56.213	0.013	0.0	0.0	0.0	0.0	O K	7200 min Summer	56.211	0.011	0.0	0.0	0.0	0.0	O K	8640 min Summer	56.211	0.011	0.0	0.0	0.0	0.0	O K	10080 min Summer	56.210	0.010	0.0	0.0	0.0	0.0	O K	15 min Winter	56.381	0.181	0.0	0.4	0.4	0.3	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	71.178	0.0	0.5	13	30 min Summer	47.845	0.0	0.7	22	60 min Summer	30.811	0.0	0.9	38	120 min Summer	19.234	0.0	1.2	70	180 min Summer	14.414	0.0	1.3	102	240 min Summer	11.698	0.0	1.4	132	360 min Summer	8.714	0.0	1.6	192	480 min Summer	7.061	0.0	1.7	252	600 min Summer	5.993	0.0	1.8	310	720 min Summer	5.240	0.0	1.9	370	960 min Summer	4.236	0.0	2.0	490	1440 min Summer	3.134	0.0	2.3	722	2160 min Summer	2.315	0.0	2.5	1088	2880 min Summer	1.865	0.0	2.7	1460	4320 min Summer	1.374	0.0	3.0	2144	5760 min Summer	1.107	0.0	3.2	2872	7200 min Summer	0.936	0.0	3.4	3560	8640 min Summer	0.816	0.0	3.5	4352	10080 min Summer	0.727	0.0	3.7	5104	15 min Winter	71.178	0.0	0.5	14
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	56.383	0.183	0.0	0.4	0.4	0.3	O K																																																																																																																																																																																																																																																																																	
30 min Summer	56.404	0.204	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
60 min Summer	56.396	0.196	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
120 min Summer	56.362	0.162	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
180 min Summer	56.333	0.133	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
240 min Summer	56.311	0.111	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
360 min Summer	56.281	0.081	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
480 min Summer	56.263	0.063	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
600 min Summer	56.252	0.052	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
720 min Summer	56.243	0.043	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
960 min Summer	56.233	0.033	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
1440 min Summer	56.225	0.025	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
2160 min Summer	56.220	0.020	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
2880 min Summer	56.218	0.018	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
4320 min Summer	56.215	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
5760 min Summer	56.213	0.013	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
7200 min Summer	56.211	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
8640 min Summer	56.211	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
10080 min Summer	56.210	0.010	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
15 min Winter	56.381	0.181	0.0	0.4	0.4	0.3	O K																																																																																																																																																																																																																																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																				
15 min Summer	71.178	0.0	0.5	13																																																																																																																																																																																																																																																																																				
30 min Summer	47.845	0.0	0.7	22																																																																																																																																																																																																																																																																																				
60 min Summer	30.811	0.0	0.9	38																																																																																																																																																																																																																																																																																				
120 min Summer	19.234	0.0	1.2	70																																																																																																																																																																																																																																																																																				
180 min Summer	14.414	0.0	1.3	102																																																																																																																																																																																																																																																																																				
240 min Summer	11.698	0.0	1.4	132																																																																																																																																																																																																																																																																																				
360 min Summer	8.714	0.0	1.6	192																																																																																																																																																																																																																																																																																				
480 min Summer	7.061	0.0	1.7	252																																																																																																																																																																																																																																																																																				
600 min Summer	5.993	0.0	1.8	310																																																																																																																																																																																																																																																																																				
720 min Summer	5.240	0.0	1.9	370																																																																																																																																																																																																																																																																																				
960 min Summer	4.236	0.0	2.0	490																																																																																																																																																																																																																																																																																				
1440 min Summer	3.134	0.0	2.3	722																																																																																																																																																																																																																																																																																				
2160 min Summer	2.315	0.0	2.5	1088																																																																																																																																																																																																																																																																																				
2880 min Summer	1.865	0.0	2.7	1460																																																																																																																																																																																																																																																																																				
4320 min Summer	1.374	0.0	3.0	2144																																																																																																																																																																																																																																																																																				
5760 min Summer	1.107	0.0	3.2	2872																																																																																																																																																																																																																																																																																				
7200 min Summer	0.936	0.0	3.4	3560																																																																																																																																																																																																																																																																																				
8640 min Summer	0.816	0.0	3.5	4352																																																																																																																																																																																																																																																																																				
10080 min Summer	0.727	0.0	3.7	5104																																																																																																																																																																																																																																																																																				
15 min Winter	71.178	0.0	0.5	14																																																																																																																																																																																																																																																																																				
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																								

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr +45% Climate Change				
Date 17/03/2026 13:40 File E9459 HUT 3.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</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	56.396	0.196	0.0	0.4	0.4	0.4	O K
60 min Winter	56.376	0.176	0.0	0.4	0.4	0.3	O K
120 min Winter	56.329	0.129	0.0	0.3	0.3	0.2	O K
180 min Winter	56.295	0.095	0.0	0.3	0.3	0.2	O K
240 min Winter	56.274	0.074	0.0	0.2	0.2	0.1	O K
360 min Winter	56.249	0.049	0.0	0.2	0.2	0.1	O K
480 min Winter	56.237	0.037	0.0	0.1	0.1	0.1	O K
600 min Winter	56.230	0.030	0.0	0.1	0.1	0.1	O K
720 min Winter	56.226	0.026	0.0	0.1	0.1	0.0	O K
960 min Winter	56.223	0.023	0.0	0.1	0.1	0.0	O K
1440 min Winter	56.219	0.019	0.0	0.1	0.1	0.0	O K
2160 min Winter	56.216	0.016	0.0	0.1	0.1	0.0	O K
2880 min Winter	56.213	0.013	0.0	0.0	0.0	0.0	O K
4320 min Winter	56.211	0.011	0.0	0.0	0.0	0.0	O K
5760 min Winter	56.210	0.010	0.0	0.0	0.0	0.0	O K
7200 min Winter	56.209	0.009	0.0	0.0	0.0	0.0	O K
8640 min Winter	56.209	0.009	0.0	0.0	0.0	0.0	O K
10080 min Winter	56.208	0.008	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	47.845	0.0	0.7	23			
60 min Winter	30.811	0.0	0.9	40			
120 min Winter	19.234	0.0	1.2	74			
180 min Winter	14.414	0.0	1.3	104			
240 min Winter	11.698	0.0	1.4	134			
360 min Winter	8.714	0.0	1.6	194			
480 min Winter	7.061	0.0	1.7	252			
600 min Winter	5.993	0.0	1.8	308			
720 min Winter	5.240	0.0	1.9	364			
960 min Winter	4.236	0.0	2.0	500			
1440 min Winter	3.134	0.0	2.3	732			
2160 min Winter	2.315	0.0	2.5	1096			
2880 min Winter	1.865	0.0	2.7	1472			
4320 min Winter	1.374	0.0	3.0	2164			
5760 min Winter	1.107	0.0	3.2	2832			
7200 min Winter	0.936	0.0	3.4	3608			
8640 min Winter	0.816	0.0	3.5	4344			
10080 min Winter	0.727	0.0	3.7	5080			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr +45% Climate Change	
Date 17/03/2026 13:40 File E9459 HUT 3.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr +45% Climate Change	
Date 17/03/2026 13:40 File E9459 HUT 3.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Model Details

Storage is Online Cover Level (m) 57.000

Cellular Storage Structure

Invert Level (m) 56.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 56.200

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																		
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr																																																																																																																																																																																																																																																																																						
Date 17/03/2026 14:04 File E9459 HUT 2.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</u> Half Drain Time : 13 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>55.883</td><td>0.183</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>55.904</td><td>0.204</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>55.896</td><td>0.196</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>55.862</td><td>0.162</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>55.833</td><td>0.133</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>55.811</td><td>0.111</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>55.781</td><td>0.081</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>55.763</td><td>0.063</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>55.752</td><td>0.052</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>55.743</td><td>0.043</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>55.733</td><td>0.033</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>55.725</td><td>0.025</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>55.720</td><td>0.020</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>55.718</td><td>0.018</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>55.715</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>55.713</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>55.711</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>55.711</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>55.710</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>55.881</td><td>0.181</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.3</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>71.178</td><td>0.0</td><td>0.5</td><td>13</td></tr><tr><td>30 min Summer</td><td>47.845</td><td>0.0</td><td>0.7</td><td>22</td></tr><tr><td>60 min Summer</td><td>30.811</td><td>0.0</td><td>0.9</td><td>38</td></tr><tr><td>120 min Summer</td><td>19.234</td><td>0.0</td><td>1.2</td><td>70</td></tr><tr><td>180 min Summer</td><td>14.414</td><td>0.0</td><td>1.3</td><td>102</td></tr><tr><td>240 min Summer</td><td>11.698</td><td>0.0</td><td>1.4</td><td>132</td></tr><tr><td>360 min Summer</td><td>8.714</td><td>0.0</td><td>1.6</td><td>192</td></tr><tr><td>480 min Summer</td><td>7.061</td><td>0.0</td><td>1.7</td><td>252</td></tr><tr><td>600 min Summer</td><td>5.993</td><td>0.0</td><td>1.8</td><td>310</td></tr><tr><td>720 min Summer</td><td>5.240</td><td>0.0</td><td>1.9</td><td>370</td></tr><tr><td>960 min Summer</td><td>4.236</td><td>0.0</td><td>2.0</td><td>490</td></tr><tr><td>1440 min Summer</td><td>3.134</td><td>0.0</td><td>2.3</td><td>722</td></tr><tr><td>2160 min Summer</td><td>2.315</td><td>0.0</td><td>2.5</td><td>1088</td></tr><tr><td>2880 min Summer</td><td>1.865</td><td>0.0</td><td>2.7</td><td>1460</td></tr><tr><td>4320 min Summer</td><td>1.374</td><td>0.0</td><td>3.0</td><td>2144</td></tr><tr><td>5760 min Summer</td><td>1.107</td><td>0.0</td><td>3.2</td><td>2872</td></tr><tr><td>7200 min Summer</td><td>0.936</td><td>0.0</td><td>3.4</td><td>3560</td></tr><tr><td>8640 min Summer</td><td>0.816</td><td>0.0</td><td>3.5</td><td>4352</td></tr><tr><td>10080 min Summer</td><td>0.727</td><td>0.0</td><td>3.7</td><td>5104</td></tr><tr><td>15 min Winter</td><td>71.178</td><td>0.0</td><td>0.5</td><td>14</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	55.883	0.183	0.0	0.4	0.4	0.3	O K	30 min Summer	55.904	0.204	0.0	0.4	0.4	0.4	O K	60 min Summer	55.896	0.196	0.0	0.4	0.4	0.4	O K	120 min Summer	55.862	0.162	0.0	0.3	0.3	0.3	O K	180 min Summer	55.833	0.133	0.0	0.3	0.3	0.3	O K	240 min Summer	55.811	0.111	0.0	0.3	0.3	0.2	O K	360 min Summer	55.781	0.081	0.0	0.2	0.2	0.2	O K	480 min Summer	55.763	0.063	0.0	0.2	0.2	0.1	O K	600 min Summer	55.752	0.052	0.0	0.2	0.2	0.1	O K	720 min Summer	55.743	0.043	0.0	0.2	0.2	0.1	O K	960 min Summer	55.733	0.033	0.0	0.1	0.1	0.1	O K	1440 min Summer	55.725	0.025	0.0	0.1	0.1	0.0	O K	2160 min Summer	55.720	0.020	0.0	0.1	0.1	0.0	O K	2880 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K	4320 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K	5760 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K	7200 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K	8640 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K	10080 min Summer	55.710	0.010	0.0	0.0	0.0	0.0	O K	15 min Winter	55.881	0.181	0.0	0.4	0.4	0.3	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	71.178	0.0	0.5	13	30 min Summer	47.845	0.0	0.7	22	60 min Summer	30.811	0.0	0.9	38	120 min Summer	19.234	0.0	1.2	70	180 min Summer	14.414	0.0	1.3	102	240 min Summer	11.698	0.0	1.4	132	360 min Summer	8.714	0.0	1.6	192	480 min Summer	7.061	0.0	1.7	252	600 min Summer	5.993	0.0	1.8	310	720 min Summer	5.240	0.0	1.9	370	960 min Summer	4.236	0.0	2.0	490	1440 min Summer	3.134	0.0	2.3	722	2160 min Summer	2.315	0.0	2.5	1088	2880 min Summer	1.865	0.0	2.7	1460	4320 min Summer	1.374	0.0	3.0	2144	5760 min Summer	1.107	0.0	3.2	2872	7200 min Summer	0.936	0.0	3.4	3560	8640 min Summer	0.816	0.0	3.5	4352	10080 min Summer	0.727	0.0	3.7	5104	15 min Winter	71.178	0.0	0.5	14	
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	55.883	0.183	0.0	0.4	0.4	0.3	O K																																																																																																																																																																																																																																																																																		
30 min Summer	55.904	0.204	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																		
60 min Summer	55.896	0.196	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																		
120 min Summer	55.862	0.162	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																		
180 min Summer	55.833	0.133	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																		
240 min Summer	55.811	0.111	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																		
360 min Summer	55.781	0.081	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																		
480 min Summer	55.763	0.063	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																		
600 min Summer	55.752	0.052	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																		
720 min Summer	55.743	0.043	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																		
960 min Summer	55.733	0.033	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																		
1440 min Summer	55.725	0.025	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
2160 min Summer	55.720	0.020	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
2880 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
4320 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
5760 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
7200 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
8640 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
10080 min Summer	55.710	0.010	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
15 min Winter	55.881	0.181	0.0	0.4	0.4	0.3	O K																																																																																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																					
15 min Summer	71.178	0.0	0.5	13																																																																																																																																																																																																																																																																																					
30 min Summer	47.845	0.0	0.7	22																																																																																																																																																																																																																																																																																					
60 min Summer	30.811	0.0	0.9	38																																																																																																																																																																																																																																																																																					
120 min Summer	19.234	0.0	1.2	70																																																																																																																																																																																																																																																																																					
180 min Summer	14.414	0.0	1.3	102																																																																																																																																																																																																																																																																																					
240 min Summer	11.698	0.0	1.4	132																																																																																																																																																																																																																																																																																					
360 min Summer	8.714	0.0	1.6	192																																																																																																																																																																																																																																																																																					
480 min Summer	7.061	0.0	1.7	252																																																																																																																																																																																																																																																																																					
600 min Summer	5.993	0.0	1.8	310																																																																																																																																																																																																																																																																																					
720 min Summer	5.240	0.0	1.9	370																																																																																																																																																																																																																																																																																					
960 min Summer	4.236	0.0	2.0	490																																																																																																																																																																																																																																																																																					
1440 min Summer	3.134	0.0	2.3	722																																																																																																																																																																																																																																																																																					
2160 min Summer	2.315	0.0	2.5	1088																																																																																																																																																																																																																																																																																					
2880 min Summer	1.865	0.0	2.7	1460																																																																																																																																																																																																																																																																																					
4320 min Summer	1.374	0.0	3.0	2144																																																																																																																																																																																																																																																																																					
5760 min Summer	1.107	0.0	3.2	2872																																																																																																																																																																																																																																																																																					
7200 min Summer	0.936	0.0	3.4	3560																																																																																																																																																																																																																																																																																					
8640 min Summer	0.816	0.0	3.5	4352																																																																																																																																																																																																																																																																																					
10080 min Summer	0.727	0.0	3.7	5104																																																																																																																																																																																																																																																																																					
15 min Winter	71.178	0.0	0.5	14																																																																																																																																																																																																																																																																																					
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																									

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr	
Date 17/03/2026 14:04 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:30yr	
Date 17/03/2026 14:04 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 3 1:2yr																																																																																																																																																																																																																																																																																					
Date 17/03/2026 13:59 File E9459 HUT 2.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 : 8 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>55.789</td><td>0.089</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>30 min Summer</td><td>55.796</td><td>0.096</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>55.789</td><td>0.089</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>120 min Summer</td><td>55.770</td><td>0.070</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>55.757</td><td>0.057</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>240 min Summer</td><td>55.748</td><td>0.048</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>55.736</td><td>0.036</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>55.729</td><td>0.029</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>55.726</td><td>0.026</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>720 min Summer</td><td>55.724</td><td>0.024</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>960 min Summer</td><td>55.721</td><td>0.021</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>55.718</td><td>0.018</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>55.715</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>55.713</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>55.711</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>55.710</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>55.709</td><td>0.009</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>55.709</td><td>0.009</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>55.708</td><td>0.008</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>55.787</td><td>0.087</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</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>37.566</td><td>0.0</td><td>0.3</td><td>13</td></tr><tr><td>30 min Summer</td><td>25.101</td><td>0.0</td><td>0.4</td><td>21</td></tr><tr><td>60 min Summer</td><td>16.200</td><td>0.0</td><td>0.5</td><td>38</td></tr><tr><td>120 min Summer</td><td>10.259</td><td>0.0</td><td>0.6</td><td>68</td></tr><tr><td>180 min Summer</td><td>7.817</td><td>0.0</td><td>0.7</td><td>98</td></tr><tr><td>240 min Summer</td><td>6.432</td><td>0.0</td><td>0.8</td><td>128</td></tr><tr><td>360 min Summer</td><td>4.866</td><td>0.0</td><td>0.9</td><td>188</td></tr><tr><td>480 min Summer</td><td>3.991</td><td>0.0</td><td>1.0</td><td>248</td></tr><tr><td>600 min Summer</td><td>3.421</td><td>0.0</td><td>1.0</td><td>308</td></tr><tr><td>720 min Summer</td><td>3.016</td><td>0.0</td><td>1.1</td><td>368</td></tr><tr><td>960 min Summer</td><td>2.473</td><td>0.0</td><td>1.2</td><td>488</td></tr><tr><td>1440 min Summer</td><td>1.869</td><td>0.0</td><td>1.3</td><td>724</td></tr><tr><td>2160 min Summer</td><td>1.411</td><td>0.0</td><td>1.5</td><td>1088</td></tr><tr><td>2880 min Summer</td><td>1.157</td><td>0.0</td><td>1.7</td><td>1464</td></tr><tr><td>4320 min Summer</td><td>0.874</td><td>0.0</td><td>1.9</td><td>2180</td></tr><tr><td>5760 min Summer</td><td>0.716</td><td>0.0</td><td>2.1</td><td>2880</td></tr><tr><td>7200 min Summer</td><td>0.613</td><td>0.0</td><td>2.2</td><td>3544</td></tr><tr><td>8640 min Summer</td><td>0.540</td><td>0.0</td><td>2.3</td><td>4304</td></tr><tr><td>10080 min Summer</td><td>0.485</td><td>0.0</td><td>2.4</td><td>5136</td></tr><tr><td>15 min Winter</td><td>37.566</td><td>0.0</td><td>0.3</td><td>13</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	55.789	0.089	0.0	0.2	0.2	0.2	O K	30 min Summer	55.796	0.096	0.0	0.3	0.3	0.2	O K	60 min Summer	55.789	0.089	0.0	0.2	0.2	0.2	O K	120 min Summer	55.770	0.070	0.0	0.2	0.2	0.1	O K	180 min Summer	55.757	0.057	0.0	0.2	0.2	0.1	O K	240 min Summer	55.748	0.048	0.0	0.2	0.2	0.1	O K	360 min Summer	55.736	0.036	0.0	0.1	0.1	0.1	O K	480 min Summer	55.729	0.029	0.0	0.1	0.1	0.1	O K	600 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K	720 min Summer	55.724	0.024	0.0	0.1	0.1	0.0	O K	960 min Summer	55.721	0.021	0.0	0.1	0.1	0.0	O K	1440 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K	2160 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K	2880 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K	4320 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K	5760 min Summer	55.710	0.010	0.0	0.0	0.0	0.0	O K	7200 min Summer	55.709	0.009	0.0	0.0	0.0	0.0	O K	8640 min Summer	55.709	0.009	0.0	0.0	0.0	0.0	O K	10080 min Summer	55.708	0.008	0.0	0.0	0.0	0.0	O K	15 min Winter	55.787	0.087	0.0	0.2	0.2	0.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	37.566	0.0	0.3	13	30 min Summer	25.101	0.0	0.4	21	60 min Summer	16.200	0.0	0.5	38	120 min Summer	10.259	0.0	0.6	68	180 min Summer	7.817	0.0	0.7	98	240 min Summer	6.432	0.0	0.8	128	360 min Summer	4.866	0.0	0.9	188	480 min Summer	3.991	0.0	1.0	248	600 min Summer	3.421	0.0	1.0	308	720 min Summer	3.016	0.0	1.1	368	960 min Summer	2.473	0.0	1.2	488	1440 min Summer	1.869	0.0	1.3	724	2160 min Summer	1.411	0.0	1.5	1088	2880 min Summer	1.157	0.0	1.7	1464	4320 min Summer	0.874	0.0	1.9	2180	5760 min Summer	0.716	0.0	2.1	2880	7200 min Summer	0.613	0.0	2.2	3544	8640 min Summer	0.540	0.0	2.3	4304	10080 min Summer	0.485	0.0	2.4	5136	15 min Winter	37.566	0.0	0.3	13
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	55.789	0.089	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
30 min Summer	55.796	0.096	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
60 min Summer	55.789	0.089	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
120 min Summer	55.770	0.070	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
180 min Summer	55.757	0.057	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
240 min Summer	55.748	0.048	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
360 min Summer	55.736	0.036	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
480 min Summer	55.729	0.029	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
600 min Summer	55.726	0.026	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
720 min Summer	55.724	0.024	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
960 min Summer	55.721	0.021	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
1440 min Summer	55.718	0.018	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
2160 min Summer	55.715	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
2880 min Summer	55.713	0.013	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
4320 min Summer	55.711	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
5760 min Summer	55.710	0.010	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
7200 min Summer	55.709	0.009	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
8640 min Summer	55.709	0.009	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
10080 min Summer	55.708	0.008	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
15 min Winter	55.787	0.087	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																				
15 min Summer	37.566	0.0	0.3	13																																																																																																																																																																																																																																																																																				
30 min Summer	25.101	0.0	0.4	21																																																																																																																																																																																																																																																																																				
60 min Summer	16.200	0.0	0.5	38																																																																																																																																																																																																																																																																																				
120 min Summer	10.259	0.0	0.6	68																																																																																																																																																																																																																																																																																				
180 min Summer	7.817	0.0	0.7	98																																																																																																																																																																																																																																																																																				
240 min Summer	6.432	0.0	0.8	128																																																																																																																																																																																																																																																																																				
360 min Summer	4.866	0.0	0.9	188																																																																																																																																																																																																																																																																																				
480 min Summer	3.991	0.0	1.0	248																																																																																																																																																																																																																																																																																				
600 min Summer	3.421	0.0	1.0	308																																																																																																																																																																																																																																																																																				
720 min Summer	3.016	0.0	1.1	368																																																																																																																																																																																																																																																																																				
960 min Summer	2.473	0.0	1.2	488																																																																																																																																																																																																																																																																																				
1440 min Summer	1.869	0.0	1.3	724																																																																																																																																																																																																																																																																																				
2160 min Summer	1.411	0.0	1.5	1088																																																																																																																																																																																																																																																																																				
2880 min Summer	1.157	0.0	1.7	1464																																																																																																																																																																																																																																																																																				
4320 min Summer	0.874	0.0	1.9	2180																																																																																																																																																																																																																																																																																				
5760 min Summer	0.716	0.0	2.1	2880																																																																																																																																																																																																																																																																																				
7200 min Summer	0.613	0.0	2.2	3544																																																																																																																																																																																																																																																																																				
8640 min Summer	0.540	0.0	2.3	4304																																																																																																																																																																																																																																																																																				
10080 min Summer	0.485	0.0	2.4	5136																																																																																																																																																																																																																																																																																				
15 min Winter	37.566	0.0	0.3	13																																																																																																																																																																																																																																																																																				
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																								

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:2yr	
Date 17/03/2026 13:59 File E9459 HUT 2.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 3 1:2yr	
Date 17/03/2026 13:59 File E9459 HUT 2.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.500

Cellular Storage Structure

Invert Level (m) 55.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.700

©1982-2020 Innovyze

Title	Borde Hill Estate	Job No:	E9549
Description :	Surface Water Storage Calculations	By:	JWM
	Lodge 4	Date:	Mar-26
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.329

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

Lodge 4 = 0.7l/s (max.) - restricted using 19mmØ orifice plate



Bespoke FlowBrake SuDS Attenuation Tank orifice with 19mmØ orifice

<https://www.freeflush.co.uk/products/flowbrake-suds-attenuation-tank-orifice-plate?variant=40628437680215>

Total Contributing Impermeable Area = 60m² or 0.006Ha

Results

Attenuation is provided by geocellular attenuation tank 2.0m(L) x 2.5m(W) x 0.4m(deep) and provides 1.9m³ of storage base on a 95% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd

99 South Street
Eastbourne
BN20 4LU

Date 17/03/2026 13:44
File E9459 LODGE 4.SRCX

Micro Drainage

E9459 Borde Hill,
Haywards Heath - Lodge 4
1:100yr +45% Climate Change

Designed by SWP Ltd
Checked by SWP Ltd

Source Control 2020.1.3

Page 1



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

Half Drain Time : 37 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	54.549	0.349	0.0	0.5	0.5	1.7	O K
30 min Summer	54.738	0.538	0.0	0.6	0.6	2.0	Flood Risk
60 min Summer	54.931	0.731	0.0	0.7	0.7	2.2	Flood Risk
120 min Summer	54.935	0.735	0.0	0.7	0.7	2.2	Flood Risk
180 min Summer	54.822	0.622	0.0	0.7	0.7	2.1	Flood Risk
240 min Summer	54.700	0.500	0.0	0.6	0.6	2.0	Flood Risk
360 min Summer	54.569	0.369	0.0	0.5	0.5	1.8	O K
480 min Summer	54.521	0.321	0.0	0.5	0.5	1.5	O K
600 min Summer	54.482	0.282	0.0	0.5	0.5	1.3	O K
720 min Summer	54.451	0.251	0.0	0.4	0.4	1.2	O K
960 min Summer	54.401	0.201	0.0	0.4	0.4	1.0	O K
1440 min Summer	54.339	0.139	0.0	0.3	0.3	0.7	O K
2160 min Summer	54.291	0.091	0.0	0.3	0.3	0.4	O K
2880 min Summer	54.266	0.066	0.0	0.2	0.2	0.3	O K
4320 min Summer	54.242	0.042	0.0	0.2	0.2	0.2	O K
5760 min Summer	54.230	0.030	0.0	0.1	0.1	0.1	O K
7200 min Summer	54.226	0.026	0.0	0.1	0.1	0.1	O K
8640 min Summer	54.223	0.023	0.0	0.1	0.1	0.1	O K
10080 min Summer	54.221	0.021	0.0	0.1	0.1	0.1	O K
15 min Winter	54.549	0.349	0.0	0.5	0.5	1.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	133.635	0.0	2.0	18
30 min Summer	90.718	0.0	2.7	29
60 min Summer	58.739	0.0	3.5	44
120 min Summer	36.620	0.0	4.4	78
180 min Summer	27.295	0.0	4.9	112
240 min Summer	22.033	0.0	5.3	146
360 min Summer	16.301	0.0	5.9	212
480 min Summer	13.139	0.0	6.3	276
600 min Summer	11.105	0.0	6.7	338
720 min Summer	9.673	0.0	7.0	398
960 min Summer	7.772	0.0	7.5	518
1440 min Summer	5.697	0.0	8.2	754
2160 min Summer	4.166	0.0	9.0	1108
2880 min Summer	3.331	0.0	9.6	1472
4320 min Summer	2.426	0.0	10.5	2204
5760 min Summer	1.938	0.0	11.2	2896
7200 min Summer	1.629	0.0	11.7	3648
8640 min Summer	1.414	0.0	12.2	4344
10080 min Summer	1.254	0.0	12.6	4976
15 min Winter	133.635	0.0	2.0	18

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr +45% Climate Change				
Date 17/03/2026 13:44 File E9459 LODGE 4.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 (+45%)</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	54.746	0.546	0.0	0.6	0.6	2.0	Flood Risk
60 min Winter	54.912	0.712	0.0	0.7	0.7	2.2	Flood Risk
120 min Winter	54.848	0.648	0.0	0.7	0.7	2.1	Flood Risk
180 min Winter	54.685	0.485	0.0	0.6	0.6	2.0	O K
240 min Winter	54.577	0.377	0.0	0.5	0.5	1.8	O K
360 min Winter	54.503	0.303	0.0	0.5	0.5	1.4	O K
480 min Winter	54.447	0.247	0.0	0.4	0.4	1.2	O K
600 min Winter	54.405	0.205	0.0	0.4	0.4	1.0	O K
720 min Winter	54.372	0.172	0.0	0.4	0.4	0.8	O K
960 min Winter	54.327	0.127	0.0	0.3	0.3	0.6	O K
1440 min Winter	54.279	0.079	0.0	0.2	0.2	0.4	O K
2160 min Winter	54.249	0.049	0.0	0.2	0.2	0.2	O K
2880 min Winter	54.235	0.035	0.0	0.1	0.1	0.2	O K
4320 min Winter	54.225	0.025	0.0	0.1	0.1	0.1	O K
5760 min Winter	54.221	0.021	0.0	0.1	0.1	0.1	O K
7200 min Winter	54.219	0.019	0.0	0.1	0.1	0.1	O K
8640 min Winter	54.218	0.018	0.0	0.1	0.1	0.1	O K
10080 min Winter	54.216	0.016	0.0	0.1	0.1	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	90.718	0.0	2.7	30			
60 min Winter	58.739	0.0	3.5	48			
120 min Winter	36.620	0.0	4.4	84			
180 min Winter	27.295	0.0	4.9	120			
240 min Winter	22.033	0.0	5.3	156			
360 min Winter	16.301	0.0	5.9	222			
480 min Winter	13.139	0.0	6.3	286			
600 min Winter	11.105	0.0	6.7	346			
720 min Winter	9.673	0.0	7.0	406			
960 min Winter	7.772	0.0	7.5	524			
1440 min Winter	5.697	0.0	8.2	762			
2160 min Winter	4.166	0.0	9.0	1120			
2880 min Winter	3.331	0.0	9.6	1472			
4320 min Winter	2.426	0.0	10.5	2152			
5760 min Winter	1.938	0.0	11.2	2904			
7200 min Winter	1.629	0.0	11.7	3544			
8640 min Winter	1.414	0.0	12.2	4344			
10080 min Winter	1.254	0.0	12.6	5000			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr +45% Climate Change	
Date 17/03/2026 13:44 File E9459 LODGE 4.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.004	4 8	0.002

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr +45% Climate Change	
Date 17/03/2026 13:44 File E9459 LODGE 4.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 55.000

Cellular Storage Structure

Invert Level (m) 54.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	5.0	5.0	0.401	0.0	8.6
0.400	5.0	8.6			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 54.200

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr				
Date 17/03/2026 13:44 File E9459 LODGE 4.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>							
Half Drain Time : 38 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	54.434	0.234	0.0	0.4	0.4	1.1	O K
30 min Summer	54.486	0.286	0.0	0.5	0.5	1.4	O K
60 min Summer	54.515	0.315	0.0	0.5	0.5	1.5	O K
120 min Summer	54.511	0.311	0.0	0.5	0.5	1.5	O K
180 min Summer	54.487	0.287	0.0	0.5	0.5	1.4	O K
240 min Summer	54.463	0.263	0.0	0.4	0.4	1.2	O K
360 min Summer	54.422	0.222	0.0	0.4	0.4	1.1	O K
480 min Summer	54.390	0.190	0.0	0.4	0.4	0.9	O K
600 min Summer	54.364	0.164	0.0	0.3	0.3	0.8	O K
720 min Summer	54.344	0.144	0.0	0.3	0.3	0.7	O K
960 min Summer	54.313	0.113	0.0	0.3	0.3	0.5	O K
1440 min Summer	54.277	0.077	0.0	0.2	0.2	0.4	O K
2160 min Summer	54.251	0.051	0.0	0.2	0.2	0.2	O K
2880 min Summer	54.238	0.038	0.0	0.1	0.1	0.2	O K
4320 min Summer	54.226	0.026	0.0	0.1	0.1	0.1	O K
5760 min Summer	54.222	0.022	0.0	0.1	0.1	0.1	O K
7200 min Summer	54.220	0.020	0.0	0.1	0.1	0.1	O K
8640 min Summer	54.218	0.018	0.0	0.1	0.1	0.1	O K
10080 min Summer	54.217	0.017	0.0	0.1	0.1	0.1	O K
15 min Winter	54.433	0.233	0.0	0.4	0.4	1.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	92.162	0.0	1.4	18			
30 min Summer	62.564	0.0	1.9	28			
60 min Summer	40.510	0.0	2.4	46			
120 min Summer	25.255	0.0	3.0	80			
180 min Summer	18.824	0.0	3.4	112			
240 min Summer	15.195	0.0	3.6	146			
360 min Summer	11.242	0.0	4.0	208			
480 min Summer	9.062	0.0	4.3	270			
600 min Summer	7.659	0.0	4.6	332			
720 min Summer	6.671	0.0	4.8	392			
960 min Summer	5.360	0.0	5.1	512			
1440 min Summer	3.929	0.0	5.7	750			
2160 min Summer	2.873	0.0	6.2	1104			
2880 min Summer	2.297	0.0	6.6	1468			
4320 min Summer	1.673	0.0	7.2	2204			
5760 min Summer	1.336	0.0	7.7	2936			
7200 min Summer	1.123	0.0	8.1	3672			
8640 min Summer	0.975	0.0	8.4	4368			
10080 min Summer	0.865	0.0	8.7	5072			
15 min Winter	92.162	0.0	1.4	18			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr				
Date 17/03/2026 13:44 File E9459 LODGE 4.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	54.487	0.287	0.0	0.5	0.5	1.4	O K
60 min Winter	54.510	0.310	0.0	0.5	0.5	1.5	O K
120 min Winter	54.492	0.292	0.0	0.5	0.5	1.4	O K
180 min Winter	54.457	0.257	0.0	0.4	0.4	1.2	O K
240 min Winter	54.425	0.225	0.0	0.4	0.4	1.1	O K
360 min Winter	54.374	0.174	0.0	0.4	0.4	0.8	O K
480 min Winter	54.339	0.139	0.0	0.3	0.3	0.7	O K
600 min Winter	54.313	0.113	0.0	0.3	0.3	0.5	O K
720 min Winter	54.294	0.094	0.0	0.3	0.3	0.4	O K
960 min Winter	54.269	0.069	0.0	0.2	0.2	0.3	O K
1440 min Winter	54.244	0.044	0.0	0.2	0.2	0.2	O K
2160 min Winter	54.228	0.028	0.0	0.1	0.1	0.1	O K
2880 min Winter	54.224	0.024	0.0	0.1	0.1	0.1	O K
4320 min Winter	54.219	0.019	0.0	0.1	0.1	0.1	O K
5760 min Winter	54.217	0.017	0.0	0.1	0.1	0.1	O K
7200 min Winter	54.215	0.015	0.0	0.0	0.0	0.1	O K
8640 min Winter	54.214	0.014	0.0	0.0	0.0	0.1	O K
10080 min Winter	54.213	0.013	0.0	0.0	0.0	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	62.564	0.0	1.9	29			
60 min Winter	40.510	0.0	2.4	48			
120 min Winter	25.255	0.0	3.0	84			
180 min Winter	18.824	0.0	3.4	120			
240 min Winter	15.195	0.0	3.6	152			
360 min Winter	11.242	0.0	4.0	216			
480 min Winter	9.062	0.0	4.3	278			
600 min Winter	7.659	0.0	4.6	338			
720 min Winter	6.671	0.0	4.8	398			
960 min Winter	5.360	0.0	5.1	516			
1440 min Winter	3.929	0.0	5.7	750			
2160 min Winter	2.873	0.0	6.2	1104			
2880 min Winter	2.297	0.0	6.6	1468			
4320 min Winter	1.673	0.0	7.2	2204			
5760 min Winter	1.336	0.0	7.7	2944			
7200 min Winter	1.123	0.0	8.1	3648			
8640 min Winter	0.975	0.0	8.4	4240			
10080 min Winter	0.865	0.0	8.7	5008			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr	
Date 17/03/2026 13:44 File E9459 LODGE 4.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.004	4 8	0.002

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:100yr	
Date 17/03/2026 13:44 File E9459 LODGE 4.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 55.000

Cellular Storage Structure

Invert Level (m) 54.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	5.0	5.0	0.401	0.0	8.6
0.400	5.0	8.6			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 54.200

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr +45% Climate Change				
Date 17/03/2026 13:46 File E9459 LODGE 4.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 (+45%)</u>							
Half Drain Time : 40 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	54.464	0.264	0.0	0.4	0.4	1.3	O K
30 min Summer	54.522	0.322	0.0	0.5	0.5	1.5	O K
60 min Summer	54.553	0.353	0.0	0.5	0.5	1.7	O K
120 min Summer	54.551	0.351	0.0	0.5	0.5	1.7	O K
180 min Summer	54.528	0.328	0.0	0.5	0.5	1.6	O K
240 min Summer	54.503	0.303	0.0	0.5	0.5	1.4	O K
360 min Summer	54.460	0.260	0.0	0.4	0.4	1.2	O K
480 min Summer	54.426	0.226	0.0	0.4	0.4	1.1	O K
600 min Summer	54.397	0.197	0.0	0.4	0.4	0.9	O K
720 min Summer	54.375	0.175	0.0	0.4	0.4	0.8	O K
960 min Summer	54.340	0.140	0.0	0.3	0.3	0.7	O K
1440 min Summer	54.297	0.097	0.0	0.3	0.3	0.5	O K
2160 min Summer	54.265	0.065	0.0	0.2	0.2	0.3	O K
2880 min Summer	54.248	0.048	0.0	0.2	0.2	0.2	O K
4320 min Summer	54.231	0.031	0.0	0.1	0.1	0.1	O K
5760 min Summer	54.225	0.025	0.0	0.1	0.1	0.1	O K
7200 min Summer	54.223	0.023	0.0	0.1	0.1	0.1	O K
8640 min Summer	54.221	0.021	0.0	0.1	0.1	0.1	O K
10080 min Summer	54.219	0.019	0.0	0.1	0.1	0.1	O K
15 min Winter	54.464	0.264	0.0	0.4	0.4	1.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	103.208	0.0	1.5	18			
30 min Summer	69.375	0.0	2.1	29			
60 min Summer	44.676	0.0	2.7	46			
120 min Summer	27.889	0.0	3.3	80			
180 min Summer	20.900	0.0	3.8	114			
240 min Summer	16.962	0.0	4.1	146			
360 min Summer	12.635	0.0	4.5	210			
480 min Summer	10.238	0.0	4.9	272			
600 min Summer	8.690	0.0	5.2	332			
720 min Summer	7.598	0.0	5.5	394			
960 min Summer	6.142	0.0	5.9	512			
1440 min Summer	4.544	0.0	6.5	752			
2160 min Summer	3.357	0.0	7.2	1108			
2880 min Summer	2.705	0.0	7.8	1472			
4320 min Summer	1.993	0.0	8.6	2200			
5760 min Summer	1.605	0.0	9.2	2888			
7200 min Summer	1.357	0.0	9.8	3600			
8640 min Summer	1.183	0.0	10.2	4352			
10080 min Summer	1.054	0.0	10.6	5032			
15 min Winter	103.208	0.0	1.5	18			

©1982-2020 Innovzye

Stephen Wilson Partnership Ltd						Page 2	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr +45% Climate Change				
Date 17/03/2026 13:46 File E9459 LODGE 4.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 (+45%)</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	54.522	0.322	0.0	0.5	0.5	1.5	O K
60 min Winter	54.548	0.348	0.0	0.5	0.5	1.7	O K
120 min Winter	54.531	0.331	0.0	0.5	0.5	1.6	O K
180 min Winter	54.496	0.296	0.0	0.5	0.5	1.4	O K
240 min Winter	54.462	0.262	0.0	0.4	0.4	1.2	O K
360 min Winter	54.408	0.208	0.0	0.4	0.4	1.0	O K
480 min Winter	54.368	0.168	0.0	0.3	0.3	0.8	O K
600 min Winter	54.338	0.138	0.0	0.3	0.3	0.7	O K
720 min Winter	54.316	0.116	0.0	0.3	0.3	0.6	O K
960 min Winter	54.286	0.086	0.0	0.2	0.2	0.4	O K
1440 min Winter	54.255	0.055	0.0	0.2	0.2	0.3	O K
2160 min Winter	54.235	0.035	0.0	0.1	0.1	0.2	O K
2880 min Winter	54.227	0.027	0.0	0.1	0.1	0.1	O K
4320 min Winter	54.222	0.022	0.0	0.1	0.1	0.1	O K
5760 min Winter	54.219	0.019	0.0	0.1	0.1	0.1	O K
7200 min Winter	54.217	0.017	0.0	0.1	0.1	0.1	O K
8640 min Winter	54.216	0.016	0.0	0.1	0.1	0.1	O K
10080 min Winter	54.215	0.015	0.0	0.0	0.0	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	69.375	0.0	2.1	30			
60 min Winter	44.676	0.0	2.7	48			
120 min Winter	27.889	0.0	3.3	86			
180 min Winter	20.900	0.0	3.8	120			
240 min Winter	16.962	0.0	4.1	154			
360 min Winter	12.635	0.0	4.5	218			
480 min Winter	10.238	0.0	4.9	280			
600 min Winter	8.690	0.0	5.2	342			
720 min Winter	7.598	0.0	5.5	400			
960 min Winter	6.142	0.0	5.9	520			
1440 min Winter	4.544	0.0	6.5	752			
2160 min Winter	3.357	0.0	7.2	1104			
2880 min Winter	2.705	0.0	7.8	1432			
4320 min Winter	1.993	0.0	8.6	2152			
5760 min Winter	1.605	0.0	9.2	2936			
7200 min Winter	1.357	0.0	9.8	3536			
8640 min Winter	1.183	0.0	10.2	4384			
10080 min Winter	1.054	0.0	10.6	5016			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr +45% Climate Change	
Date 17/03/2026 13:46 File E9459 LODGE 4.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.004	4 8	0.002

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr +45% Climate Change	
Date 17/03/2026 13:46 File E9459 LODGE 4.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage		Source Control 2020.1.3

Model Details

Storage is Online Cover Level (m) 55.000

Cellular Storage Structure

Invert Level (m) 54.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	5.0	5.0	0.401	0.0	8.6
0.400	5.0	8.6			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 54.200

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr				
Date 17/03/2026 13:45 File E9459 LODGE 4.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</u>							
Half Drain Time : 32 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	54.377	0.177	0.0	0.4	0.4	0.8	O K
30 min Summer	54.413	0.213	0.0	0.4	0.4	1.0	O K
60 min Summer	54.430	0.230	0.0	0.4	0.4	1.1	O K
120 min Summer	54.423	0.223	0.0	0.4	0.4	1.1	O K
180 min Summer	54.405	0.205	0.0	0.4	0.4	1.0	O K
240 min Summer	54.386	0.186	0.0	0.4	0.4	0.9	O K
360 min Summer	54.356	0.156	0.0	0.3	0.3	0.7	O K
480 min Summer	54.333	0.133	0.0	0.3	0.3	0.6	O K
600 min Summer	54.315	0.115	0.0	0.3	0.3	0.5	O K
720 min Summer	54.300	0.100	0.0	0.3	0.3	0.5	O K
960 min Summer	54.279	0.079	0.0	0.2	0.2	0.4	O K
1440 min Summer	54.255	0.055	0.0	0.2	0.2	0.3	O K
2160 min Summer	54.237	0.037	0.0	0.1	0.1	0.2	O K
2880 min Summer	54.228	0.028	0.0	0.1	0.1	0.1	O K
4320 min Summer	54.223	0.023	0.0	0.1	0.1	0.1	O K
5760 min Summer	54.220	0.020	0.0	0.1	0.1	0.1	O K
7200 min Summer	54.218	0.018	0.0	0.1	0.1	0.1	O K
8640 min Summer	54.216	0.016	0.0	0.1	0.1	0.1	O K
10080 min Summer	54.215	0.015	0.0	0.0	0.0	0.1	O K
15 min Winter	54.376	0.176	0.0	0.4	0.4	0.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	71.178	0.0	1.1	17			
30 min Summer	47.845	0.0	1.4	27			
60 min Summer	30.811	0.0	1.8	44			
120 min Summer	19.234	0.0	2.3	78			
180 min Summer	14.414	0.0	2.6	112			
240 min Summer	11.698	0.0	2.8	144			
360 min Summer	8.714	0.0	3.1	206			
480 min Summer	7.061	0.0	3.4	268			
600 min Summer	5.993	0.0	3.6	328			
720 min Summer	5.240	0.0	3.8	388			
960 min Summer	4.236	0.0	4.1	508			
1440 min Summer	3.134	0.0	4.5	744			
2160 min Summer	2.315	0.0	5.0	1104			
2880 min Summer	1.865	0.0	5.4	1468			
4320 min Summer	1.374	0.0	5.9	2156			
5760 min Summer	1.107	0.0	6.4	2896			
7200 min Summer	0.936	0.0	6.7	3592			
8640 min Summer	0.816	0.0	7.0	4400			
10080 min Summer	0.727	0.0	7.3	4976			
15 min Winter	71.178	0.0	1.1	18			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd						Page 2	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr				
Date 17/03/2026 13:45 File E9459 LODGE 4.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</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	54.412	0.212	0.0	0.4	0.4	1.0	O K
60 min Winter	54.425	0.225	0.0	0.4	0.4	1.1	O K
120 min Winter	54.406	0.206	0.0	0.4	0.4	1.0	O K
180 min Winter	54.380	0.180	0.0	0.4	0.4	0.9	O K
240 min Winter	54.355	0.155	0.0	0.3	0.3	0.7	O K
360 min Winter	54.319	0.119	0.0	0.3	0.3	0.6	O K
480 min Winter	54.294	0.094	0.0	0.3	0.3	0.4	O K
600 min Winter	54.277	0.077	0.0	0.2	0.2	0.4	O K
720 min Winter	54.264	0.064	0.0	0.2	0.2	0.3	O K
960 min Winter	54.248	0.048	0.0	0.2	0.2	0.2	O K
1440 min Winter	54.232	0.032	0.0	0.1	0.1	0.1	O K
2160 min Winter	54.224	0.024	0.0	0.1	0.1	0.1	O K
2880 min Winter	54.221	0.021	0.0	0.1	0.1	0.1	O K
4320 min Winter	54.217	0.017	0.0	0.1	0.1	0.1	O K
5760 min Winter	54.215	0.015	0.0	0.0	0.0	0.1	O K
7200 min Winter	54.214	0.014	0.0	0.0	0.0	0.1	O K
8640 min Winter	54.212	0.012	0.0	0.0	0.0	0.1	O K
10080 min Winter	54.211	0.011	0.0	0.0	0.0	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	47.845	0.0	1.4	29			
60 min Winter	30.811	0.0	1.8	46			
120 min Winter	19.234	0.0	2.3	84			
180 min Winter	14.414	0.0	2.6	118			
240 min Winter	11.698	0.0	2.8	150			
360 min Winter	8.714	0.0	3.1	212			
480 min Winter	7.061	0.0	3.4	274			
600 min Winter	5.993	0.0	3.6	332			
720 min Winter	5.240	0.0	3.8	392			
960 min Winter	4.236	0.0	4.1	510			
1440 min Winter	3.134	0.0	4.5	750			
2160 min Winter	2.315	0.0	5.0	1108			
2880 min Winter	1.865	0.0	5.4	1460			
4320 min Winter	1.374	0.0	5.9	2192			
5760 min Winter	1.107	0.0	6.4	2888			
7200 min Winter	0.936	0.0	6.7	3640			
8640 min Winter	0.816	0.0	7.0	4384			
10080 min Winter	0.727	0.0	7.3	5048			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr	
Date 17/03/2026 13:45 File E9459 LODGE 4.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.004	4 8	0.002

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:30yr	
Date 17/03/2026 13:45 File E9459 LODGE 4.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 55.000

Cellular Storage Structure

Invert Level (m) 54.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	5.0	5.0	0.401	0.0	8.6
0.400	5.0	8.6			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 54.200

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																		
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:2yr																																																																																																																																																																																																																																																																																						
Date 17/03/2026 13:47 File E9459 LODGE 4.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 : 21 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>54.288</td><td>0.088</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.4</td><td>O K</td></tr><tr><td>30 min Summer</td><td>54.304</td><td>0.104</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.5</td><td>O K</td></tr><tr><td>60 min Summer</td><td>54.310</td><td>0.110</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>54.304</td><td>0.104</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>54.295</td><td>0.095</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.5</td><td>O K</td></tr><tr><td>240 min Summer</td><td>54.286</td><td>0.086</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>54.271</td><td>0.071</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>54.260</td><td>0.060</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>54.252</td><td>0.052</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>54.246</td><td>0.046</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>54.237</td><td>0.037</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>54.228</td><td>0.028</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>54.223</td><td>0.023</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>54.220</td><td>0.020</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>54.217</td><td>0.017</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>54.215</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>54.214</td><td>0.014</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.1</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>54.212</td><td>0.012</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>54.212</td><td>0.012</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>54.288</td><td>0.088</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.4</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>37.566</td><td>0.0</td><td>0.6</td><td>17</td></tr><tr><td>30 min Summer</td><td>25.101</td><td>0.0</td><td>0.8</td><td>26</td></tr><tr><td>60 min Summer</td><td>16.200</td><td>0.0</td><td>1.0</td><td>42</td></tr><tr><td>120 min Summer</td><td>10.259</td><td>0.0</td><td>1.2</td><td>76</td></tr><tr><td>180 min Summer</td><td>7.817</td><td>0.0</td><td>1.4</td><td>108</td></tr><tr><td>240 min Summer</td><td>6.432</td><td>0.0</td><td>1.5</td><td>140</td></tr><tr><td>360 min Summer</td><td>4.866</td><td>0.0</td><td>1.7</td><td>200</td></tr><tr><td>480 min Summer</td><td>3.991</td><td>0.0</td><td>1.9</td><td>260</td></tr><tr><td>600 min Summer</td><td>3.421</td><td>0.0</td><td>2.1</td><td>320</td></tr><tr><td>720 min Summer</td><td>3.016</td><td>0.0</td><td>2.2</td><td>380</td></tr><tr><td>960 min Summer</td><td>2.473</td><td>0.0</td><td>2.4</td><td>500</td></tr><tr><td>1440 min Summer</td><td>1.869</td><td>0.0</td><td>2.7</td><td>736</td></tr><tr><td>2160 min Summer</td><td>1.411</td><td>0.0</td><td>3.0</td><td>1100</td></tr><tr><td>2880 min Summer</td><td>1.157</td><td>0.0</td><td>3.3</td><td>1460</td></tr><tr><td>4320 min Summer</td><td>0.874</td><td>0.0</td><td>3.8</td><td>2176</td></tr><tr><td>5760 min Summer</td><td>0.716</td><td>0.0</td><td>4.1</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>0.613</td><td>0.0</td><td>4.4</td><td>3624</td></tr><tr><td>8640 min Summer</td><td>0.540</td><td>0.0</td><td>4.7</td><td>4408</td></tr><tr><td>10080 min Summer</td><td>0.485</td><td>0.0</td><td>4.9</td><td>5080</td></tr><tr><td>15 min Winter</td><td>37.566</td><td>0.0</td><td>0.6</td><td>17</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	54.288	0.088	0.0	0.2	0.2	0.4	O K	30 min Summer	54.304	0.104	0.0	0.3	0.3	0.5	O K	60 min Summer	54.310	0.110	0.0	0.3	0.3	0.5	O K	120 min Summer	54.304	0.104	0.0	0.3	0.3	0.5	O K	180 min Summer	54.295	0.095	0.0	0.3	0.3	0.5	O K	240 min Summer	54.286	0.086	0.0	0.2	0.2	0.4	O K	360 min Summer	54.271	0.071	0.0	0.2	0.2	0.3	O K	480 min Summer	54.260	0.060	0.0	0.2	0.2	0.3	O K	600 min Summer	54.252	0.052	0.0	0.2	0.2	0.2	O K	720 min Summer	54.246	0.046	0.0	0.2	0.2	0.2	O K	960 min Summer	54.237	0.037	0.0	0.1	0.1	0.2	O K	1440 min Summer	54.228	0.028	0.0	0.1	0.1	0.1	O K	2160 min Summer	54.223	0.023	0.0	0.1	0.1	0.1	O K	2880 min Summer	54.220	0.020	0.0	0.1	0.1	0.1	O K	4320 min Summer	54.217	0.017	0.0	0.1	0.1	0.1	O K	5760 min Summer	54.215	0.015	0.0	0.0	0.0	0.1	O K	7200 min Summer	54.214	0.014	0.0	0.0	0.0	0.1	O K	8640 min Summer	54.212	0.012	0.0	0.0	0.0	0.1	O K	10080 min Summer	54.212	0.012	0.0	0.0	0.0	0.1	O K	15 min Winter	54.288	0.088	0.0	0.2	0.2	0.4	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	37.566	0.0	0.6	17	30 min Summer	25.101	0.0	0.8	26	60 min Summer	16.200	0.0	1.0	42	120 min Summer	10.259	0.0	1.2	76	180 min Summer	7.817	0.0	1.4	108	240 min Summer	6.432	0.0	1.5	140	360 min Summer	4.866	0.0	1.7	200	480 min Summer	3.991	0.0	1.9	260	600 min Summer	3.421	0.0	2.1	320	720 min Summer	3.016	0.0	2.2	380	960 min Summer	2.473	0.0	2.4	500	1440 min Summer	1.869	0.0	2.7	736	2160 min Summer	1.411	0.0	3.0	1100	2880 min Summer	1.157	0.0	3.3	1460	4320 min Summer	0.874	0.0	3.8	2176	5760 min Summer	0.716	0.0	4.1	2936	7200 min Summer	0.613	0.0	4.4	3624	8640 min Summer	0.540	0.0	4.7	4408	10080 min Summer	0.485	0.0	4.9	5080	15 min Winter	37.566	0.0	0.6	17	
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	54.288	0.088	0.0	0.2	0.2	0.4	O K																																																																																																																																																																																																																																																																																		
30 min Summer	54.304	0.104	0.0	0.3	0.3	0.5	O K																																																																																																																																																																																																																																																																																		
60 min Summer	54.310	0.110	0.0	0.3	0.3	0.5	O K																																																																																																																																																																																																																																																																																		
120 min Summer	54.304	0.104	0.0	0.3	0.3	0.5	O K																																																																																																																																																																																																																																																																																		
180 min Summer	54.295	0.095	0.0	0.3	0.3	0.5	O K																																																																																																																																																																																																																																																																																		
240 min Summer	54.286	0.086	0.0	0.2	0.2	0.4	O K																																																																																																																																																																																																																																																																																		
360 min Summer	54.271	0.071	0.0	0.2	0.2	0.3	O K																																																																																																																																																																																																																																																																																		
480 min Summer	54.260	0.060	0.0	0.2	0.2	0.3	O K																																																																																																																																																																																																																																																																																		
600 min Summer	54.252	0.052	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																		
720 min Summer	54.246	0.046	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																		
960 min Summer	54.237	0.037	0.0	0.1	0.1	0.2	O K																																																																																																																																																																																																																																																																																		
1440 min Summer	54.228	0.028	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																		
2160 min Summer	54.223	0.023	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																		
2880 min Summer	54.220	0.020	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																		
4320 min Summer	54.217	0.017	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																		
5760 min Summer	54.215	0.015	0.0	0.0	0.0	0.1	O K																																																																																																																																																																																																																																																																																		
7200 min Summer	54.214	0.014	0.0	0.0	0.0	0.1	O K																																																																																																																																																																																																																																																																																		
8640 min Summer	54.212	0.012	0.0	0.0	0.0	0.1	O K																																																																																																																																																																																																																																																																																		
10080 min Summer	54.212	0.012	0.0	0.0	0.0	0.1	O K																																																																																																																																																																																																																																																																																		
15 min Winter	54.288	0.088	0.0	0.2	0.2	0.4	O K																																																																																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																					
15 min Summer	37.566	0.0	0.6	17																																																																																																																																																																																																																																																																																					
30 min Summer	25.101	0.0	0.8	26																																																																																																																																																																																																																																																																																					
60 min Summer	16.200	0.0	1.0	42																																																																																																																																																																																																																																																																																					
120 min Summer	10.259	0.0	1.2	76																																																																																																																																																																																																																																																																																					
180 min Summer	7.817	0.0	1.4	108																																																																																																																																																																																																																																																																																					
240 min Summer	6.432	0.0	1.5	140																																																																																																																																																																																																																																																																																					
360 min Summer	4.866	0.0	1.7	200																																																																																																																																																																																																																																																																																					
480 min Summer	3.991	0.0	1.9	260																																																																																																																																																																																																																																																																																					
600 min Summer	3.421	0.0	2.1	320																																																																																																																																																																																																																																																																																					
720 min Summer	3.016	0.0	2.2	380																																																																																																																																																																																																																																																																																					
960 min Summer	2.473	0.0	2.4	500																																																																																																																																																																																																																																																																																					
1440 min Summer	1.869	0.0	2.7	736																																																																																																																																																																																																																																																																																					
2160 min Summer	1.411	0.0	3.0	1100																																																																																																																																																																																																																																																																																					
2880 min Summer	1.157	0.0	3.3	1460																																																																																																																																																																																																																																																																																					
4320 min Summer	0.874	0.0	3.8	2176																																																																																																																																																																																																																																																																																					
5760 min Summer	0.716	0.0	4.1	2936																																																																																																																																																																																																																																																																																					
7200 min Summer	0.613	0.0	4.4	3624																																																																																																																																																																																																																																																																																					
8640 min Summer	0.540	0.0	4.7	4408																																																																																																																																																																																																																																																																																					
10080 min Summer	0.485	0.0	4.9	5080																																																																																																																																																																																																																																																																																					
15 min Winter	37.566	0.0	0.6	17																																																																																																																																																																																																																																																																																					
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																									

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - Lodge 4 1:2yr				
Date 17/03/2026 13:47 File E9459 LODGE 4.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	54.303	0.103	0.0	0.3	0.3	0.5	O K
60 min Winter	54.305	0.105	0.0	0.3	0.3	0.5	O K
120 min Winter	54.293	0.093	0.0	0.3	0.3	0.4	O K
180 min Winter	54.279	0.079	0.0	0.2	0.2	0.4	O K
240 min Winter	54.267	0.067	0.0	0.2	0.2	0.3	O K
360 min Winter	54.251	0.051	0.0	0.2	0.2	0.2	O K
480 min Winter	54.241	0.041	0.0	0.2	0.2	0.2	O K
600 min Winter	54.234	0.034	0.0	0.1	0.1	0.2	O K
720 min Winter	54.229	0.029	0.0	0.1	0.1	0.1	O K
960 min Winter	54.225	0.025	0.0	0.1	0.1	0.1	O K
1440 min Winter	54.221	0.021	0.0	0.1	0.1	0.1	O K
2160 min Winter	54.217	0.017	0.0	0.1	0.1	0.1	O K
2880 min Winter	54.216	0.016	0.0	0.1	0.1	0.1	O K
4320 min Winter	54.213	0.013	0.0	0.0	0.0	0.1	O K
5760 min Winter	54.211	0.011	0.0	0.0	0.0	0.1	O K
7200 min Winter	54.211	0.011	0.0	0.0	0.0	0.1	O K
8640 min Winter	54.210	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	54.210	0.010	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.101	0.0	0.8	27			
60 min Winter	16.200	0.0	1.0	44			
120 min Winter	10.259	0.0	1.2	80			
180 min Winter	7.817	0.0	1.4	112			
240 min Winter	6.432	0.0	1.5	144			
360 min Winter	4.866	0.0	1.7	204			
480 min Winter	3.991	0.0	1.9	264			
600 min Winter	3.421	0.0	2.1	324			
720 min Winter	3.016	0.0	2.2	380			
960 min Winter	2.473	0.0	2.4	500			
1440 min Winter	1.869	0.0	2.7	718			
2160 min Winter	1.411	0.0	3.0	1108			
2880 min Winter	1.157	0.0	3.3	1500			
4320 min Winter	0.874	0.0	3.8	2152			
5760 min Winter	0.716	0.0	4.1	2848			
7200 min Winter	0.613	0.0	4.4	3616			
8640 min Winter	0.540	0.0	4.7	4440			
10080 min Winter	0.485	0.0	4.9	5128			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:2yr	
Date 17/03/2026 13:47 File E9459 LODGE 4.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.006

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.004	4 8	0.002

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - Lodge 4 1:2yr	
Date 17/03/2026 13:47 File E9459 LODGE 4.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 55.000

Cellular Storage Structure

Invert Level (m) 54.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	5.0	5.0	0.401	0.0	8.6
0.400	5.0	8.6			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 54.200

©1982-2020 Innovyze

Title	Borde Hill Estate	Job No:	E9549
Description :	Surface Water Storage Calculations	By:	JWM
	Shepherd Hut 5	Date:	Mar-26
		Sheet No:	1

Design Data

M5-60(mm) = 20.000

Ratio R = 0.329

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

Shepherd Hut 5 = 0.6l/s (max.) - restricted using 19mmØ orifice plate



Bespoke FlowBrake SuDS Attenuation Tank orifice with 19mmØ orifice

<https://www.freeflush.co.uk/products/flowbrake-suds-attenuation-tank-orifice-plate?variant=40628437680215>

Total Contributing Impermeable Area = 30m² or 0.003Ha

Results

Attenuation is provided by individual geocellular attenuation tanks 2.0m(L) x 1.0m(W) x 0.4m(deep) and provides 0.76m³ of storage base on a 95% void ratio.

Please refer to attached sheets

Stephen Wilson Partnership Ltd

Page 1

99 South Street
Eastbourne
BN20 4LU

E9459 Borde Hill,
Haywards Heath - HUT 5
1:100yr +45% Climate Change

Date 17/03/2026 13:49
File E9459 HUT 5.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%)

Half Drain Time : 14 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	55.822	0.372	0.0	0.5	0.5	0.7	O K
30 min Summer	55.905	0.455	0.0	0.6	0.6	0.8	O K
60 min Summer	55.920	0.470	0.0	0.6	0.6	0.8	O K
120 min Summer	55.834	0.384	0.0	0.5	0.5	0.7	O K
180 min Summer	55.777	0.327	0.0	0.5	0.5	0.6	O K
240 min Summer	55.729	0.279	0.0	0.5	0.5	0.5	O K
360 min Summer	55.661	0.211	0.0	0.4	0.4	0.4	O K
480 min Summer	55.616	0.166	0.0	0.3	0.3	0.3	O K
600 min Summer	55.585	0.135	0.0	0.3	0.3	0.3	O K
720 min Summer	55.563	0.113	0.0	0.3	0.3	0.2	O K
960 min Summer	55.533	0.083	0.0	0.2	0.2	0.2	O K
1440 min Summer	55.503	0.053	0.0	0.2	0.2	0.1	O K
2160 min Summer	55.483	0.033	0.0	0.1	0.1	0.1	O K
2880 min Summer	55.476	0.026	0.0	0.1	0.1	0.0	O K
4320 min Summer	55.471	0.021	0.0	0.1	0.1	0.0	O K
5760 min Summer	55.468	0.018	0.0	0.1	0.1	0.0	O K
7200 min Summer	55.466	0.016	0.0	0.1	0.1	0.0	O K
8640 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K
10080 min Summer	55.464	0.014	0.0	0.0	0.0	0.0	O K
15 min Winter	55.822	0.372	0.0	0.5	0.5	0.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	133.635	0.0	1.0	14
30 min Summer	90.718	0.0	1.4	23
60 min Summer	58.739	0.0	1.8	40
120 min Summer	36.620	0.0	2.2	74
180 min Summer	27.295	0.0	2.5	104
240 min Summer	22.033	0.0	2.6	136
360 min Summer	16.301	0.0	2.9	196
480 min Summer	13.139	0.0	3.2	256
600 min Summer	11.105	0.0	3.3	314
720 min Summer	9.673	0.0	3.5	376
960 min Summer	7.772	0.0	3.7	492
1440 min Summer	5.697	0.0	4.1	736
2160 min Summer	4.166	0.0	4.5	1100
2880 min Summer	3.331	0.0	4.8	1468
4320 min Summer	2.426	0.0	5.2	2188
5760 min Summer	1.938	0.0	5.6	2864
7200 min Summer	1.629	0.0	5.9	3672
8640 min Summer	1.414	0.0	6.1	4312
10080 min Summer	1.254	0.0	6.3	5120
15 min Winter	133.635	0.0	1.0	15

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:100yr +45% Climate Change				
Date 17/03/2026 13:49 File E9459 HUT 5.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 (+45%)</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	55.890	0.440	0.0	0.6	0.6	0.8	O K
60 min Winter	55.870	0.420	0.0	0.6	0.6	0.8	O K
120 min Winter	55.777	0.327	0.0	0.5	0.5	0.6	O K
180 min Winter	55.705	0.255	0.0	0.4	0.4	0.5	O K
240 min Winter	55.652	0.202	0.0	0.4	0.4	0.4	O K
360 min Winter	55.586	0.136	0.0	0.3	0.3	0.3	O K
480 min Winter	55.549	0.099	0.0	0.3	0.3	0.2	O K
600 min Winter	55.526	0.076	0.0	0.2	0.2	0.1	O K
720 min Winter	55.511	0.061	0.0	0.2	0.2	0.1	O K
960 min Winter	55.494	0.044	0.0	0.2	0.2	0.1	O K
1440 min Winter	55.478	0.028	0.0	0.1	0.1	0.1	O K
2160 min Winter	55.472	0.022	0.0	0.1	0.1	0.0	O K
2880 min Winter	55.469	0.019	0.0	0.1	0.1	0.0	O K
4320 min Winter	55.466	0.016	0.0	0.1	0.1	0.0	O K
5760 min Winter	55.464	0.014	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.462	0.012	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.461	0.011	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.461	0.011	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	90.718	0.0	1.4	24			
60 min Winter	58.739	0.0	1.8	42			
120 min Winter	36.620	0.0	2.2	76			
180 min Winter	27.295	0.0	2.5	108			
240 min Winter	22.033	0.0	2.6	140			
360 min Winter	16.301	0.0	2.9	198			
480 min Winter	13.139	0.0	3.2	258			
600 min Winter	11.105	0.0	3.3	316			
720 min Winter	9.673	0.0	3.5	376			
960 min Winter	7.772	0.0	3.7	492			
1440 min Winter	5.697	0.0	4.1	732			
2160 min Winter	4.166	0.0	4.5	1060			
2880 min Winter	3.331	0.0	4.8	1416			
4320 min Winter	2.426	0.0	5.2	2160			
5760 min Winter	1.938	0.0	5.6	2856			
7200 min Winter	1.629	0.0	5.9	3560			
8640 min Winter	1.414	0.0	6.1	4408			
10080 min Winter	1.254	0.0	6.3	4832			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:100yr +45% Climate Change	
Date 17/03/2026 13:49 File E9459 HUT 5.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)	Area
From:	To: (ha)
0	4 0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:100yr +45% Climate Change	
Date 17/03/2026 13:49 File E9459 HUT 5.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.250

Cellular Storage Structure

Invert Level (m) 55.450 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.450

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:100yr				
Date 17/03/2026 13:50 File E9459 HUT 5.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> Half Drain Time : 11 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	55.695	0.245	0.0	0.4	0.4	0.5	O K
30 min Summer	55.729	0.279	0.0	0.5	0.5	0.5	O K
60 min Summer	55.726	0.276	0.0	0.5	0.5	0.5	O K
120 min Summer	55.684	0.234	0.0	0.4	0.4	0.4	O K
180 min Summer	55.643	0.193	0.0	0.4	0.4	0.4	O K
240 min Summer	55.612	0.162	0.0	0.3	0.3	0.3	O K
360 min Summer	55.569	0.119	0.0	0.3	0.3	0.2	O K
480 min Summer	55.543	0.093	0.0	0.3	0.3	0.2	O K
600 min Summer	55.525	0.075	0.0	0.2	0.2	0.1	O K
720 min Summer	55.512	0.062	0.0	0.2	0.2	0.1	O K
960 min Summer	55.496	0.046	0.0	0.2	0.2	0.1	O K
1440 min Summer	55.481	0.031	0.0	0.1	0.1	0.1	O K
2160 min Summer	55.473	0.023	0.0	0.1	0.1	0.0	O K
2880 min Summer	55.470	0.020	0.0	0.1	0.1	0.0	O K
4320 min Summer	55.467	0.017	0.0	0.1	0.1	0.0	O K
5760 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K
7200 min Summer	55.463	0.013	0.0	0.0	0.0	0.0	O K
8640 min Summer	55.462	0.012	0.0	0.0	0.0	0.0	O K
10080 min Summer	55.461	0.011	0.0	0.0	0.0	0.0	O K
15 min Winter	55.694	0.244	0.0	0.4	0.4	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
15 min Summer	92.162	0.0	0.7	14			
30 min Summer	62.564	0.0	0.9	22			
60 min Summer	40.510	0.0	1.2	40			
120 min Summer	25.255	0.0	1.5	72			
180 min Summer	18.824	0.0	1.7	102			
240 min Summer	15.195	0.0	1.8	134			
360 min Summer	11.242	0.0	2.0	194			
480 min Summer	9.062	0.0	2.2	252			
600 min Summer	7.659	0.0	2.3	312			
720 min Summer	6.671	0.0	2.4	370			
960 min Summer	5.360	0.0	2.6	492			
1440 min Summer	3.929	0.0	2.8	734			
2160 min Summer	2.873	0.0	3.1	1100			
2880 min Summer	2.297	0.0	3.3	1436			
4320 min Summer	1.673	0.0	3.6	2172			
5760 min Summer	1.336	0.0	3.8	2856			
7200 min Summer	1.123	0.0	4.0	3600			
8640 min Summer	0.975	0.0	4.2	4400			
10080 min Summer	0.865	0.0	4.4	5104			
15 min Winter	92.162	0.0	0.7	14			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:100yr	
Date 17/03/2026 13:50 File E9459 HUT 5.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:100yr	
Date 17/03/2026 13:50 File E9459 HUT 5.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.250

Cellular Storage Structure

Invert Level (m) 55.450 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.450

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																		
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr +45% Climate Change																																																																																																																																																																																																																																																																																						
Date 17/03/2026 13:51 File E9459 HUT 5.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 (+45%)</u> Half Drain Time : 12 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>55.728</td><td>0.278</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>55.764</td><td>0.314</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.6</td><td>O K</td></tr><tr><td>60 min Summer</td><td>55.762</td><td>0.312</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>55.717</td><td>0.267</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>55.674</td><td>0.224</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>55.640</td><td>0.190</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>55.593</td><td>0.143</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>55.562</td><td>0.112</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>55.541</td><td>0.091</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>55.526</td><td>0.076</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>55.507</td><td>0.057</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>55.487</td><td>0.037</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>55.476</td><td>0.026</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>55.473</td><td>0.023</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>55.469</td><td>0.019</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>55.466</td><td>0.016</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>55.465</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>55.463</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>55.462</td><td>0.012</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>55.727</td><td>0.277</td><td>0.0</td><td>0.5</td><td>0.5</td><td>0.5</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>103.208</td><td>0.0</td><td>0.8</td><td>14</td></tr><tr><td>30 min Summer</td><td>69.375</td><td>0.0</td><td>1.0</td><td>22</td></tr><tr><td>60 min Summer</td><td>44.676</td><td>0.0</td><td>1.3</td><td>40</td></tr><tr><td>120 min Summer</td><td>27.889</td><td>0.0</td><td>1.7</td><td>72</td></tr><tr><td>180 min Summer</td><td>20.900</td><td>0.0</td><td>1.9</td><td>104</td></tr><tr><td>240 min Summer</td><td>16.962</td><td>0.0</td><td>2.0</td><td>134</td></tr><tr><td>360 min Summer</td><td>12.635</td><td>0.0</td><td>2.3</td><td>194</td></tr><tr><td>480 min Summer</td><td>10.238</td><td>0.0</td><td>2.5</td><td>254</td></tr><tr><td>600 min Summer</td><td>8.690</td><td>0.0</td><td>2.6</td><td>314</td></tr><tr><td>720 min Summer</td><td>7.598</td><td>0.0</td><td>2.7</td><td>372</td></tr><tr><td>960 min Summer</td><td>6.142</td><td>0.0</td><td>2.9</td><td>492</td></tr><tr><td>1440 min Summer</td><td>4.544</td><td>0.0</td><td>3.3</td><td>734</td></tr><tr><td>2160 min Summer</td><td>3.357</td><td>0.0</td><td>3.6</td><td>1092</td></tr><tr><td>2880 min Summer</td><td>2.705</td><td>0.0</td><td>3.9</td><td>1444</td></tr><tr><td>4320 min Summer</td><td>1.993</td><td>0.0</td><td>4.3</td><td>2180</td></tr><tr><td>5760 min Summer</td><td>1.605</td><td>0.0</td><td>4.6</td><td>2864</td></tr><tr><td>7200 min Summer</td><td>1.357</td><td>0.0</td><td>4.9</td><td>3632</td></tr><tr><td>8640 min Summer</td><td>1.183</td><td>0.0</td><td>5.1</td><td>4376</td></tr><tr><td>10080 min Summer</td><td>1.054</td><td>0.0</td><td>5.3</td><td>5096</td></tr><tr><td>15 min Winter</td><td>103.208</td><td>0.0</td><td>0.8</td><td>14</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	55.728	0.278	0.0	0.5	0.5	0.5	O K	30 min Summer	55.764	0.314	0.0	0.5	0.5	0.6	O K	60 min Summer	55.762	0.312	0.0	0.5	0.5	0.6	O K	120 min Summer	55.717	0.267	0.0	0.4	0.4	0.5	O K	180 min Summer	55.674	0.224	0.0	0.4	0.4	0.4	O K	240 min Summer	55.640	0.190	0.0	0.4	0.4	0.4	O K	360 min Summer	55.593	0.143	0.0	0.3	0.3	0.3	O K	480 min Summer	55.562	0.112	0.0	0.3	0.3	0.2	O K	600 min Summer	55.541	0.091	0.0	0.3	0.3	0.2	O K	720 min Summer	55.526	0.076	0.0	0.2	0.2	0.1	O K	960 min Summer	55.507	0.057	0.0	0.2	0.2	0.1	O K	1440 min Summer	55.487	0.037	0.0	0.1	0.1	0.1	O K	2160 min Summer	55.476	0.026	0.0	0.1	0.1	0.0	O K	2880 min Summer	55.473	0.023	0.0	0.1	0.1	0.0	O K	4320 min Summer	55.469	0.019	0.0	0.1	0.1	0.0	O K	5760 min Summer	55.466	0.016	0.0	0.1	0.1	0.0	O K	7200 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K	8640 min Summer	55.463	0.013	0.0	0.0	0.0	0.0	O K	10080 min Summer	55.462	0.012	0.0	0.0	0.0	0.0	O K	15 min Winter	55.727	0.277	0.0	0.5	0.5	0.5	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	103.208	0.0	0.8	14	30 min Summer	69.375	0.0	1.0	22	60 min Summer	44.676	0.0	1.3	40	120 min Summer	27.889	0.0	1.7	72	180 min Summer	20.900	0.0	1.9	104	240 min Summer	16.962	0.0	2.0	134	360 min Summer	12.635	0.0	2.3	194	480 min Summer	10.238	0.0	2.5	254	600 min Summer	8.690	0.0	2.6	314	720 min Summer	7.598	0.0	2.7	372	960 min Summer	6.142	0.0	2.9	492	1440 min Summer	4.544	0.0	3.3	734	2160 min Summer	3.357	0.0	3.6	1092	2880 min Summer	2.705	0.0	3.9	1444	4320 min Summer	1.993	0.0	4.3	2180	5760 min Summer	1.605	0.0	4.6	2864	7200 min Summer	1.357	0.0	4.9	3632	8640 min Summer	1.183	0.0	5.1	4376	10080 min Summer	1.054	0.0	5.3	5096	15 min Winter	103.208	0.0	0.8	14
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	55.728	0.278	0.0	0.5	0.5	0.5	O K																																																																																																																																																																																																																																																																																		
30 min Summer	55.764	0.314	0.0	0.5	0.5	0.6	O K																																																																																																																																																																																																																																																																																		
60 min Summer	55.762	0.312	0.0	0.5	0.5	0.6	O K																																																																																																																																																																																																																																																																																		
120 min Summer	55.717	0.267	0.0	0.4	0.4	0.5	O K																																																																																																																																																																																																																																																																																		
180 min Summer	55.674	0.224	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																		
240 min Summer	55.640	0.190	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																		
360 min Summer	55.593	0.143	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																		
480 min Summer	55.562	0.112	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																		
600 min Summer	55.541	0.091	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																		
720 min Summer	55.526	0.076	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																		
960 min Summer	55.507	0.057	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																		
1440 min Summer	55.487	0.037	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																		
2160 min Summer	55.476	0.026	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
2880 min Summer	55.473	0.023	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
4320 min Summer	55.469	0.019	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
5760 min Summer	55.466	0.016	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																		
7200 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
8640 min Summer	55.463	0.013	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
10080 min Summer	55.462	0.012	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																		
15 min Winter	55.727	0.277	0.0	0.5	0.5	0.5	O K																																																																																																																																																																																																																																																																																		
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																					
15 min Summer	103.208	0.0	0.8	14																																																																																																																																																																																																																																																																																					
30 min Summer	69.375	0.0	1.0	22																																																																																																																																																																																																																																																																																					
60 min Summer	44.676	0.0	1.3	40																																																																																																																																																																																																																																																																																					
120 min Summer	27.889	0.0	1.7	72																																																																																																																																																																																																																																																																																					
180 min Summer	20.900	0.0	1.9	104																																																																																																																																																																																																																																																																																					
240 min Summer	16.962	0.0	2.0	134																																																																																																																																																																																																																																																																																					
360 min Summer	12.635	0.0	2.3	194																																																																																																																																																																																																																																																																																					
480 min Summer	10.238	0.0	2.5	254																																																																																																																																																																																																																																																																																					
600 min Summer	8.690	0.0	2.6	314																																																																																																																																																																																																																																																																																					
720 min Summer	7.598	0.0	2.7	372																																																																																																																																																																																																																																																																																					
960 min Summer	6.142	0.0	2.9	492																																																																																																																																																																																																																																																																																					
1440 min Summer	4.544	0.0	3.3	734																																																																																																																																																																																																																																																																																					
2160 min Summer	3.357	0.0	3.6	1092																																																																																																																																																																																																																																																																																					
2880 min Summer	2.705	0.0	3.9	1444																																																																																																																																																																																																																																																																																					
4320 min Summer	1.993	0.0	4.3	2180																																																																																																																																																																																																																																																																																					
5760 min Summer	1.605	0.0	4.6	2864																																																																																																																																																																																																																																																																																					
7200 min Summer	1.357	0.0	4.9	3632																																																																																																																																																																																																																																																																																					
8640 min Summer	1.183	0.0	5.1	4376																																																																																																																																																																																																																																																																																					
10080 min Summer	1.054	0.0	5.3	5096																																																																																																																																																																																																																																																																																					
15 min Winter	103.208	0.0	0.8	14																																																																																																																																																																																																																																																																																					
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																									

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr +45% Climate Change				
Date 17/03/2026 13:51 File E9459 HUT 5.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 (+45%)</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	55.756	0.306	0.0	0.5	0.5	0.6	O K
60 min Winter	55.738	0.288	0.0	0.5	0.5	0.5	O K
120 min Winter	55.671	0.221	0.0	0.4	0.4	0.4	O K
180 min Winter	55.619	0.169	0.0	0.4	0.4	0.3	O K
240 min Winter	55.583	0.133	0.0	0.3	0.3	0.3	O K
360 min Winter	55.539	0.089	0.0	0.2	0.2	0.2	O K
480 min Winter	55.515	0.065	0.0	0.2	0.2	0.1	O K
600 min Winter	55.501	0.051	0.0	0.2	0.2	0.1	O K
720 min Winter	55.492	0.042	0.0	0.2	0.2	0.1	O K
960 min Winter	55.481	0.031	0.0	0.1	0.1	0.1	O K
1440 min Winter	55.474	0.024	0.0	0.1	0.1	0.0	O K
2160 min Winter	55.470	0.020	0.0	0.1	0.1	0.0	O K
2880 min Winter	55.467	0.017	0.0	0.1	0.1	0.0	O K
4320 min Winter	55.464	0.014	0.0	0.0	0.0	0.0	O K
5760 min Winter	55.462	0.012	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.461	0.011	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.460	0.010	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.460	0.010	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	69.375	0.0	1.0	24			
60 min Winter	44.676	0.0	1.3	42			
120 min Winter	27.889	0.0	1.7	76			
180 min Winter	20.900	0.0	1.9	106			
240 min Winter	16.962	0.0	2.0	136			
360 min Winter	12.635	0.0	2.3	196			
480 min Winter	10.238	0.0	2.5	256			
600 min Winter	8.690	0.0	2.6	314			
720 min Winter	7.598	0.0	2.7	374			
960 min Winter	6.142	0.0	2.9	490			
1440 min Winter	4.544	0.0	3.3	724			
2160 min Winter	3.357	0.0	3.6	1084			
2880 min Winter	2.705	0.0	3.9	1440			
4320 min Winter	1.993	0.0	4.3	2120			
5760 min Winter	1.605	0.0	4.6	2952			
7200 min Winter	1.357	0.0	4.9	3632			
8640 min Winter	1.183	0.0	5.1	4400			
10080 min Winter	1.054	0.0	5.3	5136			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr +45% Climate Change	
Date 17/03/2026 13:51 File E9459 HUT 5.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.003

Time (mins)	Area
From:	To: (ha)
0	4 0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr +45% Climate Change	
Date 17/03/2026 13:51 File E9459 HUT 5.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.250

Cellular Storage Structure

Invert Level (m) 55.450 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.450

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd							Page 1																																																																																																																																																																																																																																																																																	
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr																																																																																																																																																																																																																																																																																					
Date 17/03/2026 13:51 File E9459 HUT 5.SRCX			Designed by SWP Ltd Checked by SWP Ltd																																																																																																																																																																																																																																																																																					
Micro Drainage			Source Control 2020.1.3																																																																																																																																																																																																																																																																																					
Summary of Results for 30 year Return Period Half Drain Time : 13 minutes. <table><thead><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></thead><tbody><tr><td>15 min Summer</td><td>55.633</td><td>0.183</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>55.654</td><td>0.204</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>55.646</td><td>0.196</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>55.612</td><td>0.162</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>55.583</td><td>0.133</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.3</td><td>O K</td></tr><tr><td>240 min Summer</td><td>55.561</td><td>0.111</td><td>0.0</td><td>0.3</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>55.531</td><td>0.081</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>480 min Summer</td><td>55.513</td><td>0.063</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>55.502</td><td>0.052</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>55.493</td><td>0.043</td><td>0.0</td><td>0.2</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>55.483</td><td>0.033</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>55.475</td><td>0.025</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>55.470</td><td>0.020</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>55.468</td><td>0.018</td><td>0.0</td><td>0.1</td><td>0.1</td><td>0.0</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>55.465</td><td>0.015</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>55.463</td><td>0.013</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>55.461</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>55.461</td><td>0.011</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>55.460</td><td>0.010</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.0</td><td>O K</td></tr><tr><td>15 min Winter</td><td>55.631</td><td>0.181</td><td>0.0</td><td>0.4</td><td>0.4</td><td>0.3</td><td>O K</td></tr></tbody></table> <table><thead><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></thead><tbody><tr><td>15 min Summer</td><td>71.178</td><td>0.0</td><td>0.5</td><td>13</td></tr><tr><td>30 min Summer</td><td>47.845</td><td>0.0</td><td>0.7</td><td>22</td></tr><tr><td>60 min Summer</td><td>30.811</td><td>0.0</td><td>0.9</td><td>38</td></tr><tr><td>120 min Summer</td><td>19.234</td><td>0.0</td><td>1.2</td><td>70</td></tr><tr><td>180 min Summer</td><td>14.414</td><td>0.0</td><td>1.3</td><td>102</td></tr><tr><td>240 min Summer</td><td>11.698</td><td>0.0</td><td>1.4</td><td>132</td></tr><tr><td>360 min Summer</td><td>8.714</td><td>0.0</td><td>1.6</td><td>192</td></tr><tr><td>480 min Summer</td><td>7.061</td><td>0.0</td><td>1.7</td><td>252</td></tr><tr><td>600 min Summer</td><td>5.993</td><td>0.0</td><td>1.8</td><td>310</td></tr><tr><td>720 min Summer</td><td>5.240</td><td>0.0</td><td>1.9</td><td>370</td></tr><tr><td>960 min Summer</td><td>4.236</td><td>0.0</td><td>2.0</td><td>490</td></tr><tr><td>1440 min Summer</td><td>3.134</td><td>0.0</td><td>2.3</td><td>722</td></tr><tr><td>2160 min Summer</td><td>2.315</td><td>0.0</td><td>2.5</td><td>1088</td></tr><tr><td>2880 min Summer</td><td>1.865</td><td>0.0</td><td>2.7</td><td>1460</td></tr><tr><td>4320 min Summer</td><td>1.374</td><td>0.0</td><td>3.0</td><td>2144</td></tr><tr><td>5760 min Summer</td><td>1.107</td><td>0.0</td><td>3.2</td><td>2872</td></tr><tr><td>7200 min Summer</td><td>0.936</td><td>0.0</td><td>3.4</td><td>3560</td></tr><tr><td>8640 min Summer</td><td>0.816</td><td>0.0</td><td>3.5</td><td>4352</td></tr><tr><td>10080 min Summer</td><td>0.727</td><td>0.0</td><td>3.7</td><td>5104</td></tr><tr><td>15 min Winter</td><td>71.178</td><td>0.0</td><td>0.5</td><td>14</td></tr></tbody></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	55.633	0.183	0.0	0.4	0.4	0.3	O K	30 min Summer	55.654	0.204	0.0	0.4	0.4	0.4	O K	60 min Summer	55.646	0.196	0.0	0.4	0.4	0.4	O K	120 min Summer	55.612	0.162	0.0	0.3	0.3	0.3	O K	180 min Summer	55.583	0.133	0.0	0.3	0.3	0.3	O K	240 min Summer	55.561	0.111	0.0	0.3	0.3	0.2	O K	360 min Summer	55.531	0.081	0.0	0.2	0.2	0.2	O K	480 min Summer	55.513	0.063	0.0	0.2	0.2	0.1	O K	600 min Summer	55.502	0.052	0.0	0.2	0.2	0.1	O K	720 min Summer	55.493	0.043	0.0	0.2	0.2	0.1	O K	960 min Summer	55.483	0.033	0.0	0.1	0.1	0.1	O K	1440 min Summer	55.475	0.025	0.0	0.1	0.1	0.0	O K	2160 min Summer	55.470	0.020	0.0	0.1	0.1	0.0	O K	2880 min Summer	55.468	0.018	0.0	0.1	0.1	0.0	O K	4320 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K	5760 min Summer	55.463	0.013	0.0	0.0	0.0	0.0	O K	7200 min Summer	55.461	0.011	0.0	0.0	0.0	0.0	O K	8640 min Summer	55.461	0.011	0.0	0.0	0.0	0.0	O K	10080 min Summer	55.460	0.010	0.0	0.0	0.0	0.0	O K	15 min Winter	55.631	0.181	0.0	0.4	0.4	0.3	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	15 min Summer	71.178	0.0	0.5	13	30 min Summer	47.845	0.0	0.7	22	60 min Summer	30.811	0.0	0.9	38	120 min Summer	19.234	0.0	1.2	70	180 min Summer	14.414	0.0	1.3	102	240 min Summer	11.698	0.0	1.4	132	360 min Summer	8.714	0.0	1.6	192	480 min Summer	7.061	0.0	1.7	252	600 min Summer	5.993	0.0	1.8	310	720 min Summer	5.240	0.0	1.9	370	960 min Summer	4.236	0.0	2.0	490	1440 min Summer	3.134	0.0	2.3	722	2160 min Summer	2.315	0.0	2.5	1088	2880 min Summer	1.865	0.0	2.7	1460	4320 min Summer	1.374	0.0	3.0	2144	5760 min Summer	1.107	0.0	3.2	2872	7200 min Summer	0.936	0.0	3.4	3560	8640 min Summer	0.816	0.0	3.5	4352	10080 min Summer	0.727	0.0	3.7	5104	15 min Winter	71.178	0.0	0.5	14
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	55.633	0.183	0.0	0.4	0.4	0.3	O K																																																																																																																																																																																																																																																																																	
30 min Summer	55.654	0.204	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
60 min Summer	55.646	0.196	0.0	0.4	0.4	0.4	O K																																																																																																																																																																																																																																																																																	
120 min Summer	55.612	0.162	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
180 min Summer	55.583	0.133	0.0	0.3	0.3	0.3	O K																																																																																																																																																																																																																																																																																	
240 min Summer	55.561	0.111	0.0	0.3	0.3	0.2	O K																																																																																																																																																																																																																																																																																	
360 min Summer	55.531	0.081	0.0	0.2	0.2	0.2	O K																																																																																																																																																																																																																																																																																	
480 min Summer	55.513	0.063	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
600 min Summer	55.502	0.052	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
720 min Summer	55.493	0.043	0.0	0.2	0.2	0.1	O K																																																																																																																																																																																																																																																																																	
960 min Summer	55.483	0.033	0.0	0.1	0.1	0.1	O K																																																																																																																																																																																																																																																																																	
1440 min Summer	55.475	0.025	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
2160 min Summer	55.470	0.020	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
2880 min Summer	55.468	0.018	0.0	0.1	0.1	0.0	O K																																																																																																																																																																																																																																																																																	
4320 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
5760 min Summer	55.463	0.013	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
7200 min Summer	55.461	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
8640 min Summer	55.461	0.011	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
10080 min Summer	55.460	0.010	0.0	0.0	0.0	0.0	O K																																																																																																																																																																																																																																																																																	
15 min Winter	55.631	0.181	0.0	0.4	0.4	0.3	O K																																																																																																																																																																																																																																																																																	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																																																																				
15 min Summer	71.178	0.0	0.5	13																																																																																																																																																																																																																																																																																				
30 min Summer	47.845	0.0	0.7	22																																																																																																																																																																																																																																																																																				
60 min Summer	30.811	0.0	0.9	38																																																																																																																																																																																																																																																																																				
120 min Summer	19.234	0.0	1.2	70																																																																																																																																																																																																																																																																																				
180 min Summer	14.414	0.0	1.3	102																																																																																																																																																																																																																																																																																				
240 min Summer	11.698	0.0	1.4	132																																																																																																																																																																																																																																																																																				
360 min Summer	8.714	0.0	1.6	192																																																																																																																																																																																																																																																																																				
480 min Summer	7.061	0.0	1.7	252																																																																																																																																																																																																																																																																																				
600 min Summer	5.993	0.0	1.8	310																																																																																																																																																																																																																																																																																				
720 min Summer	5.240	0.0	1.9	370																																																																																																																																																																																																																																																																																				
960 min Summer	4.236	0.0	2.0	490																																																																																																																																																																																																																																																																																				
1440 min Summer	3.134	0.0	2.3	722																																																																																																																																																																																																																																																																																				
2160 min Summer	2.315	0.0	2.5	1088																																																																																																																																																																																																																																																																																				
2880 min Summer	1.865	0.0	2.7	1460																																																																																																																																																																																																																																																																																				
4320 min Summer	1.374	0.0	3.0	2144																																																																																																																																																																																																																																																																																				
5760 min Summer	1.107	0.0	3.2	2872																																																																																																																																																																																																																																																																																				
7200 min Summer	0.936	0.0	3.4	3560																																																																																																																																																																																																																																																																																				
8640 min Summer	0.816	0.0	3.5	4352																																																																																																																																																																																																																																																																																				
10080 min Summer	0.727	0.0	3.7	5104																																																																																																																																																																																																																																																																																				
15 min Winter	71.178	0.0	0.5	14																																																																																																																																																																																																																																																																																				
©1982-2020 Innovyze																																																																																																																																																																																																																																																																																								

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr				
Date 17/03/2026 13:51 File E9459 HUT 5.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</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	55.646	0.196	0.0	0.4	0.4	0.4	O K
60 min Winter	55.626	0.176	0.0	0.4	0.4	0.3	O K
120 min Winter	55.579	0.129	0.0	0.3	0.3	0.2	O K
180 min Winter	55.545	0.095	0.0	0.3	0.3	0.2	O K
240 min Winter	55.524	0.074	0.0	0.2	0.2	0.1	O K
360 min Winter	55.499	0.049	0.0	0.2	0.2	0.1	O K
480 min Winter	55.487	0.037	0.0	0.1	0.1	0.1	O K
600 min Winter	55.480	0.030	0.0	0.1	0.1	0.1	O K
720 min Winter	55.476	0.026	0.0	0.1	0.1	0.0	O K
960 min Winter	55.473	0.023	0.0	0.1	0.1	0.0	O K
1440 min Winter	55.469	0.019	0.0	0.1	0.1	0.0	O K
2160 min Winter	55.466	0.016	0.0	0.1	0.1	0.0	O K
2880 min Winter	55.463	0.013	0.0	0.0	0.0	0.0	O K
4320 min Winter	55.461	0.011	0.0	0.0	0.0	0.0	O K
5760 min Winter	55.460	0.010	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.459	0.009	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.459	0.009	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.458	0.008	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	47.845	0.0	0.7	23			
60 min Winter	30.811	0.0	0.9	40			
120 min Winter	19.234	0.0	1.2	74			
180 min Winter	14.414	0.0	1.3	104			
240 min Winter	11.698	0.0	1.4	134			
360 min Winter	8.714	0.0	1.6	194			
480 min Winter	7.061	0.0	1.7	252			
600 min Winter	5.993	0.0	1.8	308			
720 min Winter	5.240	0.0	1.9	364			
960 min Winter	4.236	0.0	2.0	500			
1440 min Winter	3.134	0.0	2.3	732			
2160 min Winter	2.315	0.0	2.5	1096			
2880 min Winter	1.865	0.0	2.7	1472			
4320 min Winter	1.374	0.0	3.0	2164			
5760 min Winter	1.107	0.0	3.2	2832			
7200 min Winter	0.936	0.0	3.4	3608			
8640 min Winter	0.816	0.0	3.5	4344			
10080 min Winter	0.727	0.0	3.7	5080			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr	
Date 17/03/2026 13:51 File E9459 HUT 5.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:30yr	
Date 17/03/2026 13:51 File E9459 HUT 5.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.250

Cellular Storage Structure

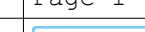
Invert Level (m) 55.450 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.450

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 1
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:2yr	
Date 17/03/2026 13:52 File E9459 HUT 5.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Summary of Results for 2 year Return Period

	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	55.539	0.089	0.0	0.2	0.2	0.2	O K
	30 min Summer	55.546	0.096	0.0	0.3	0.3	0.2	O K
	60 min Summer	55.539	0.089	0.0	0.2	0.2	0.2	O K
	120 min Summer	55.520	0.070	0.0	0.2	0.2	0.1	O K
	180 min Summer	55.507	0.057	0.0	0.2	0.2	0.1	O K
	240 min Summer	55.498	0.048	0.0	0.2	0.2	0.1	O K
	360 min Summer	55.486	0.036	0.0	0.1	0.1	0.1	O K
	480 min Summer	55.479	0.029	0.0	0.1	0.1	0.1	O K
	600 min Summer	55.476	0.026	0.0	0.1	0.1	0.0	O K
	720 min Summer	55.474	0.024	0.0	0.1	0.1	0.0	O K
	960 min Summer	55.471	0.021	0.0	0.1	0.1	0.0	O K
	1440 min Summer	55.468	0.018	0.0	0.1	0.1	0.0	O K
	2160 min Summer	55.465	0.015	0.0	0.0	0.0	0.0	O K
	2880 min Summer	55.463	0.013	0.0	0.0	0.0	0.0	O K
	4320 min Summer	55.461	0.011	0.0	0.0	0.0	0.0	O K
	5760 min Summer	55.460	0.010	0.0	0.0	0.0	0.0	O K
	7200 min Summer	55.459	0.009	0.0	0.0	0.0	0.0	O K
	8640 min Summer	55.459	0.009	0.0	0.0	0.0	0.0	O K
	10080 min Summer	55.458	0.008	0.0	0.0	0.0	0.0	O K
	15 min Winter	55.537	0.087	0.0	0.2	0.2	0.2	O K

Stephen Wilson Partnership Ltd							Page 2
99 South Street Eastbourne BN20 4LU			E9459 Borde Hill, Haywards Heath - HUT 5 1:2yr				
Date 17/03/2026 13:52 File E9459 HUT 5.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	55.540	0.090	0.0	0.2	0.2	0.2	O K
60 min Winter	55.526	0.076	0.0	0.2	0.2	0.1	O K
120 min Winter	55.502	0.052	0.0	0.2	0.2	0.1	O K
180 min Winter	55.489	0.039	0.0	0.2	0.2	0.1	O K
240 min Winter	55.481	0.031	0.0	0.1	0.1	0.1	O K
360 min Winter	55.475	0.025	0.0	0.1	0.1	0.0	O K
480 min Winter	55.472	0.022	0.0	0.1	0.1	0.0	O K
600 min Winter	55.470	0.020	0.0	0.1	0.1	0.0	O K
720 min Winter	55.468	0.018	0.0	0.1	0.1	0.0	O K
960 min Winter	55.466	0.016	0.0	0.1	0.1	0.0	O K
1440 min Winter	55.463	0.013	0.0	0.0	0.0	0.0	O K
2160 min Winter	55.461	0.011	0.0	0.0	0.0	0.0	O K
2880 min Winter	55.460	0.010	0.0	0.0	0.0	0.0	O K
4320 min Winter	55.459	0.009	0.0	0.0	0.0	0.0	O K
5760 min Winter	55.458	0.008	0.0	0.0	0.0	0.0	O K
7200 min Winter	55.458	0.008	0.0	0.0	0.0	0.0	O K
8640 min Winter	55.457	0.007	0.0	0.0	0.0	0.0	O K
10080 min Winter	55.457	0.007	0.0	0.0	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)			
30 min Winter	25.101	0.0	0.4	22			
60 min Winter	16.200	0.0	0.5	38			
120 min Winter	10.259	0.0	0.6	70			
180 min Winter	7.817	0.0	0.7	100			
240 min Winter	6.432	0.0	0.8	130			
360 min Winter	4.866	0.0	0.9	188			
480 min Winter	3.991	0.0	1.0	244			
600 min Winter	3.421	0.0	1.0	310			
720 min Winter	3.016	0.0	1.1	362			
960 min Winter	2.473	0.0	1.2	482			
1440 min Winter	1.869	0.0	1.3	736			
2160 min Winter	1.411	0.0	1.5	1068			
2880 min Winter	1.157	0.0	1.7	1420			
4320 min Winter	0.874	0.0	1.9	2276			
5760 min Winter	0.716	0.0	2.1	2848			
7200 min Winter	0.613	0.0	2.2	3720			
8640 min Winter	0.540	0.0	2.3	4456			
10080 min Winter	0.485	0.0	2.4	4888			
©1982-2020 Innovyze							

Stephen Wilson Partnership Ltd		Page 3
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:2yr	
Date 17/03/2026 13:52 File E9459 HUT 5.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	0.329	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.003

Time (mins)		Area
From:	To:	(ha)
0	4	0.003

©1982-2020 Innovyze

Stephen Wilson Partnership Ltd		Page 4
99 South Street Eastbourne BN20 4LU	E9459 Borde Hill, Haywards Heath - HUT 5 1:2yr	
Date 17/03/2026 13:52 File E9459 HUT 5.SRCX	Designed by SWP Ltd Checked by SWP Ltd	
Micro Drainage Source Control 2020.1.3		

Model Details

Storage is Online Cover Level (m) 56.250

Cellular Storage Structure

Invert Level (m) 55.450 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	2.0	2.0	0.401	0.0	4.4
0.400	2.0	4.4			

Orifice Outflow Control

Diameter (m) 0.019 Discharge Coefficient 0.700 Invert Level (m) 55.450

©1982-2020 Innovyze

Appendix 3.0

Geotechnical Assessment



**BRIEF GEOTECHNICAL
ASSESSMENT REPORT**

**LAND AT BORDE HILL
BORDE HILL LANE
HAYWARDS HEATH
WEST SUSSEX**

PROJECT REFERENCE: P16907

REPORT REFERENCE: R16481

Report Beneficiary: Alex Goddard

Document Control			
Issue No.	Status	Issue Date	Notes
1	Final	13 th December 2024	
Report Section		Prepared By	Approved By
Brief Geotechnical Assessment		Adam Cormack HNC FGS	Steven McSwiney BA mod Geol MSc FGS

Limitations

This report was prepared specifically for the Client's project and may not be appropriate to alternative schemes. The copyright for the report and licence for its use shall remain vested in Ashdown Site Investigation Limited (the Company) who disclaim all responsibility or liability (whether at common law or under the express or implied terms of the Contract between the Company and the Client) for any loss or damage of whatever nature in the event that this report is relied on by a third party, or is issued in circumstances or for projects for which it was not originally commissioned.

Head Office:

Unit 3
The Old Grain Store
Ditchling Common Business Park
Ditchling
East Sussex
BN6 8SG

Telephone:

01273 483119

Email:

contact@ashdownsi.co.uk

Company Registration No.
242 6786



TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	SITE CONTEXT	1
2.1	Site Location	1
2.2	Geological Setting	1
3.	SITE WORKS	2
4.	GEOTECHNICAL ASSESSMENT	2
4.1	Pavement Design	2
4.2	Stormwater Infiltration Systems	4

FIGURES AND APPENDICES

Figure 1	Site Location Plan
Figure 2	Site Plan
	Proposed Development Layout
	Explanatory Notes
	Exploratory Hole Records
	TRL Dynamic Cone Penetrometer (CBR) Record
	Summary of In Situ CBR Test Results
	Graph of CBR vs Depth
	Graph of Subgrade Surface Modulus vs Depth
	Trial Pit In Situ Infiltration Test Results
	Geotechnical Laboratory Test Results

1. INTRODUCTION

It is understood that up to 5 no. self-contained holiday lodges will be constructed together with the conversion of an existing structure to provide a reception building at Land at Borde Hill, Borde Hill Lane, Haywards Heath. A proposed development plan is included within the Appendices to this report.

Ashdown Site Investigation Ltd was requested to undertake a ground investigation and to provide advice to assist with the design of pavement and soakaways.

The specific objectives of the works were to:

- Establish the expected geology and hydrogeology at the site;
- Investigate the shallow ground and groundwater conditions at 5 no. locations across the site; and
- Provide advice to assist others in undertaking design of pavement, and soakaways.

The scope of the works covered by this report, and the terms and conditions under which they were undertaken, were set out within the offer letter Q14667, dated 31st October 2024. The instruction to proceed was received from MacConvilles Ltd on behalf of the client, Alex Goddard.

2. SITE CONTEXT

2.1 Site Location

The site is located at Borde Hill Lane, Haywards Heath, West Sussex, and is centred on the approximate Ordnance Survey national grid reference 531330, 127045. A site location plan and site plan are presented as Figure 1 and Figure 2, respectively.

2.2 Geological Setting

The stratigraphic unit that may be expected to underlie the site has been established by reference to British Geological Survey (BGS) mapping and the BGS Lexicon of Named Rock Units. The expected stratigraphy is presented in the following table.

Table 1. Expected Strata and Aquifer Designation

Type	Stratum	Aquifer Designation
Bedrock	Weald Clay Formation	Unproductive Stratum

The Weald Clay Formation forms part of the Wealden Group. The formation is of Hauterivian to Barremian age (126.3 to 133.9 million years old; Early Cretaceous). The Weald Clay Formation comprises dark grey thinly-bedded mudstones (shales) and mudstones with subordinate siltstones, fine to medium grained sandstones, including calcareous sandstone (e.g. Horsham Stone Member), shelly limestones (the so called "Paludina Limestones") and clay ironstones. The formation is recorded by the BGS to range in thickness up to 460m.

2.2.1 Groundwater Source Protection Zones (SPZ)

The Environment Agency defines SPZs as those areas where groundwater supplies are at risk from potentially polluting activities and accidental releases of pollutants. SPZs are primarily a policy tool used to control activities close to water supplies intended for human consumption.

The site does not lie within a SPZ.

3. SITE WORKS

The intrusive site works comprised the excavation of 5 no. shallow trial pits, denoted TP01 to TP05, together with accompanying in-situ CBR and infiltration testing. The intrusive work was carried out on the 15th November 2024. The exploratory hole locations are shown on Figure 2.

Falling head soakage tests were undertaken in the trial pits in general accordance with the test methodology given by BRE guidance¹, other than the pits were filled only once rather than the three times suggested by the digest, due to the slow infiltration rates of the soils.

Descriptions of the strata encountered and comments on groundwater conditions are shown in the appended exploratory hole records, together with explanatory notes to assist in their interpretation.

Geotechnical laboratory testing was scheduled by Ashdown Site Investigation Ltd and undertaken by GeoLabs. Results from the laboratory tests are included in the appendices.

4. GEOTECHNICAL ASSESSMENT

4.1 Pavement Design

Current guidance² suggests that pavement design should be based on the design subgrade surface modulus, determined as being equal to the lower of the short-term subgrade modulus and the long-term subgrade modulus. The subgrade surface modulus can be related to California bearing ratio using the formula, $E = 17.6(\text{CBR})^{0.64}$, where E is the subgrade modulus expressed in MPa.

Cone penetrometer tests were undertaken to establish the California bearing ratio (CBR) of the in situ soils at the time of the investigation. The range of values determined is presented on the test result records are including within the Appendices to this report alongside table and graphs. A summary of the in situ test data is presented below. It is noted that in situ CBR values are, in part, dependent on the moisture content of the tested soils and are consequently subject to seasonal variation.

Table 2. In Situ CBR Values (At Time of Ground Investigation Works)

	CBR (%)	Modulus of Subgrade Reaction E (MPa)
Minimum	1.5	22.9
Average	4.8	47.3
Maximum	12.7	89.7
10%ile	3.3	37.7
20%ile	3.7	40.4
50%ile (Median)	4.4	45.2

¹ Section 3.2.3 of Building Research Establishment (BRE) Digest 365, 2016.

² Highways England Design Manual for Roads and Bridges CD 225 Rev1; Design for new pavement foundations.

Laboratory CBR values were determined on disturbed, remoulded and soaked soil samples. These results are considered indicative of worst-case long-term values that could occur where the soils are reworked or heavily trafficked during periods of sustained precipitation. The results of the laboratory CBR testing is summarised in the following table.

Table 3. Laboratory CBR Test Results

Exploratory Hole	Range of CBR Values (%)	Average CBR Value (%)	*Modulus of Subgrade Reaction E (MPa)
TP01	3.3 to 3.5	3.4	39
TP02	2.0 to 2.1	2.1	28
TP03	1.9 to 2.0	2.0	27
TP04	3.1 to 3.4	3.3	38
TP05	2.7 to 3.5	3.1	36
Minimum		2.0	27
Average		2.8	34
Maximum		3.4	39

* Based on average of the laboratory CBR values.

Equilibrium CBR values can also be derived from knowledge of soil classification data (plasticity index for soils exhibiting cohesion (clay type) and particle size distribution for granular soils) and pavement thickness. Historical guidance³ suggests the following design equilibrium CBR values would be applicable to the Weald Clay Formation for the construction of pavement. The subgrade moduli calculated from these design equilibrium CBR values can be reasonably considered to be representative of long-term subgrade modulus using the formula given above.

Table 4. Long-term CBR Values

Stratum		Design Equilibrium CBR Value (%)		†Modulus of Subgrade Reaction E (MPa)
		Thin Road* Pavement	Thick Road* Pavement	
Weald Clay Formation	Minimum	2.5	3.0	31.6
	Average	3.1	4.0	36.3
	Maximum	3.9	5.1	42.1

* Thin pavement being 300mm sub-base, thick pavement being 1200mm sub-base. †Modulus based on average of all calculated moduli based on CBR values for thin sub-base.

Designers will need to select an appropriate design equilibrium CBR value / modulus of subgrade reaction taking account of proposed pavement thickness, expected winter groundwater conditions, the standard to

³ Highways England Design Manual for Roads and Bridges Interim Advice Note 73/09 Rev1; now withdrawn.

which pavement is to be designed and any local authority or other regulatory/warrantor requirements together with construction conditions likely to prevail at the time of construction.

The subgrade may be assumed not to be susceptible to frost heave.

It is understood that there is no proposal for new roads or parking areas to be adopted by the local highway authority.

4.2 Stormwater Infiltration Systems

In-situ infiltration testing⁴ was carried out in trial pits TP01 to TP05. From the test results calculations were made to determine the infiltration rate that could be expected for infiltration systems constructed into the underlying Weald Clay Formation soils.

During the test performed within all five trial pits, the water level within the test pits did not fall below 25% of the initial test depth and calculation of the soil infiltration rates in accordance with the BRE digest was not possible. For each test, the soil infiltration rate has therefore been calculated by dividing the volume of water lost during the test by the product of the average surface area of the trial pit in contact with water during the test period and the test duration in seconds.

The infiltration rates derived from the tests are summarised in the following table.

Table 5. Calculated Infiltration Rates

Exploratory Hole	Top of Response Zone (m bgl)	Bottom of Response Zone* (m bgl)	Stratum	Infiltration Rate (f) (m/sec)	Notes
TP01	0.28	0.60	Made Ground / Weald Clay Formation	Negligible	Water level dropped 10mm in 180 minutes
TP02	0.30	0.60	Weald Clay Formation	2.22×10^{-7}	-
TP03	0.35	0.60	Weald Clay Formation	9.13×10^{-7}	-
TP04	0.26	0.65	Made Ground / Weald Clay Formation	1.47×10^{-6}	-
TP05	0.26	0.60	Reworked / Weald Clay Formation	Negligible	No drop in water level over 195 minutes

*Average pit depth

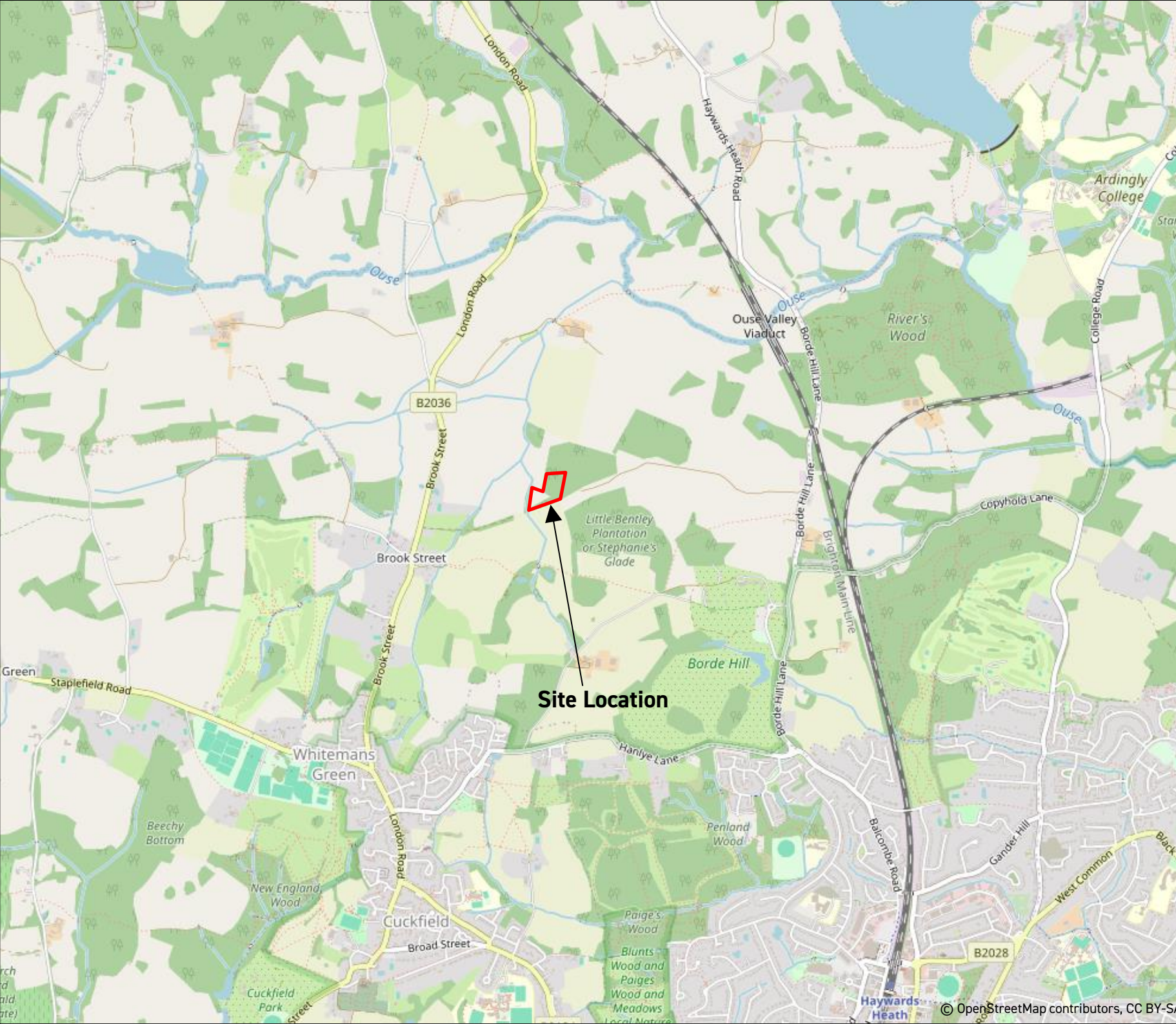
The value 'f' is equivalent to the soil infiltration coefficient 'q' quoted in the Construction Industry Research and Information Association (CIRIA) Report 156.

The results from the infiltration tests should be provided to engineers responsible for the design of the drainage system.

⁴ Conducted in general accordance with the requirements of BRE 365, Soakaway Design.

APPENDICES & FIGURES

Figure 1 Site Location Plan
Figure 2 Site Plan
Proposed Development Layout
Explanatory Notes
Exploratory Hole Records
TRL Dynamic Cone Penetrometer (CBR) Record
Summary of In Situ CBR Test Results
Graph of CBR vs Depth
Graph of Subgrade Surface Modulus vs Depth
Trial Pit In Situ Infiltration Test Results
Geotechnical Laboratory Test Results



Head Office

Unit 3
The Old Grain Store
Ditchling Common Business Park
Ditchling
East Sussex
BN6 8SG
contact@ashdownsi.co.uk

Site

Land at Borde Hill
Borde Hill Lane
Haywards Heath
West Sussex

Project Ref

P16907

Figure No

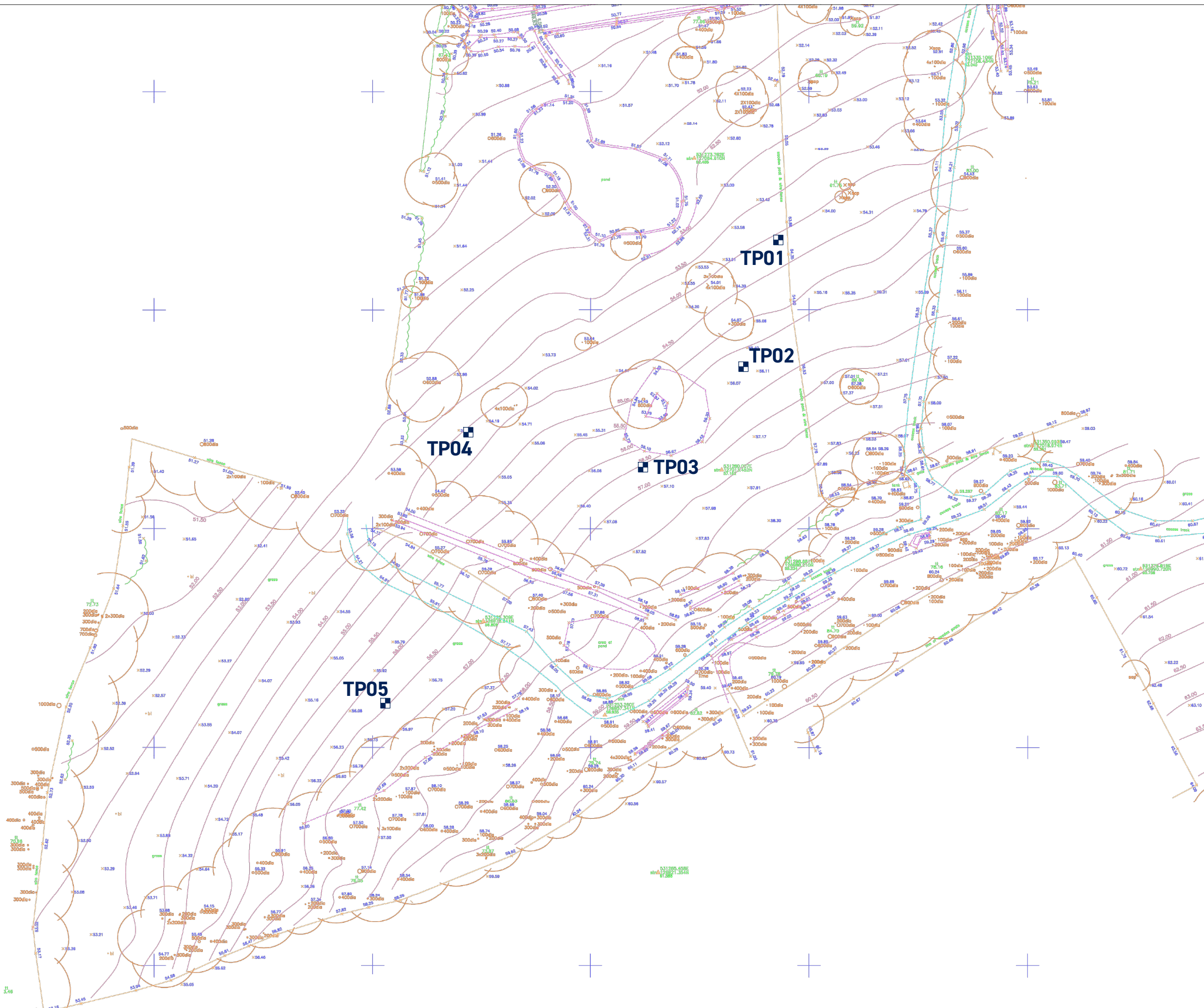
1

Drawing Title

Site Location Plan

Scale

Not To Scale



Head Office
Unit 3 The Old Grain Store Ditchling Common Business Park Ditchling East Sussex BN6 8SG contact@ashdownsi.co.uk
Site
Land off Borde Hill Lane Haywards Heath West Sussex
Project Ref.
P16907
Figure No.
2
Drawing Title
Site Plan
Scale
Not To Scale

KEY:

- Shed converted to Reception
- New Resin Bonded Gravel
- New Footpaths (wood chip or pea beach)
- Existing Tracks
- New Track (for vehicles TYPE 1)
- Widening of Existing Track (TYPE 1)
- Passing Bay Space
- Existing Ponds on the Site
- Existing Woodland & Trees
- Existing Woodland & Trees on the Site
- Woodland Rides on the Site (maximum 3m to 4m wide)
- Replanted Woodland on the Site (Already Planted)
- Replanted Woodland on the Site
- New Wild Flower Meadow in Existing Field
- 15m Buffer Zone replanted to create Ecotone Buffer
- Charging Spaces
- Cabins
- Existing Trees on the Site
- New Orchard
- Parking Spaces (including 1 disabled space)
- Site Boundary
- Waterways



THIS DRAWING IS THE COPYRIGHT OF TOM DUNN ARCHITECTS LTD AND SHOULD NOT BE COPIED OR REPRODUCED WITHOUT WRITTEN CONSENT. ALL DIMENSIONS MUST BE CHECKED ON SITE. DO NOT SCALE OFF THIS DRAWING EXCEPT FOR PLANNING PURPOSES. THIS DRAWING MUST BE READ IN CONJUNCTION WITH THE SPECIFICATION OF WORKS. ALL WORKS MUST BE CARRIED OUT IN ACCORDANCE WITH THE STATUTORY AUTHORITIES.

CAD File:
00722_Site Plan Prop

Notes:

SCALE 1:2000@A3



Revision	Date	Details	Revised By	Checked By
G	11/12/2023	DESIGN UPDATES	RR	TD
F	09/12/2023	DESIGN UPDATES	RR	TD
E	02/10/2023	DESIGN UPDATES	RR	TD
D	04/10/2023	DESIGN UPDATES	RR	TD
C	03/10/2023	DESIGN UPDATES	RR	TD
B	07/09/2022	DESIGN UPDATES	RR	TD
A	30/08/2022	DESIGN UPDATES	RR	TD

Project Name:
OUTDOOR LIVING AT BORDE HILL

Drawing Name:
PROPOSED SITE PLAN

Client:
ARLEY HILL VENTURES

Status:
PLANNING

Scale:
1/2000 @ A3

Date:
11/12/2023
Drawn By:
TD

TOM DUNN ARCHITECTS LTD

A 14 Tesser Road
Lewes
BN1 1TH
T +44 (0)1293 887 0200
E tom@dunnarchitects.com
W www.dunnarchitects.com

Drawing Number:
00722-P00-003 G

EXPLANATORY NOTES

Symbols and abbreviations on Exploratory Hole Records

Samples

U	'Undisturbed' Sample: - 100mm diameter by 450mm long. The number of blows to drive in the sampling tube is shown after the test index letter in the SPT column.
Pi	Piston Sample: 'Undisturbed' sample 100mm diameter by 600mm long.
D	Disturbed Sample
R	Root Sample
B	Bulk Disturbed Sample
W	Water Sample
ES	Environmental Suite (on older records may be referenced J T)

In Situ Testing

S	Standard penetration test (SPT): Using the split spoon sampler.
C	Standard Penetration Test (SPT): Using a solid cone instead of the sampler – conducted usually in coarse grained soils or weak rocks.
V	Shear Vane Test: Undrained shear strength (cohesion) (kN/m ²) shown within the Vane/Pen Test and N Value column.
H	Hand penetrometer Test: Undrained shear strength (cohesion) (kN/m ²) shown within the Vane/Pen Test and N Value column.
P	Perth Penetrometer Test: Number of blows for 300mm penetration shown under Vane/Pen Test and N Value column.

Excavation Method

CP	Cable Percussion Borehole
RC	Rotary Cored Borehole
WLS	Dynamic Sampler Borehole using windowless sampler tubes
WS	Dynamic Sampler Borehole using window sampler tubes
TP	Trial Pit excavated using mechanic excavator
HDP	Trial Pit excavated using hand tools

Soil Description

Description and classification of soils has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of soil, Part 1 Identification and description (BS EN ISO 14688-1) and Part 2 Principles of classification (BS EN 14688-2) as well as the BS5930 code of Practice for Ground Investigations.

Rock Description

Description and classification of rocks has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of rock, Part 1 Identification and classification (BS EN ISO 14689-1) as well as the BS5930 code of Practice for Ground Investigations. TCR – Total Core Recovery, SCR – Solid Core Recovery, RQD – Rock Quality Designation, NI – Non Intact, If – indicative fracture spacing (min/ave/max), FI – Fracture Index.

Chalk Description

Chalk description is based on BS EN ISO 14688, BS EN ISO 14689 and BS5930. The classification of chalk generally follows the guidance offered by the Construction Industry Research and Information Association (CIRIA) C574, 'Engineering in Chalk'. This is based on assessment of chalk density, discontinuity and aperture spacing, and the proportion of intact chalk to silt of chalk.

In Situ Strength Testing

Standard penetration testing (SPT) carried out in accordance with BS EN ISO 22476-3:2005.

Continuous dynamic probe testing conducted using a super heavy DPSH-B (As defined by BS EN ISO 22476-2:2005) probing geometry. The DPSH-B configuration is similar to that of the standard penetration test (SPT); the main differences being that the tip comprises a 90° cone, the driving rods are lighter than those used for SPT testing and the blow counts are recorded over 100mm increments rather than 300mm, as is the case for the SPT.

Perth penetrometer tests carried out in accordance with Australian Standard AS 1289:6.3.3-1997, Method of Testing Soils for Engineering Purposes; no equivalent European or British Standard having been published to date.

Undrained shear strength determinations made in-situ using a Geonor hand shear vane or a hand penetrometer.

Testing to determine the in-situ California Bearing Ratio (CBR) of soils conducted at shallow depths using a hand-held Transport Research Laboratory (TRL) cone penetrometer.

Site Name: Land off Borde Hill Lane, Haywards Heath, West Sussex

Job Number: P16907

Start Date: 15/11/2024

End Date: 15/11/2024

Trial Pit Number: TP01

Sheet 1 of 1

Remarks Groundwater: Trial pit dry on completion. Stability: Trial pit stable on completion. Notes: n/a	Excavation Method: HDP
	Pit Length: 0.30m
	Pit Width: 0.30m
	Made By: TM

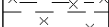
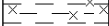
Site Name: Land off Borde Hill Lane, Haywards Heath, West Sussex

Start Date: 15/11/2024

End Date: 15/11/2024

Trial Pit Number: **TP02**

Sheet 1 of 1

Samples and In Situ Testing				Stratum Description	
Sample/ Test Type	Depth From (m)	Depth To (m)	Test Result	Legend	Depth/ Reduced Level
D	0.05	0.60			0.00
					0.10
D	0.30				
B	0.40				
					0.60
					End of trial pit at 0.60m

Remarks	

Groundwater: Trial pit dry on completion.

Stability: Trial pit stable on completion.

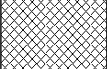
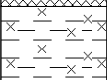
Notes: n/a

Excavation Method: HDP

Pit Length: 0.30m

Pit Width: 0.30m

Made By: TM

ASHDOWN SITE INVESTIGATION E-mail: contact@ashdownsi.co.uk Web: www.ashdownsi.co.uk Tel: 01273 483119		Site Name: Land off Borde Hill Lane, Haywards Heath, West Sussex Job Number: P16907 Start Date: 15/11/2024 End Date: 15/11/2024				Trial Pit Number: TP03		Sheet 1 of 1							
Samples and In Situ Testing															
Sample/ Test Type		Depth From (m)		Depth To (m)		Test Result		Legend		Depth/ Reduced Level		Stratum Description			
D		0.10								0.00		Topsoil.			
										0.10		MADE GROUND: Yellow brown and grey brown silty clay with rare gravel of subangular to subrounded fine to medium brick, sandstone and ash-like material.			
B		0.40		0.60						0.35		Yellow brown and grey mottled silty CLAY. (Weald Clay Formation)			
										0.60		End of trial pit at 0.60m			
Remarks Groundwater: Trial pit dry on completion. Stability: Trial pit stable on completion. Notes: n/a														Excavation Method: HDP Pit Length: 0.30m Pit Width: 0.30m Made By: TM	

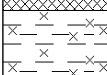
Site Name: Land off Borde Hill Lane, Haywards Heath, West Sussex

Start Date: 15/11/2024

End Date: 15/11/2024

Trial Pit Number: TP04

Sheet 1 of 1

Samples and In Situ Testing						
Sample/ Test Type	Depth From (m)	Depth To (m)	Test Result	Legend	Depth/ Reduced Level	Stratum Description
D B	0.25 0.45	0.65			0.00	Topsoil.
					0.10	MADE GROUND: Grey brown and yellow brown silty clay with rare gravel of subangular to subrounded fine to coarse brick, sandstone and ash-like material.
					0.35	Yellow brown and dark brown mottled slightly sandy silty CLAY. (Weald Clay Formation)
					0.65	End of trial pit at 0.65m

Remarks	

Groundwater: Trial pit dry on completion.

Stability: Trial pit stable on completion.

Notes: n/a

Excavation Method: HDP

Pit Length: 0.30m

Pit Width: 0.30m

Made By: TM

Site Name: Land off Borde Hill Lane, Haywards Heath, West Sussex

Start Date: 15/11/2024

End Date: 15/11/2024

Trial Pit Number: **TP05**

Sheet 1 of 1

	Samples and In Situ Testing					
Sample/ Test Type	Depth From (m)	Depth To (m)	Test Result	Legend	Depth/ Reduced Level	Stratum Description
D B	0.20 0.35	55.00			0.00 0.12 0.35 0.60	Topsoil. REWORKED: Grey brown silty clay with orange brown speckles and rare gravel of subangular to subrounded fine to medium ash-like material. Orange brown and grey brown mottled slightly sandy silty CLAY. (Weald Clay Formation) End of trial pit at 0.60m

Remarks	

Groundwater: Trial pit dry on completion.

Stability: Trial pit stable on completion.

Notes: n/a

Excavation Method: HDP

Pit Length: 0.30m

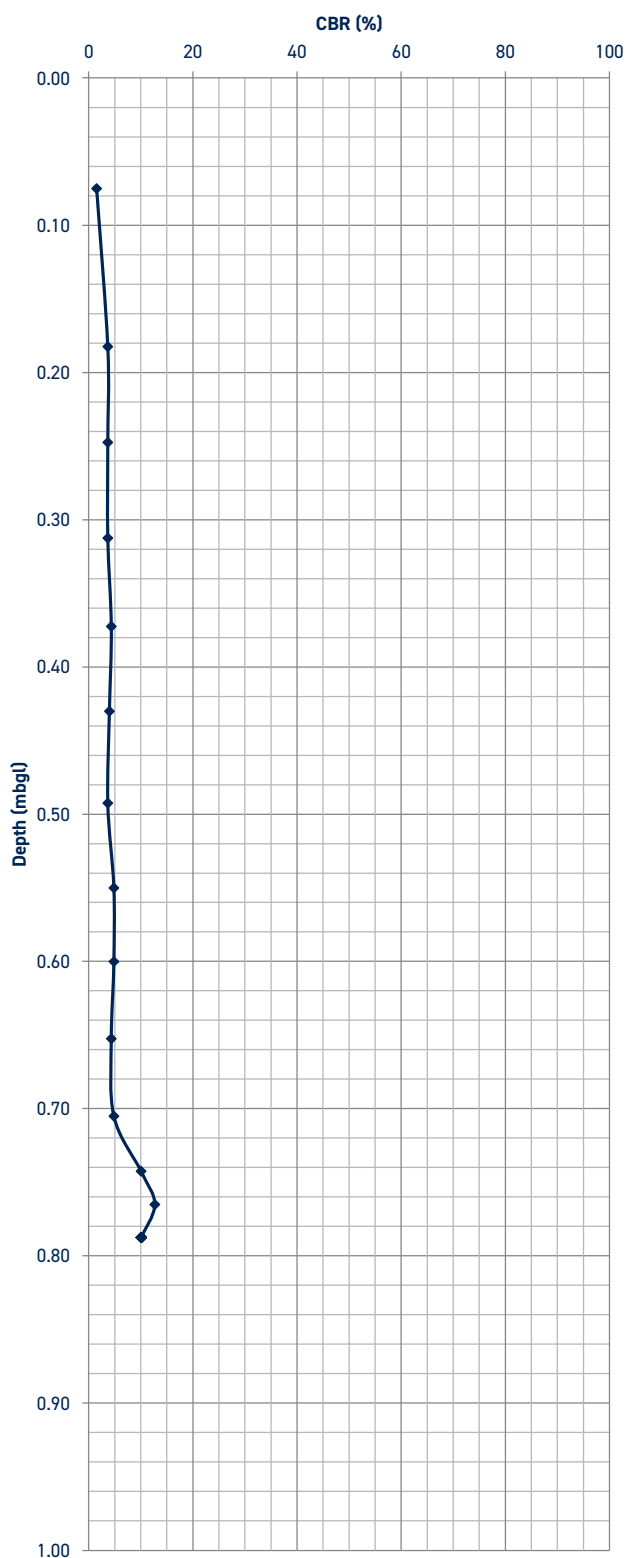
Pit Width: 0.30m

Made By: TM

Site: Land off Borde Hill, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP01
Depth of Start of Test (mbgl)	0.00

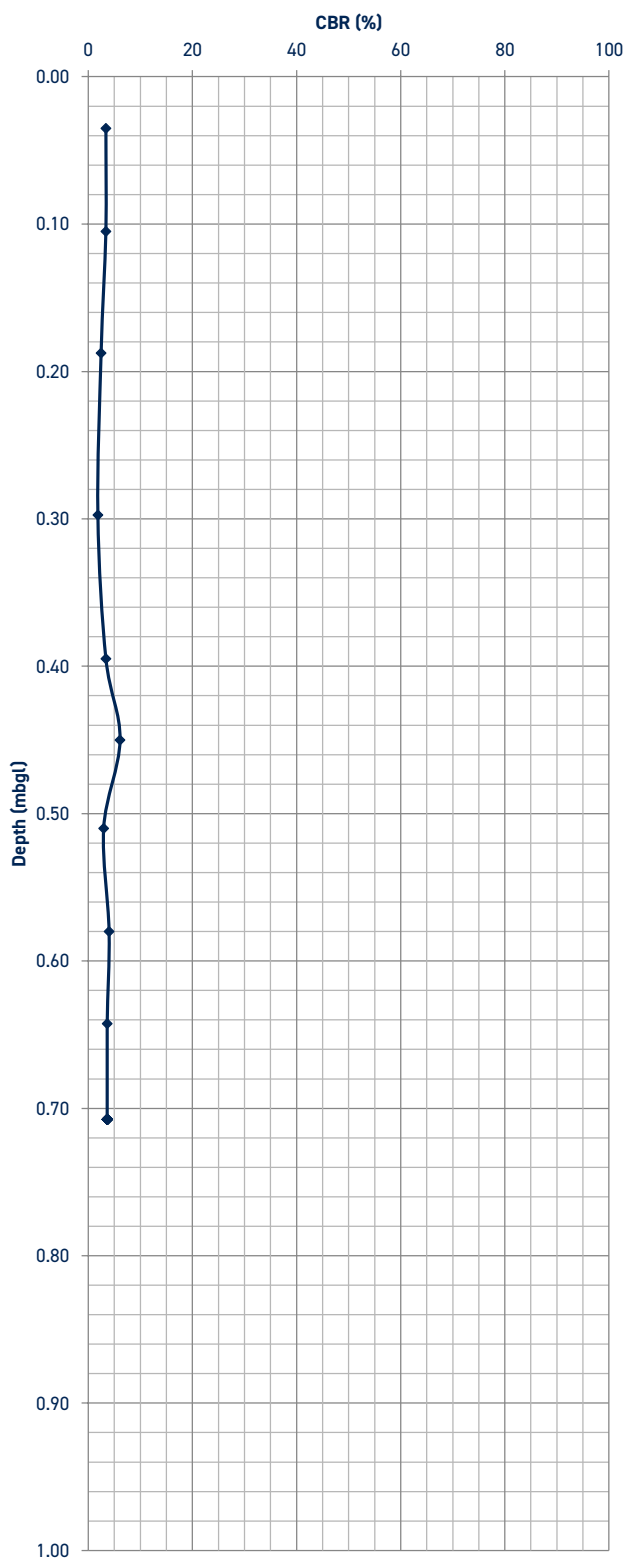
[illegible]

Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

Site: Land off Borde Hill, Haywards Heath, West Sussex

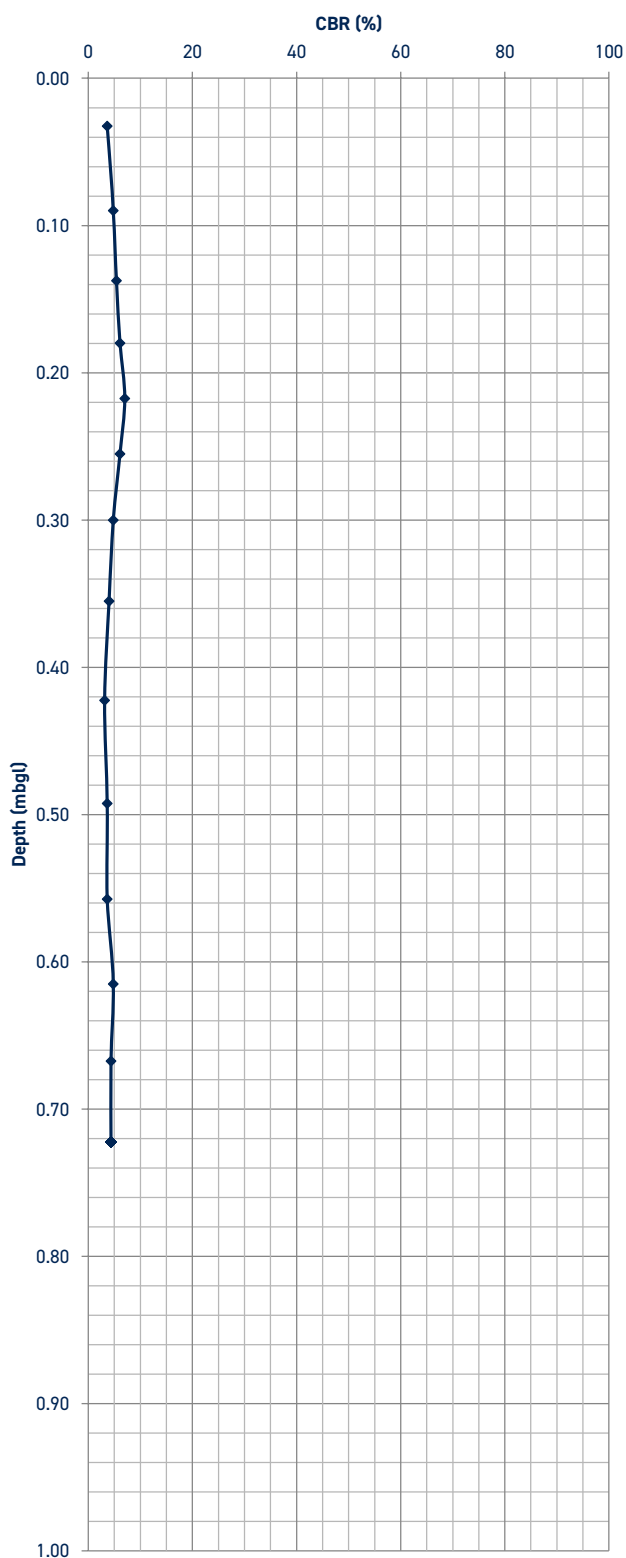
Project Ref: P16907

Test Location Reference	TP02
Depth of Start of Test (mbgl)	0.00

[illegible]

Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

Project Ref: P16907

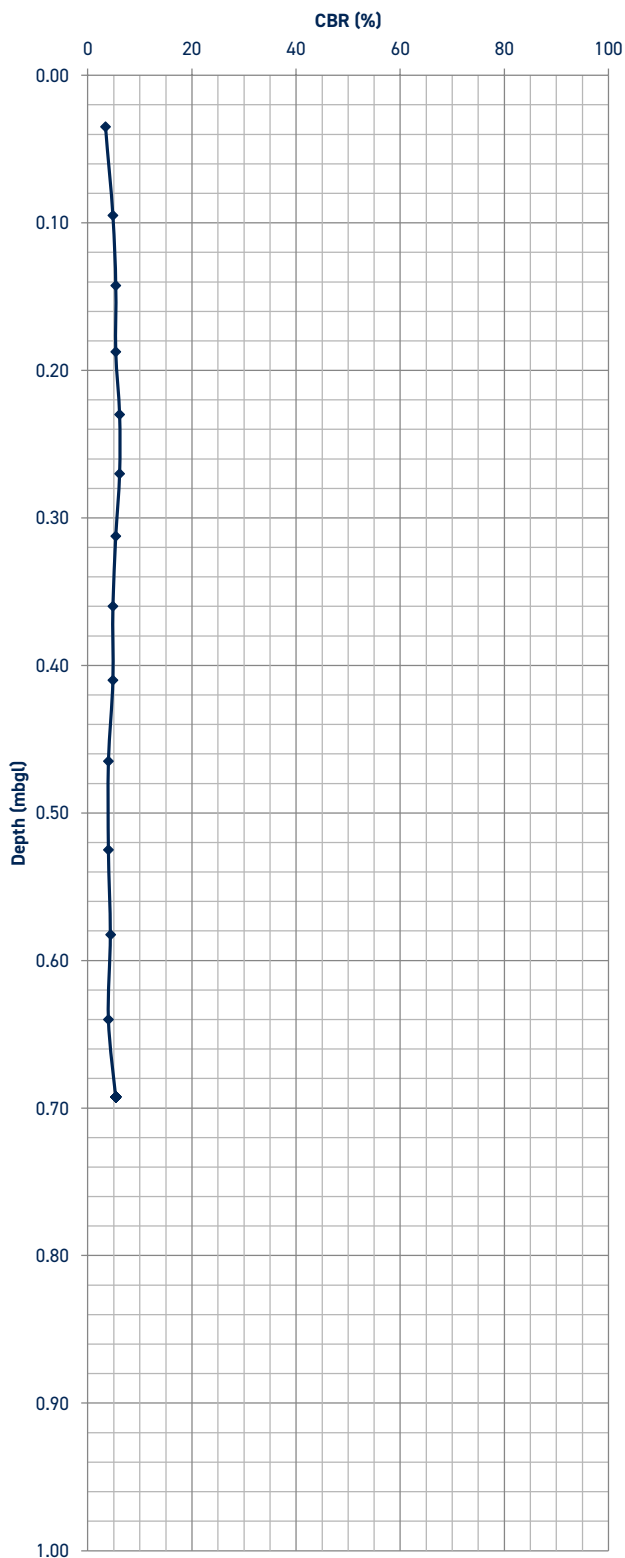
[illegible]

Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

Site: Land off Borde Hill, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP04
Depth of Start of Test (mbgl)	0.00

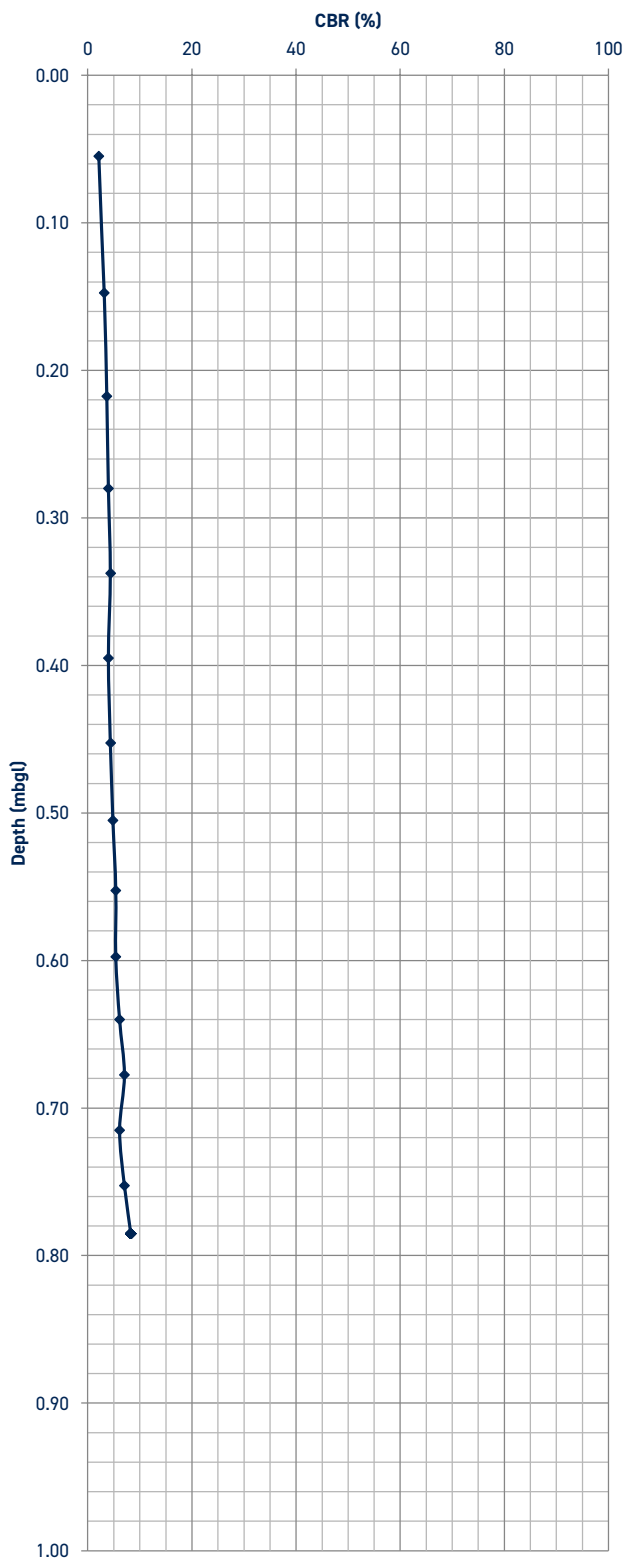
[illegible]

Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

Site: Land off Borde Hill, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP05
Depth of Start of Test (mbgl)	0.00

[illegible]

Notes: CBR Value calculated in accordance with the TRRL equation given in TRL Road Note 8.

Site: Land off Borde Hill, Haywards Heath, West Sussex

Project Ref: P16907

Test Location	Depth (m)	CBR (%)	Ks (MPa)
TP01	0.15	2	23
TP01	0.22	4	40
TP01	0.28	4	40
TP01	0.35	4	40
TP01	0.40	4	45
TP01	0.46	4	43
TP01	0.53	4	40
TP01	0.58	5	48
TP01	0.63	5	48
TP01	0.68	4	45
TP01	0.73	5	48
TP01	0.76	10	77
TP01	0.78	13	90
TP01	0.80	10	77
TP02	0.07	3	38
TP02	0.14	3	38
TP02	0.24	2	31
TP02	0.36	2	26
TP02	0.43	3	38
TP02	0.47	6	56
TP02	0.55	3	35
TP02	0.61	4	43
TP02	0.68	4	40
TP02	0.74	4	40
TP03	0.07	4	40
TP03	0.12	5	48
TP03	0.16	5	52
TP03	0.20	6	56
TP03	0.24	7	61
TP03	0.28	6	56
TP03	0.33	5	48
TP03	0.39	4	43
TP03	0.46	3	37
TP03	0.53	4	40
TP03	0.59	4	40
TP03	0.64	5	48
TP03	0.70	4	45
TP03	0.75	4	45
TP04	0.19	3	38
TP04	0.12	5	48
TP04	0.17	5	52
TP04	0.21	5	52
TP04	0.25	6	56
TP04	0.29	6	56
TP04	0.34	5	52
TP04	0.39	5	48
TP04	0.44	5	48
TP04	0.50	4	43
TP04	0.56	4	43
TP04	0.61	4	45
TP04	0.67	4	43
TP04	0.72	5	52
TP05	0.11	2	28
TP05	0.19	3	37
TP05	0.25	4	40
TP05	0.31	4	43
TP05	0.37	4	45
TP05	0.43	4	43
TP05	0.48	4	45
TP05	0.53	5	48
TP05	0.58	5	52
TP05	0.62	5	52

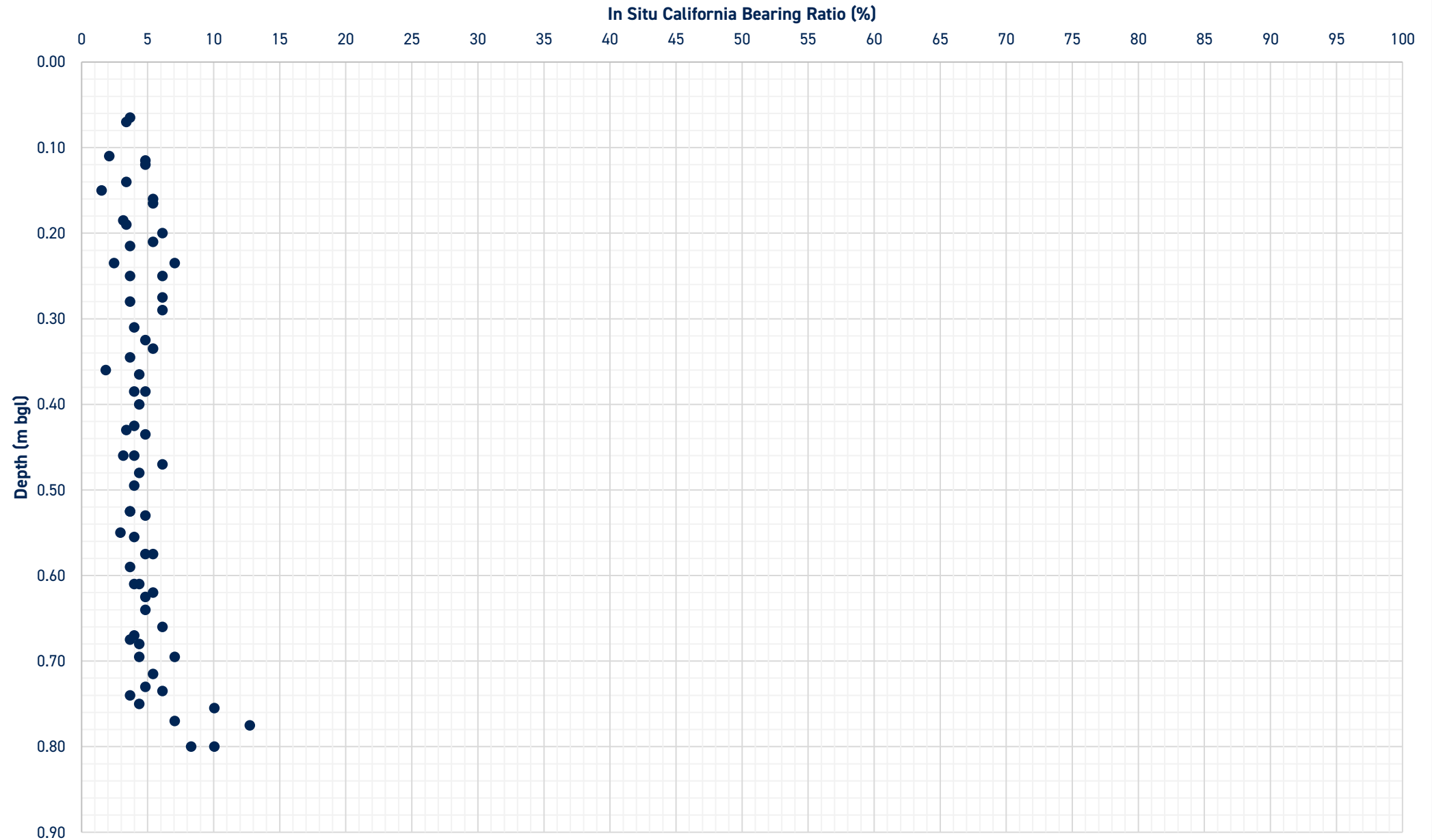
Site: Land off Borde Hill, Haywards Heath, West Sussex

Project Ref: P16907

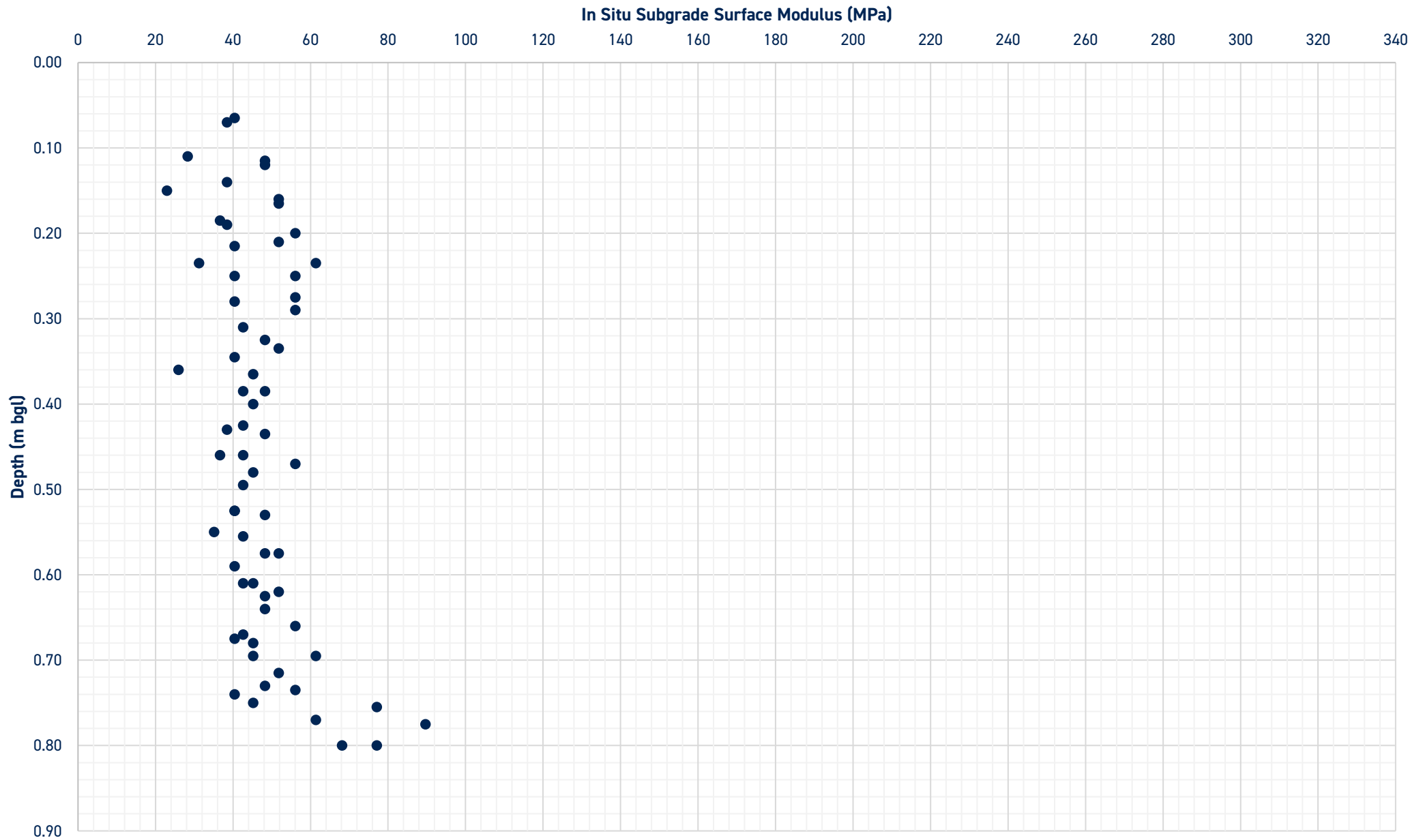
Test Location	Depth (m)	CBR (%)	Ks (MPa)
TP05	0.66	6	56
TP05	0.70	7	61
TP05	0.74	6	56
TP05	0.77	7	61
TP05	0.80	8	68

Site: Land off Borde Hill, Haywards Heath, West Sussex

Project Ref: P16907



Project Ref: P16907



Site: Land at Borde Hill Borde Hill Lane, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP01
Test Number	Test 1

Width of Pit	0.30 m	W
Length of Pit	0.30 m	L
Depth of Pit	0.60 m	D
Pit type	Open	

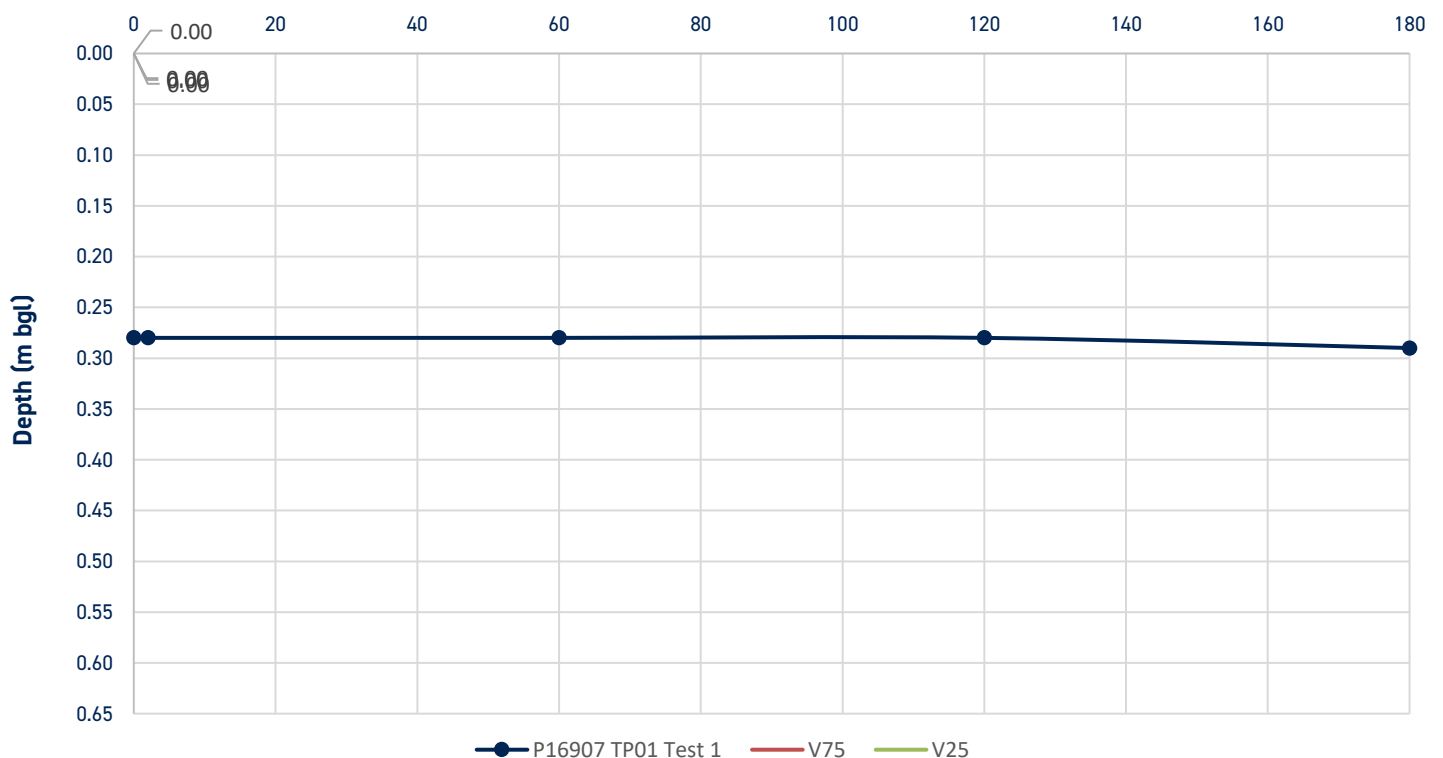
Volume of water introduced into pit	0.029 m ³	
Initial head of water	0.32 m	h_o
Water level at start of test	0.28 m	
Water level at end of test	0.29 m	
Volume of water discharged from pit	0.001 m ³	
Duration of test	180 min	
Average soaked surface area	0.47 m ²	
Time for water level to fall to 75% of initial head	Not reached min	t_{p75}
Time for water level to fall to 25% of initial head	Not reached min	t_{p25}
Depth to water at 75% of initial head	Not reached m	d_{75}
Depth to water at 25% of initial head	Not reached m	d_{25}
Time for the water level to fall from 75% to 25% of initial head	Not reached min	t_{p75-25}
Effective storage volume of water in the soakage trial pit between 75% and 25% of initial head	Not reached m ³	V_{p75-25}
Internal surface area of the soakage trial pit up to 50% of initial head and including the base area	0.28 m ²	a_{s50}

Infiltration rate

Negligible m/sec f

Calculation method: Negligible infiltration - water level dropped by 10mm over 180 minutes.

Elapsed Time (min)



Site: Land at Borde Hill Borde Hill Lane, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP02
Test Number	Test 1

Width of Pit	0.30 m	W
Length of Pit	0.30 m	L
Depth of Pit	0.60 m	D
Pit type	Open	

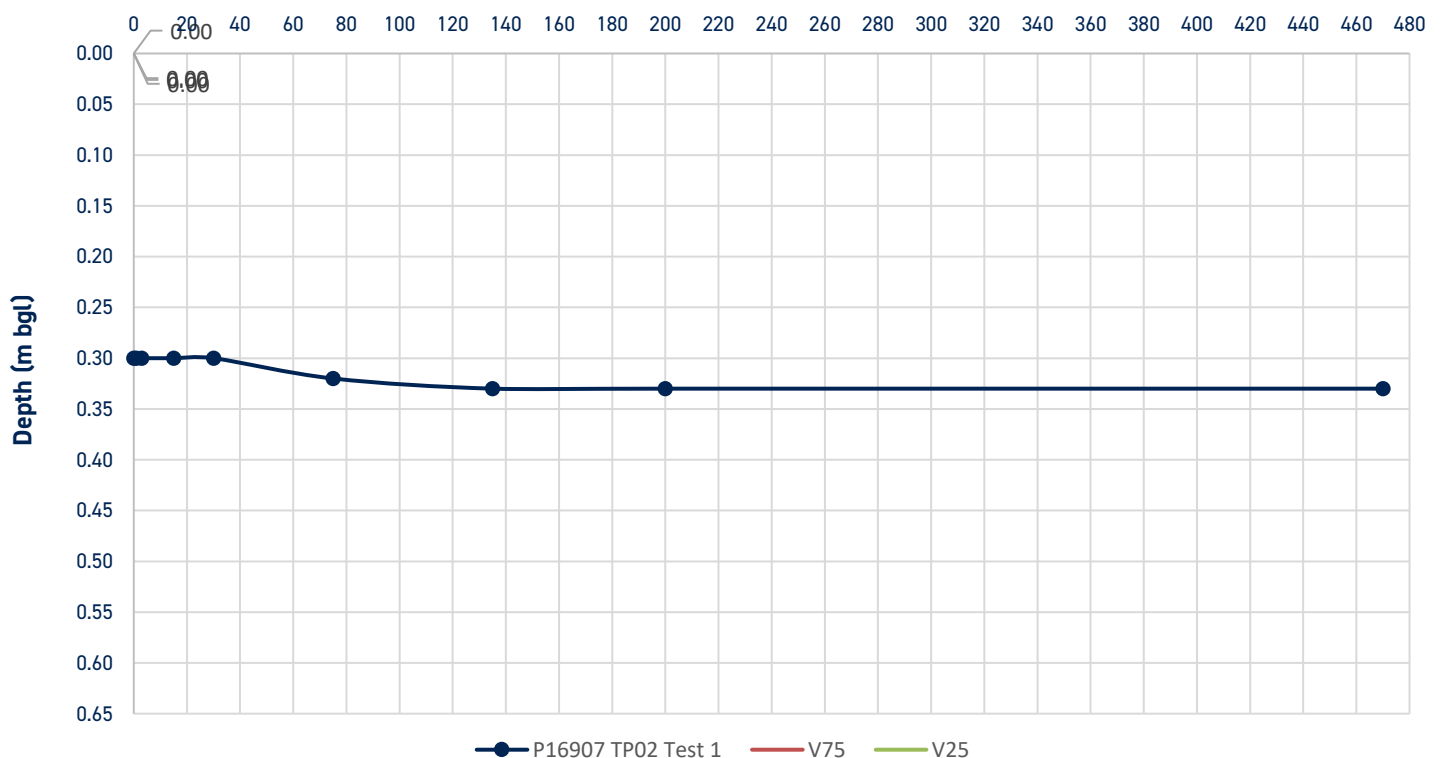
Volume of water introduced into pit	0.027 m ³	
Initial head of water	0.30 m	h_o
Water level at start of test	0.30 m	
Water level at end of test	0.33 m	
Volume of water discharged from pit	0.003 m ³	
Duration of test	470 min	
Average soaked surface area	0.43 m ²	
Time for water level to fall to 75% of initial head	Not reached min	t_{p75}
Time for water level to fall to 25% of initial head	Not reached min	t_{p25}
Depth to water at 75% of initial head	Not reached m	d_{75}
Depth to water at 25% of initial head	Not reached m	d_{25}
Time for the water level to fall from 75% to 25% of initial head	Not reached min	t_{p75-25}
Effective storage volume of water in the soakage trial pit between 75% and 25% of initial head	Not reached m ³	V_{p75-25}
Internal surface area of the soakage trial pit up to 50% of initial head and including the base area	0.27 m ²	a_{s50}

Infiltration rate

2.22E-07 m/sec f

Calculation method: The water level did not fall below 25% of the effective storage depth. 'f' has been calculated by dividing the volume of water lost during the test by the product of the average surface area in contact with water during the test and the test duration.

Elapsed Time (min)



Site: Land at Borde Hill Borde Hill Lane, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP03
Test Number	Test 1

Width of Pit	0.30 m	W
Length of Pit	0.30 m	L
Depth of Pit	0.60 m	D
Pit type	Open	

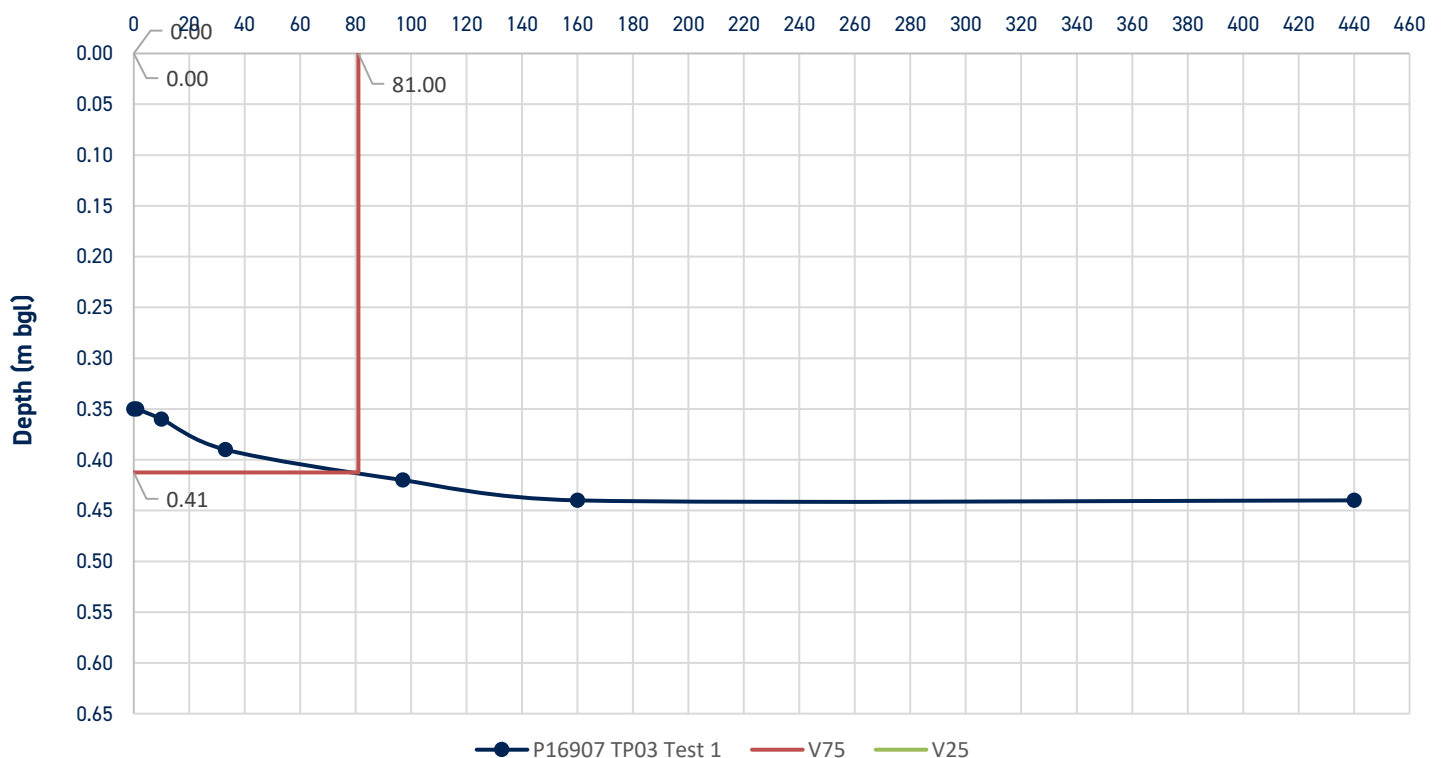
Volume of water introduced into pit	0.023 m ³	
Initial head of water	0.25 m	h_o
Water level at start of test	0.35 m	
Water level at end of test	0.44 m	
Volume of water discharged from pit	0.008 m ³	
Duration of test	440 min	
Average soaked surface area	0.34 m ²	
Time for water level to fall to 75% of initial head	81.00 min	t_{p75}
Time for water level to fall to 25% of initial head	Not reached min	t_{p25}
Depth to water at 75% of initial head	0.41 m	d_{75}
Depth to water at 25% of initial head	Not reached m	d_{25}
Time for the water level to fall from 75% to 25% of initial head	Not reached min	t_{p75-25}
Effective storage volume of water in the soakage trial pit between 75% and 25% of initial head	Not reached m ³	V_{p75-25}
Internal surface area of the soakage trial pit up to 50% of initial head and including the base area	0.24 m ²	a_{s50}

Infiltration rate

9.13E-07 m/sec f

Calculation method: The water level did not fall below 25% of the effective storage depth. 'f' has been calculated by dividing the volume of water lost during the test by the product of the average surface area in contact with water during the test and the test duration.

Elapsed Time (min)



Site: Land at Borde Hill Borde Hill Lane, Haywards Heath, West Sussex

Project Ref: P16907

Test Location Reference	TP04
Test Number	Test 1

Width of Pit	0.30 m	W
Length of Pit	0.30 m	L
Depth of Pit	0.65 m	D
Pit type	Open	

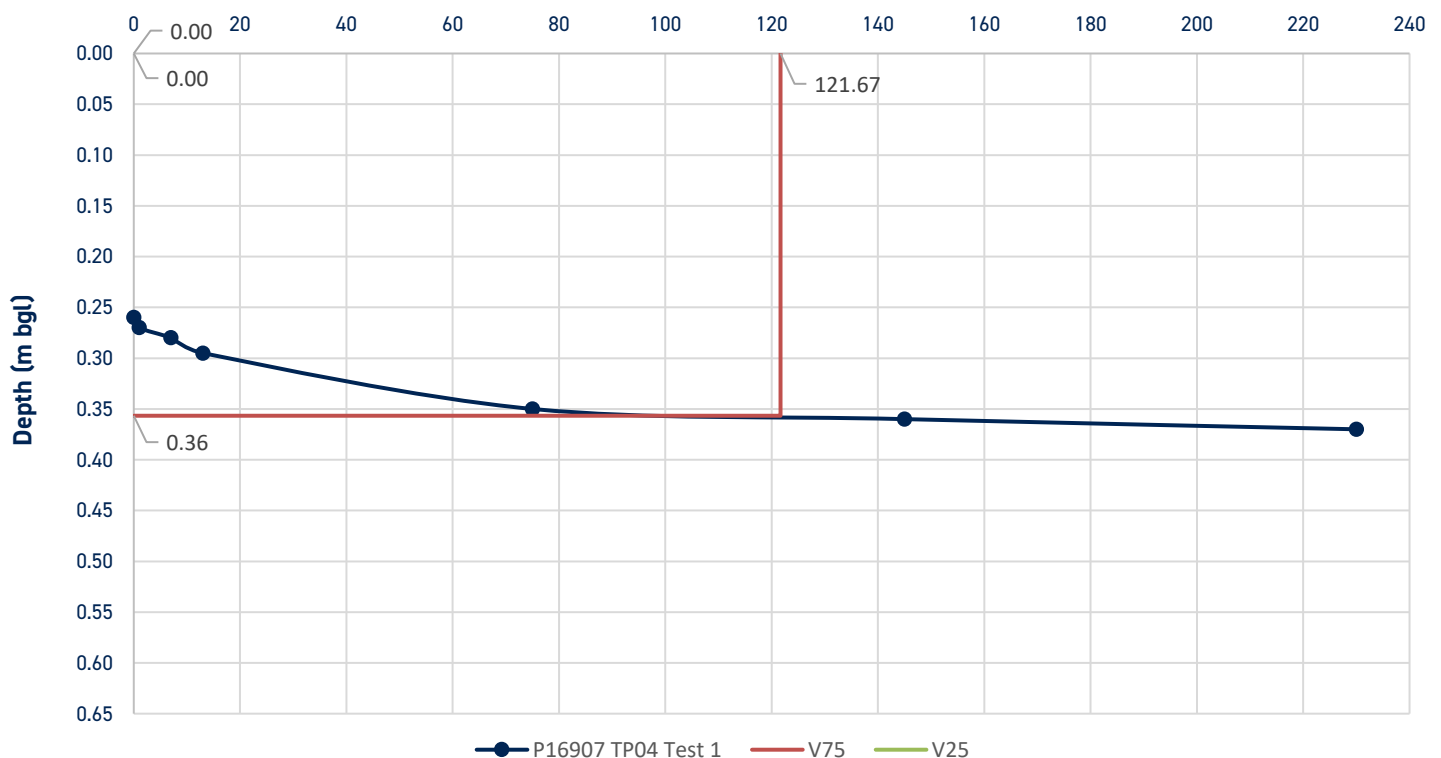
Volume of water introduced into pit	0.035 m ³	
Initial head of water	0.39 m	h_o
Water level at start of test	0.26 m	
Water level at end of test	0.37 m	
Volume of water discharged from pit	0.010 m ³	
Duration of test	230 min	
Average soaked surface area	0.49 m ²	
Time for water level to fall to 75% of initial head	121.67 min	t_{p75}
Time for water level to fall to 25% of initial head	Not reached min	t_{p25}
Depth to water at 75% of initial head	0.36 m	d_{75}
Depth to water at 25% of initial head	Not reached m	d_{25}
Time for the water level to fall from 75% to 25% of initial head	Not reached min	t_{p75-25}
Effective storage volume of water in the soakage trial pit between 75% and 25% of initial head	Not reached m ³	V_{p75-25}
Internal surface area of the soakage trial pit up to 50% of initial head and including the base area	0.32 m ²	a_{s50}

Infiltration rate

1.47E-06 m/sec f

Calculation method: The water level did not fall below 25% of the effective storage depth. 'f' has been calculated by dividing the volume of water lost during the test by the product of the average surface area in contact with water during the test and the test duration.

Elapsed Time (min)



Site: Borde Hill Lane, Borde Hill, Haywards Heath

Project Ref: P16907

Test Location Reference	TP05
Test Number	1

Width of Pit	0.30 m	W
Length of Pit	0.30 m	L
Depth of Pit	0.60 m	D
Pit type	Open	

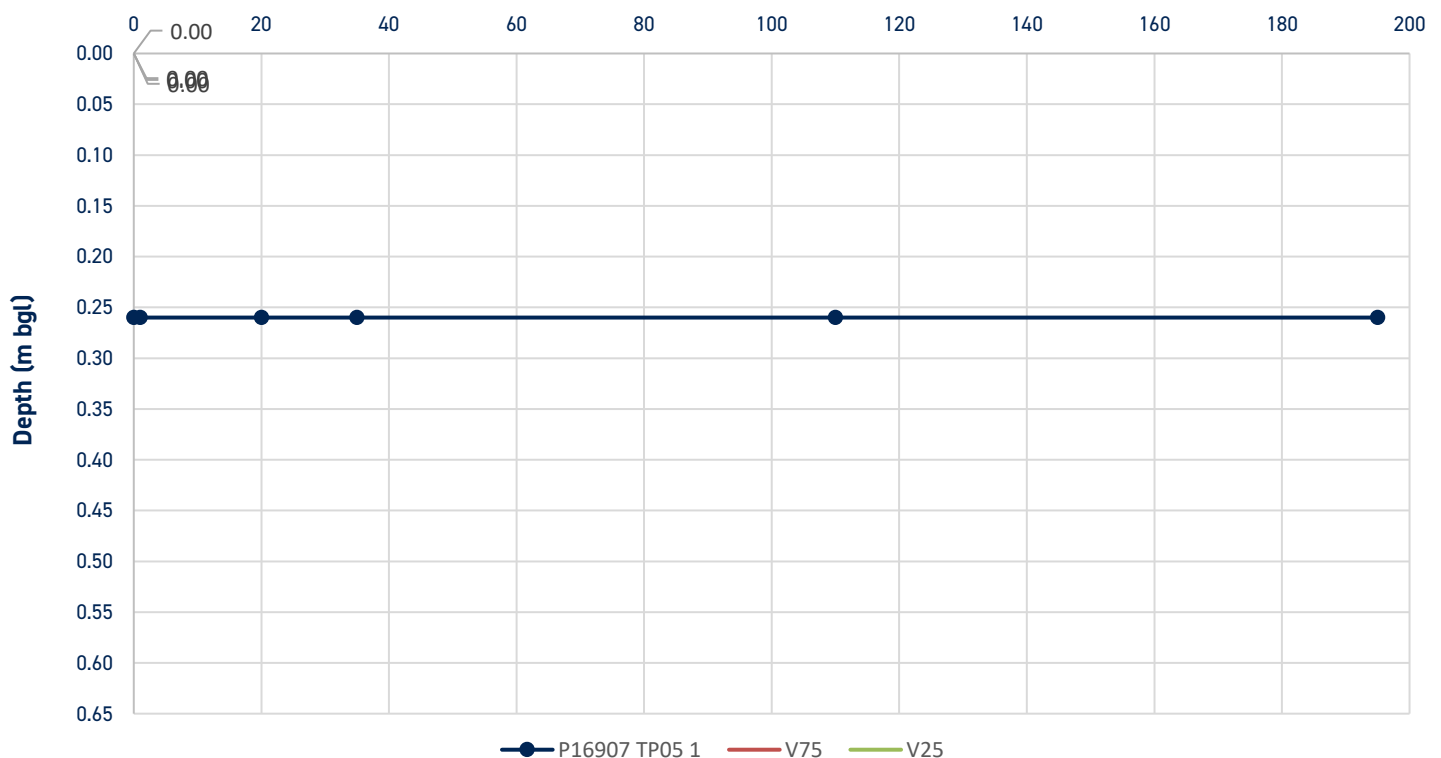
Volume of water introduced into pit	0.031 m ³	
Initial head of water	0.34 m	h_o
Water level at start of test	0.26 m	
Water level at end of test	0.26 m	
Volume of water discharged from pit	0.000 m ³	
Duration of test	195 min	
Average soaked surface area	0.50 m ²	
Time for water level to fall to 75% of initial head	Not reached min	t_{p75}
Time for water level to fall to 25% of initial head	Not reached min	t_{p25}
Depth to water at 75% of initial head	Not reached m	d_{75}
Depth to water at 25% of initial head	Not reached m	d_{25}
Time for the water level to fall from 75% to 25% of initial head	Not reached min	t_{p75-25}
Effective storage volume of water in the soakage trial pit between 75% and 25% of initial head	Not reached m ³	V_{p75-25}
Internal surface area of the soakage trial pit up to 50% of initial head and including the base area	0.29 m ²	a_{s50}

Infiltration rate

Negligible m/sec f

Calculation method: Negligible infiltration - no drop in water level over 195 minutes.

Elapsed Time (min)



GEOLABS Limited
Bucknalls Lane
Garston
Watford
Hertfordshire
WD25 9XX

Tel: +44(0) 1923 892 190
Fax: +44(0) 1923 892 191
email: admin@geolabs.co.uk
web: www.geolabs.co.uk

Ashdown Site Investigation Ltd
Unit 3 The Grain Store
Ditchling Common Business Park
Ditchling Common
West Sussex
BN6 8SG

09 December 2024

Report No : GEO/41622/01

Page 1 of 1

For the attention of Ms J Phillpot

Our ref	GEO / 41622	Date samples received	18/11/2024
Your ref	P16907	Date written instructions received	25/11/2024
Order ref	11933	Date testing commenced	26/11/2024
		Date of sample disposal	06/01/2025

Project **BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Liquid & Plastic Limits Summary
~	5	Water Content
~	5	Liquid & Plastic Limits
2	5	California Bearing Ratio

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**



S Burke
Senior Technician

BS EN ISO 17892-12 : 2018+A2:2022

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

[illegible]

Test Type:	1 - 1 point 80g / 30° fall cone method.
------------	---

Sample condition:

- 1 - As Received
- 2 - Air Dried
- 3 - Washed & Air Dried

Checked and Approved by:

S Burke

S Burke - Senior Technician
09/12/2024

Project Number:

GEO / 41622

Project Name:

**BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX
P16907**



CALIFORNIA BEARING RATIO

Location TP01
Sample Depth 0.40-0.60 m
Sample Type B

Description:

Brownish grey slightly sandy silty CLAY with rare roots.

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with 0.2 % vertical swell.
The specimen was prepared at the as received water content of 25%
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Soaked specimen bulk density 2.00 Mg/m³ (1.99 Mg/m³ before soaking)
Soaked specimen dry density 1.59 Mg/m³ (1.59 Mg/m³ before soaking)
0.0 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

10.0 kg
10 N
26 %

Base

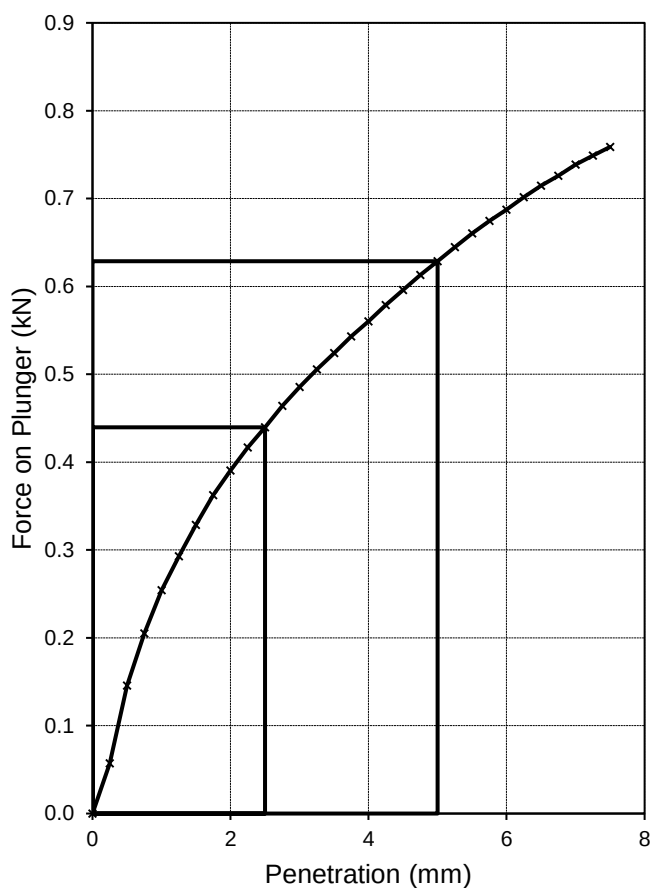
10.0 kg
10 N
25 %

CBR Value

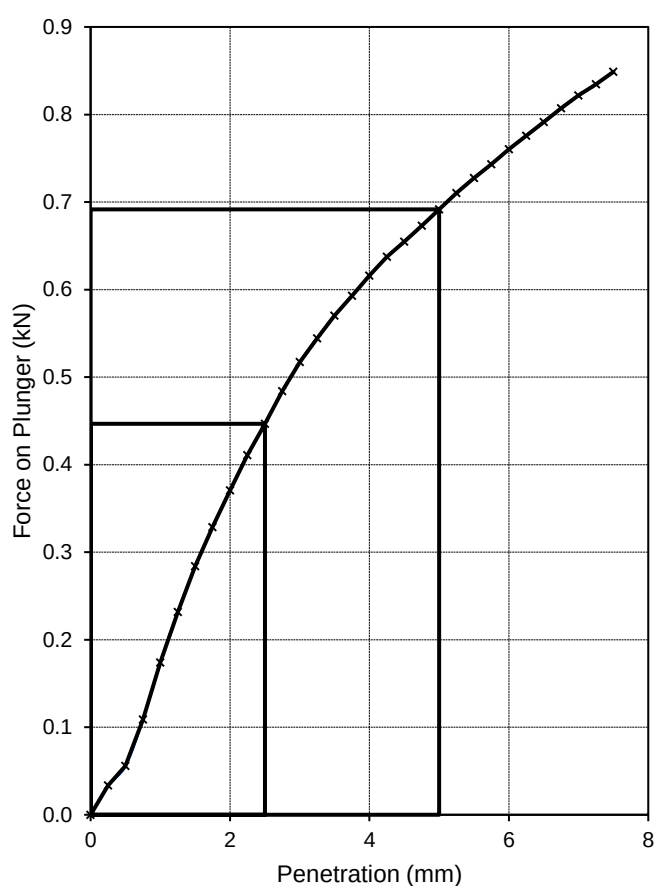
3.3 %

3.5 %

Top of Specimen



Base of Specimen



Tested by VP/LH
Checked and Approved by

S Burke

S Burke - Senior Technician
09/12/2024

Project Number:

GEO / 41622

Project Name:

**BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX
P16907**

GEOLABS



CALIFORNIA BEARING RATIO

Location TP02
Sample Depth 0.40-0.60 m
Sample Type B

Description:

Yellowish brown mottled grey silty CLAY.

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with -0.2 % vertical swell.
The specimen was prepared at the as received water content of 25%
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Soaked specimen bulk density 1.95 Mg/m³ (1.94 Mg/m³ before soaking)
Soaked specimen dry density 1.55 Mg/m³ (1.55 Mg/m³ before soaking)
0.0 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

10.0 kg
10 N
25 %

Base

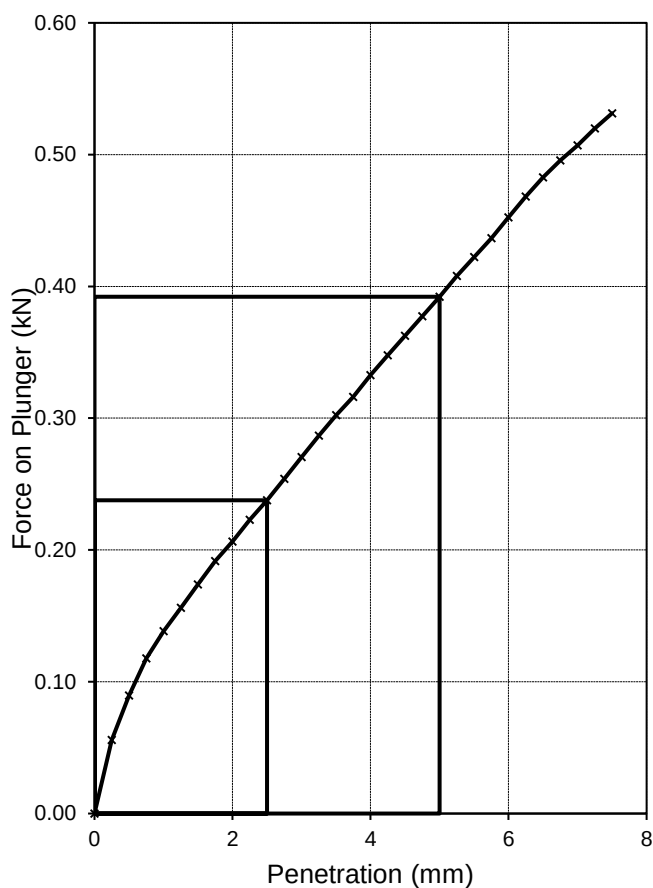
10.0 kg
10 N
26 %

CBR Value

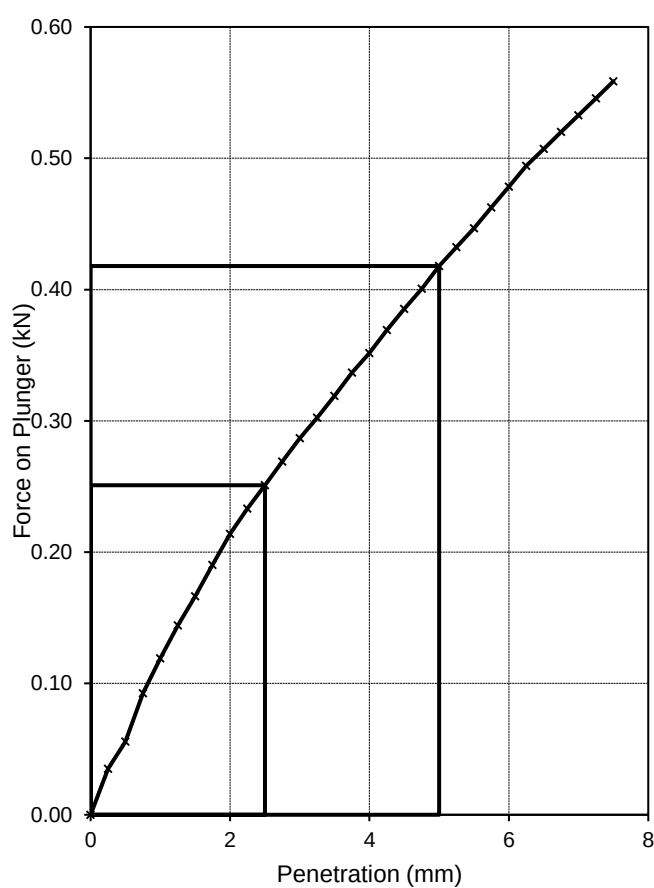
2.0 %

2.1 %

Top of Specimen



Base of Specimen



Tested by VP/LH
Checked and Approved by

S Burke

S Burke - Senior Technician
09/12/2024

Project Number:

GEO / 41622

Project Name:

**BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX
P16907**

GEOLABS

CALIFORNIA BEARING RATIO

Location TP03
Sample Depth 0.40-0.60 m
Sample Type B

Description:

Yellowish brown mottled grey silty CLAY with rare roots.

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with -0.1 % vertical swell.
The specimen was prepared at the as received water content of 24%
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Soaked specimen bulk density 1.99 Mg/m³ (1.98 Mg/m³ before soaking)
Soaked specimen dry density 1.60 Mg/m³ (1.60 Mg/m³ before soaking)
0.0 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

10.0 kg
10 N
24 %

Base

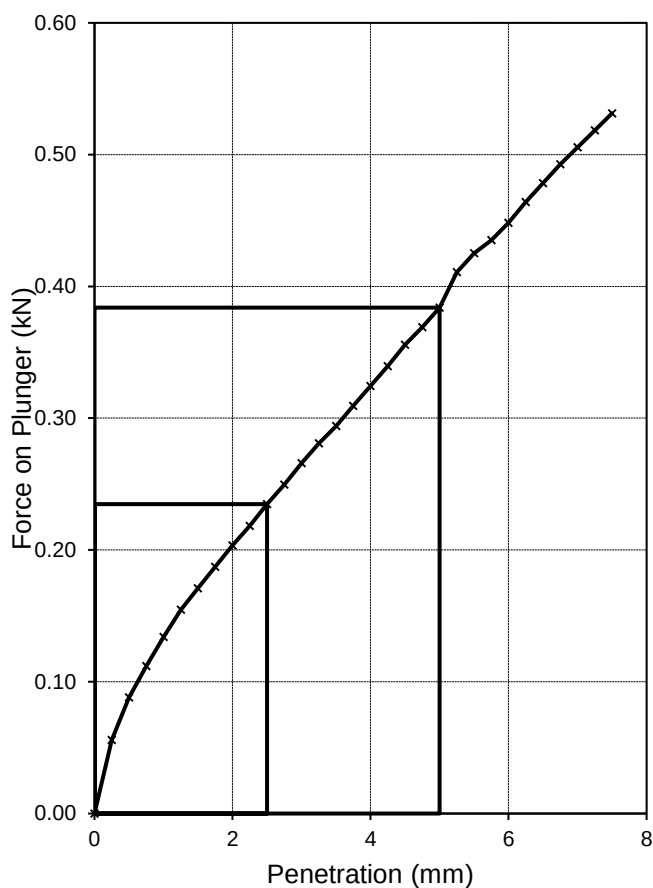
10.0 kg
10 N
24 %

CBR Value

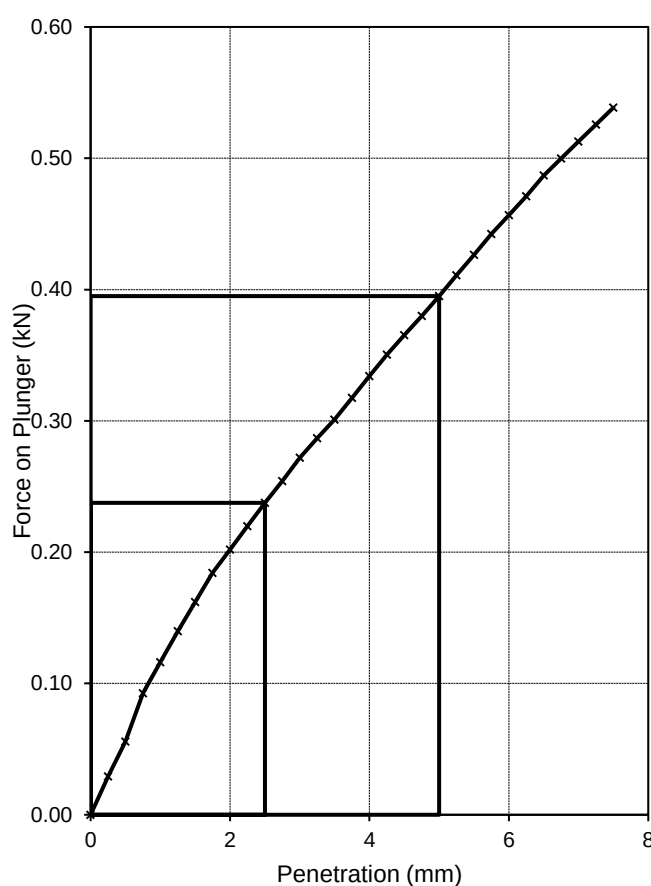
1.9 %

2.0 %

Top of Specimen



Base of Specimen



Tested by VP/LH
Checked and Approved by

S Burke

S Burke - Senior Technician
09/12/2024

Project Number:

GEO / 41622

Project Name:

**BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX
P16907**

GEOLABS



CALIFORNIA BEARING RATIO

Location TP04
Sample Depth 0.45-0.65 m
Sample Type B

Description:

Yellowish brown mottled dark brown slightly sandy silty CLAY
with rare roots

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with 0.0 % vertical swell.
The specimen was prepared at the as received water content of 30%
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Soaked specimen bulk density 1.96 Mg/m³ (1.96 Mg/m³ before soaking)
Soaked specimen dry density 1.50 Mg/m³ (1.50 Mg/m³ before soaking)
0.0 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

10.0 kg
10 N
30 %

Base

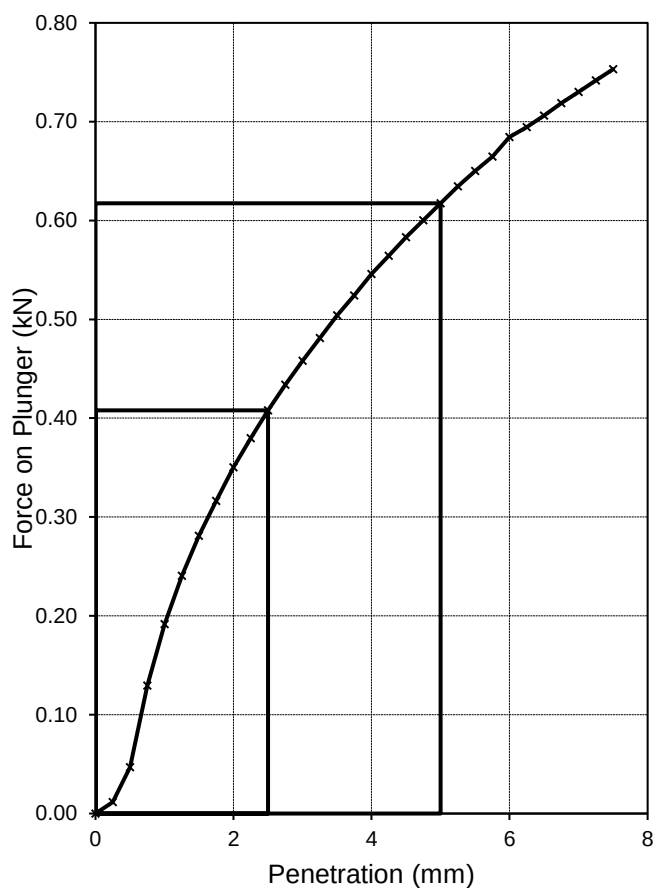
10.0 kg
10 N
31 %

CBR Value

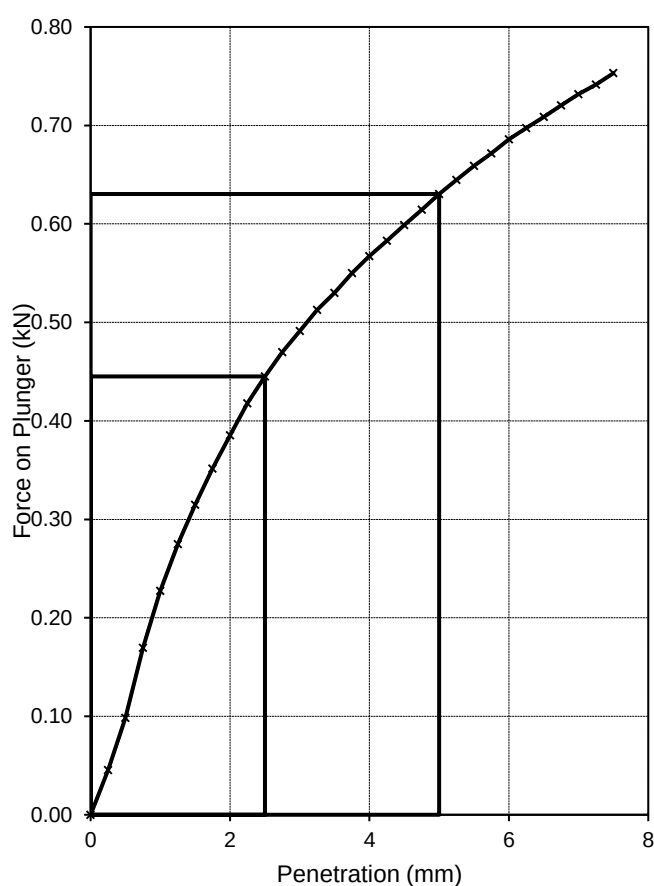
3.1 %

3.4 %

Top of Specimen



Base of Specimen



Tested by VP/LH
Checked and Approved by

S Burke

S Burke - Senior Technician
09/12/2024

Project Number:

GEO / 41622

Project Name:

**BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX
P16907**

GEOLABS

CALIFORNIA BEARING RATIO

Location TP05
Sample Depth 0.35-0.55 m
Sample Type B

Description:

Greyish brown mottled orangish brown slightly sandy silty CLAY.

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with 0.1 % vertical swell.
The specimen was prepared at the as received water content of 29%
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Soaked specimen bulk density 1.93 Mg/m³ (1.93 Mg/m³ before soaking)
Soaked specimen dry density 1.49 Mg/m³ (1.49 Mg/m³ before soaking)
0.0 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

10.0 kg
10 N
30 %

Base

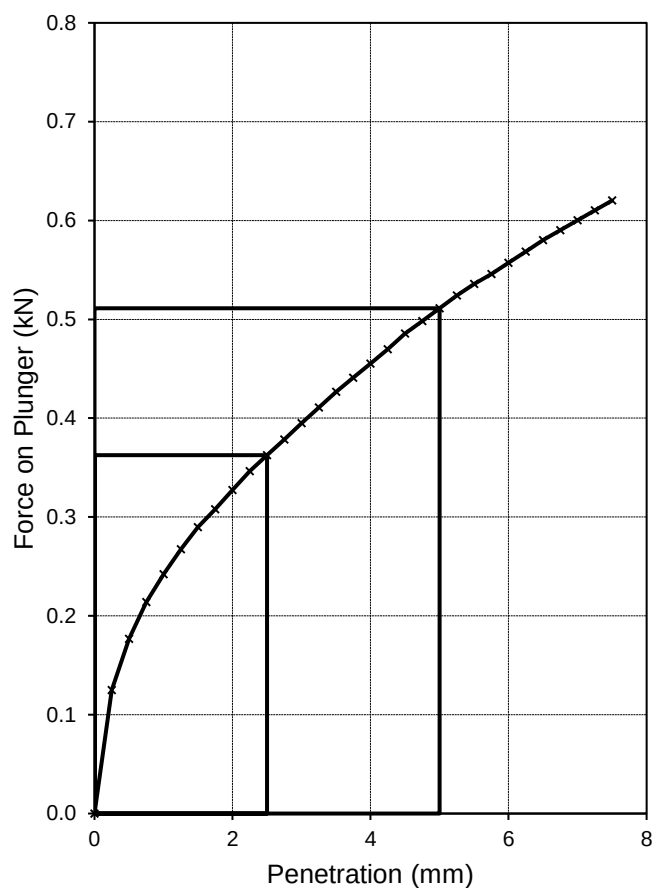
10.0 kg
10 N
30 %

CBR Value

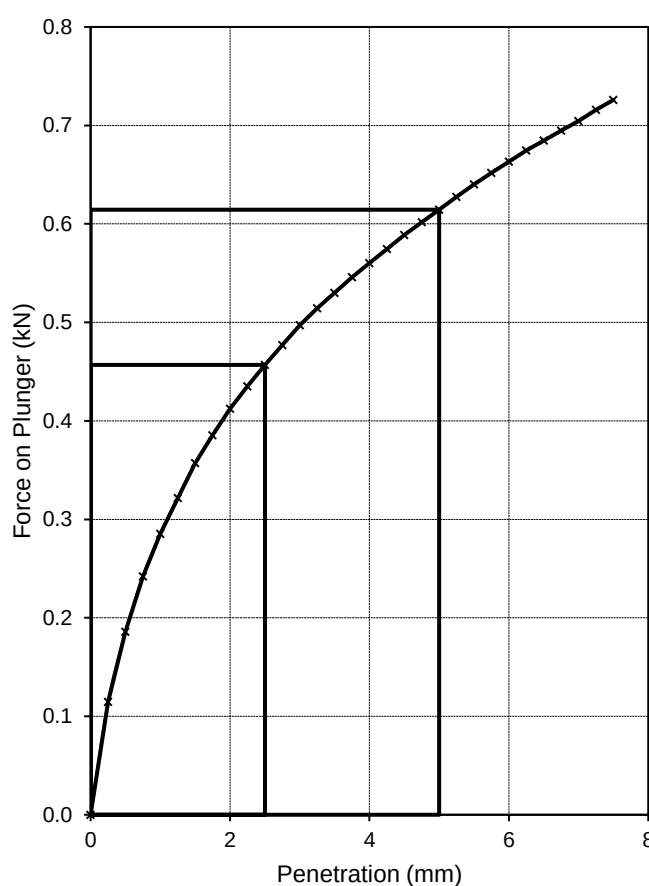
2.7 %

3.5 %

Top of Specimen



Base of Specimen



Tested by VP/LH
Checked and Approved by

S Burke

S Burke - Senior Technician
09/12/2024

Project Number:

GEO / 41622

Project Name:

**BORDE HILL LANE, BORDE HILL, HAYWARDS HEATH, WEST SUSSEX
P16907**

GEOLABS



Appendix 4.0

General Binding Rules Checklist

The following general binding rules apply to all small sewage discharges

Rule number	Discharges to surface water	Discharges to ground	General binding rule	Reasons/ Confirmation
1	No	Yes	The discharge must be 2 cubic metres or less per day in volume.	N/A
2	Yes	No	The discharge must be 5 cubic metres or less per day in volume.	Maximum occupancy 20 people. 20 x 150 litres per day = 3,000litres per day or 3.0m ³ per day
3	Yes	Yes	The sewage must only be domestic.	Domestic sewage only
4	Yes	Yes	The discharge must not cause pollution of surface water or groundwater.	✓
5	No	Yes	The sewage must receive treatment from a septic tank and infiltration system (drainage field) or sewage treatment plant and infiltration system.	N/A
6	Yes	No	The sewage must receive treatment from a sewage treatment plant.	Sewage treatment plant proposed

E9459 Borde Hill Estate
EA General Binding Rules

Rule number	Discharges to surface water	Discharges to ground	General binding rule	Reasons/ Confirmation
7	No	Yes	The discharge must not be within a groundwater source protection zone 1 or within 50 metres from any well, spring or borehole that is used to supply water for domestic or food production purposes.	✓
8	Yes	No	For discharges in tidal waters, the discharge outlet must be below the mean spring low water mark.	N/A
9	Yes	Yes	All works and equipment used for the treatment of sewage effluent and its discharge must comply with the relevant design and manufacturing standards, meaning the British Standard that was in force at the time of the installation, and guidance issued by the appropriate authority on the capacity and installation of the equipment.	✓
10	Yes	Yes	The system must be installed and operated in accordance with the manufacturer's specification.	✓
11	Yes	Yes	Maintenance must be undertaken by someone who is competent.	✓

Rule number	Discharges to surface water	Discharges to ground	General binding rule	Reasons/ Confirmation
12	Yes	Yes	Waste sludge from the system must be safely disposed of by an authorised person.	✓
13	Yes	Yes	If a property is sold, the operator must give the new operator a written notice stating that a small sewage discharge is being carried out, and giving a description of the waste water system and its maintenance requirements.	✓
14	Yes	Yes	The operator must ensure the system is appropriately decommissioned where it ceases to be in operation so that there is no risk of pollutants or polluting matter entering groundwater, inland fresh waters or coastal waters.	✓

For a discharge that was started on or after 1 January 2015, the following general binding rules also apply

Rule number	Discharges to surface water	Discharges to ground	General binding rule	
15	Yes	Yes	Discharges must not be within 30 metres of a public foul sewer.	The proposed development is in a remote area and there are no public sewers within proximity of the Development area

E9459 Borde Hill Estate
EA General Binding Rules

Rule number	Discharges to surface water	Discharges to ground	General binding rule	
16	Yes	Yes	For discharges, the operator must ensure that the necessary planning and building control approvals for the treatment system are in place.	✓
17	Yes	No	Discharges must not be in or within: 500 metres of a Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site, biological Site of Special Scientific Interest (SSSI), freshwater pearl mussel population, designated bathing water, or protected shellfish water; 200 metres of an aquatic local nature reserve; 50 metres of a chalk river or aquatic local wildlife site.	✓
18	No	Yes	Discharges must not be in, or within 50 metres of, a Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site, or biological Site of Special Scientific Interest (SSSI), and must not be in an Ancient Woodland.	N/A
19	Yes	No	Discharges must be made to a watercourse that normally has flow throughout the year.	Receiving stream is wet all year round
20	Yes	No	For discharges, any partial drainage field must be installed within 10 metres of the bank side of the watercourse.	The last 10m of pipe before outfall to stream will be perforated pipe wrapped in geotextile

E9459 Borde Hill Estate
EA General Binding Rules

Rule number	Discharges to surface water	Discharges to ground	General binding rule	
21	Yes	No	Discharges must not be made to an enclosed lake or pond.	✓

For a new discharge that started on or after 2 October 2023, the following two general binding rules also apply

Rule number	Discharges to surface water	Discharges to ground	General binding rule	Reasons/ Confirmation
22	Yes	Yes	A new discharge shall not use the same outlet as any other discharge if the combined volume of those discharges would exceed the volumetric general binding rules thresholds for groundwater or surface water.	✓
23	Yes	Yes	A new discharge shall not be made to a discharge point within 50 metres of any other exempt groundwater activity or water discharge activity.	✓

Appendix 5.0

Communication

Marsh Industries

From: **Michael Harrison** <michael.harrison@marshindustries.co.uk>

Date: Fri, 27 Feb 2026 at 15:55

Subject: Portapura Installation and Siting Guidelines

To: agoddard89@googlemail.com <agoddard89@googlemail.com>

Good Afternoon Alex

As discussed I can advise the following in respect of Portapura installations.

As a portable solution, the treatment plant can be installed either below ground, partly in the ground or above ground. Owing to its compact nature a full concrete surround is not required.

The Portapura is routinely installed beneath Static Caravans, Shepherd Huts and other “above ground” holiday accommodation.

Venting ensures no odour. Whilst the Whisspurr AVR silencer reduces compressor noise to a minimum.

Usual recommendations to site a below ground domestic sewage treatment plant 7m from a property do not apply.

As with all sewage treatment plants, we recommend that de-sludge and maintenance intervals are adhered too to ensure optimum performance. The plant is tested and certified to exceed BOD, Suspended Solid and Ammonia targets.

Regards

Michael

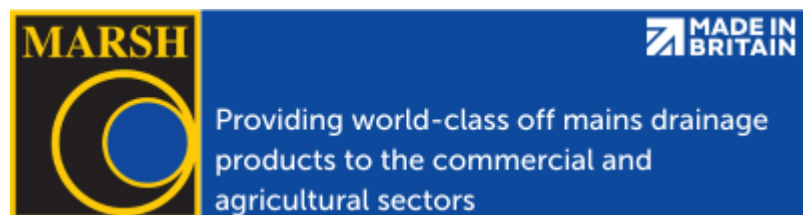
Michael Harrison

Business Development Director

M [07384 464517](tel:07384464517) | 01933 654582

michael.harrison@marshindustries.co.uk

www.marshindustries.co.uk



Marsh Industries is a limited company registered in England & Wales. Registered number: 5157928

Appendix 6.0

Communication

Compliance Building Control

From: **Kyle Woolven** <kyle.woolven@compliancebuildingcontrol.co.uk>

Date: Tue, 17 Feb 2026 at 20:26

Subject: RE: Enquiry - glamping site

To: Alex Goddard <agoddard89@googlemail.com>

Hi Alex,

Apologies for the delayed response, the proposal seems to be adequate to comply with the Building Regulation requirements, as long as the stream that the water goes into is flowing all year round. Once the works are to commence, please email me with the following:

- Client name
- Site address
- Description of proposed works
- Plans

Once the above are provided I will issue a quotation for the works and once we have the application submitted to us I will be able to fully assess the plans and provide a plan assessment letter prior to works commencing on site.

Many thanks,

Kyle Woolven – Building Control BSc (Hons), ACABE

Registered Building Inspector

Class 2A RBI

M:07903705277



www.compliancebuildingcontrol.co.uk

Building Control is Changing....

From 1st October 2023, there will be significant changes to the building control regime and what every person involved in a building project is legally responsible for.

Further details can be found here:

[Summary of building control regime changes](#)

[The New Building Control Landscape](#)