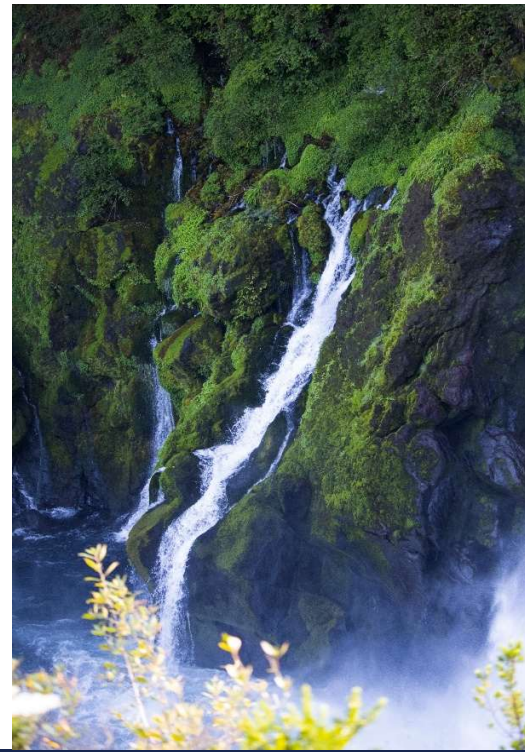




degadea
water, civils and environment

Surface Water Drainage Strategy AEG9031_SP5_WestWinterslow_06

Site Address: Pear Tree Farm
Pitton Road
West Winterslow
Wiltshire
SP5 1EG

UK Experts in Flood Modelling, Flood Risk
Assessments, and Surface Water Drainage Strategies

degadea
water, civils and environment

Document Issue Record

Project: Surface Water Drainage Strategy

Prepared for: Atlas Planning

Reference: AEG9031_SP5_WestWinterslow_06

Site Location: Pear Tree Farm, Pitton Road, West Winterslow, Wiltshire, SP5 1EG

Issue	Date	Author	Check	Auth.	Comments
1.0	12/11/2025	Jack Allen	JC	OH	First Issue
1.01	09/01/2026	Jack Allen	-		First Revision
1.02	22/01/2026	Jack Allen	-		Second Revision

Second Revision Summary

To ensure exceedance flows do not exit the site a filter drain has been added to the perimeter of the permeable paving. In the unlikely events greater than 1 in 100 year plus a climate change allowance, surface water will remain on site as there is an additional 22% capacity available in the permeable paving subbase and a perimeter filter drain will promote further infiltration and ensure flows do not exit the site.

Filter drain maintenance is provided in this updated report as Table 5.

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1. Introduction

- 1.1. Aegaea were commissioned by Atlas Planning to undertake a Surface Water Drainage Strategy (SWDS) to discharge the drainage planning condition 3 attached to planning application (Wiltshire reference: PL/2024/09167).

3. No works to create the new access (or to cover/fill the existing ditch at the entrance to the site with Pitton Road) shall take place on site until a surface water drainage scheme has been submitted to and approved in writing by the Local Planning Authority, to demonstrate that the proposed works will not increase surface water runoff onto:

- i) the public highway,*
- ii) any land immediately adjacent to the north boundary edge of the track and*
- iii) the existing ditch at the west boundary of the site access at Pitton Road.*

The proposed development shall not be first brought into use until the agreed works have been implemented and completed.

REASON: To ensure that the highway, ditch to the west (at Pitton Road) and land adjacent to the site to the north is not inundated with surface water from the new track, which is in an area at high risk from surface water flooding.

- 1.2. The calculations and information contained within this report seek to address the drainage condition outlined by Wiltshire Council, as such the level of detail included is commensurate and subject to the nature of the proposals.

Site Overview

- 1.3. The site of the retrospective development is Pear Tree Farm, Pitton Road, West Winterslow, Wiltshire, SP5 1EG (Figure 1).

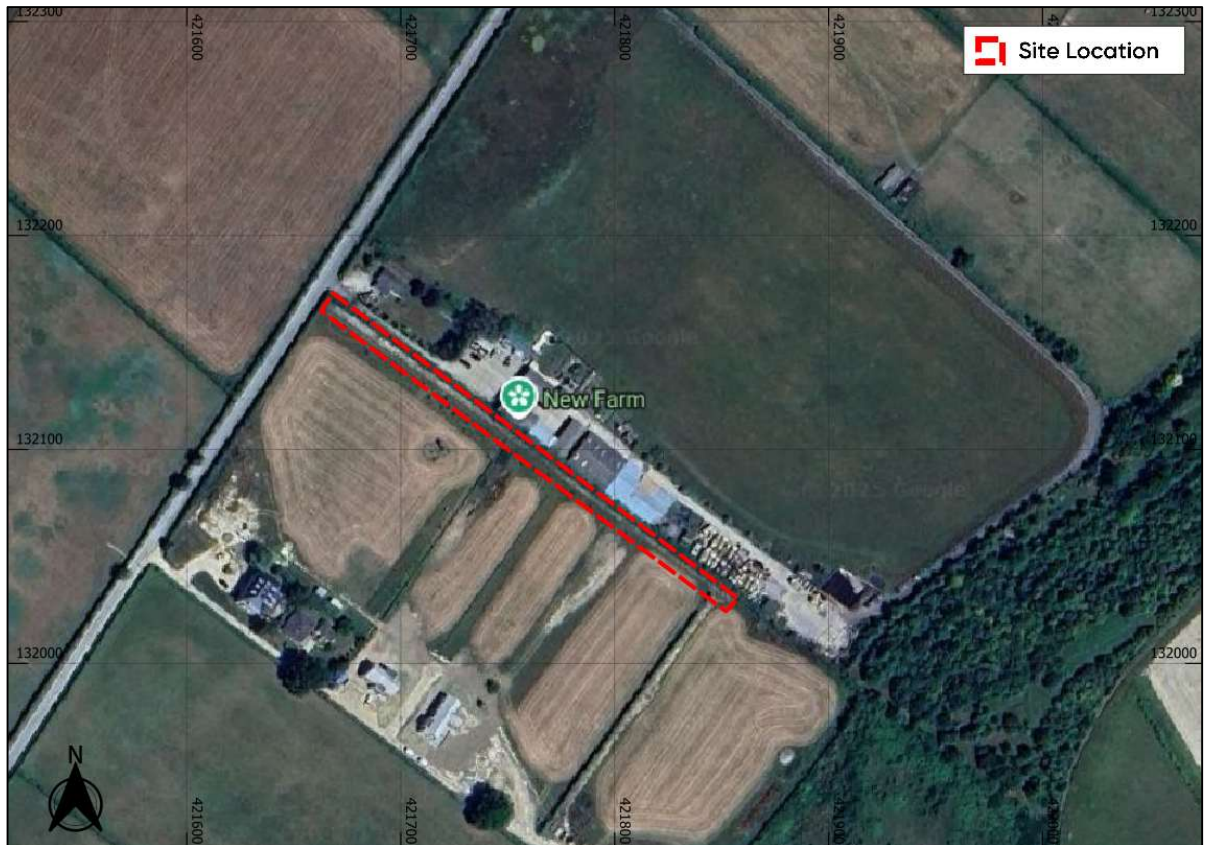


Figure 1: Site Location (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

- 1.4. The existing site comprises a farm and it is understood that the proposed development is for the construction of an agricultural access and track. The development proposals will be included in this report as Appendix A.
- 1.5. In the absence of a topographical survey, Environment Agency Light Detection and Ranging (LiDAR) data Digital Terrain Model has been used to review the topography of the site. Analysis of the data shows that the minimum ground elevation on site is approximately 80.23m AOD (Above Ordnance Datum) and the maximum ground elevation on site is approximately 91.90m AOD (Figure 2). The site generally slopes from the southeast to the northwest.

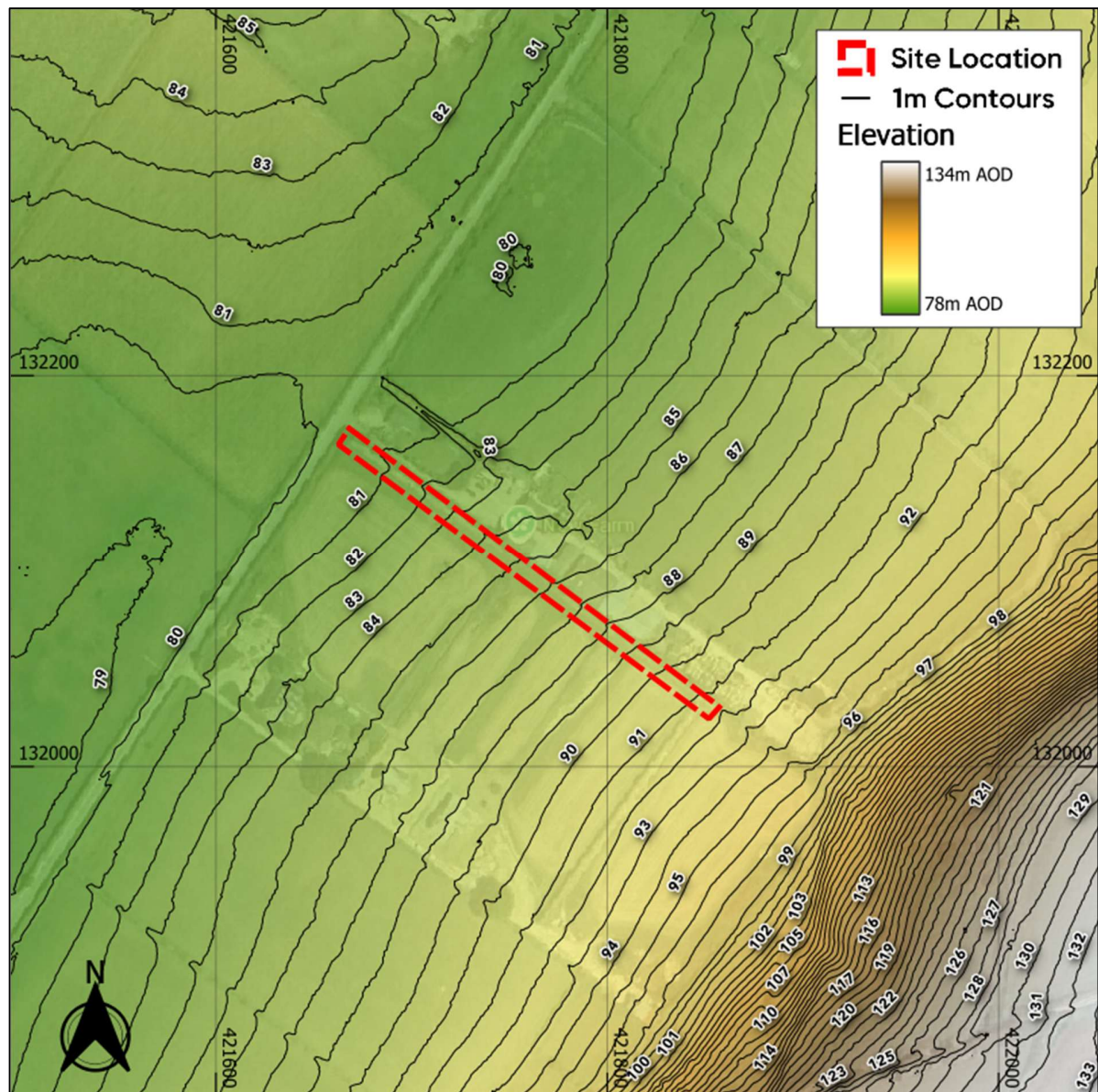


Figure 2: Site Topography (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 1.6. Wiltshire Council is the Local Planning Authority (LPA) for the site and also the designated Lead Local Flood Authority (LLFA).
- 1.7. Wessex Water is the sewage provider for the area.

2. Surface Water Drainage Strategy

SuDS Hierarchy

- 2.1. In accordance with the SuDS management train approach, the use of various SuDS measures to reduce and control surface water flows have been considered in detail for the development in Table 1 below.
- 2.2. The management of surface water has been considered in respect to the SuDS hierarchy below, as detailed in the Statutory Guidance National standards for sustainable drainage systems (SuDS) (2025).

Table 1: SuDS Drainage Hierarchy

SuDS Drainage Hierarchy				
			Suitability	Comment
	1.	Collection for non-potable use	x	The development is for an access road only, therefore, there is no opportunity for water re-use.
	2.	Infiltration	✓	Infiltration tests have been conducted on site in accordance with BRE365 Standards and the results are included in this report as Appendix C. Based on the infiltration test the worst-case scenario is the infiltration rate on site is 2.739×10^{-5} m/s (0.0986m/hr). A safety factor of 2.0 applied to the infiltration rate to account for any inaccuracies.
	3.	Discharge to surface waters	x	Infiltration is the preferred method of surface water discharge in the SuDS hierarchy.
	4.	Discharge to surface water sewer, highway drain or similar	x	
	5.	Discharge to combined sewer	x	

- 2.3. On review of the SuDS drainage hierarchy, and with reference to both national and local policy, it is proposed that the surface water runoff from the proposed development is discharged to ground via infiltration.

2.4. The potential for the use of various SuDS has been considered and optimised in the design, as per Table 2 overleaf.

Table 2: SuDS Components Suitability Summary Table

SuDS Component	Description	Constraints and Opportunities	Suitable?
1. Infiltrating SuDS	Infiltration can contribute to reducing runoff rates and volumes while supporting baseflow and groundwater recharge processes. The suitability and infiltration rate depends on the permeability of the surrounding soils.	Infiltration tests have been conducted on site in accordance with BRE365 Standards. Based on the infiltration test the worst-case scenario is the infiltration rate on site is 2.739×10^{-5} m/s (0.0986m/hr). A safety factor of 2.0 applied to the infiltration rate to account for any inaccuracies.	Yes
2. Filter Drains and Filter Strips	Filter drains are shallow trenches filled with stone gravel that create temporary subsurface storage for the attenuation, conveyance and filtration of surface water runoff. Filter strips are uniformly graded and gently sloping strips of grass or dense vegetation, designed to treat runoff from adjacent impermeable areas by promoting sedimentation, filtration and infiltration.	Alternative methods of conveyance are preferred.	No
3. Permeable Pavement	Pervious surfaces can be used in combination with aggregate sub-base and/or geocellular/modular storage to attenuate and/or infiltrate runoff from surrounding surfaces and roofs. Liners can be used where ground conditions are not suitable for infiltration.	The proposed access road should be constructed using a permeable surface with 100mm minimum of attenuation subbase.	Yes
4. Green & Blue Roofs	Green Roofs provide areas of visual benefit, ecological value, enhanced building performance and the	There are no flat roofs included as part of the proposed development.	No

SuDS Component	Description	Constraints and Opportunities	Suitable?
	reduction of surface water runoff. They are generally more costly to install and maintain than conventional roofs but can provide many long-term benefits and reduce the on-site storage volumes.		
5. Rainwater Harvesting (RWH)	Rainwater Harvesting is the collection of rainwater runoff for use. It can be collected from roofs or other impermeable areas, stored, treated (where required) and then used as a supply of water for domestic, commercial and industrial properties.	There are no opportunities for rainwater harvesting.	No
6. Swales	Swales are designed to convey, treat and attenuate surface water runoff and provide aesthetic and biodiversity benefits. They can replace conventional pipework as a means of conveying runoff; however, space constraints of some sites can make it difficult incorporating them into the design.	Permeable paving is preferred over a swale in this situation.	No
7. Rills and Channels	Rills and Channels keep runoff on the surface and convey runoff along the surface to downstream SuDS components. They can be incorporated into the design to provide a visually appealing method of conveyance. They also provide effectiveness in pre-treatment removal of silts.	There are no opportunities for rills and channels.	No

SuDS Component	Description	Constraints and Opportunities	Suitable?
8. Bioretention Systems	Bioretention systems can reduce runoff rates and volumes and treat pollution through the use of engineer soils and vegetation. They are particularly effective in delivering interception but can also be an attractive landscape feature whilst providing habitat and biodiversity.	There are no opportunities for raised planters.	No
9. Retention Ponds and Wetlands	Ponds and Wetlands are features with a permanent pool of water that provide both attenuation and treatment of surface water runoff. They enhance treatment processes and have great amenity and biodiversity benefits. Often a flow control system at the outfall controls the rates of discharge for a range of water levels during storm events.	There are no opportunities for retention ponds and wetlands.	No
10. Detention Basins	Detention Basins are landscaped depressions that are usually dry, except during and immediately following storm events, and can be used as a recreational or other amenity facility. They are generally appropriate to manage high volumes of surface water from larger sites, such as a neighbourhood.	There are no opportunities for detention basins.	No
11. Geocellular Systems	Attenuation storage tanks are used to create a below-ground void space for the temporary storage of surface	Permeable paving is preferred for this strategy.	No

SuDS Component	Description	Constraints and Opportunities	Suitable?
	water before infiltration, controlled release or use. The inherent flexibility in size and shape means they can be tailored to suit the specific characteristics and requirements of any site.		
12. Proprietary Treatment Systems	Proprietary treatment systems are manufactured products that remove specific pollutants from surface water runoff. They are especially useful where site constraints preclude the use of other methods and can be useful in reducing the maintenance requirements of downstream SuDS.	Permeable paving will provide a sufficient level of treatment for the access road.	No

- 2.5. Following a review of the available SuDS options, and taking into account the site's constraints and opportunities, it is proposed that surface water runoff from the development will be managed via permeable paving.
- 2.6. The proposed Surface Water Drainage Layout and Detail is included as Appendix B of this report.

Infiltration Potential

- 2.7. The British Geological Survey's (BGS) mapping shows no superficial deposits underlying the site. The bedrock underlying the site is Newhaven Chalk Formation comprising chalk.
- 2.8. Soilsmap mapping shows that the soil characteristics are defined as *freely draining soils*.
- 2.9. Infiltration tests have been conducted on site in accordance with BRE365 Standards and the results are included in this report as Appendix C. Based on the infiltration test the worst-case scenario is the infiltration rate on site is $2.739 \times 10^{-5} \text{m/s}$ (0.0986m/hr). A safety factor of 2.0 applied to the infiltration rate to account for any inaccuracies.

Nearby Watercourses and Public Sewers

- 2.10. As infiltration testing has confirmed that discharge to ground is viable, this should be used as the preferred method of surface water disposal in line with the drainage hierarchy. Discharge to a watercourse or sewers is therefore not recommended.

InfoDrainage Modelling and Results

InfoDrainage Modelling

- 2.11. InfoDrainage Software (v2025.5) was used to calculate the indicative attenuation volumes from the development proposals area.
- 2.12. The total proposed impermeable area being managed was calculated to be 0.134ha of access road. No urban creep allowance has been applied in this scenario as any changes to the access road of the wider site will require planning permission.
- 2.13. The model comprises:
- 1 no. contributing catchment area to represent the proposed access road.
 - 1 no. permeable paving unit representing the permeable gravel access track taking flows from only itself. Modelled with 30% porosity, infiltration rate of $2.739 \times 10^{-5}\text{m/s}$ (0.0986m/hr) (safety factor of 2.0 applied to the infiltration rate) and is modelled with a long slope of 1:21 (replicating the existing topography (according to EA's LiDAR data) as a worst case scenario).
 - Permeable Finish: material and depth TBC by the client. Modelled as a 50mm paving layer depth.
 - 100mm subbase (minimum 50mm of clean crushed stone and minimum 50mm of 20-5mm stone – separated by a geotextile layer).
 - Geotextile base layer to separate the subbase from the underlying soil.
- 2.14. Figure 3 below includes a visual representation of the proposed catchment areas and SuDS features proposed.



Figure 3: Visualisation of Proposed Catchment Areas and SuDS Features (Source: InfoDrainage Model 2025.5)

2.15. Table 3 overleaf summarises the simulation criteria for the InfoDrainage model.

Table 3: Simulation Parameters

Catchment Area Simulation Parameters	
Rainfall Data	FEH22 – considered the most accurate rainfall data.
Site Location	X: 421756 Y:132113
Total Area	0.134ha
Return Periods	2, 30, 30+40% for climate change, 100, 100 +45% for Climate Change. Summer and Winter
Storm Durations	15, 30, 60, 120, 240, 360, 480, 960, 1440, minute
Volumetric Runoff Coefficient	1.0 (summer and winter storms)
Percentage Impervious	100%
Time of Concentration	5 minutes

2.16. The Environment Agency Peak Rainfall Climate Change Allowance guidance (updated in May 2022) was reviewed and subsequently the DEFRA Peak Rainfall Allowances Map was assessed to determine appropriate climate change allowances to inform the surface water drainage strategy. In line with this guidance, the upper end allowances for the Test and Itchen Warwickshire Management Catchment have been used for both the 1% and 3.3% annual exceedance probability events. An allowance of 40% has been used for the 3.3% AEP event and an allowance of 45% has been used for the 1% AEP event.

InfoDrainage Results

2.17. The full calculation outputs can be found in Appendix D of this report although the 1 in 100 year+45% climate change results for the permeable access track have been summarised below:

- The maximum depth within the 100mm deep subbase for a 1 in 100-year plus 45% climate change critical storm (30 minute summer) is 85mm. The half drain time is 21mins.
- No flooding is observed in the critical storm event based on the InfoDrainage model.

2.18. As such, these results indicate that the runoff from the proposed development could be accommodated within a drainage system of the approximate size modelled.

Maintenance

- 2.19. Table 4 and 5 presents the details regarding the maintenance requirements for the proposed SuDS included as part of the development taken from the CIRIA C753 'The SuDS Manual'. Each manufacturer will have bespoke requirements, however, the below should be used as a guide.

Table 4: Maintenance Requirements for Permeable Pavements

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturers recommendations - pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required - once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth - if required, take remedial action	Three-monthly, 48hr after large storms in first six months

	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Table 5: Maintenance Requirements for Filter Drains

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Remove litter including leaf litter and debris from filter drain surface, access chambers and pre-treatment devices	Monthly (or as required)
	Inspect filter drain surface, inlet outlet pipework and control systems for blockages, clogging, standing water and structural damage	Monthly
	Inspect pre-treatment systems, inlets and perforated pipework for silt accumulation, and establish appropriate silt removal frequencies	Six monthly
	Remove sediment from pre-treatment devices	Six monthly, or as required
Occasional maintenance	Remove or control tree roots where they are encroaching the sides of the filter drain, using recommended methods (eg NJUG, 2007 or BS 3998:2010)	As required
	At locations with high pollution loads, remove surface geotextile and replace, and wash or replace overlying filter medium	Five yearly, or as required
	Clear perforated pipework of blockages	As required

Designing for Exceedance

- 2.20. Exceedance events are those greater than the design rainfall event, i.e. greater than the 100-year rainfall event plus 45% increase for climate change.

- 2.21. Periods of exceedance occur when the rate of surface water runoff exceeds the drainage system capacity. Conveyance beneath ground cannot, generally, be economically or sustainably constructed to the scale required for the most extreme rainfall events. This may result, on occasion, in the surface water runoff exceeding the capacity of the drainage network, with excess water (exceedance flow) being conveyed above ground.
- 2.22. For situations where extreme rainfall intensity exceeds inlet capacities, or for extreme storm events exceeding the design flood event considered for drainage design, the surface water exceedance will flow towards the centre of the site towards the access road.
- 2.23. The permeable has been designed with a 2.0 Safety Factor to ensure that the design is conservative. Additionally, there is still 22% attenuation available during the 100-year rainfall event plus 45% increase for climate change, which will act as attenuation for exceedance events.
- 2.24. In addition to the above, a perimeter filter drain is also proposed either side of the access road close to the highway. The perimeter filter drain will promote further infiltration and ensure flows do not exit the site.

Water Quality

- 2.25. In order to protect the downstream receiving water body, a key element of SuDS is that they have the potential to improve the quality of surface water discharged from a site. In order to assess this, the “Pollution hazard indices for different land use classifications”, provided in table 26.2 of the CIRIA SuDS Manual (C753) has been reviewed. The indices use four different indicators for assessing pollution potential based on the hazard level, total suspended solids (TSS), Metals, and Hydrocarbons.
- 2.26. The Pollution Hazard Indices are summarised in Table 6 below (with reference to table 26.3 in the CIRIA SuDS manual). The pollution hazard indices for “low traffic roads” have been used.

Table 6: Pollution Hazard Indices

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Low Traffic Roads	Low	0.5	0.4	0.4

- 2.27. Table 7 shows permeable paving will offer sufficient treatment for the access road.

Table 7: Pollution Mitigation Indices

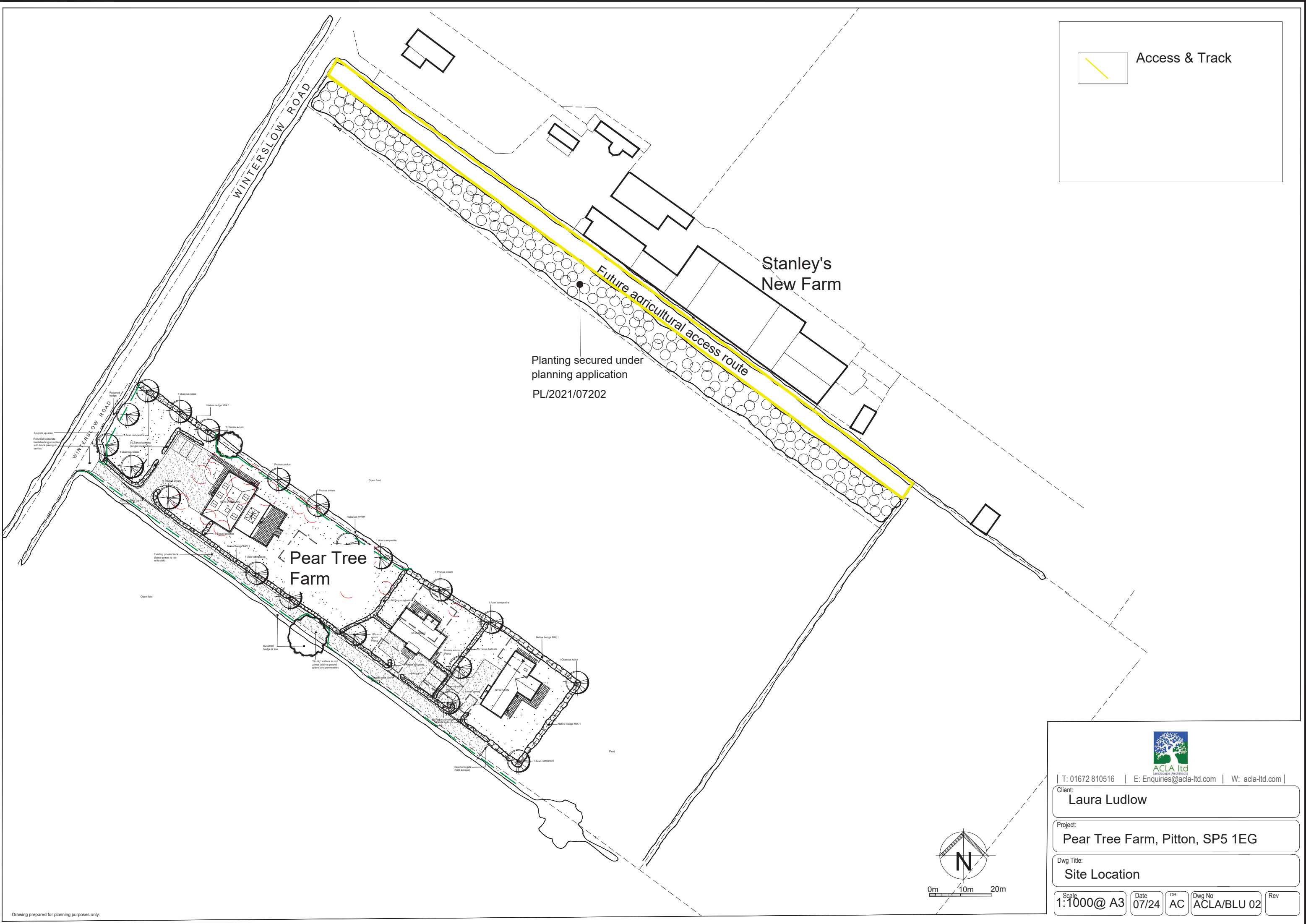
Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Permeable Paving		0.7	0.7	0.5

2.28. As such, the proposed drainage strategy should offer sufficient treatment of runoff from the proposed access road.

3. Conclusions

- 3.1. This report has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at Pear Tree Farm, Pitton Road, West Winterslow, Wiltshire, SP5 1EG.
- 3.2. On review of the SuDS drainage hierarchy, and with reference to both national and local policy, it is proposed that the surface water runoff from the proposed development is discharged to ground via infiltration.
- 3.3. Following a review of the available SuDS options, and taking into account the site's constraints and opportunities, it is proposed that surface water runoff from the development will be managed via permeable paving.
- 3.4. The full calculation outputs can be found in Appendix D of this report although the 1 in 100 year+45% climate change results for the permeable access track have been summarised below:
 - The maximum depth within the 100mm deep subbase for a 1 in 100-year plus 45% climate change critical storm (30 minute summer) is 85mm. The half drain time is 21mins.
 - No flooding is observed in the critical storm event based on the InfoDrainage model.
- 3.5. As such, these results indicate that the runoff from the proposed development could be accommodated within a drainage system of the approximate size modelled.
- 3.6. This Surface Water Drainage Strategy should be submitted to discharge planning condition 3 attached to the planning application (Wiltshire reference: PL/2024/09167).

Appendix A - Development Proposals



Access & Track



ACLA Ltd
Landscape Architects

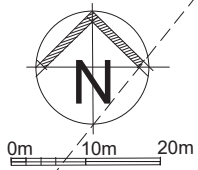
| T: 01672 810516 | E: Enquiries@acla-ltd.com | W: acla-ltd.com |

Client:
Laura Ludlow

Project:
Pear Tree Farm, Pitton, SP5 1EG

Dwg Title:
Site Location

Scale 1:1000@ A3	Date 07/24	DB AC	Dwg No ACLA/BLU 02	Rev
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Appendix B - Surface Water Drainage Layout and Detail

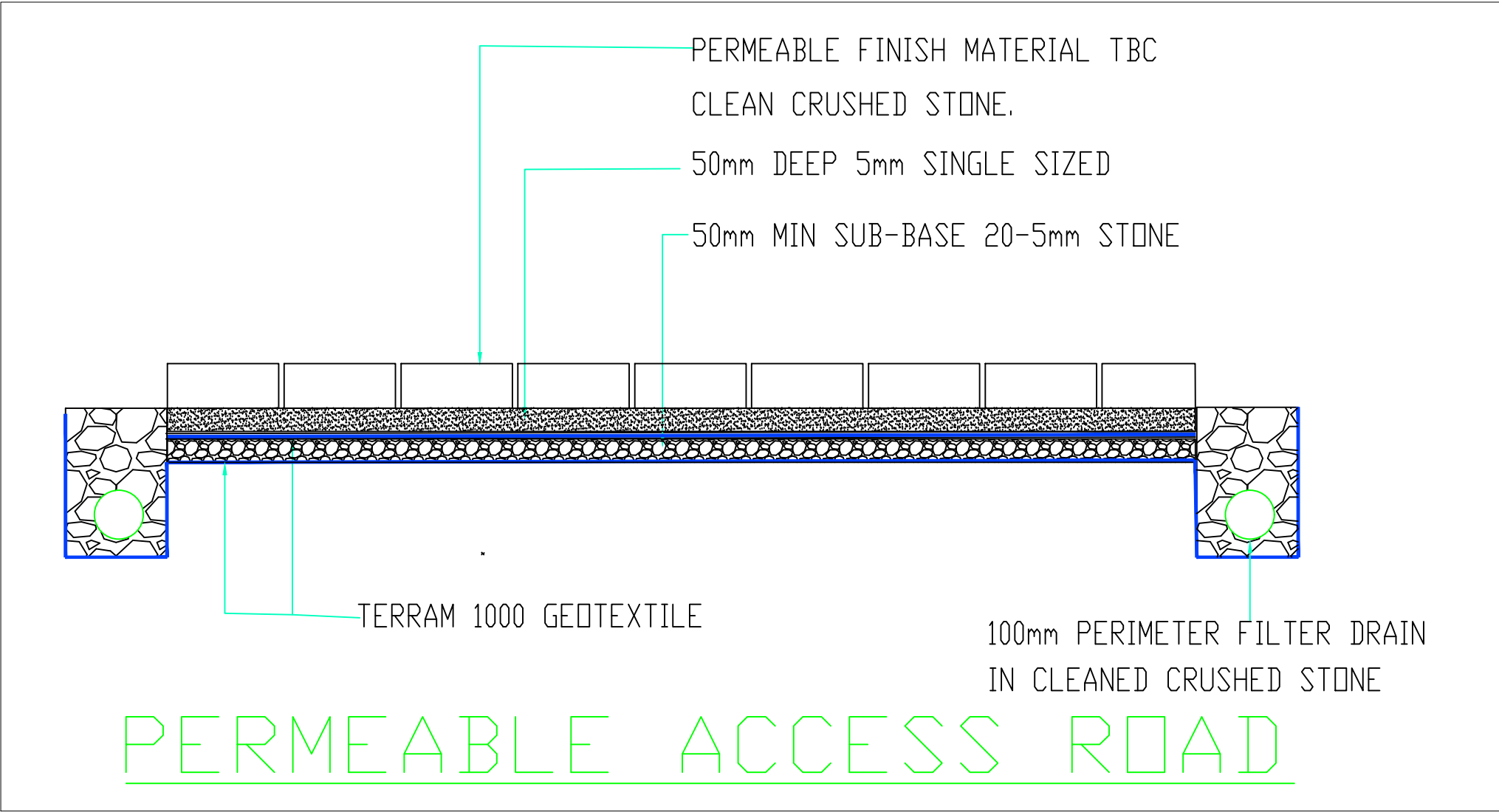


PROPOSED PERMEABLE ACCESS ROAD.

DRAINING ONLY ITSELF.

- PLAN AREA: 1,330m²
- SUBBASE POROSITY: 30%
- INFILTRATION RATE: 0.0986m/hr - SAFETY FACTOR OF 2.0 USED TO ACCOUNT FOR ANY INACCURACIES IN MEASURING THE INFILTRATION RATE.
- MODELLED WITH A 1:21 SLOPE TO SIMULATE THE EXISTING GROUND CONDITIONS AS A WORST-CASE SCENARIO.

- 1.PERMEABLE SURFACE MATERIAL AND DEPTH: TBC
- 2.50mm DEEP 5mm SINGLE SIZED CLEAN CRUSHED STONE
- 3.TERRAM 1000 GEOTEXTILE
- 4.50mm: 20-5mm STONE
- 5.TERRAM 100 GEOTEXTILE



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A COMPETENT CONTRACTOR, WORKING WHERE APPROPRIATE TO AN
APPROVED METHOD STATEMENT.

DRAFT

LEGEND	
	PERMEABLE ACCESS ROAD
	CONTRIBUTING AREA
	PERIMETER FILTER DRAIN

THE PROPOSED ACCESS TRACK SHOULD BE LAID IN ACCORDANCE WITH THE EXISTING TOPOGRAPHY ON SITE. EXISTING TOPOGRAPHY CURRENTLY SLOPES TO THE NORTHWEST.

DURING EXCEEDANCE EVENTS, SURFACE WATER WILL FLOW TO THE NORTHWEST.

HOWEVER, THERE IS AN ADDITIONAL 22% OF THE PERMEABLE PAVING AVAILABLE DURING THE 1 IN 100 YEAR EVENT (PLUS 45% CLIMATE CHANGE ALLOWANCE). THIS IS EVIDENCED IN THE INFODRAINAGE MODEL (APPENDIX D).

AS SUCH, IN THE UNLIKELY STORM EVENT GREATER THAN THE 1 IN 100 (+45% CLIMATE CHANGE) EVENT, THE PERMEABLE PAVING CAN STILL TAKE ADDITIONAL FLOWS.

ADDITIONALLY, A PERIMETER FILTER DRAIN IS PROPOSED WITHIN THE PERMEABLE PAVING SUBBASE. THIS FILTER DRAIN HAS NOT BEEN INCLUDED IN THE INFODRAINAGE CALCULATIONS TO ENSURE ADDITIONAL CAPACITY IS PROVIDED IN ADDITION TO THE DEIGN EVENT.

AS SUCH, EXCEEDANCE FLOWS ARE MANAGED ON SITE VIA THE ADDITIONAL 22% CAPACITY IN THE PERMEABLE PAVING SUBBASE AND A PERIMETER FILTER DRAIN PROMOTING INFILTRATION AND PREVENTING FLOWS FROM EXITING THE SITE.

1.02	22/01/2026	FIRST REVISION	JA
Rev	Date	Description	By

Client
ATLAS PLANNING

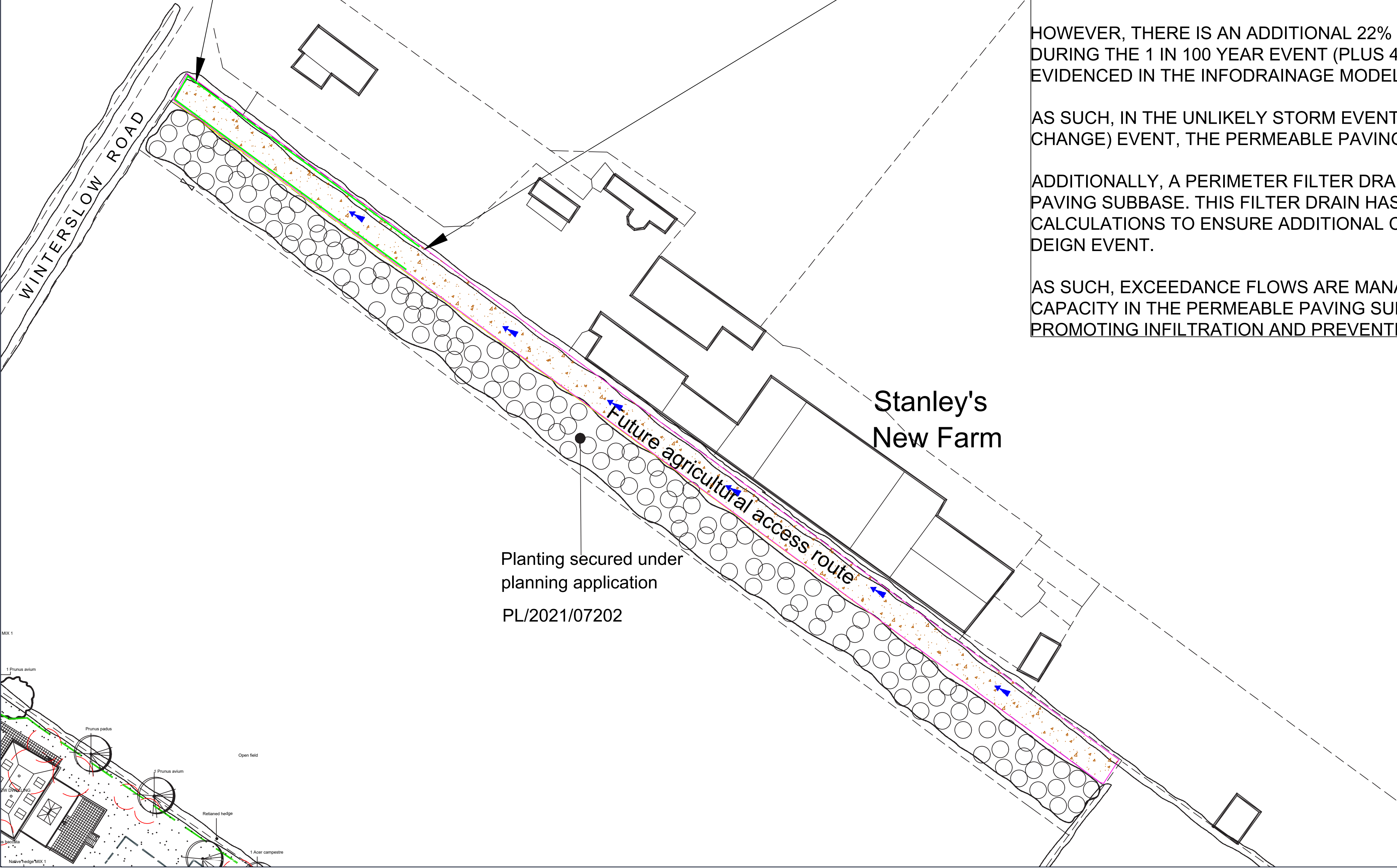
Project
SURFACE WATER DRAINAGE LAYOUT AND DETAIL

Title
PEAR TREE FARM, PITOTN ROAD, WEST WINTERSLOW, WILTSHIRE, SP5 1EG

Project No.	Drawing No.	Revision
AEG9031	DR01	1.02

Drawn	Checked	Approved	Date	Scale @ A1
JA	JC	OH	22/01/2026	1:500

Drawing Status
DOC CONDITION 3 (PL/2024/09167)



Appendix C – Infiltration Tests

The following document outlines the success rate of the soakaway test conducted by Proseptic which has come to the conclusion that the soil is suitable for a soakaway

Name of customer: Laura Ludlow

Address of customer: Peartree Farm Pitton Salisbury: SP5 1EG

Date of Test: Monday 6th October 2025

Outlined in this image is the site map and locations of soakaway testing pits:

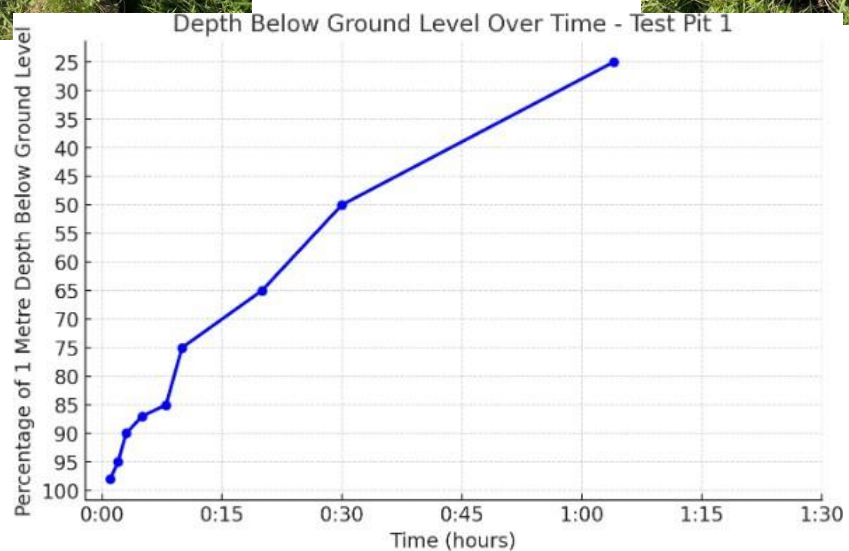


Project Summary: Proseptic dug 3 soakaway testing pits (depth 1m, length 1m, width 0.3m), at 3 different points around the properties soakaway area and measured the soil infiltration rate from 100% capacity to 25% capacity. After observing all 3 tests and marking results, we have determined the ground soil infiltration rate to be satisfactory for soakaway implementation.

Results for test pit 1:

Time (mins)	Depth Below Groundlevel
1	98
2	95
3	90
5	87
8	85
10	75
20	65
30	50
1hr 4 mins	25

Test 1:

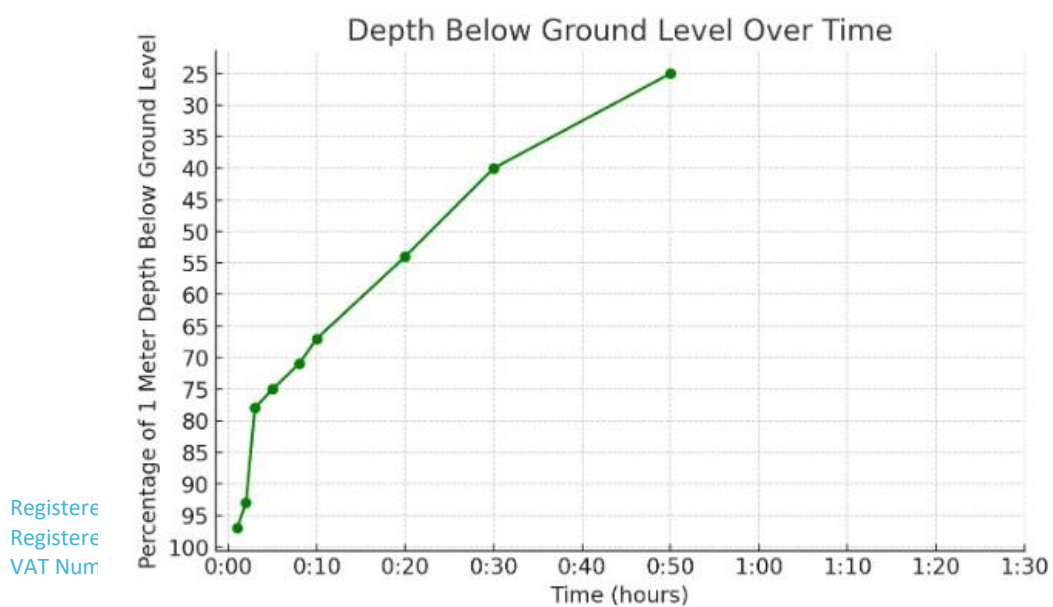


Results for test pit 1:

Results for test pit 2:

Time (mins)	Depth Below Ground Level
1	97
2	93
3	78
5	75
8	71
10	67
20	54
30	40
50 mins	25

Test 2:



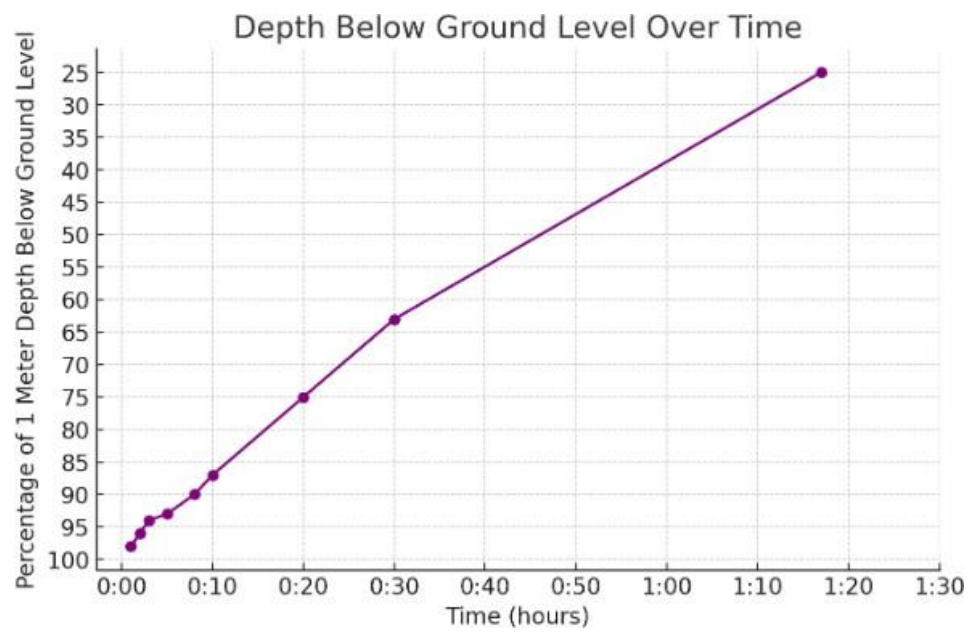
Results for Test Pit 3:

Time (mins)	Depth Below Ground Level
1	98
2	96
3	94
5	93
8	90
10	87
20	75
30	63
1hr 17mins	25

Test 3:



Results for Test Pit 4:



Project Conclusion:

After careful analysis and consideration of the ground type, water infiltration rates. We believe that the area is good for soakaway implementation, even when using the worst results of our test pits, the ground appears suitable.

Appendix D – InfoDrainage Model

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network		Date: 12/11/2025		 water, civils and environment	
Report Details: Type: Inflows Storm Phase: Phase		Designed by: JA	Checked by: JC		Approved By: OH
		Company Address: Aegaea Atlas Planning			



Catchment Area

Type : Catchment Area

Area (ha)	0.134
-----------	-------

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network		Date: 12/11/2025		 water, civils and environment	
Report Details: Type: Stormwater Controls Storm Phase: Phase		Designed by: JA	Checked by: JC		Approved By: OH
		Company Address: Aegaea Atlas Planning			



Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	80.589
Depth (m)	0.150
Base Level (m)	80.439
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	3.0
Porosity (%)	30
Length (m)	229.902
Long. Slope (1:X)	21.20
Width (m)	5.804
Total Volume (m³)	40.032

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.0986
Side Infiltration Rate (m/hr)	0.0986
Safety Factor	2.0
Conductivity (m/hr)	500.0

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Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.134	100	0	100	0.134
TOTAL		0.0		0.134				0.134

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network		Date: 12/11/2025			
Report Details: Type: Rainfall Analysis Criteria		Designed by: JA	Checked by: JC		Approved By: OH
		Company Address: Aegaea Atlas Planning			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FEH		Type: FEH
Site Location	GB 421748 132120 SU 21748 32120	
Rainfall Version	2022	
Summer	☒	
Winter	☒	

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0.000
30.0	0.000
100.0	0.000
30.0	40.000
100.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
240	480
360	720
480	960
960	1920
1440	2880

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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Aegaea Atlas Planning			



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FEH: 2 years: +0 %: 15 mins: Summer	91.285	80.440	0.001	0.001	26.2	0.415	0.000	0.0	11.906	0.000	0	98.964

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network	Date: 12/11/2025		
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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea Atlas Planning		



Status

OK

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network		Date: 12/11/2025			
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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address: Aegaea Atlas Planning			



FEH: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FEH: 30 years: +0 %: 15 mins: Summer	91.308	80.466	0.025	0.027	55.7	10.415	0.000	0.0	25.245	0.000	5	73.982

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Status

OK

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FEH: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FEH: 100 years: +0 %: 30 mins: Summer	91.323	80.483	0.039	0.044	48.7	16.769	0.000	0.0	42.298	0.000	12	58.110

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Status

OK

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network		Date: 12/11/2025			
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FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FEH: 30 years: +40 %: 30 mins: Summer	91.331	80.492	0.047	0.053	53.8	20.118	0.000	0.0	46.721	0.000	14	49.745

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	Company Address: Aegaea Atlas Planning			

Status

OK

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FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By:
Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FEH: 100 years: +45 %: 30 mins: Summer	91.357	80.524	0.074	0.085	70.6	31.270	0.000	0.0	59.867	0.000	21	21.887

Project: Pear Tree Farm, Pitton Road, West Winterslow, AEG9031_SP5_WestWinterslow_06 Surface Water Drainage Network	Date: 12/11/2025		
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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea Atlas Planning		



Status

OK