



Flood Risk Assessment and Surface Water Drainage Strategy AEG8979_RH13_Southwater_07

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Site Address: Land north of 1 Jolesfield Cottages
Jolesfield
Partridge Green
Horsham
RH13 8JT

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

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Document Issue Record

Project: Flood Risk Assessment and Surface Water Drainage Strategy

Prepared for: Manorwood

Reference: AEG8979_RH13_Southwater_07

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1. Introduction

- 1.1. Aegaea were commissioned by Manorwood to undertake a Flood Risk Assessment (FRA) and Surface Water Drainage Strategy (SWDS) to facilitate a planning application for the proposed development. This FRA & SWDS has been prepared in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance.
- 1.2. This FRA and SWDS is intended to support a full planning application and 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 proposed development is Land north of 1 Jolesfield Cottages, Jolesfield, Partridge Green, Horsham RH13 8JT (Figure 1).



Figure 1: Site Location (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors)

- 1.4. The existing site currently consists of agricultural land. It is understood that the proposed development is for the construction of a new residential scheme consisting of 9no. residential units and associated works. Development Plans are included in Appendix A.
- 1.5. A topographic survey has been undertaken of the site and surrounding area (attached in Appendix B - Medlams Survey Ltd., dated Oct 2025, drg no. EX01). Analysis of this data shows the central parts of the site are topographically lower between 17.50m Above Ordnance Datum (AOD) and 18.50m AOD. The northern half of the site is higher between approximately 19.00m AOD and 20.00m AOD and the southern half of the site is between approximately 18.50m AOD and 19.00m AOD. The finished floor level (FFL) of the existing building is set at 4.19m AOD.
- 1.6. Environment Agency (EA) Light Detection and Ranging (LiDAR) data Digital Terrain Model has been used to visualise topographic levels on site (Figure 2).

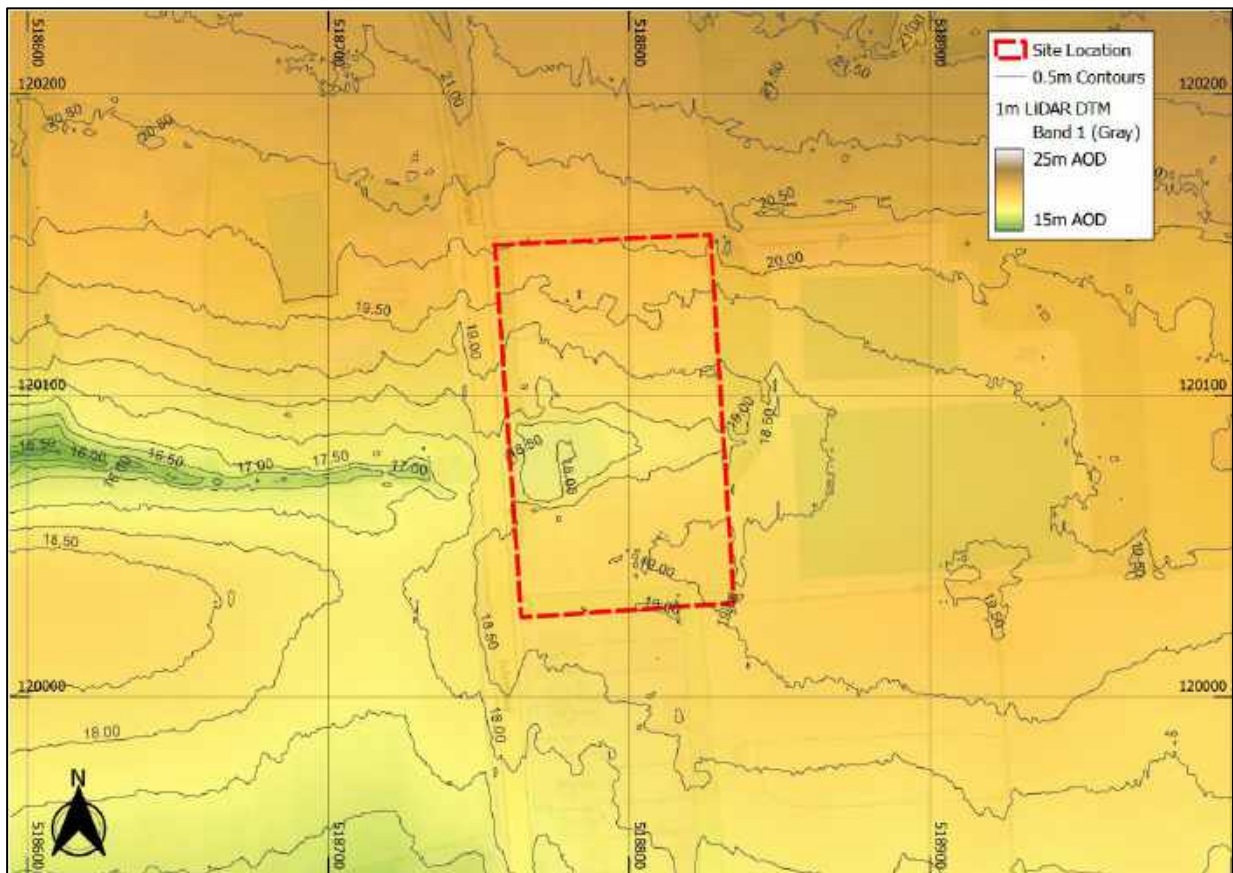


Figure 2: Site Topography (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

1.7. Horsham District Council is the Local Planning Authority (LPA) for the site and West Sussex County Council is the designated Lead Local Flood Authority (LLFA). The site sits within the Environment Agency's Solent and South Downs region.

Planning Policy and Guidance

1.8. UK government planning guidance states¹ that an FRA is required for developments which are:

- *in flood zone 2 or 3 including minor development and change of use*
- *more than 1 hectare (ha) in flood zone 1*
- *less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)*
- *in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency*

1.9. A small part of the site is located in Flood Zone 2/3 and also located in an area of pluvial flood risk, therefore an FRA is required to be submitted alongside the application.

1.10. The objective of this FRA is to demonstrate that the proposals are acceptable in terms of flood risk. This report summarises the findings of the study and specifically addresses the following issues in the context of the current legislative regime:

- Fluvial/tidal flood risk
- Surface water flood risk
- Risk of flooding from other sources

¹ <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#when-you-need-an-assessment>

2. Planning Policy

2.1. Inappropriate development in a flood risk area could pose significant risk in terms of personal safety and damage to property for the occupiers of the development or for people elsewhere. The approach taken in the assessment of flood risk at the planning stage is set out in national, regional, and local planning policy and associated guidance. This section summarises the key policies and guidance relevant to the proposed development.

National Planning Policy Framework (NPPF)

2.2. The National Planning Policy Framework² (NPPF) (MHCLG, 2024) which includes UK Government policy on development and flood risk states:

170. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

181. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*
- b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*

² <https://www.gov.uk/guidance/national-planning-policy-framework>, last updated Dec 2024

- d) any residual risk can be safely managed; and
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

176. Applications for some minor development and changes of use should also not be subject to the sequential test, nor the exception test [set out below], but should still meet the requirements for site-specific flood risk assessments set out in footnote 63.

2.3. Footnote 63 of the NPPF states:

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

2.4. Flood Zones in England are defined as follows:

Table 1: Flood Zone Definitions

Flood Zone	Definition
Zone 1 Low Probability	Land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding.
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise:

land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or

land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding).

Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

- 2.5. An FRA should be appropriate to the scale, nature, and location of the development. It should identify and assess the risk from all sources of flooding to and from the development and demonstrate how any flood risks will be managed over the lifetime of the development.
- 2.6. An assessment of hydrological impacts should be undertaken, including to surface water runoff and impacts to drainage networks in order to demonstrate how flood risk to others will be managed following development and taking climate change into account.

Local Plan

- 2.7. The Local Plan prepared by the Local Planning Authority, Horsham District Council, sets out the policies for development in the local area.
- 2.8. Policy 38 Flooding outlines the requirements for new development within the area. It states:

1. Development proposals will follow a sequential approach to flood risk management, giving priority to development sites with the lowest risk of flooding and making required development safe without increasing flood risk elsewhere.

Development proposals will;

- a. take a sequential approach to ensure most vulnerable uses are placed in the lowest risk areas.

- b. avoid the functional floodplain (Flood zone 3b) except for water-compatible uses and essential infrastructure.

- c. only be acceptable in Flood Zone 2 and 3 following completion of a sequential test and exceptions test if necessary.

- d. require a site-specific Flood Risk Assessments for all developments over 1 hectare in Flood Zone 1 and all proposals in Flood Zone 2 and 3.

2. Comply with the tests and recommendations set out in the Horsham District Strategic Flood Risk Assessment (SFRA).

3. Where there is the potential to increase flood risk, proposals must incorporate the use of sustainable drainage systems (SuDS) where technically feasible, or incorporate water management measures which reduce the risk of flooding and ensure flood risk is not increased elsewhere.

4. Consider the vulnerability and importance of local ecological resources such as water quality and biodiversity when determining the suitability of SuDS. New development should undertake more detailed assessments to consider the most appropriate SuDS methods for each site. Consideration should also be given to amenity value and green infrastructure.

5. Utilise drainage techniques that mimic natural drainage patterns and manage surface water as close to its source as possible will be required where technically feasible.

6. Be in accordance with the objective of the Water Framework Directive, and accord with the findings of the Gatwick Sub Region Water Cycle Study in order to maintain water quality and water availability in rivers and wetlands and wastewater treatment requirements.

National Standards for SuDS

- 2.9. Updates to the national planning policy have defined a framework for Sustainable Drainage Systems (SuDS). The new 'National Standards for SuDS'³ was published on June 19th, 2025, and is used to inform this drainage strategy. There are seven key standards are as follows;

³ <https://www.gov.uk/government/publications/national-standards-for-sustainable-drainage-systems/national-standards-for-sustainable-drainage-systems-suds>

- **Standard 1 Runoff Destination:** The drainage hierarchy now prioritises water re-use followed by infiltration, before discharging to watercourses and sewers.
- **Standard 2 Management of Everyday Rainfall (interception):** The design must ensure that the first 5mm of rainfall from any event is managed within the site and does not leave the boundary.
- **Standard 3 Management of Extreme Rainfall and Flooding:** The SuDS must be designed to manage runoff from all extreme rainfall events, up to and including the 1 in 100-year return period (including an allowance for climate change).
- **Standard 4 Water Quality:** The system must be designed to prevent or mitigate the risk of surface water runoff pollution using SuDS management trains.
- **Standard 5 Amenity:** The SuDS should be designed to improve the aesthetic value of the development, demonstrating multifunctional solutions where feasible.
- **Standard 6 Biodiversity:** The system should be designed to promote biodiversity using above ground SuDS where feasible.
- **Standard 7 Maintenance:** A clear plan must be provided for the long-term operation and maintenance of the SuDS to ensure it remains effective for the lifetime of the development.

Sequential and Exception Tests

- 2.10. The Sequential and Exception Tests are applied in specific cases defined by UK Government policy. Their purpose is to drive development to areas of low flood risk and to support developments which improve flood risk for developments in areas at risk of flooding.

Sequential Test

- 2.11. The National Planning Policy Framework (NPPF) (DLUHC, 2024) which includes UK Government policy on development and flood risk states:

172. All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property.

173. A sequential risk-based approach should also be taken to individual applications in areas known to be at risk now or in future from any form of flooding, by following the steps set out below.

174. Within this context the aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test.

175. The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).

- 2.12. The proposed residential dwellings and access points are located on land identified to be wholly within Flood Zone 1. Furthermore, the dwellings are also shown to be located within an area at 'very low' risk of flooding from surface water.
- 2.13. Therefore, as per paragraph 175 of the NPPF, a sequential approach to the site layout has been adopted and therefore there is no need to implement the Sequential Test.

Exception Test

- 2.14. The Exception Test is applied to sites based on the Flood Zone and the nature of the development.
- 2.15. The Flood Risk Vulnerability Classification table⁴ provided below in Table 2 shows which vulnerabilities are appropriate in each Flood Zone.
- 2.16. Some areas of the wider site are located in Flood Zone 2 and 3, however the proposed development sits wholly within Flood Zone 1 and is considered to be More Vulnerable. Based on Table 2, More Vulnerable development located in Flood Zone 1 is not required to implement the Exception Test.

⁴ <https://www.gov.uk/guidance/flood-risk-and-coastal-change#table2>

Table 2: Flood risk vulnerability and flood zone 'incompatibility'

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a	Exception Test required	x	Exception Test required	✓	✓
Zone 3b	Exception Test required	x	x	x	✓

Summary

- 2.17. This flood risk assessment has been prepared with due consideration to the above local and national policy.

3. Consultation and Review

Consultation

3.1. The site is within the remit of West Sussex County Council as Lead Local Flood Authority (LLFA).

Documents and Online Mapping

3.2. Local Governments and Lead Local Flood Authorities provide documents which contain data and policies on flood risk and new development in their areas. These documents are introduced and briefly summarised below. For the purposes of this FRA, these documents have been reviewed for relevant information, and any relevant data is discussed within the appropriate sub heading of this report.

3.3. The following sources of information have been reviewed for this assessment:

- Flood Map for Planning on the Environment Agency website <https://flood-map-for-planning.service.gov.uk/>
- Long Term Flood Risk Information on the Environment Agency website <https://www.gov.uk/check-long-term-flood-risk>
- National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024)
- Planning Practice Guidance - Flood Risk and Coastal Change (Ministry of Housing, Communities and Local Government, 2022)
- Geindex Onshore (British Geological Survey, 2024)
- Horsham District Planning Framework (Horsham District Council, 2015)⁵

⁵ https://www.horsham.gov.uk/__data/assets/pdf_file/0016/60190/Horsham-District-Planning-Framework-November-2015.pdf

- Preliminary Flood Risk Assessment Addendum (West Sussex County Council, 2017)⁶ and West Sussex Preliminary Flood Risk Assessment (West Sussex County Council, 2011)⁷
- Level 1 Strategic Flood Risk Assessment (Horsham District Council, 2024)⁸
- West Sussex Local Flood Risk Management Strategy (2013-2018) (West Sussex County Council, 2014)⁹

Preliminary Flood Risk Assessment (PFRA)

- 3.4. The PFRA and its Addendum, published in 2011 and 2017, is a high-level appraisal of flood risk across Lead Local Flood Authority West Sussex County Council. The flood risk from all sources, including fluvial, surface water, groundwater, and surcharged sewers is evaluated. It is the basis upon which the Local Flood Risk Management Strategy is produced.
- 3.5. The PFRA summarises historical flood incidents in West Sussex County Council. The site is not recorded as having been affected by any flood event.

Strategic Flood Risk Assessment (SFRA)

- 3.6. The SFRA, published in 2023 and 2024, provides the evidence base for the Local Planning Authority Horsham District Council Local Plan and guidance for consideration when determining planning applications. The SFRA seeks to place new development into areas of lower flood risk taking into account current flood risk, future flood risk, and the effect a proposed development would have on the risk of flooding.
- 3.7. The SFRA mapping provided by Horsham District Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

⁶ https://assets.publishing.service.gov.uk/media/5acc9b9140f0b64ff0e694b0/PFRA_West_Sussex_County_Council_2017.pdf

⁷ https://www.westsussex.gov.uk/media/1626/west_sussex_pfra.pdf

⁸ https://www.horsham.gov.uk/__data/assets/pdf_file/0003/139584/Horsham-Level-1-SFRA_FINAL_Report.pdf

⁹ https://www.westsussex.gov.uk/media/1595/local_flood_risk_management_strategy.pdf

Local Flood Risk Management Strategy (LFRMS)

- 3.8. The Local Flood Risk Management Strategy sets out roles and responsibilities for flood risk management, assesses the risk of flooding in the area, where funding can be found to manage flood risk, and the policies, objectives, and actions of the Lead Local Flood Authority.
- 3.9. The West Sussex County Council LFRMS is used within this report to identify any flood management infrastructure and historical incidences of flooding.

4. Sources of Flood Risk

Fluvial

- 4.1. Flooding from watercourses arises when flows exceed the capacity of the channel, or where a restrictive structure is encountered, resulting in water overtopping the banks into the floodplain.
- 4.2. According to the EA Flood Map for Planning, the majority of the site is located within Flood Zone 1 with a small portion of the central areas located in Flood Zone 2 and 3 (Figure 3). The areas of Flood Zone 2/3 generally follow the previously identified topographic low spot and pond within the centre of the site.



Figure 3: EA Flood Map for Planning (Base map and data from Google Hybrid © Contains public sector information licensed under the Open Government Licence v3.0)

- 4.3. It should be noted that the Flood Zones in the area are derived from direct rainfall modelling rather than fluvial or tidal modelling. Direct rainfall modelling is more generally associated with surface water (pluvial) flooding, which has been analysed later on in this FRA.

- 4.4. There is an existing pond on site which is served by a small ordinary watercourse which runs from west to east through the centre of the site (largely following the Flood Zones). It is assumed that there is an existing outfall from the pond which runs underneath Jolesfield and becomes joins the open watercourse to the west. The unnamed ordinary watercourse is a tributary of the larger River Adur located approximately 1km to the west.
- 4.5. Based on the EA Recorded Flood Outlines and Historic Flood Map the site has not been affected by flooding (Figure 4).

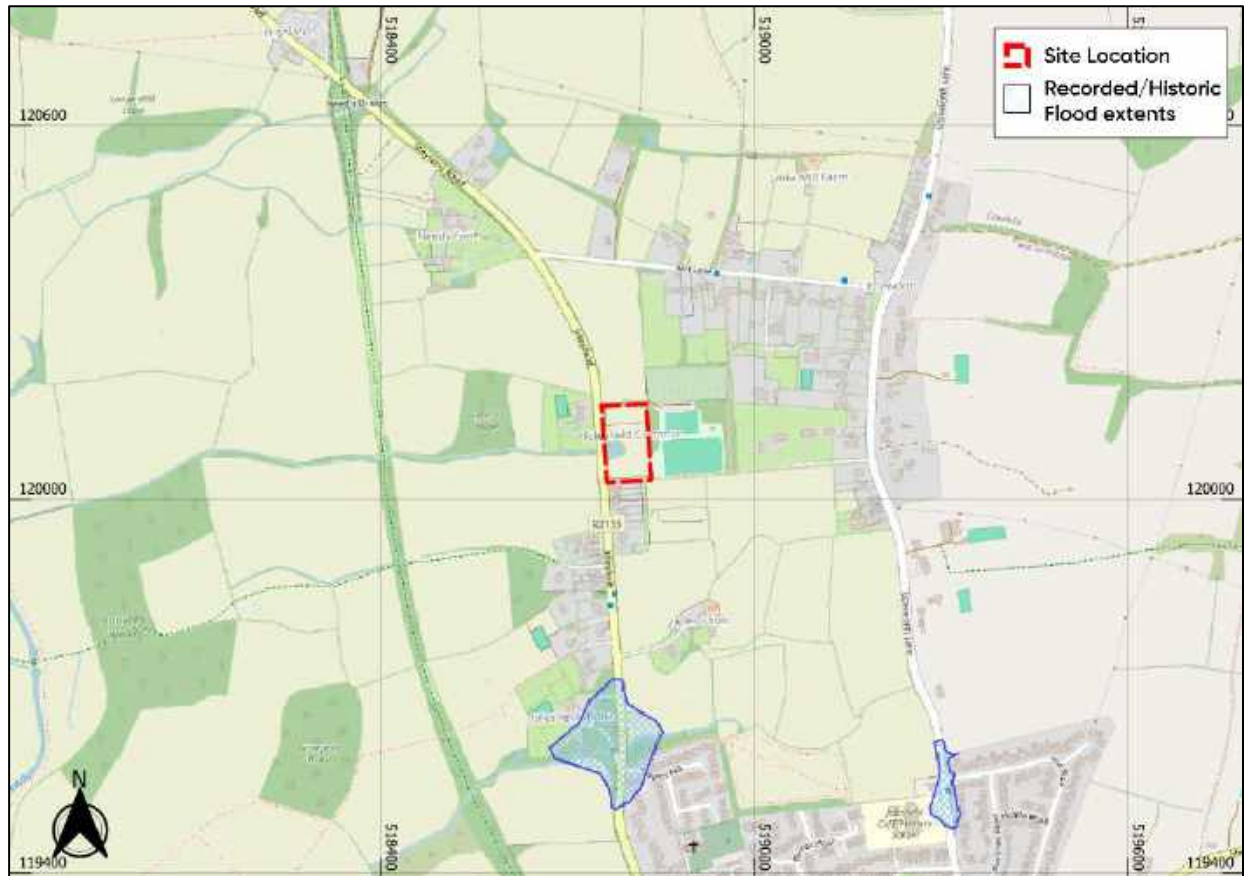


Figure 4: EA Historic Flood Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.6. Given the proposed development is located in Flood Zone 1 and the Flood Zones in the area are derived from direct rainfall modelling (i.e surface water), the risk of flooding from fluvial sources is considered to be low.

Tidal

- 4.7. Tidal flooding occurs when a high tide and high winds combine to elevate sea levels. An area behind coastal flood defences can still flood if waves overtop the defences or break through them. Tidal flooding can also occur a long way from the coast by raising river levels. Water may overtop the river bank or river defences when tide levels are high. The site is a significant distance from any tidal source and above the anticipated extreme tidal levels, even when considering the impacts of climate change.
- 4.8. Given the distance of the site from any tidal sources of flooding, the risk of flooding from tidal sources is low.

Canals

- 4.9. The Canal and River Trust (CRT) generally maintains canal levels using reservoirs, feeders, and boreholes and manages water levels by transferring it within the canal system.
- 4.10. There are no canals within a 1km radius of the sites location¹⁰.
- 4.11. The risk of flooding to this site from canals is considered to be low.

Pluvial

- 4.12. Pluvial flooding can occur during prolonged or intense storm events when the infiltration potential of soils, or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.
- 4.13. The new National Flood Risk Assessment (NaFRA2), published in January 2025, has updated the Risk of Flooding from Surface Water (RoFSW) products which show the chance of flooding from surface water to areas of land.
- 4.14. The RoFSW products are an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead. It includes information about flooding extents and

¹⁰ <https://canalrivertrust.org.uk/canals-and-rivers>

depths including the potential impact of climate change on flood risk, based on the latest UK Climate Projections (UKCP18).

- 4.15. Risk is displayed as one of three likelihood categories:
- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any year.
 - Medium – Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year.
 - Low – Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) chance of flooding in any given year.
- 4.16. The new RoFSW depth mapping shows the annual chance of flooding (based on the three risk categories listed above) beyond a specific depth, for depths at the following intervals from 20cm to 120cm:
- 0.2m, 0.3m, 0.6m, 0.9m, 1.2m
- 4.17. As well as present day risk of flooding from surface water, climate change scenarios have been produced to indicate the predicted impacts of climate change on future flood risk. The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5. A near-term epoch (2040 – 2060 “2050s” epoch) and central allowances are being used initially, to support short and medium-term decisions informed by the highest flood likelihood projections.
- 4.18. To provide a worst-case / conservative assessment of pluvial flood risk, the EA Risk of Flooding from Surface Water mapping including for climate change has been analysed.
- 4.19. The EA Online ‘Flood Risk from Surface Water – Climate Change’ map (Figure 5) shows that the northern and southern areas of the site are primarily located in an area outside areas at risk of flooding. The large area of ‘high’ risk in the centre of the site is associated with the existing pond and ordinary watercourse which runs in this location and is generally confined to the topographically lower areas. This also corresponds to the EA flood zones, further demonstrating the pluvial-driven mechanisms of this flood risk area.
- 4.20. There is also an area of high risk to the northwestern side of the site which appears to be associated with a flow pathway running in a north to south direction adjacent to the Jolesfield.

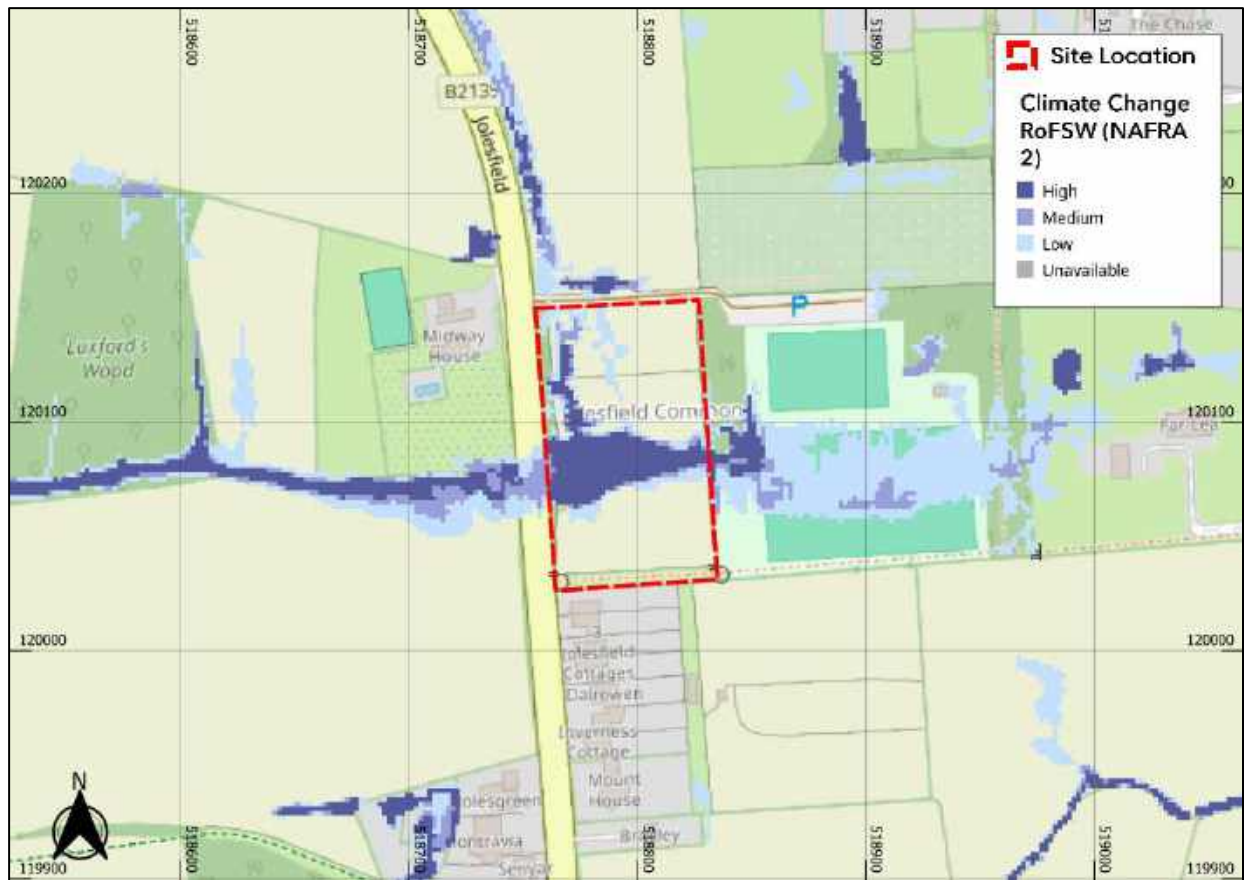


Figure 5: EA Surface Water Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

4.21. However, no new development is proposed in areas identified to be at risk of pluvial flooding (Figure 6).

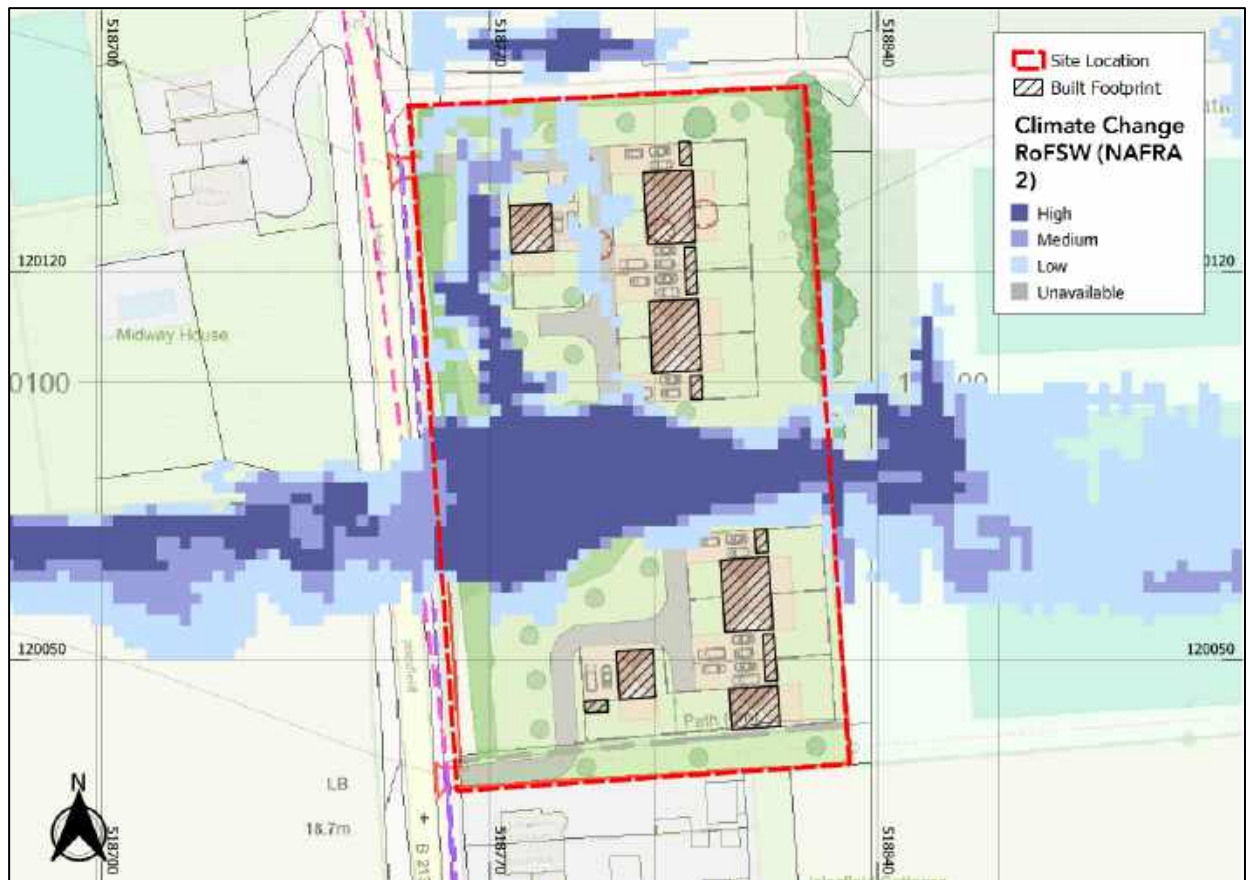


Figure 6: EA Surface Water Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.22. Analysis of the climate change RoFSW flood depth map for the likelihood of flood depths exceeding 0.2m shows that both the northern and southern sides of the site would not experience depths exceeding 0.2m. The central parts of the site have a high probability of flood depths exceeding 0.2m (Figure 7) but are largely confined to the previously identified topographic low points.

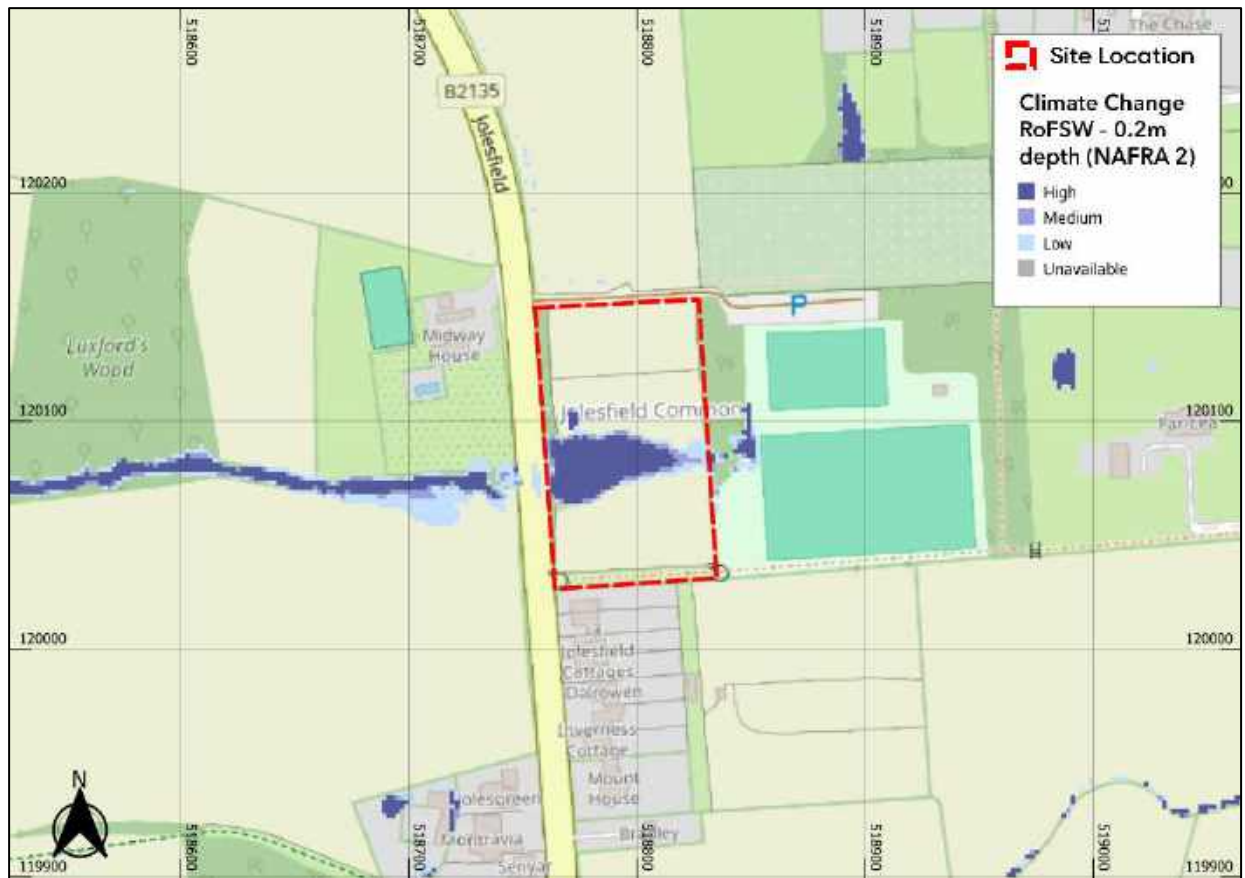


Figure 7: EA Surface Water Flood Risk – Depths Exceeding 0.2m (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

4.23. Analysis of the climate change RoFSW flood depth map for the likelihood of flood depths exceeding 0.6m shows that no parts of the site, apart from the pond, would experience flood depths of greater than 0.6m (Figure 8).



Figure 8: EA Surface Water Flood Risk – Depths Exceeding 0.6m (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)

- 4.24. Neither the EA nor SFRA has provided any evidence to suggest that the site has been previously affected by pluvial flooding.
- 4.25. The risk of flooding in the central areas of the site, along the flow pathway towards the pond, are considered to be high whereas the risk of flooding to the north and southern sides (and areas where the proposed new dwellings are located) are considered to be low.

Reservoirs

- 4.26. Large waterbodies or reservoirs that have walls built above the surrounding ground level pose a risk of flooding. Walls could fail due to old age, accident, or because excess flood water has been added to the reservoir. Although a breach is unlikely the consequences would be significant, leading to rapid inundation of the downstream floodplain.

4.27. According to the EA's Flood Risk from Reservoirs mapping (Figure 9) the site is outside flood extents in the event of reservoir flooding.

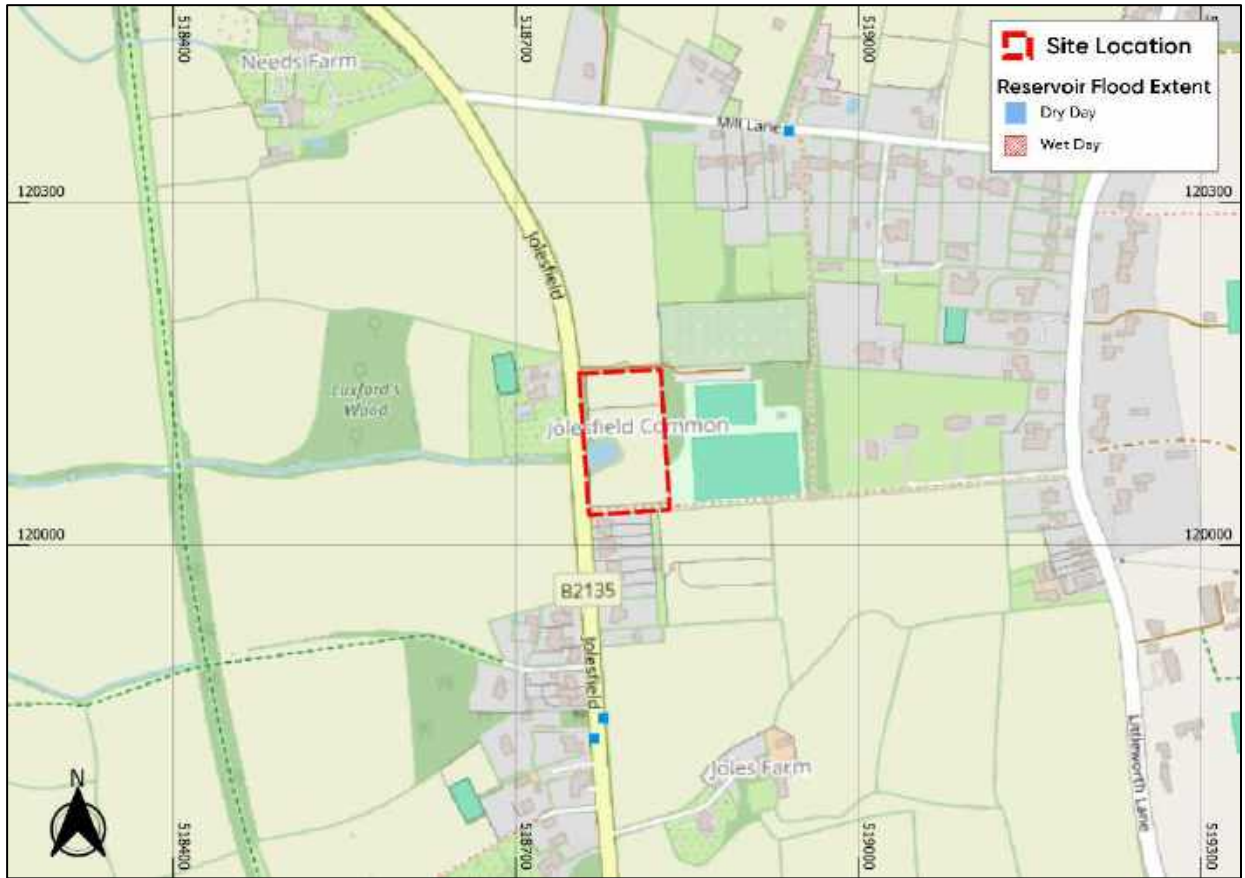


Figure 9: EA Reservoir Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). ©<https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

4.28. The site has not been flagged as being at risk of flooding following a reservoir failure, therefore the risk is considered to be low.

Groundwater

4.29. Groundwater flooding occurs in areas where underlying geology is permeable and water can rise within the strata sufficiently to breach the surface.

4.30. The British Geological Survey's (BGS) mapping shows no superficial deposits underlying the site. The bedrock underlying the site is classified as the Weald Clay Formation - sandstone. Soils online mapping describes the soil in the area as being Slowly permeable seasonally wet loamy and clayey soils.

- 4.31. Given the clayey impermeable soil in the area (Weald Clay Formation is not a designated aquifer therefore unlikely to support any significant groundwater) and nature of the development, it is unlikely that groundwater flood risk is of concern.
- 4.32. Therefore, the risk of flooding from groundwater sources is considered to be low.

Sewers

- 4.33. Foul or surface water sewers can be a cause of flooding if the drainage network becomes overwhelmed, either by blockage or due to local development beyond the designed capabilities of the drainage system.
- 4.34. Based on the rural nature of the site it is assumed that there are no public sewers located within the sites bounds.
- 4.35. The development is therefore considered to be at low risk of flooding from sewers.

5. Flood Risk Mitigation

All Sources

- 5.1. All new development is located on land outside of areas identified to be at risk. Therefore, flood risk from all sources is considered to be low and no significant flood risk mitigation is required.
- 5.2. However, given the predicted risk of flooding along the centre and north west of the site, it is recommended that standard precautionary waterproofing measures should be adopted in accordance with CLG Report *Improving the Flood Performance of New Buildings Flood Resilient Construction (2007)*¹¹ (standards for the installation and retrofit of resistance measures are available in British Standard 851188-1:2019+A1:2021). The following mitigation measures are recommended:
- Flood depths across much of the site are not expected to exceed 0.2m. Therefore, the finished floor levels of the proposed new dwellings should be raised a minimum of 200mm above external ground levels (which should largely mitigate against the risk of any overland flows).
 - Damp Proof Membranes (d.p.m.) should be included in any design to minimise the passage of water through ground floors to a level of at least 300mm above the finished floor level. Impermeable polythene membranes should be at least 1200 gauge to minimise ripping. Effective methods of joining membrane sections are overlaps of 300mm and also taping (mastic tape with an overlap of 50mm minimum).
 - External renders are effective barriers to water penetration and should be used with blocks (or bricks) to at 300mm above the proposed finished floor level. External cement renders with lime content (in addition to cement) can induce faster surface drying.
 - Cavity insulation should preferably incorporate rigid closed cell materials as these retain integrity and have low moisture take-up. Other common types are not generally recommended as they can remain wet several months after exposure to flood water which

¹¹ https://assets.publishing.service.gov.uk/media/602d673ee90e0709e8d085d8/Improving_the_Flood_Resilience_of_Buildings_Through_Improved_Materials_Methods_and_Details_Technical_Report.pdf

slows down the wall drying process. Blown-in insulation can slump due to excessive moisture uptake, and some types can retain high levels of moisture for long periods of time (under natural drying conditions).

- Ground floor to be solid (i.e. concrete floors), with waterproof membrane/screed.

Increase to Flood Risk Elsewhere

- 5.3. The proposed development is located within Flood Zone 1, therefore, there is no displacement of floodwater as a result of the development.
- 5.4. Access roads, along with the structures on site will be managed by SuDS to ensure flood risk is not increased. A Surface Water Drainage Strategy is included in this report as Section 6.
- 5.5. As such, the proposed development in isolation should have a negligible impact on flood risk elsewhere.

Flood Warnings

- 5.6. As a further precaution and risk reduction, the residents of the site should sign up to receive Met Office Severe Weather Warnings. The Met Office issues weather warnings up to 5 days in advance, through the National Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. It is also possible to stay up to date with weather warnings through the Met Office app (available on both android and apple), social media (twitter, Facebook) or email alerts.
- 5.7. During periods of bad weather, site users should monitor local weather reports and sign up for the Met Office UK weather warnings. Warnings can be monitored through an Apple/Android app, Twitter or directly via emails.

Access/Egress

- 5.8. The SFRA outlines that safe access and egress from a site should be provided to reduce the residual risks to a development. The NPPF Planning Practice Guidance sets out that:
 - Access routes should allow occupants to safely access and exit their dwellings in design flood conditions. In addition, vehicular access for emergency services to safely reach development in design flood conditions is normally required; and

- Where possible, safe access routes should be located above design flood levels and avoid flow paths including those caused by exceedance and blockage. Where this is unavoidable, limited depths of flooding may be acceptable providing the proposed access is designed with appropriate signage etc. to make it safe. The acceptable flood depth for safe access will vary as this will be dependent on flood velocities and risk of debris in the flood water. Even low levels of flooding can pose a risk to people in-situ (because of, for example, the presence of unseen hazards and contaminants in floodwater, or the risk that people remaining may require medical attention).

5.9. A 'safe' access/egress route would generally be a route that is defined as having a 'low hazard' (or a hazard under 0.75) as set out in FD2320 guidance. The following definitions are given to each hazard classification:

- Low Hazard: While the hazard is relatively low, it still poses a significant risk to vulnerable groups who are less able to cope with being exposed to floodwaters (e.g., struggling to wade through it or being knocked over).
- Danger for some: Risk is primarily limited to vulnerable individuals (children, the elderly, or those with mobility issues).
- Danger for most: Risk extends to the general public, where flood conditions are hazardous for a majority of people to walk or wade through.
- Danger for all: The hazard is extreme, posing a serious risk of injury or fatality to anyone, including trained emergency responders and the most physically capable members of the public.

5.10. The RoSFW pluvial hazard mapping includes risk of exceeding a certain threshold at intervals of 0.25, 0.5, 0.75, 1.25 and 2.00. Therefore, the risk of hazard exceeding 0.75 mapping (i.e. the threshold at which a 'safe' route is identified) has been utilised to determine an access/egress route from the site.

5.11. Analysis of this mapping, including an allowance for climate change (Figure 10), shows that both the northern and southern parcels can exit the site onto Jolesfield and head either north or south away from the source of flooding. The route is considered as having a negligible risk of hazard exceeding 0.75 and therefore the route is considered 'safe'.




Figure 10: EA Surface Water Hazard Exceeding 0.75 Mapping (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)

6. Surface Water Drainage Strategy

Surface Water Drainage Hierarchy

- 6.1. 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.
- 6.2. The management of surface water has been considered in respect to the SuDS hierarchy below (Table 3), as detailed in the CIRIA 753 "The SuDS Manual" (section 3.2.3) and the non-statutory National Standards for SuDS (2025).

Table 3: SuDS Drainage Hierarchy

SUDS DRAINAGE HIERARCHY				
		Suitability	Comment	
	1.	Collect for non-potable use	✓	Plot scale opportunities, such as a water butt, are possible to be incorporated around the site. Water butts will provide water for non-potable uses around the garden.
	2.	Use infiltration techniques, such as porous surfaces in non-clay areas	x	At the time of writing no infiltration testing has been undertaken on site. However, given the clayey nature of the underlying soil, it is highly unlikely infiltration would be a suitable option.
	3.	Discharge to surface waters	✓	There is an unnamed ordinary watercourse/ditch and pond located at centre of the site which would be suitable for an outfall. Site levels fall towards the ditch in the centre of the site. Therefore, it is proposed to install a new connection into the ditch, subject to appropriate consents, to drain surface water runoff.
	4.	Discharge to a surface water sewer, highway drain or another drainage system	-	More preferential discharge location higher up the hierarchy takes priority
	5.	Discharge to combined sewer		

Pre-Development / Greenfield Runoff Rates

- 6.3. To determine the required outflow rate for the proposed surface water drainage strategy, the greenfield runoff rate for the total proposed impermeable area of the site has been calculated using the IH124 method (via the ICP SuDS variation) within InfoDrainage Software v2025.5.
- 6.4. The IH124 method was developed as part of the original Flood Studies Report (FSR) in 1975 and was devised to calculate runoff from small catchments by estimating the mean annual flood flow (Q_{bar}) using the following equation:

$$Q_{bar}_{rural} = 0.00108(0.1 \times AREA)^{0.89} \times SAAR^{1.17} \times SPR^{2.17} m^3/s$$

Where:

Q_{bar}_{rural} is the mean annual flood flow from a rural catchment (approximately 2.3 year return period).

AREA is the area of the hardstanding surfaces in ha.

SAAR is the Standard Average Annual Rainfall for the period 1941 to 1970 in mm.

SPR is Standard Percentage Runoff coefficient for the SOIL category. The SOIL category is extracted from UK Winter Rainfall Acceptance Potential (WRAP) map.

- 6.5. The ICP SuDS variation is a scaled-down version of the IH124 runoff method for estimating peak flow rates from both undeveloped and partly urbanised catchments that are smaller than 50 ha in size, which is appropriate in this instance.
- 6.6. The greenfield runoff rates for the proposed impermeable areas (0.187Ha) are summarised in Table 4.

Table 4: Greenfield Runoff Rates Summary

Greenfield Runoff Rates	
1 in 1 year	0.9l/s
1 in 2 year (Q_{bar})	1.1l/s
1 in 30 year	2.4l/s
in 100 year	3.4l/s

InfoDrainage - Input Criteria

- 6.7. The proposed new impermeable area was calculated to be circa. 1870m² (0.187ha). A 10% allowance for urban creep (i.e., future expansion & increased hardstanding areas) has been included on proposed impermeable areas, meaning the total impermeable area within the calculations is 0.199Ha.
- 6.8. To be conservative, all impermeable areas have been modelled with a volumetric runoff coefficient of 1.0.
- 6.9. InfoDrainage Software (v2025.5) was used to calculate the existing runoff rates from the development proposals area, the criteria shown in Table 5.

Table 5: Simulation Criteria

Simulation criteria	
Rainfall Data	FEH
Year	2022
Location	GB 518808 120113 TQ 18808 20113
Return Periods	2, 30, 30+40%CC, 100, 100+45%CC
Storm Durations	15, 30, 60, 120, 240, 360, 480, 960, 1140, 2880 minute
Volumetric Runoff Co	All hardstanding areas - 1.0 for both summer and winter storm seasons.
Percentage Impervious	100%
Time of Concentration	5 minutes

- 6.10. The Environment Agency Peak Rainfall Climate Change Allowance guidance 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. The upper end allowance for the Adur and Ouse Management Catchment have been used for the 3.3% and 1% exceedance probability events for the 2070s epoch, which equates to +40% and +45% respectively.

InfoDrainage Modelling Results

- 6.11. The full calculation outputs can be found in Appendix C of this report although the 1 in 100 year +45% climate change results have been summarised below. The methodology used within the calculations simulates a restriction of runoff to the greenfield runoff rate (1.1l/s) to provide indicative attenuation volumes.

- The total on site required attenuation to discharge surface water runoff for the 1 in 100 +CC year event is 235.20m³.
- The modelled resident volume in 'Swale' is 23.25m³. The maximum modelled depth is 0.43m. The limiting discharge rate is 1.0l/s via a 30mm orifice plate.
- The modelled resident volume in 'Swale (1)' is 37.90m³. The maximum modelled depth is 0.44m. The limiting discharge rate is 1.0l/s via a 30mm orifice plate.
- The modelled resident volume in 'North Tank' is 24.75m³. The limiting discharge rate is 0.7l/s via a Hydrobrake.
- The modelled resident volume in 'South Tank' is 13.10m³. The limiting discharge rate is 0.4l/s via a Hydrobrake.
- The 9no. permeable paving units have a maximum resident volume of between 12m³ and 15m³ with an outflow rate of 0.2l/s via a 20mm orifice plate.
- No flooding is observed in this event based on the InfoDrainage model.

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

Surface Water Drainage Arrangement

6.13. The principles of the surface water drainage arrangements are outlined below. The surface water drainage arrangement is included as Appendix D.

- All surface water generated by the proposed access roads will be captured via a combination of drains/channels or directed via overland flow towards the adjacent swales which will run alongside. The access roads should be cambered towards the swales.
- The proposed swales will have a flow restriction orifice plate with a downstream connection into the attenuation tank.
- Each individual dwelling driveway will have a permeable paving system with a geocellular crate system subbase, providing a dual purpose of car parking and part of the SuDS management train. The permeable paving systems will be fitted with a 20mm orifice outflow control to maximise efficiency within the system with a downstream connection into the private surface water drainage network.
- Both the north tank and south tank will be fitted with hydrobrake flow controls which will limit runoff to a maximum of 0.7l/s and 0.4l/s, respectively during 1in100+45%CC critical

storm event. Meaning the total runoff from the site is 1.1/s, which is equivalent to the calculated greenfield runoff rate for the same area.

- By ensuring that runoff is managed as close to the source as possible, mimicking the existing drainage regime, so there should be no adverse impacts as a result of the development.
- Keeping excavations as shallow as practical has been a major design consideration in order to reduce risk and allow easy, safe, cost-effective and time efficient construction. Materials used for the swale construction should be graded to give the right balance between achieving good structural performance and providing sufficient permeability.
- It is proposed for the developer to consider systems made of recycled materials. This would reduce the embodied carbon of the proposed drainage system. The feasibility of such a system must be confirmed with a manufacturer whilst considering the nature of the site.
- Maintenance of the proposed systems is provided in later sections of this report. As all elements are relatively shallow and accessible, maintenance can be conducted in an easy, safe, cost effective and timely manner.

Water Quality

- 6.14. 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 the CIRIA SuDS Manual (C753) as table 26.2, has been reviewed. The indices use four different methods of assessing pollution potential based on the hazard level, total suspended solids (TSS), Metals, and Hydrocarbons.
- 6.15. The Pollution Hazard Indices are summarised in Table 6 below (with reference to table 26.2 in the CIRIA SuDS manual). It should be noted that the trafficked access roads within the site will not be heavily used and the ‘low trafficked roads with <300 traffic movements/day’ land use classification is considered conservative.

Table 6: Pollutant Hazard Indices

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Low trafficked roads with infrequent change (<300 traffic movements/day) and individual property driveways	Low	0.5	0.4	0.4
Residential roofs	Very Low	0.2	0.2	0.05

Table 7: Pollution Mitigation Indices

SuDS Components	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Access Road			
Swale	0.5	0.6	0.5
Standard Required	0.5	0.4	0.4
Standard Achieved	0.5	0.6	0.5
Driveways			
Permeable Paving	0.7	0.6	0.7
Standard Required	0.5	0.4	0.4
Standard Achieved	0.7	0.6	0.7
Residential Roofs			
Permeable Paving	0.7	0.6	0.7
Standard Required	0.2	0.2	0.05
Standard Achieved	0.7	0.6	0.7

- 6.16. Table 7 shows that the runoff from the proposed access roads, roofs and driveways are classified as a low pollution hazard and as the total SuDS mitigation index pollution hazard index for each proposed land use within the site, the proposed treatment is sufficient.
- 6.17. Runoff from the proposed access track areas may be considered to be low in terms of pollution hazard. In order to prevent potential contaminants from negatively impacting the surrounding area swales will be utilised to provide treatment.
- 6.18. The proposed permeable paving will provide sufficient treatment for the individual property driveways.
- 6.19. Residential roofs are generally considered very low hazard and only required to remove sediment. Rainwater downpipes can drain onto the surface of the paving and allow to filter down through the layers. If downpipes aren't draining onto surface then silt traps/bottle gulleys should be fitted to provide sufficient sediment removal.
- 6.20. Given the small-scale nature of the outlets, and potential for sediment from the swales to cause blockages, all outlets should be protected by clean crushed stone with a diameter of 6-20mm. This should provide sufficient sediment removal to minimise the risk of blockages.
- 6.21. It is important that a regular maintenance schedule is provided on the SuDS systems to ensure efficiency with pollutant removal.

Maintenance

6.22. Table 8 presents 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. All SuDS will be privately maintained.

Table 8: Swales SuDS Maintenance Requirements (Source: CIRIA SuDS Manual)

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Litter and debris removal	Monthly
	Cut grass for spillways and access routes	Monthly
	Grass cutting – meadow grass	Half Yearly
	Manage bankside edge vegetation and remove nuisance plants	Monthly at start and then as required
	Inspect inlets, outlets and overflows for blockages, and clear if required.	Monthly
	Inspect banksides, structures, pipework etc for evidence of physical damage	Monthly
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies.	Monthly for the first year and then annually or as required
	Check any penstocks or other mechanical devices	Annually
	Tidy all dead growth before start of growing season	Annually
	Remove sediment from inlets, outlet and forebay	Annually (or as required)
	Manage wetland plants in outlet pool – where provided	Annually
Occasional Maintenance	Reseed areas of poor vegetation growth	As required
	Prune and trim any trees and remove cuttings	Every 2 years, or as required
	Remove sediment from inlets, outlets, forebay and main basin when required	Every 5 years, or as required
Remedial Actions	Repair of erosion or other damage by re-seeding or re-turfing	As required
	Re-alignment/repair of rip-rap	As required
	Repair/rehabilitation of inlets, outlets and overflows	As required

Table 9: Permeable Paving SuDS Maintenance Requirements (Source: CIRIA SuDS Manual)

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

Designing for Exceedance

- 6.23. 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.

- 6.24. 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.
- 6.25. For situations where extreme rainfall intensity exceeds inlet capacities, or for extreme storm events exceeding the design flood event considered for drainage design, surface water would flow overland towards the swales in line with local topography. The swales and permeable paving have been designed with circa 10% additional capacity which will provide some additional attenuation capacity during any exceedance events. Any exceedance flows will follow the contours of the land and therefore drain towards the existing ditch/pond which runs through the centre of the site.

7. Conclusions

- 7.1. This FRA and SWDS has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at Land north of 1 Jolesfield Cottages, Jolesfield, Partridge Green, Horsham RH13 8JT. It has been written to support a planning application and prepared with due consideration to the nature of the proposed development to provide the appropriate level of detail.
- 7.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

Source of Flooding	Flood Risk Summary
Pluvial	<p>The EA Online 'Flood Risk from Surface Water – Climate Change' map shows that the northern and southern areas of the site are primarily located in an area outside areas at risk of flooding. The large area of 'high' risk in the centre of the site is associated with the existing pond and ordinary watercourse which runs in this location and is generally confined to the topographically lower areas.</p> <p>However, no new development is proposed in areas identified to be at risk of pluvial flooding</p>
Fluvial Tidal Reservoirs Groundwater Sewers Canals	<p>The site is considered to be at low risk from other sources.</p>

- 7.3. The FRA and SWDS supports the planning application and demonstrates that there is an acceptable level of flood risk to the site if the mitigation strategies recommended are implemented in the scheme. The development does not increase flood risk off site or to the wider area.
- 7.4. The following conclusions can be drawn from this FRA/SWDS:

- This FRA has identified no prohibitive constraints in developing the proposed site for the proposed usage.
- A Sequential Approach to the site layout has been adopted whereby all new residential dwellings are located outside of areas identified to be at risk of flooding.
- All surface water generated by the proposed impermeable areas will be captured via a combination of drains/channels or directed via overland flow towards the adjacent swales, permeable paving and geocellular storage.
- The final outfall location will be the pond or ditch/watercourse within the site boundary.
- During the 1in100+45%CC critical storm event, two geocellular tanks will drain at a maximum runoff rate of 0.4l/s and 0.7l/s, meaning the total runoff from the site is 1.1l/s, which is equivalent to the calculated greenfield runoff rate for the same area.
- The total on site required attenuation to discharge surface water runoff for the 1 in 100 +CC year event is 235.20m³.
- The modelled resident volume in 'Swale' is 23.25m³. The maximum modelled depth is 0.43m. The limiting discharge rate is 1.0l/s via a 30mm orifice plate.
- The modelled resident volume in 'Swale (1)' is 37.90m³. The maximum modelled depth is 0.44m. The limiting discharge rate is 1.0l/s via a 30mm orifice plate.
- The modelled resident volume in 'North Tank' is 24.75m³. The limiting discharge rate is 0.7l/s via a Hydrobrake.
- The modelled resident volume in 'South Tank' is 13.10m³. The limiting discharge rate is 0.4l/s via a Hydrobrake.
- The 9no. permeable paving units have a maximum resident volume of between 12m³ and 15m³ with an outflow rate of 0.2l/s via a 20mm orifice plate.
- Sufficient treatment is provided within the swales and permeable paving to mitigate against any potential risk from the access roads, driveways and dwellings.

7.5. This Flood Risk Assessment and Surface Water Drainage Strategy should be submitted as part of the planning application to satisfy the requirements under NPPF.

Appendix A - Development Proposals



Application Area

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Submission **CLIENT**

Scale @ A2 1:1250

Job No. 2510LA_r4

Drawn By MD

Checked By BK

Drawn On 11.12.2025

Issued On 11.12.2025

Status Existing

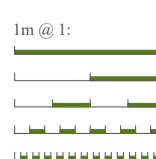
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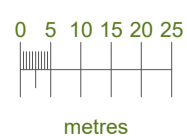
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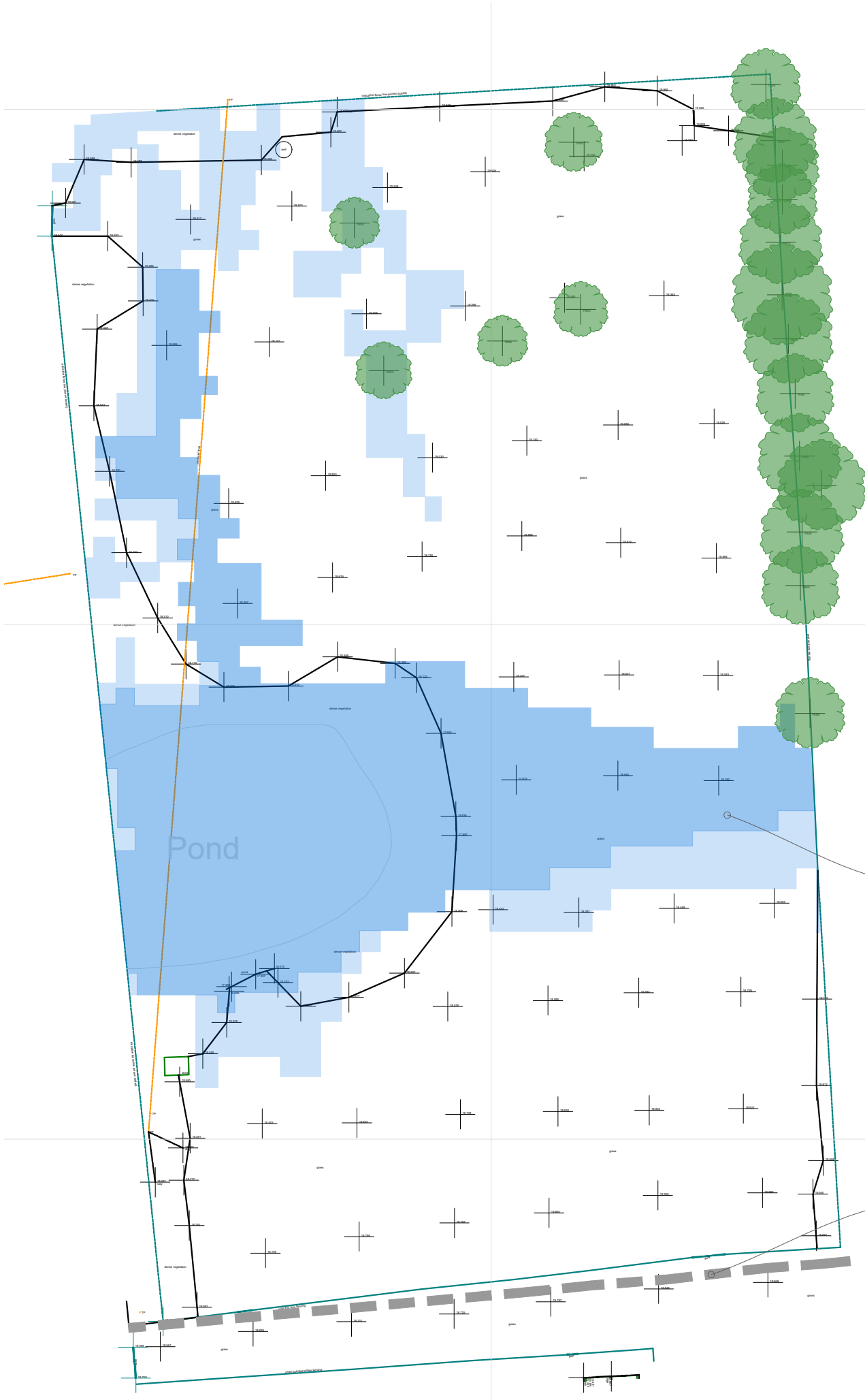


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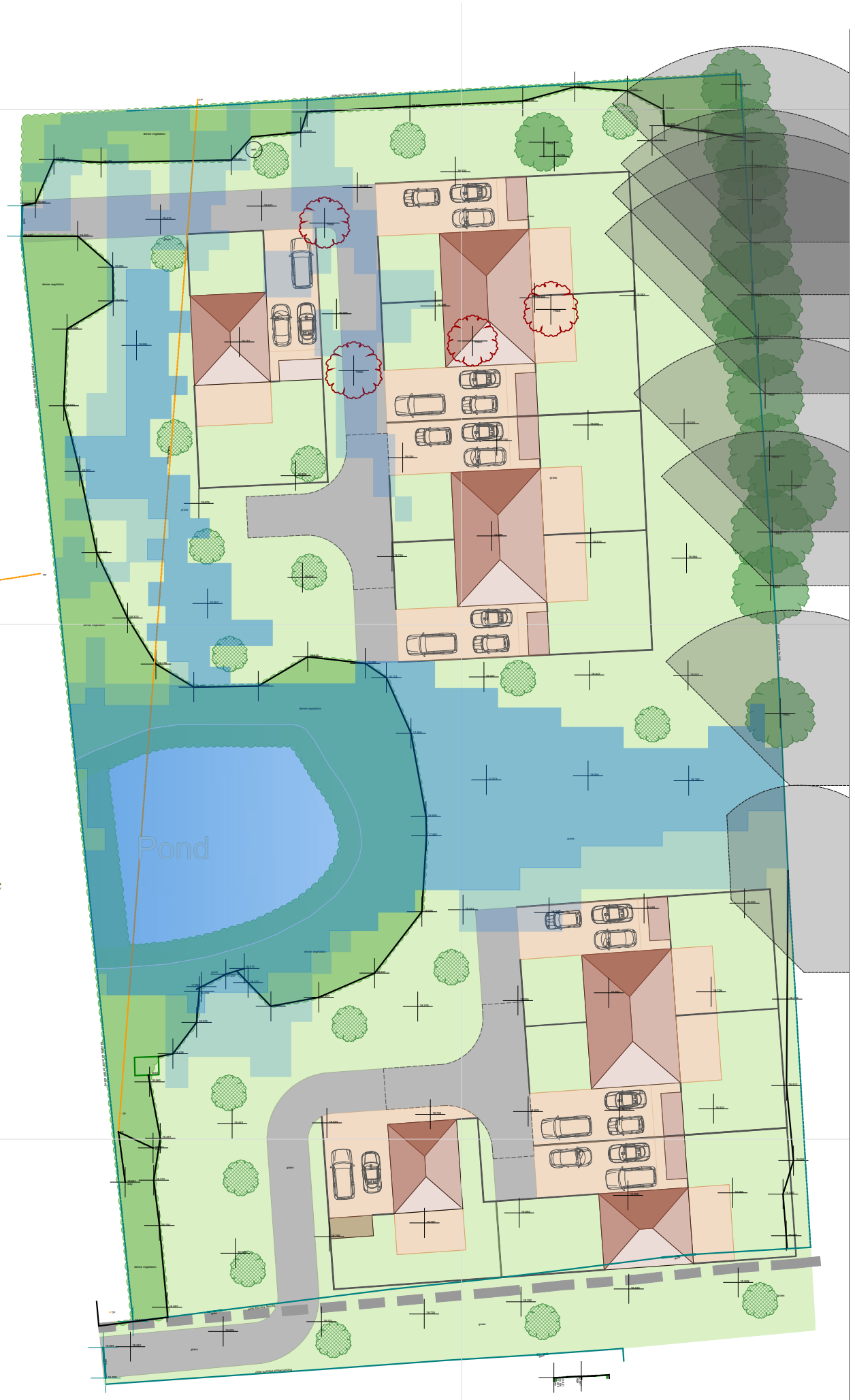




Topo Survey
1:500 EXISTING

Overlaid surface water flood data

PROW



Block Plan
1:500 PROPOSED

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Submission CLIENT

Scale @ A3 1:500

Job No. 2510LA_r4

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Checked By BK

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Issued On 11.12.2025

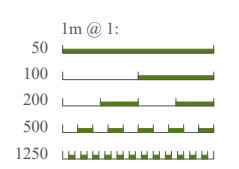
Status Existing + Proposed

Drawing Site

Drawing No. 2510LA_r4_001



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Drawing No. 2510LA_r4_002

Scale @ A2 1:500

Job No. 2510LA_r4

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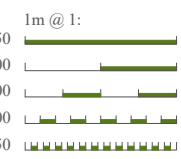
Status Proposed

Drawing Block Plan

Submission CLIENT



Indicative: 0.0°





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Construction (Design and Management) Regulations 2015

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This information can be provided on request; however, it is anticipated that the full extent of residual risks will be identified during the detailed Building Regulations or construction design Status and prior to construction works commencing on site.

All responsibilities and duties of Principle Designer as stated within the above regulations now revert to the client unless Manorwood are appointed to undertake Building Regulations or construction drawings.



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Address
Land North Of 1 Jolesfield Cottages, Jolesfield, Partridge Green, Horsham RH13 8JT

Submission **CLIENT**

Scale @ A2 1:1250

Job No. 2510LA_r4

Drawn By MD

Checked By BK

Drawn On 11.12.2025

Issued On 11.12.2025

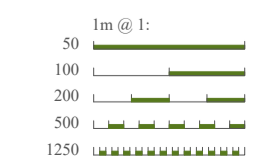
Status Existing

Drawing Location Plan

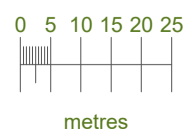
Drawing No. 2510LA_r4_003



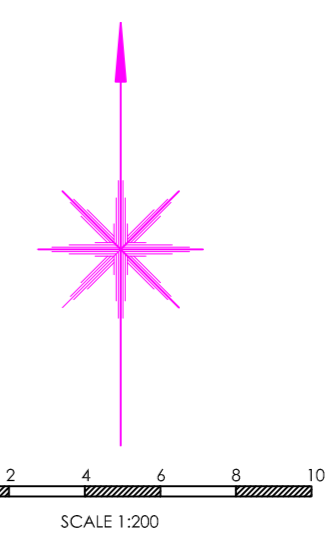
Indicative: 0.0°



Serial number: 320876
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Appendix B - Topographic Survey



NOTES
 Survey accurate at time of site attendance. Do not scale from printed drawings except for planning purposes.

Grid is based on Ordnance Survey National Grid fixed by GPS satellite active network. Levels are related to the Ordnance Survey GPS active Network and transformed using the OSGM15 & OSTN15 model.

Drainage pipe sizes (where shown) have been gauged from the surface for safety reasons and should be regarded as approximate only.

Tree species (where shown) should be treated with caution and expert identification is advised.

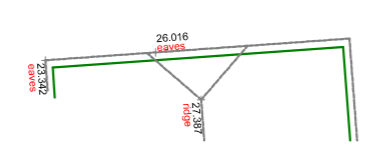
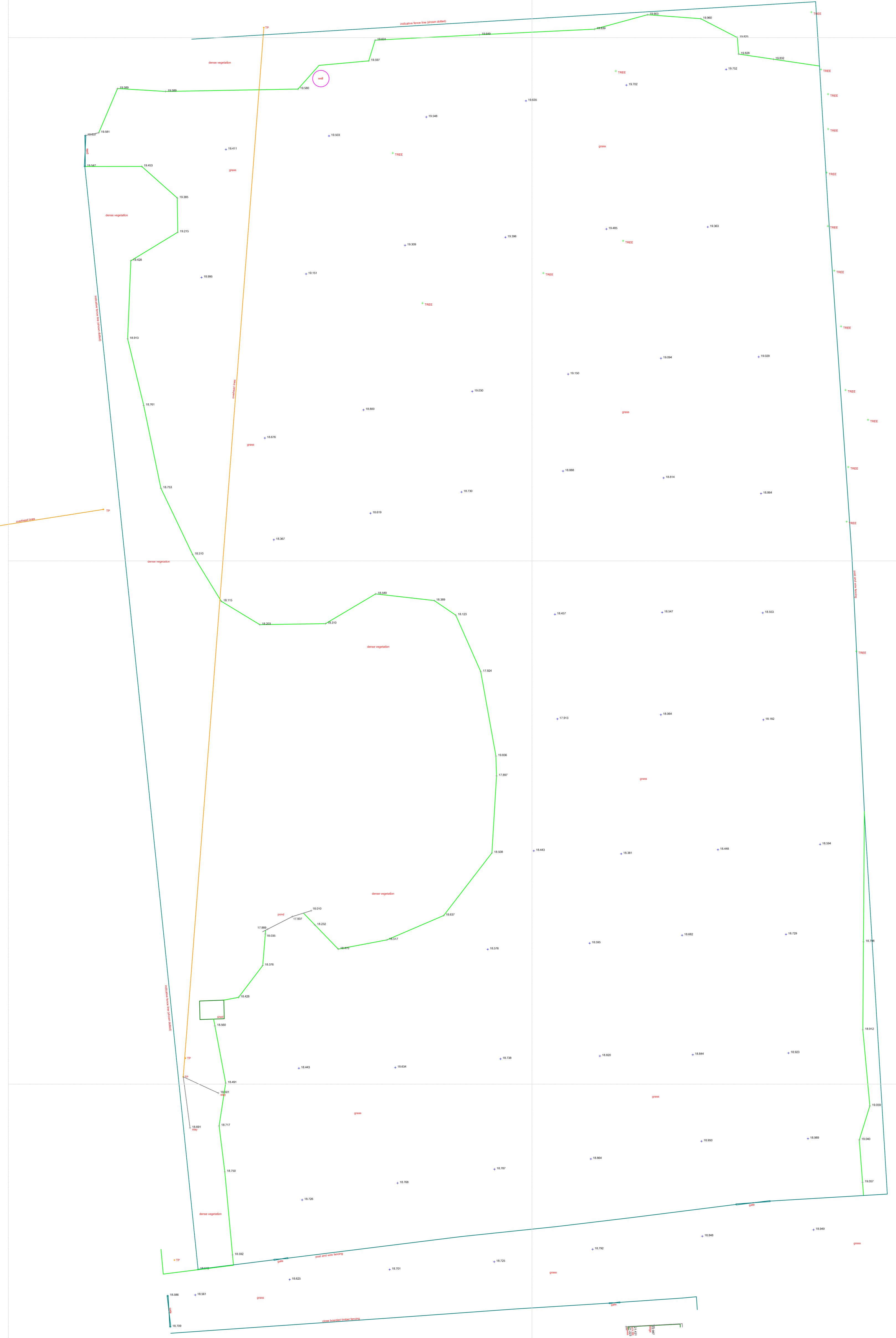
Although this is a digital survey the accuracy and amount of detail shown is only commensurate with the graphical scale of mapping as specified. Care should be exercised when working to larger scales.

Visible features in the vicinity of the boundaries as shown above, may not represent the extent of legally conveyed ownership.

Whilst every effort has been made to achieve accuracy on this plan, CRUCIAL clearance dimensions, levels and invert levels should be checked prior to design and construction.

Areas of dense undergrowth cannot be surveyed in detail. These areas will be shown in outline only and marked as 'dense undergrowth' on the plan.

Kerb levels have been taken on the top of the channel.



medlams surveys limited www.medlams-surveys.co.uk info@medlams-surveys.co.uk 07717 205 388	project: Land north of 1 Jolesfield Cottages, Partridge Green
	client: Manorwood job ref: S3168
	title: Measured topo survey scale: 1:200 @A1
	date: October 2025 dwg no: EX01 rev:

Appendix C - InfoDrainage Calculations

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Aegaea		



Plot 9 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 2 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10




Plot 5 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH		
Company Address: Aegaea			



Plot 6 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 7 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10




Plot 8 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH		
Company Address: Aegaea			



Plot 3 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 4 - Driveway

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10




South Access Road

Type : Catchment Area

Area (ha)	0.036
-----------	-------

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
Urban Creep (%)	0

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea	



Plot 3 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10



Plot 4 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10




Plot 7 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH		
Company Address: Aegaea			



Plot 8 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10



Plot 5 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10




Plot 6 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH		
Company Address: Aegaea			



Plot 2 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10



Plot 2 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 9 - Outbuilding

Type : Catchment Area

Area (ha)	0.001
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Aegaea		



Plot 9 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 1 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10




Plot 5 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH		
Company Address: Aegaea			



Plot 6 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 3 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10




Plot 4 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Inflows Storm Phase: Phase	Designed by: OH		
Company Address: Aegaea			



Plot 7 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10



Plot 8 - Dwelling

Type : Catchment Area

Area (ha)	0.006
-----------	-------

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
Urban Creep (%)	10




North Access Road

Type : Catchment Area

Area (ha)	0.036
-----------	-------

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
Urban Creep (%)	0

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026	Designed by: OH		Checked by: JA	Approved By: NDD	
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Aegaea					




Plot 1 - Driveway

Type : Catchment Area

Area (ha)	0.007
-----------	-------

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
Urban Creep (%)	10

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD	
		Company Address: Aegaea			

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
MH1	Manhole	1138.409	831.007	18.700	0.500	18.200	Circular	0.800
MH2	Manhole	1154.281	830.045	18.700	0.530	18.170	Circular	0.800
MH3	Manhole	1154.120	840.231	18.700	0.500	18.200	Circular	0.800
Southern Outfall	Manhole	1132.711	851.804	18.000	0.200	17.800	Circular	0.800
MH4	Manhole	1140.055	913.569	19.540	0.800	18.740	Circular	0.800
MH5	Manhole	1141.004	896.138	19.030	0.500	18.530	Circular	0.800
Northern Outfall	Manhole	1130.844	869.715	18.000	0.200	17.800	Circular	0.800


Name	Lock
MH1	None
MH2	None
MH3	None
Southern Outfall	None
MH4	None
MH5	None
Northern Outfall	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
MH1	Inlet	1.000	(None)	No Restriction
MH2	Inlet	1.001 3.000 4.000	(None)	No Restriction
MH3	Inlet	2.000	(None)	No Restriction
Southern Outfall	Inlet	1.003	(None)	No Restriction
MH4	Inlet	6.000 9.000	(None)	No Restriction
MH5	Inlet	6.001	(None)	No Restriction
	Inlet (1)	7.000 8.000	(None)	No Restriction
Northern Outfall	Inlet	6.004	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
MH1	Outlet	1.001	Free Discharge
MH2	Outlet	1.002	Free Discharge
MH3	Outlet	2.001	Free Discharge
MH4	Outlet	6.001	Free Discharge
MH5	Outlet	6.002	Free Discharge

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: OH Checked by: JA Approved By: NDD Company Address: Aegaea	



Plot 9 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	19.310
Depth (m)	0.300
Base Level (m)	19.010
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.543

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	50
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 9 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 9 - Dwelling Plot 9 - Outbuilding
Bypass Destination	(None)
Capacity Type	No Restriction


Outlets

Outlet

Outgoing Connection	9.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	19.010

Advanced

Conductivity (m/hr)	350.0
---------------------	-------

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: OH Checked by: JA Approved By: NDD Company Address: Aegaea	



Plot 2 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	18.840
Depth (m)	0.300
Base Level (m)	18.540
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.543

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	50
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 2 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 2 - Dwelling
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 2 - Outbuilding
Bypass Destination	(None)
Capacity Type	No Restriction


Outlets

Outlet

Outgoing Connection	3.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.540

Advanced

Conductivity (m/hr)	350.0
---------------------	-------

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: OH	Checked by: JA	Approved By: NDD
Company Address: Aegaea			



Plot 5 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	18.520
Depth (m)	0.300
Base Level (m)	18.220
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.541

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 5 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 5 - Dwelling Plot 5 - Outbuilding
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	(None)
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.220

Advanced

Conductivity (m/hr)	350.0
---------------------	-------

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



Plot 6 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	19.150
Depth (m)	0.300
Base Level (m)	18.850
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.541

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 6 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 6 - Dwelling Plot 6 - Outbuilding
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	8.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.850

Advanced

Conductivity (m/hr)	350.0
---------------------	-------

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



Plot 7 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	19.150
Depth (m)	0.300
Base Level (m)	18.850
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.541

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 7 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 7 - Dwelling Plot 7 - Outbuilding
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	7.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.850

Advanced

Conductivity (m/hr)	350.0
---------------------	-------

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



Plot 8 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	19.500
Depth (m)	0.300
Base Level (m)	19.200
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.543

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	50
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 8 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 8 - Outbuilding Plot 8 - Dwelling
Bypass Destination	(None)
Capacity Type	No Restriction


Outlets

Outlet

Outgoing Connection	6.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	19.200

Advanced

Conductivity (m/hr)	350.0
---------------------	-------

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: OH Checked by: JA Approved By: NDD Company Address: Aegaea	



Plot 3 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	18.840
Depth (m)	0.300
Base Level (m)	18.540
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	13.543

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	50
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	Plot 3 - Outbuilding Plot 3 - Dwelling
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 3 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	4.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.540

Advanced

Conductivity (m/hr)	350.0
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



Plot 4 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	18.650
Depth (m)	0.350
Base Level (m)	18.300
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	12.855
Long. Slope (1:X)	10000.00
Width (m)	4.681
Total Volume (m³)	16.251

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	50
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	Plot 4 - Driveway Plot 4 - Outbuilding
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 4 - Dwelling
Bypass Destination	(None)
Capacity Type	No Restriction


Outlets

Outlet

Outgoing Connection	2.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.300

Advanced

Conductivity (m/hr)	350.0
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: OH Checked by: JA Approved By: NDD Company Address: Aegaea	



Plot 1 - PP

Type : Porous Paving

Dimensions

Exceedance Level (m)	18.740
Depth (m)	0.250
Base Level (m)	18.490
Paving Layer Depth (mm)	50
Membrane Percolation (m/hr)	1.0
Porosity (%)	90
Length (m)	15.000
Long. Slope (1:X)	10000.00
Width (m)	5.000
Total Volume (m³)	13.503

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	50
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Plot 1 - Driveway
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Plot 1 - Dwelling
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.000
Outlet Type	Orifice
Diameter (m)	0.020
Coefficient of Discharge	0.600
Invert Level (m)	18.490

Advanced

Conductivity (m/hr)	350.0
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



Swale

Type : Swale

Swale

Exceedance Level (m)	18.800
Depth (m)	0.500
Base Level (m)	18.300
Top Width (m)	1.750
Side Slope (1:X)	1.00
Base Width (m)	0.750
Freeboard (mm)	0
Length (m)	50.000
Long. Slope (1:X)	1000.00
Filtration Rate (m/hr)	0.0
Friction Scheme	Manning's n
n	0.15
Total Volume (m³)	31.250

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	North Access Road
Bypass Destination	(None)
Inlet Destination	Ponding Area
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	10.000
Outlet Type	Orifice
Diameter (m)	0.030
Coefficient of Discharge	0.600
Invert Level (m)	18.300

Advanced

Swale

Porosity (%)	100
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



Swale (1)

Type : Swale

Swale

Exceedance Level (m)	18.600
Depth (m)	0.450
Base Level (m)	18.150
Top Width (m)	1.800
Side Slope (1:X)	1.00
Base Width (m)	0.900
Freeboard (mm)	0
Length (m)	65.000
Long. Slope (1:X)	10000.00
Filtration Rate (m/hr)	1.0
Friction Scheme	Manning's n
n	0.015
Total Volume (m³)	39.487

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	South Access Road
Bypass Destination	(None)
Inlet Destination	Ponding Area
Capacity Type	No Restriction

Outlets


Outlet (1)

Outgoing Connection	5.000
Outlet Type	Orifice
Diameter (m)	0.030
Coefficient of Discharge	0.600
Invert Level (m)	18.150

Advanced

Swale

Porosity (%)	100
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026	Designed by: OH		Checked by: JA	Approved By: NDD	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea					



South Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	18.800
Depth (m)	0.400
Base Level (m)	17.900
Number of Crates Long	25
Number of Crates Wide	8
Number of Crates High	1
Porosity (%)	100
Crate Length (m)	0.4
Crate Width (m)	0.4
Crate Height (m)	0.4
Total Volume (m³)	13.300

Inlets

Inlet

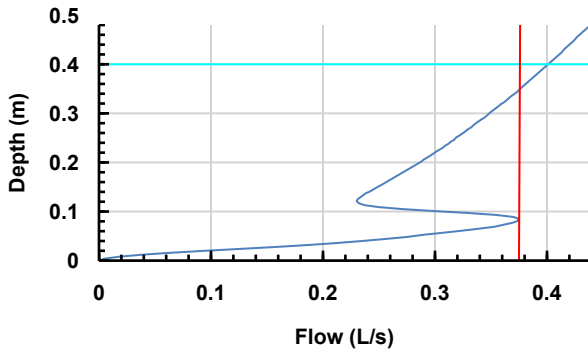
Inlet Type	Point Inflow
	1.002
Incoming Item(s)	2.001
	5.000
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.003
Outlet Type	Hydro-Brake®
Invert Level (m)	18.000
Design Depth (m)	0.400
Design Flow (L/s)	0.4
Objective	Minimise Upstream Storage Requirements
Application	Surface Water Only
Sump Available	<input type="checkbox"/>

Unit Reference	CHE-0036-4000-0400-4000
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Aegaea		



North Tank

Type : Cellular Storage

Dimensions

Exceedance Level (m)	18.800
Depth (m)	0.400
Base Level (m)	17.900
Number of Crates Long	50
Number of Crates Wide	8
Number of Crates High	1
Porosity (%)	95
Crate Length (m)	0.4
Crate Width (m)	0.4
Crate Height (m)	0.4
Total Volume (m³)	24.820

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	6.002
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	10.000
Bypass Destination	(None)
Capacity Type	No Restriction

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Stormwater Controls Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		

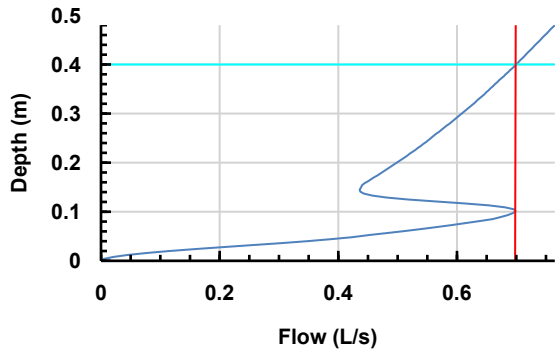


Outlets

Outlet

Outgoing Connection	6.004
Outlet Type	Hydro-Brake®
Invert Level (m)	18.000
Design Depth (m)	0.400
Design Flow (L/s)	0.7
Objective	Minimise Upstream Storage Requirements
Application	Surface Water Only
Sump Available	<input type="checkbox"/>

Unit Reference	CHE-0047-7000-0400-7000
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Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Connections Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		




Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
1.000	8.758	Pipe	30.199		0.6	150	18.742	18.490
1.001	15.901	Pipe	530.037		0.6	150	18.700	18.200
2.000	9.605	Pipe	96.055		0.6	150	18.651	18.300
3.000	10.846	Pipe	29.312		0.6	150	18.841	18.540
4.000	8.396	Pipe	22.692		0.6	150	18.841	18.540
1.002	7.450	Pipe	27.591		0.6	150	18.700	18.170
2.001	2.841	Pipe	9.469		0.6	150	18.700	18.200
5.000	10.069	Pipe	40.275		0.6	150	18.606	18.150
1.003	25.405	Pipe	127.027		0.6	150	18.800	18.000
6.001	17.457	Pipe	83.129		0.6	150	19.540	18.740
6.002	16.501	Pipe	26.192		0.6	150	19.030	18.530
6.004	14.330	Pipe	71.651		0.6	150	18.800	18.000
10.000	4.149	Pipe	10.373		0.6	100	18.850	18.300
6.000	8.082	Pipe	17.570		0.6	100	19.501	19.200
9.000	8.226	Pipe	30.465		0.6	100	19.311	19.010
7.000	7.767	Pipe	24.272		0.6	100	19.151	18.850
8.000	8.032	Pipe	25.098		0.6	100	19.151	18.850


Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
1.000	18.700	18.200		None	0.4	(None)	(None)
1.001	18.700	18.170		None		(None)	(None)
2.000	18.700	18.200		None	0.4	(None)	(None)
3.000	18.700	18.170		None	0.4	(None)	(None)
4.000	18.700	18.170		None	0.4	(None)	(None)
1.002	18.800	17.900		None		(None)	(None)
2.001	18.800	17.900		None		(None)	(None)
5.000	18.800	17.900		None	1.2	(None)	(None)
1.003	18.000	17.800		None	0.4	(None)	(None)
6.001	19.030	18.530		None		(None)	(None)
6.002	18.800	17.900		None		(None)	(None)
6.004	18.000	17.800		None	0.8	(None)	(None)
10.000	18.800	17.900		None	1.3	(None)	(None)
6.000	19.540	18.740		None	0.4	(None)	(None)
9.000	19.540	18.740		None	0.4	(None)	(None)
7.000	19.030	18.530		None	0.4	(None)	(None)
8.000	19.030	18.530		None	0.4	(None)	(None)

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026			
Report Details: Type: Inflow Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD	
		Company Address: Aegaea			

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
North Access Road	Swale		Time of Concentration	0.036	100	0	100	0.036
Plot 1 - Driveway	Plot 1 - PP		Time of Concentration	0.007	100	10	110	0.008
Plot 1 - Dwelling	Plot 1 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 2 - Driveway	Plot 2 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 2 - Dwelling	Plot 2 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 2 - Outbuilding	Plot 2 - PP		Time of Concentration	0.001	100	10	110	0.001
Plot 3 - Driveway	Plot 3 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 3 - Dwelling	Plot 3 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 3 - Outbuilding	Plot 3 - PP		Time of Concentration	0.001	100	10	110	0.001
Plot 4 - Driveway	Plot 4 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 4 - Dwelling	Plot 4 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 4 - Outbuilding	Plot 4 - PP		Time of Concentration	0.001	100	10	110	0.001
Plot 5 - Driveway	Plot 5 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 5 - Dwelling	Plot 5 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 5 - Outbuilding	Plot 5 - PP		Time of Concentration	0.001	100	10	110	0.001
Plot 6 - Driveway	Plot 6 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 6 - Dwelling	Plot 6 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 6 - Outbuilding	Plot 6 - PP		Time of Concentration	0.001	100	10	110	0.001
Plot 7 - Driveway	Plot 7 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 7 - Dwelling	Plot 7 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 7 - Outbuilding	Plot 7 - PP		Time of Concentration	0.001	100	10	110	0.001

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026				
Report Details: Type: Inflow Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD		
		Company Address: Aegaea				

Plot 8 - Driveway	Plot 8 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 8 - Dwelling	Plot 8 - PP		Time of Concentration	0.006	100	10	110	0.006
Plot 8 - Outbuilding	Plot 8 - PP		Time of Concentration	0.001	100	10	110	0.001
Plot 9 - Driveway	Plot 9 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 9 - Dwelling	Plot 9 - PP		Time of Concentration	0.006	100	10	110	0.007
Plot 9 - Outbuilding	Plot 9 - PP		Time of Concentration	0.001	100	10	110	0.001
South Access Road	Swale (1)		Time of Concentration	0.036	100	0	100	0.036
TOTAL		0.0		0.187				0.199

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Title: Rainfall Analysis Criteria	Designed by: OH	Checked by: JA	Approved By: NDD
	Company Address: Aegaea		

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Use Catchment Values
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	<input type="checkbox"/>

Rainfall


FEH	Type: FEH
Site Location	GB 518808 120113 TQ 18808 20113
Rainfall Version	2022
Summer	<input checked="" type="checkbox"/>
Winter	<input checked="" type="checkbox"/>

Return Period

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

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
Report Title: UK and Ireland Rural Runoff Calculator	Designed by: OH	Checked by: JA	Approved By: NDD
Company Address: Aegaea			

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.187
SAAR (mm)	811.0
Soil	0.47
Region	Region 7
Urban	0
Return Period (years)	0

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 7	1.1	1.1	0.9	2.4	3.4

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		



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

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH1	FEH: 2 years: +0 %: 960 mins: Summer	18.70 0	18.20 0	18.240	0.040	0.1	0.020	0.000	0.1	4.921	OK
MH2	FEH: 2 years: +0 %: 480 mins: Summer	18.70 0	18.17 0	18.219	0.049	0.3	0.025	0.000	0.3	9.943	OK
MH3	FEH: 2 years: +0 %: 480 mins: Summer	18.70 0	18.20 0	18.219	0.019	0.1	0.009	0.000	0.1	3.329	OK
Southern Outfall	FEH: 2 years: +0 %: 240 mins: Summer	18.00 0	17.80 0	17.816	0.016	0.4	0.000	0.000	0.4	4.773	Flood Risk
MH4	FEH: 2 years: +0 %: 480 mins: Summer	19.54 0	18.74 0	18.751	0.011	0.2	0.005	0.000	0.2	6.932	OK
MH5	FEH: 2 years: +0 %: 960 mins: Summer	19.03 0	18.53 0	18.540	0.010	0.3	0.005	0.000	0.3	19.395	OK
Northern Outfall	FEH: 2 years: +0 %: 960 mins: Summer	18.00 0	17.80 0	17.817	0.017	0.6	0.000	0.000	0.6	26.081	Flood Risk

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		



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

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH1	FEH: 30 years: +0 %: 1440 mins: Winter	18.70 0	18.20 0	18.381	0.181	0.1	0.091	0.000	0.2	9.779	Surcharged
MH2	FEH: 30 years: +0 %: 480 mins: Winter	18.70 0	18.17 0	18.339	0.169	0.4	0.085	0.000	0.5	14.884	Surcharged
MH3	FEH: 30 years: +0 %: 1440 mins: Winter	18.70 0	18.20 0	18.381	0.181	0.3	0.091	0.000	0.3	9.264	Surcharged
Southern Outfall	FEH: 30 years: +0 %: 1440 mins: Summer	18.00 0	17.80 0	17.816	0.016	0.4	0.000	0.000	0.4	49.271	Flood Risk
MH4	FEH: 30 years: +0 %: 360 mins: Winter	19.54 0	18.74 0	18.753	0.013	0.3	0.006	0.000	0.3	8.202	OK
MH5	FEH: 30 years: +0 %: 480 mins: Winter	19.03 0	18.53 0	18.542	0.012	0.5	0.006	0.000	0.5	20.388	OK
Northern Outfall	FEH: 30 years: +0 %: 240 mins: Summer	18.00 0	17.80 0	17.818	0.018	0.7	0.000	0.000	0.7	8.411	Flood Risk

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network	Date: 08/01/2026		
	Designed by: OH	Checked by: JA	Approved By: NDD
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		



FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH1	FEH: 30 years: +40 %: 480 mins: Summer	18.700	18.200	18.438	0.238	0.2	0.120	0.000	0.3	5.624	Flood Risk
MH2	FEH: 30 years: +40 %: 480 mins: Summer	18.700	18.170	18.438	0.268	0.6	0.135	0.000	0.6	18.501	Flood Risk
MH3	FEH: 30 years: +40 %: 960 mins: Winter	18.700	18.200	18.474	0.274	0.4	0.138	0.000	0.5	5.439	Flood Risk
Southern Outfall	FEH: 30 years: +40 %: 1440 mins: Winter	18.000	17.800	17.817	0.017	0.4	0.000	0.000	0.4	58.377	Flood Risk
MH4	FEH: 30 years: +40 %: 480 mins: Winter	19.540	18.740	18.754	0.014	0.3	0.007	0.000	0.3	13.440	OK
MH5	FEH: 30 years: +40 %: 480 mins: Winter	19.030	18.530	18.544	0.014	0.6	0.007	0.000	0.6	25.903	OK
Northern Outfall	FEH: 30 years: +40 %: 480 mins: Summer	18.000	17.800	17.819	0.019	0.7	0.000	0.000	0.7	26.608	Flood Risk

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH1	FEH: 100 years: +0 %: 1440 mins: Summer	18.70 0	18.20 0	18.455	0.255	0.2	0.128	0.000	0.2	12.273	Flood Risk
MH2	FEH: 100 years: +0 %: 1440 mins: Winter	18.70 0	18.17 0	18.456	0.286	0.4	0.144	0.000	0.6	37.662	Flood Risk
MH3	FEH: 100 years: +0 %: 1440 mins: Summer	18.70 0	18.20 0	18.455	0.255	0.3	0.128	0.000	0.6	9.199	Flood Risk
Southern Outfall	FEH: 100 years: +0 %: 1440 mins: Summer	18.00 0	17.80 0	17.817	0.017	0.4	0.000	0.000	0.4	55.540	Flood Risk
MH4	FEH: 100 years: +0 %: 360 mins: Winter	19.54 0	18.74 0	18.753	0.013	0.3	0.007	0.000	0.3	9.446	OK
MH5	FEH: 100 years: +0 %: 480 mins: Winter	19.03 0	18.53 0	18.543	0.013	0.6	0.007	0.000	0.6	23.858	OK
Northern Outfall	FEH: 100 years: +0 %: 960 mins: Summer	18.00 0	17.80 0	17.819	0.019	0.7	0.000	0.000	0.7	53.284	Flood Risk

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Junctions Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
MH1	FEH: 100 years: +45 %: 960 mins: Summer	18.70 0	18.20 0	18.567	0.367	0.2	0.185	0.000	0.2	10.797	Flood Risk
MH2	FEH: 100 years: +45 %: 480 mins: Winter	18.70 0	18.17 0	18.524	0.354	0.5	0.178	0.000	0.6	21.476	Flood Risk
MH3	FEH: 100 years: +45 %: 960 mins: Summer	18.70 0	18.20 0	18.567	0.367	0.3	0.185	0.000	0.5	3.768	Flood Risk
Southern Outfall	FEH: 100 years: +45 %: 360 mins: Summer	18.00 0	17.80 0	17.817	0.017	0.4	0.000	0.000	0.4	13.269	Flood Risk
MH4	FEH: 100 years: +45 %: 480 mins: Winter	19.54 0	18.74 0	18.755	0.015	0.4	0.007	0.000	0.4	15.827	OK
MH5	FEH: 100 years: +45 %: 480 mins: Winter	19.03 0	18.53 0	18.651	0.121	0.7	0.061	0.000	0.7	30.471	OK
Northern Outfall	FEH: 100 years: +45 %: 240 mins: Summer	18.00 0	17.80 0	17.819	0.019	0.7	0.000	0.000	0.7	10.940	Flood Risk

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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)	Percentage Available (%)	Status
Plot 9 - PP	FEH: 2 years: +0 %: 480 mins: Summer	19.079	19.078	0.068	0.068	0.7	3.667	0.000	0.1	0.000	3.556	72.924	OK
Plot 2 - PP	FEH: 2 years: +0 %: 480 mins: Summer	18.609	18.608	0.068	0.068	0.7	3.666	0.000	0.1	0.000	3.556	72.928	OK
Plot 5 - PP	FEH: 2 years: +0 %: 960 mins: Summer	18.312	18.273	0.091	0.053	0.4	3.810	0.000	0.1	0.000	4.523	71.859	OK
Plot 6 - PP	FEH: 2 years: +0 %: 960 mins: Summer	18.942	18.903	0.091	0.053	0.4	3.814	0.000	0.1	0.000	4.515	71.834	OK
Plot 7 - PP	FEH: 2 years: +0 %: 960 mins: Summer	18.942	18.903	0.091	0.053	0.4	3.814	0.000	0.1	0.000	4.515	71.834	OK
Plot 8 - PP	FEH: 2 years: +0 %: 480 mins: Summer	19.265	19.264	0.064	0.064	0.6	3.448	0.000	0.1	0.000	3.396	74.541	OK
Plot 3 - PP	FEH: 2 years: +0 %: 480 mins: Summer	18.605	18.604	0.064	0.064	0.6	3.448	0.000	0.1	0.000	3.396	74.543	OK
Plot 4 - PP	FEH: 2 years: +0 %: 480 mins: Summer	18.368	18.365	0.067	0.065	0.6	3.547	0.000	0.1	0.000	3.348	78.172	OK
Plot 1 - PP	FEH: 2 years: +0 %: 960 mins: Summer	18.545	18.544	0.053	0.054	0.4	3.625	0.000	0.1	0.000	4.929	73.158	OK
Swale	FEH: 2 years: +0 %: 240 mins: Summer	18.445	18.444	0.095	0.144	2.6	5.208	0.000	0.7	0.000	9.775	83.336	OK
Swale (1)	FEH: 2 years: +0 %: 240 mins: Summer	18.248	18.249	0.092	0.099	2.6	6.188	0.000	0.5	0.000	7.557	84.330	OK
South Tank	FEH: 2 years: +0 %: 1440 mins: Summer	18.245	18.245	0.345	0.345	0.8	11.040	0.000	0.4	0.000	34.827	16.990	OK
North Tank	FEH: 2 years: +0 %: 960 mins: Summer	18.100	18.100	0.200	0.200	0.9	12.140	0.000	0.6	0.000	26.088	51.087	OK

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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)	Percentage Available (%)	Status
Plot 9 - PP	FEH: 30 years: +0 %: 360 mins: Winter	19.138	19.135	0.127	0.125	1.0	6.829	0.000	0.1	0.000	4.191	49.577	OK
Plot 2 - PP	FEH: 30 years: +0 %: 360 mins: Winter	18.668	18.665	0.127	0.125	1.0	6.828	0.000	0.1	0.000	4.191	49.580	OK
Plot 5 - PP	FEH: 30 years: +0 %: 480 mins: Winter	18.366	18.330	0.145	0.110	0.7	6.693	0.000	0.1	0.000	4.857	50.570	OK
Plot 6 - PP	FEH: 30 years: +0 %: 480 mins: Winter	18.996	18.961	0.145	0.111	0.7	6.695	0.000	0.1	0.000	4.856	50.554	OK
Plot 7 - PP	FEH: 30 years: +0 %: 480 mins: Winter	18.996	18.961	0.145	0.111	0.7	6.695	0.000	0.1	0.000	4.856	50.554	OK
Plot 8 - PP	FEH: 30 years: +0 %: 360 mins: Winter	19.321	19.318	0.119	0.118	0.9	6.419	0.000	0.1	0.000	4.041	52.603	OK
Plot 3 - PP	FEH: 30 years: +0 %: 360 mins: Winter	18.660	18.658	0.119	0.118	0.9	6.413	0.000	0.1	0.000	4.040	52.644	OK
Plot 4 - PP	FEH: 30 years: +0 %: 360 mins: Winter	18.424	18.419	0.122	0.119	0.9	6.531	0.000	0.1	0.000	3.842	59.814	OK
Plot 1 - PP	FEH: 30 years: +0 %: 360 mins: Winter	18.590	18.589	0.099	0.099	0.9	6.659	0.000	0.1	0.000	3.655	50.683	OK
Swale	FEH: 30 years: +0 %: 120 mins: Winter	18.553	18.553	0.203	0.253	5.2	11.146	0.000	0.9	0.000	10.037	64.332	OK
Swale (1)	FEH: 30 years: +0 %: 1440 mins: Summer	18.382	18.382	0.225	0.232	1.2	16.801	0.000	0.5	0.000	22.036	57.452	OK
South Tank	FEH: 30 years: +0 %: 1440 mins: Summer	18.382	18.382	0.482	0.482	0.9	12.894	0.000	0.4	0.000	51.021	3.052	OK
North Tank	FEH: 30 years: +0 %: 960 mins: Summer	18.342	18.342	0.442	0.442	1.3	24.382	0.000	0.7	0.000	44.642	1.763	OK

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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)	Percentage Available (%)	Status
Plot 9 - PP	FEH: 30 years: +40 %: 480 mins: Winter	19.194	19.190	0.182	0.180	1.1	9.812	0.000	0.2	0.000	6.861	27.549	OK
Plot 2 - PP	FEH: 30 years: +40 %: 480 mins: Winter	18.724	18.720	0.182	0.180	1.1	9.812	0.000	0.2	0.000	6.862	27.551	OK
Plot 5 - PP	FEH: 30 years: +40 %: 480 mins: Winter	18.412	18.385	0.191	0.165	1.0	9.526	0.000	0.2	0.000	6.254	29.646	OK
Plot 6 - PP	FEH: 30 years: +40 %: 480 mins: Winter	19.042	19.015	0.191	0.165	1.0	9.528	0.000	0.2	0.000	6.252	29.630	OK
Plot 7 - PP	FEH: 30 years: +40 %: 480 mins: Winter	19.042	19.015	0.191	0.165	1.0	9.528	0.000	0.2	0.000	6.252	29.630	OK
Plot 8 - PP	FEH: 30 years: +40 %: 360 mins: Winter	19.372	19.369	0.171	0.169	1.3	9.208	0.000	0.2	0.000	5.021	32.011	OK
Plot 3 - PP	FEH: 30 years: +40 %: 360 mins: Winter	18.712	18.709	0.171	0.169	1.3	9.208	0.000	0.2	0.000	5.021	32.012	OK
Plot 4 - PP	FEH: 30 years: +40 %: 1440 mins: Winter	18.492	18.492	0.191	0.192	0.4	10.353	0.000	0.1	0.000	8.676	36.296	OK
Plot 1 - PP	FEH: 30 years: +40 %: 480 mins: Winter	18.634	18.632	0.142	0.142	1.0	9.594	0.000	0.1	0.000	6.028	28.946	OK
Swale	FEH: 30 years: +40 %: 240 mins: Summer	18.638	18.638	0.288	0.338	6.7	16.616	0.000	1.1	0.000	21.388	46.829	OK
Swale (1)	FEH: 30 years: +40 %: 1440 mins: Winter	18.491	18.492	0.335	0.342	1.1	27.262	0.000	0.5	0.000	22.882	30.960	OK
South Tank	FEH: 30 years: +40 %: 1440 mins: Winter	18.492	18.492	0.592	0.592	0.8	13.004	0.000	0.4	0.000	61.036	2.229	OK
North Tank	FEH: 30 years: +40 %: 960 mins: Summer	18.538	18.538	0.638	0.638	1.5	24.568	0.000	0.7	0.000	57.625	1.014	OK

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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)	Percentage Available (%)	Status
Plot 9 - PP	FEH: 100 years: +0 %: 360 mins: Winter	19.171	19.168	0.160	0.158	1.2	8.611	0.000	0.2	0.000	4.820	36.421	OK
Plot 2 - PP	FEH: 100 years: +0 %: 360 mins: Winter	18.702	18.698	0.160	0.158	1.2	8.621	0.000	0.2	0.000	4.824	36.342	OK
Plot 5 - PP	FEH: 100 years: +0 %: 960 mins: Summer	18.391	18.364	0.170	0.144	0.8	8.418	0.000	0.1	0.000	10.055	37.830	OK
Plot 6 - PP	FEH: 100 years: +0 %: 960 mins: Summer	19.021	18.994	0.170	0.144	0.8	8.421	0.000	0.1	0.000	10.054	37.806	OK
Plot 7 - PP	FEH: 100 years: +0 %: 960 mins: Summer	19.021	18.994	0.170	0.144	0.8	8.421	0.000	0.1	0.000	10.054	37.806	OK
Plot 8 - PP	FEH: 100 years: +0 %: 360 mins: Winter	19.352	19.349	0.151	0.149	1.1	8.111	0.000	0.1	0.000	4.659	40.111	OK
Plot 3 - PP	FEH: 100 years: +0 %: 360 mins: Winter	18.692	18.689	0.151	0.149	1.1	8.111	0.000	0.1	0.000	4.659	40.113	OK
Plot 4 - PP	FEH: 100 years: +0 %: 1440 mins: Summer	18.458	18.457	0.157	0.157	0.6	8.490	0.000	0.1	0.000	9.422	47.758	OK
Plot 1 - PP	FEH: 100 years: +0 %: 480 mins: Winter	18.617	18.615	0.126	0.125	0.9	8.473	0.000	0.1	0.000	5.593	37.251	OK
Swale	FEH: 100 years: +0 %: 120 mins: Winter	18.606	18.606	0.256	0.306	6.6	14.467	0.000	1.0	0.000	11.289	53.706	OK
Swale (1)	FEH: 100 years: +0 %: 1440 mins: Summer	18.455	18.456	0.299	0.306	1.5	23.630	0.000	0.5	0.000	23.320	40.158	OK
South Tank	FEH: 100 years: +0 %: 1440 mins: Summer	18.455	18.455	0.555	0.555	1.0	12.967	0.000	0.4	0.000	58.168	2.502	OK
North Tank	FEH: 100 years: +0 %: 960 mins: Summer	18.471	18.471	0.571	0.571	1.5	24.505	0.000	0.7	0.000	53.302	1.269	OK

Project: AEG8979 Land north of 1 Jolesfield Cottages, Horsham Proposed Network		Date: 08/01/2026		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: OH	Checked by: JA	Approved By: NDD
		Company Address: Aegaea		



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)	Percentage Available (%)	Status
Plot 9 - PP	FEH: 100 years: +45 %: 480 mins: Winter	19.252	19.248	0.241	0.238	1.4	12.963	0.000	0.2	0.000	8.077	4.283	OK
Plot 2 - PP	FEH: 100 years: +45 %: 480 mins: Winter	18.782	18.778	0.241	0.238	1.4	12.963	0.000	0.2	0.000	8.077	4.285	OK
Plot 5 - PP	FEH: 100 years: +45 %: 480 mins: Winter	18.461	18.440	0.240	0.220	1.3	12.456	0.000	0.2	0.000	7.454	8.008	OK
Plot 6 - PP	FEH: 100 years: +45 %: 480 mins: Winter	19.091	19.070	0.240	0.220	1.3	12.458	0.000	0.2	0.000	7.452	7.992	OK
Plot 7 - PP	FEH: 100 years: +45 %: 480 mins: Winter	19.091	19.070	0.240	0.220	1.3	12.458	0.000	0.2	0.000	7.452	7.992	OK
Plot 8 - PP	FEH: 100 years: +45 %: 480 mins: Winter	19.427	19.423	0.226	0.223	1.3	12.141	0.000	0.2	0.000	7.785	10.351	OK
Plot 3 - PP	FEH: 100 years: +45 %: 480 mins: Winter	18.767	18.763	0.226	0.223	1.3	12.141	0.000	0.2	0.000	7.785	10.352	OK
Plot 4 - PP	FEH: 100 years: +45 %: 1440 mins: Winter	18.590	18.590	0.289	0.290	0.5	15.645	0.000	0.1	0.000	6.888	3.732	OK
Plot 1 - PP	FEH: 100 years: +45 %: 480 mins: Winter	18.680	18.677	0.188	0.187	1.4	12.670	0.000	0.2	0.000	6.793	6.172	OK
Swale	FEH: 100 years: +45 %: 1440 mins: Summer	18.732	18.732	0.382	0.432	2.2	23.546	0.000	1.0	0.000	48.196	24.654	OK
Swale (1)	FEH: 100 years: +45 %: 1440 mins: Winter	18.589	18.590	0.433	0.440	1.4	37.903	0.000	0.5	0.000	20.821	4.012	OK
South Tank	FEH: 100 years: +45 %: 1440 mins: Winter	18.589	18.589	0.689	0.689	1.0	13.101	0.000	0.4	0.000	64.921	1.495	OK
North Tank	FEH: 100 years: +45 %: 1440 mins: Summer	18.731	18.731	0.831	0.831	1.7	24.751	0.000	0.7	0.000	96.639	0.277	OK

Appendix D - Proposed SuDS Layout



- NOTES:**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT REPORTS, PLANS AND ARCHITECTURAL DRAWINGS.
 - THIS DRAWING SHOULD NOT BE SCALED. THERE SHOULD BE NO RELIANCE ON THIS DRAWING WITH REGARDS TO DIMENSIONS. ALL DIMENSIONS SHOULD BE CONFIRMED ON SITE.
 - ANY DISCREPANCY ON THIS DRAWING SHOULD BE REPORTED TO AEGAEA IMMEDIATELY FOR CLARIFICATION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL WORKS AND FOR THE STABILITY, INSTALLATION AND HEALTH AND SAFETY OF THE WORKS.
 - AEGAEA HAVE PRODUCED THIS DRAWING BASED ON THE CLIENT AVAILABLE AT THE TIME OF PRODUCTION. WE CANNOT ACCEPT RESPONSIBILITY FOR DISCREPANCIES RESULTING FROM NEW PLANS/ INFORMATION BEING ISSUED POST-ISSUE OF THIS DRAWING. THE CONTRACTOR SHOULD REVIEW THIS DRAWING IN LIGHT OF WIDER SITE INFORMATION SUCH AS CONTAMINATION, UTILITIES SURVEYS AND SITE INVESTIGATIONS.
 - IT IS THE RESPONSIBILITY OF THE PRINCIPLE CONTRACTOR TO MAKE THE DESIGNER AND CLIENT AWARE OF SITE-SPECIFIC RISKS AND HAZARDS THAT MAY AFFECT THE DRAWING AND SPECIFICATION.

LEGEND

- PROPOSED SURFACE WATER MANHOLE
- PROPOSED PRIVATE SURFACE WATER DRAIN
- PROPOSED SURFACE WATER FLOW CONTROL
- SWALE
- TYPE C PERMEABLE PAVING
- CATCHMENT BOUNDARY
- EXCEEDANCE FLOW DIRECTION

CLIENT:
MANORWOOD

SITE:
LAND NORTH OF 1 JOLSFIELD COTTAGES, HORSHAM, RH13 8JT

DRAWING:
SURFACE WATER DRAINAGE LAYOUT

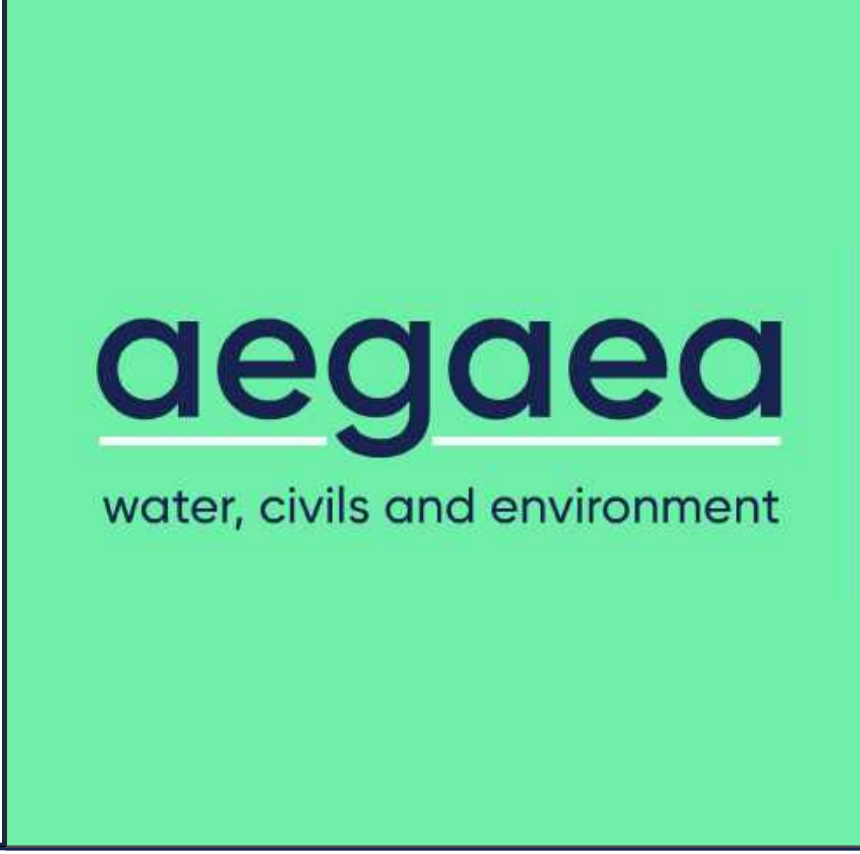
DRAWING NUMBER:
AEG8979-DR01 SHEET 1 OF 1

DATE: 12/01/2026	REV: A
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DRAWN BY:
OH

DRAWING SCALE:
SEE DRAWING

PRELIMINARY DRAWING FOR PLANNING ONLY - NOT FOR CONSTRUCTION



PLOTS 5-9 DRIVEWAYS:

TYPE C PERMEABLE PAVING CONSTRUCTION
Aquafloor® BLOCK PAVING OR SIMILAR PERMEABLE SURFACING. Aquafloor® BLOCKS PROVIDE DRAINAGE THROUGH VERTICAL CHANNELS AND ALLOW WATER THROUGH AT A RATE OF APPROXIMATELY 75000mm PER HOUR (9000 LITRES PER m² PER HOUR)

TOTAL AVAILABLE AREA: CIRCA 60m²
SUB-BASE DEPTH: 300mm

TO BE UTILISED FOR ATTENUATION AND TREATMENT

ORIFICE FLOW CONTROL: 20mm
MODELLED RUNOFF RATE: 0.2%

SUB-BASE TO BE LAID FLAT

FINISHED (SUBJECT TO ARCHITECT SPECIFICATION - BLOCK PAVING OR SIMILAR. SUB-BASE TO BE LINED (NO INFILTRATION))

- PERMEABLE BLOCK SURFACING
- LAYING COURSE MATERIAL
- GEOTEXTILE
- SUB-BASE - HIGH STRENGTH GEOCELLULAR CRATE SYSTEM - THICKNESS 300mm. SUBJECT TO SITE CBR'S
- IMPERMEABLE MEMBRANE

ENSURE SUFFICIENT COVER IS PROVIDED FOR ANTICIPATED LOADING - UP TO MANUFACTURER'S SPECIFICATIONS

ANY RUNOFF NOT FILTERED THROUGH PERMEABLE PAVING TO BE FILTERED THROUGH CRUSHED STONE MEDIUM TO REDUCE RISK OF SILTING

PLOTS 1-4 DRIVEWAYS:

TYPE C PERMEABLE PAVING CONSTRUCTION
Aquafloor® BLOCK PAVING OR SIMILAR PERMEABLE SURFACING. Aquafloor® BLOCKS PROVIDE DRAINAGE THROUGH VERTICAL CHANNELS AND ALLOW WATER THROUGH AT A RATE OF APPROXIMATELY 9000mm PER HOUR (9000 LITRES PER m² PER HOUR)

TOTAL AVAILABLE AREA: CIRCA 60m²
SUB-BASE DEPTH: 300mm (PLOT 2 AND 3) 250mm (PLOT 1 AND 4)

TO BE UTILISED FOR ATTENUATION AND TREATMENT

ORIFICE FLOW CONTROL: 20mm
MODELLED RUNOFF RATE: 0.2%

SUB-BASE TO BE LAID FLAT

FINISHED (SUBJECT TO ARCHITECT SPECIFICATION - BLOCK PAVING OR SIMILAR. SUB-BASE TO BE LINED (NO INFILTRATION))

- PERMEABLE BLOCK SURFACING
- LAYING COURSE MATERIAL
- GEOTEXTILE
- SUB-BASE - HIGH STRENGTH GEOCELLULAR CRATE SYSTEM - THICKNESS 300mm. SUBJECT TO SITE CBR'S
- IMPERMEABLE MEMBRANE

ENSURE SUFFICIENT COVER IS PROVIDED FOR ANTICIPATED LOADING - UP TO MANUFACTURER'S SPECIFICATIONS

ANY RUNOFF NOT FILTERED THROUGH PERMEABLE PAVING TO BE FILTERED THROUGH CRUSHED STONE MEDIUM TO REDUCE RISK OF SILTING

SWALE

DEPTH: 0.50m
TOP WIDTH: 1.75m
LENGTH: 53m
SIDE SLOPE: 1:1:0
BASE WIDTH: 0.75m
MAXIMUM RESIDENT VOLUME: 27.92m³
TOTAL AVAILABLE STORAGE: 31.25m³

OUTFLOW VIA 30mm ORIFICE LIMITING RUNOFF TO 1.0%

PROTECTED OUTLET WITH RUNOFF FILTERED THROUGH 8-20mm CLEAN CRUSHED STONE TO REDUCE RISK OF BLOCKAGE

PERFORATED PIPE INCORPORATED INTO BASE OF SWALE TO AID CONVEYANCE AND PROMOTE ATTENUATION ACROSS ENTIRE LENGTH OF SUDS FEATURE

NORTH TANK
AQUACELL OR SIMILAR CRATE STORAGE

TANK LOCATED BENEATH ACCESS ROAD. PROVIDE VENT PIPE AT SUITABLE LOCATION

EXCEEDANCE LEVEL 18.80m
IL: 17.90m
PLAN AREA: 64m²
DEPTH: 0.40m
MAXIMUM RESIDENT VOLUME: 24.71m³
TOTAL VOLUME AVAILABLE: 24.82m³

NO. CRATES L: 50
NO. CRATES W: 8
NO. CRATE H: 1

OUTLET:
HYDROBRAKE 0.7%

UNIT REF: CHE-0047-7000-0400-7000

SOUTH TANK
AQUACELL OR SIMILAR CRATE STORAGE

TANK LOCATED BENEATH ACCESS ROAD. PROVIDE VENT PIPE AT SUITABLE LOCATION

EXCEEDANCE LEVEL 18.80m
IL: 17.90m
PLAN AREA: 32m²
DEPTH: 0.40m
MAXIMUM RESIDENT VOLUME: 13.10m³
TOTAL VOLUME AVAILABLE: 13.30m³

NO. CRATES L: 25
NO. CRATES W: 8
NO. CRATE H: 1

OUTLET:
HYDROBRAKE 0.4%

UNIT REF: CHE-0036-4000-0400-4000

SWALE (1)

DEPTH: 0.45m
TOP WIDTH: 1.80m
LENGTH: 65m
SIDE SLOPE: 1:1:0
BASE WIDTH: 0.90m
MAXIMUM RESIDENT VOLUME: 37.60m³
TOTAL AVAILABLE STORAGE: 39.49m³

OUTFLOW VIA 30mm ORIFICE LIMITING RUNOFF TO 0.5%

PROTECTED OUTLET WITH RUNOFF FILTERED THROUGH 8-20mm CLEAN CRUSHED STONE TO REDUCE RISK OF BLOCKAGE

PERFORATED PIPE INCORPORATED INTO BASE OF SWALE TO AID CONVEYANCE AND PROMOTE ATTENUATION ACROSS ENTIRE LENGTH OF SUDS FEATURE

FINAL OUTFALL RATE FOR DESIGN CRITICAL STORMS:
1st2year: 0.4%

FINAL OUTFALL RATE FOR DESIGN CRITICAL STORMS:
1st2year: 0.4%

Midway House

Pond

Pond

120100

18.3m

LB