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Flood Risk Assessment AEG11446_BN42_Southwick_01

Site Address: Greenways Care Home
6-8 Victoria Road
Southwick
West Sussex
BN42 4DH

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

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Document Issue Record

Project: Flood Risk Assessment

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Site Location: Greenways Care Home, 6-8 Victoria Road, Southwick, West Sussex, BN42 4DH

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Summary

Development Description	Existing	Proposed
Development Type	Care Home	Extension of the existing care facility to provide additional bedrooms and office space.
EA Vulnerability Classification	More Vulnerable	No Change
Ground Floor Level	Based on EA 1m LiDAR: Rear garden – circa. 2. 90m AOD Existing building – circa. 3.80m AOD Adjacent to Victoria Road – circa. 4.20m AOD	No change
Level of Sleeping Accommodation	4no. ground floor rooms	7no. ground floor bedrooms
Surface Water Drainage	Existing building is positively drained via rainwater downpipes.	Small increase in built footprint. Reuse existing sewer connections and discharge it via existing. Small-scale SuDS can be incorporated.
Site Size	Approximately 750m ²	No change
Risk to Development	Summary	Comment
EA Flood Zone	Flood Zone 1	Located within the 1in200+CC defended flood extents
Flood Source	Tidal/Pluvial	River Arun
SFRA Available	Adur and Worthing Level 1 Strategic Flood Risk Assessment (2024)	
Management Measures	Summary	Comment
Ground floor level above extreme flood levels	No	Given the nature of the development, it is not possible to raise finished floor levels above the 2126 1in200year flood level of 4.70m AOD

Safe Access/Egress Route	Yes	Extension of the existing site use. Site users would be located in an area outside of modelled tidal and pluvial flood extents after a short distance – the same as existing.
Flood Resilient Design	Yes	Flood resilience measures recommended.
Site Drainage Plan	Existing building is positively drained via rainwater downpipes.	Small increase in built footprint. Reuse existing sewer connections and discharge it via existing. Small-scale SuDS can be incorporated.
Flood Warning and Evacuation Plan	No	Monitor the Environment Agency and Met Office flood warning service.
Offsite Impacts	Summary	Comment
Displacement of floodwater	No	As per Paragraph 049 of the NPPG, the displacement of floodwater is not a concern where the risk of flooding is tidal
Increase in surface run-off generation	Negligible	Small increase in built footprint. Reuse existing sewer connections and discharge it via existing. Small-scale SuDS can be incorporated.
Impact on hydraulic performance of channels	None	No nearby channels

¹ not required for this assessment

² data not available.

1. Introduction

- 1.1. Aegaea were commissioned to undertake a Flood Risk Assessment (FRA) to facilitate a planning application for the proposed development. This FRA 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 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 Greenways Care Home, 6-8 Victoria Road, Southwick, West Sussex, BN42 4DH (Figure 1).

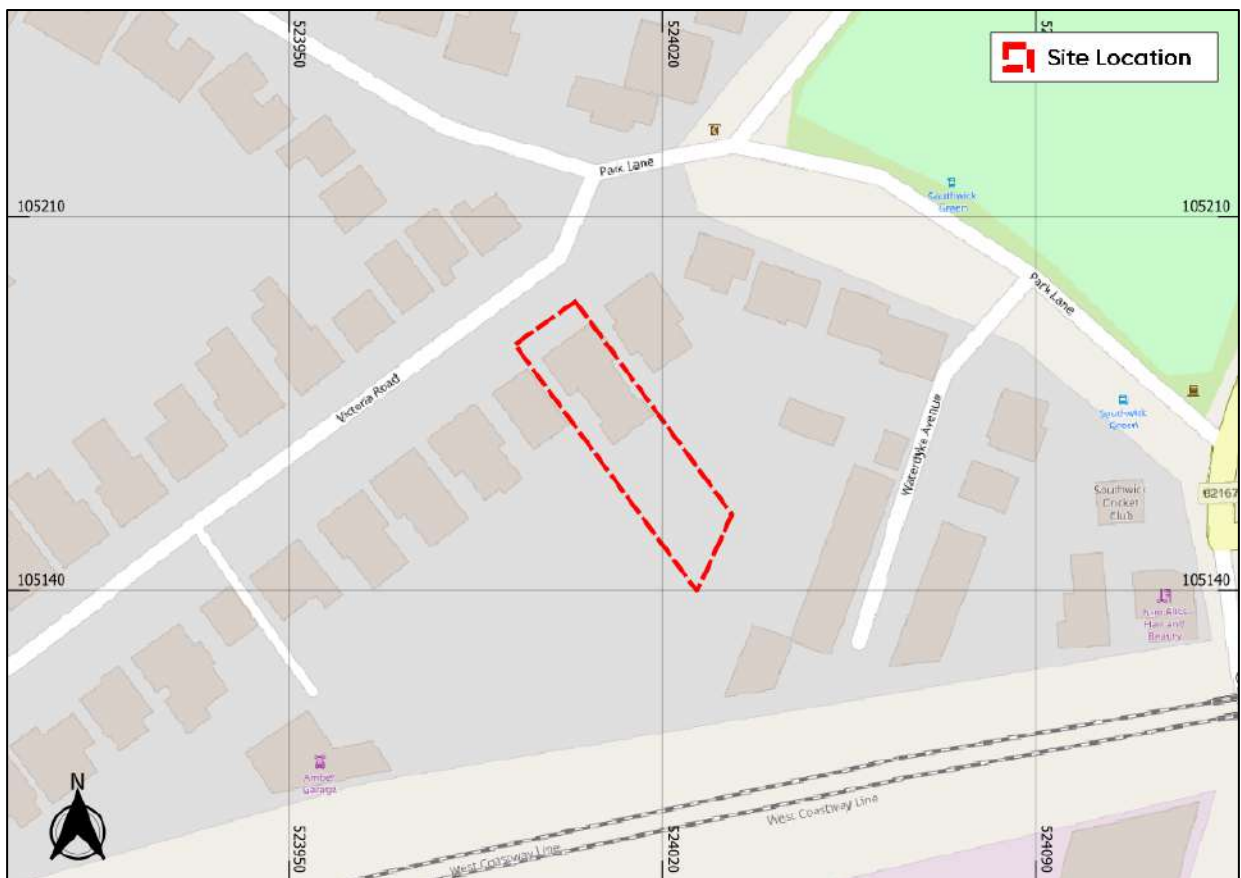


Figure 1: Site Location (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors)

- 1.4. The existing site consists of a building used as a care facility. It is understood that the proposed development is for the construction of a single storey rear extension to the existing care facility, providing 3 additional bedrooms and office space. The development proposals are included within Appendix A of this report.
- 1.5. In the absence of a topographical survey, Environment Agency (EA) Light Detection and Ranging (LiDAR) data Digital Terrain Model has been used to review the topography of the site. Analysis of this data shows that the area in the rear garden is topographically lower at approximately 2.90m AOD (Above Ordnance Datum) compared to the levels around the existing building which are at approximately 3.80m AOD and levels adjacent to Victoria Road are at approximately 4.20m AOD (Figure 2).

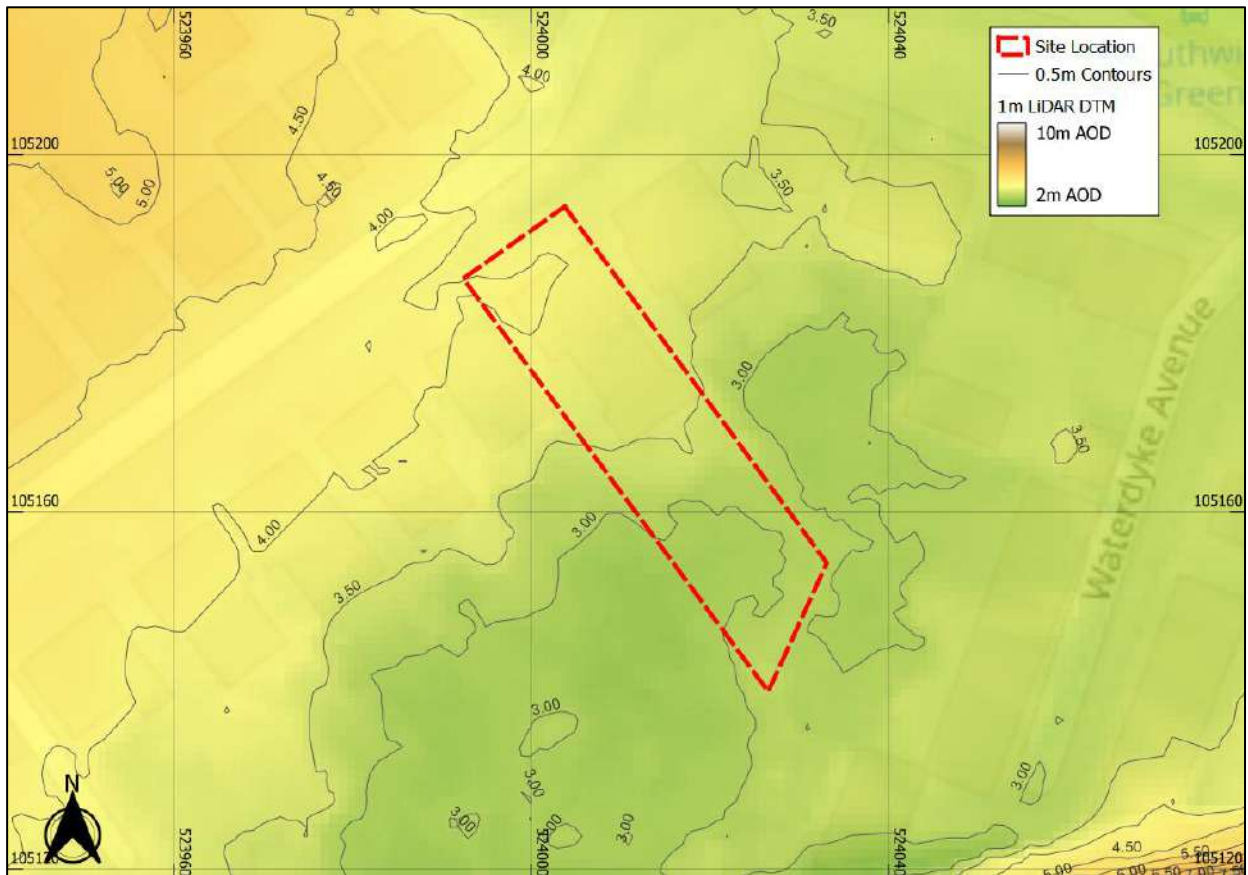


Figure 2: Site Topography (Contains OS data © Crown copyright and database rights 2026. Basemap © OpenStreetMap contributors and public sector information licensed under the Open Government Licence v3.0)

- 1.6. The Local Planning Authority (LPA) is Adur District Council. The Lead Local Flood Authority (LLFA) is West Sussex County Council, as confirmed by the Environment Agency in its data

response. The site falls within the Environment Agency's Solent and South Downs area, and within the Adur and Ouse management catchment of the South East River Basin District.

Planning Policy and Guidance

1.7. 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*

1.8. The site is located within Flood Zone 1, however is at risk of pluvial flooding and therefore an FRA is required to be submitted as per the NPPF.

1.9. 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, 2026) which includes UK Government policy on development and flood risk states:

F1: Assessing flood risk for plan-making

1. In order to manage development in ways which minimise the risk of flooding to people and property, development plans should:

a. Be informed by an up-to-date strategic flood risk assessment which considers current and future flood risk from all sources, including cumulative impacts in, or affecting, areas susceptible to flooding; and

b. Take account of advice from the Environment Agency and other relevant flood risk management authorities, such as Lead Local Flood Authorities and internal drainage boards, about levels of risk, options for mitigation, and the implications for development in the plan area.

F2: Planning for effective flood risk management

1. Development plans should take a risk-based approach when identifying suitable locations for development, taking into account all sources of flood risk and the current and future impacts of climate change. They should do this, and manage any residual risk, by:

² <https://www.gov.uk/guidance/national-planning-policy-framework>, last updated Aug 2026

- a. Applying the sequential test in policy F5 and, where relevant, policy F6;
- b. Safeguarding land that is, or is likely to be, required for current or future flood management;
- c. Using opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management); and
- d. Where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.

F4: Assessing flood risk for decision-making

1. To inform the assessment of flood risk and, where relevant, appropriate mitigation, a site specific flood risk assessment should accompany all development proposals in Flood Zones 2, 3a, and 3b as defined in Annex F, table 1.

2. In Flood Zone 1, a site-specific flood risk assessment should inform and accompany all development proposals involving:

- a. Sites of one hectare or more;
- b. Land which has been identified by the Environment Agency as having critical drainage problems; and
- c. Land identified in a strategic flood risk assessment or the Flood Map for Planning as being at risk of flooding from any source, whether now or in the future.

3. Site-specific flood risk assessments should be appropriate to the scale, nature, and location of development and should, where relevant, support an assessment of whether a development proposal satisfies the sequential and exception tests set out in policies F5 and F6.

F7: Ensuring development is safe from flooding

1. Development proposals should not present a risk from flooding to potential occupiers, users, or visitors, and should not increase flood risk elsewhere.

2. Where development is proposed in a location known to be at risk from any form of flooding, now or in the future, it should be refused unless:

- a. Within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons which justify a different arrangement;*
- b. The development will be safe throughout its lifetime taking account of the vulnerability of its users;*
- c. Any residual risk can be safely managed, and safe access and escape routes are included where appropriate, as part of an agreed emergency plan;*
- d. 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; and e. It can be demonstrated that flood risk will not be increased elsewhere.*

2.3. 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)

- 2.4. 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.
- 2.5. 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

- 2.6. The Local Plan prepared by the Local Planning Authority, Adur District Council, sets out the policies for development in the local area.
- 2.7. Policy 36.1, Flood Risk and Sustainable Drainage: Flood Risk, states:

The Council will work with relevant bodies to ensure that flood risk in Adur is reduced.

A site specific flood risk assessment must be submitted with planning applications for:

- *Proposals of 1 hectare or greater in Flood Zone 1*
- *All development or changes of use to a more vulnerable use in Flood Zones 2 and 3*
- *All development (excluding 'minor development' as defined in paragraph 046 of the National Planning Policy Framework Planning Practice Guidance) or changes of use to a more vulnerable use, regardless of flood zone or size, where flood risk from other sources (surface water, sewer, groundwater) is identified by the Strategic Flood Risk Assessment.*

The flood risk assessment will need to demonstrate that development:

- *is appropriately flood resilient and resistant, includes safe access and escape routes where required, and that any residual risk can be safely managed;*
- *will be safe for its lifetime taking account of the vulnerability of its users;*
- *will not increase flood risk (including sewer flooding, surface water and groundwater flood risk) elsewhere;*
- *will, where possible, reduce flood risk overall; and*
- *will give priority to the use of sustainable drainage systems.*

The flood risk assessment will also need to demonstrate that, where possible, higher vulnerability uses have been located on parts of the site at the lowest probability of flooding.

2.8. Policy 36.2, Flood Risk and Sustainable Drainage: Sustainable Drainage, states:

New development within Adur must include some form of Sustainable Drainage System (SuDS) or other appropriate design measures in order to reduce the risks of surface water flooding and to mitigate the risk of pollution to groundwater sources. SuDS should be considered before other forms of disposal.

Substantial storage through SuDS will be required to achieve a reduction in runoff to levels below that experienced prior to development. On relevant sites, storage of runoff during the high part of the tidal cycle should be addressed. SuDS must be designed sensitively and must seek to enhance landscapes, increase biodiversity gains, and provide quality spaces.

For all developments, applicants will be required to demonstrate that acceptable management arrangements are in place and funded to ensure the ongoing maintenance of SuDS into the future. Where it is not practical to provide SuDS on site, the development of strategic level SuDS may be considered appropriate. In these circumstances, contributions may be required through s106 undertakings/ CIL.

Sequential and Exception Tests

- 2.9. 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.
- 2.10. Under the NPPF all new planning applications should undergo a Sequential Test in accordance with Policy F2. This test should be implemented by local planning authorities with a view to take a risk-based approach when identifying suitable locations for development, taking into account all sources of flood risk and the current and future impacts of climate change.
- 2.11. Policy F5 (2) of the NPPF states:

*2. The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, **other than for:***

- a. Sites allocated in the development plan which were subject to the sequential test during plan preparation;*
- b. Sites where a site-specific flood risk assessment demonstrates clearly that:*

i. 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); or

ii. Where the site would be at risk of surface water flooding only, the proposed layout, design, and mitigation measures would ensure that occupiers and users would remain safe from current and future surface water flood risk for the lifetime of the development without increasing flood risk elsewhere in accordance with policy F7.

c. For the following types of development:

i. Householder development;

ii. Small non-residential extensions (with a footprint of less than 250m²); and

iii. Changes of use, other than changes of use to a caravan, camping or chalet site, or to a mobile home or park home site.

2.12. Furthermore, Policy F6 (2) of the NPPF states:

2. The application of the exception test should be informed by a site-specific flood risk assessment. The exception test does not need to be applied:

a. To those forms of development, or in those circumstances, where the sequential test is not required, as set out in policy F5; or

b. Where development is proposed on a site allocated in the development plan to which the exception test was applied at the plan-making stage, unless there has been a significant increase in the risk of flooding to the site subsequently, or the nature of the development itself has changed significantly from that which was allocated so as to introduce a more vulnerable use (having regard to Annex F, table 2).

2.13. Given the proposed development constitutes a 'minor development' (small non-residential extension with a footprint of less than 250m²) in terms of flood risk, neither the Sequential nor Exception Tests are applicable in this instance in accordance with Policy F5 (2) and F6 (2) of the NPPF.

3. Consultation and Review

Consultation

- 3.1. Aegaea have obtained a Product 4, 5 and 6 datasets from the Environment Agency (EA) for the Adur Coastal Model (2012). Aegaea have used these outputs including flood level, depth and hazard grids for a range of return periods and scenarios to inform this FRA.

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, 2026)
 - Planning Practice Guidance - Flood Risk and Coastal Change (Ministry of Housing, Communities and Local Government, 2022)
 - Geoindex Onshore (British Geological Survey, 2024)
 - Adur Local Plan (Adur District Council, 2017)³
 - West Sussex Preliminary Flood Risk Assessment (West Sussex County Council, 2011)⁴

³ <https://www.adur-worthing.gov.uk/adur-local-plan/>

⁴ https://www.westsussex.gov.uk/media/1626/west_sussex_pfra.pdf

- Adur and Worthing Level 1 Strategic Flood Risk Assessment (Adur and Worthing Council, 2024)⁵
- West Sussex Local Flood Risk Management Strategy (2013-2018) (West Sussex County Council, 2014)⁶

Preliminary Flood Risk Assessment (PFRA)

- 3.4. The PFRA, published in 2011 and 2017 (addendum), 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 2024, provides the evidence base for the Local Planning Authority Adur & Worthing 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 Adur and Worthing District Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

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.

⁵ <https://www.adur-worthing.gov.uk/media/Media,171789,smxx.pdf>

⁶ https://www.westsussex.gov.uk/media/1595/local_flood_risk_management_strategy.pdf

- 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

Tidal

- 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. 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.
- 4.3. The site is shown to be located wholly within Flood Zone 1 and outside of the climate change Flood Zones (Figure 3). Flood Zone 1 denotes a risk of flooding from fluvial and tidal sources less than 1 in 1000 (0.1%) annual probability.



Figure 3: EA Flood Map for Planning (Contains OS data © Crown copyright and database rights 2026. Basemap © OpenStreetMap contributors and public sector information licensed under the Open Government Licence v3.0)

- 4.4. The nearest mapped watercourse/waterbody is associated with Shoreham Harbour and the Southwick canal, approximately 270m to the south. The River Adur, classified as an EA Main River, lies approximately 650m to the southwest of the site at its closest proximity.
- 4.5. Based on the EA Historic Flood Map and Recorded Outlines, there is no history of flooding from fluvial or tidal sources on site or in the surrounding area (Figure 4).

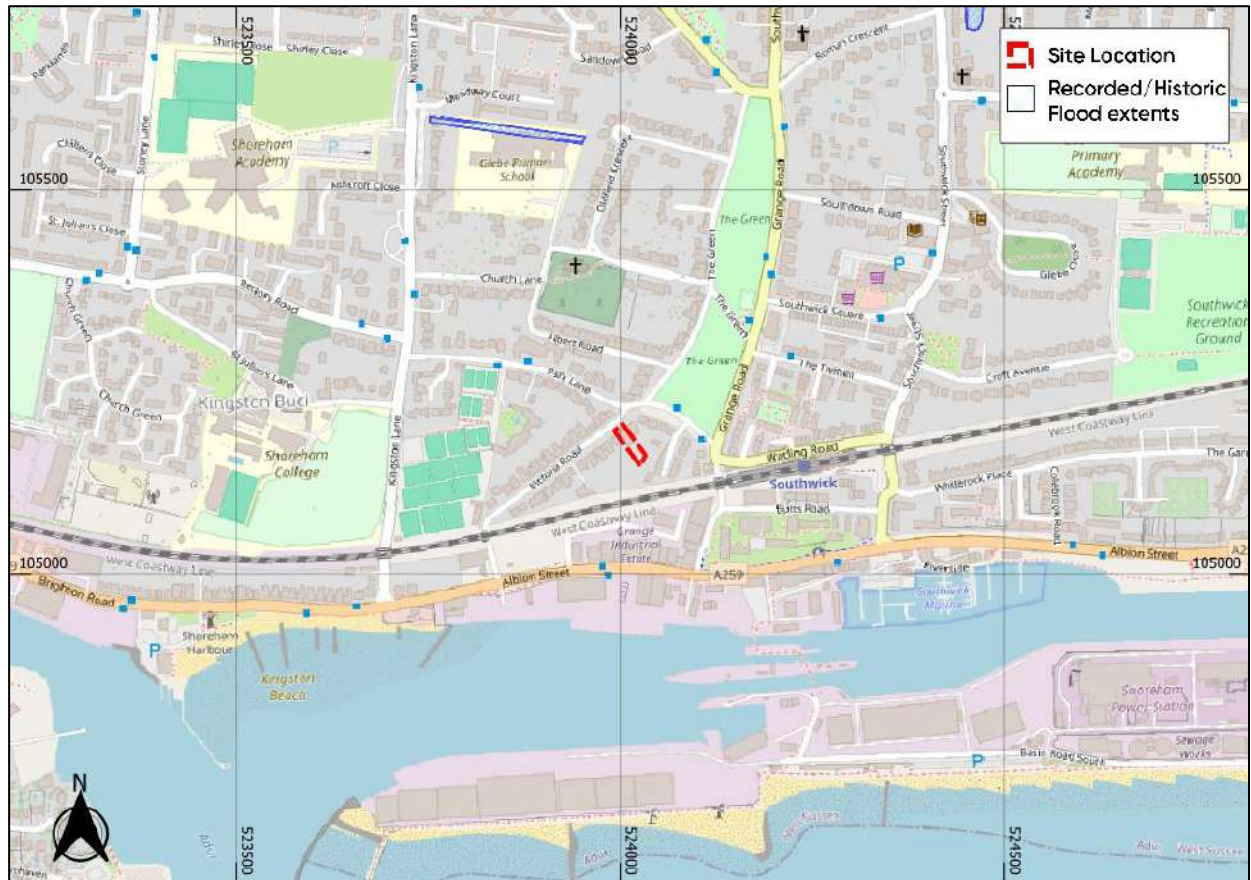


Figure 4: EA Historic Flood Mapping (Contains OS data © Crown copyright and database rights 2026. Basemap © OpenStreetMap contributors and public sector information licensed under the Open Government Licence v3.0)

- 4.6. The River Adur (and Southwick Canal) has significant flood defence infrastructure both upstream and downstream of the site. The flood management infrastructure includes a wall with a design standard of protection of 200 years. No crest levels, current condition or condition-adjusted standard of protection are recorded for these assets in either dataset

Arun to Adur Coastal Model (2012)

- 4.7. Aegaea have been provided with a Product 4, 5 and Product 6 (raw data) for this area by the Environment Agency which has been used to inform this FRA. This information is based on the

Arun to Adur Coastal Model, dated 2012. This is understood to be the best available information for this area.

4.8. Data provided in the product 6 is as follows:

- **With defences:** 20%, 5%, 1.33%, 0.5% and 0.1% AEP events. These scenarios have been modelled with wave overtopping inputs and based on present day climate conditions (2012).
- **No defences:** 20%, 5%, 1.33%, 0.5% and 0.1% AEP events. These scenarios are based on present day climate conditions (2012).
- **Climate change (defended and undefended):** The 0.5% AEP event was also simulated under climate conditions projected to the years 2070 and 2115. The 0.1% AEP event was simulated for climate change to the year 2115.

4.9. The analysis within the report focuses on the design (i.e. 1in200) defended present day and climate change scenarios; although it should be noted at this stage that the site is not affected in the present day defended 1in30 year defended extents from model outputs and thus the site is not considered to be in Flood Zone 3b.

Present Day - Tidal

4.10. Analysis of the modelled present day defended flood extents show that the site would remain unaffected by flooding (Figure 6).

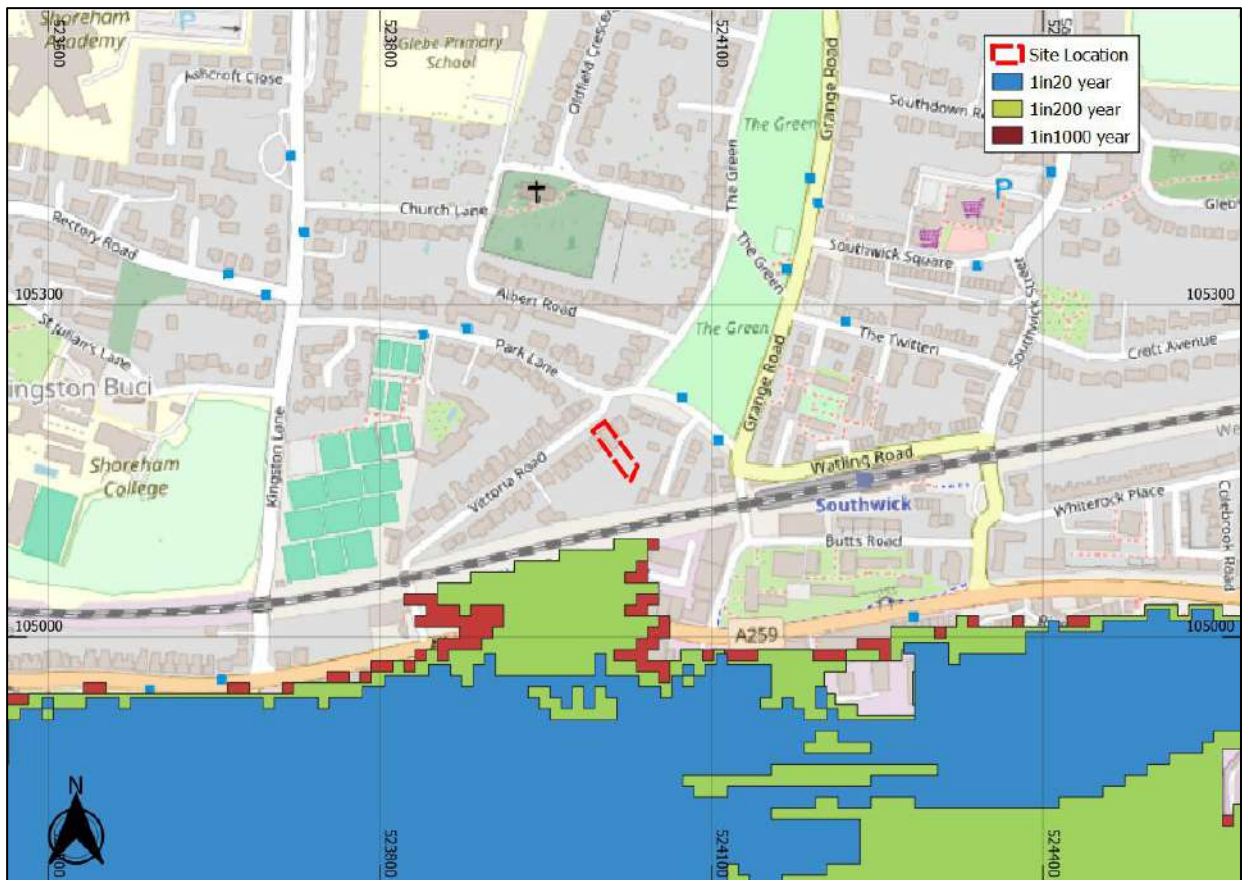


Figure 5: Present Day Defended Tidal Extent – Arun to Adur Coastal Model, 2012 (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). Contains public sector information licensed under the Open Government Licence v3.0)

Climate Change - Tidal

- 4.11. Tidal uplift values have been included within the Adur Intertidal Model (2012), these include 1in200 year and 1in1000 year scenarios. Sea level rise was based on estimates published by DEFRA (Flood and Coastal Defence Project Appraisal Guidance (FCDPAG3)) which have since been superseded.
- 4.12. The Environment Agency published (July 2021) its current climate change allowances (as referenced under the National Planning Practice Guidance (NPPG) – Flood risk and coastal change), based on the UKCP18 climate projections.
- 4.13. The UKCP18-based allowances project to 2100. To calculate epochs beyond 2100, the average incremental increase over the last five years of the dataset for the site location (2094 to 2099) under RCP8.5 was applied, multiplied by the required number of years after 2100.

- 4.14. The proposed development is considered to have a design life of 100 years from 2026, giving a design year of 2126. The Arun to Adur Coastal model provides sea level rise allowances up to the 2115 epoch.
- 4.15. Applying the 'southeast' higher central catchment rate of 0.0131m/year (13.1mm) for the eleven years between the 2115 model epoch and the 2126 development lifetime gives an additional allowance of 0.14m.
- 4.16. Analysis of the Adur to Arun coastal model climate change outputs show the site may be affected by flooding during the 1in200+CC (2115) event (Figure 6). The modelled flood level associated with this event is 4.56m AOD (Table 2). Comparison to topographic levels around the existing building (circa. 3.80m AOD) show the area near the building could experience approximately 0.76m of flooding.

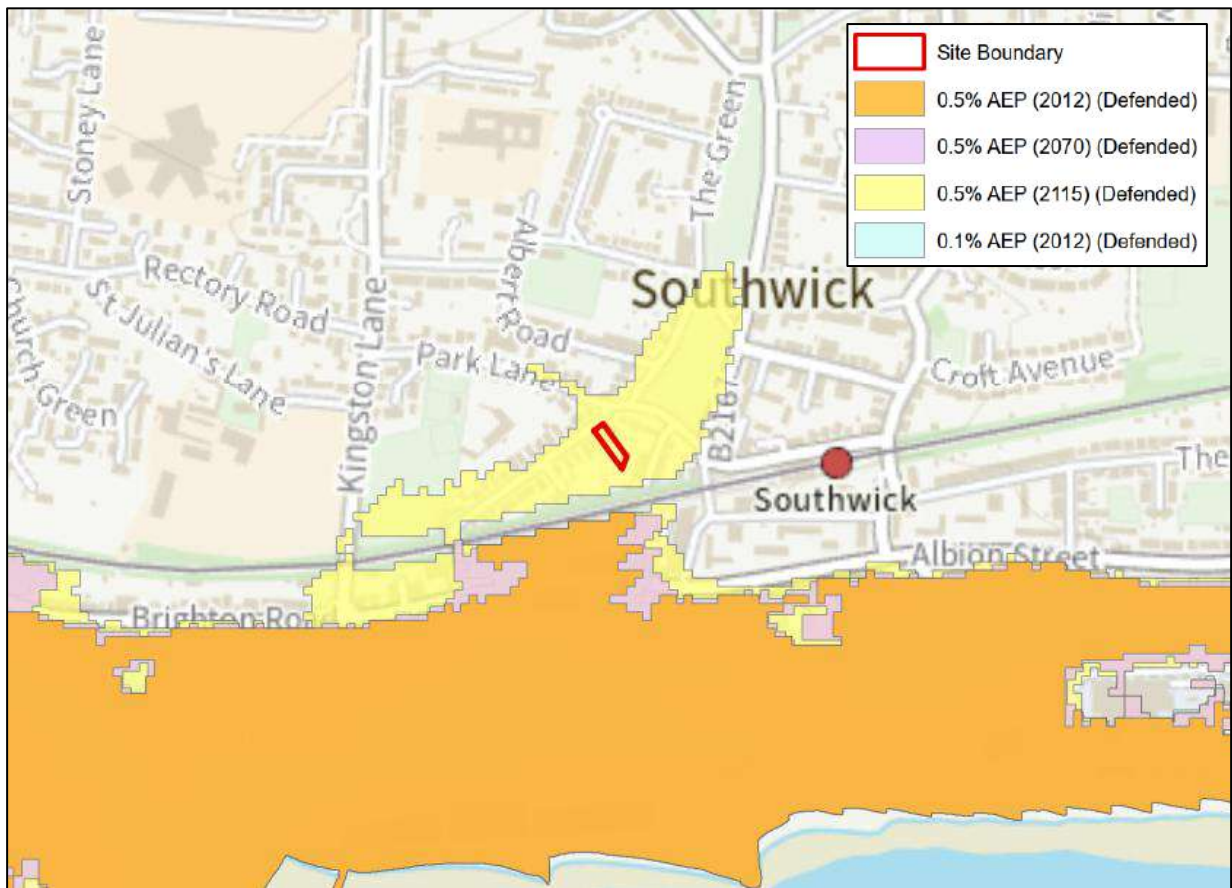


Figure 6: 1in200+CC Tidal Extent – Adur to Arun Coastal Model, 2012 (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). Contains public sector information licensed under the Open Government Licence v3.0)

- 4.17. When calculating the 2126 epoch flood level, applying the additional 0.14m of sea level rise, gives a design flood level of 4.70m AOD (Table 2). Comparison to topographic levels around

the existing building (circa. 3.80m AOD) show the site could experience approximately 0.90m of flooding.

Table 2: Derivation of the 0.5% AEP + CC (2126) design flood level

Scenario	Model Epoch	Flood Level (m AOD)
0.5% AEP (1 in 200 year) + CC - modelled	2115	4.56
Additional allowance (11 years @ 0.0131m/yr)	2115-2126	+0.14
0.5% AEP (1 in 200 year) + CC - derived	2126	4.70

- 4.18. Given the presence of significant flood defences infrastructure and the fact that site remains unaffected by flooding during the tidal present-day scenarios, if the current flood defence infrastructure is maintained and upgraded in the future (to retain its current 200 year standard of protection) then it is anticipated that the site will likely continue to remain at low risk of flooding.
- 4.19. Based on the analysis above, the site can be considered to be at low risk of flooding from present day tidal scenarios. When climate change is accounted for, the risk of flooding can be considered to be moderate for tidal sources.

Canals

- 4.20. 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.
- 4.21. Flooding can also occur where a canal is impounded above surrounded ground levels, and the retaining structure fails.
- 4.22. The nearest canal features are the impounded basins and locks of Shoreham Harbour, comprising the Southwick Canal approximately 270m to the south. The canal forms part of the tidal harbour and any risk associated with this area has already been assessed within the tidal section of this report.
- 4.23. The risk of flooding to this site from canals is considered to be low.

Pluvial

- 4.24. 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.
- 4.25. The EA Flood Map for Planning Service in relation to Surface Water was published in May 2026. The Surface Water Spatial Planning Extents and Depths have been used within this FRA to assess the surface water flood risk to the site and proposed development.
- 4.26. These datasets show the extent of land at risk of flooding from surface water to a defined annual exceedance probability (AEP) or chance of flooding each year, taking into account the possible effects of climate change. These datasets include the following scenarios:
- 0.1% AEP (1 in 1000)
 - 1% AEP (1 in 100)
 - 3.3% AEP (1 in 30)
- 4.27. Alongside the following depth bands:
- Up to 150mm; 150 – 300mm; 300 – 600mm; 600 – 900mm; 900 – 1200mm; 1200 – 2300mm; Over 2300mm.
- 4.28. Alongside the present day scenarios, 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. The 'Upper End' for the 2070s epoch (2061-2125) has been used for the climate change scenarios. The long-term epochs are appropriate to support long-term planning and development decisions.
- 4.29. 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.

Flood Extents - Climate Change (2070's Epoch)

- 4.30. Examination of the EA's Surface Water Spatial Planning Climate Change dataset shows that the majority of the redline boundary is located within the 1in30+CC year extents. There is a small area adjacent to Victoria Road located within the 1in100+CC year extents only (Figure 7).

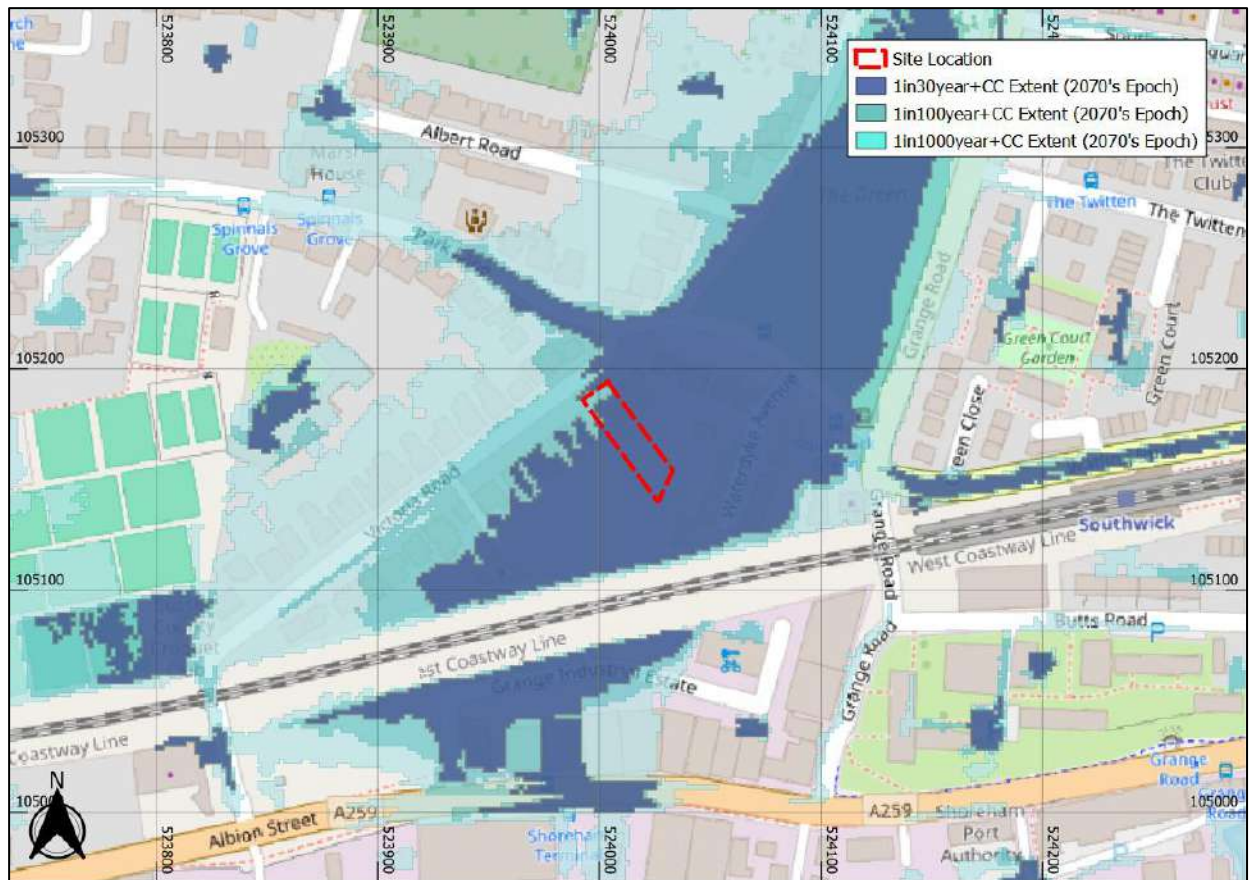


Figure 7: EA Surface Water Spatial Planning – Climate Change 30-, 100-and 1000-year Extents (Contains OS data © Crown copyright and database rights 2026. Basemap © OpenStreetMap contributors and public sector information licensed under the Open Government Licence v3.0)

Flood Depths - Climate Change (2070's Epoch)

- 4.31. Analysis within this section focuses the 'design' event for pluvial flooding, which is considered to be the 100 year plus climate change (i.e. 2070's epoch) scenario.
- 4.32. Examination of the EA's Surface Water Spatial Planning Climate Change Depth dataset (Figure 8) shows that the topographically lower rear garden may experience higher flood depths compared to the location of the existing building and areas adjacent to Victoria Road. The rear garden could experience depths of between 1200mm to 2300mm, the area around the existing building could experience depths of between 600mm to 900mm and the area adjacent to Victoria Road could experience depths of between 300mm to 600mm.

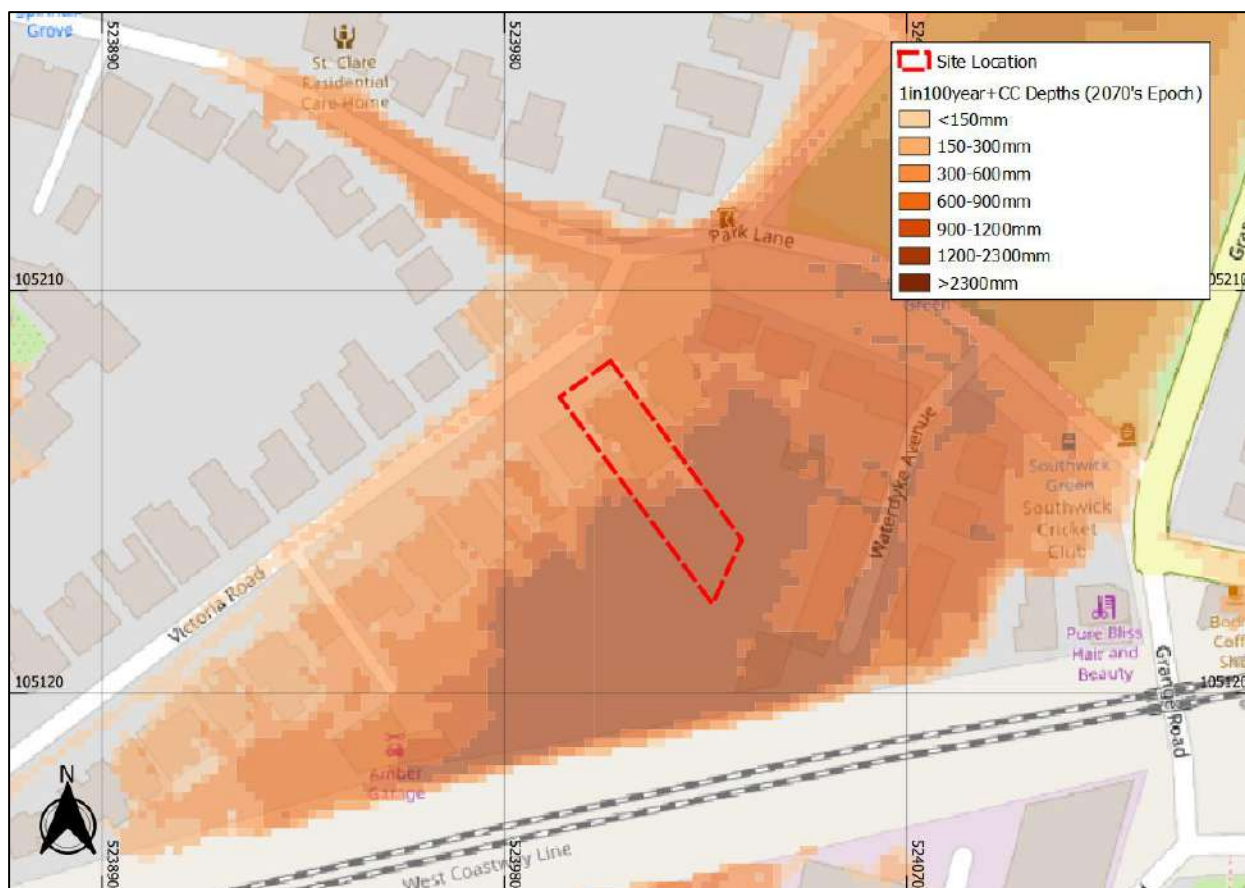


Figure 8: EA Surface Water Spatial Planning 100-year Climate Change Depth (Contains OS data © Crown copyright and database rights 2026. Basemap © OpenStreetMap contributors and public sector information licensed under the Open Government Licence v3.0)

- 4.33. The SFRA (2024) states that there are several areas across Adur District and Worthing Borough that are more sensitive to climate change, where the predicted flood depths and extents increase more notably once rainfall intensities have been uplifted. This includes Victoria Road in Southwick:

Mapping shows there is a large area of surface water ponding in the area around Southwick Green. There are also smaller areas of ponding north of the railway line in the west of the ward and north of Albion Street. In all these locations there is a relatively large area of land predicted to be at the highest risk of surface water flooding.

- 4.34. Based on the analysis, the site is considered to be at high risk of flooding from pluvial sources.

Reservoirs

- 4.35. 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.
- 4.36. According to the EA's Flood Risk from Reservoirs mapping the site is not at risk of flooding in the event of a reservoir breach (Figure 9).

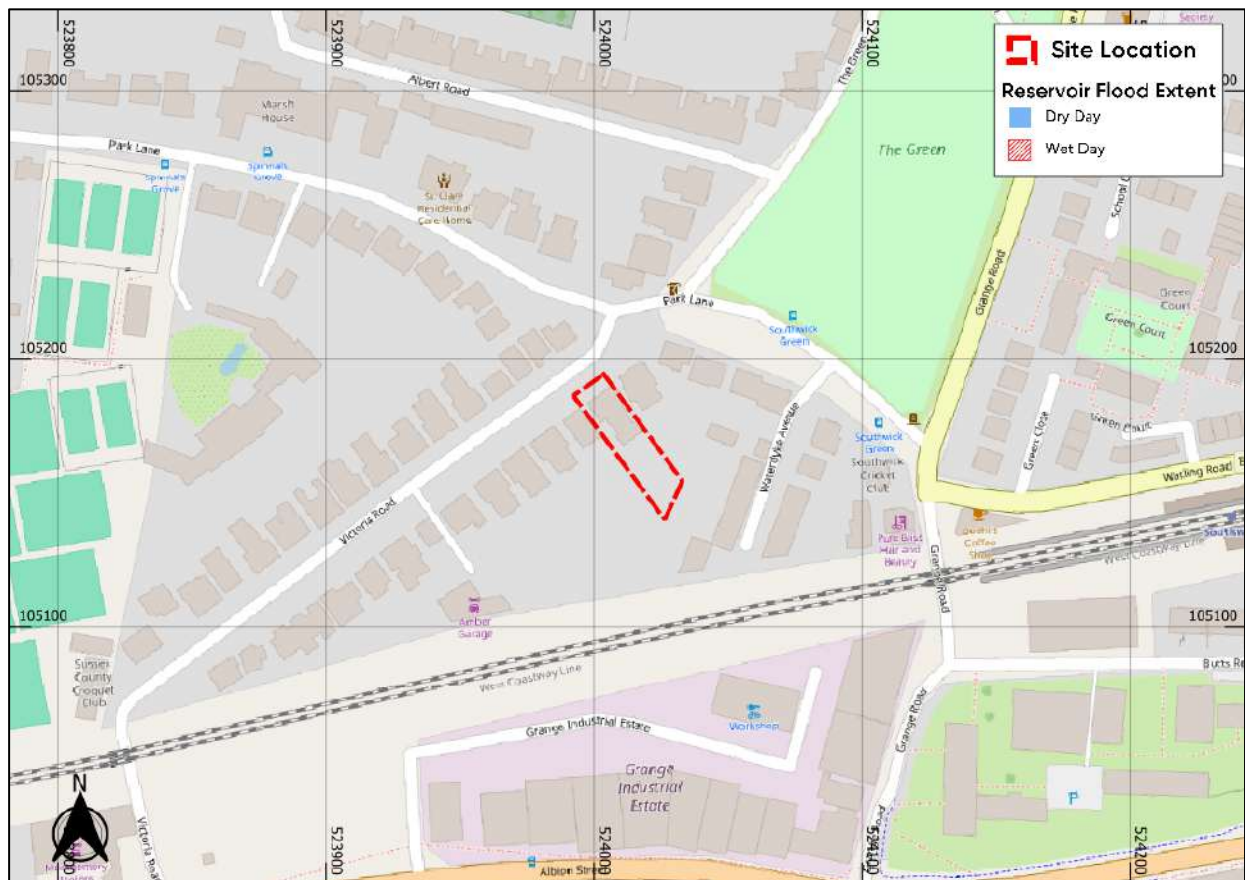


Figure 9: EA Reservoir Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA).
 ©<https://www.openstreetmap.org> and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

- 4.37. All large reservoirs must be inspected and supervised by reservoir panel engineers as detailed by the Reservoirs Act 1975 in England and Wales. The EA are responsible to ensure that reservoirs are regularly inspected, and essential safety work carried out. As reservoirs are highly managed the maximum flood extent provided in the EA Risk of Flooding from Reservoirs mapping is considered a worst-case scenario.

- 4.38. Given the site is not within the reservoir breach mapping, flooding from this source may be considered as a relatively low risk.

Groundwater

- 4.39. Groundwater flooding occurs in areas where underlying geology is permeable and water can rise within the strata sufficiently to breach the surface.
- 4.40. The British Geological Survey's (BGS) mapping shows superficial deposits of Head consisting of clay, silt, sand and gravel. The underlying bedrock geology is classified as the Tarrant Chalk Member consisting of chalk.
- 4.41. Head deposits are commonly found on valley sides and at the base of slopes, having formed from periglacial and slope processes reworking weathered bedrock or older superficial material downhill. This means head deposits are often hydraulically discontinuous, with groundwater behaviour governed more by local slope drainage and interflow than by connection to a nearby watercourse. When heavy rainfall occurs, infiltration and lateral throughflow within the head can cause perched water tables to build up, emerging at the surface as seepages or springs partway down the slope.
- 4.42. The SFRA presents the JBA Groundwater Flooding mapping, which assesses the future risk of groundwater flooding. The Groundwater Flood Map is a national scale 5m resolution map. The modelling involves simulating groundwater levels for a range of return periods (including 75, 100 and 200-years). Groundwater levels are then compared to ground surface levels to determine the head difference in metres. The JBA Groundwater Map categorises the head difference (m) into five feature classes based on the 100-year model outputs.
- 4.43. The site is located in an area classified as 'Groundwater levels are between 0.5m and 5m below the ground surface' (Figure 10). The SFRA states that within this zone there is a risk of flooding to subsurface assets, but surface manifestation of groundwater is unlikely.

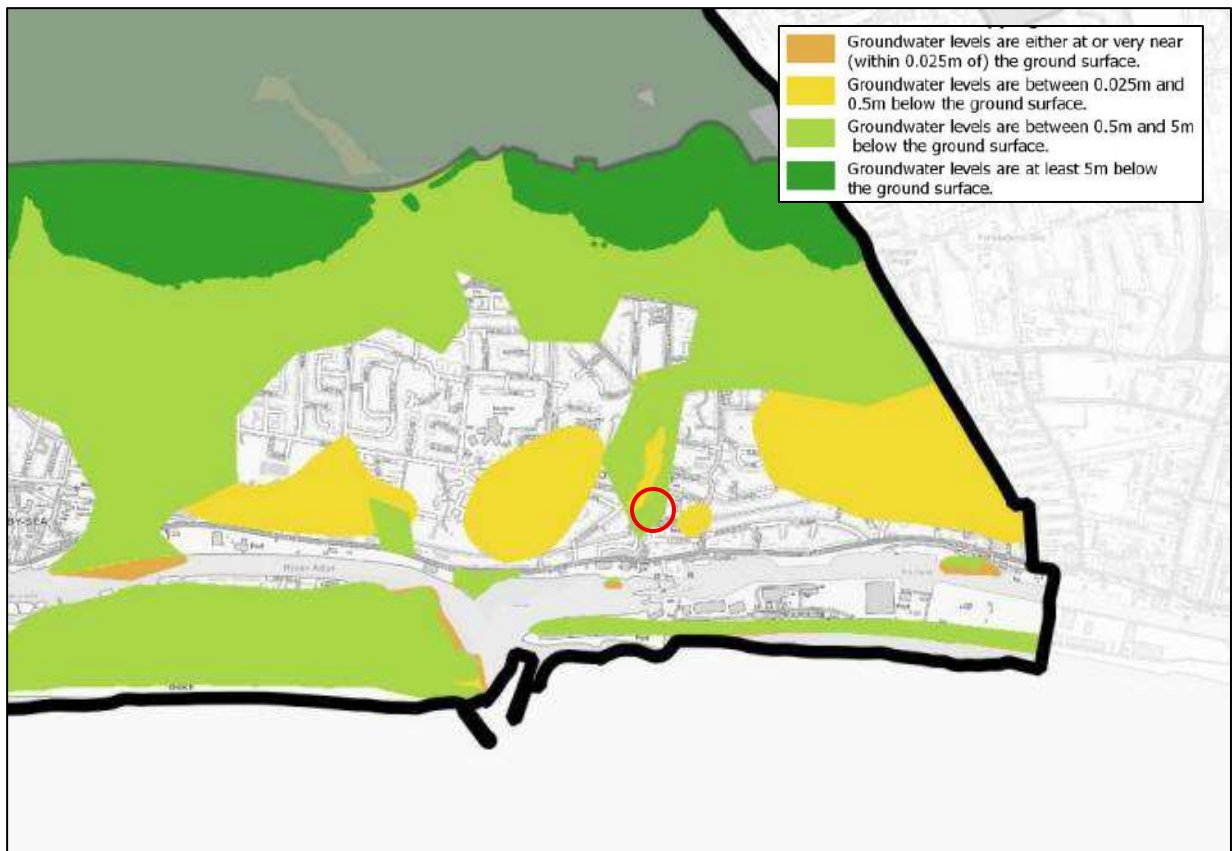


Figure 10: Groundwater Mapping (SFRA, 2024)

- 4.44. The SFRA (2024) also present Tidal Drainage Risk Zones and Groundwater Risk Zones which were derived to understand how increases in tidal levels associated with climate change may impact groundwater.
- 4.45. The site is located within tidal risk groundwater zone 'GW2'. This zone is defined as having a groundwater level more than 0.5m below the surface and region is below the present-day tidal level or a groundwater level between 0.025m and 0.5 below the surface and region is above the current tidal level but below the future tidal level.
- 4.46. As the development proposals do not include any proposed basements the risk from groundwater to the development is considered to be low.

Sewers

- 4.47. 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.

- 4.48. The SFRA states that historical incidents of flooding are detailed by Southern Water through their Sewer Incident Report Form (SIRF) Data. This database records incidents of flooding relating to public foul, combined or surface water sewers and displays which properties suffered flooding. For confidentiality reasons, this data has been supplied on a postcode basis from the SIRF hydraulic overload database for incidents recorded in Adur District and Worthing Borough. The events included are limited to those that are linked to capacity issues.
- 4.49. Based on the SFRA historic flood map, neither the site nor the surrounding area has been previously affected by flooding from this source.
- 4.50. Therefore, the site can be considered to be at low risk of flooding from this source.

5. Flood Risk Mitigation

Pluvial/Tidal

- 5.1. The site is located within Flood Zone 1. However, has shown to be located within the tidal climate change flood extents. The 1in200+CC (2126) flood level was calculated to be 4.70m AOD. Comparison to topographic levels around the existing building (circa. 3.80m AOD) show the site could experience approximately 0.90m of flooding.
- 5.2. Given the presence of significant flood defences infrastructure and the fact that site remains unaffected by flooding during the tidal present day scenarios, if the current flood defence infrastructure is maintained and upgraded in the future (to retain its current 200 year standard of protection) then it is anticipated that the site will likely continue to remain at low risk of flooding.
- 5.3. Examination of the EA's Surface Water Spatial Planning Climate Change Depth dataset shows that the topographically lower rear garden may experience higher flood depths compared to the location of the existing building and areas adjacent to Victoria Road. The rear garden could experience depths of between 1200mm to 2300mm and the area around the existing building could experience depths of between 600mm to 900mm.
- 5.4. The proposal is an extension to an existing care facility. The extension provides bedrooms and office space that must be reached at the same level as the existing ground floor. The occupants are residents of a residential care home whose mobility may be limited. Introducing a level change in excess of 1m between the existing building and the new bedrooms would make the accommodation inaccessible to the people it is intended to serve and would conflict with the accessibility requirements applying to a care facility.
- 5.5. Instead, in accordance with policy F7(2d) of the NPPF, the shortfall is instead managed by making the development appropriately flood resistant and resilient, together with refuge and evacuation measures provided in accordance with an agreed emergency plan under policy F7(2c). Therefore, it is recommended that standard waterproofing measures should be adopted in accordance with CLG Report *Improving the Flood Performance of New Buildings Flood*

*Resilient Construction (2007)*⁷ (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:

- Solid (i.e. concrete) floor. This form of construction is effective at resisting forces generated by floodwater and will provide an adequate barrier to water ingress (provided service ducts and other openings into the building are adequately sealed).
- Damp Proof Membranes (d.p.m.) should be included in any design to minimise the passage of water through ground floors. 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).
- Internal access from the ground floor to the upper floors of the building to be maintained for the lifetime.
- Windows and patio doors are vulnerable to flood water and similar measures to those used for doors should be taken. Special care should be taken to ensure adequate sealing of any PVC window/door sills to the fabric of the house. Specifically, waterproof seals on windows/doors are recommended.
- Incorporating non-return valves to prevent surcharge flooding from the sewer system during intense storm events.
- 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 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).

Fluvial, Canal, Reservoirs, Groundwater and Sewers

- 5.6. Flood risk from other analysed flood sources is considered to be low, therefore mitigation is not required.

⁷ https://assets.publishing.service.gov.uk/media/602d673ee90e0709e8d085d8/Improving_the_Flood_Resilience_of_Buildings_Through_Improved_Materials_Methods_and_Details_Technical_Report.pdf

Increase to Flood Risk Elsewhere

- 5.7. Paragraph 049 of the NPPG states:

The loss of floodplain storage is less likely to be a concern in areas benefitting from appropriate flood risk management infrastructure or where the source of flood risk is solely tidal.

- 5.8. Given the presence of significant flood defence infrastructure and the fact that the risk is solely tidal, there is no requirement to provide any additional flood compensatory storage.

EA Flood Warnings

- 5.9. Given the sites location within Flood Zone 1, it is not currently within a flood warning service area. This means that occupants cannot sign up to this service to automatically receive alerts. However, management staff can still manually monitor warnings covering the adjacent Shoreham Harbour area for awareness.
- 5.10. Flood warnings/alerts can be enforced at any time of the day or night. Signing up for this service provides site owners some notice before a flood event. The amount of time afforded before a flood occurs depends on the site-specific location (e.g. proximity to the source of flooding, topography of the surrounding area) and the flood mechanism (e.g. bank over topping versus a breach event). Flood alerts and warnings provide site managers with time to take necessary action, e.g. communication of the risk of flooding to occupants/employees etc, evacuation of occupants offsite or to a safe level, removal of valuable items out of reach of flooding and the mounting of site-specific flood defences.

Met Office Warnings

- 5.11. The analysis within the report has shown that the site is at risk from surface water flooding. 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.
- 5.12. During periods of bad weather, occupants 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.

6. Conclusions

- 6.1. This FRA has been undertaken with reference to the requirements of NPPF and Planning Practice Guidance with respect to the development at Greenways Care Home, 6-8 Victoria Road, Southwick BN42 4DH. 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.
- 6.2. The site lies within Flood Zone 1 and the proposal is considered More Vulnerable (extension of the existing site use), which is appropriate in that zone under Annex 3 of the NPPF. The proposal is minor development in Flood Zone 1 and is not subject to the Sequential or Exception Tests. 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
Tidal	The site is located within Flood Zone 1. Analysis of the modelled present day defended flood extents show that the site would remain unaffected by flooding However, has shown to be located within the tidal climate change flood extents. The 1in200+CC (2126) flood level was calculated to be 4.70m AOD. Comparison to topographic levels around the existing building (circa. 3.80m AOD) show the site could experience approximately 0.90m of flooding. Given the presence of significant flood defences infrastructure and the fact that site remains unaffected by flooding during the tidal present day scenarios, if the current flood defence infrastructure is maintained and upgraded in the future (to retain its current 200 year standard of protection) then it is anticipated that the site will likely continue to remain at low risk of flooding.
Pluvial	Examination of the EA's Surface Water Spatial Planning Climate Change dataset shows that the majority of the redline boundary is located within the 1in30+CC year extents. There is a small area adjacent to Victoria Road located within the 1in100+CC year extents An assessment of the EA's Surface Water Spatial Planning Climate Change Depth dataset shows that the topographically lower rear garden may experience higher flood depths compared to the location of the existing building and areas adjacent

	to Victoria Road. The rear garden could experience depths of between 1200mm to 2300mm, the area around the existing building could experience depths of between 600mm to 900mm and the area adjacent to Victoria Road could experience depths of between 300mm to 600mm. Based on the analysis, the site is considered to be at high risk of flooding from pluvial sources.
Fluvial Reservoirs Groundwater Sewers Canals	The site is considered to be at low risk from other sources.

- 6.3. The FRA 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.
- 6.4. This Flood Risk Assessment should be submitted as part of the planning application to satisfy the requirements under NPPF.

Appendix A - Development Proposals

Location Plan - 1-1250 - Extension



Client - Bijo Joseph

Address - Greenways Care Home,
6-8 Victoria Road,
Southwick,
BN42 4DH



Planning Drawings

1. All Dimensions in Millimetres Unless Otherwise Stated
2. New Roof Tiles to match existing in type, colour & face
3. New facing brickwork to match existing
4. The requirements of the party wall act should be observed
- finished floor levels to match existing
- 5.No part of the existing extension, including Foundations and gutters, should encroach the property boundary

Existing Layout

Scale 1 : 100

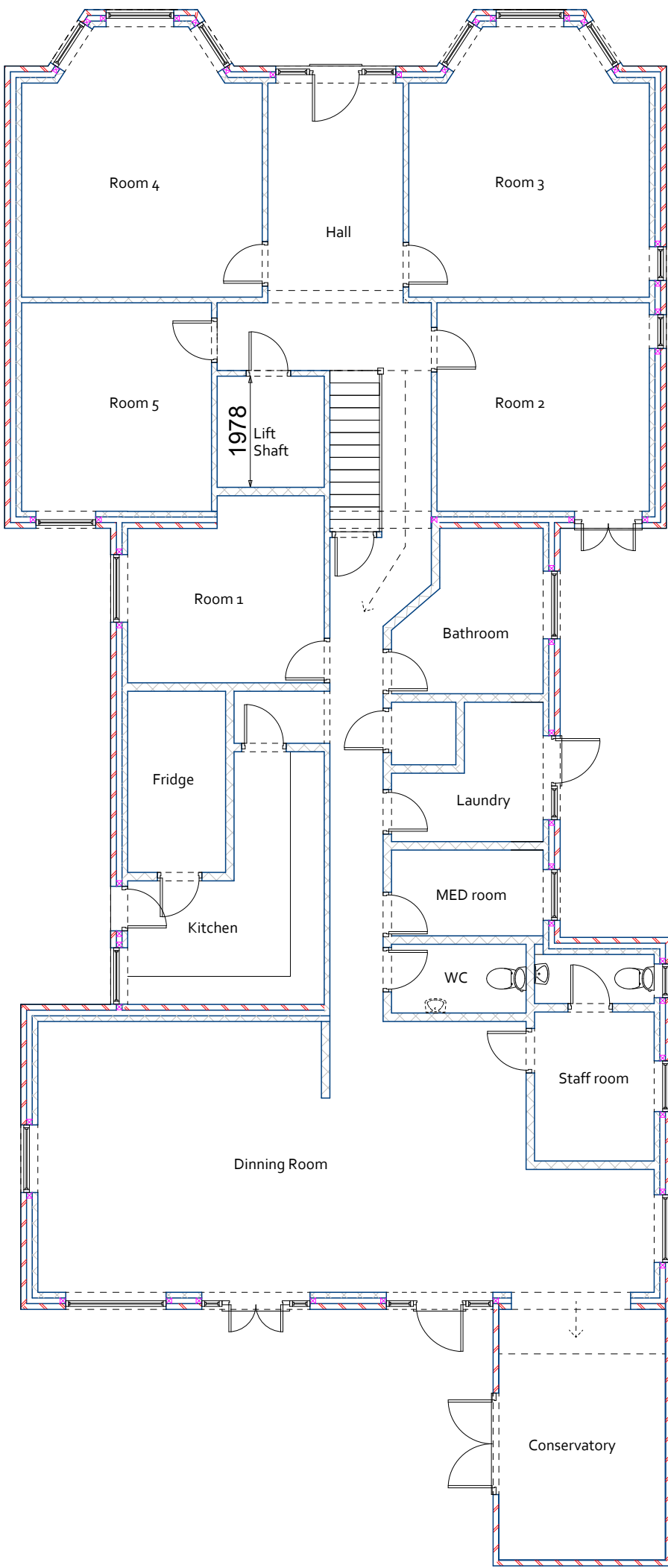
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Existing Layout

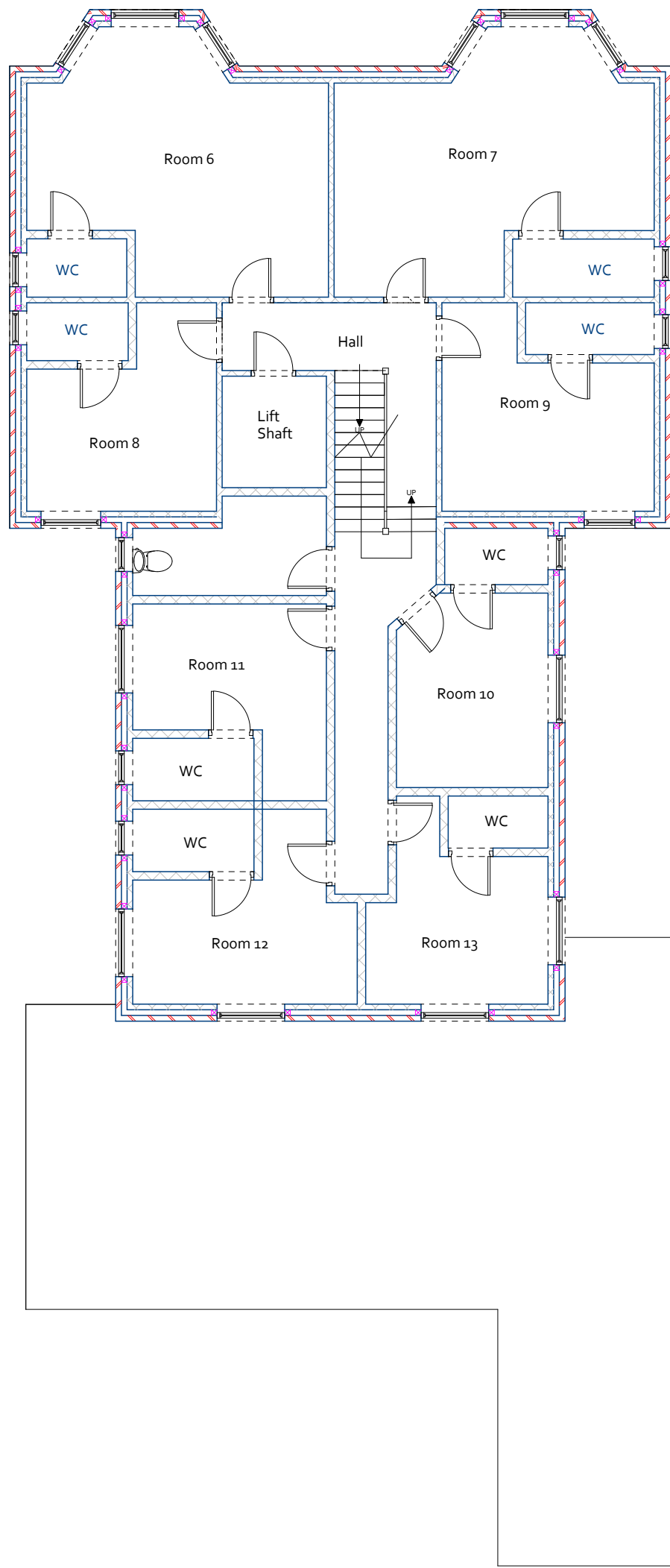
Scale 1 : 100

2000mm

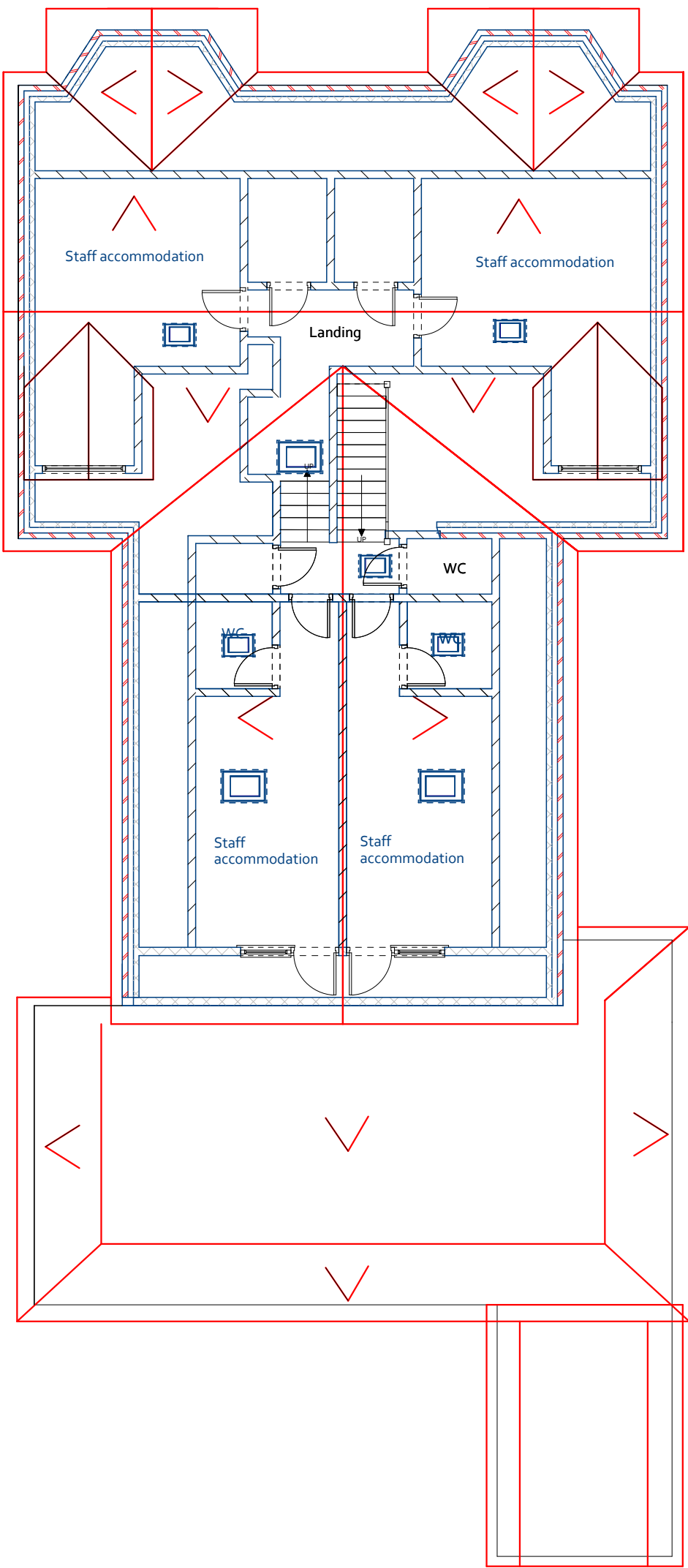
Ground floor



First floor



Third floor and roof line



THIS IS NOT A WORKING DRAWING.

The information provided is either for client information, planning consideration or shows compliance under the building regulations. It does not purport to provide all the information necessary to carry out construction works and could be subject to variation in detail.

ALL MEASUREMENTS TO BE CHECKED ON SITE NOTE. FITMENT SUPPLIERS SHOULD TAKE SITE MEASUREMENTS

Prior to commencement of work on site, dimensions and particulars should be checked and any discrepancies reported immediately to Jones projects Architectural **DO NOT SCALE.**

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Client - Bijo Joseph

Address - Greenways Care Home,
6-8 Victoria Road,
Southwick,
BN42 4DH

Page Size - A1



Planning Drawings

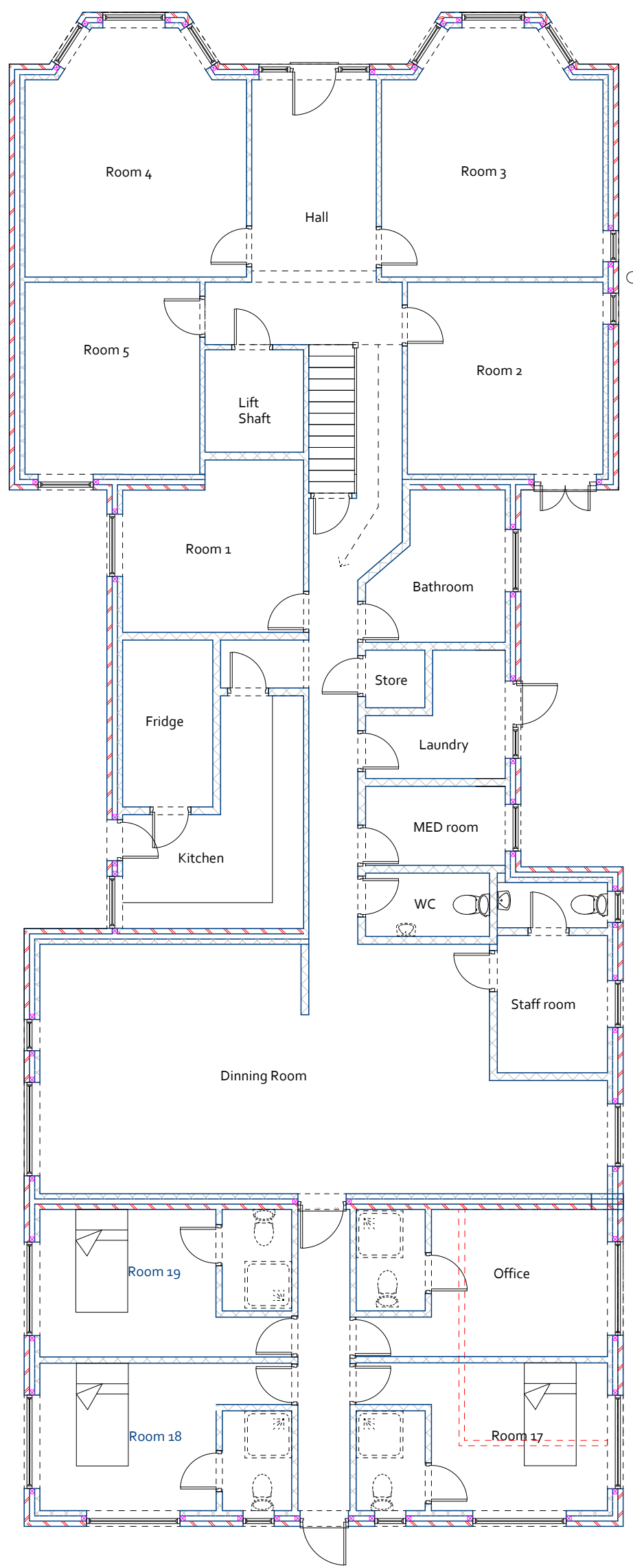
- 1. All Dimensions In Millimetres Unless Otherwise Stated
- 2. New Roof Tiles to match existing in type ,colour & face
- 3. New facing brickwork to match existing
- 4. The requirements of the party wall act should be observed
- 5.No part of the existing extension ,including Foundations and gutters, should encroach the property boundary

Proposed Layout

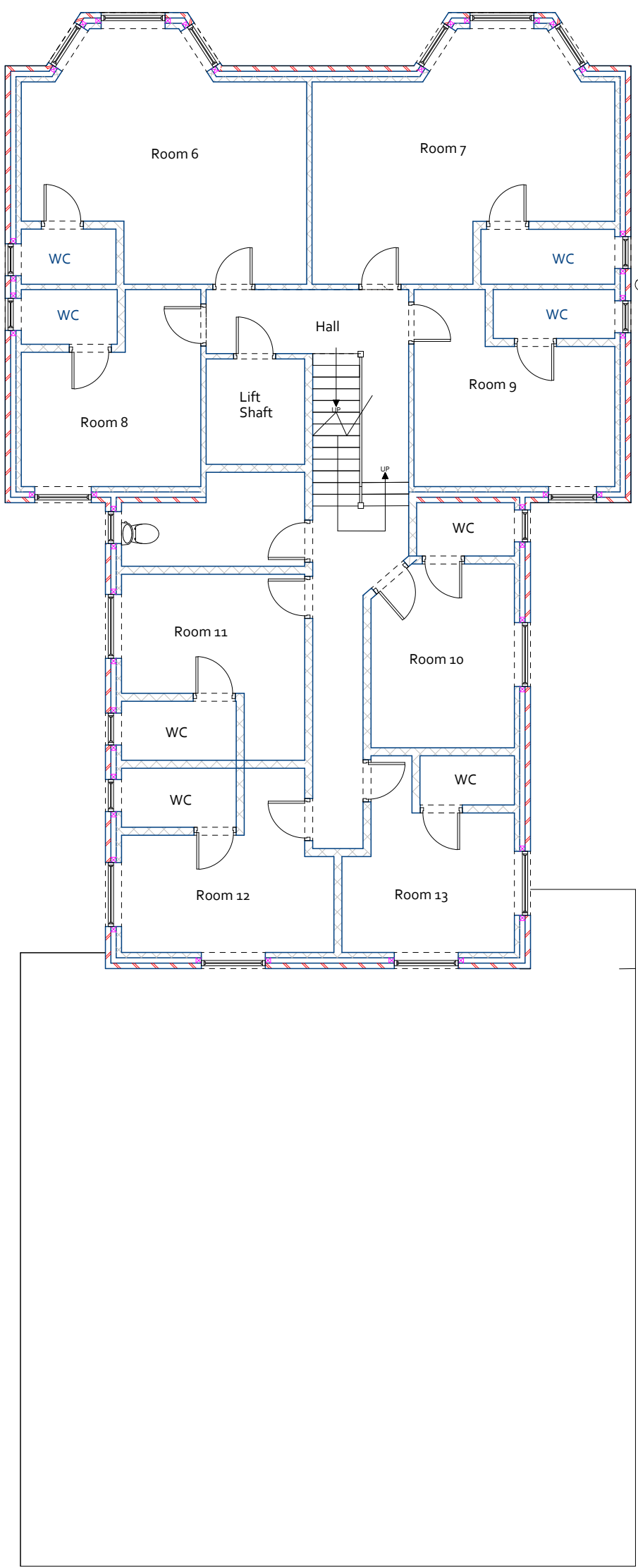
Scale 1 : 100

2000mm

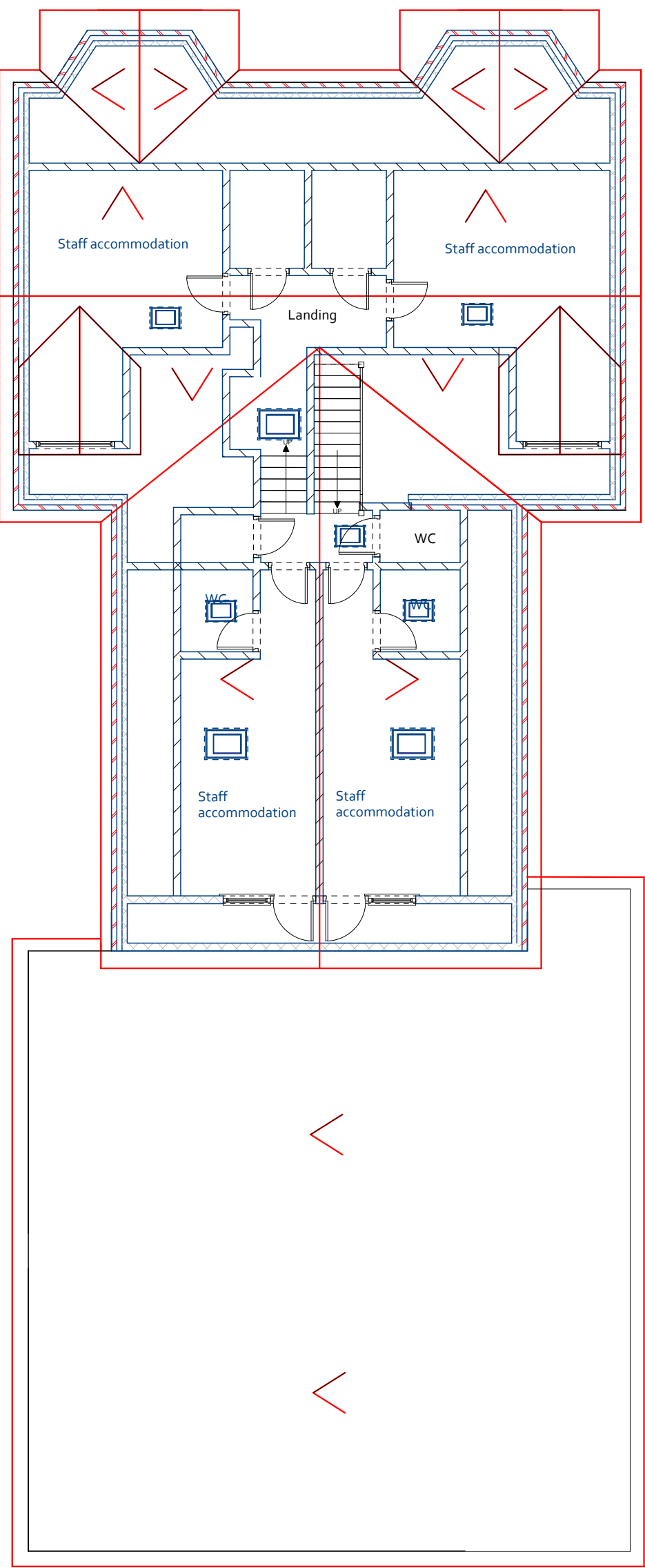
Ground floor



First floor



Third floor and roof line



Photographic Survey



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Client - Bijo Joseph

Address - Greenways Care Home,
6-8 Victoria Road,
Southwick,
BN42 4DH

Page Size - A1

2000mm



Appendix B - EA P4

Flood risk assessment data



Location of site: 524014 / 105169 (shown as easting and northing coordinates)

Document created on: 15 July 2026

This information was previously known as a product 4.

Customer reference number: EIR2026/33741

Map showing the location that flood risk assessment data has been requested for.



How to use this information

You can use this information as part of a flood risk assessment for a planning application. To do this, you should include it in the appendix of your flood risk assessment.

We recommend that you work with a flood risk consultant to get your flood risk assessment.

Included in this document

In this document you'll find:

- how to find information about other sources of flooding
- information on the models used
- definitions for the terminology used throughout
- flood map for planning (rivers and the sea)
- flood defence locations and attributes
- information to help you assess if there is a reduced flood risk from rivers and the sea because of defences
- modelled data
- modelled climate change data
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

Information that's unavailable

This document **does not** contain:

- past floods

We do not have past flooding data for this location.

Please note that:

- flooding may have occurred that we do not have records for
- flooding can come from a range of different sources
- we can only supply flood risk data relating to flooding from rivers or the sea

You can contact your Lead Local Flood Authority or Internal Drainage Board to see if they have other relevant local flood information. Please note that some areas do not have an Internal Drainage Board.

Other sources of flooding

To find out about other factors that might affect the flood risk of this location, you should check:

- [reservoir flood risk](#)
- groundwater flood risk - you could use the [British Geological Survey groundwater flooding data](#), [groundwater: current status and flood risk](#) and the guide on [mining and groundwater constraints for development](#) - further information may be available from the lead local flood authority (LLFA)
- your local planning authority's strategic flood risk assessment (SFRA), which includes future flood risk

Your lead local flood authority is West Sussex County.

For information about sewer flooding, contact the relevant water company for the area.

About the models used

Model name: Adur Coastal Model, 2012

Scenario(s): Defended tidal, defences removed tidal, defended climate change tidal, defences removed climate change tidal

Date: 20 August 2012

This model contains the most relevant data for your area of interest.

Terminology used

Annual exceedance probability (AEP)

This refers to the probability of a flood event occurring in any year. The probability is expressed as a percentage. For example, a large flood which is calculated to have a 1% chance of occurring in any one year, is described as 1% AEP.

Metres above ordnance datum (mAOD)

All flood levels are given in metres above ordnance datum which is defined as the mean sea level at Newlyn, Cornwall.

Flood map for planning (rivers and the sea)

Your selected location is in flood zone 1.

Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- between a 0.1% and 0.5% probability of occurring in any year for flooding from the sea
- between a 0.1% and 1% probability of occurring in any year for fluvial (river) flooding

It's important to remember that the flood zones on this map:

- refer to the land at risk of flooding and do not refer to individual properties
- refer to the probability of river and sea flooding, ignoring the presence of defences
- do not take into account potential impacts of climate change



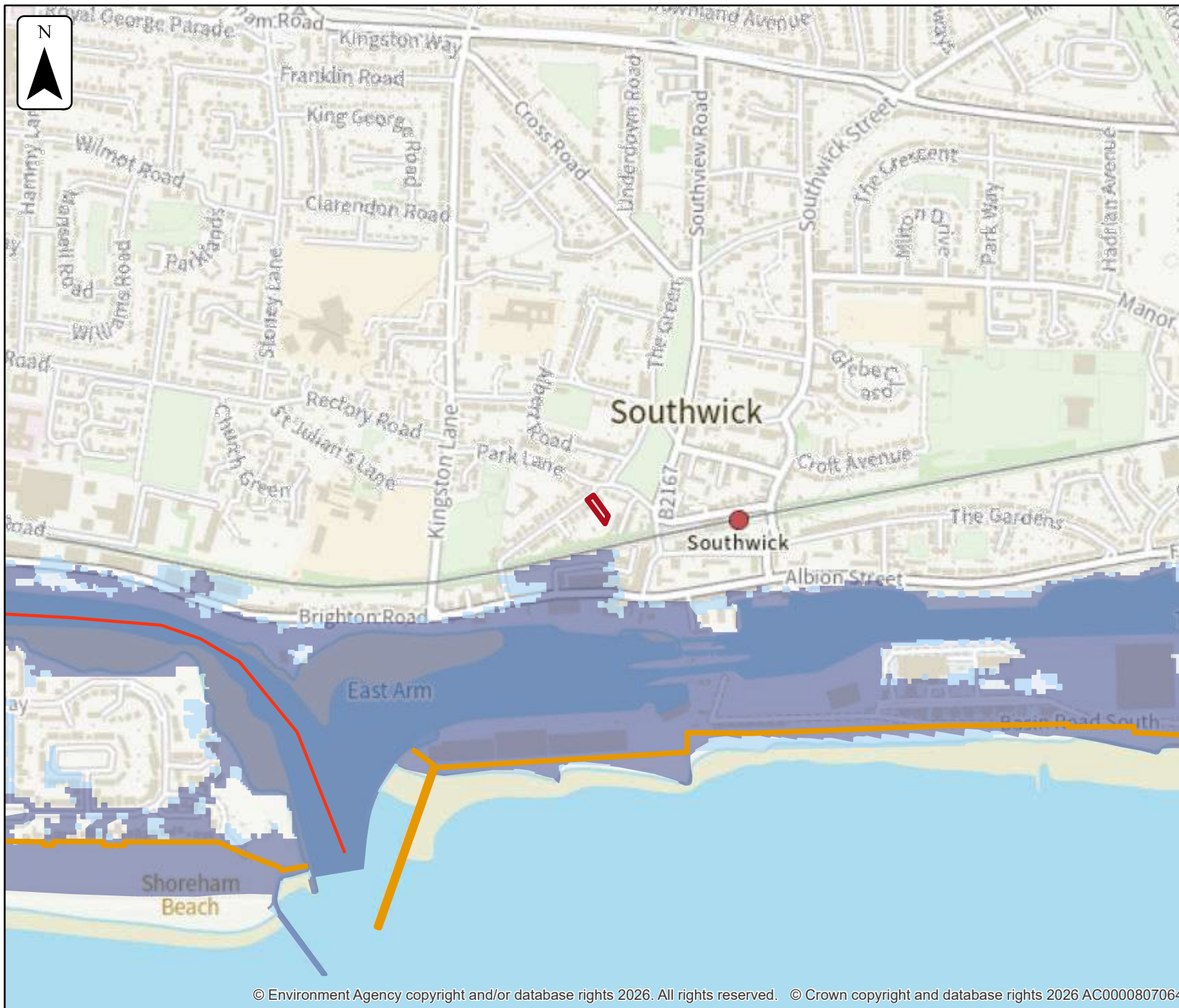
Flood map for planning

Location (easting/northing)
524014/105169

Scale
1:10,000

Created
15 Jul 2026

-  Selected area
-  Main river
-  Flood defence
-  Flood Zone 3
-  Flood Zone 2



Flood defences and attributes

The flood defences map shows the location of the flood defences present.

The flood defences data table shows the type of defences, their condition and the standard of protection. It shows the height above sea level of the top of the flood defence (crest level). The height is in mAOD which is the metres above the mean sea level at Newlyn, Cornwall.

It's important to remember that flood defence data may not be updated on a regular basis. The information here is based on the best available data.

Use this information:

- to help you assess if there is a reduced flood risk for this location because of defences
- with any information in the modelled data section to find out the impact of defences on flood risk



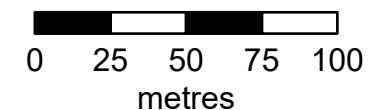
Flood defences

Location (easting/northing)
524014/105169

Scale
1:2,500

Created
15 Jul 2026

-  Selected area
-  Main river
-  Flood defence



Flood defences data

Label	Asset ID	Asset Type	Standard of protection (years)	Current condition	Downstream actual crest level (mAOD)	Upstream actual crest level (mAOD)	Effective crest level (mAOD)
1	171949	Beach	200				
2	171155	Wall	200				
3	171154	Wall	200				

Any blank cells show where a particular value has not been recorded for an asset.

Modelled data

This section provides details of different scenarios we have modelled and includes the following (where available):

- outline maps showing the area at risk from flooding in different modelled scenarios
- map(s) showing the approximate water levels for the return period with the largest flood extent for a scenario and table(s) of sample points providing details of the flood risk for different return periods

Climate change

The climate change data included in the models may not include the latest [flood risk assessment climate change allowances](#). Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

The Environment Agency will incorporate the new allowances into future modelling studies. For now, it's your responsibility to demonstrate that new developments will be safe in flood risk terms for their lifetime.

Modelled scenarios

The following scenarios are included:

- Defended modelled fluvial: risk of flooding from rivers where there are flood defences
- Defended modelled tidal: risk of flooding from the sea where there are flood defences
- Defences removed modelled tidal: risk of flooding from the sea where flood defences have been removed
- Defended climate change modelled fluvial: risk of flooding from rivers where there are flood defences, including estimated impact of climate change
- Defended climate change modelled tidal: risk of flooding from the sea where there are flood defences, including estimated impact of climate change
- Defences removed climate change modelled tidal: risk of flooding from the sea where flood defences have been removed, including estimated impact of climate change

No data available

We do not have any height or depth data at this location for the following models:

Model name: Adur Coastal Model, 2012

Scenario(s): Defences removed modelled tidal, Defended modelled tidal

Modelled Flood Outlines (Defended Tidal). Centred BN42 4DH. Created 21/07/2026.

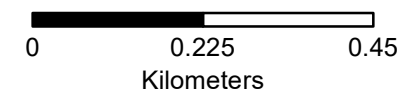


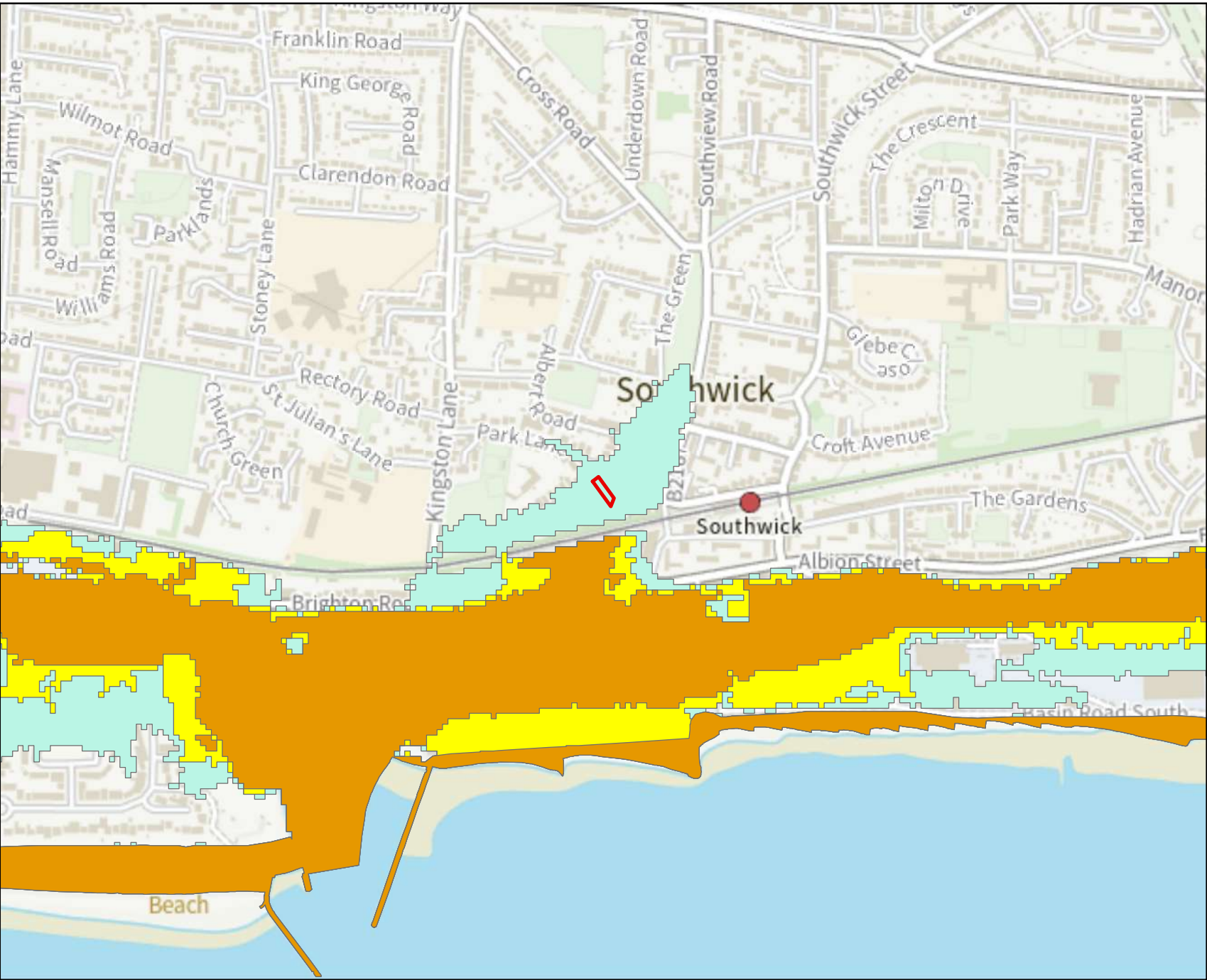
Legend

-  Site Boundary
-  0.5% AEP (2012) (Defended)
-  0.5% AEP (2070) (Defended)
-  0.5% AEP (2115) (Defended)
-  0.1% AEP (2012) (Defended)

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

Scale: 1:10,000





Environment Agency



Legend

-  Site Boundary
-  0.5% AEP (2012) (Un defended)
-  0.5% AEP (2070) (Un defended)
-  0.5% AEP (2115) (Un defended)
-  0.1% AEP (2012) (Un defended)

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

Scale: 1:10,000



0 0.225 0.45
Kilometers

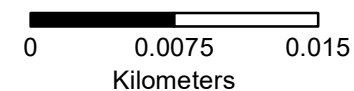


Legend

-  Site Boundary
-  Site Nodes

Annual Exceedance Probability
(AEP) The probability of a flood of
a particular magnitude, or greater
occurring in any given year.

Scale: 1:395





Product 4 Flood Risk Data Requested by: Karen Terry

Site: 524015,105169 (easting and northing coordinates)

Table 1: Water Levels: Tidal Undefended

Node Ref	NGR		Modelled Flood Levels in Metres AOD			
	Eastings	Northings	Undefended Annual Exceedance Probability			
			0.5%	0.5% (2070)*	0.5% (2115)*	0.1%
1	524000	105183	-	-	4.69	-
2	524006	105187	-	-	4.69	-
3	524012	105167	-	-	4.69	-
4	524018	105172	-	-	4.69	-
5	524024	105148	-	-	4.69	-
6	524030	105156	-	-	4.69	-

Table 2: Water Levels: Tidal Defended

Node Ref	NGR		Modelled Flood Levels in Metres AOD			
	Eastings	Northings	Defended Annual Exceedance Probability			
			0.5%	0.5% (2070)*	0.5% (2115)*	0.1%
1	524000	105183	-	-	4.56	-
2	524006	105187	-	-	4.56	-
3	524012	105167	-	-	4.56	-
4	524018	105172	-	-	4.56	-
5	524024	105148	-	-	4.56	-
6	524030	105156	-	-	4.56	-

Table 3: Water Depths: Tidal Undefended

Node Ref	NGR		Modelled Flood Depths in Metres			
	Eastings	Northings	Undefended Annual Exceedance Probability			
			0.5%	0.5% (2070)*	0.5% (2115)*	0.1%
1	524000	105183	-	-	0.67	-
2	524006	105187	-	-	0.90	-
3	524012	105167	-	-	1.09	-
4	524018	105172	-	-	1.35	-
5	524024	105148	-	-	1.71	-
6	524030	105156	-	-	1.70	-

Table 4: Water Depths: Tidal Defended

	NGR		Modelled Flood Levels in Metres AOD			
			Defended Annual Exceedance Probability			
Node Ref	Eastings	Northings	0.5%	0.5% (2070)*	0.5% (2115)*	0.1%
1	524000	105183	-	-	0.55	-
2	524006	105187	-	-	0.47	-
3	524012	105167	-	-	1.52	-
4	524018	105172	-	-	1.23	-
5	524024	105148	-	-	1.49	-
6	524030	105156	-	-	1.59	-

All levels taken from: Arun to Adur Coastal Modelling (2012), completed by JBA Consulting.

Produced on: 21/07/2026

*** The flood risk data provided is based on existing EA hydraulic models with an allowance for climate change. Please note the climate change allowances provided are not up to date. These were updated on 27 July 2021.**

You should refer to '[Flood risk assessments: climate change allowances](#)' for the most up to date allowances. You will need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.

There is no additional information or health warnings for these levels/depths or the model from which they have been produced.

Strategic flood risk assessments

We recommend that you check the relevant local authority's strategic flood risk assessment (SFRA) as part of your work to prepare a site specific flood risk assessment.

This should give you information about:

- the potential impacts of climate change in this catchment
- areas defined as functional floodplain
- flooding from other sources, such as canals, groundwater and reservoirs

Your lead local flood authority is West Sussex County.

About this data

This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood risk activity permits

Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence structure.

[Find out more about flood risk activity permits](#)

Help and advice

Contact the Solent and South Downs Environment Agency team at ssdenquiries@environment-agency.gov.uk for:

- [more information about getting a product 5, 6, 7 or 8](#)
- general help and advice about the site you're requesting data for