



Flood Risk Assessment
AEG11998_BN43_ShorehambySea_01

Site Address: 12 Brunswick Road
Shoreham-by-Sea
West Sussex
BN43 5WB

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

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Document Issue Record

Project: Flood Risk Assessment

Prepared for: Zaid Wr Ltd

Reference: AEG11998_BN43_ShorehambySea_01

Site Location: 12 Brunswick Road, Shoreham-by-Sea, West Sussex, BN43 5WB

Issue	Date	Author	Check	Auth.	Comments
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Summary

Development Description	Existing	Proposed
Development Type	Two-storey terraced building in takeaway use (sui generis) at ground floor, with ancillary accommodation and storage at first floor.	Conversion of the first floor to one self-contained residential flat (Use Class C3); takeaway retained at ground floor. No extension or change to the building footprint.
Environment Agency (EA) Vulnerability Classification	Less Vulnerable (takeaway with ancillary first floor).	More Vulnerable (first-floor flat), Less Vulnerable (ground floor takeaway).
Ground Floor Level	Existing ground levels of between 5.86m AOD (metres Above Ordnance Datum) and 6.07m AOD based on EA 1m LiDAR.	No change; ground floor retained as existing.
Level of Sleeping Accommodation	N/A[1]	First floor only.
Surface Water Drainage	Existing arrangements – assumed to drain to the public sewers.	No change to built footprint or external areas therefore surface water runoff to drain as per the existing arrangement.
Site Size	Redline boundary totals approximately 70m².	No change.
Risk to Development	**Summary**	**Comment**
EA Flood Zone	Flood Zone 1	Wholly within the EA Flood Zones plus Climate Change extent.
Flood Source	Surface water; tidal (future, residual)	Surface water up to 150mm (frontage) and 150mm to 300mm (east) in the 1 in 100 year plus climate change event; tidal outside the Adur Coastal Model (2012) extents to 2126.
Strategic Flood Risk Assessment (SFRA) Available	Yes	Adur and Worthing Level 1 SFRA (JBA Consulting, July 2024).
Management Measures	**Summary**	**Comment**
Ground floor level above extreme flood levels	Partially	The flat is at first floor, above the 6.63m AOD minimum FFL (design flood level 6.33m AOD plus 300mm). The retained ground floor (takeaway and shared entrance) is within the surface water design extent.

Safe Access/Egress Route	Yes	Pedestrian route north via Buckingham Road no deeper than 150mm in the surface water design event and dry in the 2126 tidal design event.
Flood Resilient Design	Yes	Resilient construction to the ground-floor entrance and stair lobby serving the flat.
Site Drainage Plan	No	No change to impermeable area.
Flood Warning and Evacuation Plan	No	Occupiers to sign up to EA Flood Warnings and monitor Met Office Weather Warnings.
Offsite Impacts	**Summary**	**Comment**
Displacement of floodwater	No	No change to the building footprint.
Increase in surface run-off generation	No	No change to impermeable area.
Impact on hydraulic performance of channels	No	No works near a watercourse.

[1] not required for this assessment

1. Introduction

1.1. Aegaea were commissioned by Zaid Wr Ltd 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, August 2026) and the associated Flood Risk and Coastal Change Planning Practice Guidance (PPG).

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 12 Brunswick Road, Shoreham-by-Sea, West Sussex, BN43 5WB (Figure 1).

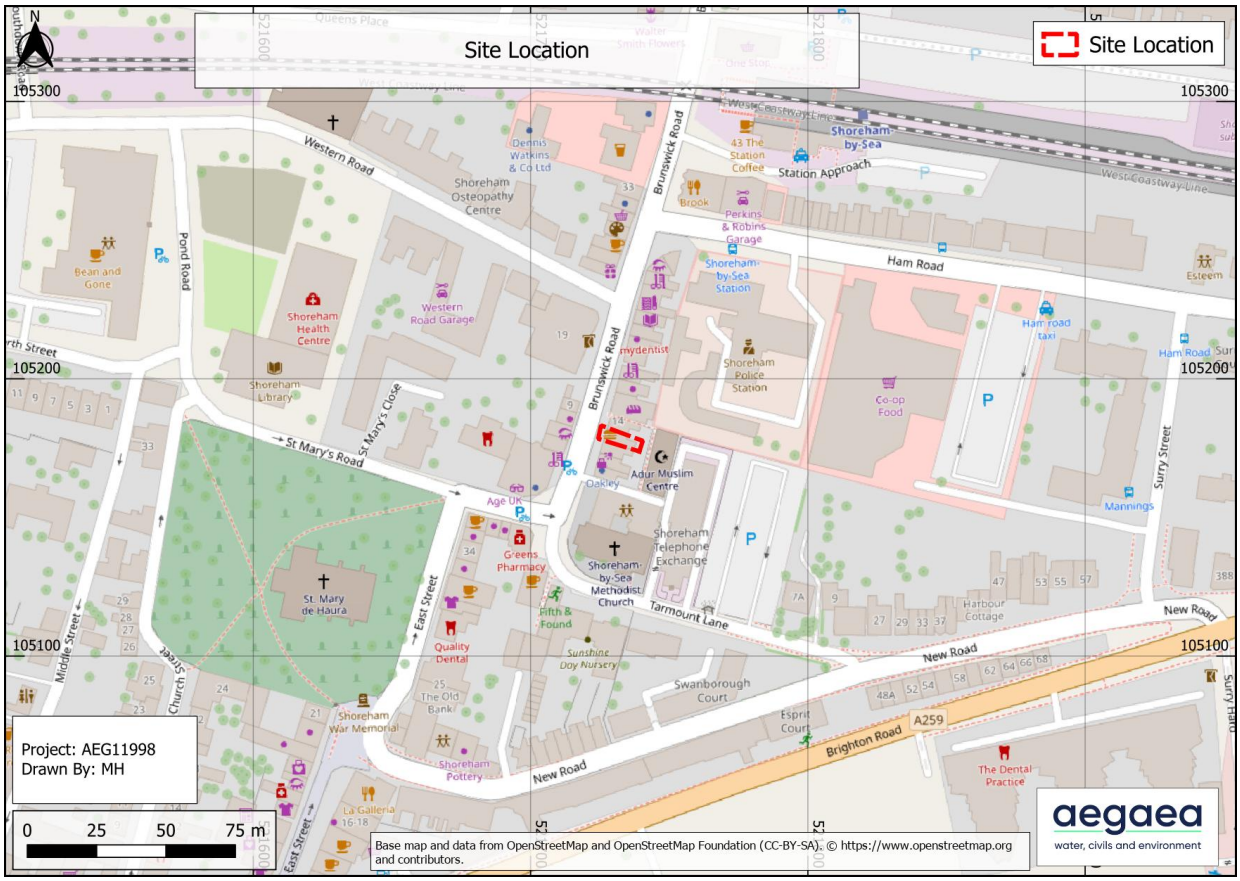


Figure 1: Site Location

1.4. It is understood that the proposed development comprises the conversion of the first floor of the existing building into one self-contained residential flat, together with replacement windows and doors, external wall painting, and internal alterations. The existing takeaway is retained at ground floor, and the existing shopfront is retained. The proposals do not extend or alter the footprint of the

building. The proposed development plans are provided in Appendix A.

1.5. In the absence of a topographical survey, EA Light Detection and Ranging (LiDAR) data Digital Terrain Model[1] has been used to review the topography of the site. LiDAR data shows the ground elevation of the site varies between approximately 5.86m AOD and 6.07m AOD (Figure 2). The adjacent carriageway of Brunswick Road at the site frontage lies at approximately 5.80m AOD to 5.96m AOD.

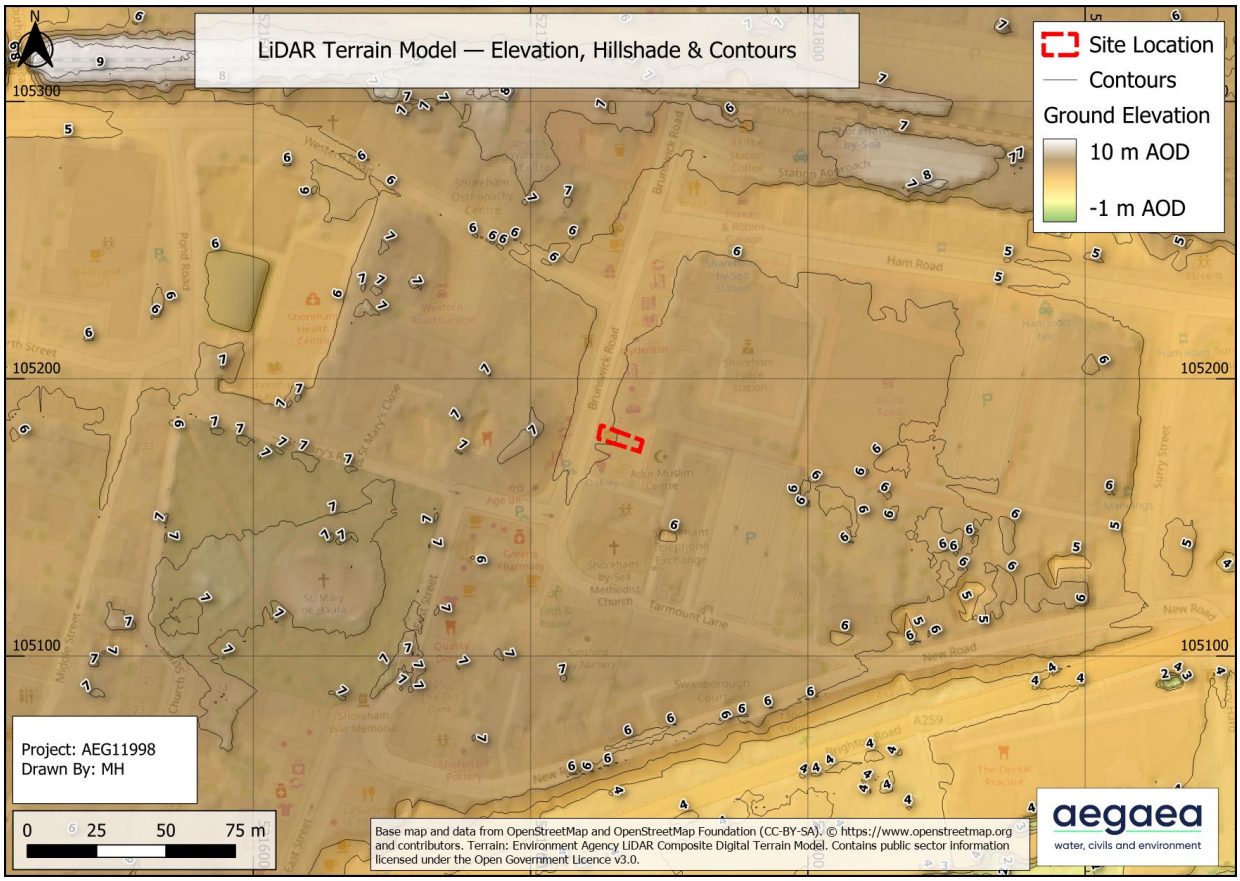


Figure 2: Site Topography

1.6. Adur 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 EA's Solent and South Downs area.

[1] **https://environment.data.gov.uk/dataset/13787b9a-26a4-4775-8523-806d13af58fc**

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.

Planning Policy and Guidance

2.2. Policy F4 of the NPPF sets out when a site-specific flood risk assessment is required:

> 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.*

2.3. The site is located within Flood Zone 1 therefore an FRA is required in accordance with the National Planning Policy Framework (NPPF). The EA Flood Map for Planning shows the site at risk of surface water flooding and within the Flood Zones plus Climate Change extent, engaging policy F4(2)(c).

2.4. 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

National Planning Policy Framework (NPPF)

2.5. The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government (MHCLG), August 2026)[2] which includes UK Government policy on development and flood risk states:

[2] **https://www.gov.uk/government/publications/national-planning-policy-framework--2**

2.6. The objective of Chapter 18 (Managing flood risk and coastal change) is stated as:

> *The objective of the policies in this chapter is to minimise risks to development arising from all sources of flooding and coastal change, taking into account the impacts of climate change, by steering development away from areas of risk, ensuring that development will be safe for its lifetime without increasing flood risk elsewhere, and incorporating sustainable drainage systems where appropriate.*

National decision-making policies

> *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.

2.7. Flood Zones in England are defined as follows (Table 1):

Table 1: Flood Zone Definitions (NPPF Annex F, table 1)

Flood Zone	Definition
Zone 1 Low probability	Land having a less than 0.1% annual probability of river or sea flooding (all land outside Zones 2, 3a and 3b).
Zone 2 Medium probability	Land having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding (land shown in light blue on the Flood Map for Planning).
Zone 3a High probability	Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea flooding (land shown in dark blue on the Flood Map for Planning).
Zone 3b 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 their boundaries accordingly, in agreement with the Environment Agency (not separately distinguished from Zone 3a on the Flood Map).

2.8. 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.

Local Plan

2.9. The Local Plan prepared by the LPA, Adur District Council, sets out the policies for development in the local area.

2.10. Policy 36 'Flood Risk and Sustainable Drainage' of the Adur Local Plan (2017)[3] outlines the requirements for new development within the district. Policy 36.1 (Flood Risk) states:

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

[3] **https://www.adur-worthing.gov.uk/adur-local-plan/**

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.

Sequential and Exception Tests

2.11. 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.

2.12. Under the NPPF all new planning applications should undergo a Sequential Test in accordance with Policy F5. 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.

2.13. 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.

2.14. 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).

2.15. Given the proposed development constitutes a 'change of use' in terms of flood risk, neither the Sequential nor Exception Tests are applicable in this instance in accordance with Policy F5(2ciii) and F6(2a) of the NPPF.

3. Consultation and Document Review

Documents and Online Mapping

3.1. Local Governments and LLFAs 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.

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

- EA Flood Map for Planning[4]
- EA Flood Map for Planning – Surface Water (Surface Water Spatial Planning Extents and Depths, May 2026)[5]
- EA Flood Map for Planning – Flood Zones plus Climate Change[6]
- EA Recorded Flood Outlines[7]
- EA Risk of Flooding from Reservoirs mapping[8]
- EA Spatial Flood Defences (AIMS)[9]
- Canal & River Trust maintained canal mapping[10]
- British Geological Survey (BGS) GeoIndex Onshore and Borehole Records[11]
- Adur and Worthing Level 1 SFRA (JBA Consulting, 2024)[12]
- West Sussex Preliminary Flood Risk Assessment (West Sussex County Council, 2011 and 2017 addendum)[13]
- West Sussex Local Flood Risk Management Strategy (West Sussex County Council)[14]
- Flood Risk and Coastal Change PPG[15]

[4] **https://flood-map-for-planning.service.gov.uk/**
[5] **https://environment.data.gov.uk/dataset/cf8d4e8f-99b6-4e5d-bf56-7f80e93d0931**
[6] **https://environment.data.gov.uk/spatialdata/flood-zones-plus-climate-change**
[7] **https://www.data.gov.uk/dataset/16e32c53-35a6-4d54-a111-ca09031eaaaf/recorded-flood-outlines1**
[8] **https://check-long-term-flood-risk.service.gov.uk/**
[9] **https://environment.data.gov.uk/dataset/8e5be50f-d465-11e4-ba9a-f0def148f590**
[10] **https://canalrivertrust.org.uk/canals-and-rivers**
[11] **https://www.bgs.ac.uk/map-viewers/geoindex-onshore/**
[12] **https://www.adur-worthing.gov.uk/media/Media,171789,smxx.pdf**
[13] **https://www.westsussex.gov.uk/media/1626/west_sussex_pfra.pdf**
[14] **https://www.westsussex.gov.uk/fire-emergencies-and-crime/dealing-with-extreme-weather/flooding/flood-risk-management/local-flood-risk-management-strategy/**
[15] **https://www.gov.uk/guidance/flood-risk-and-coastal-change**

Preliminary Flood Risk Assessment (PFRA)

3.3. The PFRA, published by West Sussex County Council in 2011 with a 2017 addendum, is the LLFA's high-level assessment of local flood risk from surface water, groundwater and ordinary watercourses prepared under the Flood Risk Regulations 2009.

Strategic Flood Risk Assessment (SFRA)

3.4. The Adur and Worthing Level 1 SFRA (JBA Consulting, July 2024) was prepared for Adur & Worthing Councils to inform their Local Plans and the application of the Sequential Test, mapping flood risk from all sources across both authorities.

Local Flood Risk Management Strategy (LFRMS)

3.5. The LFRMS is West Sussex County Council's strategy under section 9 of the Flood and Water Management Act 2010, setting out the objectives and measures for managing local flood risk across the county.

4. Sources of Flood Risk

4.1. The following sources of flood risk have been assessed in relation to the site and proposed development.

Fluvial and Tidal

4.2. 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.

4.3. 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, where water may overtop the river bank or river defences when tide levels are high.

Main Rivers and Ordinary Watercourses

4.4. The nearest main river is the tidal River Adur, situated c. 240m south of the site boundary (EA Statutory Main River Map[16]).The River Adur flows in a easterly direction before discharging into the English Channel c. 1.9km southeast of the site.

EA Flood Map for Planning

4.5. According to the EA Flood Map for Planning, the site lies wholly within Flood Zone 1 (land having a less than 0.1% annual probability of river or sea flooding) (Figure 3). The nearest Flood Zone 3 (land having a 0.5% or greater annual probability of sea flooding) lies c. 105m to the south-east, attributed to sea flooding.

4.6. The whole site lies within the EA Flood Zones plus Climate Change extent, a single combined Flood Zone 2 and 3 plus climate change undefended extent, which covers the old town of Shoreham-by-Sea north to the railway.

[16] **https://environment.data.gov.uk/dataset/25dde009-ba7d-40de-8380-c5c3bb32ccdc**

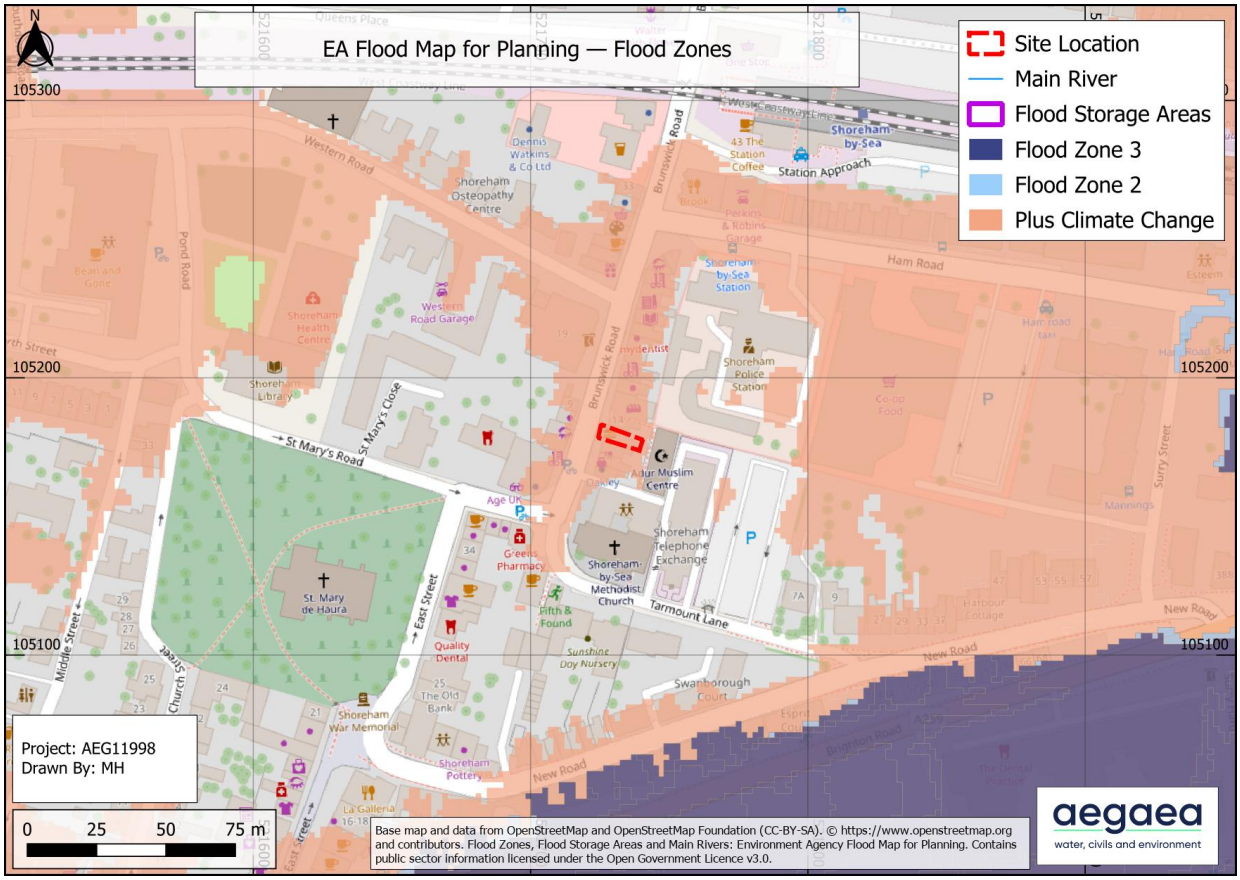


Figure 3: EA Flood Map for Planning – Flood Zones and Flood Zones plus Climate Change

Historical Fluvial / Tidal Flooding

4.7. Based on the EA Recorded and Historical Flood Outlines dataset, there are no recorded flood outlines at or adjacent to the site (Figure 4).

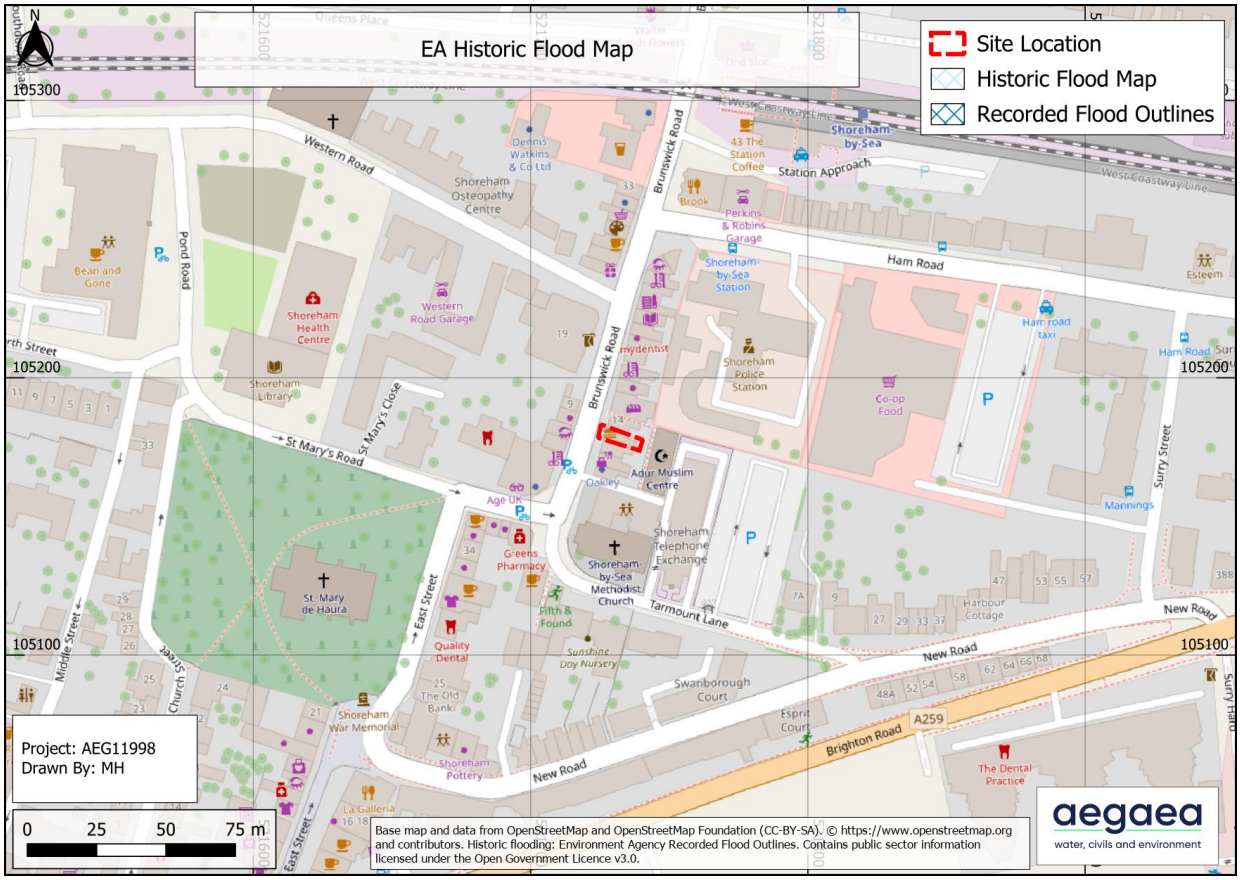


Figure 4: EA Recorded Flood Outlines

Flood Defences

4.8. According to the EA AIMS dataset, the River Adur is defended through Shoreham-by-Sea; the nearest asset is a wall (EA Asset Ref: 126173) c. 150m south of the site, with a design standard of protection of 1 in 200 years. The site lies outside both the defended and the undefended modelled extents (below), so its position does not depend on these defences.

EA Data Analysis – Adur Coastal Model (2012)

4.9. The Adur Coastal Model (2012), a linked 1D-2D TUFLOW model forming part of the Arun to Adur coastal modelling study, provides tidal flood outlines and maximum water level grids for the 1 in 5, 1 in 20, 1 in 75, 1 in 200 and 1 in 1000 year events with and without defences, based on present day conditions (2012), together with the climate change 1 in 200 year event in 2070 and 2115 and the 1 in 1000 year event in 2115.

4.10. The site lies outside every modelled extent, defended and undefended, including the undefended 1 in 1000 year event in 2115 (Figure 5). The nearest modelled flooding lies c. 90m to c. 110m from the site, to the east and south-east.

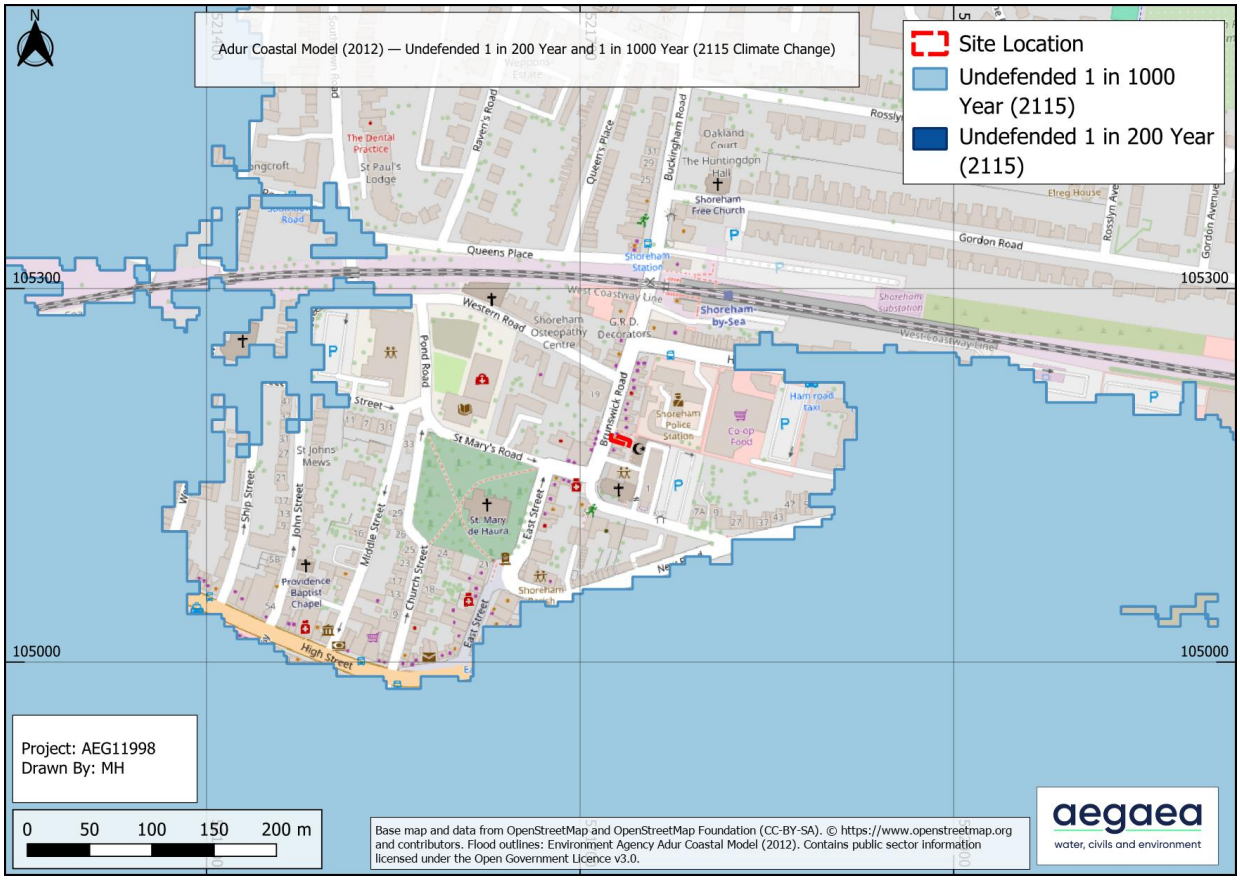


Figure 5: Adur Coastal Model (2012) – Modelled Flood Extents, Undefended 2115

Fluvial / Tidal Risk Summary

4.11. The site is not at risk of fluvial flooding; the River Adur here is tidal. According to the Adur Coastal Model (2012), the site lies outside all modelled tidal extents. The risk of tidal flooding to the More Vulnerable flat is considered low.

Canals

4.12. 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.

4.13. According to the CRT maintained canal mapping there are no canals within 750m of the site.

4.14. The risk of flooding to this site from canals is considered to be low.

Pluvial (Surface Water)

4.15. 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.

EA Flood Map for Planning Service – Surface Water

4.16. 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.

4.17. 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) and 3.3% AEP (1 in 30)

4.18. Alongside the following depth bands:

- Up to 150mm; 150 – 300mm; 300 – 600mm; 600 – 900mm; 900 – 1200mm; 1200 – 2300mm and over 2300mm.

4.19. Alongside the present day scenarios, climate change scenarios have been produced by the EA to indicate the predicted impacts of climate change on future flood risk. These published scenarios incorporate an uplift based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5, applying the 'Upper End' allowance for the 2070s epoch (2061 to 2125); the EA have chosen long-term epochs appropriate to support long-term planning and development decisions.

4.20. To provide a 'worst case' assessment, the climate change scenarios have been assessed below.

4.21. The site lies within the climate change extents for the 1 in 30 year, 1 in 100 year and 1 in 1000 year events (Figure 6).

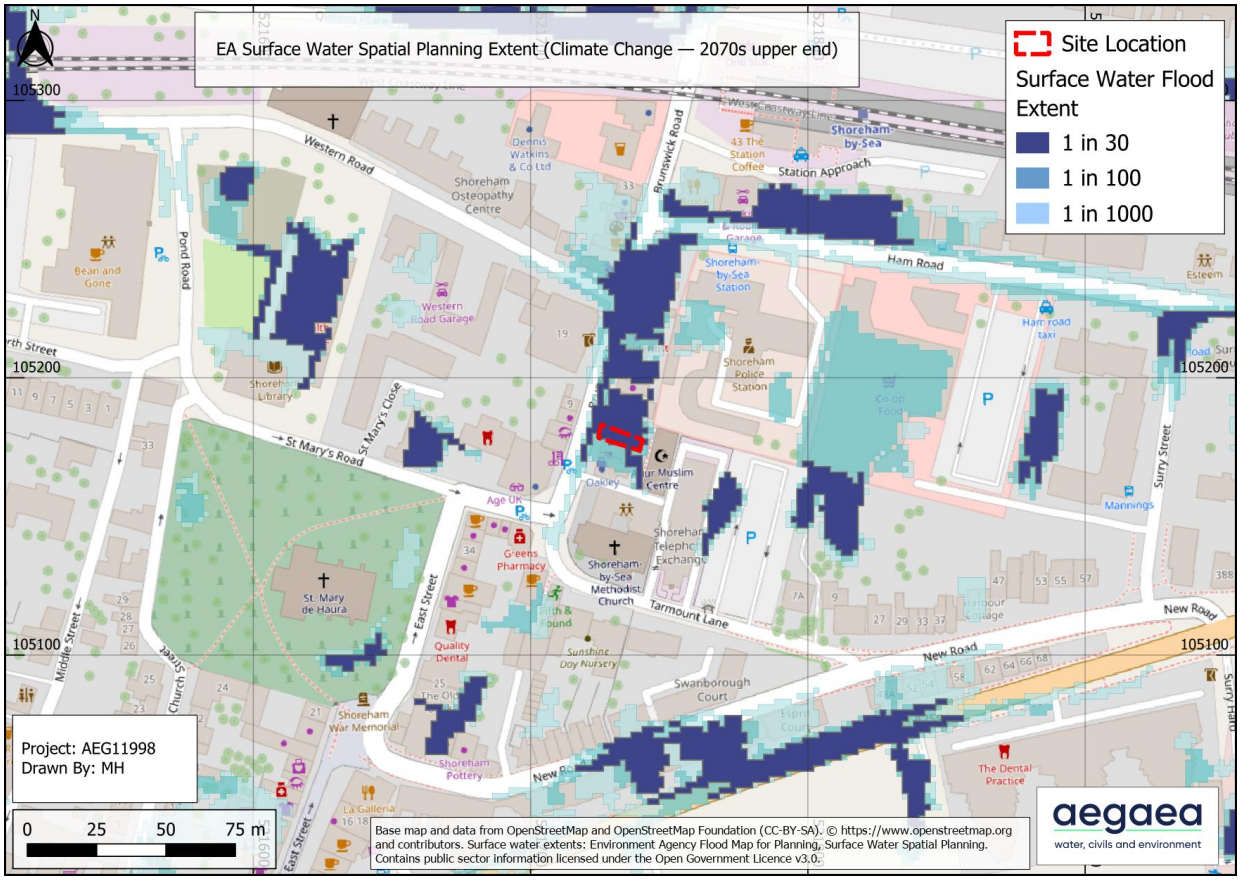


Figure 6: EA Surface Water Spatial Planning – Climate Change Extents

Design Event Scenario

4.22. The 1 in 100 year plus climate change scenario is the design event. Under this scenario, the site lies predominantly within the up to 150mm depth band, with small, isolated areas recording depths of 150mm to 300mm (Figure 7). Taking the highest ground within the 150mm to 300mm band (6.03m AOD) plus the band's upper depth (0.30m) gives an indicative design surface water level of 6.33m AOD; the lowest point in that band gives 6.27m AOD.

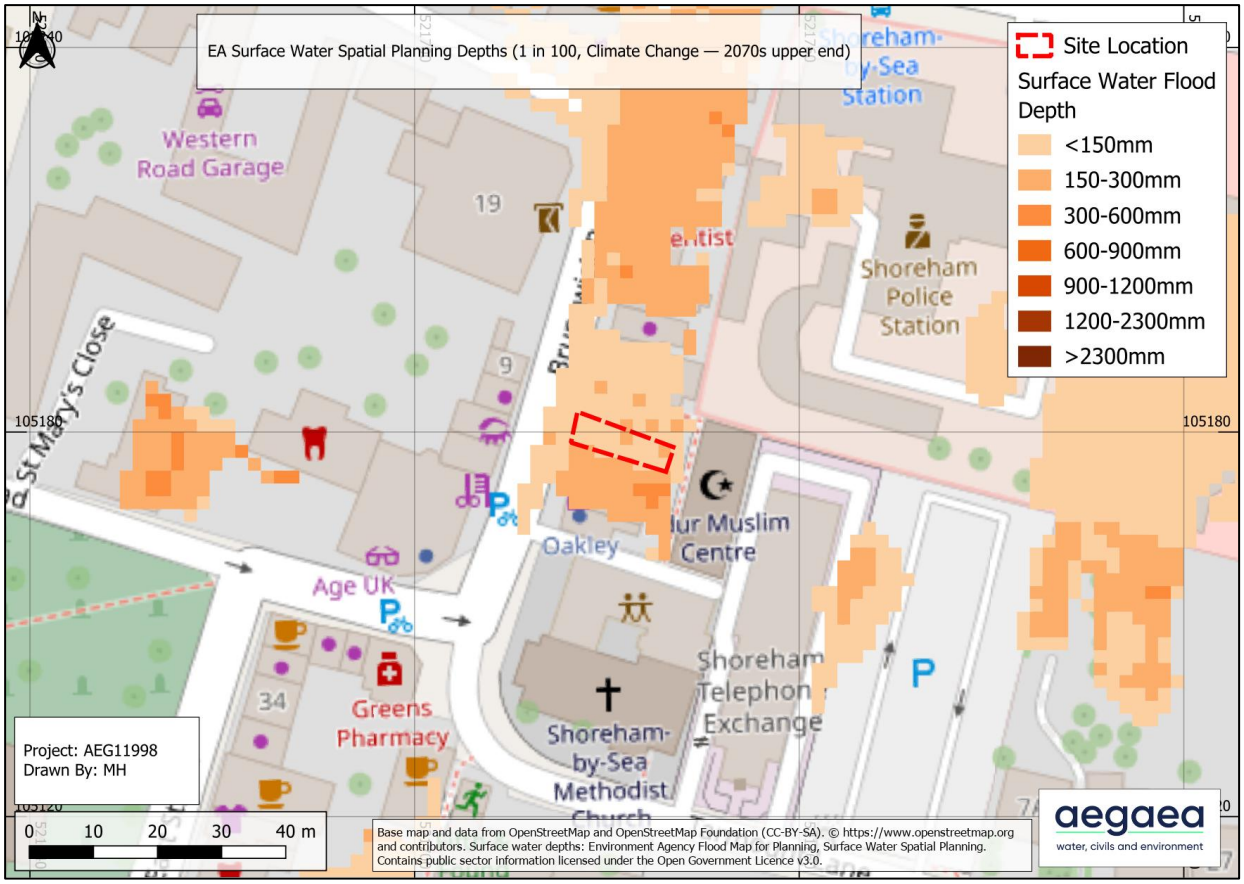


Figure 7: EA Surface Water Spatial Planning – 1 in 100 Year plus Climate Change Depths

Pluvial Risk Summary

4.23. The site is at risk of surface water flooding in the climate change scenarios, to depths up to 150mm over most of the site. The proposed More Vulnerable flat is at first floor, above the design surface water level. The risk of surface water flooding to the flat is considered low; the ground-floor entrance and stair lobby serving it are at medium risk and are addressed in Section 5.

Reservoirs

4.24. The EA reservoir flood risk mapping shows the site is not within either the modelled reservoir Wet Day or Dry Day inundation extent, and no reservoir extent lies within 2km of the site (Figure 8). As such, the risk to the site from reservoir flooding is considered to be low.

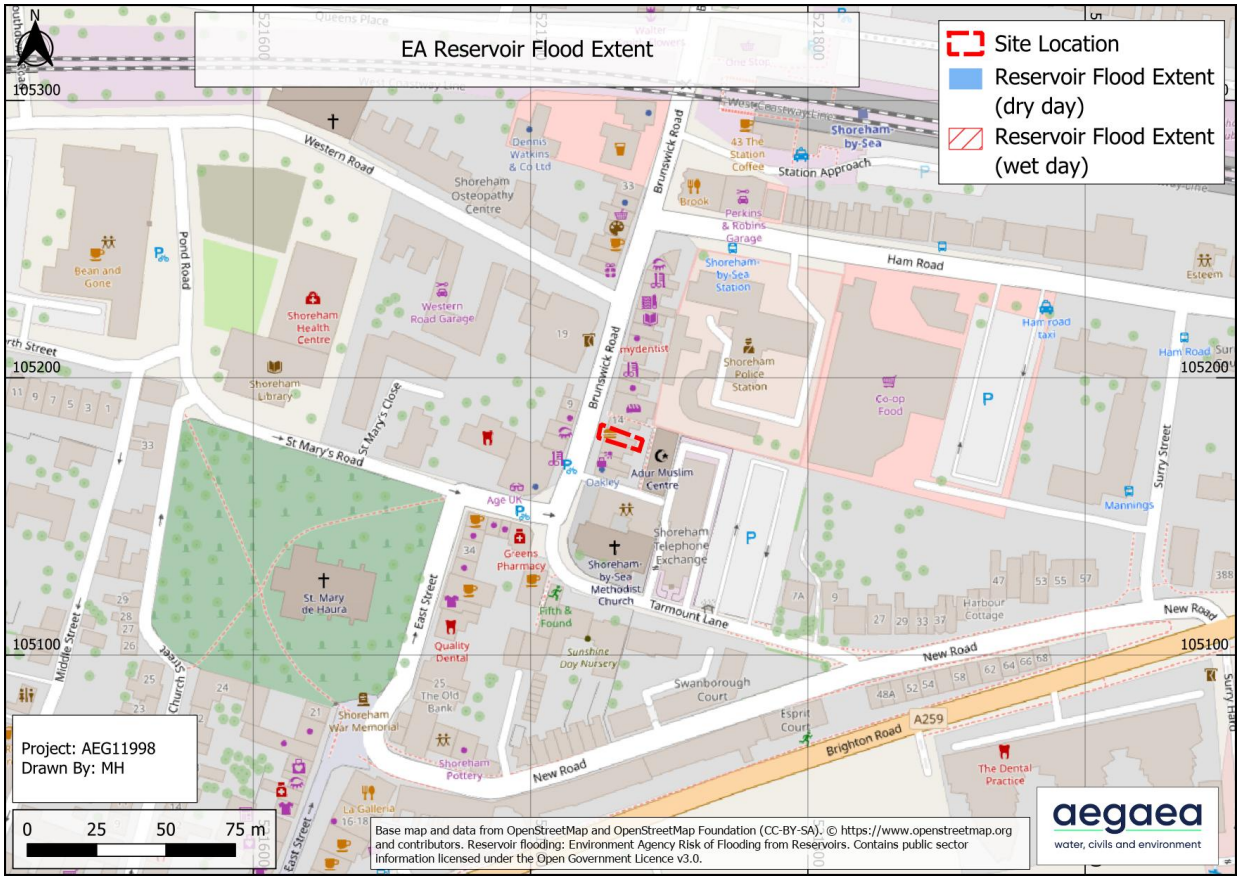


Figure 8: EA Risk of Flooding from Reservoirs

Groundwater

4.25. The British Geological Survey's (BGS) mapping shows superficial deposits of Head (clay, silt, sand, and gravel) over the Newhaven Chalk Formation (chalk).

4.26. Four BGS borehole records lie within 250m of the site, none of which record a groundwater level in the BGS index.

4.27. The Adur and Worthing Level 1 SFRA (2024) presents the JBA Groundwater Flood Map and Tidal Groundwater Risk Zones (Figure 9). The site is not located in an area identified to be at risk of groundwater flooding.

4.28. Groundwater beneath the site is likely to be influenced by tide levels in the River Adur and to be highest in winter and spring. Rising sea levels will raise it over the development's lifetime, which the SFRA Tidal Groundwater Risk Zones address. The proposals include no basement and no new below-ground works, and the flat is at first floor. The risk from groundwater flooding to the development is considered to be low.

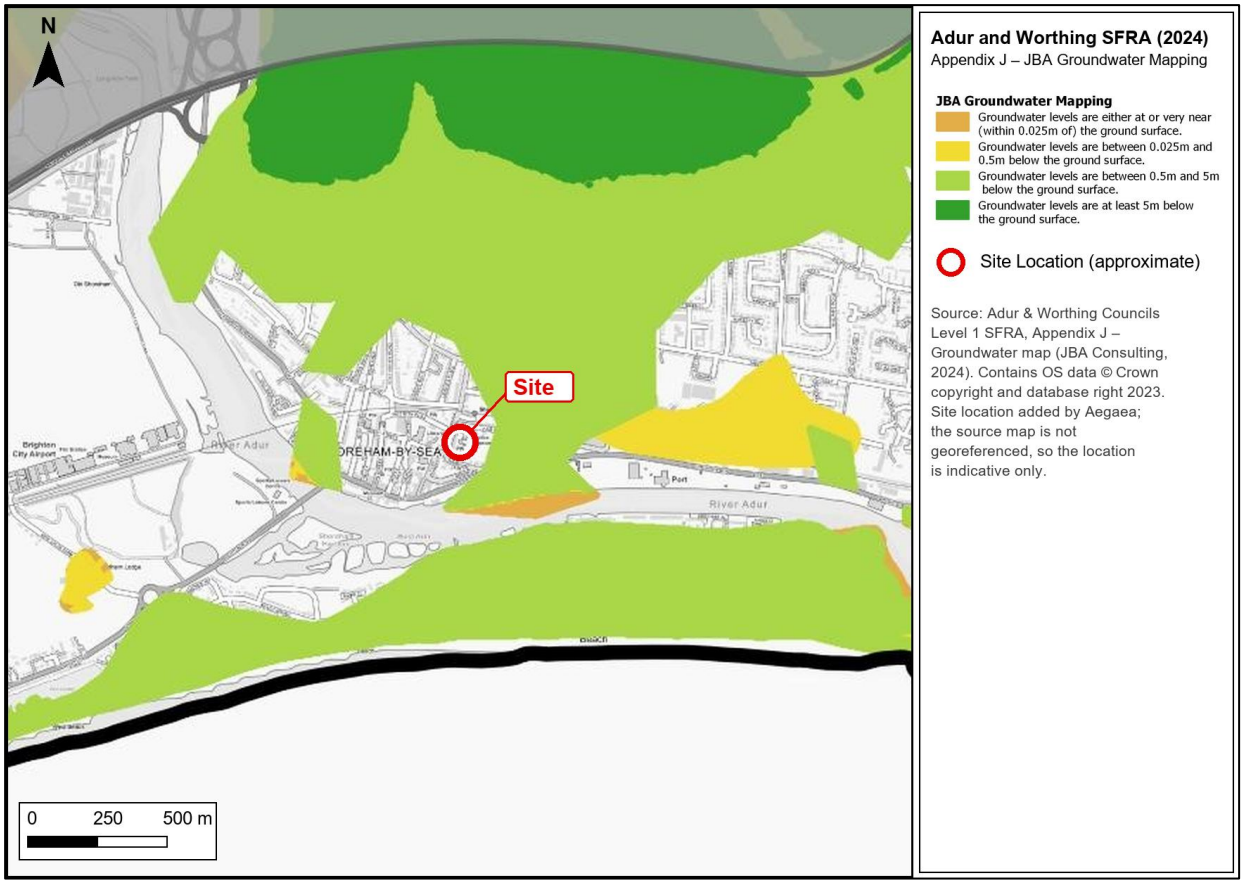


Figure 9: JBA Groundwater Mapping (Adur and Worthing SFRA)

Sewers

4.29. 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.

4.30. The SFRA records historic sewer flooding through Southern Water's hydraulic overload incident data by postcode. The database records 8 incidents of sewer flooding for the 'BN43 5' postcode area. This is recorded at postcode area and is therefore not indicative of sewer flooding at the site.

4.31. The proposed flat is at first floor and cannot be affected by surcharging sewers. The risk of sewer flooding to the development is considered to be low.

5. Flood Risk Mitigation

5.1. The assessment in Section 4 identifies surface water flooding, and the residual future tidal risk, as the sources requiring mitigation at this site.

Finished Floor Levels

5.2. The Adur and Worthing Level 1 SFRA (2024) requires FFLs for vulnerable development to be a minimum of whichever is higher of 300mm above the average ground level of the site, the adjacent road level, or the estimated flood level. The surface water design level governs: a minimum FFL of 6.63m AOD is recommended, (the design flood level of 6.33m AOD plus 300mm freeboard).

5.3. The development is a change of use, so existing finished floor levels will stay the same. The flat is at first floor, a full storey above existing ground and well above the 6.63m AOD minimum.

Flood Resistant and Resilient Design

5.4. The ground-floor entrance and stair lobby that serve the flat lie within the up to 150mm band in the design event. Flood resistance and resilience measures are therefore recommended for the entrance and lobby, so that access to the flat can be brought back into use quickly after a depth of up to 150mm, in accordance with CLG Improving the Flood Performance of New Buildings (2007):

- Resilience: electrical services, meters and consumer units serving the flat to be located at first-floor level or a minimum of 600mm above ground-floor level.
- Resilience: water-resistant finishes and materials (for example, tiled or sealed floors and lime-based or water-resistant plaster) to the ground-floor entrance and stair lobby.
- Resistance: non-return valves to be fitted to the drainage serving the building to prevent sewer surcharge.
- Resistance: waterproof seals to the ground-floor entrance door and its threshold.

Access / Egress and Flood Warnings

5.5. The flat is entered from Brunswick Road through a shared ground-floor entrance with an internal stair. In the surface water design event Brunswick Road lies within the up to 150mm band. A pedestrian route north via Brunswick Road, Buckingham Road, and Mill Lane to Erringham Road (c. 1.1km) is no deeper than 150mm along its length in the 1 in 100 year plus climate change event, below the 250mm threshold for safe pedestrian movement in FD2320 (Figure 10). Emergency vehicles can use Buckingham Road at the same depths. Safe access and egress is therefore available in the surface water design event.

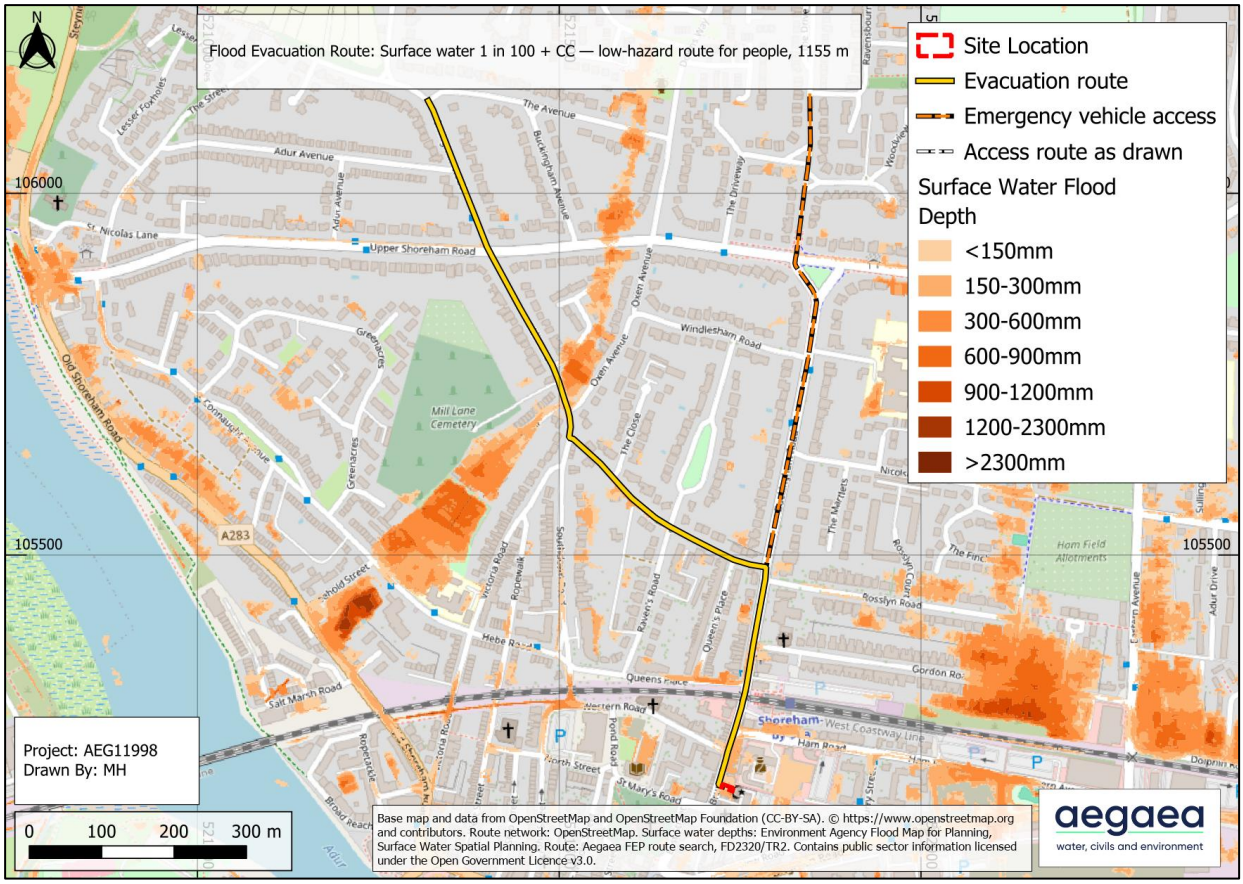


Figure 10: Evacuation Route – Surface Water (1 in 100 Year plus Climate Change)

5.6. The same route leaves the EA Flood Zones plus Climate Change extent after c. 30m (Figure 11). Using the Adur Coastal Model (2012) tidal levels, it is dry in the 1 in 200 year design event (higher central) and no deeper than 0.24m under the upper end allowance. Tidal flooding gives a long lead time, and the route leads away from the River Adur. Prior evacuation should be sought on a flood warning; failing that, residents can remain in the first-floor flat, above all modelled flood levels.

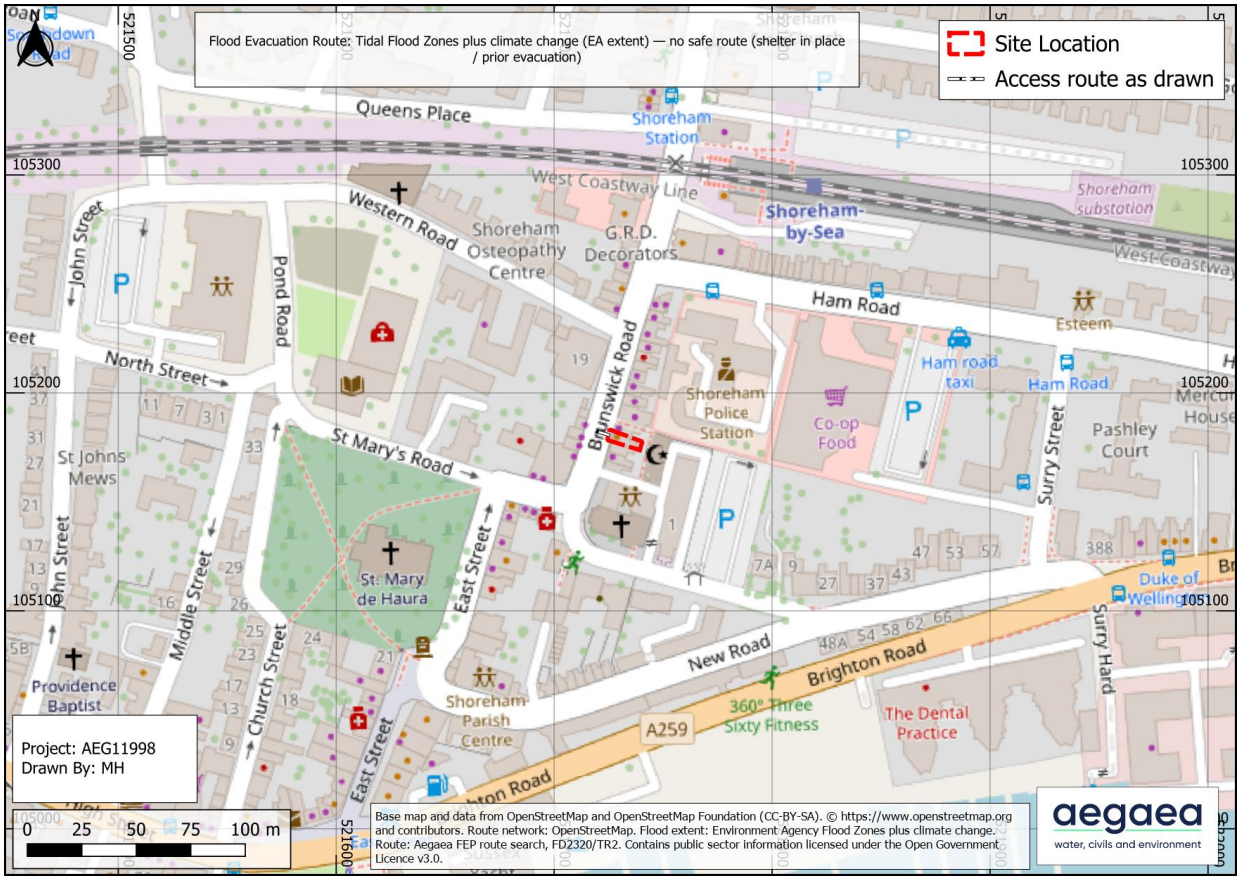


Figure 11: Evacuation Route – Tidal (EA Flood Zones plus Climate Change)

Flood Warnings

5.7. The site is not within an EA Flood Alert or Flood Warning area. The nearest Flood Warning area, Shoreham Harbour, lies c. 100m from the site; residents should monitor warnings for that area.

5.8. Residents of the flat should monitor Met Office Weather Warnings as a precautionary approach, to be prepared for extreme weather events. Met Office is the national meteorological service for the UK; they issue 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 e.g. X (formerly Twitter), Facebook, or email alerts.

Increase to Flood Risk Elsewhere

5.9. The proposal constitutes a change of use under the NPPF. As such, and given that the building footprint and impermeable area are unchanged and the new accommodation is at first floor, the proposed development in isolation should have a negligible impact on flood risk elsewhere.

6. Conclusions

6.1. This FRA has been undertaken with reference to the requirements of NPPF and PPG with respect to the development at 12 Brunswick Road, Shoreham-by-Sea, West Sussex, BN43 5WB. It has been written to support a full planning application and prepared with due consideration to the nature of the proposed change of use to provide the appropriate level of detail.

6.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

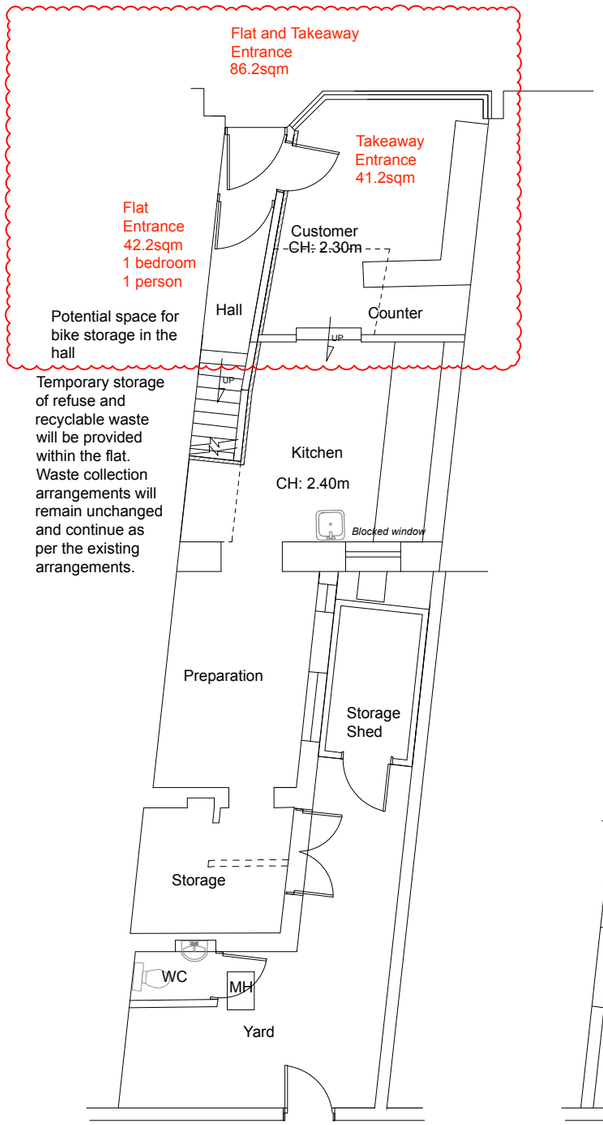
Source of Flooding	Flood Risk Summary
Pluvial	Up to 150mm in the design event at the ground level entrance; the first-floor flat lies above the design level. Depths up to 300mm are located to the rear of the property, not affecting access. Low risk to the flat, with resilience measures to the ground-floor entrance.
Tidal	Outside all modelled extents to 2126; design level below site ground. Low risk, residual at ground level only.
Fluvial / Reservoirs / Groundwater / Sewers / Canals	The site is considered to be at low risk from other sources.

6.3. The FRA supports the full 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.

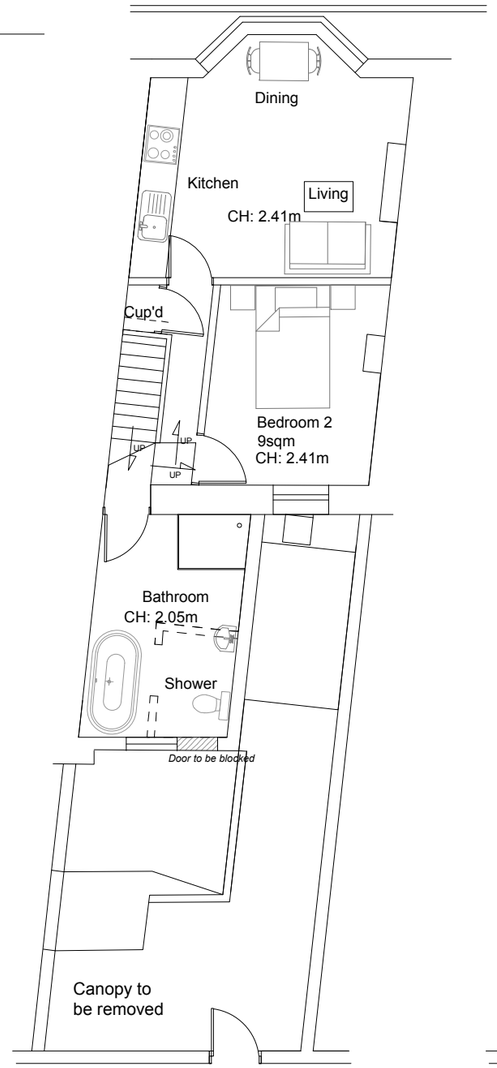
6.4. This Flood Risk Assessment should be submitted as part of the full planning application to satisfy the requirements under NPPF.

Appendix A - Development Proposals

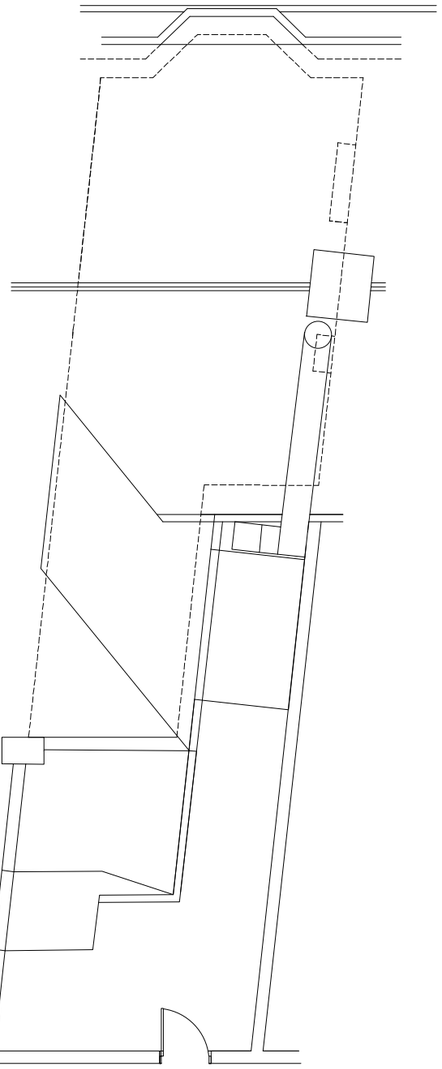
REVISIONS:
REV: DATE: BY: RVW:
A 26.10.2026 retaining existing shopfront



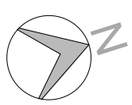
Ground Floor Plan
as proposed



First Floor Plan
as proposed



Roof Plan
as proposed





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All dimensions to be confirmed on site.

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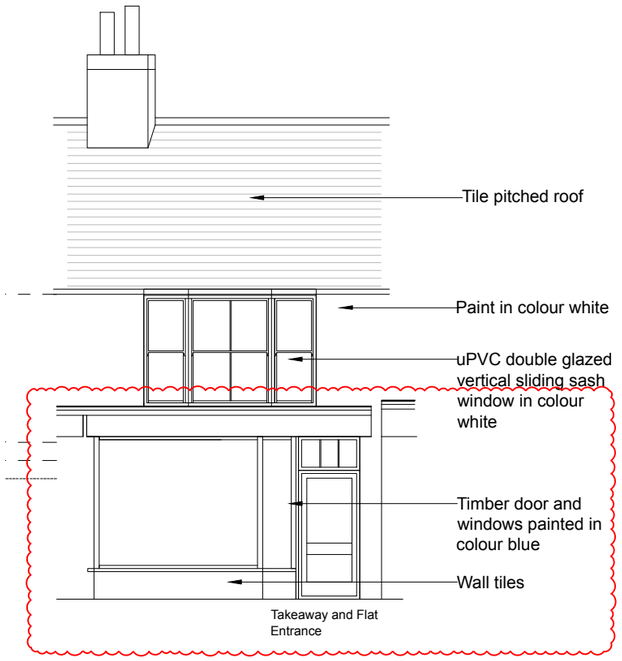
Any discrepancies between this drawing & other information shall be reported to the Architect.
MODIFICATIONS to be made solely on ORIGINAL MAGNETIC MEDIA.

PROJECT
12 Brunswick Road
Shoreham-by-Sea
BN43 5WB

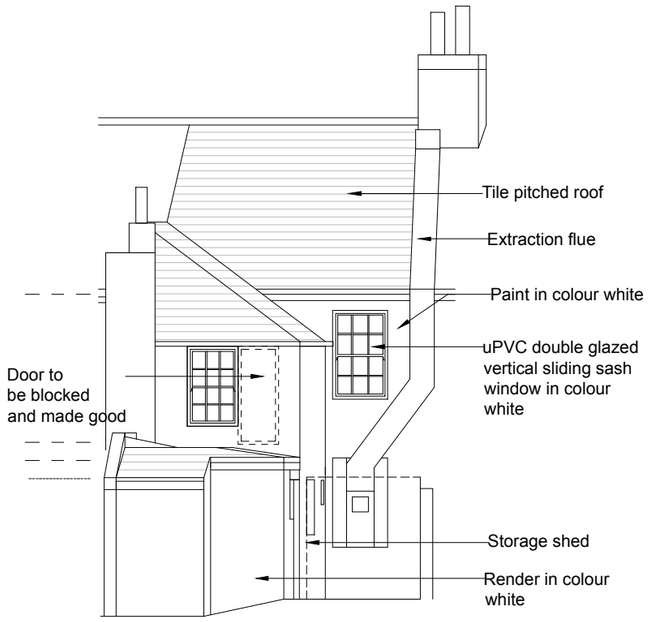
TITLE
New Flat
Plans as proposed

STATUS
Planning
DATE
October 2026
SCALE @ A3
1:100
DRAWN BY
Ran
REVIEWED BY
DRAWING NUMBER
2641 PL 03A
CTB file:
LTscale:
XREF'S:

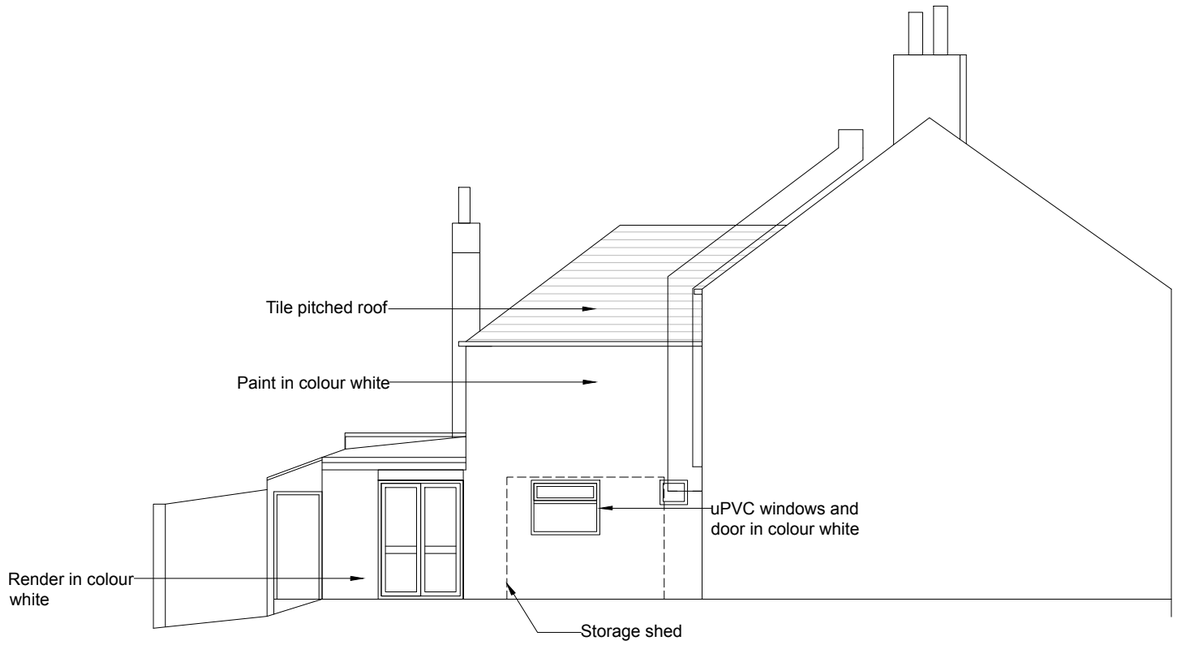
REVISIONS:
REV: DATE: BY: RVW:
A 26.10.2026 retaining existing shopfront



Front (North West) Elevation
as proposed



Rear (South East) Elevation
as proposed



Side (North East) Elevation
as proposed

Scale 1:100
0 1 5m 10m

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TITLE
New Flat
Elevations as proposed

STATUS
Planning

DATE
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DRAWN BY
Ran

REVIEWED BY

DRAWING NUMBER
2641 PL 05A

CTB file:
XREF'S:
LTscale: