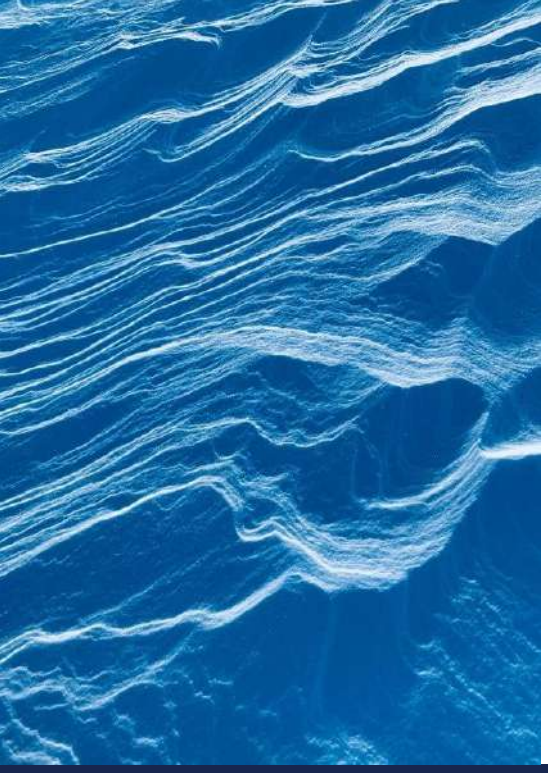

Flood Risk Assessment
AEG9755_BN11_Worthing_01

Site Address: 105/109 Montague Street
Worthing
West Sussex
BN11 3BP

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water, civils and environment

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: Danworth Developments

Reference: AEG9755_BN11_Worthing_01

Site Location: 105/109 Montague Street, Worthing, West Sussex, BN11 3BP

Issue	Date	Author	Check	Auth.	Comments
1	19/01/2026	Jacob Caddick	ML	NB	First issue

Please Note:

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Summary

Development Description	Existing	Proposed
Development Type	Commercial Building	Conversion of the first and second floors of the premises, from derelict commercial building into residential apartments.
EA Vulnerability Classification	Less Vulnerable	More Vulnerable
Ground Levels	EA LiDAR data shows the ground elevation of the site varies between approximately 5.19m AOD (metres Above Ordnance Datum) and 5.69m AOD	No change
Level of Sleeping Accommodation	N/A[1]	First Floor
Site Size	c.820m^2	No change
Risk to Development	**Summary**	**Comment**
EA Flood Zone	Flood Zones 1 and 2	The building proposed for development, which will not increase its footprint, is located entirely within Flood Zone 1 and all development is occurring at first floor level and above.
Flood Source	Tidal	
SFRA Available	Adur and Worthing Level 1 Strategic Flood Risk Assessment (Worthing Borough Council, 2024)	
Management Measures	**Summary**	**Comment**
Ground floor level above extreme flood levels	Yes	The building proposed for development, which will not increase its footprint, is located entirely within Flood Zone 1 and all development is occurring at first floor level and above.

Safe Access/Egress Route	Yes	Access/egress form the site can be taken via Flood Zone 1.
Flood Warning and Evacuation Plan	N/A[1]	Recommended that occupants / building managers monitor Met Office Weather Warnings for extreme weather events.
Offsite Impacts	**Summary**	**Comment**
Displacement of floodwater	Negligible	The proposed development will see no increase in built footprint as the proposed development will be an internal change of use. Therefore, the proposed development does not increase the flood risk elsewhere through water displacement.
Increase in surface run-off generation	Negligible	The proposed development will see no increase in built footprint, and the site will drain as per existing.
Impact on hydraulic performance of channels	None	No watercourse within c.500m of the site.

[1] not required for this assessment

[2] data not available.

1. Introduction

1.1. Aegaea were commissioned by Danworth Developments 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 105/109 Montague Street, Worthing, West Sussex, BN11 3BP (Figure 1).

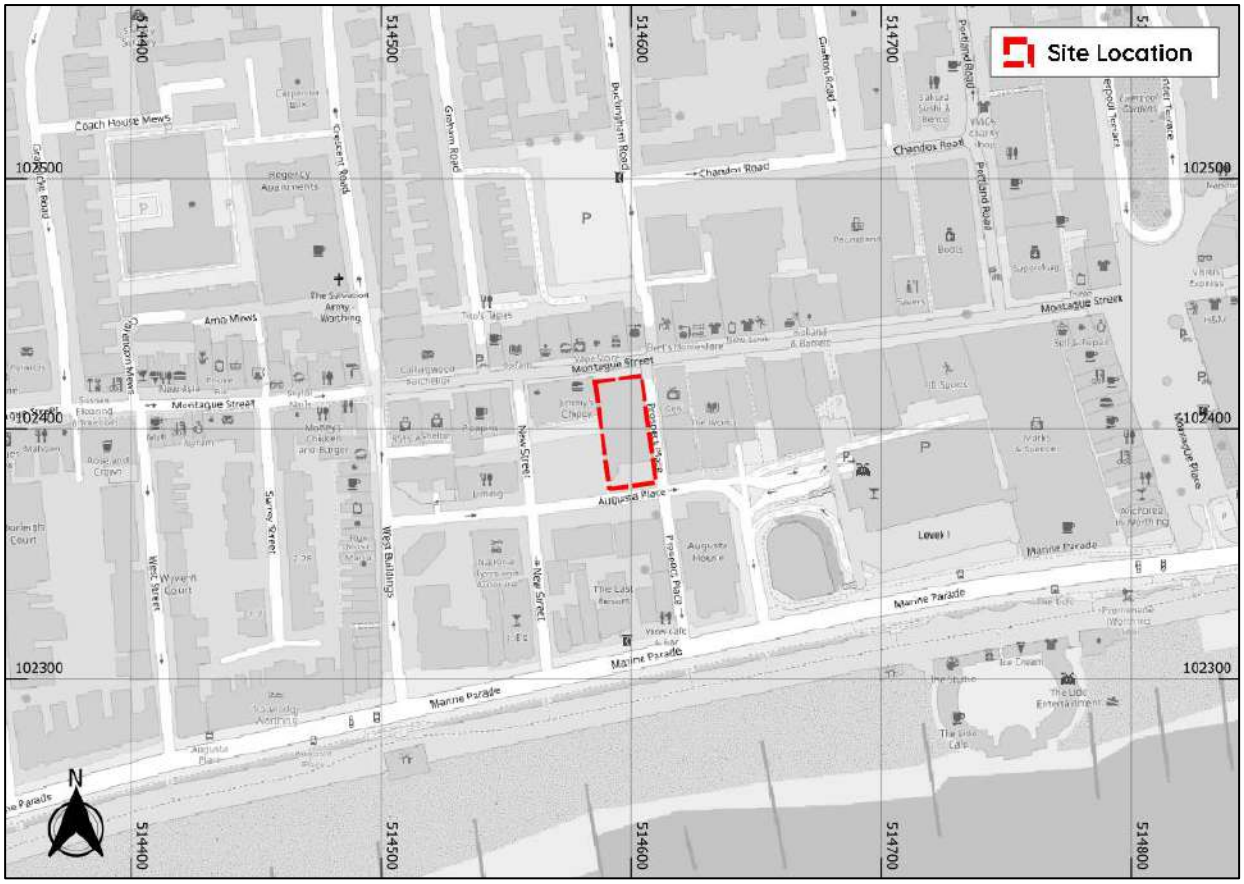

Figure 1: Site Location (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors)

1.4. It is understood that the proposals include the conversion of the first and second floors of the premises, from derelict commercial building into residential apartments, under permitted development (PD). There will be no increase to the built footprint of the existing building. Proposed development plans are attached in Appendix A.

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 (Figure 2). The EA LiDAR data shows the ground elevation of the site varies between approximately 5.19m AOD (metres Above Ordnance Datum) and 5.69m AOD. It is noted that the proposed development is located at the first and second floor and thus is well above this ground level.

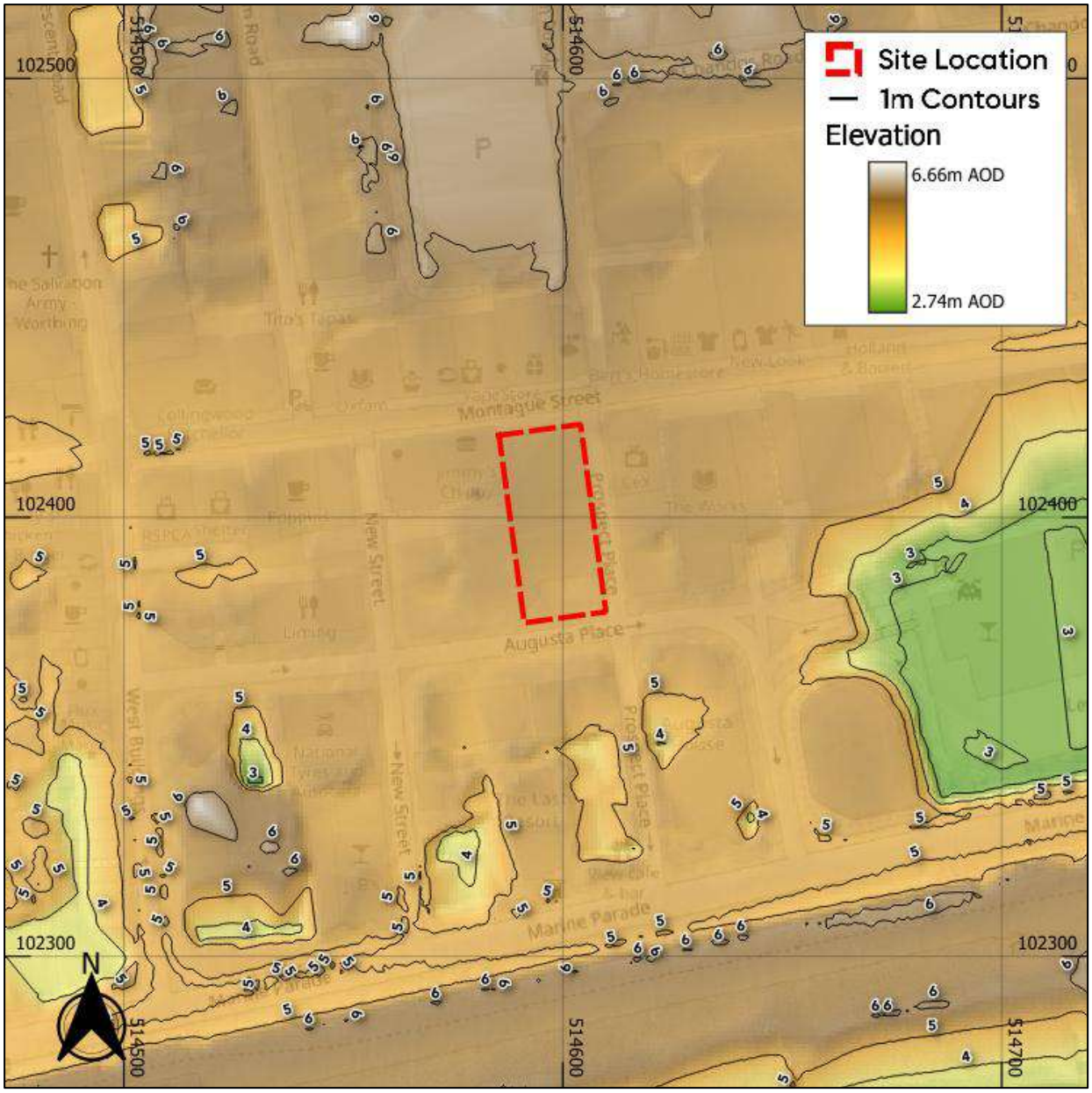

Figure 2: Site Topography (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

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

Planning Policy and Guidance

1.7. UK government planning guidance states[1] that an FRA is required for developments which are:

- *in flood zones 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 2, with the building proposed for development located within Flood Zone 1. According to the NPPF Footnote 63 an FRA is required.

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 Framework[2] (NPPF) (MHCLG, 2024) which includes UK Government policy on development and flood risk states:

> *170. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.*
>
> *181. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*
>
> *a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*
>
> *b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
>
> *c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*

[2] https://www.gov.uk/guidance/national-planning-policy-framework, **last updated Dec 2024**

d) any residual risk can be safely managed; and

e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

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

2.3. Footnote 63 of the NPPF states:

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

2.4. Flood Zones in England are defined as follows:

Table 1: Flood Zone Definitions

Flood Zone	Definition
Zone 1 Low Probability	Land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding.
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

2.5. An FRA should be appropriate to the scale, nature, and location of the development. It should identify and assess the risk from all sources of flooding to and from the development and demonstrate how any flood risks will be managed over the lifetime of the development.

2.6. An assessment of hydrological impacts should be undertaken, including to surface water runoff and impacts to drainage networks in order to demonstrate how flood risk to others will be managed following development and taking climate change into account.

Local Plan

2.7. The Local Plan prepared by the Local Planning Authority, Worthing Borough Council, sets out the policies for development in the local area.

2.8. Policy DM20 Flood Risk and Sustainable Drainage outlines the requirements for new development within the area. It states:

> *a) The Council will work with relevant bodies to ensure that flood risk in Worthing is managed and reduced. Development should be directed away from areas of highest risk of flooding from any source and opportunities should be taken to reduce flooding through sustainable drainage systems and natural flood management to deliver multi-functional benefits for people and wildlife.*
>
> *Flood Risk Assessment -*
>
> *b) A site specific Flood Risk Assessment must be submitted with planning applications for:*
>
> *i) sites of 1 hectare or greater in Flood Zone 1;*
>
> *ii) all new development (including minor development and change of use) in Flood Zones 2 and 3;*
>
> *iii) development that would introduce a more vulnerable class on land at increased flood risk in future or subject to other sources of flooding identified by the Strategic Flood Risk Assessment.*
>
> *c) The Flood Risk Assessment should be proportionate to the degree of flood risk and appropriate to the scale, nature and location of development. It will need to demonstrate that:*
>
> *i) the site has passed the sequential test (this has already been undertaken for all sites allocated in the Local Plan) and within the site the most vulnerable development is located in areas at lowest flood risk from any source unless there are overriding reasons for not doing so;*
>
> *ii) Where required by national policy, demonstrate both parts of the exception test have been passed: the development would provide wider sustainability benefits to the community that outweigh the flood risk; and*

the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

iii) current and future flooding from all sources including in-combination and cumulative effects, and any residual risk can be safely managed;

iv) ensure safe access and egress to and from the development, where necessary as part of an agreed flood warning and evacuation plan;

v) development will not increase flood risk elsewhere, and where possible will reduce the overall level of flood risk; and

vi) development should be appropriately flood resistant and resilient so in the event of a flood it can be quickly brought back into use without significant refurbishment.

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 Paragraph 172. This test should be implemented by local planning authorities with a view to location, particularly vulnerable new developments outside of the floodplain.

2.11. However, Paragraph 176 of the NPPF states:

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

2.12. As such, a site-specific Sequential and Exception Test for the proposed change of use is not considered necessary in line with the NPPF.

Summary

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

3. Consultation and Review

Consultation

3.1. The Environment Agency (EA) were contacted to ascertain if there is flood modelled data available for the area surrounding the site. A response was received on 15/12/2025, including Product 4 (P4) modelled data for Arun Coastal Model, 2012 (Attached in Appendix B).

3.2. Outputs will be assessed within section 4.

Documents and Online Mapping

3.3. 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.

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

- Flood Map for Planning on the Environment Agency website *https://flood-map-for-planning.service.gov.uk/*
- Long Term Flood Risk Information on the Environment Agency website *https://www.gov.uk/check-long-term-flood-risk*
- National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024)
- Planning Practice Guidance - Flood Risk and Coastal Change (Ministry of Housing, Communities and Local Government, 2022)
- Geoindex Onshore (British Geological Survey, 2024)
- Local Plan 2020-2036 (Worthing Borough Council, 2023)[3]

[3] **https://www.adur-worthing.gov.uk/media/Media,169486,smxx.pdf**

- Preliminary Flood Risk Assessment Addendum (West Sussex County Council, 2017)[4] and West Sussex Preliminary Flood Risk Assessment (West Sussex County Council, 2011)[5]
- Adur and Worthing Level 1 Strategic Flood Risk Assessment (Worthing Borough Council, 2024)[6]
- Local Flood Risk Management Strategy: 2025 - 2030 (West Sussex County Council, 2025)[7]

Preliminary Flood Risk Assessment (PFRA)

3.5. 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.

3.6. 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)

3.7. The SFRA, published in 2024, provides the evidence base for the Local Planning Authority Worthing Borough 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.

3.8. The SFRA mapping provided by Worthing Borough Council has been used throughout production of this report as a source of information, particularly pertaining to historical flood incidents.

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[4] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/698548/PFRA_West_Sussex_County_Council_2017.pdf

[5] https://www.westsussex.gov.uk/media/1626/west_sussex_pfra.pdf

[6] https://www.adur-worthing.gov.uk/media/Media,171789,smxx.pdf

[7] https://www.westsussex.gov.uk/media/zxfdrox1/westsussex_lfrms.pdf

Local Flood Risk Management Strategy (LFRMS)

3.9. The Local Flood Risk Management Strategy sets out roles and responsibilities for flood risk management, assesses the risk of flooding in the area, where funding can be found to manage flood risk, and the policies, objectives, and actions of the Lead Local Flood Authority.

3.10. 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. 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.

Hydrological Environment

4.2. The coastline is loacted c.100m south of the site.

4.3. There is no watercourse within 500m of the site, as per OS mapping.

EA Flood Map for Planning

4.4. The building footprint is located within Flood Zone 1 (land having less than 1 in 1,000 annual probability of river or sea flooding (all land outside Zones 2 and 3)). Parts of the southern boundary is located on the edge of tidal Flood Zone 2 (land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding).

4.5. However, the entire site including building is located within the Flood Zone plus climate change (Figure 3). The Flood Zones plus climate change (August 2025 Update) dataset shows how Flood Zones could increase with climate change over the next century, ignoring the benefits of any existing flood defences. The 'Central' allowance for the 2080s epoch (2070-2125) for risk of flooding from rivers has been used to estimate Flood Zones extents.

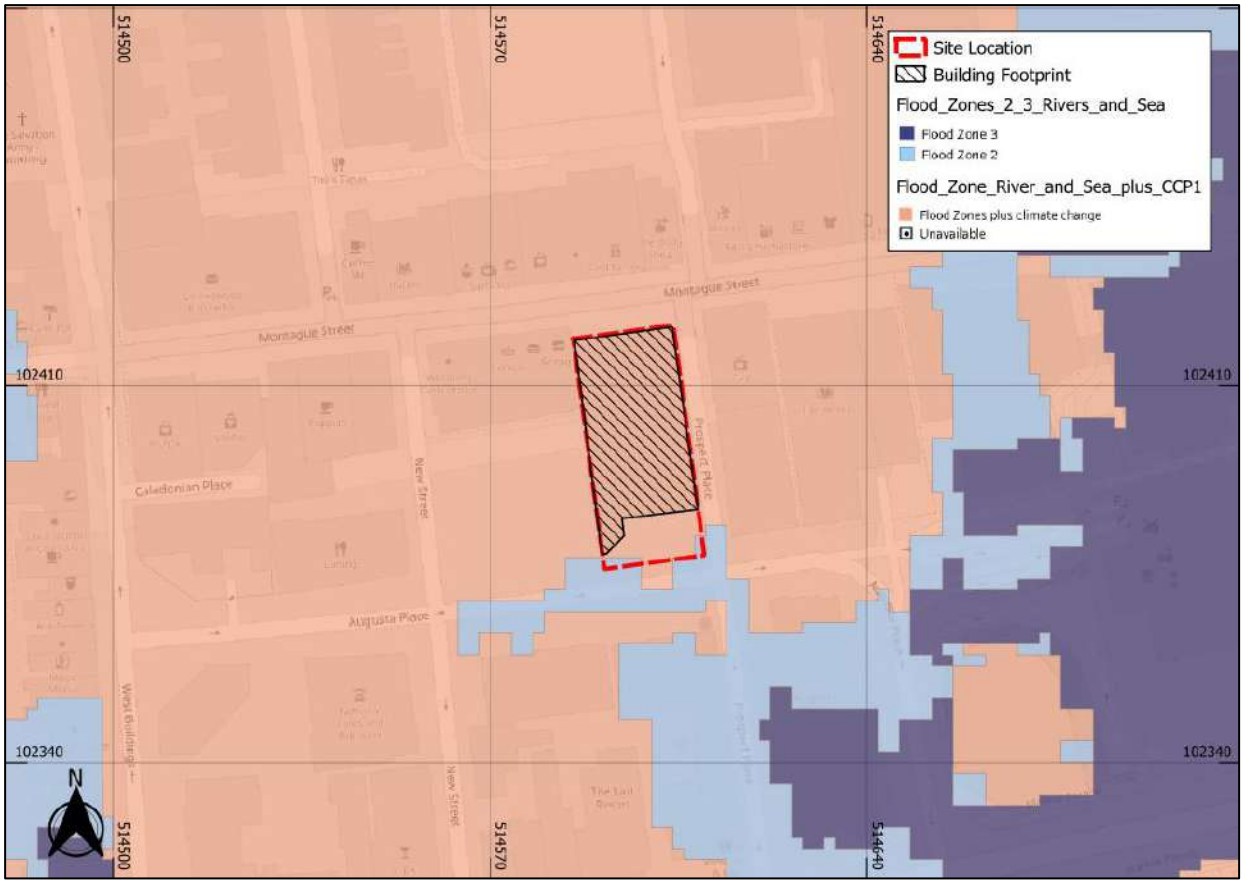


Figure 3: EA Flood Map for Planning (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

Historical Flooding

4.6. According to the EA Recorded and Historical Flood Mapping, there has been no recorded historical flood events on or in the vicinity of the site (Figure 4).

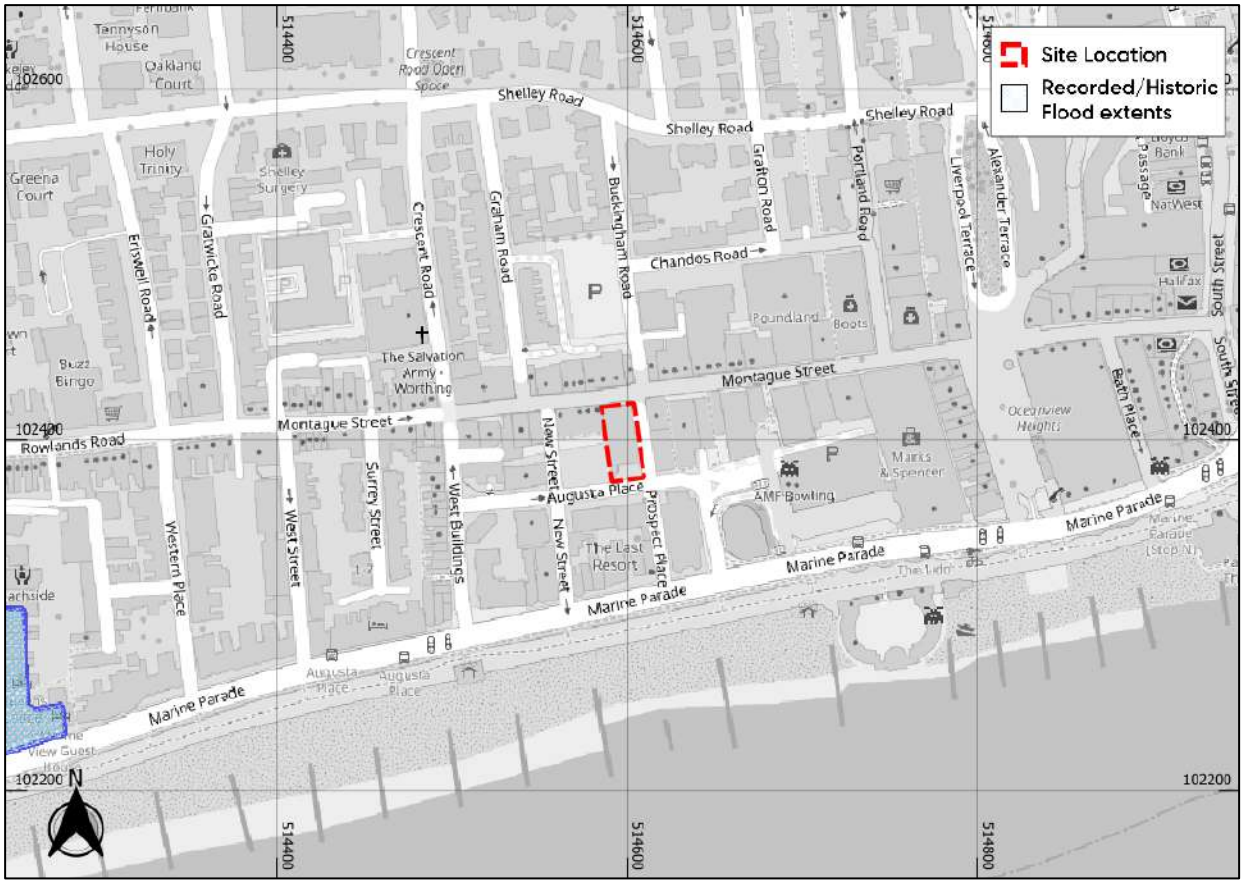


Figure 4: EA Historic Flood Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

EA Flood Modelled Data

4.7. The EA have provided Product 4 (P4) data (Correspondence and data are included within Appendix B) for the area surrounding the site.

4.8. Figure 5 shows the location of the 2D flood nodes in the area selected surrounding the site. Node 4 and 5 is in the area of development and Node 6 is considered in Flood Zone 2, thus will be used to infer flood levels and depths relevant to the proposed development.

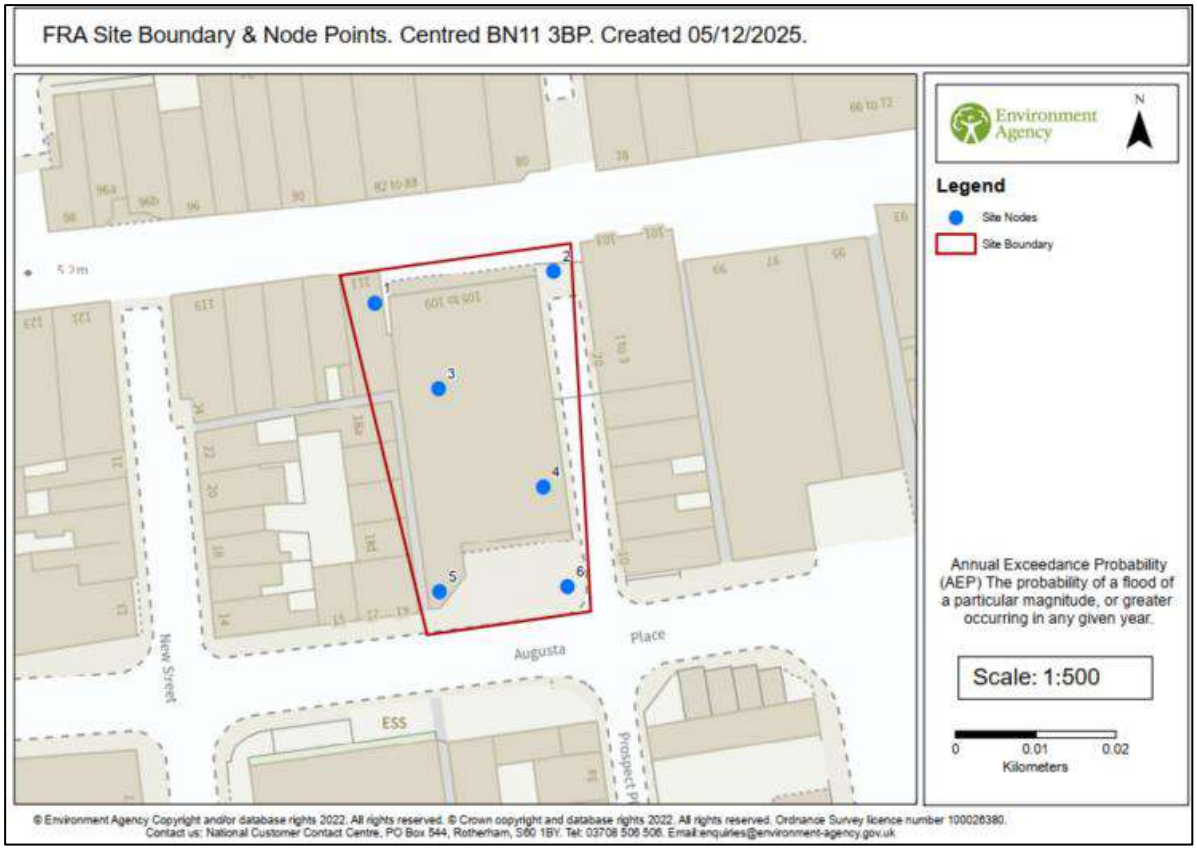


Figure 5: P4 Node Locations (Environment Agency copyright and / or database rights 2025. Contains public sector information licensed under the Open Government Licence v3.0)

4.9. The undefended flood levels are assessed as the worst-case scenario and shown in Table 2.

Table 2: Undefended Flood levels and depths

2D Flood Point No. (ground level)	1in200yr (2115)		1in1000	
	Level (m)	Depth (m)	Level (m)	Depth (m)
4 (5.41m AOD)	N/A	N/A	N/A	N/A
5 (5.36m AOD)	5.25	N/A*	N/A*	N/A*
6 (5.27m AOD)	5.25	N/A*	N/A*	N/A*

*No flood depths as ground levels are higher than modelled flood level

4.10. Across all nodes, the site would not be impacted in the worst case scenario (undefended event).

Tidal Flood Risk Summary

4.11. The proposed development involves no footprint increase and sits within Flood Zone 1. All development occurs at or above the first floor and the building footprint remains unaffected by the worst-case modelled (1in1000year) tidal flooding scenario. Consequently, the flood risk is considered to be low.

Fluvial

4.12. The site is at risk of flooding from tidal sources rather than fluvial sources and there are no other mapped watercourses in the vicinity of the site.

4.13. As such, the risk of flooding from fluvial sources is considered to be low.

Canals

4.14. 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.

4.15. According to CRT mapping[8] there are no canals identified within 1km of the site.

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

Pluvial

4.17. 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.

Risk of Flooding from Surface Water Mapping

4.18. The National Flood Risk Assessment (NaFRA2) has updated the Risk of Flooding from Surface Water (RoFSW) products which show the chance of flooding from surface water to areas of land.

4.19. The RoFSW products are an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but

[8] **https://canalrivertrust.org.uk/canals-and-rivers**

lies on or flows over the ground instead. It includes information about flooding extents and depths including the potential impact of climate change on flood risk, based on the latest UK Climate Projections (UKCP18).

4.20. Risk is displayed as one of three likelihood categories:

- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any year.
- Medium – Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year.
- Low – Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) chance of flooding in any given year.

4.21. The RoFSW depth mapping shows the annual chance of flooding (based on the three risk categories listed above) beyond a specific depth, for depths at the following intervals from 20cm to 120cm:

- 0.2m, 0.3m, 0.6m, 0.9m, 1.2m

4.22. As well as present day risk of flooding from surface water, climate change scenarios have been produced to indicate the predicted impacts of climate change on future flood risk. The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5. A near-term epoch (2040 – 2060 "2050s" epoch) and central allowances are being used initially, to support short and medium-term decisions informed by the highest flood likelihood projections.

4.23. The site is shown to not be impacted in any of the present day scenarios, thus the 'worst-case' climate change scenario has been assessed below.

Climate Change

4.24. The EA 'Flood Risk from Surface Water - Climate Change' map indicates that the site is outside all at risk scenarios (Figure 6).

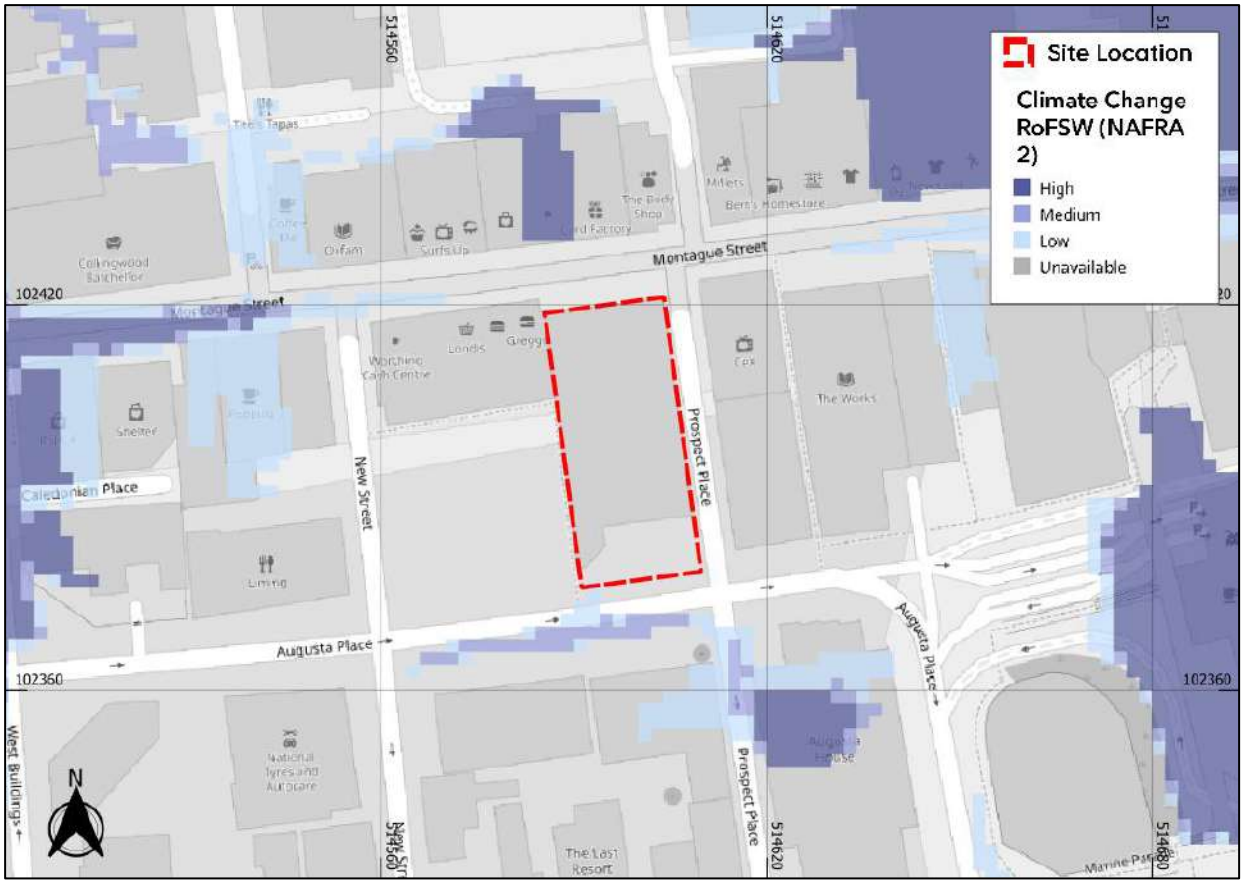


Figure 6: EA Surface Water Flood Risk Mapping Climate Change Extent (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors)

Pluvial Risk Summary

4.25. The site is considered to be at a low risk of pluvial flooding based on RoFSW mapping shown above.

Reservoirs

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

4.27. According to the EA's Flood Risk from Reservoirs mapping the site is outside flood extents in the event of reservoir flooding (Figure 7).

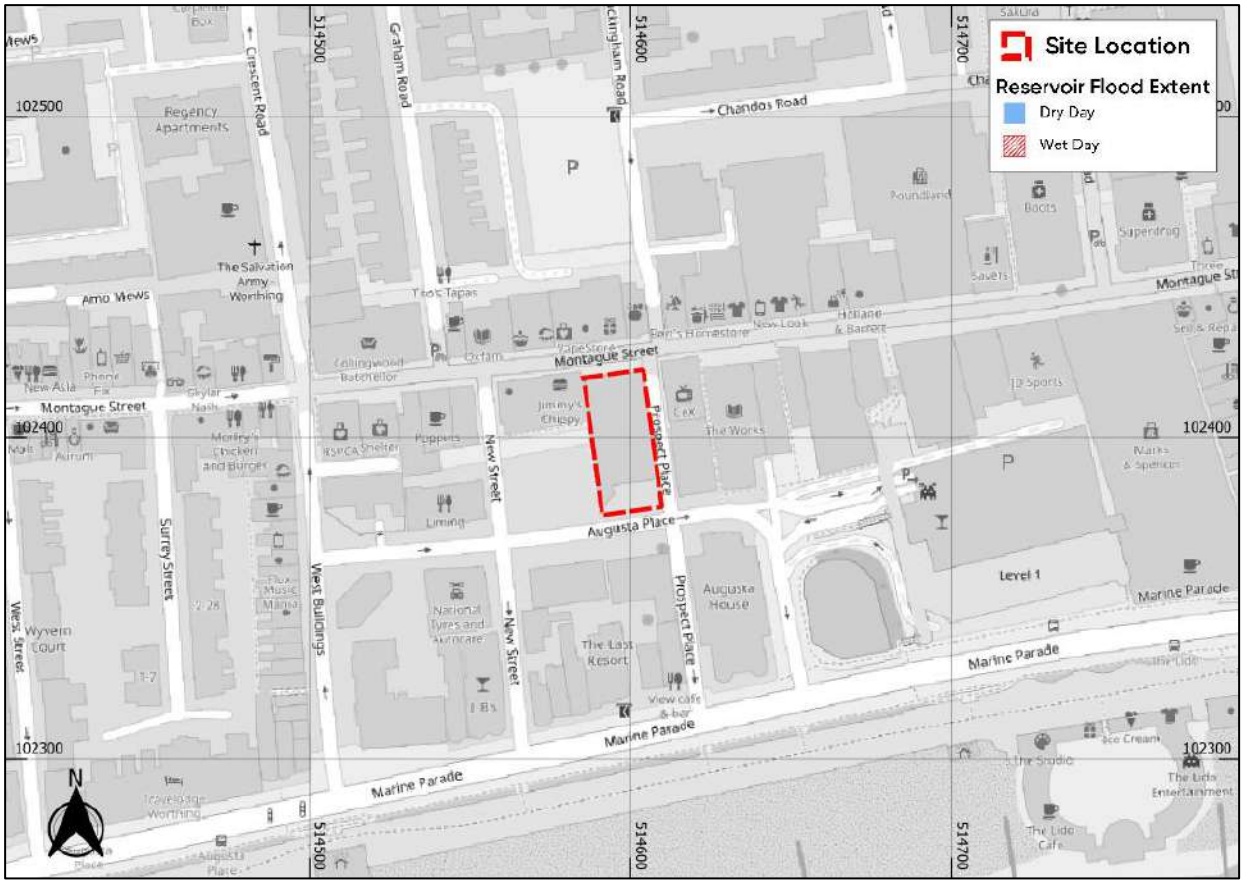


Figure 7: EA Reservoir Flood Risk Mapping (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). ©https://www.openstreetmap.org and contributors. Contains public sector information licensed under the Open Government Licence v3.0)

4.28. Thus, the site is considered low risk from reservoir flooding.

Groundwater

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

4.30. The British Geological Survey's (BGS) mapping shows superficial deposits of River Terrace Deposits (Undifferentiated) comprised of sand, silt and clay underlying the site. The bedrock underlying the site is Lewes Nodular Chalk Formation.

4.31. The SFRA presents JBA Groundwater Flood Map product at the national scale. The 5m resolution JBA Groundwater map 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 site is within an area where

ground water levels are estimated to be 'between 0.5m and 5m below the ground surface' (Figure 8).

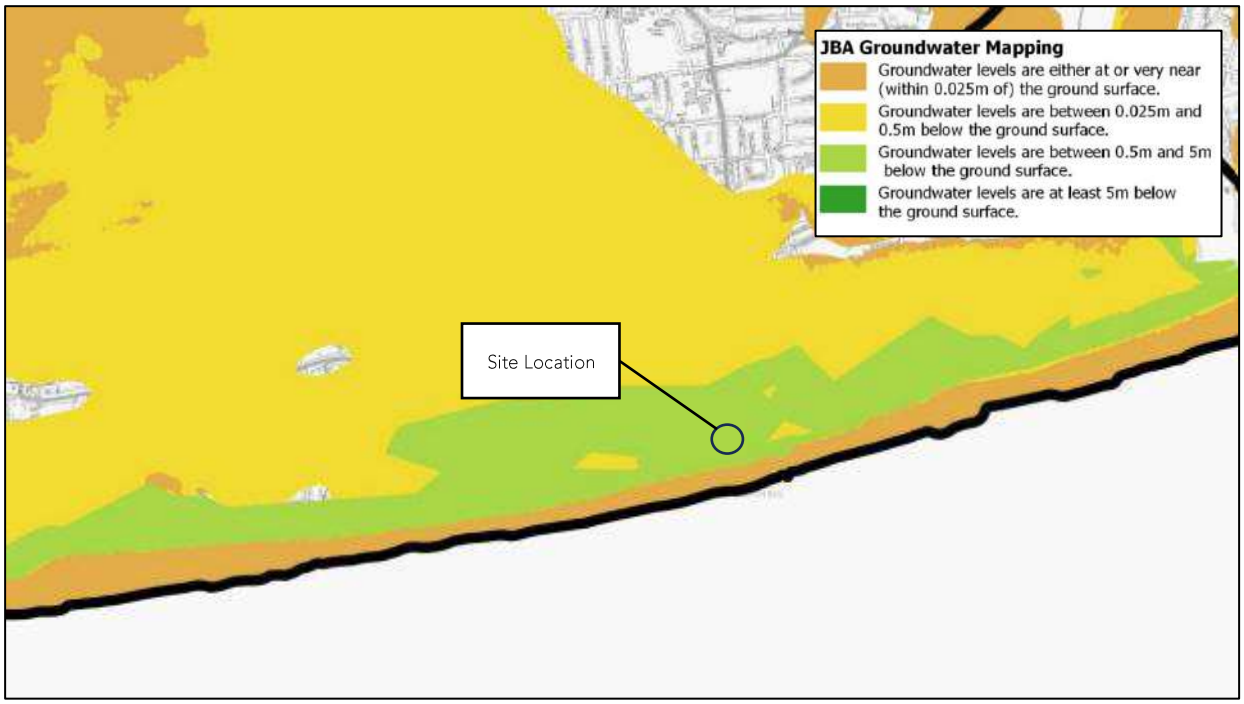


Figure 8: JBA Groundwater Mapping (Adur and Worthing Level 1 Strategic Flood Risk Assessment (Worthing Borough Council, 2024)

4.32. According to the BGS Historical Borehole mapping, the nearest identified borehole is situated c.45m southeast of the site and is referenced TQ10SW157. This borehole was bored to a total depth of 12.65m below ground level (bgl). Review of the record shows groundwater was struck at a level of 3.66m bgl.

4.33. Furthermore, the proposed development will not alter the existing footprint and all development is occurring at first floor level and above. The risk from groundwater is considered low.

Sewers

4.34. 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.

4.35. It is noted that the SFRA (2024) references a table showing Sewer Incident Report Form database for Adur District and Worthing Borough SFRA areas.

4.36. Within the sites 5-figure post code area (BN11 3), there has been 12 recorded sewer flood incidents. There is no evidence to suggest that these incidents have impacted the site. Given the wide area a 5-figure post code area covers it is unlikely that these events impacted the site.

4.37. The development is therefore considered to be at low risk of flooding from sewers.

5. Flood Risk Mitigation

All Analysed Sources of Flooding

5.1. Based on Section 4 of this report, the proposed development is considered to be low risk from all analysed sources including tidal watercourse, fluvial, canal, pluvial, reservoir, groundwater and sewers.

5.2. Therefore, there is no requirement for mitigation measures to be included within the development.

Increase to Flood Risk Elsewhere

5.3. The proposed development will see no increase in built footprint as the proposed development will be an internal change of use. Therefore, the proposed development would not increase the flood risk elsewhere through water displacement.

Flood Warnings

5.4. As a precautionary approach, site occupants / building managers should monitor Met Office Weather Warnings to be prepared for extreme weather events.

5.5. The Met Office issues weather warnings up to 5 days in advance, through the national Severe Weather Warning Service, when severe weather has the potential to bring impacts to the UK. It is also possible to stay up to date with weather warnings through the Met Office app (available on both Apple or Android devices), social media e.g. X and Facebook or email alerts.

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 105/109 Montague Street, Worthing, West Sussex, BN11 3BP. 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.

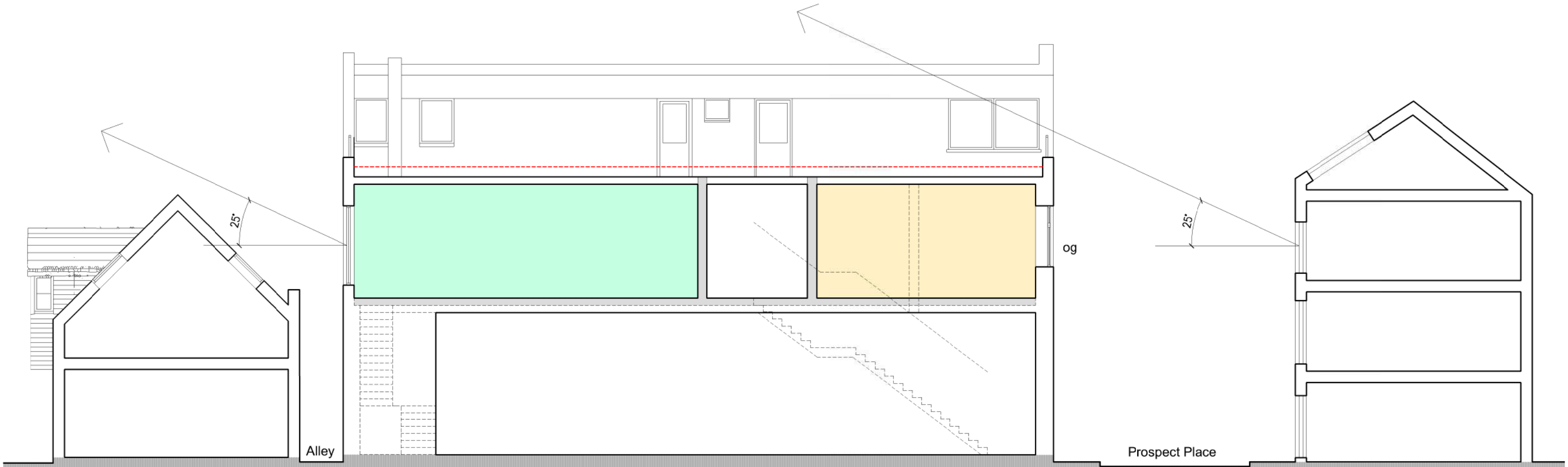
6.2. An assessment of the risk of flooding from all sources has been undertaken and is summarised in the table below:

Source of Flooding	Flood Risk Summary
Tidal	The building proposed for development, which will not increase its footprint, is located entirely within Flood Zone 1. EA modelled data shows that the site would not be impacted up to the undefended 1in1000year event. In addition, all development is occurring at first floor level and above. The risk from tidal sources is considered low.
Fluvial Pluvial 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. 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



Proposed section DD scale 1:100 @A3 See drawings 11, 12, 13 for section references

0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

Draft planning issue

rev.	date

client
Danworth Holdings Ltd

project
105-109 Montague Street
Worthing

drawing
Proposed Section DD

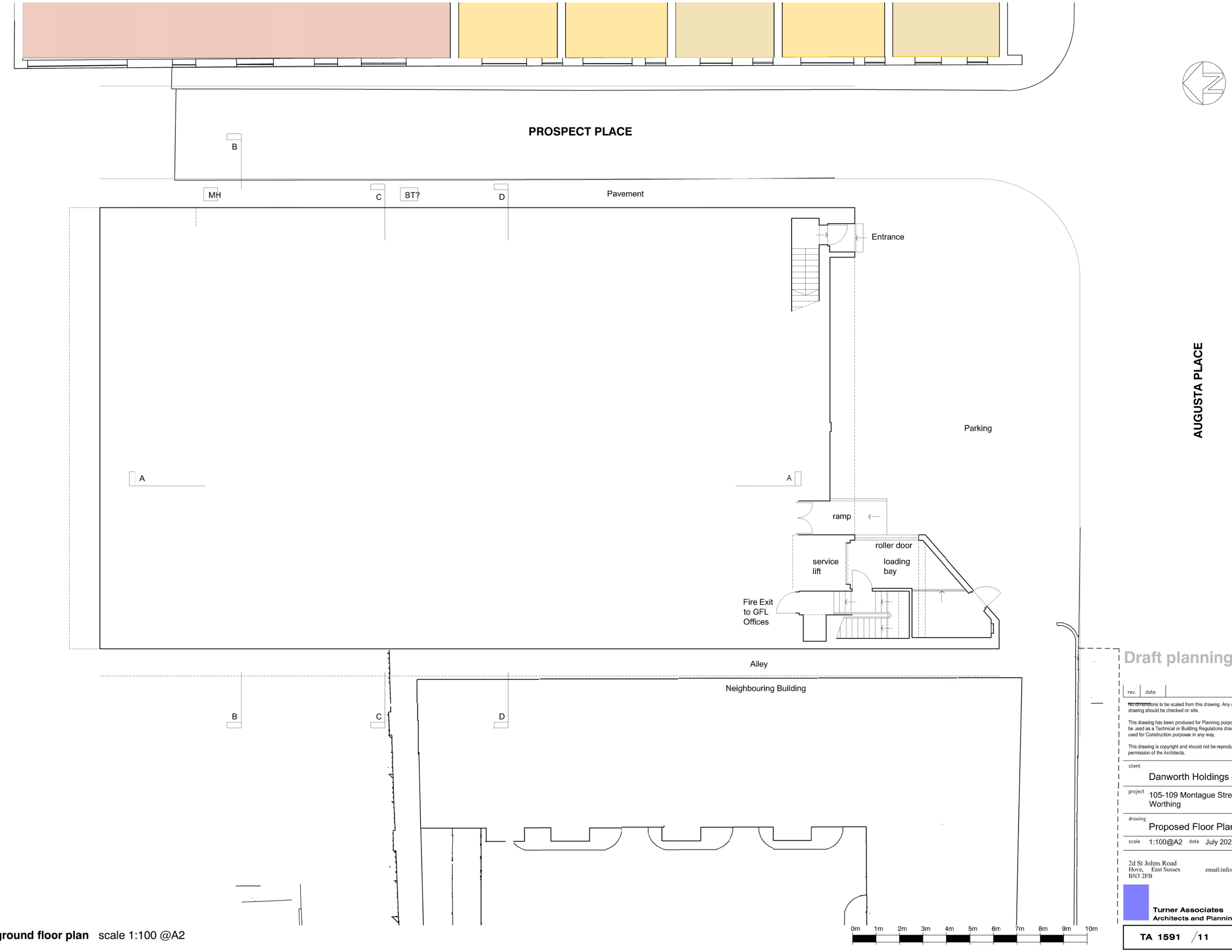
scale 1:100@A3 date July 2025 drawn

2d St Johns Road
Hove, East Sussex
BN3 2FB

tel: 01273 203230
email:info@taarchitects.co.uk

Turner Associates
Architects and Planning Consultants

TA 1591 /20 rev.



Proposed ground floor plan scale 1:100 @A2

Draft planning issue

rev.	date

No dimensions to be scaled from this drawing. Any dimensions shown on the drawing should be checked on site.

This drawing has been produced for Planning purposes only and should not be used as a Technical or Building Regulations drawing and must not be used for Construction purposes in any way.

client: Danworth Holdings Ltd

project: 105-109 Montague Street Worthing

drawing: Proposed Floor Plan

scale 1:100@A2 date July 2025 drawn

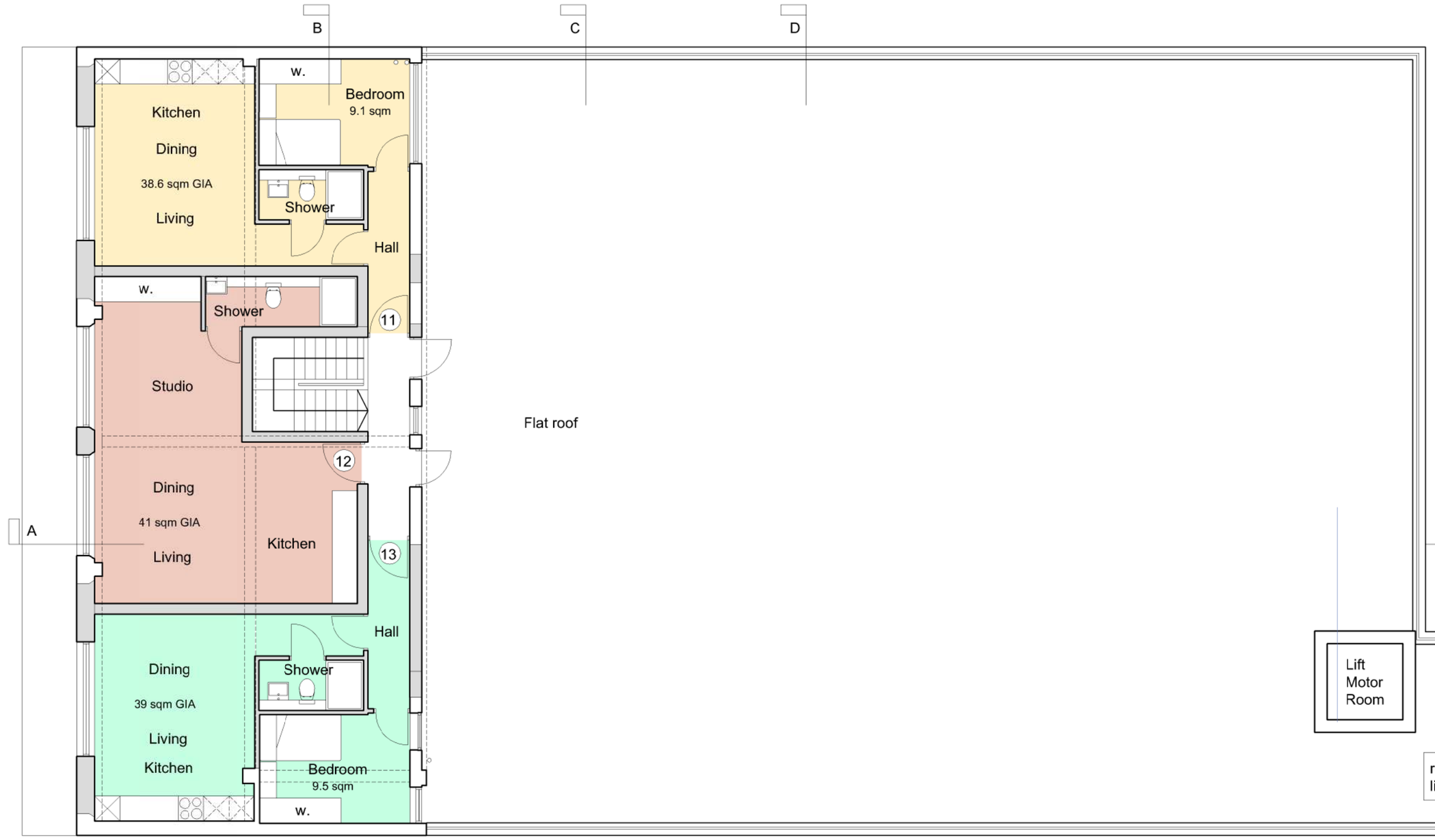
2d St Johns Road
Hove, East Sussex
BN3 2FB

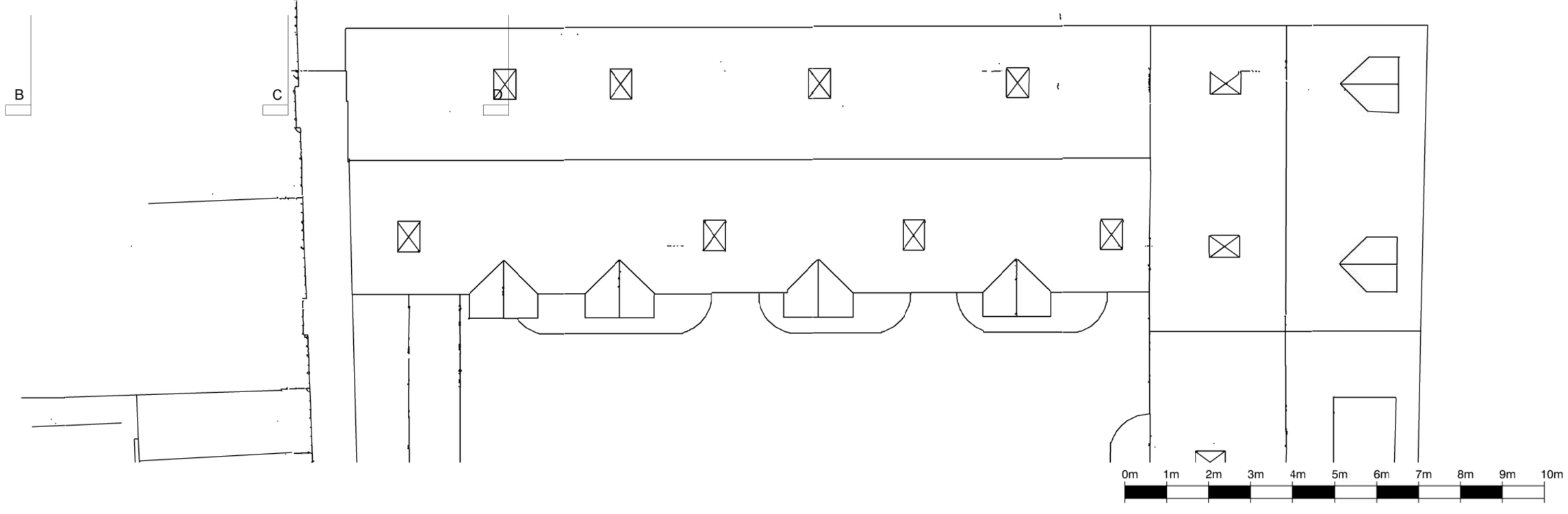
tel: 01273 203230
email:info@taarchitects.co.uk

Turner Associates
Architects and Planning Consultants

TA 1591 /11 rev.

PROSPECT PLACE





Proposed second floor plan scale 1:100 @A2

AUGUSTA PLACE

Draft planning issue

rev.	date

client
Danworth Holdings Ltd

project
105-109 Montague Street
Worthing

drawing
Proposed Floor Plan

scale 1:100@A2 date July 2025 drawn

2d St Johns Road
Hove, East Sussex
BN3 2FB

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Turner Associates
Architects and Planning Consultants

TA 1591 /13 rev.

Neighbouring building second floor windows shown dashed in red

Neighbouring building first floor windows shown in black

PROSPECT PLACE

All high level top windows to be clear glazed as they are above 1.9m from floor level

AUGUSTA PLACE

Proposed first floor plan scale 1:100 @A2 Please see east elevation drawing TA 1591 - 16 for location of obscured glazed (og) and opening windows

0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

Draft planning issue

rev.	date

client: Danworth Holdings Ltd

project: 105-109 Montague Street
Worthing

drawing: Proposed Floor Plan

scale 1:100@A2 date July 2025 drawn

2d St Johns Road
Hove, East Sussex
BN3 2FB

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email:info@taarchitects.co.uk

Turner Associates
Architects and Planning Consultants

TA 1591 /12 rev.

Appendix B - Consultation

Jacob Caddick

From: SSD_PSO <SSD_PSO@environment-agency.gov.uk> on behalf of SSD_PSO
Sent: 08 December 2025 09:25
To: Lisa Slater
Cc: SSD Enquiries
Subject: RE: EIR2025/44562 - Product 4,5,6,7 Data - 105-109 Montague Street, Worthing, BN11 3BP (Your ref: 9755)
Attachments: FRA Data.pdf; P5 6 7 Covering Letter - EIR202544562.pdf; SSD Pre-app advice note September 2019.pdf

Dear Lisa,

Thank you for your Product 4, 5, 6, and 7 data request for **105-109 Montague Street, Worthing, BN11 3BP**. Please see the attached Product 4/Flood Risk Assessment data.

You can download the Product 5, 6 & 7 data from this link: https://fcrm.quatrix.it/download/9d725902-ae59-4d4b-97de-96f24f86fbb5
Please note this link will expire in 30 days.

For pre-planning advice please see attached 'SSD Pre-app advice note September 2019'.

For information on flooding from other sources such as surface water please contact the Lead Local Flood Authority, **West Sussex County Council**.

Guidance on climate change allowances and how to use them in Flood Risk Assessments can be found here.

For future reference, detailed flood information and maps can be viewed using the Long Term Flood Risk Information service and Flood Map for Planning service. Flood and Coastal Risk Management asset information, and details of all planned maintenance activities can be viewed using the Asset Management Service.

Rights of appeal: If you are not satisfied you can contact us within 2 calendar months to ask for our decision to be reviewed. We shall review our response to your request and give you our decision in writing within 40 working days.

If you are still not satisfied following this, you can raise a concern with the Information Commissioner, who is the statutory regulator for Freedom of Information and the Environmental Information Regulations. The contact details are:

- Address: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF
- Tel: 303 123 1113
- Website: http://ico.org.uk

If you have any further queries about this request, please do not hesitate to contact us at SSD_PSO@environment-agency.gov.uk.

Kind regards,

Amy O'Donnell (*she/her*)
Flood & Coastal Risk Officer
Partnership and Strategic Overview West Sussex, Solent and South Downs
Environment Agency | Teville Gate House, Teville Road, Worthing, West Sussex, BN11 1UR
PSOWestSussex@environment-agency.gov.uk

Creating a better place for people and wildlife

From: Lisa Slater <lisa@aegaea.com>
Sent: 01 December 2025 10:29
To: SSD Enquiries <SSDEnquiries@environment-agency.gov.uk>
Subject: RE: Data request - 105/109 Montague Street, Worthing, West Sussex, BN11 3BP (our ref 9755)

Dear Team,

Please can we request product 5-7 for the attached site.

We require the following information:

1d and 2d modelled flood levels and flows including an allowance for climate change where available for the defended and undefended scenario
Modelled breach flood levels and flows including an allowance for climate change where available
Historic flood records
Flood defence and structure information including type, standard of protection, and crest heights.
Details of any relevant flood defence or management schemes, including future schemes.

Kind Regards,

Lisa Slater
Operation Manager
t: +44 (0) 1323 923956
e: lisa@aegaea.com

aegaea
water, civils and environment
Water, Civils and Environmental Consulting

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and

attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.

Flood risk assessment data

Location of site: 105-109 Montague Street, Worthing, BN11 3BP
Document created on: 5 December 2025
This information was previously known as a product 4.
Customer reference number: EIR2025/44562

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 surface water and other sources of flooding
- information on the models used
- definitions for the terminology used throughout
- flood map for planning (rivers and the sea)
- modelled 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
- flood defences and attributes

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.

We aren't able to display flood defence locations and attributes as there are no formal flood defences in the area of interest.

Surface water and other sources of flooding

When using the surface water map on the check your long term flood risk service the following considerations apply:

- surface water extents are suitable for use in planning
- surface water climate change scenarios may help to inform risk assessments, but the available data fall short of what is required to assess planned development
- surface water depth information should not be used for planning purposes

To find out about other factors that might affect the flood risk of this location, you should also 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 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: Arun Coastal Model, 2012
Scenario(s): Defended tidal, Undefended tidal
Date: 20 August 2012

These models contain 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 occuring 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 2.

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

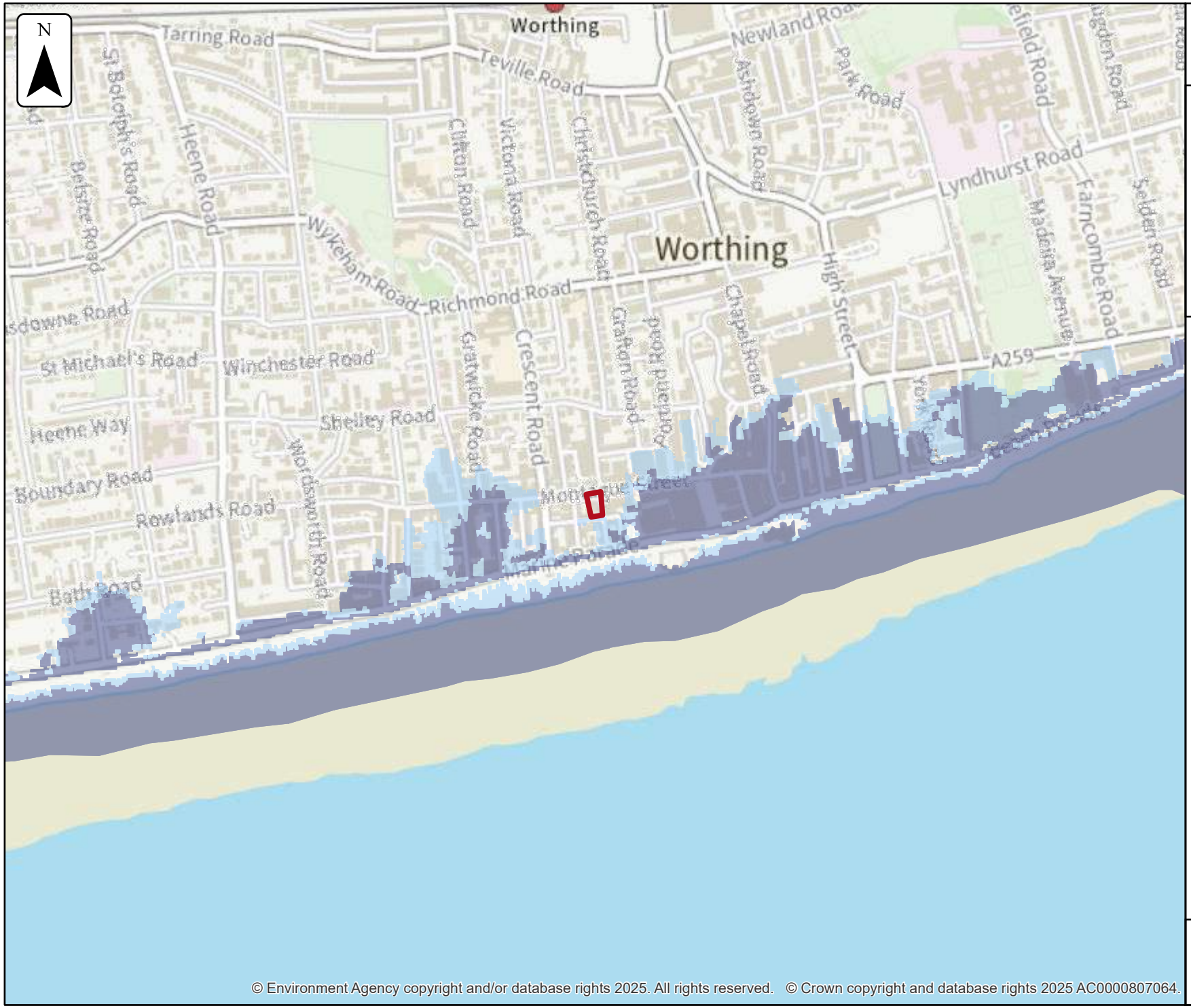
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

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



Environment Agency

Flood map for planning

Location (easting/northing)
514596/102400

Scale
1:10,000

Created
5 Dec 2025

- Selected area
- Flood Zone 3
- Flood Zone 2

0 100 200 300 400 500
metres

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 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

Modelled Flood Outlines (Defended Tidal). Centred BN11 3BP. Created 05/12/2025.

Environment Agency

N

Legend

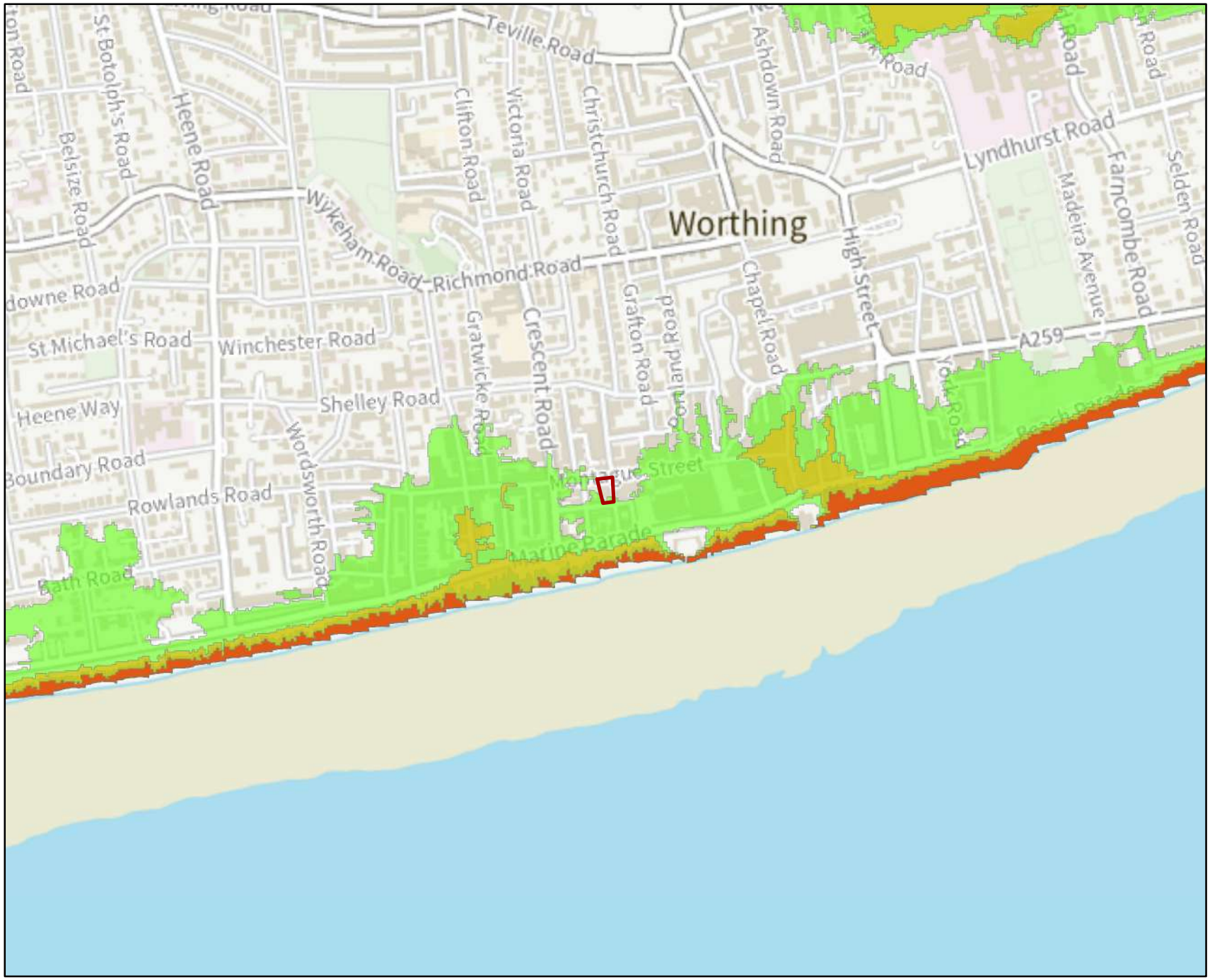
- Site Boundary
- 0.5% AEP (2012) (Defended)
- 0.5% AEP (2070) (Defended)
- 0.5% AEP (2115) (Defended)
- 0.1% AEP (2012) (Defended)

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

Scale: 1:10,000

0 0.225 0.45
Kilometers

Modelled Flood Outlines (Undefended Tidal). Centred BN11 3BP. Created 05/12/2025.



Environment Agency

N

Legend

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

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

FRA Site Boundary & Node Points. Centred BN11 3BP. Created 05/12/2025.

Environment Agency

N

Legend

- Site Nodes
- Site Boundary

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

Scale: 1:500

0 0.01 0.02
Kilometers

Product 4 Flood Risk Data Requested by: Aegaea

Site: 105-109 Montague Street, Worthing, BN11 3BP

Table 1: Water Levels: Tidal Undefended

	NGR		Modelled Flood Levels in Metres AOD Undefended Annual Exceedance Probability			
Node Ref	Eastings	Northings	0.5%	0.5% (2070)*	0.5% (2115)*	0.1%
1	514584	102416	-	-	-	-
2	514606	102420	-	-	-	-
3	514592	102406	-	-	-	-
4	514605	102393	-	-	-	-
5	514592	102380	-	-	5.25	-
6	514608	102381	-	-	5.25	-

Table 2: Water Levels: 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	514584	102416	-	-	-	-
2	514606	102420	-	-	-	-
3	514592	102406	-	-	-	-
4	514605	102393	-	-	-	-
5	514592	102380	-	-	-	-
6	514608	102381	-	5.20	-	5.15

Table 3: Water Depths: Tidal Undefended

	NGR		Modelled Flood Depths in Metres Undefended Annual Exceedance Probability			
Node Ref	Eastings	Northings	0.5%	0.5% (2070)*	0.5% (2115)*	0.1%
1	514584	102416	-	-	-	-
2	514606	102420	-	-	-	-
3	514592	102406	-	-	-	-
4	514605	102393	-	-	-	-
5	514592	102380	-	-	0.02	-
6	514608	102381	-	-	0.14	-

Table 4: Water Depths: Tidal Defended

	NGR		Modelled Flood Depths in Metres			
			Defended Annual Exceedance Probability			
Node Ref	**Eastings**	**Northings**	**0.5%**	**0.5% (2070)***	**0.5% (2115)***	**0.1%**
1	514584	102416	-	-	-	-
2	514606	102420	-	-	-	-
3	514592	102406	-	-	-	-
4	514605	102393	-	-	-	-
5	514592	102380	-	-	-	-
6	514608	102381	-	0.09	-	0.05

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

Produced on: 05/12/2025

*** 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 surface water, ground water 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