Response to Condition 6 of AWDM/1627/19 and Condition 19 of AWDM/1626/18

Site:	2 – 3 Bath Place, Worthing, West Sussex, BN11 3BA
Prepared by:	PA
Approved by:	NJ
Date:	24th September 2021

84 North Street
Guildford
GU1 4AU

Tel: 01483 531300
www.motion.co.uk

1.0 Introduction

1.1 This technical note has been produced to address the above-named conditions, which are in relation to the proposed development at 2 – 3 Bath Place, Worthing. The development proposals include alterations to the roof to provide a 3rd floor extension that will create a two-bedroom flat, along with the conversion of the first and second floors to residential accommodation. The ground floor is to be occupied by Connaught Leisure, a games arcade, as well as the entrance lobby and stairwell for the residential accommodation above.

1.2 The layout of the proposed development and the floor plans can be seen in Appendix A.

1.3 Condition 6 of AWDM/1627/19 requests that:

Prior to the occupation of the 3rd floor flat hereby approved, arrangements for provision, dissemination and updating of flood risk information and means of escape for residents shall be submitted to and approved in writing by the Local Planning Authority. The development shall be completed and permanently maintained in accordance with the details thereby approved.

Reason: In the interests of safety and to minimise risk from flooding in accordance with policy 15 of the Worthing Core Strategy 2011.

1.4 Condition 19 of AWDM/1628/18 requests that:

The following details shall also be submitted to and approved in writing by the Local Planning Authority prior to the commencement of conversion works (with the exception of any internal demolition or stripping-out):

Details of the construction of the ground floor accesses and hallway to the flats hereby approved to show measures of flood resistance, to minimise the risk of floodwater ingress, and flood resilience, to minimise the risk of damage in the event of flood.

Reason: In the interests of safety and to minimise risk from flooding in accordance with policy 15 of the Worthing Core Strategy 2011.

2.0 Condition 6 of AWDM/1627/19

2.1 Section 7 of the Ambiental Flood Risk Assessment (FRA), dated November 2017 (included in Appendix B), describes an escape route from the site and provides information on flood warnings, but to clear Condition 6 the LLFA has requested information on the proposed arrangements for the provision, dissemination and updating of flood risk information and means of escape for residents.

2.2 This Technical Note will provide further details on the Flood Warning and Evacuation procedures that need to be in place at 2 – 3 Bath Place, Worthing. This Technical Note can be regarded as a Flood Warning and Evacuation Plan (FWEP) for the development.

2.3 The information provided in the Ambiental FRA and the Environment Agency's Flood Map for Planning shows the site to be in an area of high risk of tidal flooding. Consequently, it is important the occupants of 2 – 3 Bath Place are aware of the flood risk on site and how they should prepare for a flood event. This FWEP summarises the flood risk and provides all relevant information and procedures to plan for, respond to and recover from a flood event.

2.4 This FWEP is a living document and the owners of 2 – 3 Bath Place (or their managing agents) are responsible for its ownership, maintenance and implementation. All stakeholders should be informed of any changes of circumstance that may materially affect the FWEP and its need to be reviewed and updated.

2.5 This FWEP should be reviewed:

- On first occupation;
- Every 3 years thereafter;
- As a result of lessons learned;
- Following changes of management or modification of the premises; and
- Following changes to the flood warning process.

2.6 Motion considers that this FWEP is suitable for the purposes set out in the 2021 National Planning Policy Framework (NPPF). This FWEP, however, is the sole responsibility of the owners of 2 – 3 Bath Place and/or their managing agents. Motion cannot accept any responsibility for any omission or error contained in any such plan, or for loss, damage or inconvenience that may result from the FWEP's implementation.

Objectives

2.7 This FWEP has been produced with the following objectives:

- To highlight how flooding can occur;
- To outline the flood warning process, including how to receive alerts and understand the different flood warning codes;
- To give recommendations on how to take action in a flood event and what mechanisms need to be in place to ensure that it can happen safely and efficiently;
- To establish robust procedures to move occupants of the flats as well as staff and visitors of Connaught Leisure to a place of safety, including establishing a safe evacuation route;
- To make recommendations for things that can be done to ensure a swift recovery from flooding; and
- To establish clear procedures for the implementation and maintenance of this plan.

Site Location

2.8 2 – 3 Bath Place is located close (approximately 50 metres) to Worthing seafront. Bath Place is perpendicular to Marine Parade, which is runs east-west adjacent to Worthing Beach. Site location plans can be seen in Appendix C. The local tidal defences are formed of raised shingle embankments and groynes, and are maintained by Worthing Borough Council.

2.9 2 – 3 Bath Place is currently occupied by a shop and a restaurant.

2.10 As stated in Section 1 of this Technical Note, the development proposals include alterations to the roof to provide a 3rd floor extension that will create a two-bedroom flat, along with the conversion of the first and second floors to residential accommodation. The ground floor is to be occupied by Connaught Leisure, a games arcade, as well as the entrance lobby and stairwell for the residential accommodation above

Flood Risk

2.11 The Environment Agency's Flood Map for Planning can be seen in Appendix D. The site is within the high risk tidal flood zone (Flood Zone 3).

Preparing For Flooding

2.12 There are many ways in which 2 – 3 Bath Place can prepare for flooding. By planning a response to a flood event, it will not only ensure that the occupants of 2 – 3 Bath Place can respond quickly and effectively to flooding, but will also recover with as little disruption as possible.

2.13 The following recommendations are not exhaustive. However, they provide a good basis for planning for flooding and suggest ways to respond confidently to a flood event.

2.14 As discussed above, this is a living document. The owners and/or their managing agency are encouraged to add and amend this section as their understanding of how to plan for and react in a flood event evolves.

Command and Control

2.15 A key factor in providing a timely and co-ordinated response to flooding is to ensure all occupants of 2 – 3 Bath Place are clear on their roles and responsibilities. These roles should be covered across all opening hours of Connaught Leisure and there should be one or more nominated flood wardens amongst the residents of the flats.

2.16 The flood wardens should:

- Understand and utilise the flood warning information available and ensure that all the occupants of 2 – 3 Bath Place stay informed of weather and tidal conditions.
- Understand and interpret the flood warning codes and know when to act.
- Communicate flood warnings to all occupants.
- Be familiar with this document's recommendations and procedures so that, in a flood event, all necessary actions can be executed in a timely fashion.
- Be able to delegate tasks to other team members to assist in a flood event.
- Lead staff and visitors of Connaught Leisure and the occupants of the flats away from the building and to a safe, dry refuge or muster point.
- Ensure that information relating to evacuation and the location of a safe, dry refuge or muster point is displayed in an accessible area of Connaught Leisure and the communal areas of the flats (the entrance lobby, for example).
- Schedule and lead practice evacuations.
- Ensure that this document is updated and amended as per the above schedule, or as and when necessary. This should be done in partnership with the building owner and/or their managing agents.

2.17 The flood warden's role should be updated and reviewed on a regular basis.

Communication & Contacts

2.18 A list of information and service providers that may need to be contacted in a flood event needs to be assembled. This may include (but not be limited to):

- The Environment Agency's Floodline.
- The electricity supplier (inc. the meter number).
- The gas supplier (inc. the meter number).
- Southern Water (inc. the account number(s)).
- The telephone provider.
- Worthing Borough Council emergency services.
- Insurance company 24-hour number and policy number.
- The local radio station for news alerts and weather updates.

- The emergency services.
- Employee details of Connaught Leisure, including mobile phone numbers and next of kin.
- Occupant details, including mobile phone numbers and next of kin.

2.19 It is prudent to make a list of companies that may need to help after the flood. These contractors should be considered in advance and are a key part of the recovery plan. The companies that may be able to help after a flood include:

- Electricians.
- Plumbers.
- Builders/Plasterers/Decorators.
- Equipment repair/suppliers.
- IT suppliers.
- Security services.
- Water pumping services.
- Emergency power suppliers.
- Cleaning contractors.

2.20 The table in Appendix E has been provided so that a list of the above contacts can be gathered and recorded in advance of a flood event.

Flood Warning Services

2.21 It is imperative that the occupants of 2 – 3 Bath Place prepare for flooding by signing up to the Environment Agency's Flood Warning service. In areas of high flood risk the Environment Agency offers a service called Floodline. It is a free service that sends automated flood warnings by telephone, SMS text, e-mail, fax or pager. This service operates 24-hours a day, 365 days a year.

2.22 To receive this service, Floodline can be contacted on 0345 988 1188 (telephone), 0345 602 6340 (textphone) or online registration can be found at https://www.fws.environment-agency.gov.uk/app/olr/register).

2.23 There are several flood warning 'codes'. Each code represents a different level of warning according to the current likelihood of flooding and recommends an action to take. The flood warning codes can be issued in any order, usually ending with an 'all clear'. Where possible, flood warnings are provided in advance, which allows for a timely and co-ordinated response. Notwithstanding this, it should be borne in mind that flood warnings may not always be possible to issue far in advance. In this scenario, where time to react and prepare for flooding is limited, a system of prioritisation will be necessary.

2.24 The flood warning codes can be found in Appendix F. It is recommended that it is printed and put on display within Connaught Leisure and the entrance lobby of the flats. The nominated flood wardens, staff of Connaught Leisure and visitors to the flats should familiarise themselves with these codes and the recommended actions.

Familiarisation & Practice

2.25 The successful implementation of this FWEP is dependent on the flood wardens, staff in Connaught Leisure and the residents of the flats being familiar with its contents. It is also recommended that all staff of Connaught Leisure and residents of 2 – 3 Bath Place have rehearsed, where possible, the procedures contained within this FWEP, much like a fire drill is practiced. This should be rehearsed at regular intervals. Consideration should be given to the fact that evacuations may have to take place at unsociable

hours and in bad weather and some of the occupants may have disabilities, mobility problems or issues with communication. Practice evacuations should simulate this.

2.26 It may be prudent to add flood safety information to staff induction packs in Connaught Leisure, or adapt job descriptions to include flood warden duties. Information should be provided during the sale or rental agreements of the flats at 2 – 3 Bath Place so that residents are aware from the outset of the risks and their required responsibilities and actions during a flood event.

Key Locations

2.27 Staff in Connaught Leisure and occupants of the flats should know the location of cut-off points for gas, electricity and water. Ideally, these should be marked on a floor map and should be stored with this FWEP. The production and maintenance of this map is the responsibility of the owners of 2 – 3 Bath Place (or their agents).

2.28 Space for the storage of this plan has been provided in Appendix G.

2.29 The location of any materials or chemicals on site that may contaminate flood water should also be known and marked on the same plan.

Insurance

2.30 The buildings and contents insurance policies of Connaught Leisure and the flats need to reflect the fact that 2 - 3 Bath Place is in an area of high flood risk. Failure to do so could leave the occupants of 2 - 3 Bath Place uninsured. It is worth knowing what information insurers will need to support a claim and in what timescale this must be submitted to be valid.

2.31 Occupants of the flats and Connaught Leisure should investigate whether they are covered by the Flood Re scheme. Flood Re works with UK insurers to raise a levy of £180m every year, which Flood Re uses to cover the flood risks in home insurance policies. If flood risk cover is required as part of a home insurance policy, the insurer can pass the flood risk element of the insurance policy to Flood Re and, if a valid claim for flooding is placed, the insurer will pay the claim. Overall, insurance is purchased in the usual way, but the flood risks are covered by Flood Re, which helps keep the insurance premium down. Visit https://www.floodre.co.uk/ for more information.

Taking Action

2.32 With the above preparation measures in place, it should leave the occupants of 2 – 3 Bath Place well-placed to plan for and react to a flood. The following actions, in addition to those recommended by the Environment Agency in Appendix F, should be carried out in response to a flood event when action is necessary.

2.33 Not all the following actions can be carried out by an individual and therefore, a co-ordinated team response may be necessary. The flood wardens should lead the response and delegate responsibilities as required.

Sound the Alarm

2.34 During a flood event the flood wardens should be in close contact with the Environment Agency and using the available tools to monitor river levels. When a ‘Flood Alert’ is sounded, the flood wardens should start preparing for flooding. Due to the proximity of 2 – 3 Bath Place to the seafront, the flood wardens should be able to make regular checks on sea levels (if safe to do so) and see whether there are any significant changes.

2.35 If a ‘Flood Warning’ or ‘Severe Flood Warning’ is issued, it is time to act.

2.36 The first action to take is to communicate the flood warning to all occupants and start preparing for evacuation.

Evacuation

2.37 Evacuation should only be carried out if it is safe to do so. If access/egress routes from 2 – 3 Bath Place are threatened by flooding then it is important to stay in a safe, dry place that requires no intervention or rescue

from the outside. The emergency services will be at full-stretch during a tidal flood event and all efforts should be taken to avoid placing an additional burden on them at this time.

2.38 As soon as the 'flood warning' code is received, occupants of 2 – 3 Bath Place should be informed and prompted to evacuate (if it is safe to do so - see below).

2.39 It should be assumed that visitors to Connaught Leisure will not have local knowledge and will need to be guided to a safe route/location. There may also be individuals who have disabilities, mobility problems or issues with communication. Support and assistance should be made available to these individuals (as per paragraph 2.25, above).

2.40 The suggested egress route is as follows:

- Exit the building onto Bath Place and turn right (north, away from the seafront).
- Turn left at Montague Street and continue up to the junction with Liverpool Terrace.
- Turn right into Liverpool Terrace where ground levels are higher and within Flood Zone 1.

2.41 This egress route is detailed in the Ambiental FRA that is appended to this report in Appendix B.

2.42 An evacuation is only possible when there is sufficient time between a warning being issued and the onset of flooding. During a rapid onset flood event, there may be insufficient time to evacuate. In this circumstance it is may be possible to remain in the flats of 2 – 3 Bath Place as they will be above flood levels. If it is decided that it would be safer to remain within the building, a risk assessment should be completed. It should evaluate how many people can be accommodated and the resources/equipment that are necessary to sustain them for the expected duration of the flood. The emergency services should also be informed and involved in this decision at the earliest convenience.

Protective Actions

2.43 Connaught Leisure should also identify stock, equipment and possessions that may need special protective measures. All arcade machines and other electrical equipment should be properly shut down and any important data should be backed up. Where it is possible to do so, electrical equipment should be moved to a safe area or placed on higher surfaces.

2.44 Prior to evacuation, demountable flood barriers should be installed in the doorways of Connaught Leisure and in the entrance to the flats to prevent ingress of floodwaters (see the second part of this Technical Note, which will discuss resistance and resilience measures that can be employed at 2 – 3 Bath Place).

Key Contacts

2.45 The prepared list of key contacts in Appendix E should be reviewed and only essential calls should be made. This list of key contacts should be retained by the flood wardens to take off-site during the evacuation.

Security

2.46 Once the Connaught Leisure and the residents of the flats at 2 – 3 Bath Place have been evacuated, the flood wardens should carry out a floor check to ensure that there are no remaining persons within the building. Once is it confirmed that the building is empty, all windows and doors need to be locked and the intruder alarm set. The flood wardens and any remaining assistants should then stay together and make their way to a safe, dry refuge via the evacuation routes outlined above.

During Flooding

2.47 During the flood event, the flood wardens should keep up to date with weather and flood conditions. The flood wardens should stay in contact with the emergency services, weather forecasts, the Environment Agency's Flood Warning service and local television and radio broadcasters for the latest information.

Recovery

2.48 Recovery will be co-ordinated by Worthing Borough Council, The Environment Agency and the emergency services.

2.49 If there has been a serious flood, Worthing Borough Council may have chosen a place like the town hall or another muster point as a 'flood hub' from which to organise recovery efforts. The flood wardens should be aware of any nearby community flood wardens or flood action groups. The National Flood Forum can be contacted for help in finding local support on 01299 403055.

2.50 The re-opening of Connaught Leisure and access to the flats in 2 – 3 Bath Place will be reliant on a number of factors. This includes:

- The duration of the flood event and when flood waters are likely to recede;
- The presence of environmental hazards such as contaminated floodwater and sewage;
- Loss of utilities;
- Building damage;
- Damage to equipment/infrastructure; and
- Cleaning/renovation needs.
- The risk of the further tidal level rises due to subsequent weather conditions;

2.51 With the above factors in mind, the emergency services must give their go-ahead prior to the building being reoccupied. The advice of the emergency services must be followed during and after the flood event.

2.52 Drains should be fitted with non-return valves and these need to be checked following a flood to ensure that they are not blocked open by silt or other debris. Failure to do this risks them not functioning as they should.

Cleaning Up

2.53 Once the area and building are safe to access, it may be necessary to do some cleaning up on site. In this circumstance photographs should be taken to document any damage and record the flood water height. The insurer should be contacted before discarding items that cannot be cleaned or repaired.

2.54 Worthing Borough Council should help with the collection of large flood damaged items. They will provide information on where to put flood damaged items and when they may be collected. The council should be contacted if skips or extra rubbish collections are required.

2.55 Flood water may contain sewage, chemicals and animal waste, which can cause diseases. When cleaning either in or around the property after a flood always wear gloves, a face mask and sturdy footwear.

2.56 If a change in the colour, taste or smell of tap water is detected, it should not be consumed and Southern Water should be contacted.

Repairs

2.57 Before any repairs are undertaken, the insurance company should be contacted and the damages should be discussed. Most repair work after flooding will need to be done by approved traders appointed by your insurer.

2.58 If heaters or dehumidifiers are used to dry out the buildings, there needs to be good ventilation. Never use petrol or diesel-powered generators indoors; their exhaust gases contain potentially lethal carbon monoxide.

Recommendations

2.59 This report has made a number of recommendations, which are summarised here for easy reference:

- Flood wardens should be appointed. They must be familiar with this FWEP and prepared for their role during a flood event.
- The essential contacts list in Appendix E of this FWEP should be populated and any additional contacts added as necessary.
- A floor map of utility cut-off points should be made and stored within Appendix G this FWEP.
- Practice flood evacuations should be scheduled, much like a fire drill.
- This FWEP and information regarding the flood risk of the building should be included in any sale or rental agreement information so that new residents are aware of the risks and requirements of being in a flood risk area.
- This FWEP is a living document and it needs to be regularly reviewed and updated. The owners and/or their managing agents are encouraged to add to and amend this document as their understanding of how to react in a flood event evolves.
- This FWEP should be copied and made accessible to those working in Connaught Leisure and all residents of the flats.
- The Flood Warning information in Appendix F should be printed off and displayed in a place that the staff and visitors to Connaught Leisure can see, as well as the entrance lobby of the flats.
- The contents and procedures of this document should be communicated by the flood wardens to all those required to have an understanding of it.

Useful Sources of Information

- Environment Agency Flood Map for Planning:

  https://flood-map-for-planning.service.gov.uk/

- How to plan ahead for flooding:

  https://flood-warning-information.service.gov.uk/plan-ahead-for-flooding?utm_source=warning&utm_medium=gov.uk&utm_campaign=prepare&utm_content=national-view

- Sign up for flood warnings:

  https://www.gov.uk/sign-up-for-flood-warnings

- Flood Warnings for England:

  https://flood-warning-information.service.gov.uk/warnings

- River and sea levels in England:

  https://flood-warning-information.service.gov.uk/river-and-sea-levels

- Prepare for flooding:

  http://www.environment-agency.gov.uk/business/topics/flooding/32358.aspx

- Prepare your business for flooding:

  https://www.gov.uk/government/publications/preparing-your-business-for-flooding

- 5-day flood risk for England & Wales

  https://flood-warning-information.service.gov.uk/5-day-flood-risk

- What to do in a flood:

  https://flood-warning-information.service.gov.uk/what-to-do-in-a-flood?utm_source=warning&utm_medium=gov.uk&utm_campaign=respond&utm_content=national-view

- How to recover after a flood:

  https://flood-warning-information.service.gov.uk/recovering-after-a-flood?utm_source=warning&utm_medium=gov.uk&utm_campaign=recover&utm_content=national-view

- The National Flood Forum:

  https://nationalfloodforum.org.uk/

Review

2.60 The above FWEP should be regularly reviewed and updated, where necessary, to ensure that the procedures, contacts and sources of information are up-to-date. This is the responsibility of the building owners and/or their agents. The staff of Connaught Leisure and occupants of the flats may also wish to make a copy for their own purposes and take control of that information to ensure that it is current.

3.0 Condition 19 of AWDM/1626/18

Flood Avoidance, Resistance and Resilience

3.1 Flood risk can be ameliorated through taking measures to avoid, resist and be resilient to flooding. Avoidance is carrying out development in line with the sequential test and relocating development to areas of lower flood risk. There is a range of construction methods that can be incorporated into the design of new development to reduce the risk of flooding at a site. These can either be categorised as resistance or resilience measures. Resistance measures are those used to try to prevent floodwaters from reaching or entering a property. Resilience measures are those that acknowledge that flooding is likely to occur and try to minimise the damage caused by floodwaters entering the building. The Environment Agency recommends consideration is given to the incorporation of flood resistance and resilience into the design and construction of a development in areas that are at risk of flooding. Avoidance, resistance and resilience is discussed in the context of the proposed development at 2 – 3 Bath Place, below.

Avoidance

3.2 The best possible mitigation for properties at risk of flooding would be to relocate the building to an area of lower flood risk. This method is regarded as an avoidance measure. In the case of the development at 2 – 3 Bath Place, this is not applicable because the building is already in its location.

Resistance

3.3 Resistance measures can help to prevent water from entering a property. This is particularly effective for low depth flooding. The raising of thresholds is an achievable resistance measure and the proposed development at 2 – 3 Bath Place proposed this. As the diagram in Appendix H shows, the threshold of the accesses at ground floor will have an access ramp up to the threshold, which will be 150mm above ground level.

3.4 It is also recommended that the development provides the fittings for a flood gate on the ground floor entrance to the flats and, if possible, a wider aperture protection for Connaught Leisure and a flood gate on any rear entrances to the property.

3.5 If there are any air bricks, these should also be fitted with protection to stop any ingress of flood water.

3.6 However, the success of the removable structures is dependant on the occupants of the building having been informed of an impending flood and taking timely action. As discussed above, the emplacement of and

removable flood barriers should be the responsibility of the flood wardens, who should be trained in how to fit and remove the flood barriers.

3.7 As described above, where possible, the drains should be fitted with non-return valves to reduce the risk of sewage surcharge inside the property during a flood event.

Resilience

3.8 Resilience measures do not stop water from entering a property; they acknowledge that there will be floodwater ingress and aim to minimise the impact in terms of cost and disruption immediately after a flood event. They can be incorporated into the structure of the building or can be included in the finishes, services and insulation on a building's internals.

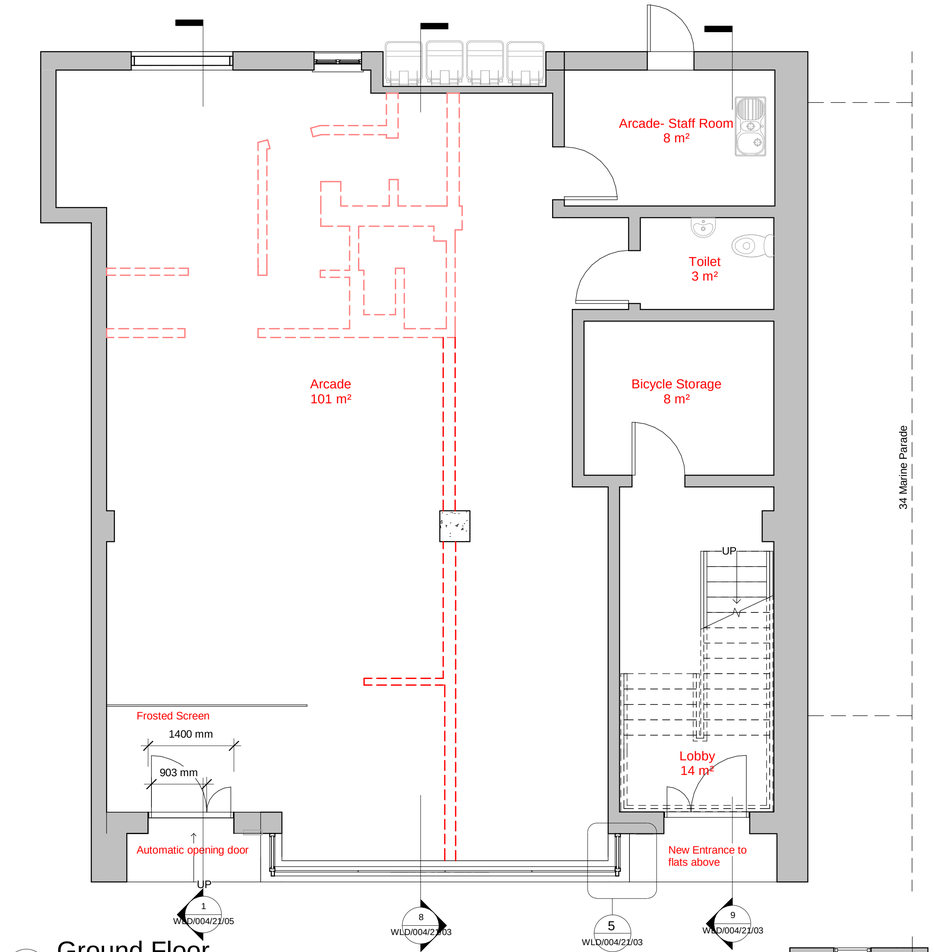
3.9 As the residential development will be on the first floor, the majority of soft furnishings and perishable items will be above the tidal flood levels. The ground floor lobby to the flats and Connaught Leisure should have as few soft furnishings as possible and look to provide hard flooring that is not easily damaged by water and easily cleaned. Minimal soft furnishings meaning that if there is a flood, the building will dry out quickly and there will be much lower damage and repair costs.

3.10 Services, power outlets, etc. should be placed high to keep them above any possible flood waters.

3.11 Waterproof plasters and renders should be used to finish the walls.

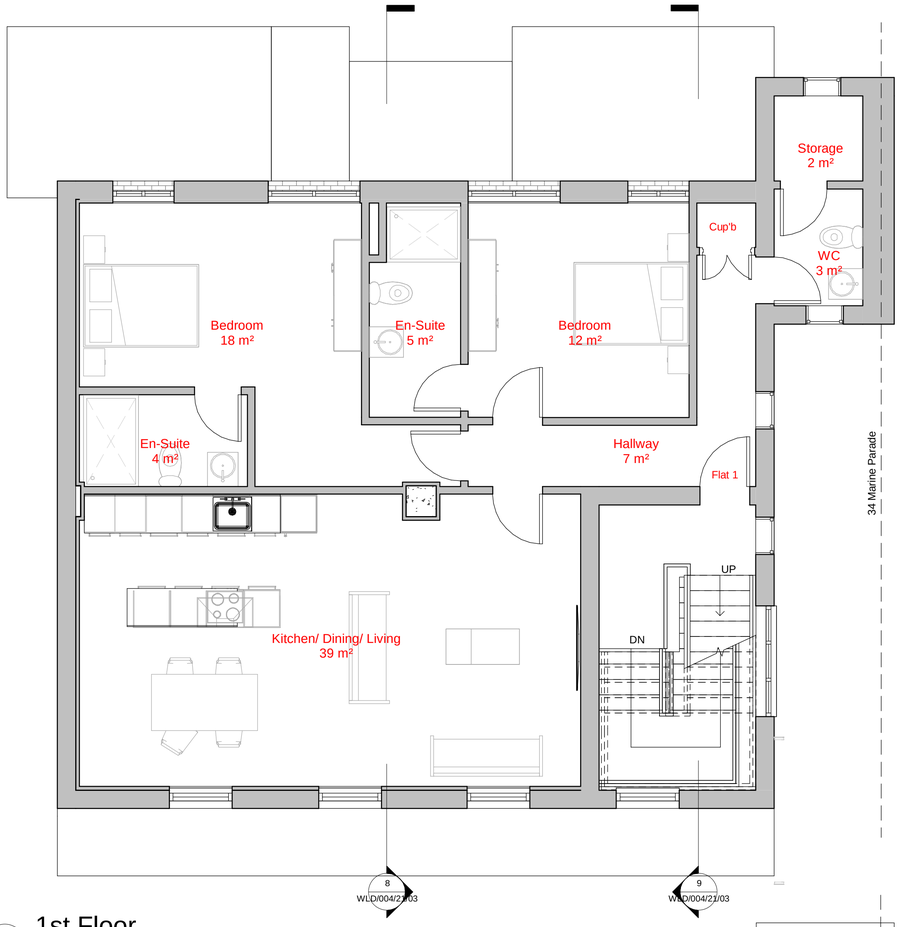
Appendix A

Site Layout and Floor Plans



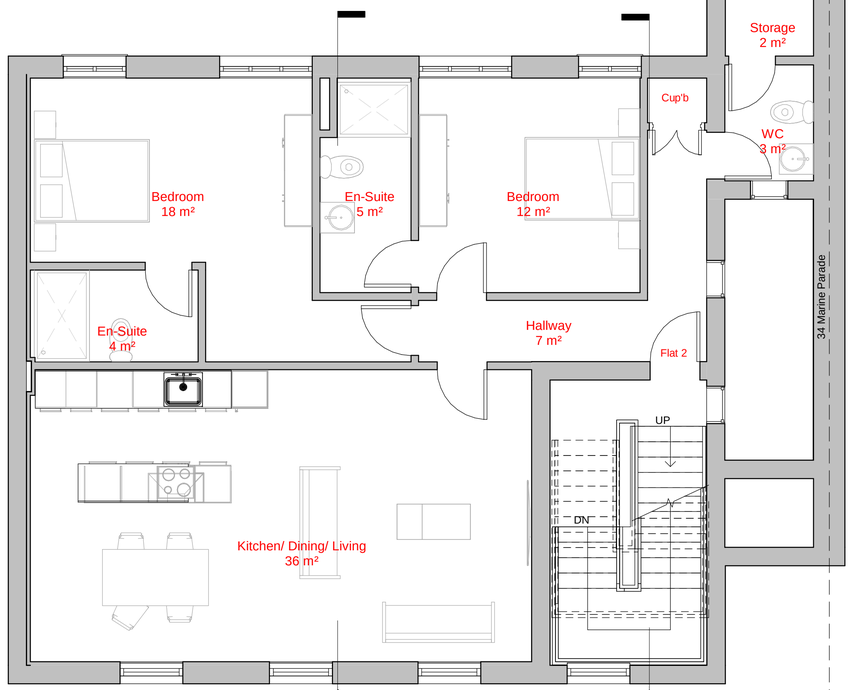
1 Ground Floor

1 : 50



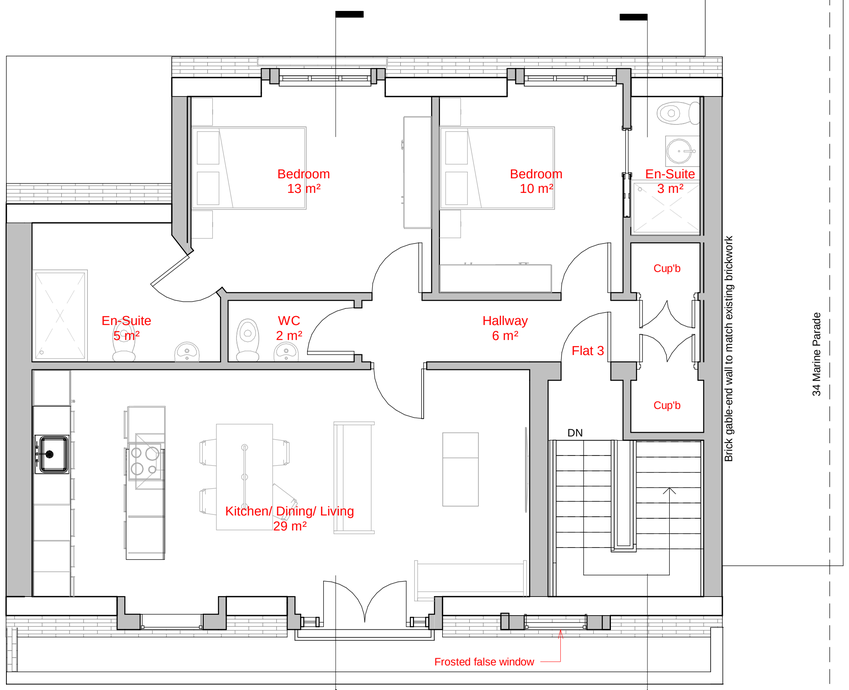
2 1st Floor

1 : 50



3 2nd Floor

1 : 50



4 3rd Floor

1 : 50

Notes:

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North

0m 1m 2m 3m 4m 5m

VISUAL SCALE 1:50 @ A1

Rev A	Alterations to the Plans	UL	22/04/21

Revision Number	Revision Description	Issued by	Revision Date

STATUS: Planning Issue

Warwick Lane. Developments Ltd
T 01903 233332 Ext 131 | DF 01903 206 908 | E acp@wld-group.co.uk
1 The Steyne, Worthing, West Sussex, BN11 3DS

CLIENT: Connaught Leisure Ltd SITE ADDRESS:
2-3 Bath Place
Worthing, BN11 3BA

DRAWING: Conversion of upper floors to 3 x 2 bed flats

TITLE: Proposed Floor Plans

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
1 : 50	15/03/2021	UF	AP
PROJECT NO:	DRAWING NO:		REVISION:
Bath Place	WLD/004/21/01		Rev A



1 Main Facade (West Elevation)

1 : 50

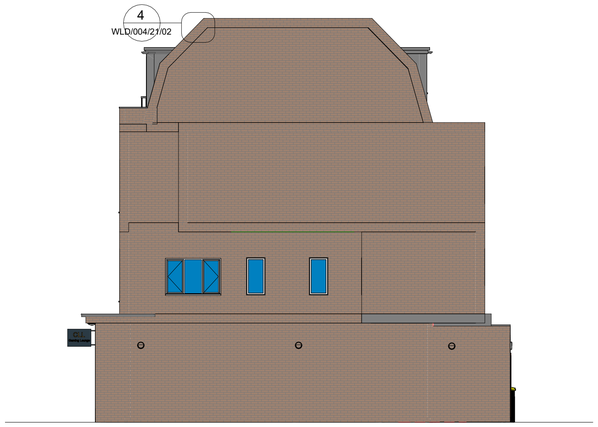


2 Back Facade (East Elevation)

1 : 50

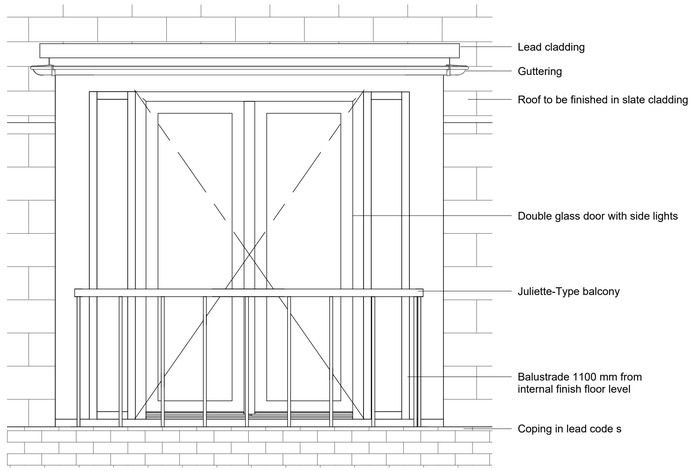
Annotations of material finishes:

1. Roof to be finished in Slate Cladding
2. Dormers to be Finished in lead cladding
3. Automatic frosted glass door to arcade entrance
4. Solid double doors to residential entrance
5. painted Fascia boards (RAL 5008) with glass front and illuminated dark gold lettering and 3no. LED downlights above.
6. Frosted Glass to arcade window with PPC aluminium frame (RAL 5008)
7. New PPC aluminium frame windows tp upper floors (Colour: RAL 5008 to match store front frame below)
8. Toilet window to be obscured
9. Frosted false window
10. Coruna 11 Surface Mounted Light 2.9W LED with Eyelid fitting directing light downwards
11. Hanging Sign relocated from the south side



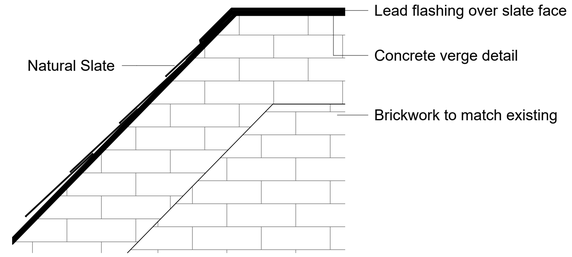
3 South Elevation

1 : 100



5 Main Facade (West Elevation) - Juliette Balcony Callout

1 : 20



4 South Elevation - Gable-end Callout

1 : 10

0m 1m 2m 3m 4m 5m

VISUAL SCALE 1:50 @ A1

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Material Schedule

Natural Slate cladding to additional storey only
Brick work to match existing
Painted Board - RAL 5008
PPC Aluminium frame - RAL 5008
Frosted Glass
Lead Cladding to dormer cheeks , front & roof

Rev A	Alterations to the Plans	UL	22/04/21

Revision Number	Revision Description	Issued by	Revision Date

STATUS: Planning Issue

Warwick Lane. Developments Ltd
T 01903 233332 Ext 131 | DF 01903 206 908 | E acp@wld-group.co.uk
1 The Steyne, Worthing, West Sussex, BN11 3DS

CLIENT: Connaught Leisure Ltd SITE ADDRESS:

2-3 Bath Place
Worthing, BN11 3BA

DRAWING: Conversion of upper floors to 3 x 2 bed flats

TITLE: Proposed Elevations and Materials

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
As indicated	15/03/2021	UF	AP

PROJECT NO:	DRAWING NO:	REVISION:
Bath Place	WLD/004/21/02	Rev A

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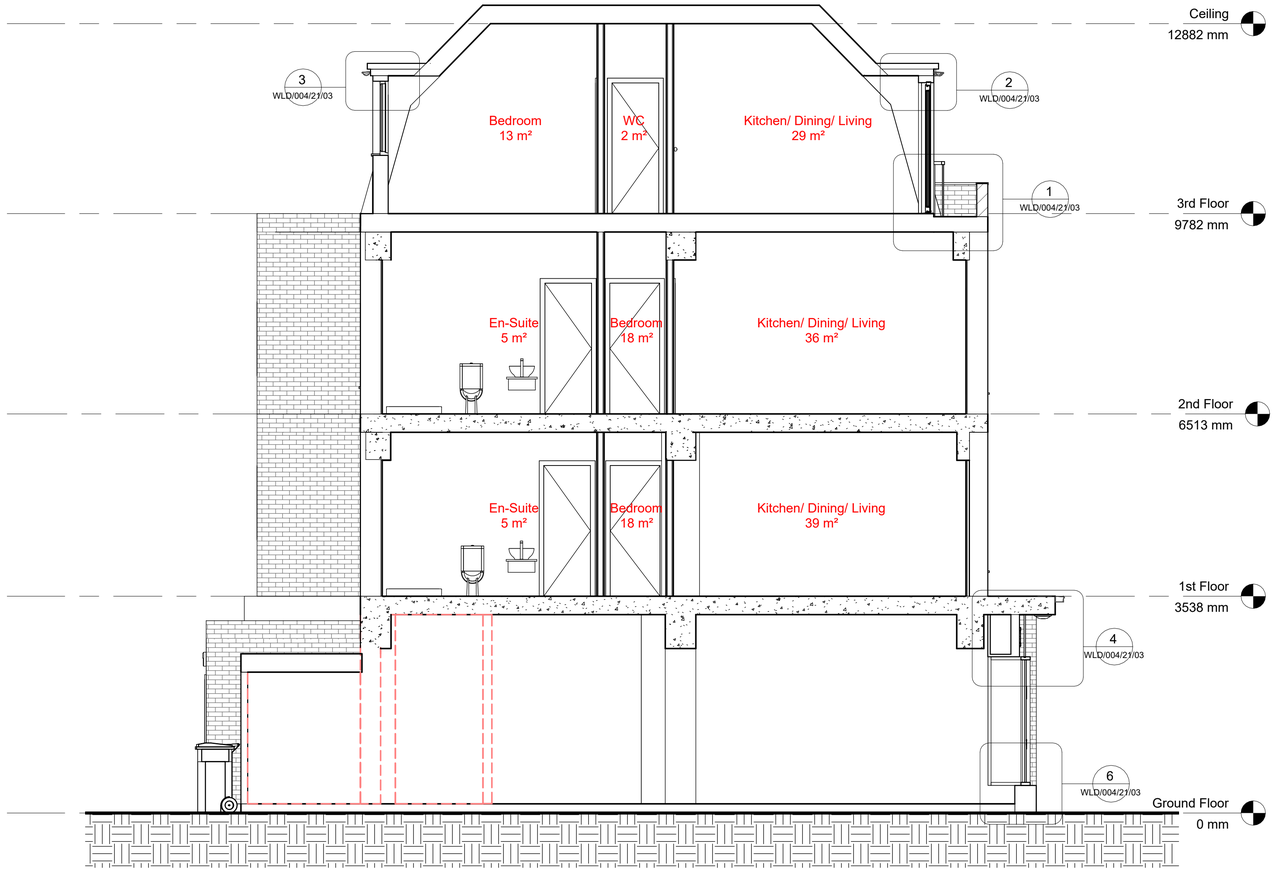
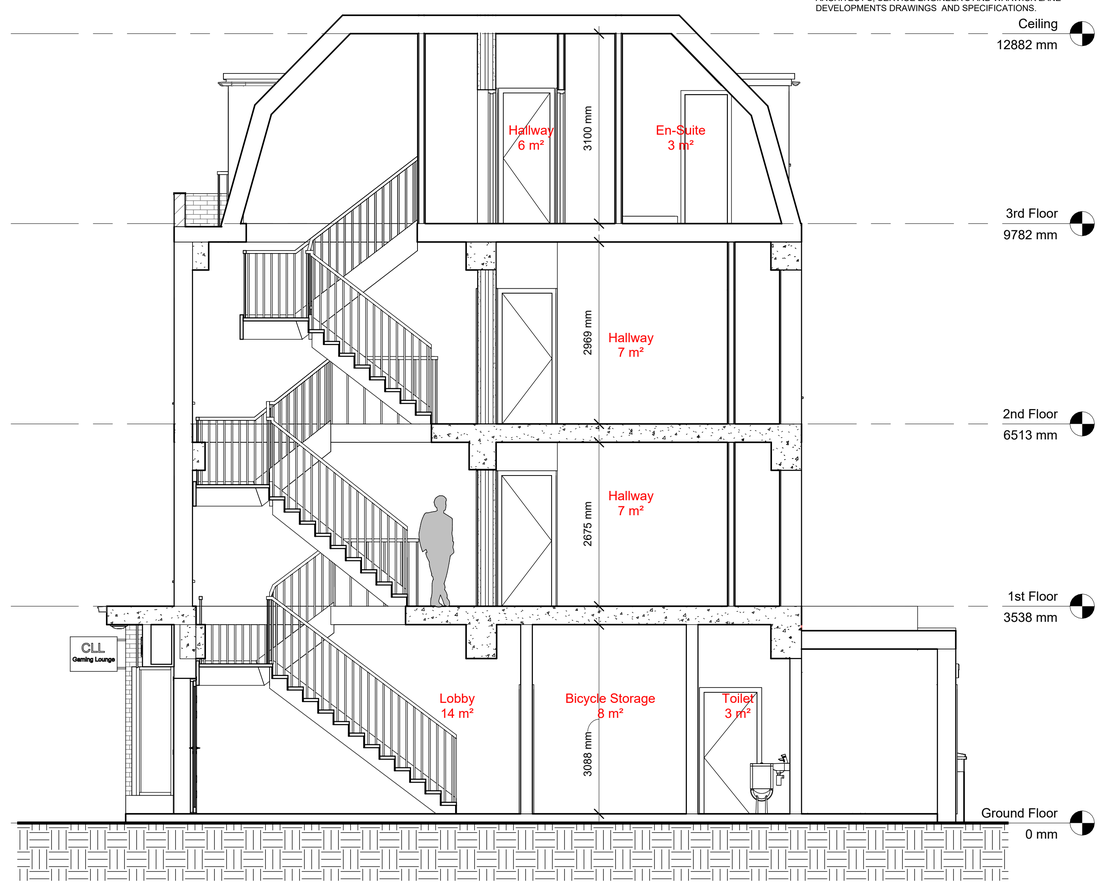


8 Cross Section A-A

1 : 50



9 Cross Section B-B

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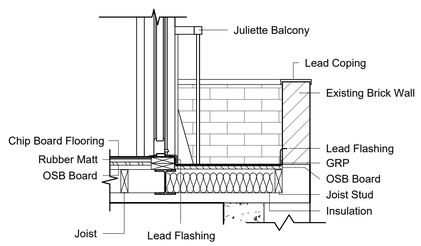
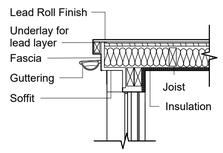


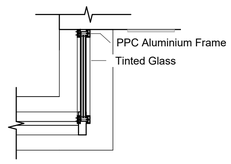
1 Section 1 - Balcony Detail

1 : 20



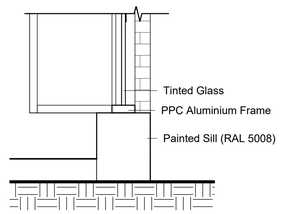
3 Section 1 - Dormer Head Detail

1 : 20



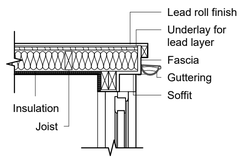
5 Ground Floor - Shopfront Joinery Detail

1 : 20



6 Section 1 - Shopfront Bottom Detail

1 : 20



2 Section 1 - Balcony Dormer Head Detail

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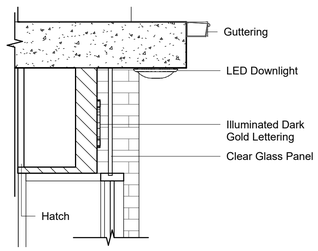
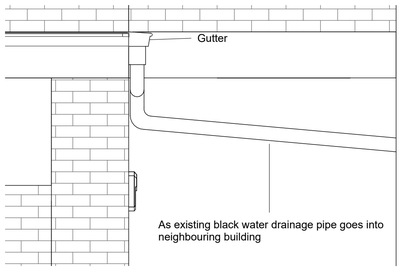


4 Section 1 - Shopfront Upper Detail

1 : 20



7 Main Facade (West Elevation) - Drainage Detail

1 : 20

0m 1m 2m 3m 4m 5m

VISUAL SCALE 1:50 @ A1

0m 0.4m 0.8m 1.2m 1.6m 2m

VISUAL SCALE 1:20 @ A1

Revision Number	Revision Description	Issued by	Revision Date
Rev A	Alterations to the Plans	UL	22/04/21

STATUS: Planning Issue

Warwick Lane.
Developments Ltd
T 01903 233332 Ext 131 | DF 01903 206 908 | E acp@wld-group.co.uk
1 The Steyne, Worthing, West Sussex, BN11 3DS

CLIENT: Connaught Leisure Ltd SITE ADDRESS:

DRAWING: Conversion of upper floors to 3 x 2 bed flats

TITLE: Proposed Sections and Details

SCALE AT A1:	DATE:	DRAWN:	CHECKED:
As indicated	15/03/2021	UF	AP

PROJECT NO:	DRAWING NO:	REVISION:
Bath Place	WLD/004/21/03	Rev A

Appendix B

Ambiental Flood Risk Assessment

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predicting · preventing · protecting

Project:	2-3 Bath Place Flood Risk Assessment (FRA)
Prepared for:	BB Partnership LTD
Reference:	3482 / AWDM/1299/17/INVAL
Date:	November 2017
Version:	Draft v1.0

Document Issue Record

Project: 2-3 Bath Place Flood Risk Assessment (FRA)

Prepared for: BB Partnership LTD

Reference: 3482 / AWDM/1292/17/INVAL

Site Location: 2-3 Bath Place, Worthing, BN11 3QA

Proposed Development: The proposed development at 2-3 Bath Place is for the change of use from shop (Use Class A1) and restaurant (Use Class A3) to an amusement arcade (Use Class Sui Generis) with associated alterations to shopfront.

Consultant		Date	Signature
Author	Bojidar Boiadjiev	November 2017	
Document Check	Thea Powell	November 2017	
Authorisation	Daniel Cook	November 2017	

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Contact Us:

Ambiental Technical Solutions Ltd.
Science Park Square
Brighton, BN1 9SB
www.ambiental.co.uk
UK Office: +44 (0) 203 857 8540

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1. Summary

1.1 Ambiental Technical Solutions Limited has been appointed to undertake a National Planning Policy Framework (NPPF) compliant Flood Risk Assessment (FRA). The proposed development is focused at the ground floor of 2-3 Bath Place, Worthing. The development is for the change of use from the existing shop and restaurant to an amusement arcade.

1.2 With reference to the NPPF and the Environment Agency (EA) standing advice on development and flood risk, as well as the low detail, national-scale flood mapping created on behalf of the EA, the proposed site is located within Flood Zone 3 (High Risk) and is considered to be a 'Less Vulnerable' development under the NPPF.

1.3 The proposed development will not incorporate any increase of impermeable areas as it is simply for the change of use of upper floors of the existing structure only.

1.4 Analysis of the EA data provided indicates a 1:200 year defended flood level of 5.05mAOD at Node 2.

1.5 The EA have confirmed that they will expect the undefended 0.5% (2115) flood levels to be used for this study (see Appendix B). The EA data shows that the undefended 0.5% (2115) flood levels are 5.26mAOD.

1.6 Analysis of the modelled tidal flood levels provided by the EA against the minimum topographic levels across the site obtained from LiDAR (4.63mAOD) has shown that during the 1:200 year +CC (2115) undefended event the site would experience a potential maximum flood depth of 0.63m (based on minimum site topography of 4.63mAOD).

1.7 As such, and given that the site benefits from the presence of defences as defined by the SFRA, the risk of flooding to the site from this source is deemed to be **relatively low**.

1.8 The risk of groundwater and surface water flooding is deemed to be **relatively low**.

1.9 Due to sewer waters in the area likely being controlled by pumping stations (as stipulated by the SFRA), the risk of flooding from this source is considerate to be **low to moderate**.

1.10 As such, and given that:

- The proposed development is for commercial purposes;
- The proposed development is simply for the change of use;
- The proposed development site will be defended to the 1:200 year standard and will remain so until at least 2115 (as defined by the SFRA);
- A range of flood resistant measures have been recommended;
- The proposed development site is located within an area of tidal flood risk, and an EA Flood Warning Area and therefore in terms of flood vulnerability, significant betterment can be achieved through the implementation of a formal flood warning,

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following the guidelines contained within NPPF, the proposed development type is considered to be suitable assuming appropriate mitigation (including adequate warning procedures) can be maintained for its lifetime.

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2. Development Description and Site Area

Proposed Development and Location

2.1 The proposed development is located at 2-3 Bath Place, Worthing, BN11 3QA.

2.2 The existing use of the site is for a shop and a restaurant. The proposed development is for the change of use to an amusement arcade with alterations to the shopfront.

2.3 Topographic levels derived from remotely sensed LiDAR shows levels across the site vary between approximately 4.63mAOD – 4.89mAOD (*Source: 2m LiDAR)*.



Figure 1: Wider Location Map. Proposed development area outlined in red. (Source: OS)

Vulnerability classification

2.4 Under the NPPF, the existing site usage is considered to be "More Vulnerable" due to the alcohol being sold in the restaurant. The proposed development is considered "Less Vulnerable". It has been confirmed by the client that no alcohol will be served in the amusement arcade and therefore the development is deemed "Less Vulnerable" from flood risk perspective.

2.5 The development site is located within Flood Zone 3 as defined by the EA Flood Map for Planning.

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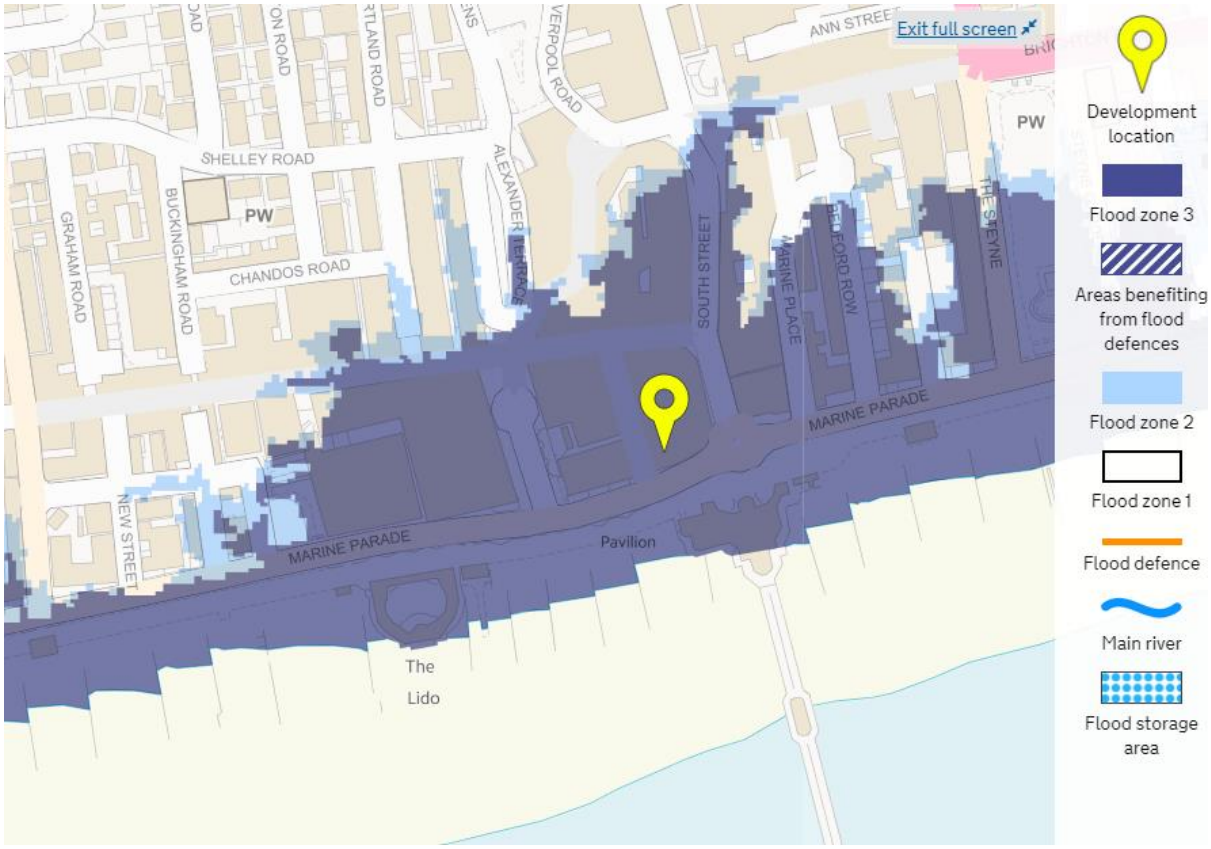

Figure 2: EA Flood Map for Planning. (Source: EA)

Geology

2.6 Records from the British Geological Survey indicate that the site is underlain by superficial deposits of River Terrace deposits, formed of undifferentiated sand, silt and clay.

2.7 The solid geology underlying the site is shown to be the Lewes Nodular Chalk Formation.

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3. Sequential Test/Exception Test

3.1 Under the NPPF, all new planning applications must undergo a *Sequential Test*. This test must be implemented by local planning authorities with a view to locating particularly vulnerable new developments (e.g. residential, hospitals, mobile homes etc.) outside of the floodplain.

3.2 The test refers to the EA Flood Zones described in Table 3. For reference, the NPPF *Sequential Test: Flood Risk Vulnerability and Flood Zone 'Compatibility' Table* is reproduced below:

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test Required	✓	✓
	Zone 3a	Exception Test Required	✓	×	Exception Test Required	✓
	Zone 3b *Functional Floodplain*	Exception Test Required	✓	×	×	×

Table 1: The Sequential Test: Flood Risk Vulnerability and Flood Zone 'Compatibility' Table as specified by NPPF. Shaded cells denote the proposed re-development. Please note: ✓ means development is appropriate; × means the development should not be permitted.

3.3 Using the principles of the Sequential Test outlined above, the proposed development is 'Less Vulnerable' and located within Flood Zone 3 (as defined by the EA Flood Map for Planning).

3.4 The Sequential Test does not need to be applied for minor developments or change of use, under the NPPF. As such, the proposed development does not need to apply further implementation of the Sequential Test.

3.5 Being in Flood Zone 3, under the NPPF, this application needs to be accompanied by a Flood Risk Assessment to demonstrate that the development will be safe, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

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4. Site Flood Hazards

Sources of Flooding

4.1 As outlined in Figure 2, the proposed development is located with Flood Zone 3 (High Risk of flooding), and is considered to be 'More Vulnerable' under the NPPF. Communication with the Environment Agency (EA) has identified the following potential sources of flooding to the site:

Source	Description
Tidal	English Channel
Surface	On site
Groundwater	N/A
Sewer	Local Sewer Network

Table 2: Summary of flood sources.

Mechanisms and History of Flooding

4.2 According to the low detail, national-scale flood mapping created on behalf of the EA the probability of tidal flooding at the site is >0.5% annually (1:200 or greater). Figure 2 outlines only the potential floodplain; and the mitigating effects of flood defences currently in place are not considered.

Tidal

4.3 The EA Flood Map for Planning (Figure 2) confirms that the site lies within Flood Zone 3 (High Risk).

4.4 The nearest waterbody to the site is the English Channel, located some 60m to the south of the site at the high tide mark.

4.5 The EA have provided modelled tidal flood levels for several 2D Floodplain Nodes within proximity of the proposed development sites. It can be identified from Figure 3 that Node 2 is most representative of flood levels at the site.

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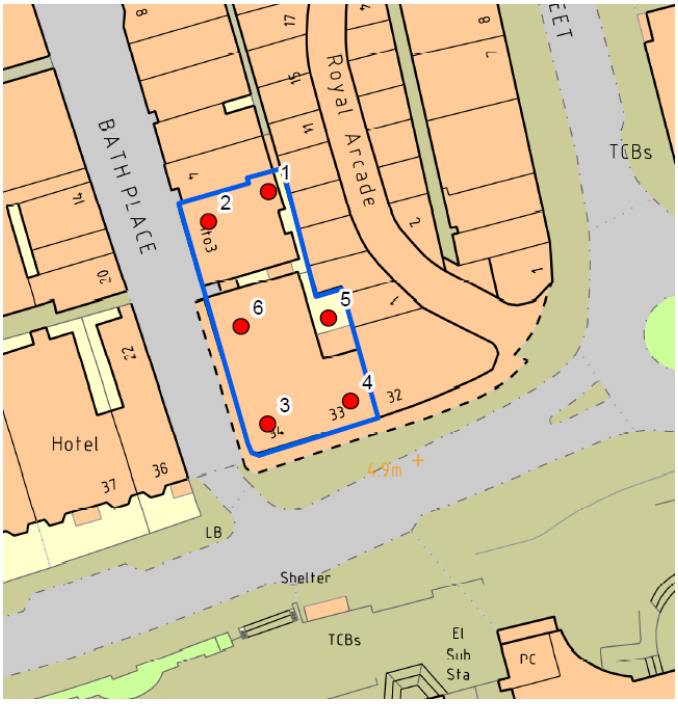

Figure 3 – 2D Floodplain Nodes provided to Ambiental (Source: EA) (red points show location of nodes)

4.6 Topographic levels derived from remotely sensed LiDAR shows levels across the site vary between approximately 4.63mAOD – 4.89mAOD (*Source: 2m LiDAR)*

4.7 Analysis of the EA data provided indicates a 1:200 year flood level of 5.05mAOD at Node 2.

4.8 The EA have confirmed that they will expect the undefended 0.5% (2115) flood levels to be used for this study (see Appendix B). The EA data shows that the undefended 0.5% (2115) flood levels are 5.26mAOD.

4.9 Analysis of the modelled tidal flood levels provided by the EA against the minimum topographic levels across the site obtained from LiDAR (4.63mAOD) has shown that during the 1:200 year +CC (2115) undefended event the site would experience a potential maximum flood depth of 0.63m (based on minimum site topography of 4.63mAOD).

4.10 The EA have stipulated that the site benefits from shingle beach defences.

4.11 The level of protection provided by these defences has not be specified however the SFRA's Actual flood risk with defences flood map shows the defences to protect against the 1:200 year flood event (Figure 4).

4.12 The SFRA Historic flood map shows the site to be outside any extents of previous tidal or fluvial flooding.

4.13 As such, given that the site benefits from the presence of defences as defined by the SFRA, and data provided by the EA indicates that the site would remain unaffected by the 1:200 year +CC scenario, the risk of flooding to the site from this source is deemed to be **relatively low**.

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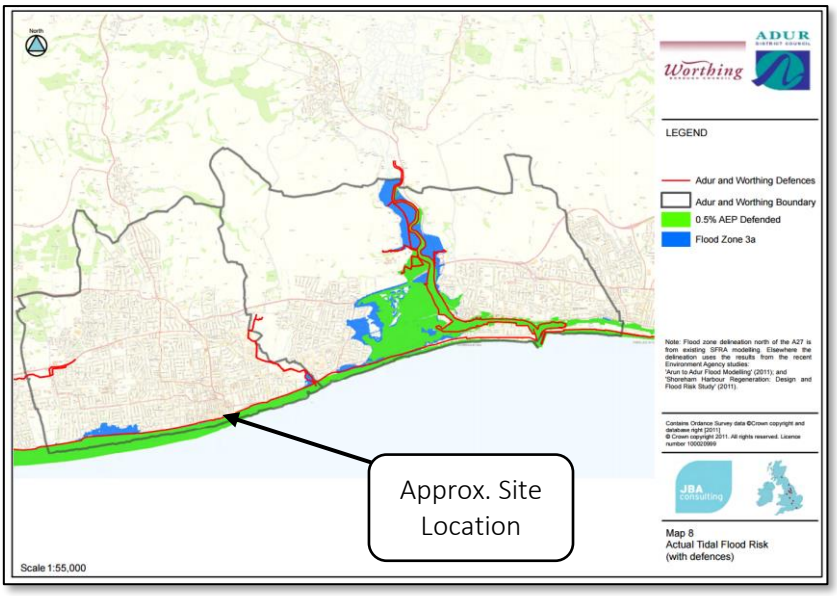

Figure 4 - Actual Tidal Flood Risk (with defences) Map (Source: Adur District Council and Worthing Borough Council SFRA)

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Surface Water (Pluvial)

4.14 The EA's Risk of Flooding from Surface Water map shows the site itself to be within a 'Low' and 'Medium' risk of flooding from surface water area, with between 0.1% - 1% and 1% - 3.3% chance of flooding from this source annually, respectively.

4.15 The roads adjacent to the site are shown to be at risk of flooding from surface water, with Marine Parade to the south shown to have 'Low' risk of flooding with an annual probability of flooding between 0.1% - 1% and Bath Place to the west shown to have a 'Medium' risk of flooding with an annual probability of flooding between 1% - 3.3% (Figure 5).

4.16 The EA's surface water flood depth map for the High Risk (high likelihood of occurring) map shows no surface water flood depth on or around site (Figure 6).

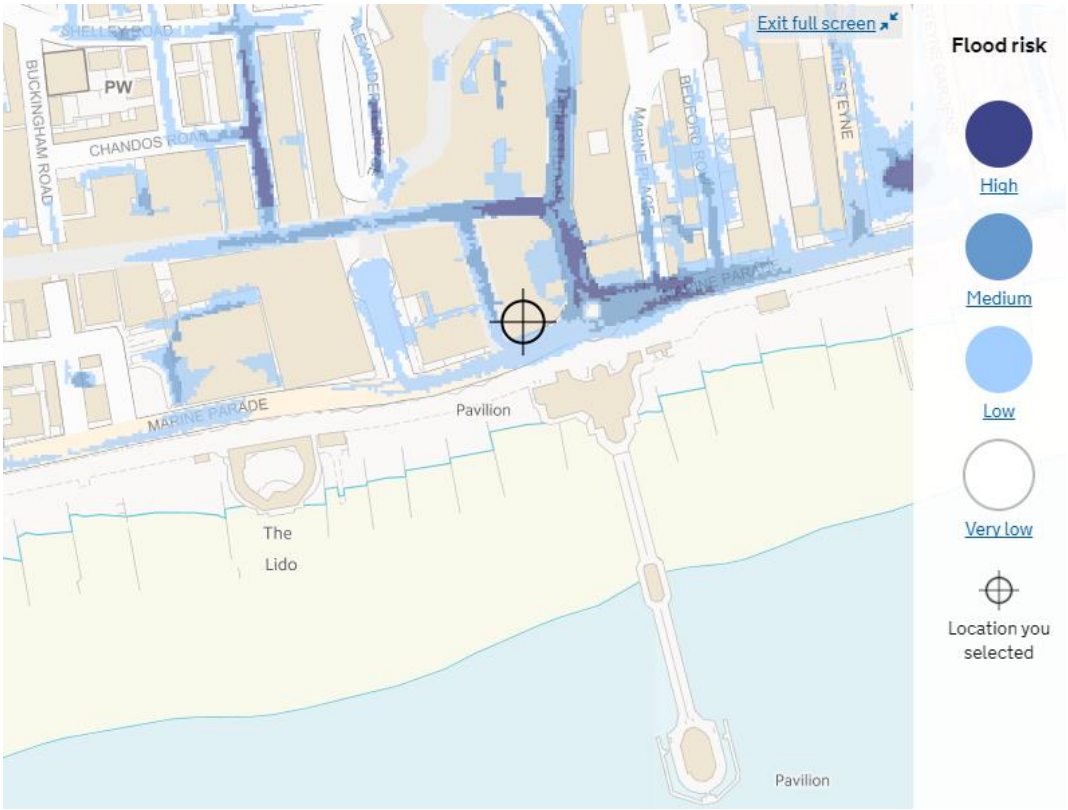

Figure 5: EA Online Surface Water Flood Risk Map (Source: EA)

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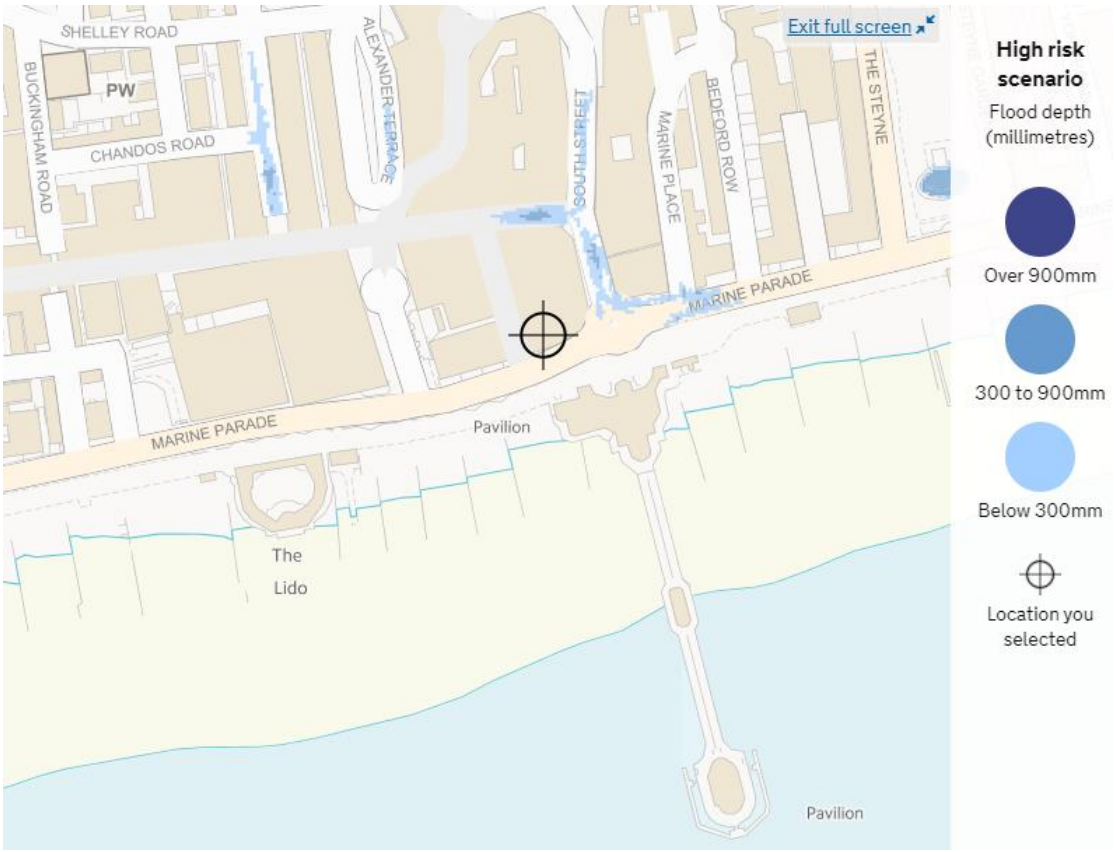

Figure 6: EA Online Surface Water Flood Depth Map for High Risk Scenario (Source: EA)

4.17 The EA Surface Water Flood Depth Map for the Medium Risk Scenario indicates that the proposed development site itself would remain unaffected for the medium risk scenario, with depths of less than 300mm confined to the adjacent Bath Place network (Figure 7).

4.18 The EA Surface Water Flood Depth Map for the Low Risk Scenario indicates that the proposed development site would remain unaffected for the low risk scenario, although the Marine Parade and Bath Place Road network could experience depths of between 300mm and 900m (Figure 8).

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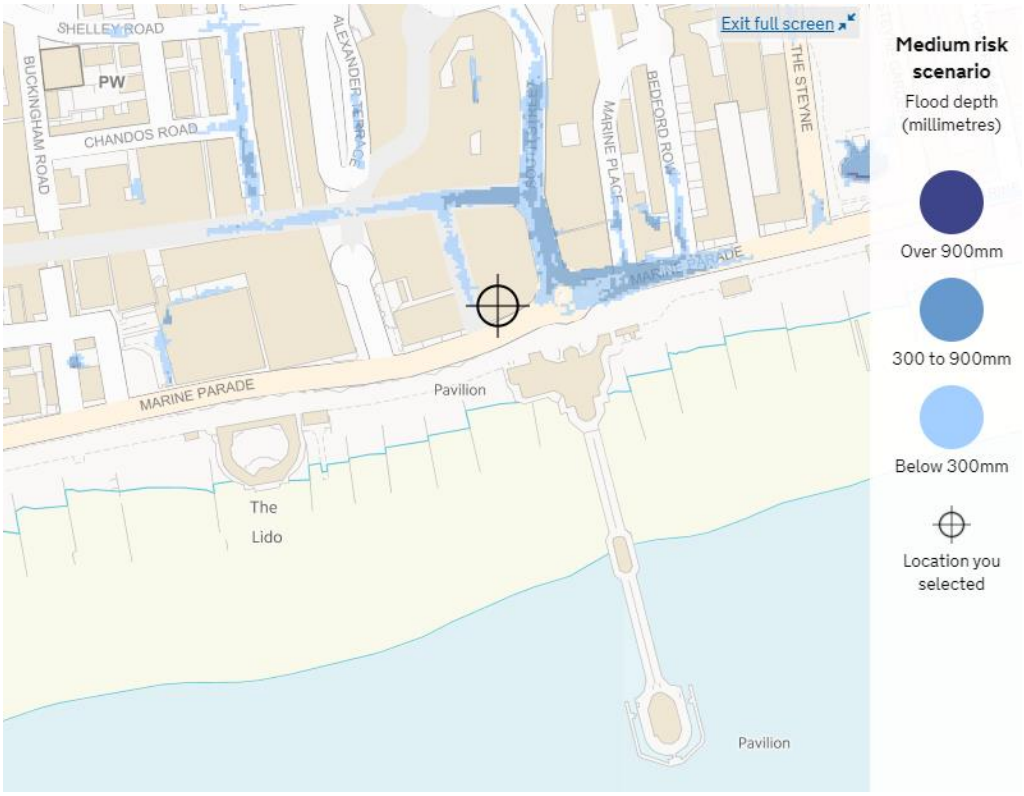

Figure 7: EA Online Surface Water Flood Depth Map for Medium Risk Scenario (Source: EA)

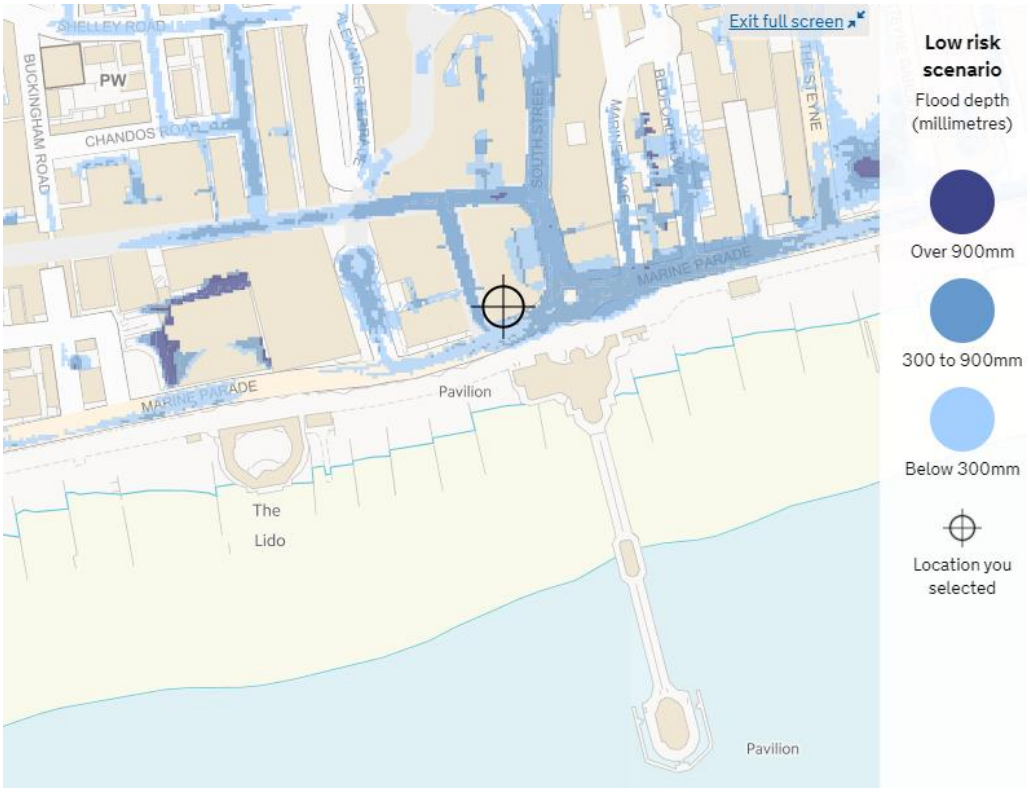

Figure 8: EA Online Surface Water Flood Depth Map for Low Risk Scenario (Source: EA)

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4.19 The SFRA's Historic flooding map does not show any surface water flooding incidents to have occurred in the vicinity of the site.

4.20 Taking into account the EA's Surface Water Flood Risk/Depth maps, and the SFRA's Historic flooding map the risk of surface water flooding to the site is deemed to be **relatively low.**

Groundwater

4.21 The EA Groundwater map shows that the site is not underlain by a groundwater source protection zone.

4.22 The EA Online Groundwater map shows the bedrock of the area has been designated as a 'Principle' aquifer, which is defined by the EA as *"rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale."*

4.23 The EA Online Groundwater map shows the superficial deposits of the area has been designated as a 'Secondary B' aquifer. Which is defined by the EA as *"predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering"*

4.24 The site is underlain by a Major Aquifer of High Vulnerability.

4.25 The SFRA Historic flooding map shows no groundwater flooding incidents to have occurred within the vicinity of the site.

4.26 Furthermore, the Indicative Groundwater Flood Risk (Map 15) Map of the SFRA shows the site to be within an area of less than 25% susceptibility to groundwater flooding.

4.27 As such, and given that the site is covered in impermeable surfaces the risk of groundwater flooding to the site is deemed to be **relatively low**.

Sewer

4.28 The SFRA Historic flooding map shows that the area north west of the site to have experienced sewer flooding within the past (Figure 9).

4.29 The distance from the approximate location of these incidents to the site is 200m.

4.30 The SFRA states that low lying coastal areas of the borough often rely on pumping to drive flow due to the lack of any significant gradient. As such failure of a pumping station can lead to rapid sewer flooding.

4.31 As such the risk of sewer flooding to the site is considered to be **low to moderate**.

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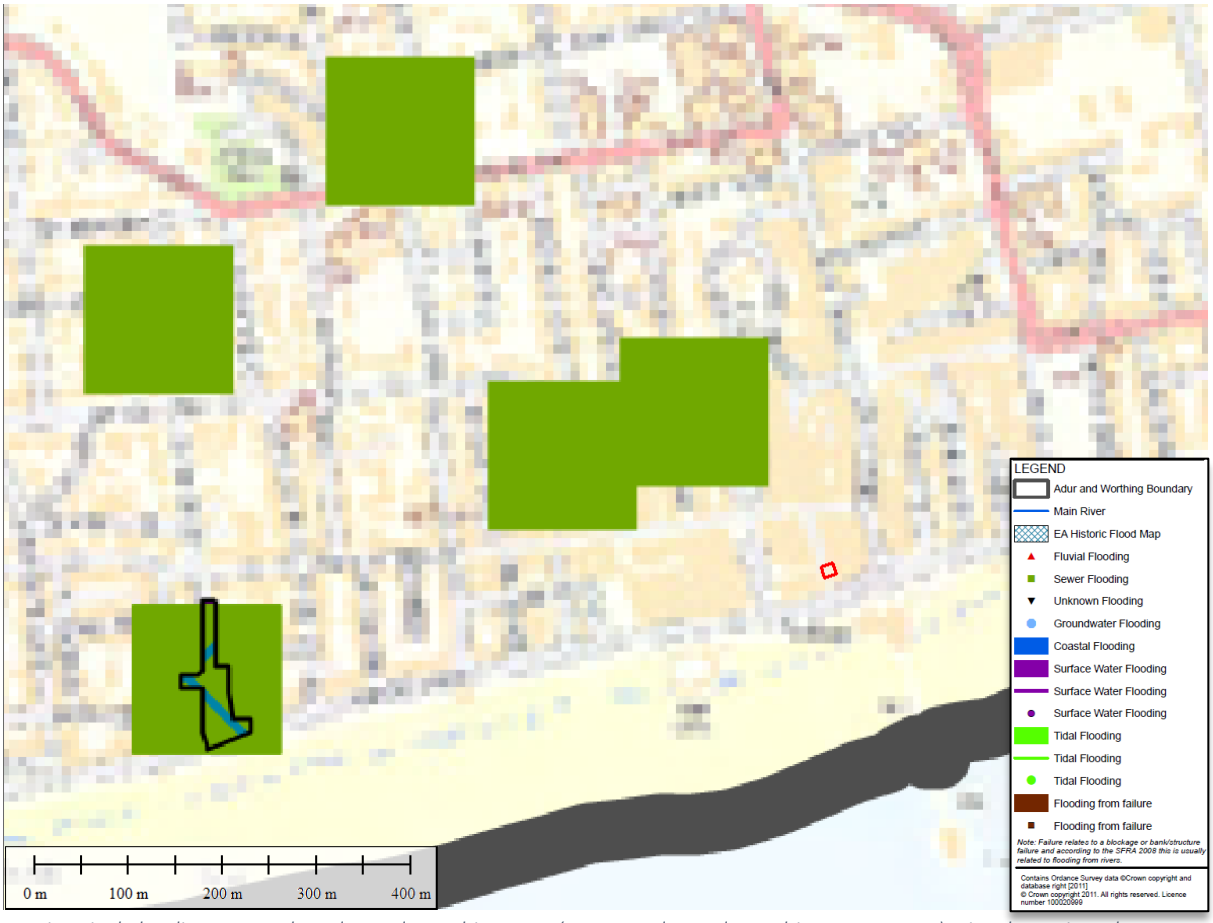

Figure 9: Historical Flooding across the Adur and Worthing area (Source: Adur and Worthing SFRA, 2012). Site shown in red

Surface Water Drainage Strategy

4.32 The proposed development will not incorporate any increase of impermeable areas as it is simply for the change of use of the existing structures on site.

4.33 As such there will be no change in surface water runoff from site. The existing surface water infrastructure is proposed to be retained.

Records of Historical Flooding

4.34 The SFRA Historic flooding map shows that the area north west of the site to have experienced sewer flooding within the past. Judging from the 200m distance between the approximate location of the flooding and the site, it seems unlikely that the site was affected by this event.

4.35 The EA Historic Flood Map shows the site to be outside of any tidal or fluvial extents from previous flooding events.

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5. Probability of Flooding

5.1 According to the low detail, national-scale flood mapping created on behalf of the EA the annual probability of tidal flooding at the site is greater than 0.5% (or 1:200 year or greater annual probability). The EA flood zones does not take into consideration flood defences.

5.2 The SFRA's Actual Flood Risk (defenced) Map (Figure 4) shows the site to be located outside of the 1:200 year flood extent.

Zone	Description
1	Low Probability. This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%).
2	Medium Probability. This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% – 0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% – 0.1%) in any year.
3a	High Probability. This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.
3b	The Functional Floodplain. This zone comprises land where water has to flow or be stored in times of flood. SFRA's should identify this Flood Zone (land which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an extreme (0.1%) flood, or at another probability to be agreed between the LPA and the EA, including water conveyance routes).

Table 3: Definition of the NPPF Flood Zones. Shaded cells denote the proposed development. (Source: EA)

Climate Change on Site

5.3 Climate change is likely to increase the flow in rivers, and raise sea levels and storm intensity. Under the NPPF, climate change is likely to increase the flow in rivers by 20%. The NPPF also specifies a 10% increase in peak rainfall intensity from 2025 (and 20% increase from 2055 and a 30% increase from 2085 to 2115) (*Source: Recommended national precautionary sensitivity ranges for peak rainfall intensities, peak river flows, offshore wind speeds and wave heights, Technical Guidance to the NPPF*).

5.4 As such the proposed development will be at more risk of flooding in the future.

5.5 Analysis of the EA data provided indicates a 1:200 year undefended flood level of 5.26mAOD at Node 2.

5.6 The SFRA has indicated that based on 'Actual Flood Risk' (taking into account the defences in the area) the proposed development site would be located in an area that would be defended in the future, and protected to the 1:200 year standard in the year 2115 (Figure 4).

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6. Residual Risks

Identification of Residual Risks

6.1 Residual risks are those remaining after applying the sequential approach to the location of development and taking mitigating actions. Examples of residual flood risk include:

- the failure of flood management infrastructure such as a breach of a raised flood defence, blockage of a surface water conveyance system, overtopping of an upstream storage area, or failure of a pumped drainage system;
- failure of a reservoir, or;
- a severe flood event that exceeds a flood management design standard, such as a flood that overtops a raised flood defence, or an intense rainfall event which the drainage system cannot cope with.

6.2 The development is protected by tidal defences and as such there is a residual risk of failure. No breach or overtopping modelling has been provided by the EA, however the SFRA has produced overtopping maps for both the 1:20 year and 1:200 year event.

Overtopping of Defences

6.3 The SFRA Wave Overtopping Map shows the site to be affected by the 0.5% (1:200) overtopping event and the 5% (1:20) overtopping event.

6.4 However no flood levels for these flood extents have been provided by the SFRA and as such the potential depth of flooding to the development site has not been possible to determine.

6.5 However, based on the SFRA modelled extents, the proposed development site would be located within the modelled wave overtopping scenarios for both the 1:20 year and 1:200 year events.

6.6 The overtopping flood extents shown within the SFRA are based on the Adur to Arun Study, which the SFRA states utilised data that was superseded in February 2011. The general new extreme sea-levels are lower than those used to determine the overtopping extents, in the Worthing area these new extreme sea levels are 0.14m lower than the model used for the 1:20 year event and 0.08mlower than the model used for the 1:200 year event.

6.7 Remodelling was not deemed to be necessary due to these changes being within the confidence level of ±300mm.

6.8 As such the risk of flooding due to defence overtopping is deemed to be **moderately significant**.

Breach of Defences

6.9 No data has been provided by either the SFRA or EA at the time of writing with regard to potential breaching of the defences.

6.10 Due to the type of defences within the site area (maintained shingle beach) the risk of breach is deemed to be relatively low and as such the risk of flooding of the site from this source is deemed to be **not significant**.

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7. Flood Risk Management Measures

7.1 The site is located within Flood Zone 3 (High Risk). As a result, the proposed development will require mitigation against the impacts of flooding.

7.2 However the site is located in an area benefitting from defences to the 1:200 year standard as defined by the SFRA and will remain so until the year 2115 (Figure 4).

7.3 As such the developer is advised to implement the following flood mitigation measures:

- All new pluming insulation to be of closed-cell design;
- Non-return valves to be fitted to all drain and sewer outlets;
- Anti-syphon fitted to all toilets;

Flood Warning and Evacuation Route

7.4 Access to the existing building is through Bath Street.

7.5 In the event of a flood at the site, site users are advised to exit onto Bath Place and turn right. Site users should turn left at Montague Street and continue up to next junction where they should turn right. Upon reaching Liverpool Terrace, occupants will be located within Flood Zone 1. The proposed evacuation routes are demonstrated in Figure 10.

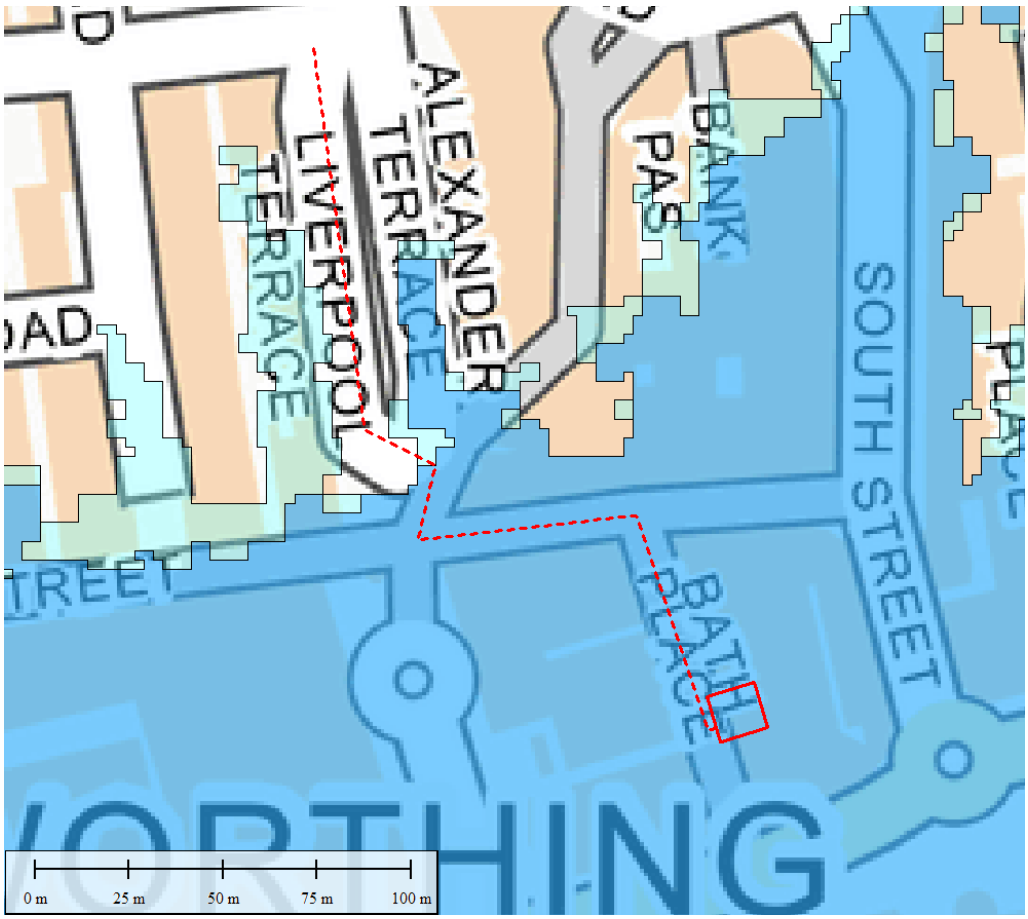

Figure 10: Proposed Evacuation Routes away from the source of flooding (Evacuation routes in red dashed line and site boundary in solid red) (Source: OS & EA)

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7.6 Marine Parade, based on the worst case 1:200 year flood level of 5.29mAOD, could experience a maximum flood depth of 0.63m. Occupants should not enter water deeper than 25cm.

7.7 The maximum and minimum sea level (tidal peak and trough) are approximately 6 hours apart. As such, while the area around the site may be affected by flood waters during the 1:200 year flood event, it is expected that tidal waters will drain away well within 6 hours.

7.8 In practicality, the peak of the surge would likely last for a much shorter period of time and as such, it would be likely that water would recede much faster. However, due to the potential hazard of overtopping via wave-action, it is not recommended that occupants leave the building until low tide (or until the emergency services instruct them to do so).

7.9 Tidal flooding is generally caused by low pressure weather systems creating storm-surges (or storm tides), chiefly via high speed winds. These winds (and to a certain extent, the low pressure) create a 'bulge' of water which, if it coincides with high tide, can generate very high, stormy, water levels. However, because this mechanism is well understood, it is very likely that early warning will be issued before such an event strikes. As such, it is very unlikely that the site would be subject to tidal flooding (including overtopping) without several hours of early warning.

7.10 As such, it is recommended that the site owner subscribes to the EA's Flood Warning Service. A review of the EA Flood Warning maps shows that the site is within an area where flood warnings are issued as well as flood alerts (Figure 11 and Figure 12).

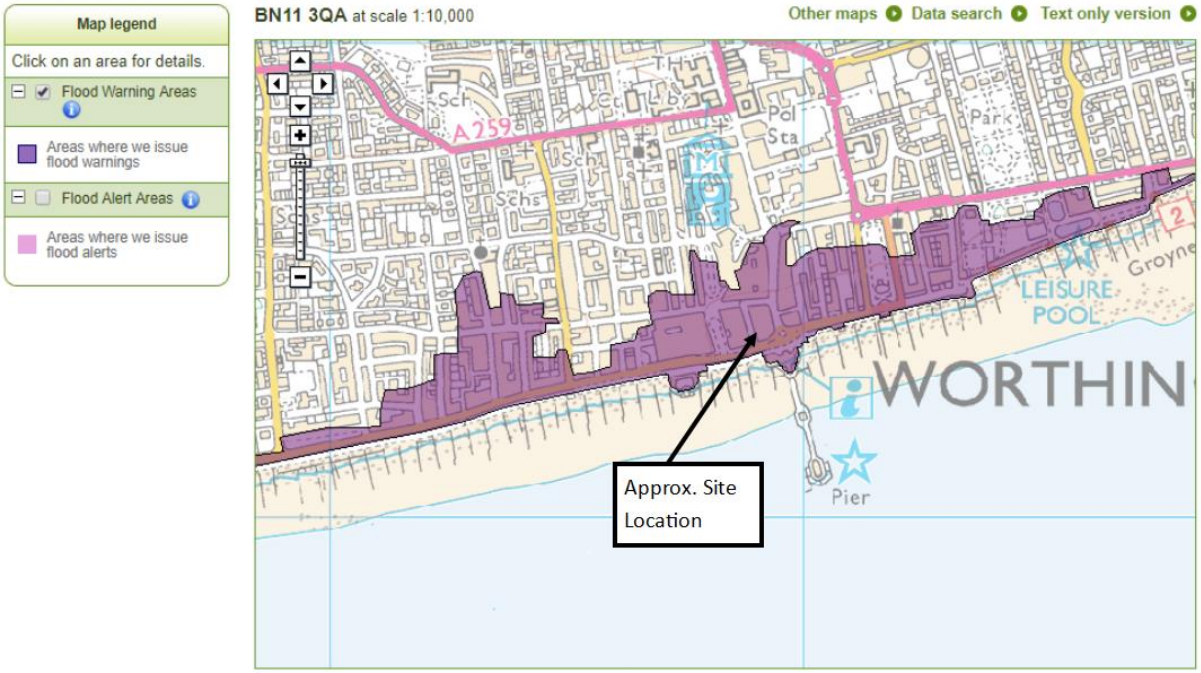

Figure 11: Areas where flood warnings are issued

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Figure 12: Areas where flood alerts are issued

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7.11 The EA operates a 24-hour telephone service on 0845 988 1188 that provides frequently updated flood warnings and associated floodplain information. Further information can be found on www.environment-agency.gov.uk/floodline. Floodline Warnings Direct is a free service operated by the EA that provides flood warnings direct to occupants by telephone, mobile phone, fax or pager.

- On receipt of a FLOOD ALERT, the individual property owners and occupiers should:
    - Monitor the situation via local media;
    - Make themselves aware of forecast local weather conditions;
    - Alert both current visitors, and those scheduled to arrive, of the situation;
    - Prepare to evacuate if necessary.
- On receipt of a FLOOD WARNING, the individual property owners and occupiers should:
    - Follow advice to “go in, stay in, and tune in”;
    - Move all vehicles to an area outside of the potential flood extent, if safe to do so;
    - Alert scheduled visitors that they should seek alternative accommodation;
    - Be prepared to follow instruction from the Emergency Services.
- On receipt of a SEVERE FLOOD WARNING, the individual property owners and occupiers should:
    - Follow advice to “go in, stay in, and tune in”;
    - Remain attentive to local media forecasts and news bulletins;
    - Do not evacuate unless instructed to do so by the Emergency Services;
    - Only when instructed to evacuate by the Emergency Services, leave the property and follow the agreed evacuation plan.

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8. Off Site Impacts

Impact to Flood Risk Elsewhere

8.1 The site is located within Flood Zone 3, (tidal flood risk) and under the NPPF:

"unless the development is located in an area which is subject to tidal flooding and which serves no conveyance function, land raising must be accompanied by compensatory provision of flood storage either on- or off-site"

As such there is no requirement for compensatory flood storage.

Generation of Runoff

8.2 The proposed development will not incorporate any increase of impermeable areas as it is simply for the change of use of the existing structures on site.

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9. Conclusion

9.1 Ambiental Technical Solutions Limited has been appointed to undertake a National Planning Policy Framework (NPPF) compliant Flood Risk Assessment (FRA). The proposed development is focused at the ground floor of 2-3 Bath Place, Worthing. The development is for the change of use from shop and restaurant to amusement arcade.

9.2 With reference to the NPPF and the Environment Agency (EA) standing advice on development and flood risk, as well as the low detail, national-scale flood mapping created on behalf of the EA, the proposed site is located within Flood Zone 3 (High Risk) and is considered to be a 'Less Vulnerable' development under the NPPF.

9.3 The proposed development will not incorporate any increase of impermeable areas as it is simply for the change of use of upper floors of the existing structure only.

9.4 Analysis of the EA data provided indicates a 1:200 year defended flood level of 5.05mAOD at Node 2.

9.5 The EA have confirmed that they will expect the undefended 0.5% (2115) flood levels to be used for this study (see Appendix B). The EA data shows that the undefended 0.5% (2115) flood levels are 5.26mAOD.

9.6 Analysis of the modelled tidal flood levels provided by the EA against the minimum topographic levels across the site obtained from LiDAR (4.63mAOD) has shown that during the 1:200 year +CC (2115) undefended event the site would experience a potential maximum flood depth of 0.63m (based on minimum site topography of 4.63mAOD).

9.7 As such, and given that the site benefits from the presence of defences as defined by the SFRA, the risk of flooding to the site from this source is deemed to be **relatively low**.

9.8 The risk of groundwater and surface water flooding is deemed to be **relatively low**.

9.9 Due to sewer waters in the area likely being controlled by pumping stations (as stipulated by the SFRA), the risk of flooding from this source is considerate to be **low to moderate**.

9.10 As such, and given that:

- The proposed development is for commercial purposes;
- The proposed development is simply for the change of use;
- The proposed development site will be defended to the 1:200 year standard and will remain so until at least 2115 (as defined by the SFRA);
- A range of flood resistant measures have been recommended;
- The proposed development site is located within an area of tidal flood risk, and an EA Flood Warning Area and therefore in terms of flood vulnerability, significant betterment can be achieved through the implementation of a formal flood warning,

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following the guidelines contained within NPPF, the proposed development type is considered to be suitable assuming appropriate mitigation (including adequate warning procedures) can be maintained for its lifetime.

Dr. J. B. Butler
B.Sc., M.Phil., PhD.
Ambiental Technical Solutions Ltd. November 2017

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Appendix A – Plans

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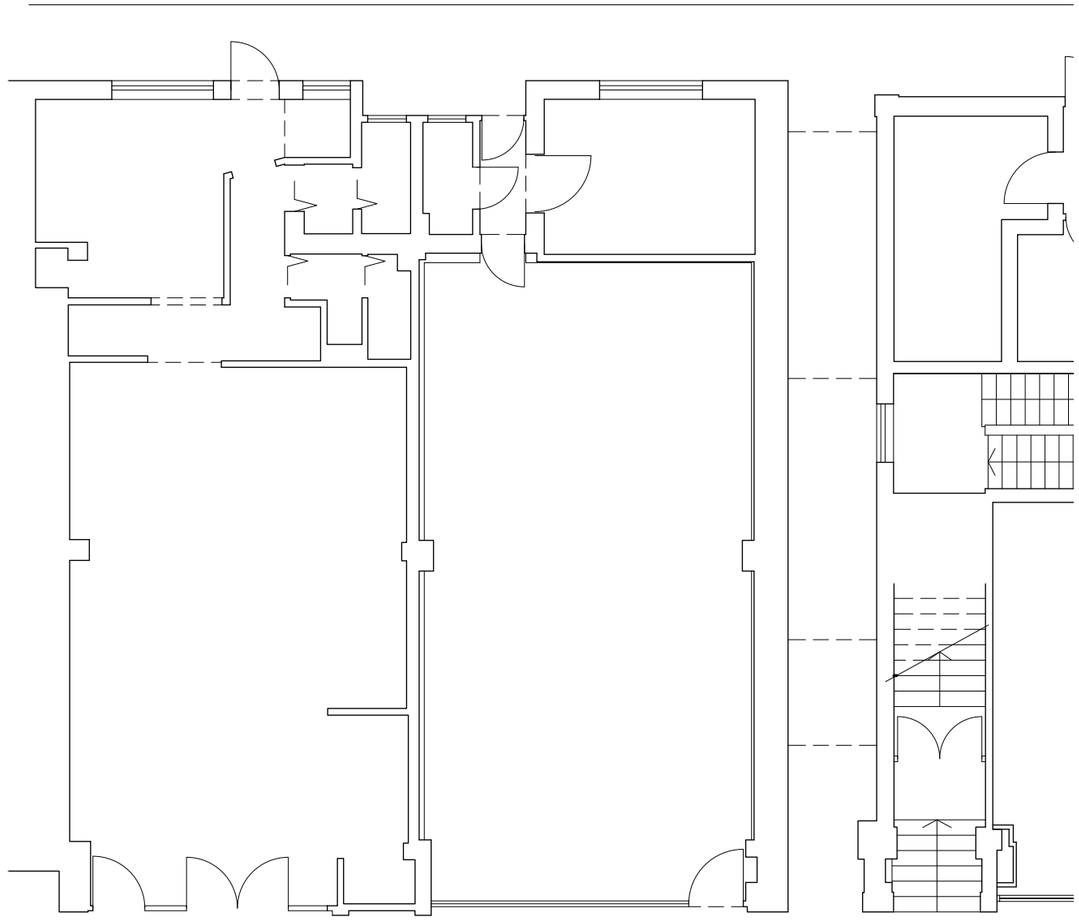

Ground Floor Plan 1:100

FOR PLANNING

BB PARTNERSHIP LTD
CHARTERED ARCHITECTS
Studios 33-34, 10 Hornsey St, London. N7 8EL
Tel 020 7336 8555 - e-mail - architect@bbpartnership.co.uk

project	date	scale	drawn
Bath Place, Connaught House	14.02.17	1:100@A3	LF
drawing Existing Ground and First/Second Floor Plans	drwg. no ERN_101		rev. -

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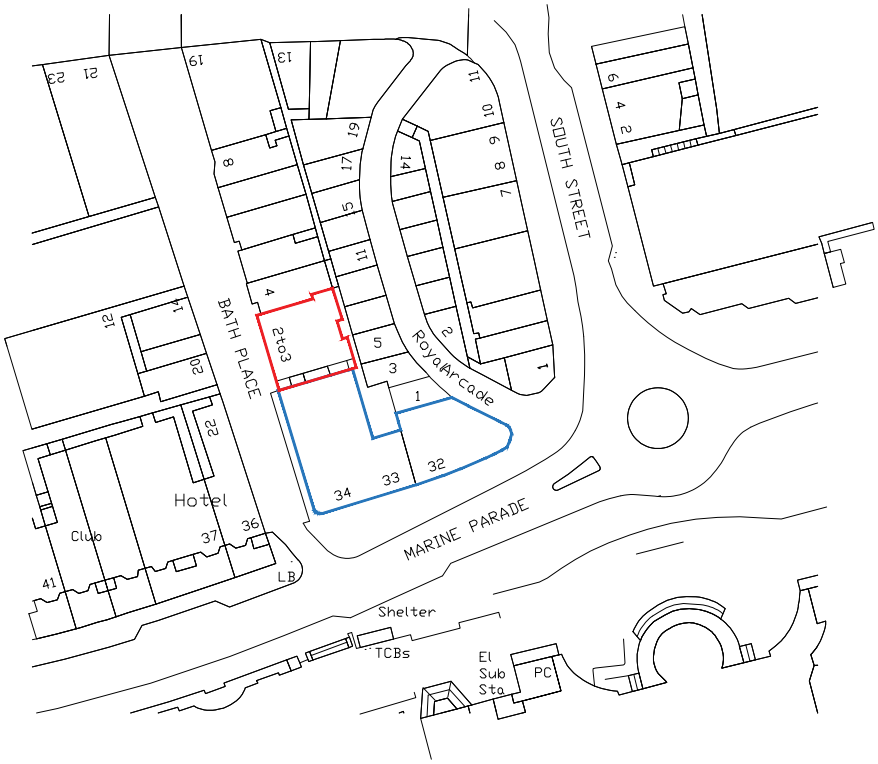
Appendix C

Site Location Plans



0m 25m 50m 75m 100m 125m

SCALE 1:1250

N

FOR PLANNING

BB PARTNERSHIP LTD

CHARTERED ARCHITECTS

Studios 33-34, 10 Hornsey St, London. N7 8EL
Tel 020 7336 8555 - e-mail - architect@bbpartnership.co.uk

project	date	scale	drawn
Bath Place, Connaught House, Worthing	May 19	1:1250@A4	HY
drawing: Location Plan	drwg. no: ERN_001		rev.: -

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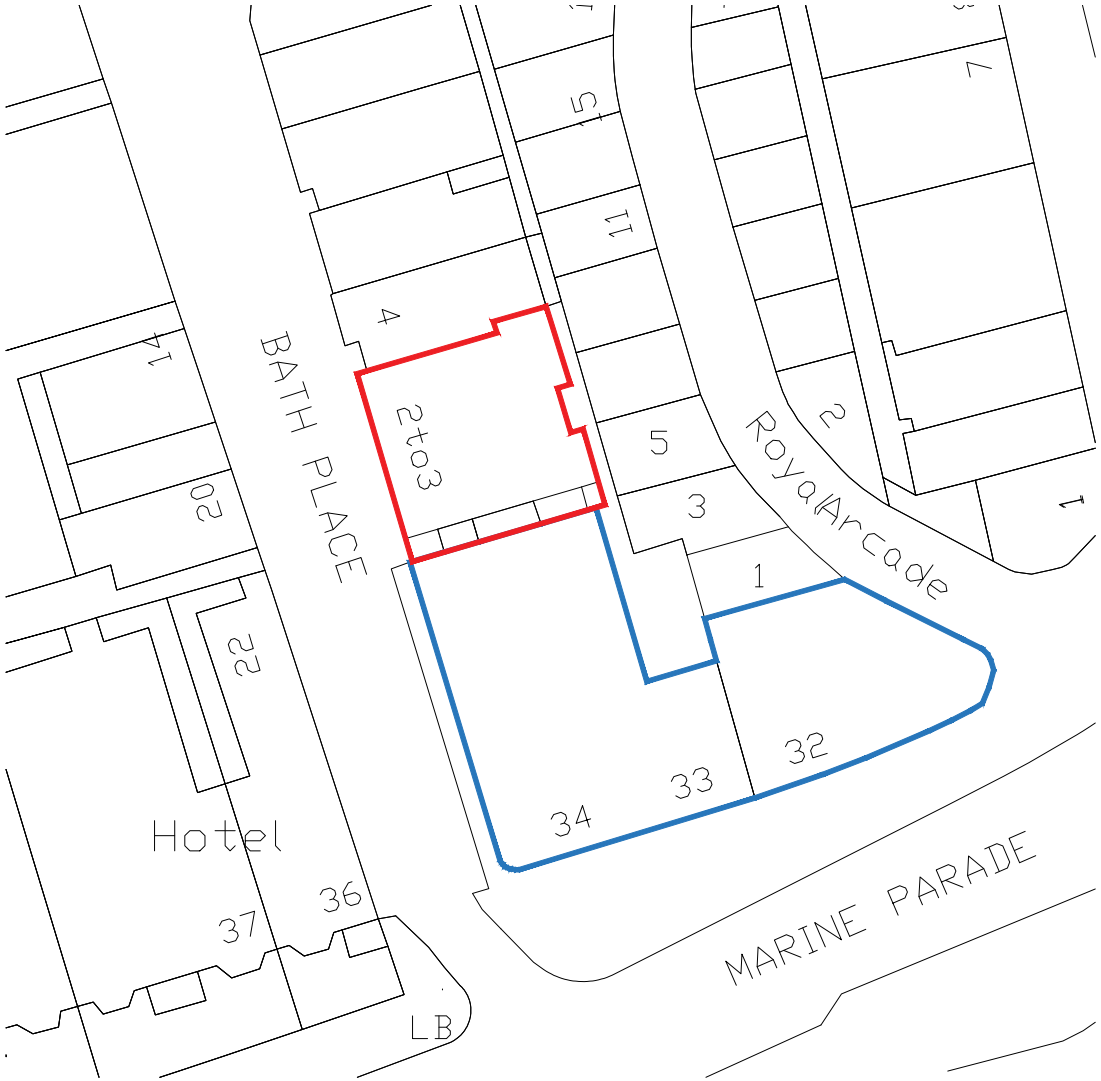

0m 10m 20m 30m 40m 50m

SCALE 1:500

N

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CHARTERED ARCHITECTS
Studios 33-34, 10 Hornsey St, London. N7 8EL
Tel 020 7336 8555 - e-mail - architect@bbpartnership.co.uk

project	date	scale	drawn
Bath Place, Connaught House	May 19	1:500@A4	HY
drawing: Existing Block Plan	drwg. no: ERN_002		rev.: -

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Appendix D

Environment Agency Flood Map for Planning

Flood map for planning

Your reference	Location (easting/northing)	Created
Bath Place	**514897/102379**	**22 Sep 2021 11:14**

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

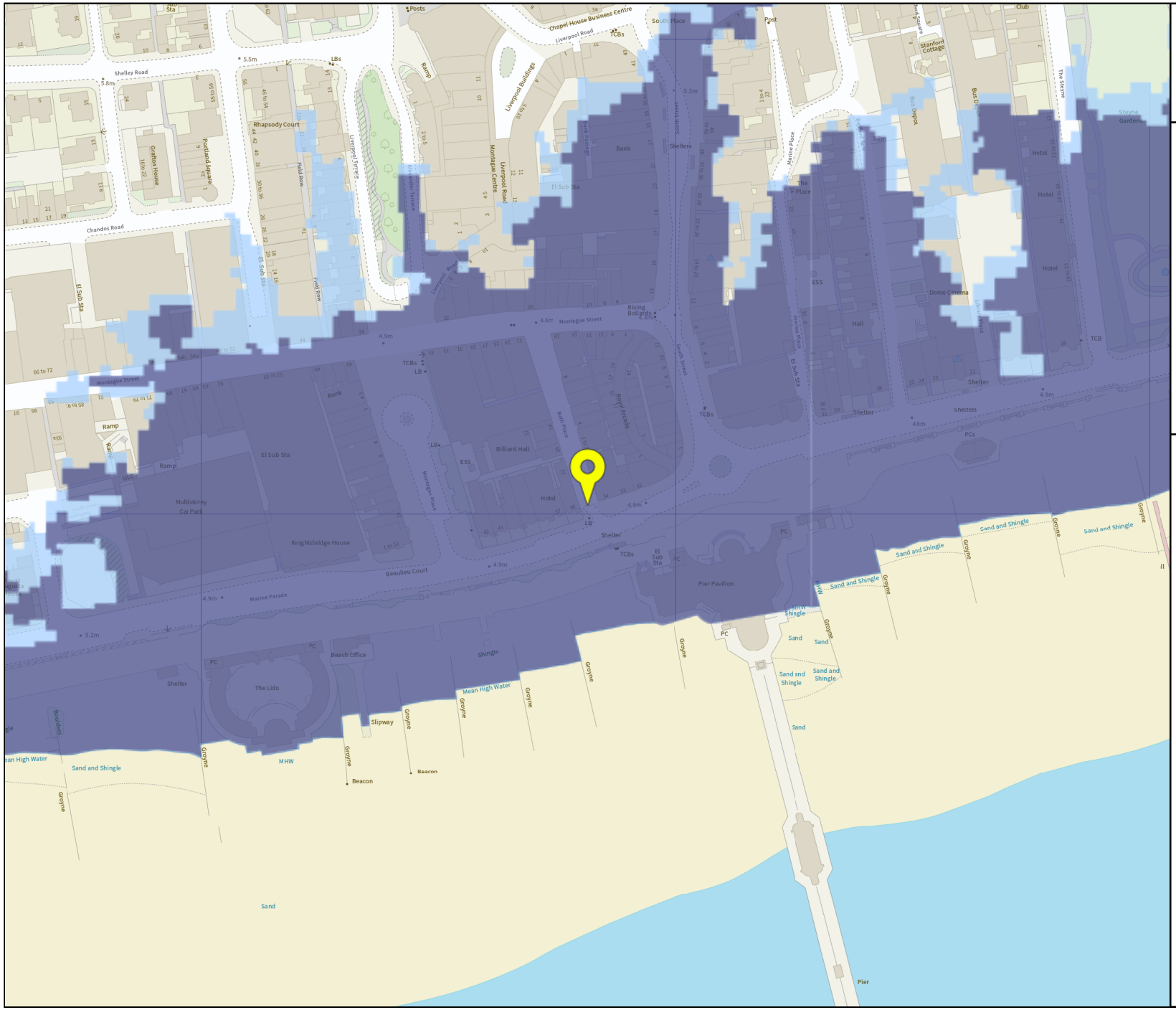
Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2021 OS 100024198. https://flood-map-for-planning.service.gov.uk/os-terms



Environment Agency

Flood map for planning

Your reference
Bath Place

Location (easting/northing)
514897/102379

Scale
1:2500

Created
22 Sep 2021 11:14

- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

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Appendix E

Essential Contacts Table

	Company Name	Telephone Number(s)	Other Useful Information
Environment Agency Floodline	N/A	0345 988 1188	
Electricity supplier and meter number			
Gas supplier and meter number			
Water supplier and meter number			
Telephone provider			
Local authority emergency services			
Insurance company 24-hour number and policy number			
Local radio station for news alerts and weather updates			
The Emergency Services			
Employee details			
Electrician			
Plumber			
Builder			
Equipment repair/suppliers			
IT suppliers			
Security services			
Water pumping services			
Emergency power suppliers			
Cleaning contractors			
National Flood Forum		01299 403055	

Appendix F

Flood Warning

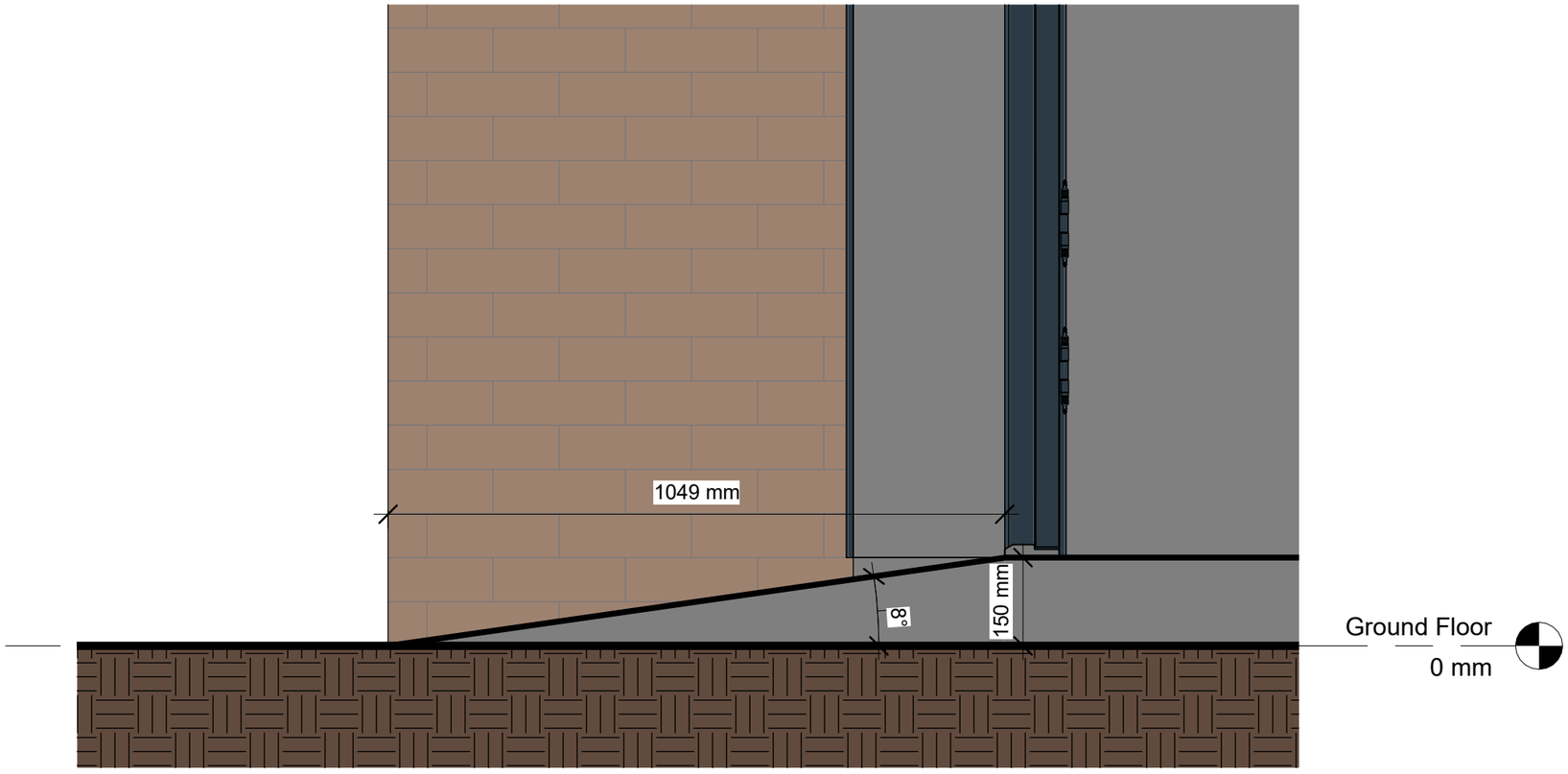
Warnings		EA Recommended Actions
	What it means: Flooding is possible. Be prepared. When it's used: Two hours to two days in advance of flooding.	Be prepared to act on your FWEP. Prepare a flood kit of essential items. Monitor local water levels and the flood forecast on Environment Agency website.
	What it means: Flooding is expected. Immediate action required. When it's used: ½ an hour to one day in advance of flooding.	Move family, pets and valuables to a safe place. Turn off gas, electricity and water supplies if safe to do so. Put flood protection equipment in place, if available and necessary.
	What it means: Severe flooding. Danger to life. When it's used: When flooding poses a significant threat to life.	Stay in a safe place with a means of escape. Be ready should you need to evacuate. Co-operate with the emergency services and call 999 if you are in immediate danger.
EA Flood Warnings no longer in force	What it means: No further flooding is currently expected in your area. When it's used: When river or sea conditions begin to return to normal.	Be careful! Flood water may still be around for several days. If you've been flooded, ring your insurance company as soon as possible.

Appendix G

Floor Map with Utility Information (to be populated by staff of Connaught Leisure and the occupants of the flats)

Appendix H

Threshold Raising Diagram



1 Access Ramp Detail

1 : 10

Gradients

%	Slope	Application
8.3%	1:12	Maximum wheelchair ramp for a maximum legth of 2 m and rise of 166 mm
8.5%	1:11.8	Maximum indoor slope for pedestrians

Notes:

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REV	DESCRIPTION	BY	DATE

STATUS: Planning Issue

Warwick Lane.
Developments Ltd
T 01903 680088 | DF 01903 206 908 | E acp@wld-group.co.uk
1 The Steyne, Worthing, West Sussex, BN11 3DS

CLIENT: Connaught Leisure Ltd

SITE ADDRESS:

DRAWING: Conversion of upper floors to 3 x 2 bed flats

TITLE: Proposed Access Ramp

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1 : 10	15/03/2021	UF	AP

PROJECT NO:	DRAWING NO:	REVISION:
Bath Place	WLD/004/21/05	