


# Flood Risk Assessment

## 10 Ormonde Way, Shoreham-By-Sea, BN43 5YB


### Client

**Empire Construction Group Ltd**
339 Kingsway
Hove
East Sussex, BN3 4PD
**Ref:** 7945
**Date:** July 2019

### Consulting Engineers

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| Issue | Issue date | Compiled | Checked |
|---|---|---|---|
| Preliminary Issue | 17 July 2019 | JP | MR |
| First Issue | 18 July 2019 | JP | MR |
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**Report by:** John Pakenham BSc (Hons)
**Checked by:** Martin Roberts I Eng, ACIWEM, MCIHT

# 1 Introduction

1.1 This report has been prepared for Empire Construction Group Ltd in relation to the proposed development and no responsibility is accepted to any third party for all or part of this study in connection with this or any other development.

1.2 GTA Civils Ltd was appointed by its client to provide a Flood Risk Assessment (FRA) to support the planning application for the development of 10 Ormonde Way, Shoreham-By-Sea, BN43 5YB.

1.3 This report will take the form of a formal Flood Risk Assessment in accordance with EA's Flood Risk Standing Advice for Minor Developments in FZ2/FZ3 – as well as the 2018 National Planning Policy Framework (NPPF) and the 2015 Planning Practice Guidance (PPG).

1.4 This report covers only the flood risk and drainage issues relating to this site. It refers to the Stage 2 FRA report and subsequent FRA Technical Note prepared in support of the planning application for the adjacent site at #10 (ref AWDM/1947/17).

## 2 Existing Site and Current Flood Conditions

2.1 The application site lies in Shoreham-by-Sea in the area administered by Adur District Council (ADC). It comprises an end of terrace 4-storey dwelling and garden/amenity space. A site location map and aerial view are shown in Appendix A.

2.2 Hydrology: The nearest river to the site is an unnamed 'drain' that flows eastwards, discharging into the Adur nearby (at the west end of Shoreham Harbour). It is approximately 100m to the north – northeast of this site at its closest. The English Channel is approximately 330m to the south.

2.3 According to the Environment Agency's Rivers and Seas Flood Map (see Appendix B), the site lies in coastal Flood Zone 3 (High Risk). Coastal sites in FZ3 are defined in Table 1 of the 2018 National Planning Policy Framework (NPPF) as being susceptible to a fluvial (river) event with an annual probability of 0.1% - 0.5% (between 1 in 1000 years and 1 in 200 years) – ie flooding from the sea.

2.4 The site is protected by the Shoreham to Lancing coastal flood defences. The standard of these is 1 in 100 years. They are maintained by the EA and are currently in 'good condition'.

2.5 ADC's Strategic Flood Risk Assessment (SFRA) includes breach modelling for the present day 0.5% sea defences overtopping scenario – see the final flood map Appendix B. This shows the site lying at the edge of this flood pattern. The 2nd last flood map in Appendix B shows the site affected in the 2070 0.5% flood scenario. The predicted rise in sea levels over the next 60-100 years increases this site's flood risk.

2.6 Since this modelling, the defences along Shoreham Harbour have been improved. There is no reason to suppose that the sea defences will not be raised during the next 30-50 years. This cannot be guaranteed, however.

2.7 According to the EA's online Surface Water Flood Map – Low Risk, ('1 in 1000 years' storm), the site is unaffected – see the second map in Appendix B.

2.8 Artificial sources: flooding from reservoirs, canals and docks. The EA's Reservoirs Flood Map in Appendix B shows that the site is removed from this source of flooding.

2.9 In conclusion the site's flood risk profile is High. It is liable to flood from overtopping of the sea defences.

## 3 Proposed Development & Conclusion

3.1 The planning application is for internal refurbishment of this dwelling unit. Appendix C shows the scheme drawings. The kitchen and dining room will be moved to the ground floor from the first floor and forming more living space at first floor. Currently the ground floor comprises 2 bedrooms and a shower room.

3.2 This is a Minor Development: no new roofed area is due to be created and no proposed change of use.

3.3 The use vulnerability within the dwelling will be *reduced* by moving sleeping accommodation from the lowest level to above the coastal flood risk level.

3.4 The NPPF states that the proposal should remain safe for the duration of the lifetime (design life) of the unit. The flood risk profile of this site will not increase as a result of this proposal.

3.5 Appropriate mitigation is proposed. The unit's occupants shall have a stock of sand bags or a demountable barrier system to protect the front door from flooding. Any airbricks in the external walls should be replaced by flood-proof airbricks. Electrical sockets shall be placed above the ground floor level +600mm as a precautionary measure. The new ground floor shall be of resilient construction, eg Altro, quarry tiles or similar.

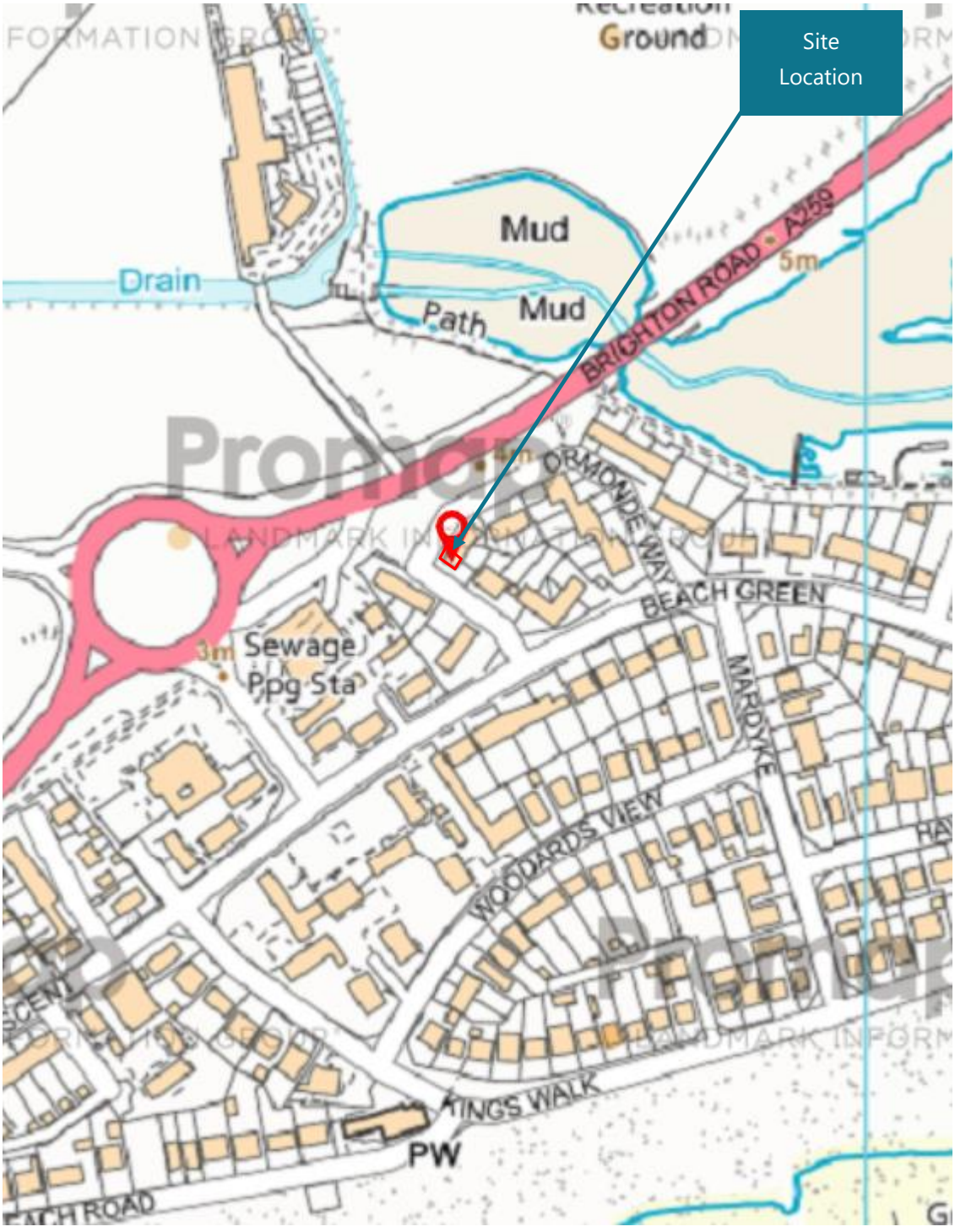
3.6 Safe access to dry land. As the risk is solely tidal and the peak flood depth limited to a few hours, it is contended that refuge at high level constitutes 'safe access to dry land'. Occupants will be able to reside at first and second floor levels for the few hours necessary.

3.7 Conclusion: this development will not increase the flood risk either on this site or to neighbouring properties - and so complies with the EA's Flood Risk Standing Advice for Minor Developments in FZ2/FZ3 – and the 2018 NPPF and 2015 PPG.

- End of Report -

# Appendix A

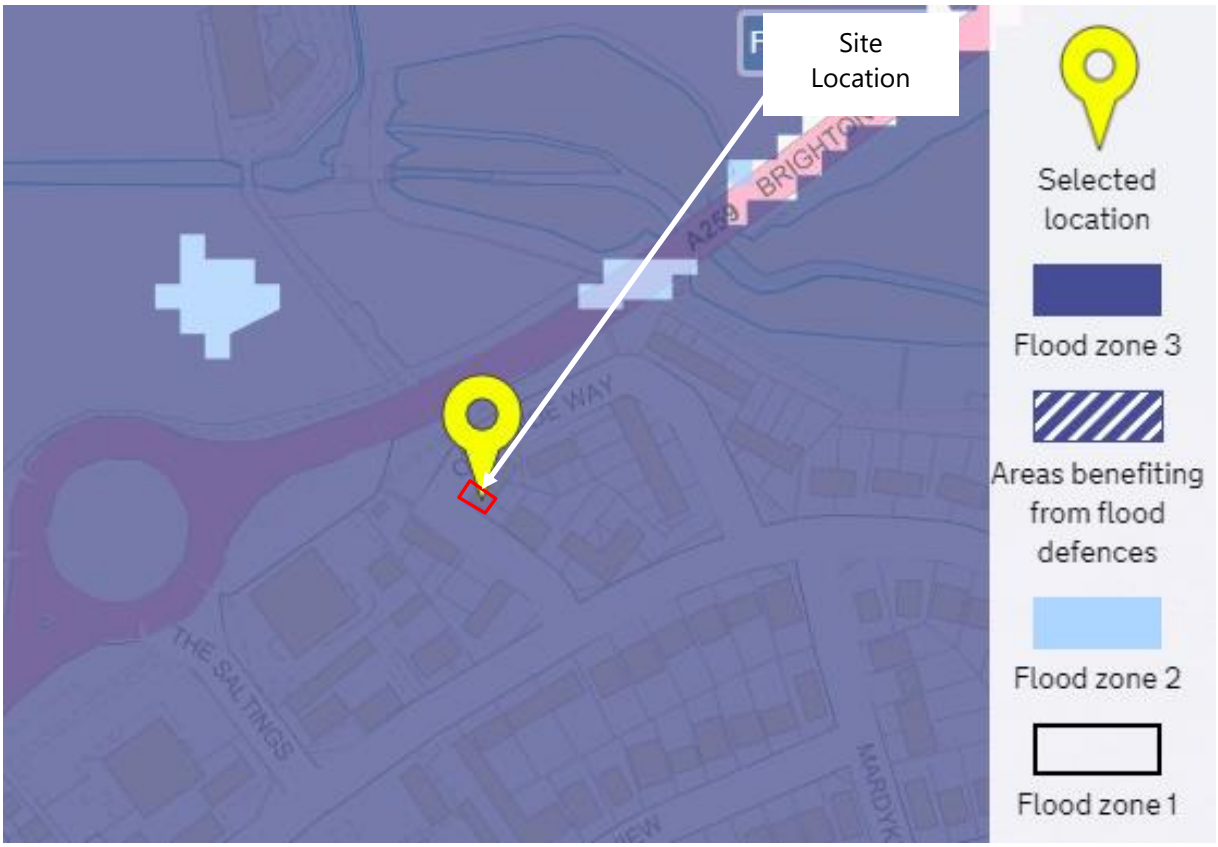
## Site Location Map & Aerial Photo




Site Location
Brighton Rd
Ormonde Way
Ormonde Way
Shell
Beach Green
Beach Green
Beach Green

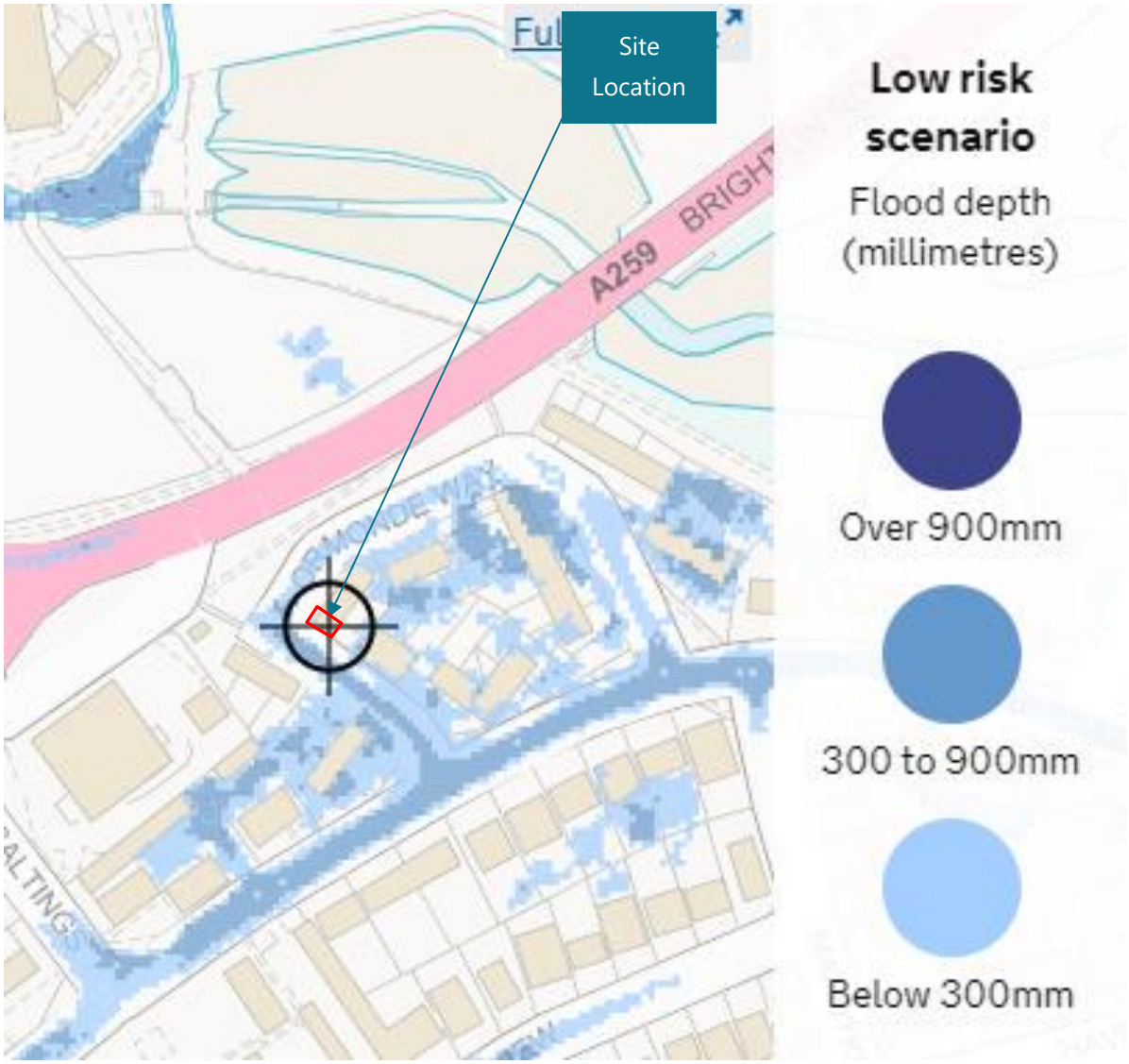
## Appendix B

## Environment Agency & SFRA Flood Maps



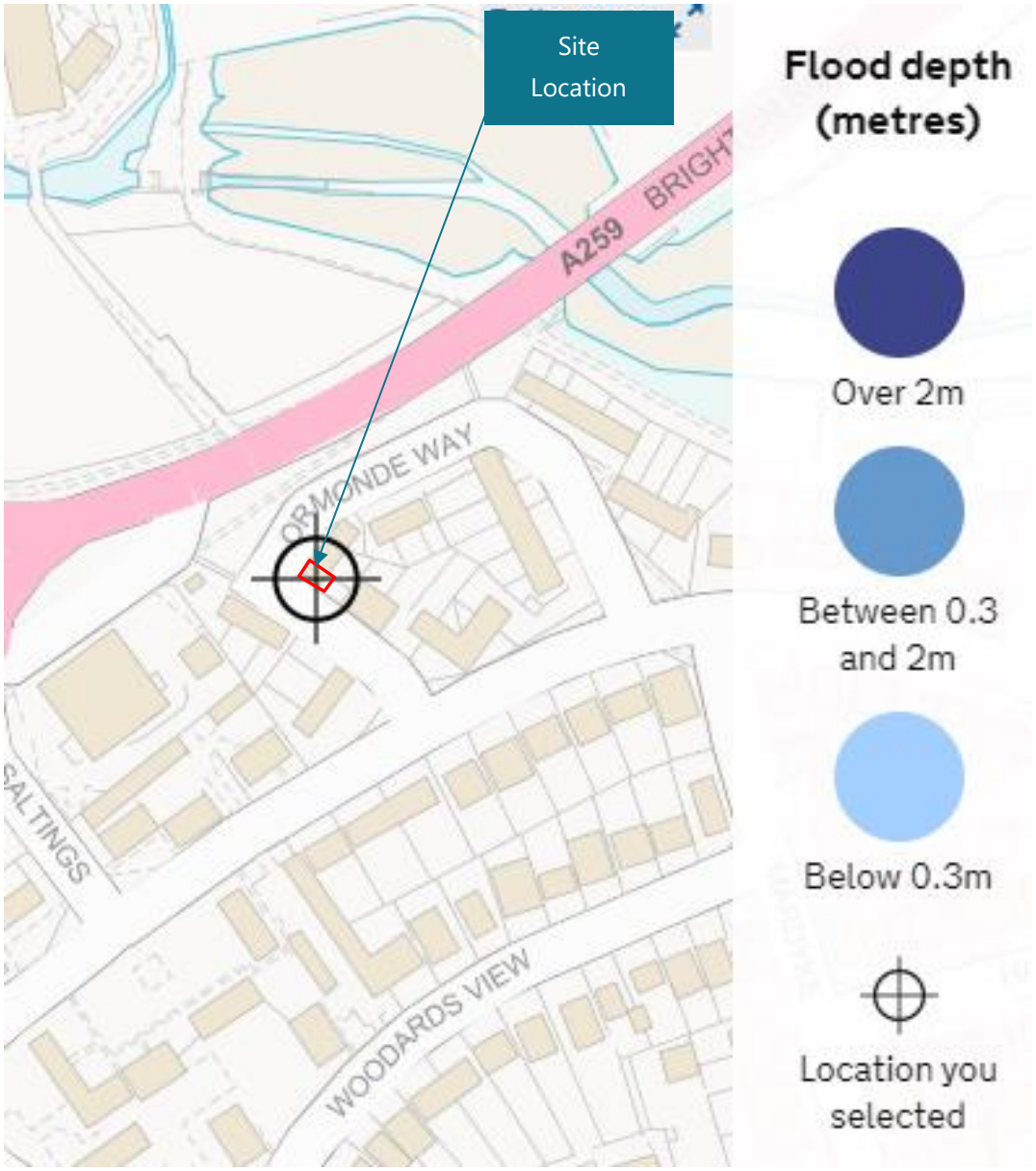

**EA's Online Flood Map for Planning (Rivers and Seas)**

The site is in coastal Flood Zone 3 (FZ3)



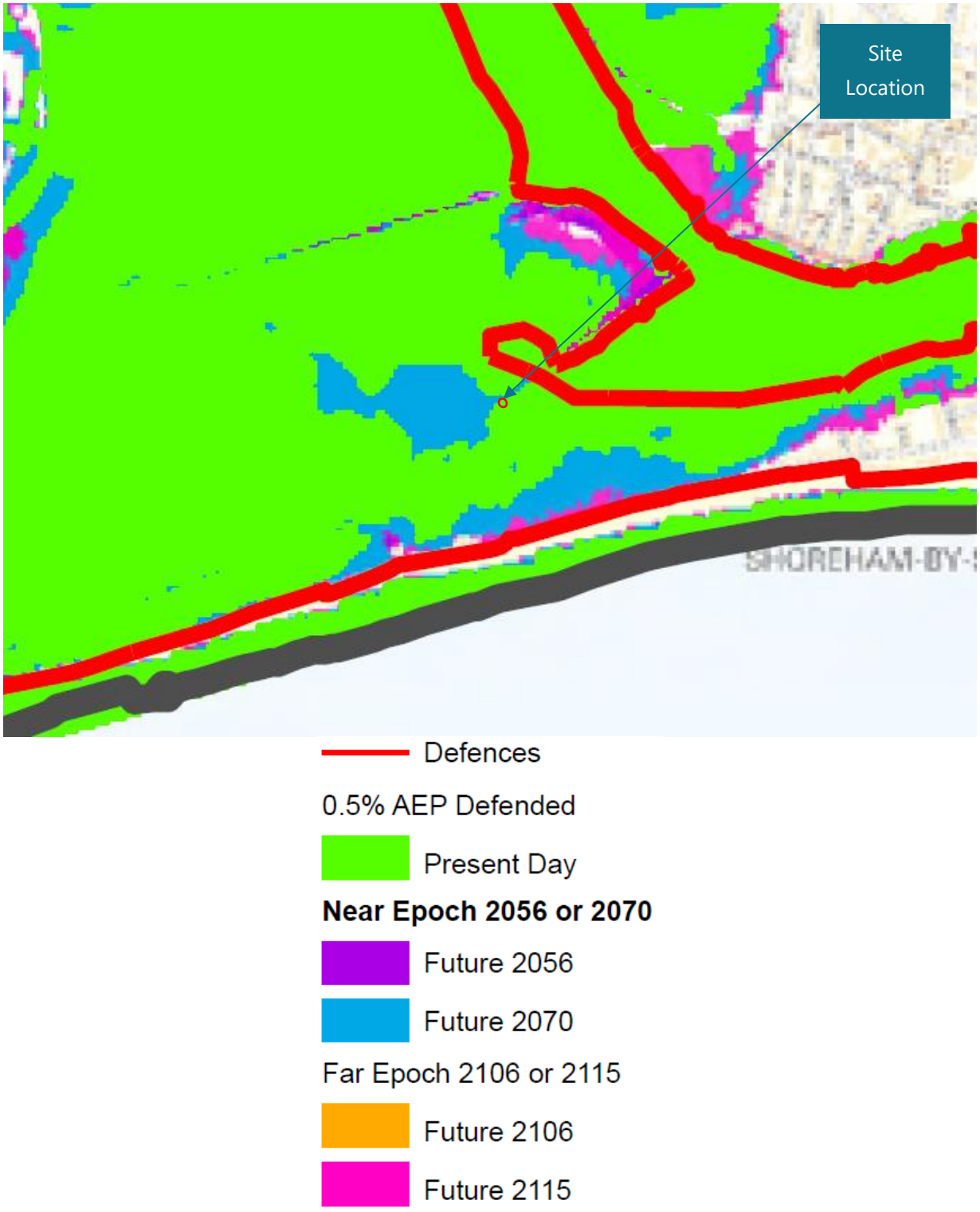

**EA's Online Surface Water Flood Depth Map in the 'Low Risk Scenario'**
**(1 in 1000 years storm event)**

The site is clear of this threat



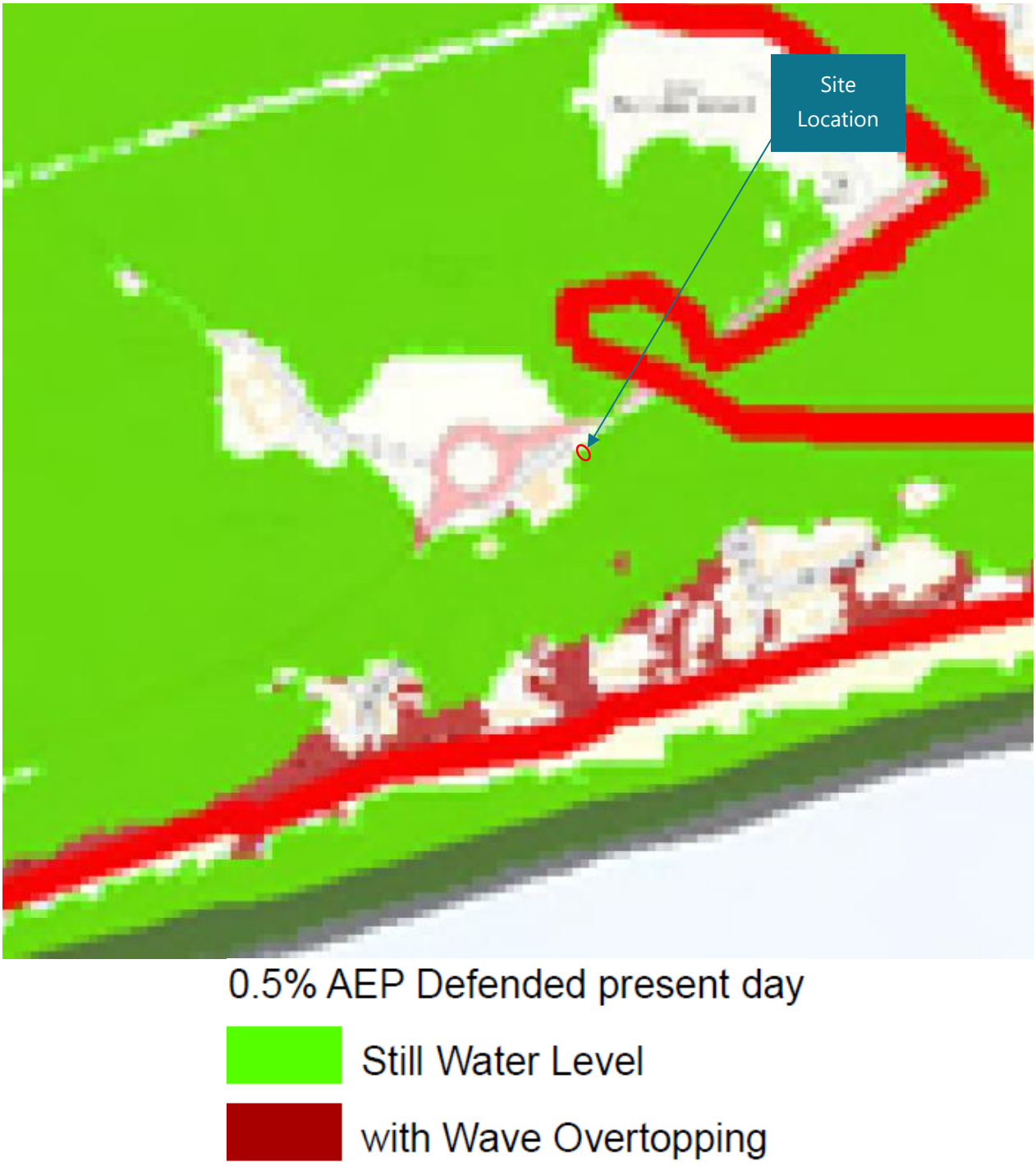

**EA's Online 'Risk of Flooding from Reservoirs' Map**

The site is removed from this source of flood risk




**Enlarged Extract from SFRA's 'Map 9 – Tidal Flood Risk – 0.5% AEP Wave Overtopping' Map**

The site is at the edge of the present day flood pattern and is liable to flood to a greater depth in the more extreme scenarios




**Enlarged Extract from SFRA's 'Map 11 – Tidal Flood Risk – 0.5% AEP Wave Overtopping' Map**

The site is at the edge of this flood pattern

# Appendix C

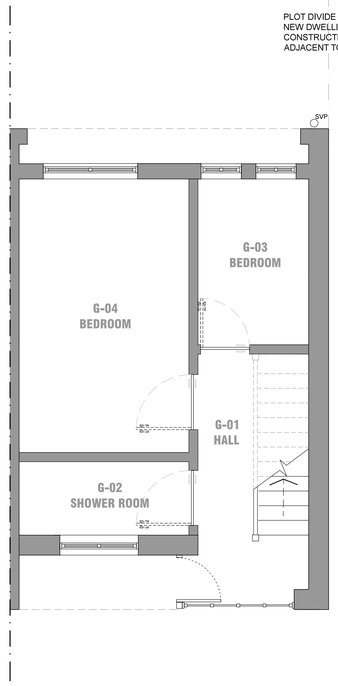
## Architect's Scheme Drawings

**Do Not Scale.** All dimensions and conditions are to be checked on site prior to preparing drawings or commencing any work. © This drawing is the property of JDRM Architectural Design LLP and protected by the Copyright, Designs and Patents Act. 1988

**OS information obtained from Promap November 2018**

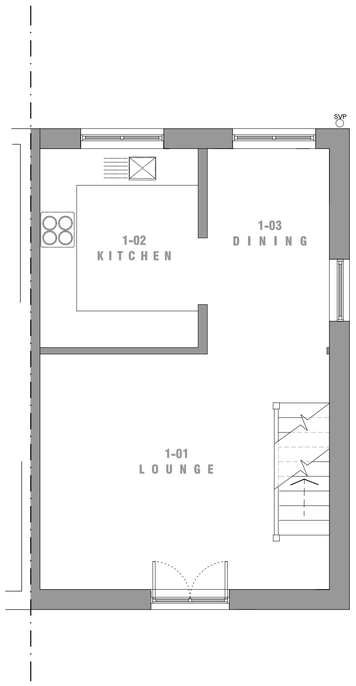



PLOT DIVIDE LINE WHEN NEW DWELLING IS CONSTRUCTED ON LAND ADJACENT TO No.10



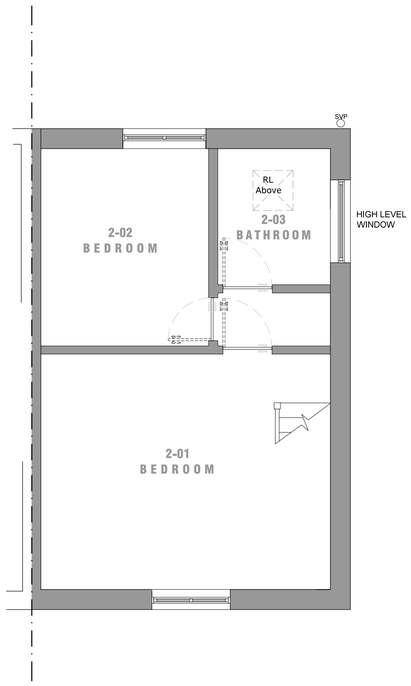

## P01 GROUND FLOOR PLAN 1:50
EXISTING

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres



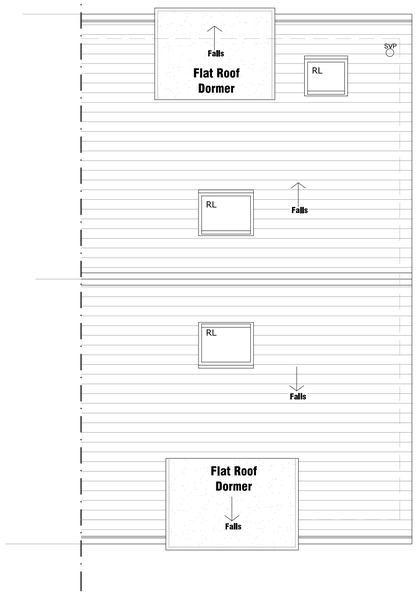

## P02 FIRST FLOOR PLAN 1:50
EXISTING

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres




## P03 SECOND FLOOR PLAN 1:50
EXISTING

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres




## P04 ROOF PLAN 1:50
EXISTING

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres

| Rev: | Date: | Notes: | Drawn: | Checked: |
|---|---|---|---|---|
| B | 26.06.2019 | Issue for Planning | RM | JD |
| A | 16.04.2019 | Bathroom rooflight added to roof plan | RM | JD |
| / | 27.03.2019 | ISSUE FOR CLIENT COMMENT | RM | JD |

Project:
# 10 Ormonde Way, Shoreham-by-Sea
SOUTHWICK, SUSSEX
EMPIRE LAND AND HOMES

JDRM ARCHITECTURAL DESIGN LLP

drawing number:
**2134(20)001**

rev:
**B**

EXISTING PLANS
GROUND - ROOF

SCALE 1:50 @ A1

Issued for:
**APPROVAL**

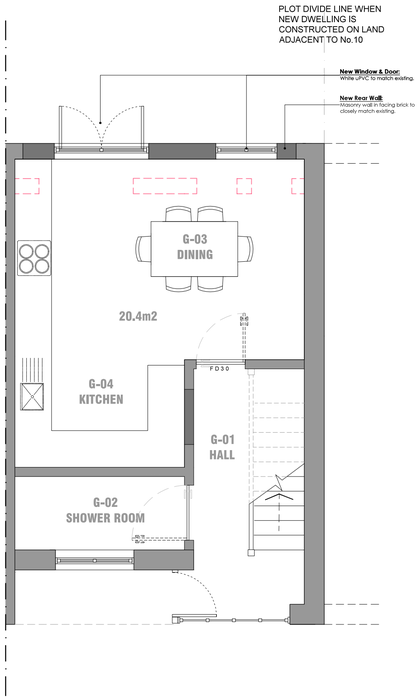
Drawn by: RM
Checked by: JD

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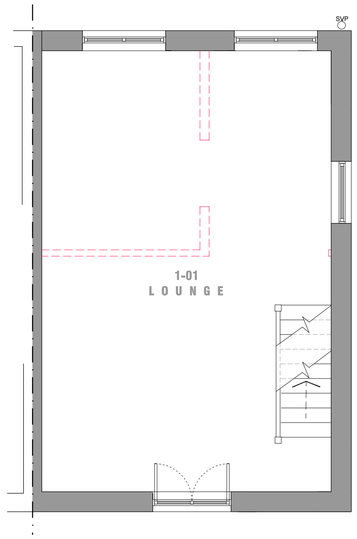
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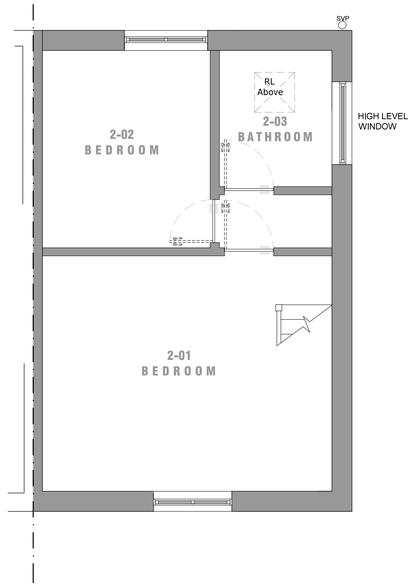

## P01 GROUND FLOOR PLAN 1:50
PROPOSED

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Scale in metres



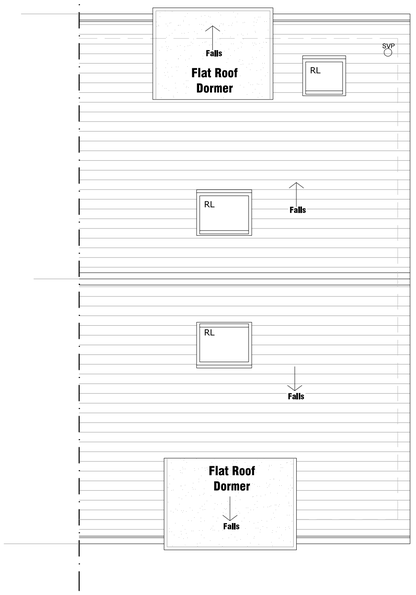

## P02 FIRST FLOOR PLAN 1:50
PROPOSED

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres




## P03 SECOND FLOOR PLAN 1:50
EXISTING

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres




## P04 ROOF PLAN 1:50
EXISTING

0 0.5 1.0 2.0 3.0 4.0 5.0
Scale in metres

FOR INFORMATION ONLY

| Rev: | Date: | Notes: | Drawn: | Checked: |
|---|---|---|---|---|
| D | 26.06.2019 | ISSUE FOR PLANNING | RM | JD |
| C | 06.06.2019 | ISSUE FOR BUILDING CONTROL | RM | JD |
| B | 16.04.2019 | ROOFLIGHT ADDED | RM | JD |
| A | 14.04.2019 | PROPOSED LABELS AMENDED | RM | JD |
| / | 07.03.2019 | ISSUE FOR CLIENT COMMENT | RM | JD |

Project:
# 10 Ormonde Way, Shoreham-by-Sea
SOUTHWICK, SUSSEX
EMPIRE LAND AND HOMES

JDRM ARCHITECTURAL DESIGN LLP

drawing number: **2134(21)001** rev: **D**

PROPOSED PLANS
GROUND - ROOF

SCALE 1:50 @ A1

Issued for:
**APPROVAL**

Drawn by: RM
Checked by: JD

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Civil Engineering - Transport Planning - Flood Risk

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