

**PROPOSED ALTERATIONS AT
54 EASTOKE AVENUE
HAYLING ISLAND
HAMPSHIRE**

FLOOD RISK ASSESSMENT

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Architect: PWP Architects

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INTRODUCTION

Instructions were received on 2nd June 2016 to carry out a Flood Risk Assessment on the site and proposed development.

A Planning Application is being submitted in connection with the proposed development at this site. A Flood Risk Assessment in accordance with the current recommendations given in the National Planning Policy Framework, which has now superseded PPS25, has been requested in relation to the requirements of the code for sustainable homes.

Following a desk study and discussions with local authorities and the Environment Agency, this report has been prepared to determine the risk of flooding on the site for the proposed renovations / alterations and to put forward recommendations to protect the development, its users and surrounding properties from any potential flood risk.

THE SITE AS EXISTING AND AS PROPOSED

Appendix A contains a location plan for the site and photographs showing existing site details. The site can be found at grid reference SZ 74145 98571. Currently the site area comprises of the existing property and separate small garage with mainly grassed lawn areas and some small concrete hardstanding areas for caravan storage. The existing house has a flat roof and a rendered cement / cladding board finish to the external walls.

The proposed development involves the re-cladding of the existing property with an insulated external wall consisting of a small cavity with insulation and a brick facing. It is also proposed to replace the existing flat roof with a new pitched roof, though no additional accommodation will be afforded by the renovation works. No other changes are proposed externally to the site.

Appendix B provides proposed plans for the new development.

The site is to be found to the East of Birdham Road just at the junction with Eastoke Avenue. The site is generally level with no significant slope.

No changes are proposed to the existing foul and storm water system on the site.

GEOLOGY

A study was made of the local British Geological Survey map and it was found that the site is overlain by River Terrace deposits usually brickearth, sands and gravels overlaying London Clay. The findings of the map will need to be confirmed by a site investigation in due course.

POLICY BACKGROUND

The Government's sustainable development strategy makes it a requirement to assess appropriate forms of developments for areas at risk of flooding. This is to avoid any unnecessary increase in the requirement for flood defences. A requirement of the National Planning Policy Framework is that developers making planning applications on sites that are potentially at risk from flooding should consult with the Environment Agency, and where appropriate produce a flood risk assessment (FRA). The Environment Agencies flood guidance was consulted and showed that a flood risk assessment is appropriate for this site.

FLOOD RISK MAPS AND AVAILABLE INFORMATION

Appendix C contains a copy of the Environment Agency Flood Map for this area as well as the flood map from the Eastern Solent Coastal Partnership. The EA flood map and the Eastern Solent Coastal Partnership indicates that the site is only within Flood Zone 3 - land assessed as having a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.

EFFECT ON EXISTING DRAINAGE STRATEGY

Currently the development consists of a single dwelling, a garage and some small hard landscaped areas as well as lawned areas.

The proposed development involves the re-cladding the existing house and adding a pitched roof. Therefore the impermeable plan area on the site will not increase as a result of the development.

There are no proposed internal changes to the existing house and therefore these will be no increase in the foul water discharge from the site to that of the existing.

Therefore the proposed renovation works on the site will not increase the storm or foul water discharge from the site and will therefore not increase flood risk to the site or nearby areas.

SEQUENTIAL TEST

The total area of the proposed development site is approximately 0.1 hectare. The EA flood risk advice was consulted for less than 1 hectare operational development in flood zone 3 with 'more vulnerability'. The following standing advice is appropriate for the development. The sequential test should be applied by the local planning authority and a flood risk assessment is required.

The sequential test for the development should be undertaken by the local planning authorities using the guidance given by the EA in their flood risk guidance document. The aim of the sequential test is to steer development towards flood zone 1.

However as our development consists of re-cladding / re-modelling of an existing dwelling the sequential test is not appropriate for this existing building.

RISK ASSESSMENT

The advice from the Environment Agency was that the development lies within flood zone 3. Flood zone 3 indicates that this zone comprises land assessed as having a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.

The site is directly at risk from tidal flooding, as shown by the site being situated within flood zone 3 on the Environment Agency flood map.

The site contains an existing property and the proposed development consists of re-cladding and re-roofing the existing building. There are no proposals to increase the number of bedrooms or increase the habitable area on the site. There are also no proposed external works on the site.

The existing external wall cladding of the property is not water resistant and would not resist flood water very satisfactorily. The replacement of this external cladding would give an opportunity to increase the flood resistance of the property itself as well as the robustness of the external cladding material.

The above proposals mean that there is no increase in risk to the existing site users due to the proposed renovation works. There is also no increase in flood risk to nearby areas as a result of the proposed renovation works.

As noted earlier the proposed development will not present any changes to the storm or foul water discharge from the site so will not affect the risk of flooding to the site or areas near the site.

CONCLUSIONS AND RECOMMENDATIONS

The site is within flood zone 3 so is at risk from tidal flooding.

The proposed works on site are very minor as noted previously and will not result in any increase in flood risk on the site or to nearby areas.

We would propose that as the site is at risk from flooding that the new cladding material is chosen to minimise the risk of flood water entering the building. The existing building has a robust concrete base which would resist damage / degradation from a low level flood event well, however the existing upper pre-fabricated structure would be susceptible to water damage during a prolonged flood event. The new cladding system for the external walls should be designed with reference to the guidance as set out in 'Improving the flood performance of new buildings'. Part 3-6 Guidance on flood resilient design and construction.

We would also suggest the new cladding walls below dpc level are constructed in engineering bricks as these would provide a good resistance to water damage and penetration, good drying ability and good retention of pre-flood dimensions and integrity.

Should flood defences become breached for any reason the new roof area, to be used as storage only, could allow a temporary 'safe haven' at first floor level on the proposed development. This could allow for safe area for the residents to congregate whilst any flood waters subside after the maximum flood event, which would be transient due to tidal water level changes.

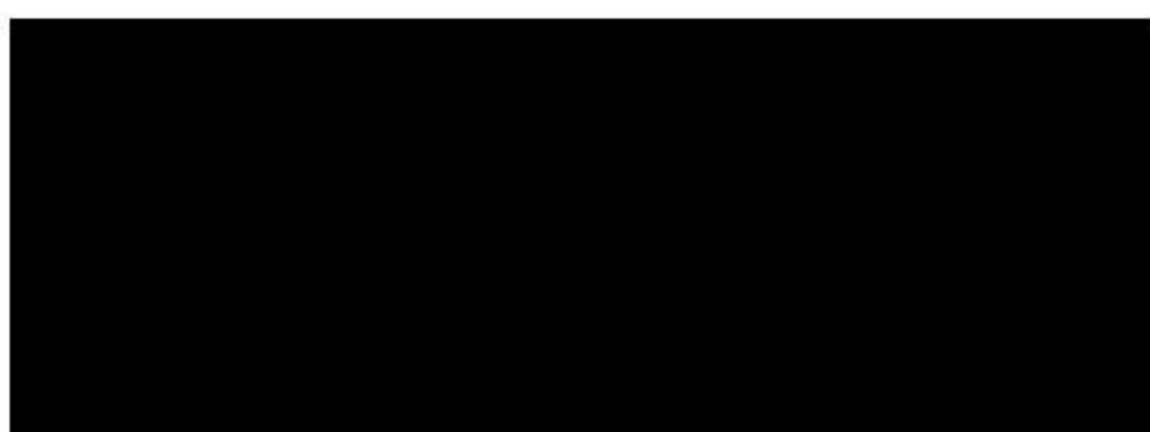
Consideration to water resistant construction techniques should also be considered for the ground floor areas, including the new external cladding material/construction. Any re-plastered ground floor walls should be plastered with water resistant plaster or tiled.

We would also propose that a Flood Warning Plan is created by the owner of the property if not already produced. Ideally the plan should be reviewed at least annually and would include the following information:

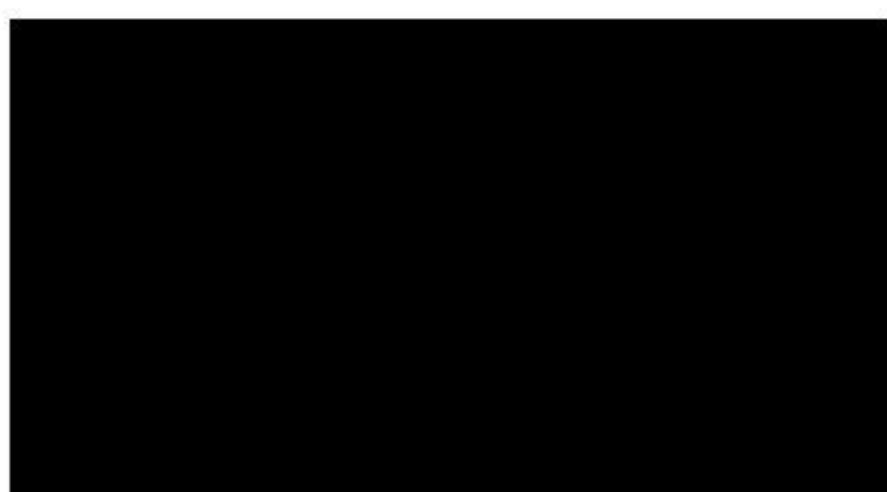
- Contact the Environment Agency Floodline Service on 0345 988 1188 to check that the flood risk to the property has not changed, for example flood defences may be built in the future.
- Contact the Environment Agency Flood Warning Service on 0345 988 1188 to register to the Floodline Warnings Direct service. This offers free 24 hour flood alerts direct to your phone or email address. This information is also on the Environment Agency website and is currently available at www.environment-agency.gov.uk/subjects/flood/floodwarning. This is a free service which provides vital information in the event of a flood.
- Prepare and maintain a flood kit to contain items which are essential for evacuation/refuge. The flood kit will also be useful for general emergency situations. This should be stored where you can easily get to it and on the first floor of the property, and should include:
 - A torch
 - Blankets or a sleeping bag, warm clothing and waterproofs
 - A first-aid kit, including a supply of any essential medication
 - A list of useful telephone numbers
 - A supply of bottled water
 - A stock of non-perishable food items

- A portable radio and supply of batteries
- Wellington boots or similar waterproof boots
- Contact the local emergency authorities to find out whether evacuation is considered necessary and where they are providing for evacuees. Or whether safe refuge should be sought on the first floor 'safe haven' area.

No further protection measures are considered appropriate for the development to be given permission to proceed if the above factors are taken into account.



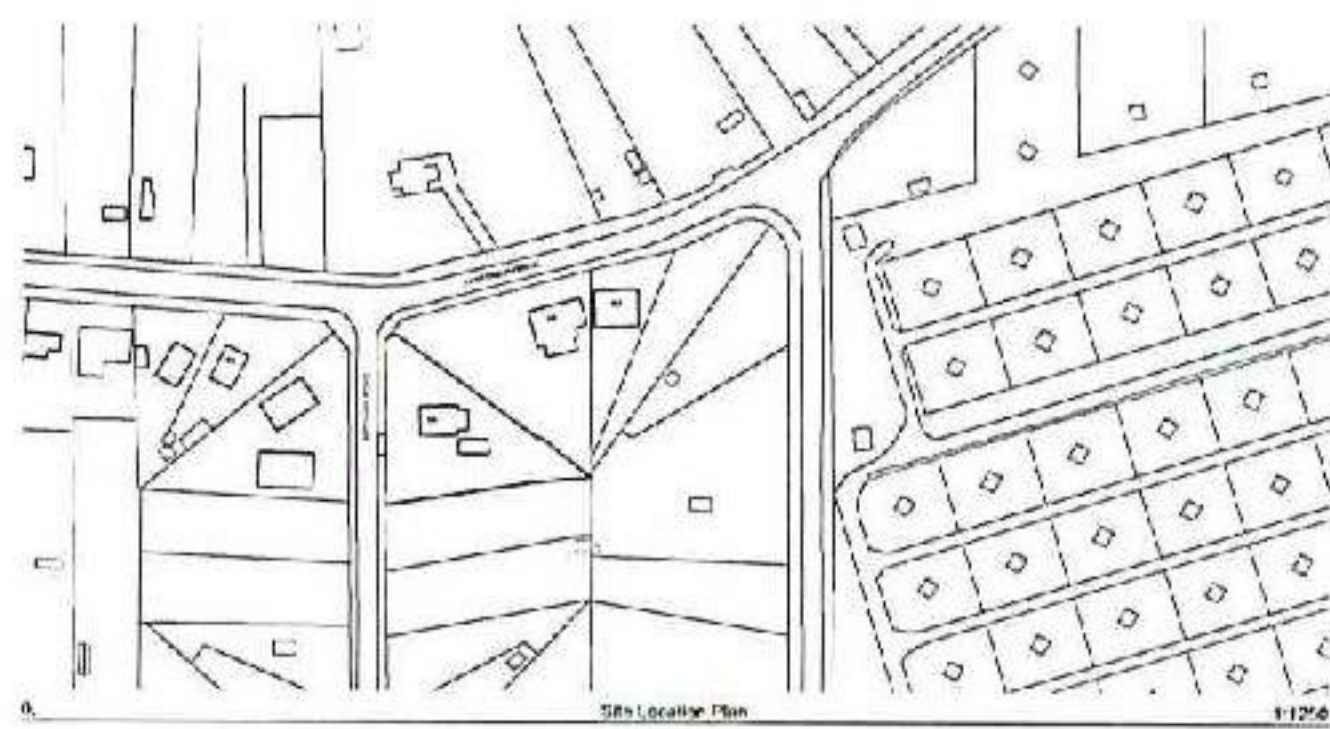
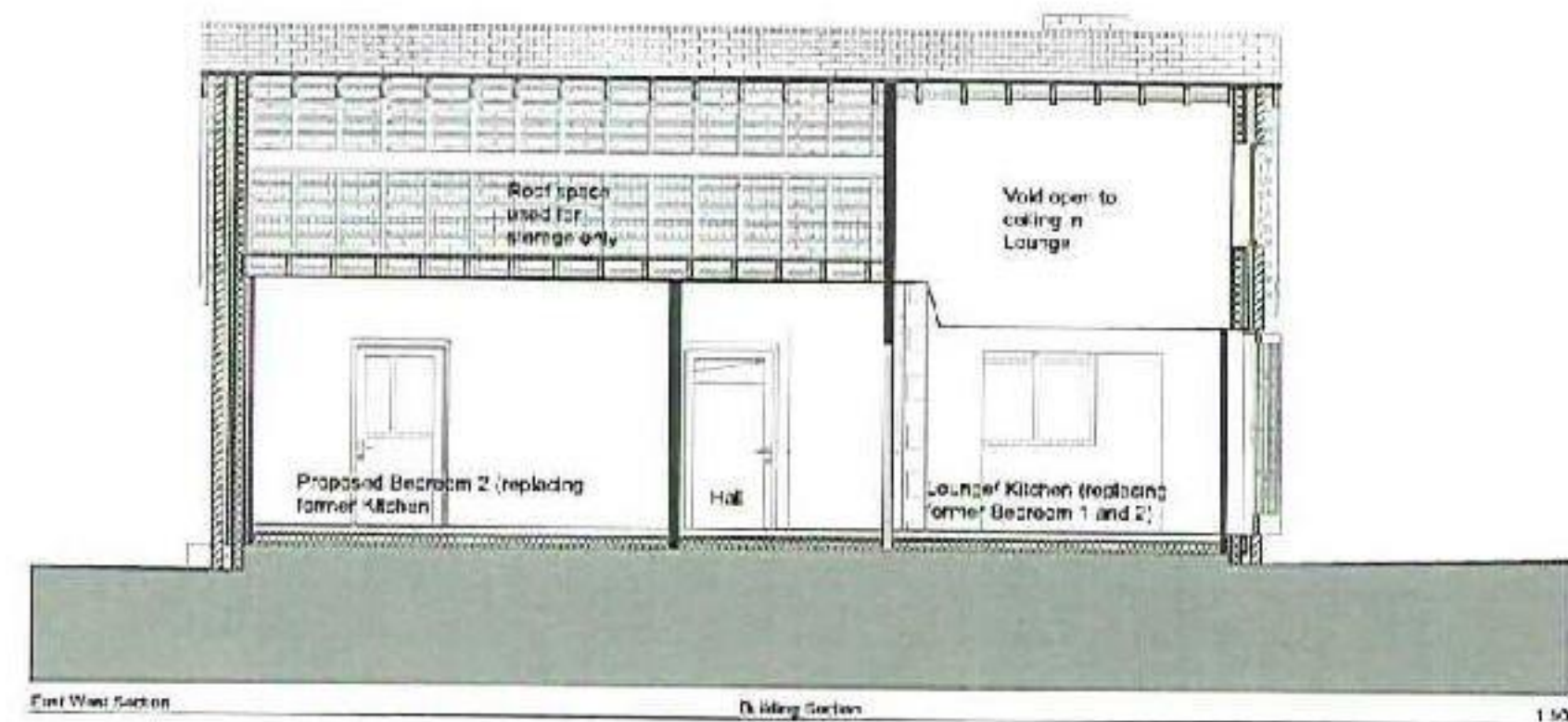
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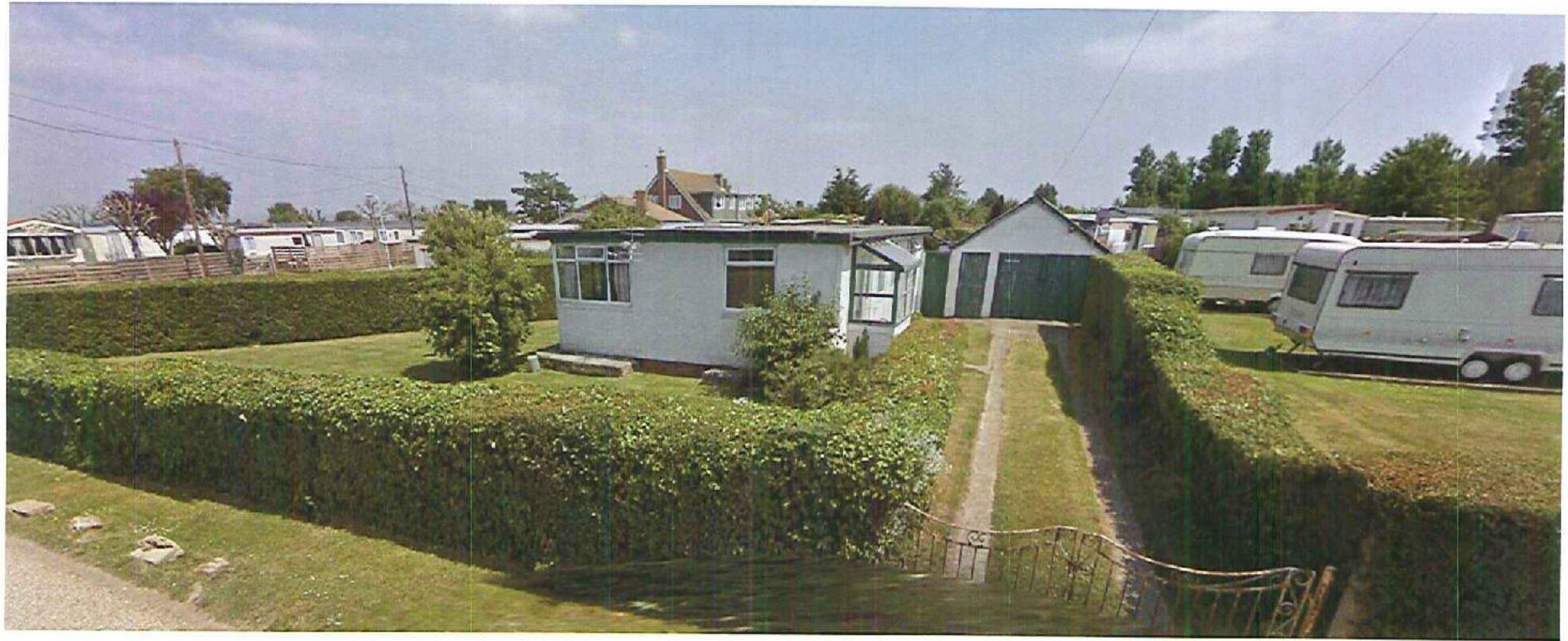
APPENDIX A

LOCATION PLAN and topographical plan







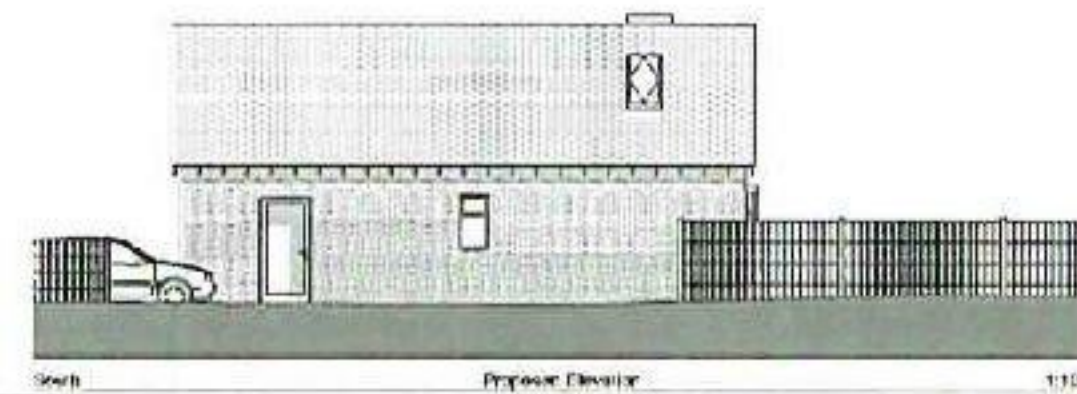
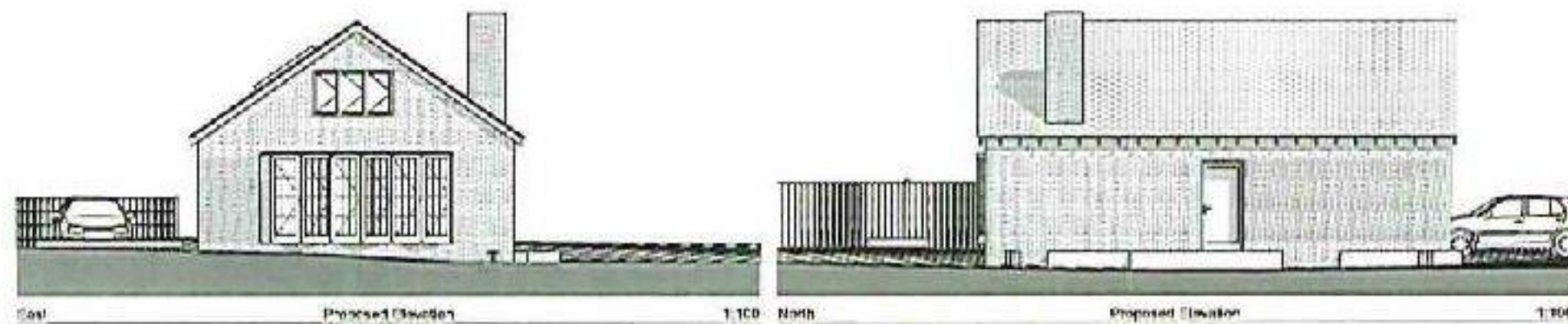
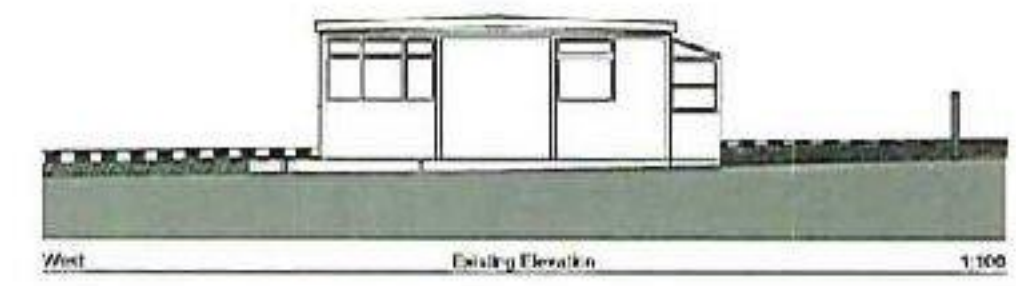
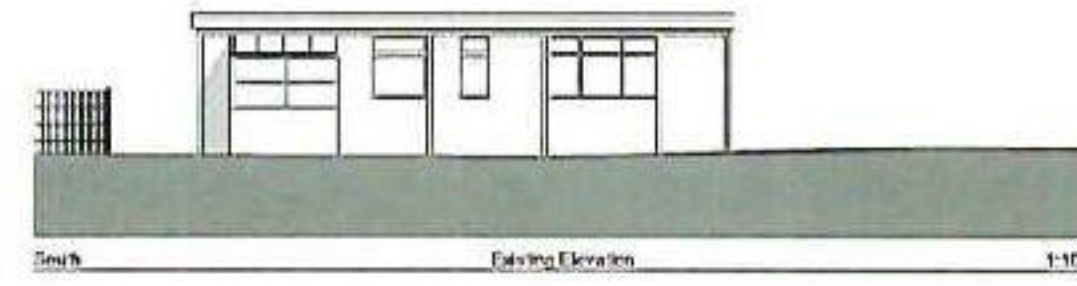
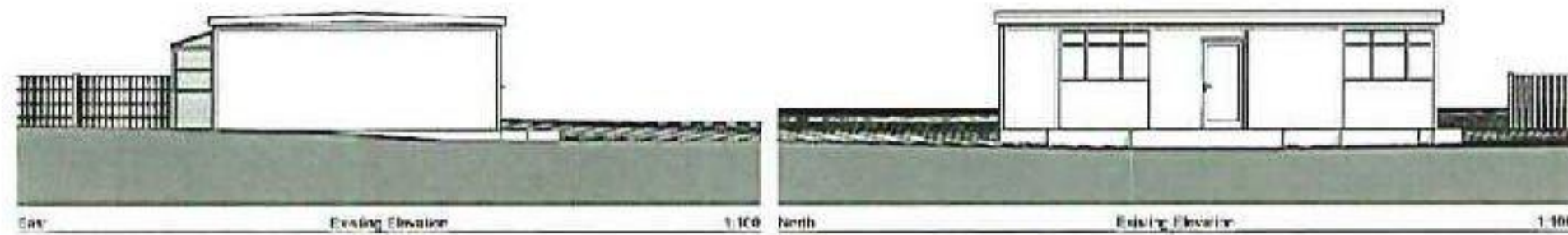
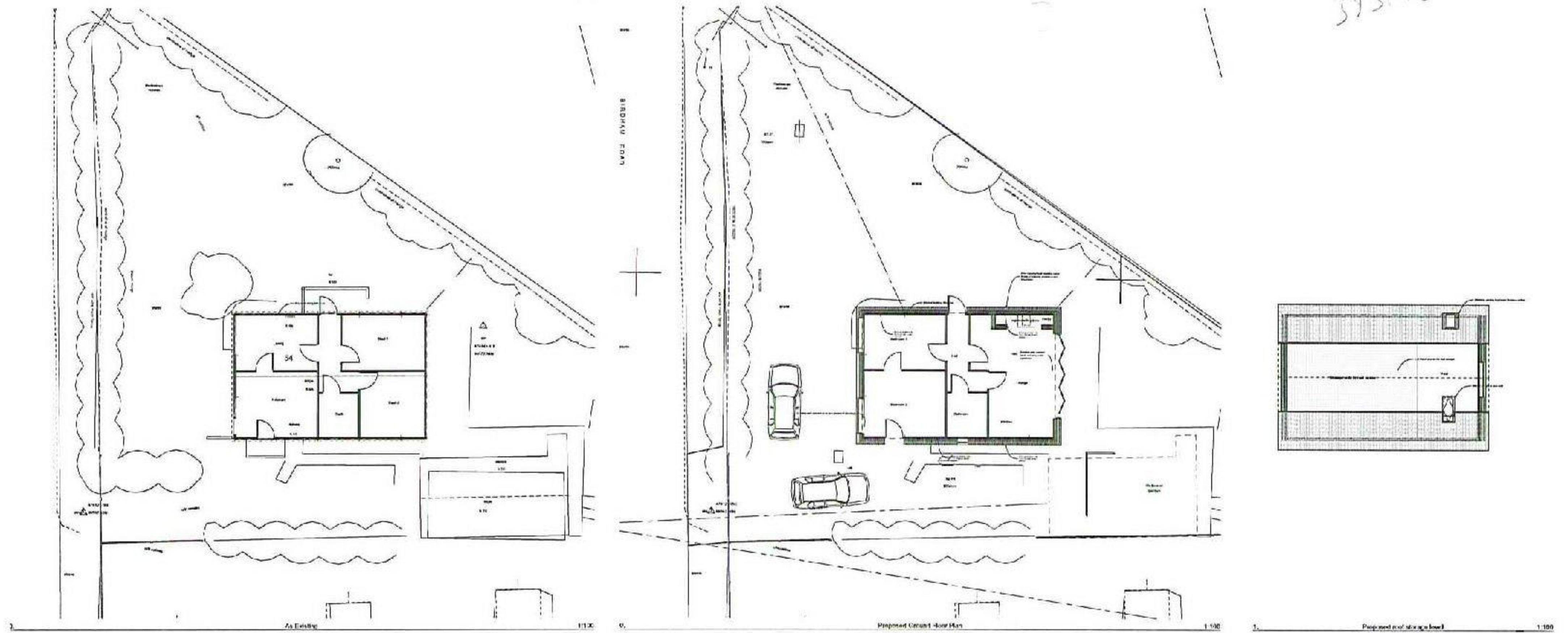




APPENDIX B

PROPOSED DEVELOPMENT DETAILS

393143



Note: All dimensions to be checked on site by the contractor before fabrication and erection. All dimensions to be given in parentheses to solid dimensions. This drawing is the property of the architect and must not be reproduced or used without their express consent, except for the purposes of a planning application. Electronic use of this drawing is restricted to paper hard copy only.

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Extension
54 Eastoke Avenue
Hoyling Island
Proposed Recladding
and Pitched roof 2/2
P. ANNING
April 2010
1:100
-D

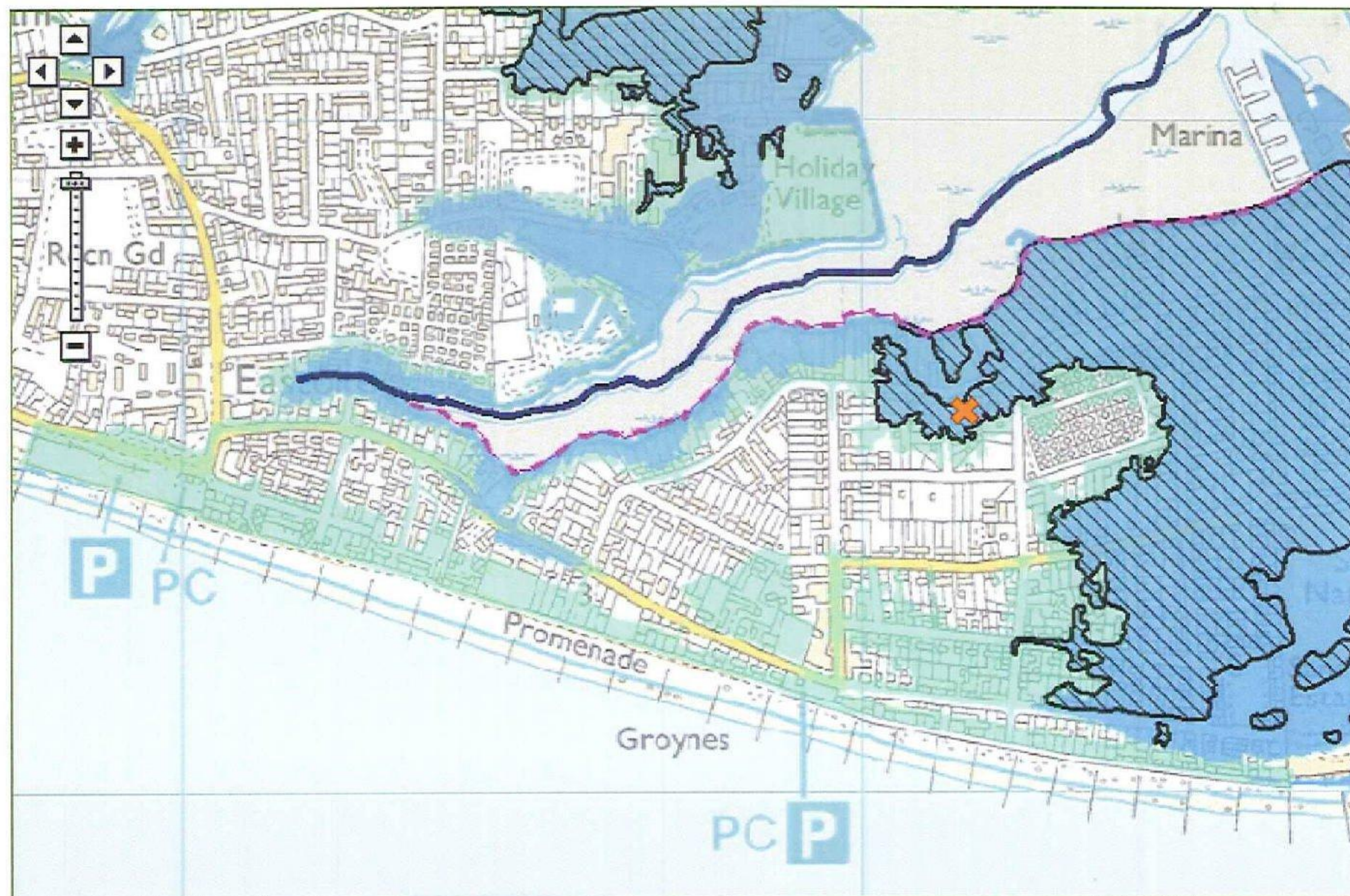
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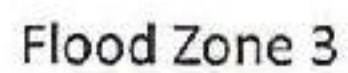
APPENDIX C

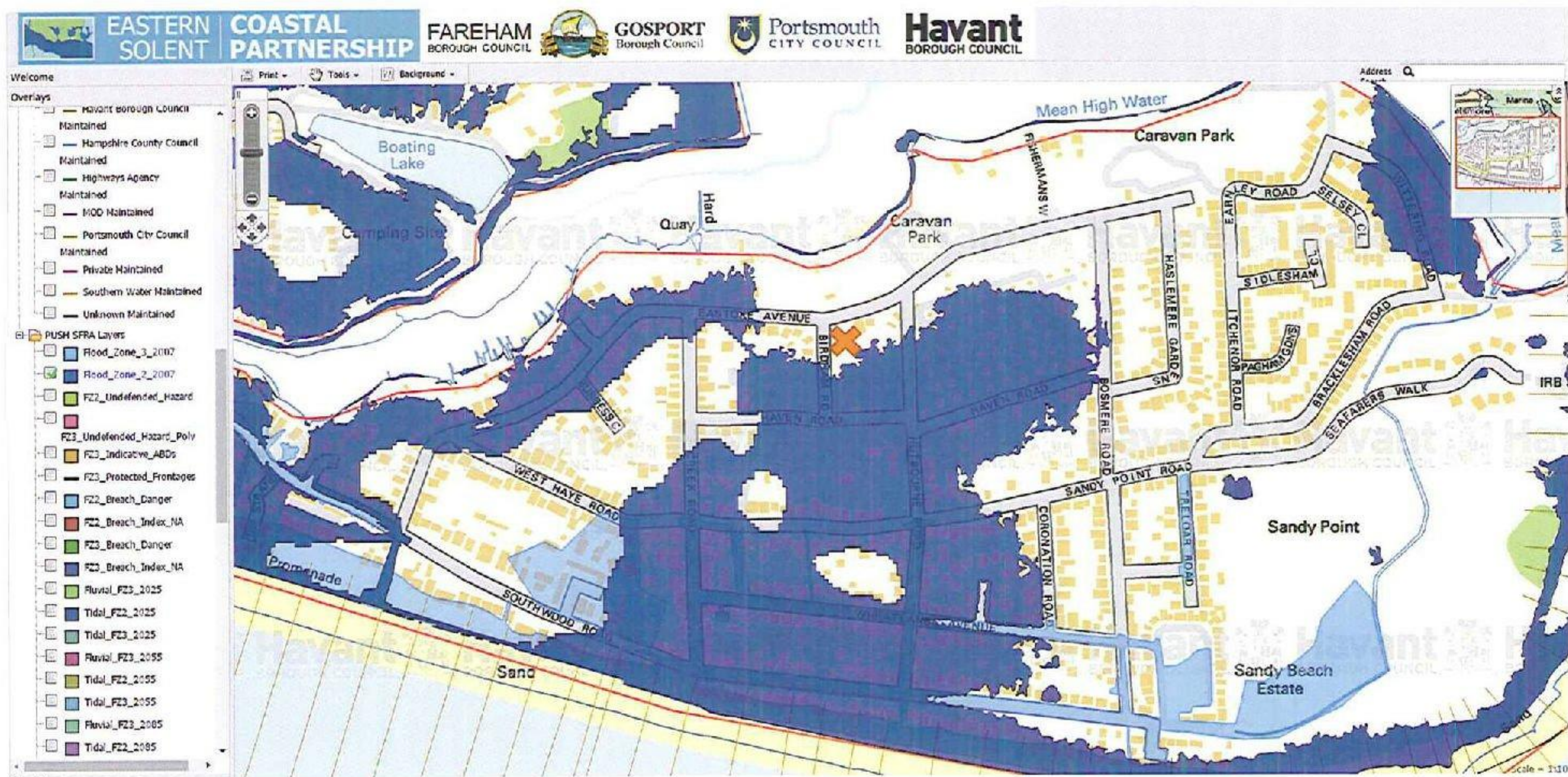
ENVIRONMENT AGENCY FLOOD MAPS

PO11 9QW at scale 1:10,000

[Other maps](#) [Data search](#) [Text only version](#)







Flood Zone 2