

FLOOD RISK ASSESSMENT



APPLICATION FOR FULL PLANNING APPROVAL

for

REPLACEMENT DWELLING ON THE SITE OF

76 SOUTHWOOD ROAD, HAYLING ISLAND, PO11 9QF

APPLICANTS – Mr & Mrs Greenwood



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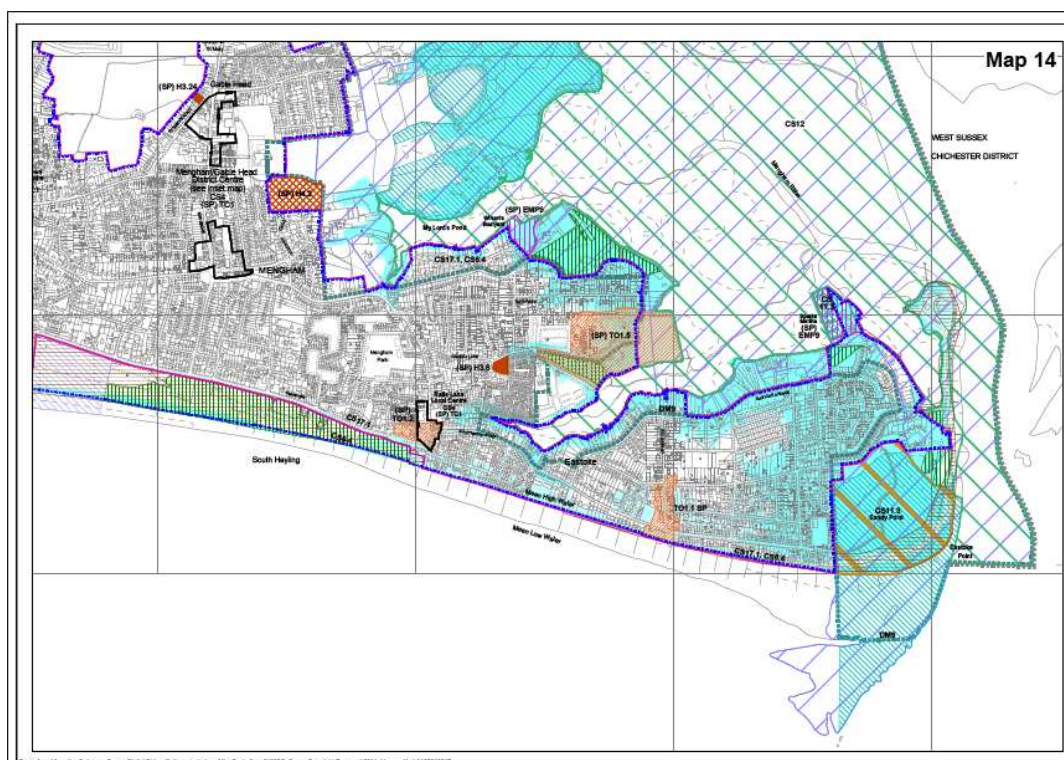
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1) Introduction

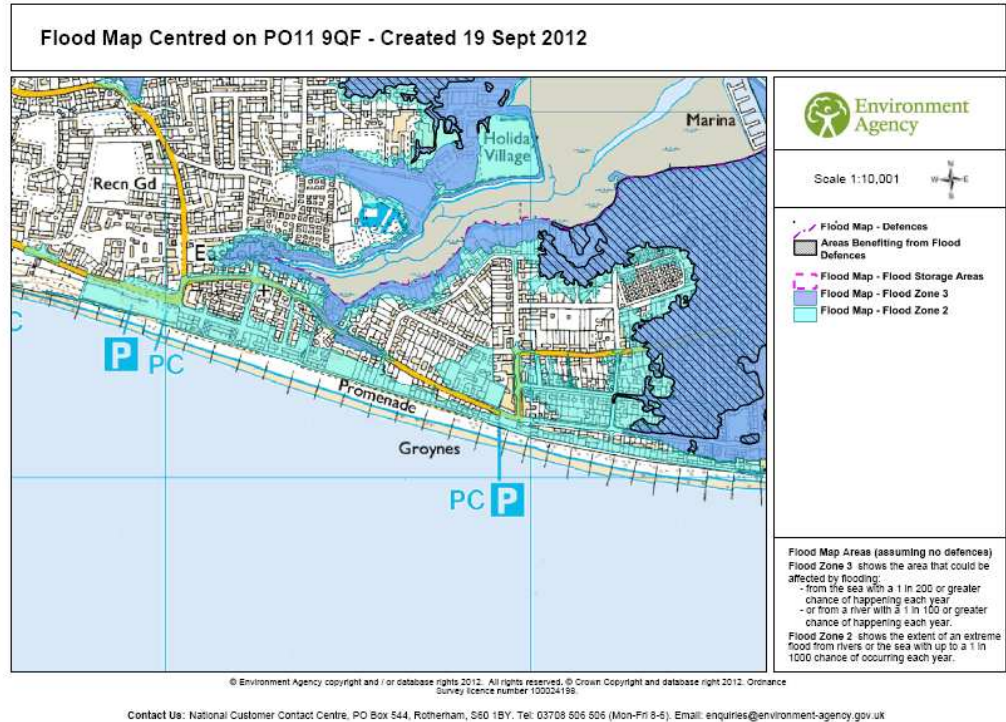
- a. Chris Yorke Design & Architectural Services was commissioned by Mr & Mrs Greenwood to provide architectural and associated services in connection with the development of 76 Southwood Road, Hayling Island. The clients are desirous of a new residential property following the demolition of the existing residential property. This would, therefore be a 'one for one' replacement.
- b. This statement considers the proposal against the risk of flooding.

2) Flood Risk

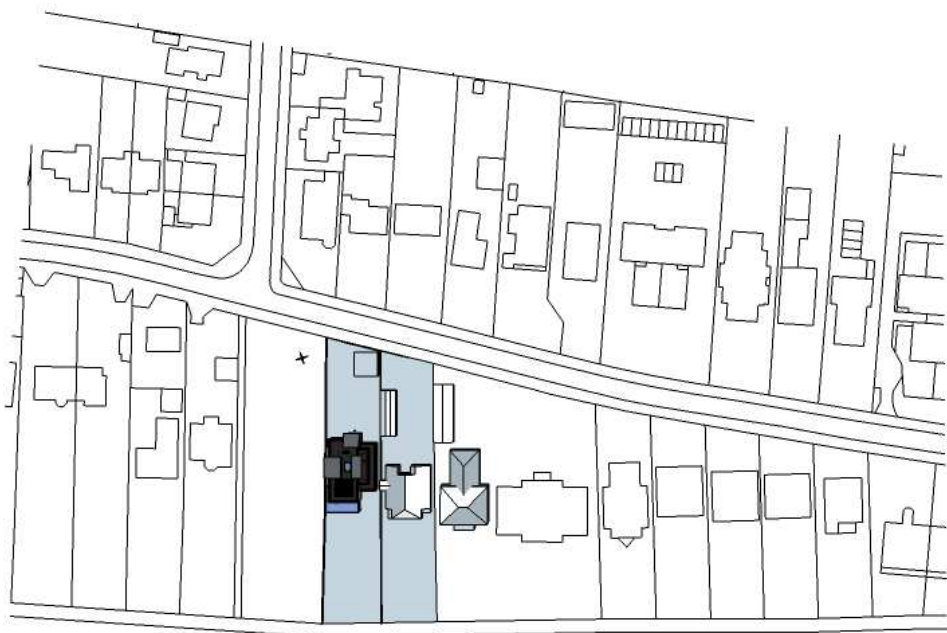
- a. This statement seeks to establish the flood hazard, probability, mitigation measures and management of residual risk. As part of this assessment, telephone consultations have been undertaken with the Environment Agency and LPA.
- b. Development Description and Location
The development seeks to provide a replacement dwelling of relatively modest stature on the site of the rather run down and neglected property known as 76 Southwood Road, Hayling Island. The site lies within the ribbon of developed frontage along the south side of Southwood Road
- c. Table D2 of PPS 25 classifies dwellings as a 'more vulnerable' development.
- d. The Local Development Framework states that the site is within the regeneration area, specifically Core Strategy 6.4 (Regeneration of the Borough with reference to South Hayling). The focus being on the seafront boardwalk; the diversity and quality of the properties fronting this area will be of some importance. The area, generally, is a residential settlement.
- e. Reference has been made to Havant Borough Council LDF proposals map 14 and to Environment Agency, who have provided a flood map specifically for this project. Both documents indicate that the site sits half in Zone 1 and half in Zone 2, defined by PPS25 as low probability and medium probability, respectively.



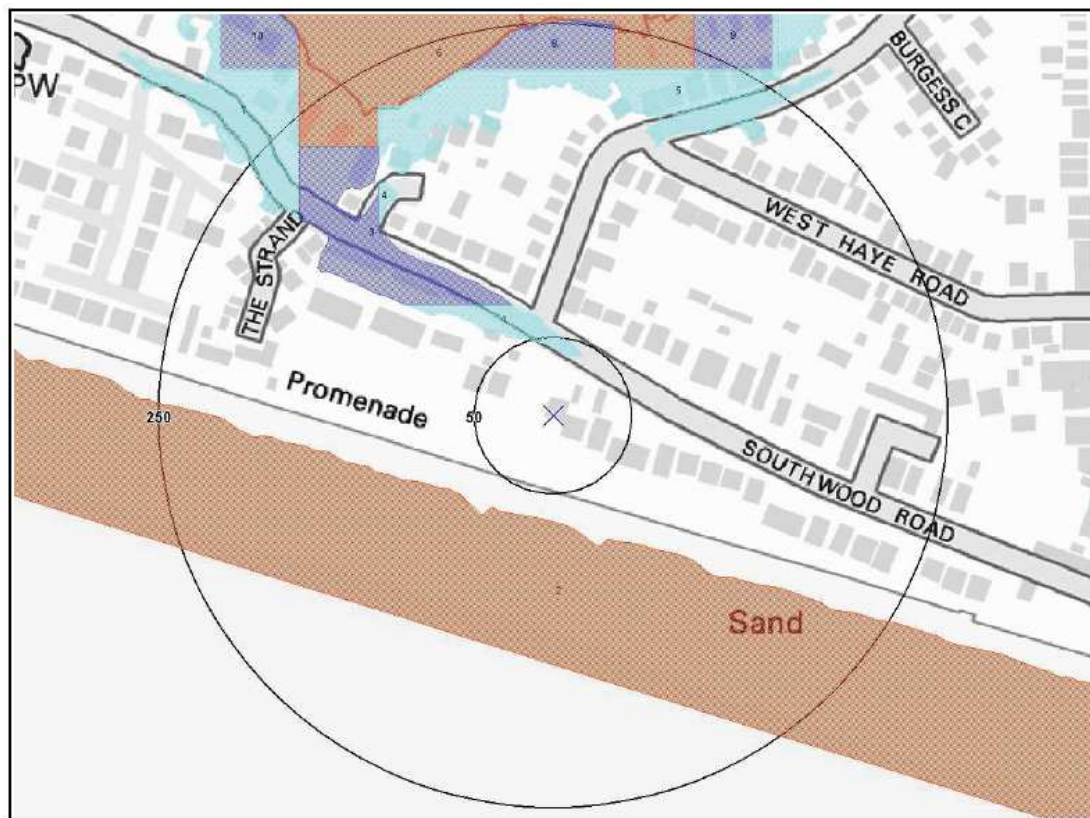
HBC, LDF Map 14



Environment Agency Flood Map for 76 Southwood Road



Site Plan for Proposed Dwelling



NaFRA 2008 Flood Legend

Enabled by

Ordnance Survey

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Site Outline
Search Buffers (m)
125
250

No Result
Low

Moderate
Significant

National Flood Risk Assessment (NaFRA) rating

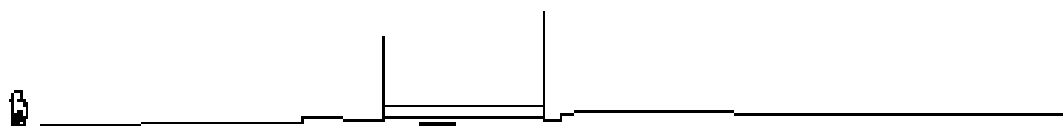
The site (or an area within 25m of the centre of the site) has been assigned a Negligible flood risk within the Environment Agency's NaFRA database. This denotes that information used to compile this database indicates the property is considered to have a less than 0.1% chance of flooding in any given year.

Flood Zone risk

The study site or an area within 25m of the centre of the study site has been assessed to lie within Flood Zone 2. This denotes that information used to compile this database indicates the property has a greater than 1% of flooding in any given year from rivers, or greater than 0.1% but less than 0.5% chance of flooding from the sea. Flood Zone information does not take into account the presence of flood defences.

f. Topography

The site is relatively flat and has an average level approx 1042mm below the top of the sea defence wall. The ffl of the existing dwelling being 855mm below the top of the sea defence wall. It is proposed that the ffl of the new dwelling would be 155mm below the top of the sea defence wall, which would be only 300mm above the adjacent ground level (the existing property being cut into the site).



Existing Sectional Site Profile Centrally - front (road) to back (sea wall)



Proposed Sectional Site Profile Centrally - front (road) to back (sea wall)

3) The Flood Hazard

- a. The site lies behind the sea/flood defence wall to the south. The potential source of flooding being coastal/tidal flooding. The SFRA map below shows the flooding hazard.

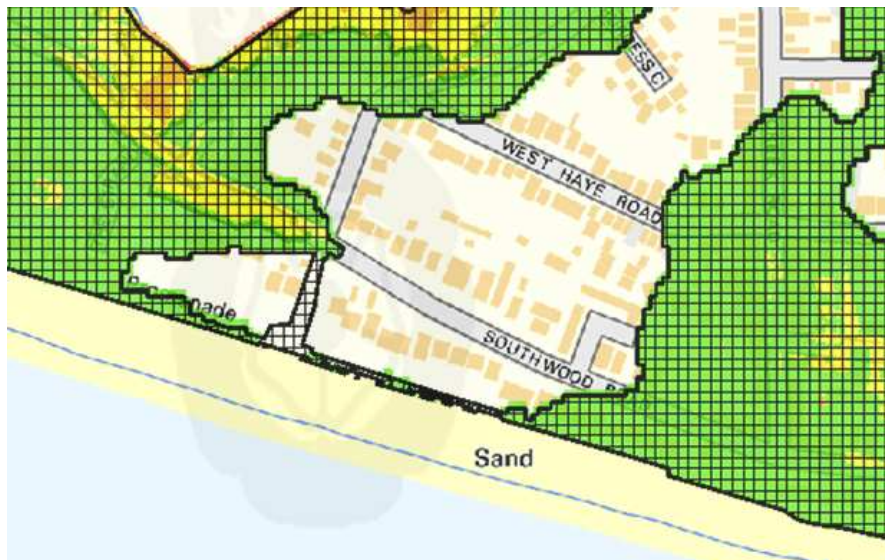


- b. The EA map above (section 2e) shows the extent of flooding, assuming no defences are present and for this site there is up to a 1 in 1000 chance of occurring each year.

- c. The site benefits from flood defences as shown in the following SFRA map,



- d. If the proposed site were to be flooded it would be as a result of overtopping or a breach in the sea defence wall or wave energy flooding. Surface water drainage of the site would include rainwater collection from roof run-off, which would constitute a net reduction in run-off surge when compared to the existing dwelling, which has no such provision. Foul water would be drained to the main sewer in Southwood Road. The following SFRA map shows the site unaffected by sea defence breaching,



The following SFRA map shows the potential wave energy flooding,



4) Probability of Flooding

- a. The site lies partially in FZ1 and partially in FZ2. Based on the worst case (FZ2) the Environment Agency gives a risk of the site flooding as ≤ 1 in 1000. The existing defences would further reduce this.

5) Climate Change

- a. Climate change could cause a rise in sea levels. The SFRA map below shows the possible effect of climate change. This shows the site largely unaffected although it becomes isolated during times of flooding.



The following SFRA map shows the commitment to investment to provide 200year crest/tide level coastal defences to this area,



6) Details of the Development

- a. Full details of the development are provided in drawings PC079/A/01, PC079/A/02, PC079/A/03 PC079/A/04 and PC079/A/05, which accompany this application.

7) Residual Risk

- a. The applicant is unaware of any history of flooding on this particular site, however, in view of the risk identified above it is suggested that some basic mitigation measures are included in the design. These are as follows,
 - i) The level of the ground floor of the dwelling be set as shown above (section f)
 - ii) All ground floor electrical services to be fed from first floor level and sockets positioned 600mm above ffl.
 - iii) The ground floor to be of solid concrete construction.
 - iv) The property is 2 storeys and thus has a place of refuge if flooded.
 - v) The building to be constructed in flood resistant materials.

8) Flood Risk Management

The majority of the mitigation measures are built in to the fabric of the building and would not require managing, but future occupiers would in their own interest need to be aware of and maintain contact with Floodline.

9) Off Site Impact

The proposed dwelling is not on the active flood plain and would not reduce storage capacity. The inclusion of SUDs in the design of the site (such as roof water recycling) would ensure that the development would not increase the risk of flooding elsewhere.

10) Conclusions

Although the site lies partially in Zone 2 and may be adversely affected by climate change, the presence of the existing sea defences reduce this risk, particularly when the investment to provide 200 year crest/tide level coastal defences to this area. Whilst it must be acknowledged that some residual risk exists from a breach or overtopping of the defences it is considered that the measures identified above would adequately mitigate this risk.

Within this part of Hayling Island there are a significant number of existing homes that would fall fully within Zone 2 and also a significant number in Zone 3 and it is likely, therefore, that defences will be maintained to a high standard. Not to allow the replacement of an existing home on the edge of Zone 2 would send out a message of no confidence in the security from flooding of these existing homes. PPS 25 clearly states that flood risk is but one factor to consider in the grant of permission.

- flood risk should be considered alongside other spatial planning issues such as transport, housing, economic growth, natural resources, regeneration, biodiversity, the historic environment and the management of other hazards. Policies should recognise the positive contribution that avoidance and management of flood risk can make to the development of sustainable communities, including improved local amenities and better overall quality of life. They should be integrated effectively with other strategies of material significance such as Regional Economic Strategies; and

The harm from a replacement property on this site in this area alongside the other existing properties is not significant in the public interest when balanced against the sustainable location of the site and the continued vitality of Hayling Island. A further factor to be considered against any potential risk is the sustainable approach to construction and servicing of the building, which contributes to the core objectives of PPS1 (supplement).

It is considered that when the flood risk and the standards of the defences are considered along side all other material considerations that planning permission should be granted in this case.