



1 FLINT COTTAGES, LUMLEY ROAD

FLOOD RISK ASSESSMENT

Introduction

Helyer Davies Architects have been appointed by a private client to design the extensions and renovations to the existing listed building at 1 Flint Cottages, Lumley Road, Southbourne, Emsworth, PO10 8AQ.

The existing house is an early 19th century semi-detached cottage finished with flint walls and a slate roof, with more recent additions including brickwork extensions and an outbuilding in the rear garden.

The Proposals - Summary

Primarily, the proposals are for an ‘orangery’ style extension to rear of the dwelling, to allow for a new kitchen layout and a dining area internally, with improved access to the garden via the extension.

The design also includes rear the glass doors of the existing entrance area to be replaced with windows, and the existing outbuilding is to be extended and refurbished to provide a studio space and an ensuite internally, with glazing to match the main house. This is along with internal renovations to the kitchen area, and making good around the proposals, which is all to be carried out with consideration to the listed building.

Flood Risk Assessment

This site at 1 Flint Cottages is located on the south side of Lumley Road, where ground water levels are generally high, as the main River Ems flows directly to Lumley Mill.

Flood Zone definitions are set out in the National Planning Policy Guidance:

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as ‘clear’ on the Flood Map - all land outside Zones 2 and 3).
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map).
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map).
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map).

(Please note: These flood zones refer to the probability of river and sea flooding, and do not account for the presence of any flood defences and the effects they would have.)

The Environment Agency is responsible for managing the flood risk from rivers and the sea.

As per the map in Figure 1, the site at 1 Flint Cottages is in Flood Zone 2, which is defined as having a ‘medium probability of flooding’ from rivers or the sea. As such, this flood risk assessment will include an analysis of this flood risk and highlight strategies for mitigation of the existing flood risk on the site.

Lead local flood authorities (LLFA) are responsible for managing the flood risk from surface water and may hold more detailed information.

The LLFA for the site at 1 Flint Cottages is West Sussex council. As per Fig. 2, the site is defined as having a ‘very low risk’ of flooding from surface water.

Flood Risk Maps

Key:

- High
- Medium
- Low
- Very low
- +
 Location you selected

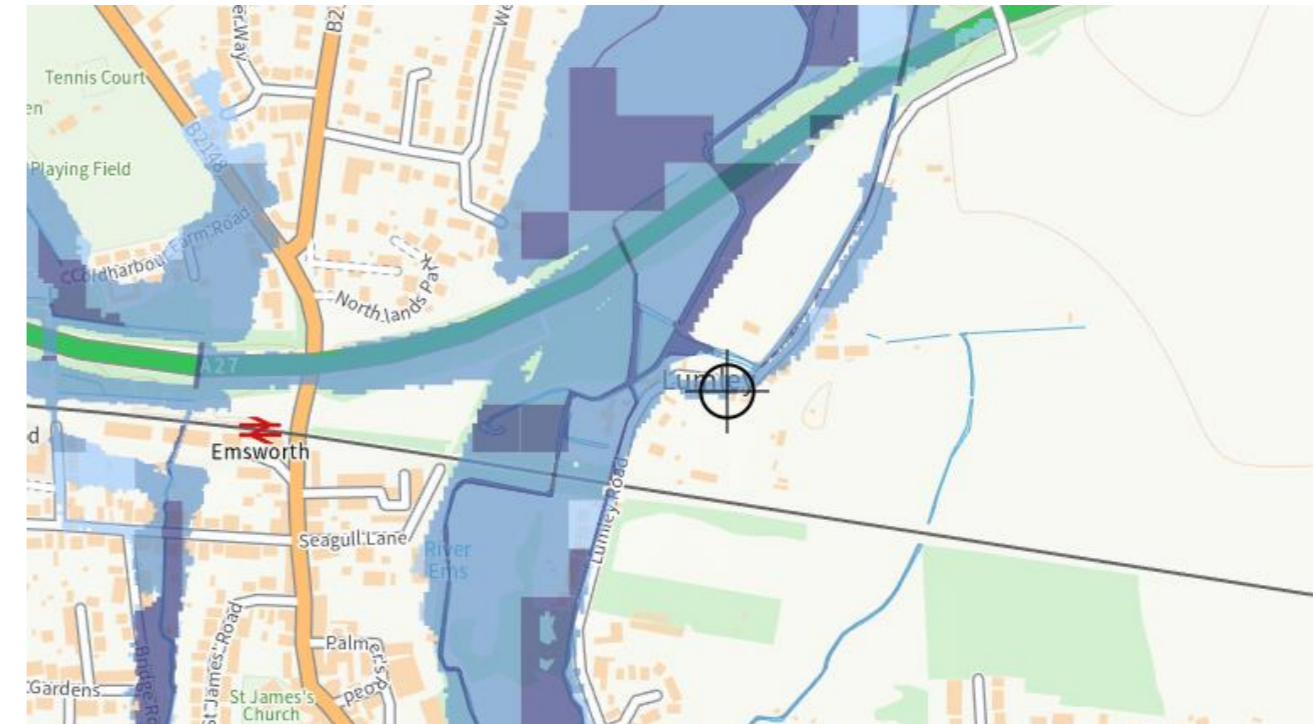


Figure 1. Extent of flooding from rivers or the sea. [check-long-term-flood-risk.service.gov.uk].



Figure 2. Extent of flooding from surface water. [check-long-term-flood-risk.service.gov.uk].

Flood Risk Map - Environment Agency



Key: Figure 3. Environment Agency flood map for planning, showing river and sea flooding data and flood defences.

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

The map in Figure 3, above, illustrates more detail with regard to the course of the main River Ems, as shown with blue lines, and the existing flood defences along this, which are shown in orange.

Although these flood defences are shown, the map and flood zones do not account for the effects they would have on the area.

(As per the flood risk summary for the area from check-long-term-flood-risk.service.gov.uk/risk, flooding from groundwater and reservoirs is unlikely.)

Analysis and Mitigation of Flood Risk

It is considered that the design proposals in this application do not increase the risk of flooding, for the following reasons:

- No change is proposed to the existing ground floor levels (GFL) of the main dwelling. The internal GFL of the proposed rear extension is to match the existing GFL of the existing kitchen area and therefore will not be at any greater risk of flooding.
- Other than the replacement rear extension, the proposals to the existing house relate only to the layout of the kitchen and some replacement glazing on the ground floor. We do not propose any changes to the existing floor levels of the original listed cottage.
- No change is proposed to the existing GFL of the outbuilding. The internal GFL of the proposed extension is to match the existing outbuilding GFL and therefore will not be at any greater risk of flooding.
- The proposals do not include any additional bedrooms, therefore there will be no more people living in the dwelling, and no additional strain on the water facilities, etc..
- Surface water collected on any new roofs will drain into a new appropriately sized soakaway located in the rear garden.

Mitigation of Existing Flood Risk

The proposals have been designed to mitigate any existing flood risks by:

- Any new wall mounted electrical fittings throughout the ground floor proposals (the kitchen and the refurbished outbuilding) will be raised to the highest practical level recommended by Building Control and installed from above to avoid damage in the event of a flood.
- The proposed extension and outbuilding will be finished with durable, hard floor finishes throughout the ground floors, which would not need replacing in the event of a flood.
- The proposed walls for the kitchen extension will be constructed of masonry, and not susceptible to flood water damage.
- Temporary flood barriers could be installed in the threshold of new external doors in the event of any significant flooding event is predicted to surround the building.
- Any new drains (e.g. to the kitchen and outbuilding ensuite) will be fitted with one-way valves to ensure water cannot back up into the newly refurbished spaces.

To ensure there is no increased risk in safety to those using the building;

- All sleeping accommodation is currently located on the first floor level of the house. This will be retained as such, to ensure that there is no increased flood risk to occupants at night when asleep.

To ensure there is no increase in flooding across the site or areas surrounding the site;

- The proposed development increases the overall footprint of the property by just under 7m².
- All surface water collected on the proposed extension roofs is to drain into a new soakaway located in the rear garden.