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PROPOSAL: Replace existing dwelling with new build comprising of 1 x 1 bed and 1 x 2 bed flats

LOCATED AT: 14 Allhallows Road, Beckton, London E6-5SZ

TO: London Borough of Newham

#### Flood Risk Assessment

PREPARED BY

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Date: 21.02.24

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# RIBA 🗰

**Chartered Practice** 



Chartered Practice

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### **1.0 OVERVIEW OF THE SITE**

- 1.1 According to Environment Agency Flood Map, it can be established that the property is within a flood risk zone 3 (Refer to Appendix A). However, although the site is located within Flood Zone 3, it is protected by the Thames Tidal flood defences with a 1% chance of happening each year, or a flood from the sea with a 0.5% chance of happening each year.
- 1.2 The proposal is for the erection of a ground floor single storey rear extension and first & loft floor extension. Hence, modest is nature.
- 1.3 We have provided mitigation measures in this report against any risk of potential flooding.

### 2.0 RELEVANT PLANNING POLICY

#### 2.1 National Planning Policy Framework and London Plan

Newham Local Plan – Policy SC3 - Flood Risk and Drainage

# Proposals that address the following strategic principles, spatial strategy and design and technical criteria will be supported:

#### 1. Strategic Principles:

- a. Taking in to account all sources1, flood risk (the likelihood of flooding plus the severity of its impacts) will be reduced. Development will not increase flood risk to any location;
- b. Development and decision making will be informed by the Strategic Flood Risk Assessment (SFRA) and best available data2;
- c. Flood Risk Assessments will be provided in line with national requirements and should be prepared in accordance with SFRA and Environment Agency advice. Consultation and initial investigation should be commenced sufficiently early in the design and planning process so that all opportunities to reduce flood risk can be identified and maximised; and

d. There is a presumption against impermeable hard-standing on domestic gardens and public open space.

#### 2. Spatial Strategy:

- a. Development will be located in areas with the lowest risk of flooding, demonstrated via passing of the Sequential Test and, if necessary, Exceptions Test3. The sequential approach applies across the Borough and within sites, such that areas of lowest risk should be identified and prioritised according to vulnerability of proposed use; and
- b. Development (including redevelopment of existing buildings and sites) will be set back 16m from tidal flood defences and 8m from river defences (see 'Indicative TE2100 Flood Defence Buffering' on the Policies Map); in instances where no formal defences are present, development will be set back 8m from the top of the river bank.

#### 3. Design and technical criteria:

a. Proposals adjacent to flood defences must confirm, through liaison with the Environment Agency, that defence structures are in good condition and will provide protection for the lifetime of the development with improvements made where necessary; this includes ensuring that the provisions of TE2100 can be met;

- b. Development in Flood Zone 2 or 3 should:
  - i. Create space for water;
  - ii. Be designed and constructed to be flood resilient;
  - iii. Locate vulnerable uses above ground floor level, whilst still delivering active, welcoming and functional street level design;
  - iv. Ensure all basement locations provide internal access and egress via floors no less than 300mm above the 1% annual probability flood level + allowance for climate

change, or above the 2100 tidal breach flood level where the site is within the Thames tidal breach flood extent;

- v. Ensure all 'more vulnerable', 'highly vulnerable' and 'essential infrastructure' uses have finished floor levels no less than 300mm above the 1% annual probability flood level + allowance for climate change; and
- vi. Provide safe access/egress, such that occupants can reach Flood Zone 1 via public rights of way;
- c. All development should enable separation of foul and surface flows and incorporate Sustainable Urban Drainage Systems (SUDS) that reduce surface water run-off. All Major development and any development falling within a Critical Drainage Area (CDA) should achieve Greenfield Run-off and be accompanied by a Surface Water Drainage Strategy that:
  - i. Clarifies before- and after-development run-off rates and addresses water quality impacts, ensuring run-off is clean and safe;
  - ii. Follows the Drainage Hierarchy of the London Plan;
  - iii. Maximises the use of SUDS in accordance with the SUDS hierarchy (see SC1);
  - iv. Confirms the ownership, management and maintenance arrangements of any SUDS features;
  - v. Shows regard to the recommendations of Newham's Surface Water Management Plan (SWMP) and Local Flood Risk Management Strategy (LFRMS);
  - vi. Confirms, only where it can be demonstrated that site conditions prohibit the achievement of greenfield run-off, that a rate no higher than 3 times greenfield will be achieved; and

d. Where culverted watercourses are present, opportunities for de-culverting should be investigated. Where de-culverting is not possible within the realities of a site, contributions to de-culverting elsewhere in the Borough may be sought.

### **3.0 CLIMATE CHANGE ADAPTION**

- 3.1 The London Borough of Newham is a fairly urbanised borough with permeable surface and soft landscaping. The area is considered to have increased flooding risk. This flooding risk is likely to be increased further by increased urbanisation of the area and the anticipated increase in heavy rain fall due to climate change.
- 3.2 The proposed development does not increase the hard standing of the site and as a result will not increase surface run-off rates in the area.

## 4.0 FLOOD RESILIENCE MEASURES

4.1 The following advice from Environmental Agency has been followed:

### Advice for minor extensions

You need to provide a plan showing the finished floor levels and the estimated flood levels.

Make sure the floor levels are either no lower than existing floor levels or 300 millimetres (mm) above the estimated flood level. If they are not, ask your local planning authority if you also need to consider extra flood resistance and resilience measures.

State in your assessment all levels in relation to Ordnance Datum (the height above average sea level). You may be able to get this information from the Ordnance Survey. If not, you'll need to get a land survey carried out by a qualified surveyor.

Your plans need to show how you're going to ensure the development is not flooded by surface water. An example of this could be to divert surface water away from the property or by using flood barriers.

- 4.2 Since the existing internal ground floor level is already higher from the external rear garden level which will be retained throughout the added extension. Hence, this already acts as flood defense measure as per the advice above.
- 4.3 The scheme will incorporate standard flood resistant and resilient measures, where feasible, such as materials/ finishes with low permeability, resilient to water damage or deformation and easy to clean.

- 4.4 To mitigate against flood damage:
  - The proposed development will make use of non-return valves and other suitable devices to avoid the risk of backflow from sewers;
  - Utility services such as fuse boxes, meters, main cables, gas pipes, phone lines and sockets will be positioned as high as practicable;
  - Kitchen units will be made of solid, water resistant materials;
  - Where applicable, water-resistant render will be applied to all concrete features;
  - Chemically injected damp proof course where there are no dpc present;
  - The use of MDF carpentry (i.e. skirting, architrave etc.) will be avoided;

## 5.0 CONCLUSION

5.1 Based on the above, we consider that the proposed development meets the requirements of the NPPF, local plan and specific advice provided by the Environmental Agency with regards to minor extensions.

# **APPENDIX A**



# Flood map for planning

Your reference 14 Allhallows Road E6 5SZ Location (easting/northing) 542049/181488

Created **25 Jan 2023 15:36** 

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

# This means:

- you may need to complete a flood risk assessment for development in this area
- you should ask the Environment Agency about the level of flood protection at your location and request a Flood Defence Breach Hazard Map (You can email the Environment Agency at: enquiries@environment-agency.gov.uk)
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (find out more at 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/

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