

## FLOOD RISK ASSESSMENT

14 Strathearn Avenue, Hayes, UB3 5HJ

Proposed Development: Single storey rear extension

### THE APPLICATION SITE

The application relates to a two storey, semi-detached dwelling, located in the south eastern side of Strathearn Avenue with the principle elevation facing east. The property benefits from a large rear garden which provides the private amenity space for the occupiers of the property as with the front garden.

### DESK TOP STUDY ON FLOOD RISK ASSESSMENT

The proposal and the subject of this assessment is to construct single storey rear extension. The ground floor footprint of the extension is less than 30m<sup>2</sup>.

The site of the proposed development lies within Flood Zone 2, as defined by the Environment Agency (EA), and as indicated in the Agency's Flood Zones Map.

The EA considers the land is at a high probability of flooding from river sources for a 1 in 100 year event or less, or a 1 in 200 year event or less from tidal/coastal sources as appropriate.

According to the EA's advices the minimum requirements for an FRA that is submitted to the Local Planning Authority for Residential/Industrial/Commercial extensions less than 250m<sup>2</sup> within Flood Zone 2 should confirm that:

*1. Floor levels within the proposed development will be set no lower than existing levels.*

*AND*

*2. Flood proofing of the proposed development has been considered by the applicant and incorporated where appropriate.*

*OR*

*3. Floor levels within the extension will be set at ground level thus not increasing risk to other surrounding properties.*

In view of the circumstances, with regard to a flood risk described in this study the development will be a subscriber to the EA Flood Watch initiative, and also to evacuation procedures (to be part of the dwellings operating and maintenance manuals advice) generic details of which are supplied by this company and enclosed with the study. This aspect will again be the subject of local authority approval, should they deem the circumstances to require this facility.

Reverting to the advices of the EA **the ground floor level to the extension will not be lower then the existing residential dwelling.**

I am of the opinion that the proposal will **not** increase any known flood risk to the site nor incur any known residual risks, the level of the proposed extension complies with

the standard as set out in the EA's model note, and that the appropriate criteria, as set out in PPS 25, has been complied with.

**Note:**

As outlined in the EA's advice note: **Residential/Industrial/Commercial extensions less than 250m<sup>2</sup> within Flood Zone 2**, this simple Flood Risk Assessment sets out the minimum criteria as detailed above and should accompany the Planning Application submitted to the Local Authority (LPA). The LPA should determine the adequacy of the FRA without referral to the EA as directed in PPS25.

**Flood Evacuation Procedures (for domestic property)**

**Remember the 3x Bs**

**BE PREPARED**

**BE VIGILANT**

**BE CAREFUL.**

It is recommended that all house-holders who could be threatened by flooding use best practise procedures to protect inhabitants and property from the effects of a possible flood.

Detailed below are the steps we recommend to set up a flood risk evacuation plan. Subscription to the Environment Agency's flood watch scheme is free and in many cases the EA can warn interested parties of possible flooding up to six hours in advance.

**Environment Agency's Flood Warning Codes**

|                                                                                                                 |                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Flood Watch</b>          | <b>Flood Watch:</b> Flooding is possible. Be aware! Be prepared! Watch Out!                                                                                         |
|  <b>Flood Warning</b>        | <b>Flood Warning:</b> Flooding of homes, businesses and main roads is expected. Act now!                                                                            |
|  <b>Severe Flood Warning</b> | <b>Severe Flood Warning:</b> Severe flooding is expected. Imminent danger to life and property. Act now!                                                            |
|  <b>All Clear</b>            | <b>All Clear:</b> All Clear is issued when flood watches or warnings are no longer in force. Flood water levels receding. Check all is safe to return. Seek advice. |

**Flood Preparation Plan (Flood Watch)**

The Flood Preparation Plan is activated on receipt of the Flood Watch warning from the Environment Agency, or from other sources, e.g. TV, Radio, local contacts. Flooding is possible, and the situation could worsen, so:

- Watch water levels on nearby roads in case overtopping does occur.

- Ring Floodline on 0845 988 1188 to confirm time and height of predicted flood levels.
- Make sure you have what you need to put your flood evacuation plan into action.
- Consider when to implement Evacuation Plan.
- Be ready to move important equipment, such as computers, above flood level upon receipt of a flood warning.
- Keep a store of plastic bags (grocery bags are fine) to place around the legs of furniture when you receive a flood warning.
- Identify a suitable location for evacuation of vehicles to higher ground.
- Consider the height at which goods are fixed, stored or displayed - the higher the goods, the less chance of damage.
- Copy vital hard copy and electronic records and store them in a safe place. This includes financial and insurance records, product lists, formulas and specifications, staff, customer and supplier databases and staff files.
- Obtain or construct sandbags or other items to protect lower lying entrances to the site.

### **Evacuation Plan (Flood Warning)**

The flood evacuation plan should be implemented when a Flood Warning is received. Flood Warning means flooding is now expected, so put your flood evacuation plan into action. The actions are as with Flood Watch plus:

- Move vehicles to other locations. Flooding may be expected in less than 2 hours so with a large number of vehicles on site this may have to be implemented sooner, or smaller vehicles (cars, vans) moved before larger vehicles (trucks etc).
- Move valuables and other items to safe locations such as upper floor, attic space or other locations. Put sandbags or flood boards in place.
- Turn off gas and electricity.
- Initiate evacuation of the premises.
- Follow dry escape

### **Evacuation Plan (Severe Flood Warning)**

The flood evacuation plan should be implemented as a matter of urgency when a Severe Flood Warning is issued. Severe Flood Warning means severe flooding is now expected. The actions are as with Flood Warning plus:

- Be prepared to lose power supplies - gas, electricity, water, telephone
- Power cuts are common during a flood so carry a torch with you if at night (torches to be available).
- Co-operate with emergency services and local authorities
- Security procedures - Lock windows, doors and set the alarm.
- Try to keep calm, and to reassure others, and evacuate the site
- Live electricity and gas can be extremely dangerous. Turn off gas and electrical appliances immediately and always turn off building services before water enters the building.

The local council Emergency Planner and the county's Emergency Planning Department/Civil Protection Unit can help you determine the conditions under which a flood evacuation would be necessary, and offer advice.

### **All Clear**

An all clear will be issued when flood watches or warnings are no longer in force.

- Flood water levels receding.
- Check all is safe to return.
- Seek advice.

### **PROPERTY FLOOD RESILIENCE MEASURES**

It is recommended that the following measures should be considered, in consultation with the area building control department:

1. Use of dry-proofing and wet-proofing building materials where appropriate. Lime plaster or cement render rather than conventional gypsum plaster.
2. Water resistant coatings for external walls.
3. Standard moveable flood barriers should be available for doors, windows, air bricks and any other apertures in exterior walls. There should be a regime under health and safety precautions that after flooding all external protectors must be removed at the earliest opportunity. (a) for ventilation to dry out any moisture (b) to make sure that any heating vents are not blocked when the heating is switched back on.
4. In certain cases the question of low level windows should be considered.
5. Non-return valves should be considered for sewers to prevent back-flow.
6. Electrical wiring feeding low level points and switches should drop from the ceiling rather than be fed from floor level. Switches and points may need to be raised.
7. Cracks to doors and render should be repaired to reduce water seepage.
8. Use of concrete floors rather than timber
9. Location of boilers and electrical white goods above the possible flood level
10. No chipboard or MDF, instead using plastic and metal alternatives.

It is recommended that all property owners/developers seek further advice from the government sponsored web-site, [www.direct.gov.uk](http://www.direct.gov.uk). This gives comprehensive details on all flood protection provisions which are recommended.

It is vital that before applying for planning permission all aspects of flood protection be discussed with the relevant authorities. This will save time and further expense should these details not be covered within the planning application.