Flood Risk Assessment by
Aurimas Leliukas
28 Pheasant Rise, Bar Hill. CB23 8SA

10th January 2025

Planning Services
Huntingdonshire District Council
Pathfinder House
St Marys Street
Huntingdon
Cambridge PE29 3TN

Dear Sirs,

RE: Ground floor front extension with a pitched roof & first floor side extension - 13 Fairfield's Crescent St Ives PE27 5QH (ref 25/00012/HHFUL)

Below are the Local Requirements, which must be addresses for this application to be validated.

Air Quality Assessment:

No air quality assessment is provided as this proposal will have no impact upon the air quality of the local environment.

Biodiversity survey and report:

There is no perceived impact upon biodiversity associated with the proposal, therefore no Biodiversity Survey and reports are provided.

Daylight/Sunlight Assessment:

The proposed extension will be a first-floor side extensions with a ground floor single-story extension at the front of the façade. The front extension will match the garage protrusion and will create a pitched roof. The side extension will cantilever over the path to the garden. The height of the side extension is to match the existing roof line.

As the dwelling of discussion and its neighbouring property have gardens facing towards to the north, the proposed extension would maintain a similar level of overshadowing to property 11 Fairfield's Crescent up to 12:00. After this time the sun is facing directly the front of houses, and each property overshadows themselves. Depending on the season of the year, the sun exposure to Fairfield's Crescents gardens has from minimal effect to none.

Flood Risk Assessment

This property is within a low/medium flood risk area being close to the identified higher-risk flood areas associated with the River Ouse. There have been no known flood events

occurring in the immediate vicinity since the last major inundation in March 1947. This was before the current river controls and flood defences were put in place, and before the property was constructed.

1) ASSESSMENT

This proposal concerns a single-storey front extension with a first-floor side extension to an existing dwelling house. Floor levels will match the existing floor levels within the dwelling. The application drawings give details of the proposed building work, site layout and site location.

The risk to the proposed new ground floor area is similar to the existing building, namely floodwater entering the dwelling due to an extreme flood event. Recent local history has demonstrated this to be unlikely, but still possible. The area in which the dwelling stands (PE27 5QH) has marginally lower chances of getting flooded comparing to the rest of St. Ives. Mitigation works should therefore be considered, although these should be proportionate to the risk.

2) MITIGATION WORKS

The discussion of mitigation measures is split into two categories, A] prevention of flooding, and B] reduction of flood-damage impact.

A] Prevention: To prevent flood water entering the proposed ground floor area of the extension would mean retrospectively fitting flood barrier defences at all entrance doors to the existing building, as well as to the new extension. This would involve the provision of removable water-tight barriers at entrance doorways. Prolonged raised water levels would lead to wall constructions within the building becoming waterlogged, ultimately compromising the flood barriers at doorways due to water ingress through porous masonry walls.

B] Flood impact reduction: Likely measures to offset the impact of floodwater entering the extension should entail the consideration of adopting a series of measures to assist in the clean-up and drying out period after a flood. Also, the reduction of necessary remedial works and their associated costs should be investigated. Suggested measures in this respect could entail some or all of the following methods being adopted for the new construction:

1. Use of a ground-bearing rather than suspended floor construction, with water resistant insulation materials incorporated to alleviate drying-out problems.
2. Use of non-absorbent insulation materials within any cavity wall construction.
3. Use of masonry rather than timber framed structure for components such as internal walls in ground floor areas.
4. Wall finishes using non-hygroscopic plasters rather than dry-lining or other porous finishes to avoid the need to remove wall finishes following a flood.
5. Finishing timbers such as skirtings and architraves being decorated ‘all round’ prior to fixing, with screw or similar fixings being used to enable easy removal of such elements for drying out.
6. No inclusion of services such as electrical fittings at low levels within the building, to keep these above potential flood levels. All electrical cables to drop within walls from above, rather than rise from below floors

7. Consider use of impervious floor finishes [ceramic tiles or similar], or removable/easily replicable elements in this location.
8. Develop an action plan to enable furniture and belongings to be raised above flood level as the risk of flooding becomes apparent
9. Ensure a good system of flood-warning is in place within the local area.

3) RECOMMENDATION

Raising floor levels within the ground floor extension would be one way of reducing any flood risk. This is not proposed as this would compromise the usability of the ground floor extension, which needs to have floor levels matching those of the existing house. Measures as described in [A] above are also not proposed, as if this extension were not being considered, the risks to the existing property would remain as they are at present [very low], and I am considering here only the impact of the works proposed within the planning application. It would also be difficult to make practical watertight seals to all openings due to the nature of the building. It should also be remembered that the village does have the benefit of flood defences and the River Ouse is effectively controlled during periods of flooding by systems set in place by the Environment Agency and its precursors.

My recommendation is, therefore, to adopt only the practical and applicable mitigation works as suggested in [B] above, as I consider these to be proportionate to the perceived risk. These measures should include the following:

1. Use of a ground-bearing rather than suspended floor construction, with water resistant insulation materials incorporated to alleviate drying-out problems.
2. Use of masonry rather than timber framed structure for components such as ground floor internal and external walls.
3. No inclusion of services such as electrical fittings at low levels within the building, in order to keep these above potential flood levels. All electrical cables to drop from above, rather than rise from below floors within the new ground floor areas.
4. Consider use of impervious floor finishes [ceramic tiles or similar], or removable/easily replicable elements in this location.
5. Develop an action plan to enable furniture and belongings to be moved to upper floors as the risk of flooding becomes apparent
6. Ensure a good system of flood-warning is in place within the local area. [The Environment Agency does already have an established flood-warning system in operation in this area]

Heritage Statement

The site is outside the village conservation area, so a Heritage Statement is not provided.

Noise Assessment

No noise assessment is provided as the proposed extension to this property will not affect the general situation relative to noise and disturbance to surrounding properties.

Parking Provision

The proposed works have no impact upon existing parking arrangements.

Photographs

Photos of the property, showing its setting and appearance are included below:



The street view of the 13 Fairfield's Crescent.



View of the rear of the property with the neighbouring dwelling No.15.

Planning Statement

This proposal seeks to add a ground-floor single storey front extension with a pitched roof & a first-floor side extension. Please read this document in conjunction with planning drawings as to better understand the proposal.

Structural Survey

A structural survey is not provided with this application. The services of a structural engineer will be used in due course as required.

Tree Survey/Arboriculturally Implications

No trees or plants will be affected by the proposed works

I trust that the above and enclosed information is sufficient to enable you to register this application. If additional information is required, please do contact me.

Yours Faithfully,

Aurimas Leliukas

28 Pheasant Rise, Bar Hill. CB23 8SA

[redacted]