Title: Flood Mitigation Measures

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Application reference: PP-11967918

Date: 03/10/2023

Thorough consideration has been given to the issue of flood risk in the planning of this outbuilding.

- 1. The mapping from the gov.uk flood map for planning site shows the Elder Stubbs allotments, which borders the N side of our garden, to be in flood zone 3. The extent of the zone 3 appears to include a small section of the NW rear corner of our garden. The rest of our garden is mapped as being in flood zone 2. We have noticed that there is no difference in ground level across the entirety of our garden, and also that there appears to be a significant difference between the ground level of our garden and that of Elder Stubbs allotments. We have therefore employed a buildings contractor to measure and compare ground levels across our garden and into Elder Stubbs allotments using a laser level. The findings were that the Elder Stubbs allotment ground level is at least 0.49m lower than that of our garden. Furthermore, the ground levels of the NW and NE corners of the garden appear to be the same, while the NE corner is deemed to be in flood zone 2, and the NW is deemed to be in flood zone 3.
- 2. For the purposes of planning we have considered moving the proposed structure further towards the centre of the garden. This however would necessitate the removal of three trees and several mature shrubs. We would not want to spoil the natural qualities of the garden and reduce the natural wildlife habitat by removing these. We have rather designed the proposed building in such a way as to complement and fit in with the natural surroundings, and with the least impact on shrubs and trees.
- There are unlikely to be any safety risks in the event of flooding, as this small scale development proposal's purpose if as an art studio and not as living/sleeping quarters.
- 4. The proposed foundations are ground screws, which were originally designed for structures such as piers etc. and as such are suitable for structures at risk of flooding. The use of ground screws will also enable the proposed building to be raised 0.3m above ground level. Another advantage of using ground screws is that this method protects the integrity of the ground and minimises any potential damage to nearby tree roots. Furthermore, the use of ground screws reduces any need for a hard standing, allowing natural drainage to occur.

- 5. We have designed the building so that there is access to all areas to enable drying and cleaning. Our proposal is for a simple rectangular structure, with good ventilation provided by velux and bi-folding doors, and with access all around the sides of the structure. The proposed structural timber will be treated with a hydrophobic barrier treatment.
- 6. We propose to install any wiring, switches, sockets, outlets and service panels at a minimum height of 0.5m from floor level (0.8m from ground level) in order to mitigate against any water egress.
- 7. We propose to install water butts on each side of the building in order to capture runoff water.