

Flood Risk Statement – Planning Application: 137510/FH/2023

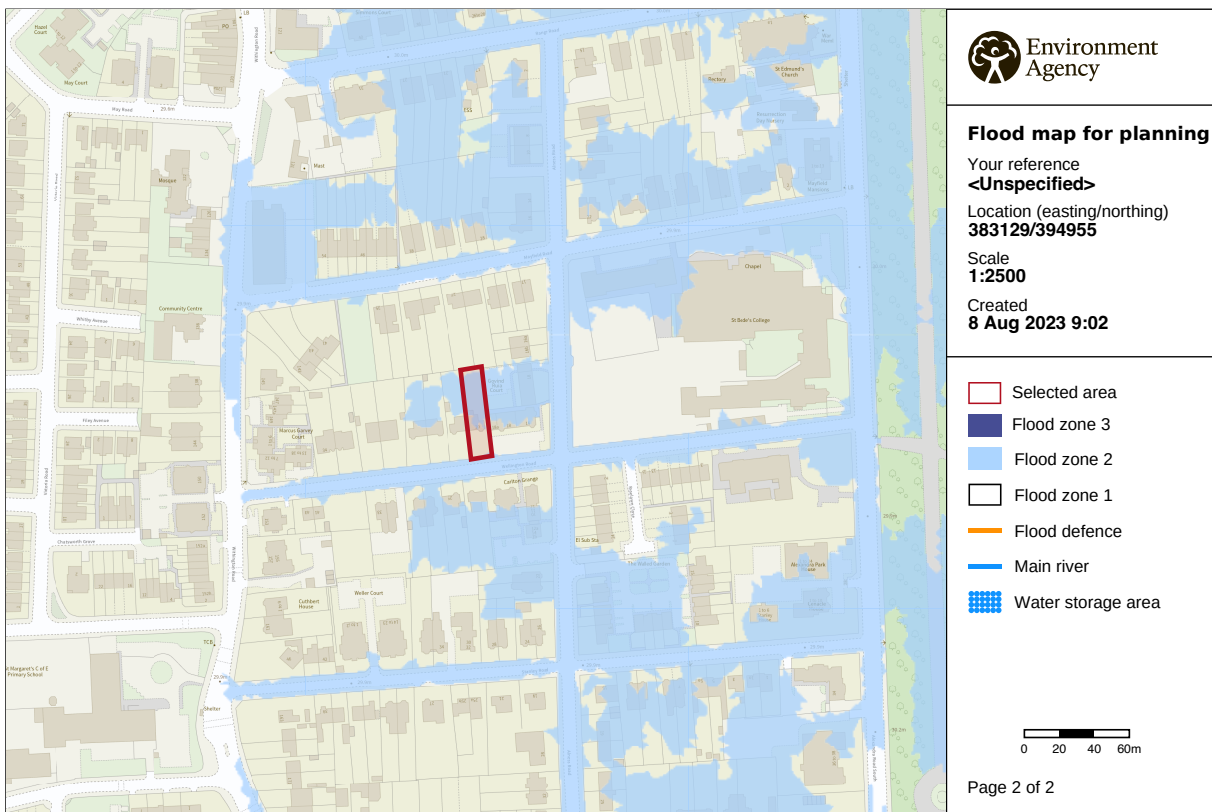
Proposed Development

The proposed development is a raised deck, with garden outbuilding constructed underneath. The raised deck will be accessible from the first floor of the property, while the garden outbuilding will be accessible only from outside the property via the garden door. The outbuilding will be used to store garden equipment/furniture etc, while the raised deck will provide a seating area, and access to the first floor of the property.

1 Flood Risk Assessment

The Flood Map for 20 Wellington Road is shown in Fig. 1). This shows the proposed site is:

- In flood zone 2 to the rear, and flood zone 1 to the front (as the proposed development is to the rear of the property, it will be considered as flood zone 2 from hereon-in).
- Not within 20 metres of a main river or a flood defence
- Not a water storage area



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Figure 1: Environment Agency Flood map for planning – 20 Wellington Road

Following the guidance at: <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#how-to-do-an-assessment>, it is therefore appropriate to use product 3 (*Basic Flood Risk Assessment Map*) to evaluate the site flood risk, according to:

- the site is less than 1 hectare
- the development is less than 250 m²
- and is in flood zone 2

According to the basic flood risk map for 20 Wellington Road, the site is classified:

- Flood risk from rivers or sea: extent of flooding – low (see Fig. 2(a))
- Surface runoff: extent of flooding – very low risk (see Fig. 2(b))
- Surface runoff: high risk depth – not registered (therefore << 300 mm) (see Fig. 2 (c))
- Surface runoff: low risk depth – not registered (therefore << 300 mm), NB: medium risk depth is in-between, and not registered (see Fig. 2(d))

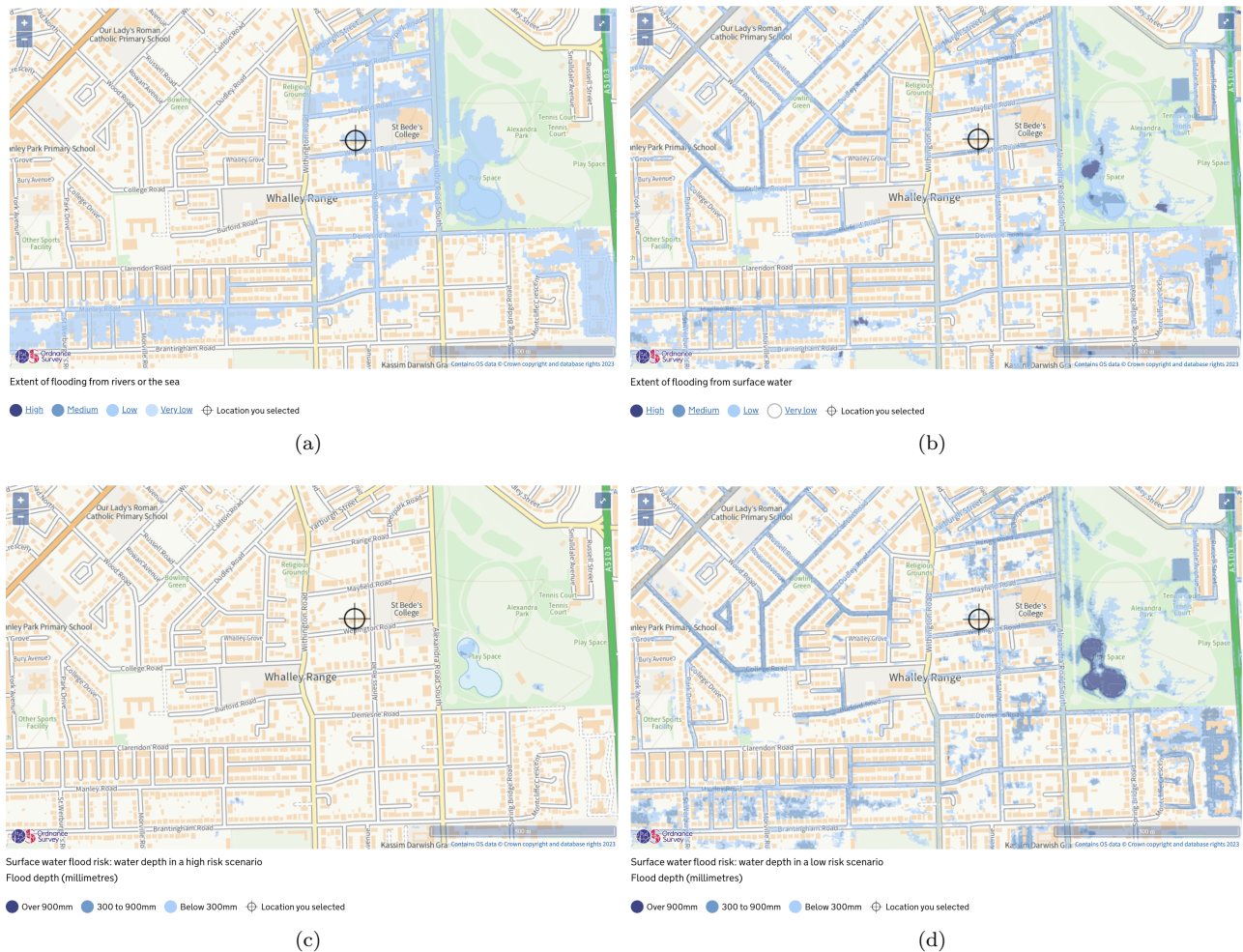


Figure 2: Flood risk maps for site at 20 Wellington Road: (a) Rivers and sea: extent of flooding, (b) Surface water: extent of flooding, (c) Surface water: high risk depth, and (d) Surface water: low risk depth

Summary

To summarise the flood map (Fig. 1) and other data indicate that the area is at low risk of flooding. However, should flooding occur, it will likely happen from the rear of the property, and will be focused in the garden. However, in severe cases flooding may impact the periphery of the proposed development from the north side. More details on the estimated flood levels are provided in Section 2, with prevention and resilience strategies in Sections 3 & 4.

2 Flood Levels and Proposed Floor Levels

Ordnance Survey (OS Explorer 277) puts Wellington Road elevation relative to ordnance datum Newlyn (sea level) as 30m (to the nearest metre), as shown in Figure 3. In the following assessment, this measure is taken as a datum, assumed to be at the centre of the road outside the property.

Levels measured relative to the road level outside the property are presented in Table 1, including levels relative to the road level, and metres above ordnance datum Newlyn (maodN). The environment agency model a 1 in 1000 year event as causing flood levels of 30.18 m aodN (30.24 m aodN with 30% increase in flow to account for climate change). The source data is presented in Section 5, and summarised in Table 1.

Location	Level relative to Wellington Road (m)	Level (m aodN)
Wellington Road (directly outside property)	0.00	30.00
Mean ground level outside property	0.29	30.29
Floor level (existing ground floor)	-0.27	29.73
Floor level (proposed development)	-0.27	29.73
0.1% AEP (1 in 1000 year)	0.18	30.18
0.1% AEP (1 in 1000 year) + 30% increase in flow	0.24	30.24

Table 1: Estimated levels for 20 Wellington Road Development

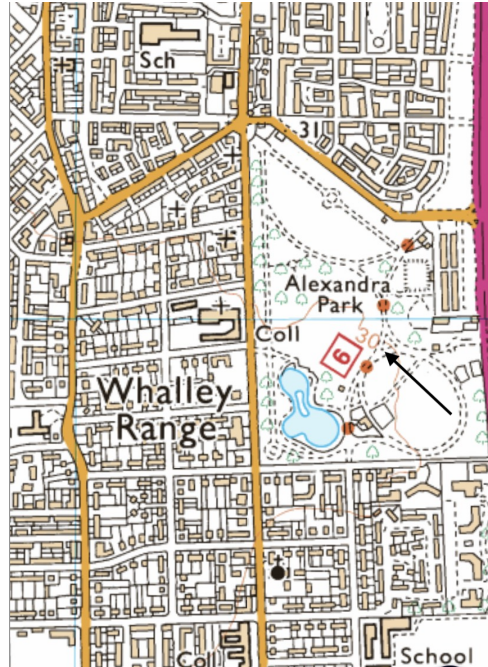


Figure 3: Elevation detailed from OS Map (OS Explorer 277), showing Wellington Road region as 30 m above ordnance datum Newlyn (see black arrow).

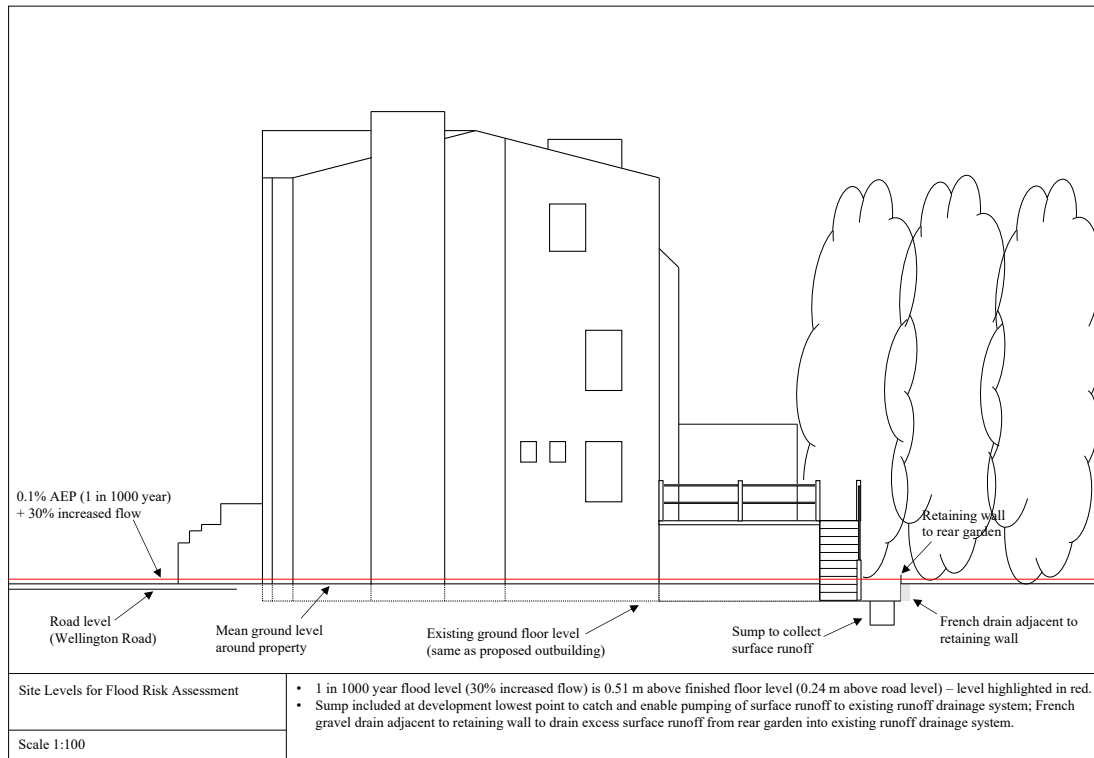


Figure 4: Site levels based on flood risk assessment data, existing property, and proposed development (see Table 1 for data). (Not to scale, see *Site Levels Plan Proposed* within planning application for scaled version)

The site flood levels drawing in Figure 4, demonstrates the existing property floor levels relative to the proposed development, and the road and flood levels. The proposed development floor level is set to match the ground floor level of the existing property.

Summary

In the event of a flood described by the Environment Agency’s modelling, this could lead to a flood level within the ground floor of the property (including the proposed development) of 0.45 m (0.51 m for 30% increase in flow modelling due to climate change) above ground floor level.

3 Efforts to Reduce Risk of Flooding

The development plan has considered the flood risk assessment in the previous section, and will include the following design features to help reduce the impact of flooding:

- Surface water runoff due to the proposed development (i.e. rainfall landing on deck surface) will be collected via guttering and routed into the property’s existing runoff drainage system.
- A retaining wall will be constructed as part of the proposed development, to help divert surface water away from the property.
- The retaining wall will be constructed with a French drain included along the garden side, to help drain any surface runoff build-up in the rear garden, with drainage into the existing runoff drainage system.
- A sump will be included in the path outside the proposed development, to help catch excess surface runoff, and enable pumping to the existing runoff drainage system.
- Maintain average ground level around property to avoid runoff building up adjacent to the property.

4 Resilience and Evacuation Plans

In the event of severe flooding, where prevention strategies are unable to contain water, and water enters the property, a number of steps will be taken to aid safe evacuation and improve resilience:

- The following evacuation plan will be written down and kept for reference for all residents, with a copy located in both the main property and the proposed development. In the event of a worst case flood, higher ground can be found by entering the property via the raised deck. If evacuation is required, the property will be exited to the front (south side), and residents should move west along Wellington Road towards the higher ground of Withington Road (as seen in Fig. 1).
- Include sump and pump to drain and remove excess water, and pump to existing runoff drainage system. This will help remove excess water during flooding, and help drain the site once flooding has receded.
- Residents have signed up to Environment Agency’s flood warning system, currently for the closest available area: *Chorlton and Platt Brooks at Whalley Range and Chorlton-cum-Hardy* (<https://www.fws.environment-agency.gov.uk/app/olr/address>); and will monitor the system periodically for further alerts/information specific to the property.
- To help reduce danger from electrical systems during flooding, all plug sockets, lighting circuits, and other electrical wiring will be located at a minimum height of 1.1 m above the proposed floor level, ensuring that all electrical circuits will be at least 0.5 m above the estimated flood level evaluated in Section 2. This will also increase resilience, via reducing the need for replacement of electrical wiring should a flood occur, as it will have remained above the high water line.

5 Environment Agency Flood Risk Assessment Data (Product 4)

