

PSA
DESIGN



**Change of Ground Floor use to
Residential. 16 Spring Gardens,
Waddington, Lancs
Flood Risk Assessment**

D2019

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Document Control Sheet

16 Spring Gardens, Waddington, Lancashire.
Flood Risk Assessment

Job	Date	Issue	Copy
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1. Introduction

- 1.1. PSA Design Ltd has been commissioned by Jennifer Herd to prepare a Flood Risk Assessment in support of a proposed residential re-development, located at 16 Spring Gardens, Waddington, Lancashire. The site is a single terraced property with use split between residential on the first floor and the ground floor being used as a hairdressing business.
- 1.2. The site is located on the western side of Clitheroe Road, Waddington (B6478) adjacent to and south of its junction with Waddow View. The sites locality is shown on Figure 1.
- 1.3. The national grid reference for the site is 372987E, 443568N.
- 1.4. It is understood that permission is being sought to reinstate the ground floor to residential use, as it was prior to its use for commercial purposes.

2. Compliance with NPPF

- 2.1. Reference to the Environment Agency flood mapping (included as Figure 2) shows that the site falls just within Flood Zones 2 & 3, just outside Flood Zone 1. Flood Zone 3 comprises land that has a high annual probability of flooding (greater than 1 in 100 (>1.0% annual probability of flooding) from rivers or the sea in any year. Due to the location of the site there is no risk of flooding from the sea and only flooding from rivers is to be considered.
 - 2.2. Under the requirements of NPPF, the location of the development within Flood Zone 3 means that a site specific FRA is required.
 - 2.3. With reference to Table 2 from NPPF Technical Guidance, the development consists of a single end use classification which falls into the "More Vulnerable" category.
 - 2.4. Therefore, in accordance with Table 3 from NPPF Technical Guidance, the site development proposals would be deemed to require a sequential test.
 - 2.5. The Exception Test requirement is primarily designed to test the viability of larger scale developments on previously undeveloped land and Brownfield sites. However, this re-
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development is for a change of use within one floor of a property that has existed on its present site for many years. Furthermore, prior to its use for commercial purposes the ground floor area of number 16 Spring Gardens was used for residential purposes. As such it is felt that an Exception Test should not be required for this application.

- 2.6. The site comprises a single two storey building at the northern end of a residential terrace of properties along with a rear yard area with access to Waddow View for both parts of the building. The site sits in an area of predominantly residential properties with some minor commercial uses and social/recreational sites close by. The front of the property faces east and is bounded by Clitheroe Road and immediately beyond this lies a watercourse, Waddington Brook. East of the watercourse lie further residential properties. To the south and west the site is again bounded by residential properties. North of the site lie more residential areas serviced by Waddow View. This watercourse, Waddington Brook, is designated as a "Main River" by the Environment Agency and is indicated on the Flood Map extract, included in this report as Figure 2.
 - 2.7. The Flood Map extract also illustrates that any flooding in the immediate locality, even during the most severe storm events, will be contained within the immediate channel of the stream and the road and verge areas of Clitheroe Road. The stream, Clitheroe Road and the general ground levels in Waddington, fall from NNW to SSE at an average gradient of approximately 1 in 80, ensuring that flood waters will flow through the village and primarily discharge into the flood plain of Waddington Brook, to the southeast of Waddington.
 - 2.8. The effect of the topography on the movement of flood waters through the village area mean that the water flows will be relatively shallow and will not accumulate around properties thus leading to less water penetration of properties.
 - 2.9. Waddington Brook flows generally from north to south through the village and is a small but significant watercourse. As it passes through the centre of Waddington, running close or adjacent to Clitheroe Road, it is crossed by several pedestrian and vehicular access routes. These have been in place for some considerable time and are the primary obstruction to flows within the brook channel. Leading to over-topping of the brook banks due to the lack of capacity during major rainfall events.
 - 2.10. In recent years, a substantial amount of work has been carried out to enlarge the capacity of the brook by raising the levels of crossing points and enlarging the conduits below these
-

crossings. This has and will lead to a significant reduction in both the frequency of exceedance and the volume of flood waters discharged. Consequently the possibility of properties being inundated by flood waters will also be substantially reduced.

2.11. In order to further reduce the possibility of inundation of 16 Spring Gardens, it is proposed that as part of the change of use to residential, the ground floor of the building will be fitted with a “flood Barrier” system to allow the external doors and air bricks etc. to be sealed against flood water by the residents.

2.12. It is also a requirement of NPPF to assess flood risk not only from fluvial and coastal sources but also from other mechanisms, namely

- Groundwater
- Reservoirs, Canals and Lakes
- Surcharged Sewers
- Artificial Sources

Whilst specific reference to each source hasn't been assessed in any great detail, review of information available and taking cognisance of the proposed end usage, it is considered that risk of flooding and impact from the above sources would be low.

2.13. **It is therefore concluded that the proposed development can be constructed, safely and sustainably, to meet the requirements of NPPF.**

Figures

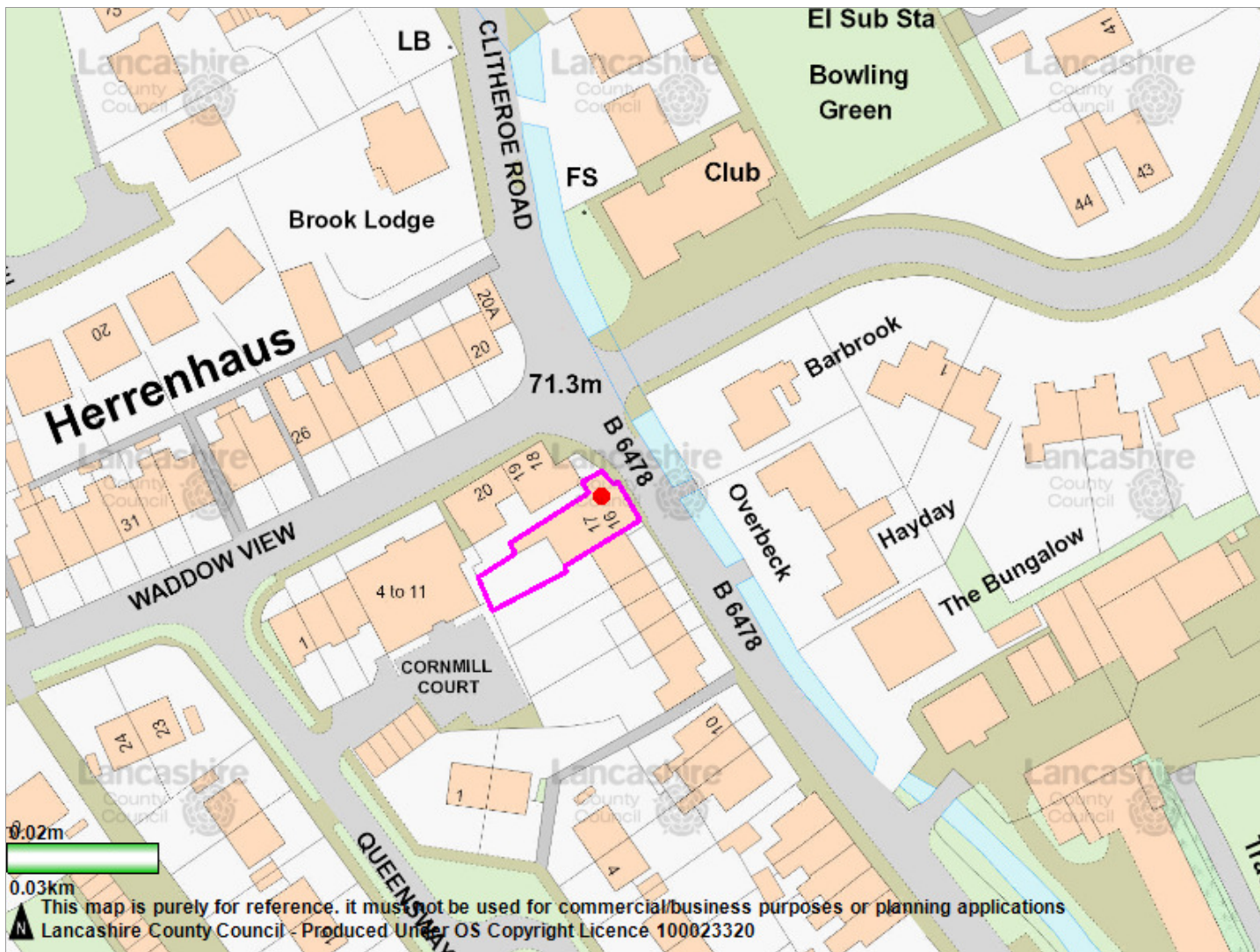
Figure 1 – Site Location

Figure 2 – Environment Agency Flood Map



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16 Spring Gardens Waddington



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Flood Map for Planning (Rivers and Sea)

Flood Map for Planning (Rivers and Sea)

Map legend

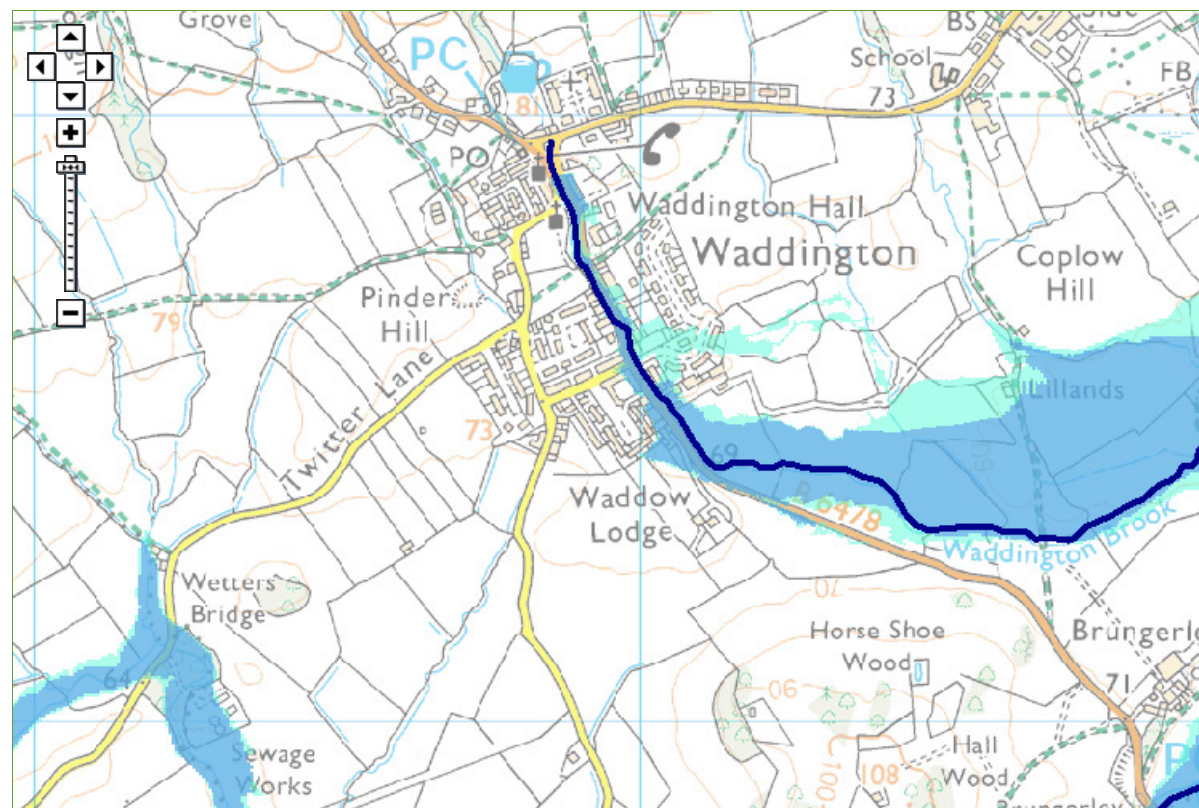
Click on the map to see what Flood Zone (National Planning Policy Guidance definitions) the proposed development is in.

Flood Map for Planning (Rivers and Sea) ⓘ

- Flood Zone 3
- Flood Zone 2
- Flood defences (Not all may be shown*)
- Areas benefiting from flood defences (Not all may be shown*)
- Main rivers

Waddington, Lancashire at scale 1:10,000

Other maps ⓘ Data search ⓘ Text only version ⓘ



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