

Technical Response to LLFA comments 10th January 2025

Car Parking



The extract above shows the JBA post development flood depths based on the 100yr+CC30% scenario. The current recommended climate change increase is 23% therefore the map is a conservative estimate of levels.

The existing building has an existing car park which provides 108 spaces. These spaces are generally in an area where flood depths range from less than 0.2m upto 0.6m.

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Technical Note: 001b

Date: 10th February 2025

Site: Proposed Residential Scheme, Ledgard Bridge, Mirfield

Reference: 2017/2153

The proposed development will include two new areas for car parking. The area adjacent to the new building will provide an additional 76 spaces. These spaces are generally in an area where flood depths range from no flooding up to 0.4m. The second area which is adjacent to the existing building will provide an additional 51 spaces. These spaces are generally in an area where flood depths range from less than 0.2m up to 0.6m.

In total 235 parking spaces are provided which includes 51 visitors spaces, therefore the maximum number of spaces required for the development is 184 spaces.

The plan above shows that there are 81 permanent parking spaces (shown with green dot on plan). Therefore, 103 temporary spaces are required during a flood event to be located within areas where the maximum flood depth is 300mm. These spaces are shown as green rectangles on the plan above. It is therefore considered that 184 spaces within an area of 300mm or less flood depth could be provided reduces the risk to vehicles.

Barriers will be provided to the lower areas of the car park to stop any vehicles flooding into the River Calder.

Raised footway escape route

The walkway will be within the site boundary and requires lifting levels between 0.16m and 0.68m. The escape route is 110m from the building to the bridge. Approximately 55m of the route the increase in levels is 300mm or less. The remaining 55m is between 300mm and 680mm in depth.

It is proposed that a walkway on stilts will be provided for the full 110m length. The walkway will have 3m spans and will be supported on four 200mm by 200mm stilts. It is assumed that each stilt will be 0.6m high. Each stilt has a volume of 0.024m³ (200mm x 200mm x 600mm high). Therefore 40 sets of stilts will be required, hence a total volume of 2m³ (40 x 2 x 0.024).

It is considered that a potential 2m³ loss in storage volume is insignificant and will not adversely impact on local flood levels.

Furthermore, the flooding of the car parks does not come directly from the River Calder. The flooding of the car parks occurs by the River Calder overtopping upstream of the Ledgard Bridge and then flowing down Back Station Road with some runoff entering the site and the car park.

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