

**29<sup>th</sup> September 2017**

**Job No: 6201**

**LOWER MOSS FARM, LOWER LANE, LONGRIDGE**

**DRAINAGE SUBMISSION IN SUPPORT OF APPLICATION 3/2017/0357 IN RESPECT OF THE PROPOSED CONSTRUCTION OF 10. NO. HOLIDAY UNITS.**

**1.0 Introduction**

- 1.1 Lancashire County Council in their role as the Lead Local Flood Authority (LLFA) have sought additional information on surface water drainage in support of the above application.

Avalon, on behalf of the applicants Mr & Mrs Rainford, have instructed Lees Roxburgh to provide the information required in support of this application.

- 1.2 The LLFA letter of 9<sup>th</sup> May 2017 notes the absence of acceptable information to assess '*... the principle of surface water drainage*' and requires the submission of '*basic information on how surface water is intended to be managed*'. It then refers to information related to detailed design which goes beyond that identified as required in order to overcome their objection. This statement together with the accompanying plan, Drg. No. 6201/01-01, therefore addresses the stated basis for the objection and the information required to overcome the objection by demonstrating how surface water will be managed onsite to satisfy the principles of the NPPF.

The detailed design drawings based on the proposals set out within this submission can then be covered by an appropriately worded condition in the normal manner.

**2.0 Baseline Conditions**

- 2.1 The site is located in area of Flood Risk Zone 1 and therefore at the lowest risk of flooding.
- 2.2 Reference to geological mapping identifies that the site is underlain by clay. Ground conditions are therefore unsuitable for an infiltration based drainage solution.
- 2.3 Reference to the topo survey and site inspection has identified a positive fall away from the site at a gradient of 1 in 65/1 in 70 with ditch systems to the south east and to the west connecting into a culvert which runs along the south boundary in a westerly direction.

Ground conditions appeared well drained underfoot and given the topography and the presence of the boundary watercourse systems, surface water and groundwater flooding are not considered a source of risk.

- 2.4 The existing impermeable area within the red line boundary has been assessed as 1,596m<sup>2</sup>.

Given the absence of an existing drainage system serving this area, surface water flows will currently run off uncontrolled across and through the site ultimately into the boundary watercourse system.

- 2.5 It is also noted there is a foul system on site which drains to a private pumping station from which flows are pumped up to the UU public sewer system in Lower Lane.

### **3.0 Proposed Drainage**

- 3.1 Notwithstanding the presence of a soakaway trench to the south, it is considered that ground conditions are unsuitable for infiltration based drainage.

It is therefore proposed to connect surface water drainage into the boundary ditch system.

- 3.2 The proposed impermeable area has been assessed as 1,595m<sup>2</sup> and therefore coincidentally equivalent to the existing impermeable area within the development boundary.

On this basis, it is considered that a flow restriction will not need to be incorporated into the detailed design which will inherently provide betterment in respect of;

- Capturing previously uncontrolled surface water runoff into the proposed surface water drainage system.
- Containment of flows within the proposed surface water drainage system, in conjunction with appropriate setting of development levels, up to the 1 in 100 year event plus 30% allowance for climate change.

- 3.3 Whilst not covered by the LLFA response, it is also noted that foul drainage will connect into the existing system.

- 3.4 It is intended that the scheme will remain private and the drainage will therefore be designed to current Building Regulations Standards but to the criteria identified under Item 3.2 above.