

Ref: Erect Building over Yard + Midden
Farm building complex
Lady Hall Lane
Thwaites

'Rockland'
Lady Hall
Millom
Cumbria LA18 5HR

Flood Risk Assessment

06/10/2020

Enclosed: (showing features mentioned later in the assessment)

- Copy of O.S. Map, scale 1:2500 showing:
 - A) Position of existing complex, + proposed building - identified **RED**
 - B) O.S. level 7.3 (23'11") located at centre of highway, coloured **PINK**
 - C) Levels taken from the above 7.3, to highway edge adjacent access, + Existing yard - coloured **ORANGE**
 - D) Access road (Lady Hall lane) coloured **YELLOW**
- Copy of 'Environment Agency' flood map for planning, showing:
 - 1) Proposed building within existing complex, identified **RED**
 - 2) Area being Flood Zone 3, benefitting from flood defences.
- 1) From the O.S. level 7.3 A.O.D., on the highway north of Low Bay House, levels have been taken which show the west side of the same highway opposite the field gates (access to proposed) is at 7.35 A.O.D. + the existing yard (+ whole building complex) - being concrete floored, at 6.19 A.O.D.
- 2) From previous environment agency correspondence, the flat calm tidal flood levels in this area are as quoted below
 - 1 in 100 year undefended modelled flood level = 5.97 A.O.D.
 - 1 in 200 year " " " " = 6.22 A.O.D.
 - 1 in 1000 year " " " " = 6.63 A.O.D.+ one model result, allowing for climate change, predicted for the year 2115,
 - 1 in 200 year undefended modelled flood level = 7.0 A.O.D.
- 3) The flood defences mentioned on the E.A. map, consist of a coastal embankment which was completed in 1963, + extends from Millom to Diddan Bridge with the only large interruption being where the 'Black Beck' enters the estuary at Green Road station (the embankment returning both sides of the beck inwards as far as the railway line embankment). This embankment is believed to have been constructed by the owners of "Lowther estates" + is approx 7.0 A.O.D.
- 4) All drains/gutters flow into main gutters running inward + parallel to the embankment, + exit under the embankment via sluices into the estuary.
- 5) During prolonged spells of rain, the fields throughout this land plane have water standing in hollows + the gutters do fill up, especially when tides coincide + the sluices are closed, causing 'back up' but never causes water to enter the building complex.

- 6) The embankment height of approx 7.0 AOD is in line with the 2015 modelled 1 in 200 flat calm flood level predicted height of 7.0 AOD, but present day wind/gale backed high tides can cause local overtopping. This embankment was breached in 2 places near Lady Hall during Feb 2002.
- 7) All the existing farm buildings & yards within this complex are in a similar plane, all concreted. The proposed building is within this existing complex, with the yard level becoming the floor. The use of the area isn't changing from its existing use, only that it provides dry midden storage, & shelter for sheep. The existing rainwater drained area remains the same, only that it is cleaner, so there's no change to the drainage system.
- 8) The applicant has farmed here all his working life, following on from his father, & is aware of the possibility of flooding. Stock can be moved across the road to much higher ground, & the highway adjacent (Lady Hall Lane) at 7.3 AOD can provide a safe haven. Flood water will be allowed to enter & exit freely via all the existing doors/gates.

RA WALKER

1:2500

2732

7037

HOLME KERN

5822



SCALE 1:2500

4912

BUCKMAN
BROW HOUSE

6801

7.35

6.19

3489

7.3

LOW
BAG
HOUSE

2571









Flood map for planning

Your reference
map

Location (easting/northing)
319551/487002

Scale
1:2500

Created
6 Oct 2020 19:43

-  Selected point
-  Flood zone 3
-  Flood zone 3: areas benefitting from flood defences ✓
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Flood storage area

0 20 40 60m

Page 2 of 2

