

AL/91/08

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Proposed Development

Sack Lane, Lidsey**Bognor Regis****West Sussex****PO22 9PE**

Flood Risk Assessment

On behalf of**Mr J. Langmead**

October 2008
1245-R1

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BARN / STABLE CONVERSION**SACK LANE, LIDSEY****BOGNOR REGIS, WEST SUSSEX****Flood Risk Assessment****1. Background**

- 1.1 This report has been produced on behalf of Mr J Langmead, in support of a planning application for the conversion of a barn / stabling on land adjacent to The Bungalow, Sack lane, Lidsey.
- 1.2 The report concerns flood risk and has been prepared generally in accordance with the recommendations of Planning Policy Statement 25 – Development and Flood Risk (PPS 25).
- 1.3 The drawings supporting this report are as follows:
 - Dwg. No. 1245/1.1 Flood Risk Assessment

2. The Site

- 2.1 The site is located near to the eastern end of Sack Lane, Lidsey, at OS Grid Reference SU 9448 0258. See Dwg. No. 1245/1.1 for a location plan.
- 2.2 The site has an area of approximately 175 sq.m and is generally surrounded by farmland and a few other residential properties on Sack Lane. The Lidsey Rife lies some 450m to the northeast at its closest point.

- 2.3 The existing brick and flint buildings are currently used for storage but are understood to have been originally used for animal rearing. Part of the site comprises a portion of the garden to The Bungalow.

3. Topography

- 3.1 Ground levels at the site are in the region of 3.1m AOD. Levels fall in an easterly direction towards the Lidsey Rife, rapidly at first, then gradually across the flood plain.
- 3.2 Westwards along Sack Lane, levels rise to around 4.3m AOD, then fall to the junction with Lidsey Road / Shripney Road, where there is a low of around 2.7m AOD.
- 3.3 The existing buildings that are proposed for conversion have concrete floor levels varying from 3.1 to 3.3m AOD.

4. Proposed Development

- 4.1 The development comprises an extension and alterations to the buildings to provide living accommodation with two small bedrooms. This will include the provision of two car parking spaces, a courtyard garden and a store.
- 4.2 The existing floors will require regulating, insulating and overlaying and will thus finish somewhat above the existing levels shown.

5. Flooding History

- 5.1 There are no records of past flooding of the buildings or garden areas but high levels in the Lidsey Rife are known to have affected low-lying farmland immediately to the east.
- 5.2 The extent of the future (2106) fluvial flood zone is shown on the accompanying drawing. This has been reproduced from Map C1-F of the Arun District Council Strategic Flood

Risk Assessment (SFRA). Maps C2-F (flooding with no defences in place) and Map B (possible flooding from a breach in the tidal defences) show very similar flooding extents.

- 5.3 Future tidal flooding with no coastal defences (Map C2-T) shows flooding in an extreme event affecting Sack Lane but this is considered to be a low risk. It is not envisaged that the coastal defences would be allowed to deteriorate to any extent that provides a lower standard of protection to that which currently exists, given the value of land, property and infrastructure protected.

6. Foul Water Drainage

- 6.1 The existing septic tank drainage to The Bungalow will be checked to see if it is suitable for the new building.
- 6.2 If the existing facilities are not suitable, new facilities will need to be provided in accordance with the building regulations that will satisfy the Environment Agency (EA). This may comprise a new septic tank or, depending upon groundwater levels, a packaged sewage treatment plant discharging to the stream to the east. Formal consent from the EA would need to be sought.

7. Surface Water Drainage

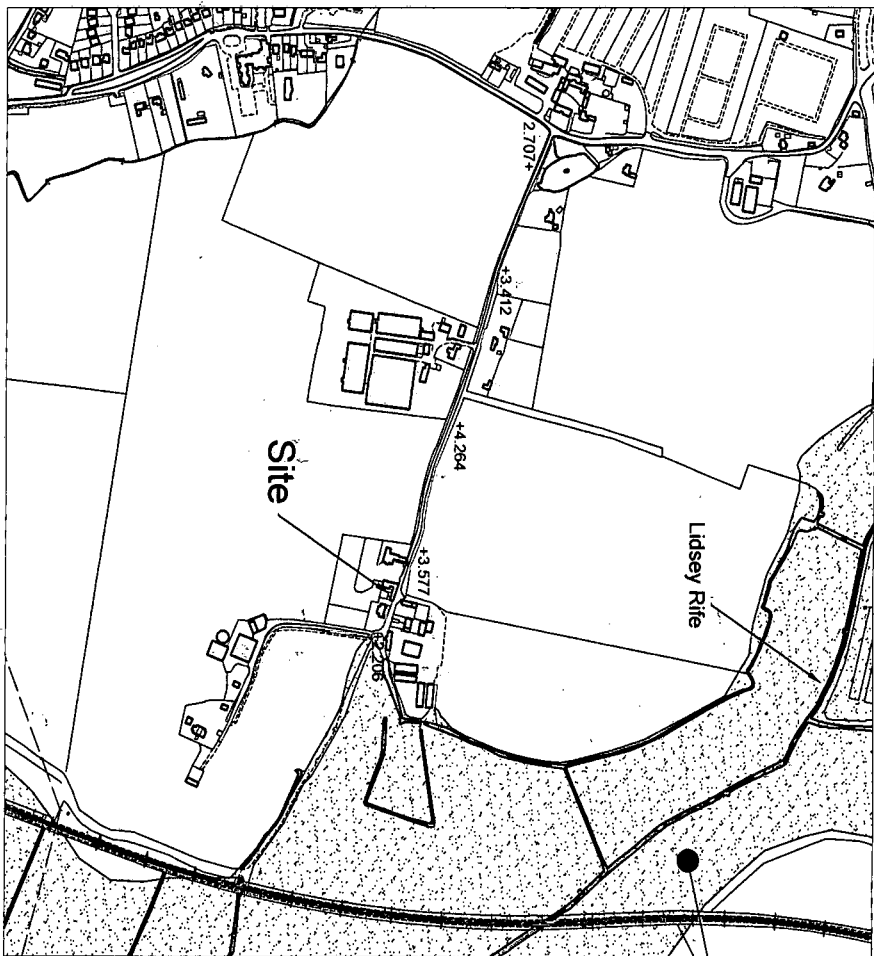
- 7.1 Existing surface water drainage in the area is generally taken to soakaways which operate well in the prevailing ground conditions. However, consideration will need to be given here to possible high groundwater levels and their effect on percolation rates.
- 7.2 High groundwater levels are known to be prevalent in the area and where these occur within the Raised Beach Deposits, excavations can be difficult. Any new soakaways will need to be designed to BRE 365 and take full account of winter groundwater levels. It is possible that a high level overflow to the stream will be required.

- 7.3 As the site is somewhat higher than the Lane and beyond the extent of an extreme flooding event, it is considered to be at low risk from surface water and groundwater flooding.

8. Conclusions and Recommendations

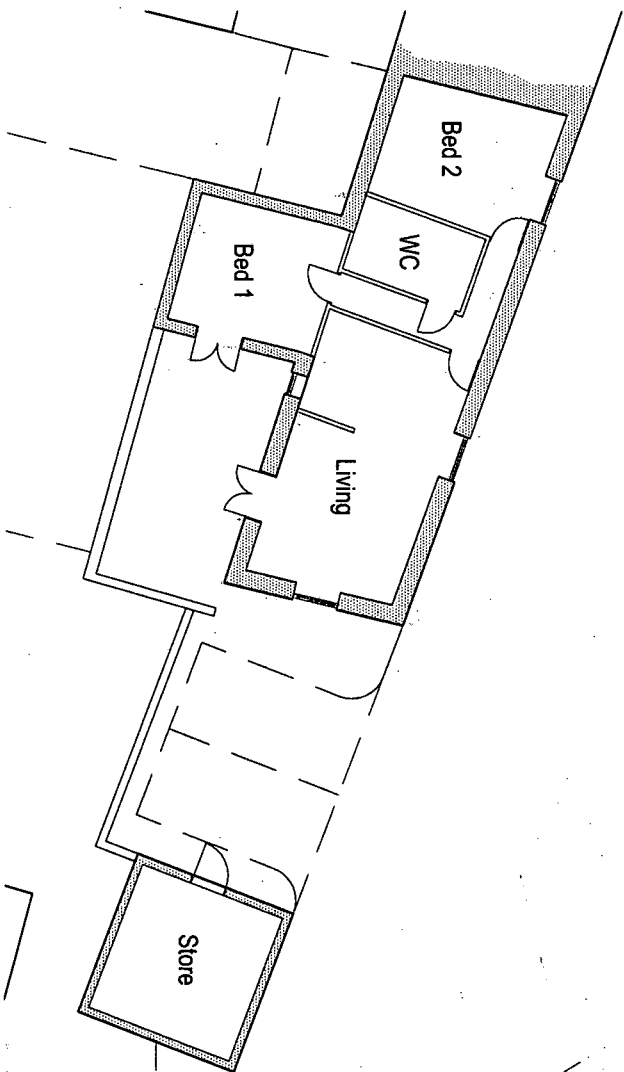
- 8.1 The site is indicated within Arun District Council's Strategic Flood Risk Assessment, to lie close to Flood Zones 2/3 and a Flood Risk Assessment has been carried out in accordance with PPS 25. This has shown that the site is at a low risk from tidal / fluvial flooding.
- 8.2 There are, however, foul and surface water disposal issues that will need to be resolved following percolation testing and consideration of groundwater levels. A connection to the stream that lies some 50m to the east may be required, subject to the necessary formal approvals.
- 8.3 Since there is a small risk of flooding, it is recommended that new building work is designed in accordance with good practice in flood risk areas, employing flood resilient materials and building techniques with raised electrics. It would also be prudent for the occupants to subscribe to the Environment Agency's Floodline warning system.

1245/R1-RTFC

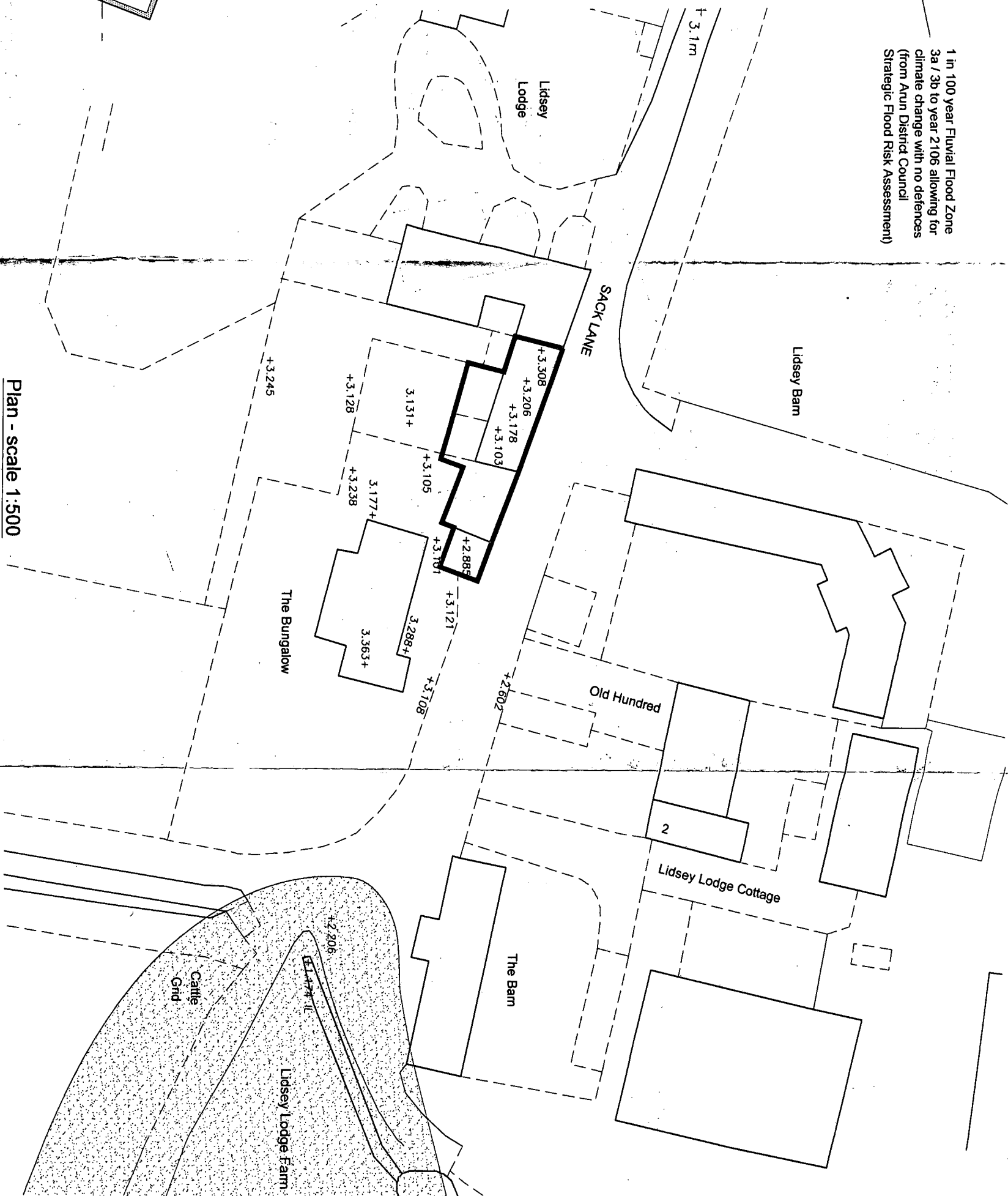


Location Plan - scale 1:10,000

1 in 100 year Fluvial Flood Zone
3a / 3b to year 2106 allowing for
climate change with no defences
(from Arun District Council
Strategic Flood Risk Assessment)



Proposals - scale 1:500



Plan - scale 1:500

Rev.	Description	App.	Chk.	Dm.	Date
-	Original	PTC	BC	RT/C	13.10.08
			PT		

Project

Land at at The Bungalow
Sack Lane, Lidsey

Client

Mr J. Langmead

Drawing

Plan for Flood Risk Assessment

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Scale

As shown

At original

A3

Drawing

Number

1245/1.1

Revision

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