



Acland
Bracewell

Flood Risk & Drainage Statement

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Brandreth Farm
Tarlscough Lane
Burscough
Ormskirk

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1. Introduction

- 1.1 This Drainage statement is to accompany the full planning application for the extension to existing agricultural storage building and associated hardstanding, together with lean-to extension to house the existing grain drier (“the Proposal”), in conjunction with the agricultural operations at Brandreth Farm, Tarlescough Lane, Burscough, Ormskirk (“the Site”). This application should be considered in conjunction with the Prior Notification Application (Application Ref. No. 2020/0255/PNP) for an agricultural storage building along with associated hardstanding, which was recently determined by West Lancashire Borough Council (“Council”), that prior approval was not required.
- 1.2 The total floor area of the proposed development equates to 693.33m².
- 1.3 The location of the Proposed development is within Flood Zone 1.
- 1.4 This Flood Risk and Drainage Statement has been prepared on behalf W.F & M. A. Wilson (“Applicant”) by Acland Bracewell (“Agent”).

2. Aims and Objectives

2.1 Appraisal of Risk

2.1.1 It is proposed to identify land and property which could be at risk or within a degree of risk of flooding from the local water sources, such as the River Ribble and the Sea.

2.2 Managing the Risk

2.2.1 To advise and comment on the design of the development as to avoid increasing the flood risk for the local population and property downstream from the Applicant and where possible, to manage any residual flooding risk on developments, taking into account the increased risk and impacts of climate change.

2.3 Reduction of the Risk

2.3.1 Suggestions will be made to reduce the flood risk, if any, and to improve water quality for the local area.

2.4 Methodology

2.4.1 The objective within this report is to follow the procedures set out in The Communities and Local Government Department – Technical Guidance to the National Planning Policy Framework (February 2019), on the development in areas at risk to flooding.

2.4.2 Information has been obtained from the Environment Agency.

3. Existing Site

- 3.1 The Site is at Brandreth Farm, Tarlscough Lane, Burscough.
- 3.2 The Site extends to 1.53ha. (3.79 acres) or thereabouts, comprising of three agricultural farmhouses, Brandreth Farm, used as a B&B and tea rooms for farm diversification with associated garden area, four portal framed agricultural buildings used for the storage of machinery, produce and washing/packing facilities.
- 3.3 The most recent planning submission was submitted in Spring 2020, being an application for Prior Approval, for an agricultural building. Should this proposal be granted, it is proposed that the Applicant will construct both the 2020 Prior Notification Building and the proposed building at the same time, given the proposal is an extension to the Prior Notification Building and this is logical and cost effective.
- 3.4 The site at Brandreth Farm, Tarlscough Lane, Burscough, has not been developed since 2014, save as the 2020 Prior Determination Building, which was granted in Spring 2020.

4. Development Proposal

- 4.1 Surface water from the roofs of the development will be collected via rainwater guttering system and discharged into the irrigation reservoir.
- 4.2 The irrigation reservoir is controlled via a 110mm discharge pipe which drains into the local watercourses via land drains. The irrigation reservoir has 1m of freeboard and has suitable capacity to store the surface water collected via this application until it can be discharged through the 110mm discharge pipe.
- 4.3 The applicant has identified that an area of hardstanding is necessary to ensure safe agricultural operations and movements within the site. We have been tasked to ensure that a cost effective hardstanding design does not increase the surface water discharge rate that is currently present.
- 4.4 The area on which the hardstanding will be created consists of the following strata's, 250mm of Naturally wet very acid sandy and loamy topsoil, followed by 700mm of glacial clay.
- 4.5 The design of the hardstanding will be to remove all topsoil and 100mm of clay, lay 300mm of course hardcore and compact, following this will be a layer of fine grade road plainings or type 2 MOT to bind the surface leaving a permeable surface to allow the collection of surface water.
- 4.6 A drain will be installed within this hardstanding, which will be collected via the land drains within the field. The water will be able to percolate.
- 4.7 The proposed hardstanding will extend to 931.2m².

5. Responsibilities of the Site Holder

5.1 Landowners have the primary responsibility for safeguarding their land and other property against natural hazards such as flooding. Individual property owners and users are also responsible for managing the drainage of their land, in a way to prevent, as far as reasonably practical, adverse flooding impacts on neighbouring land or property.

5.2 Those proposing development are responsible for:

- Demonstrating that it is consistent with planning policy.
- Providing a flood risk assessment demonstrating;
 - Whether any proposed development is likely to be affected by current or future flooding from any source.
 - Satisfying the local planning authority that the development is safe and where possible, reduces overall flooding risk in the locality.
 - Whether it will increase flood risk elsewhere and measures proposed to deal with these effects and risks.
 - Any necessary flood risk management measures should be sufficiently funded to ensure that the site can be developed and occupied safely throughout its proposed lifetime.
- Designs which reduce flood risk to the development and elsewhere, by incorporating sustainable drainage systems and, where necessary, flood resilience measures.
- Identifying opportunities to reduce flood risk, enhance biodiversity and amenity, protecting the historic environment and seek collective solutions to managing flood risk.

6. The Purpose of the Site-Specific Flood Risk Assessments

- 6.1 Planning Applications for development proposals of one hectare or greater within Flood Zone 1, and all proposals for new development located within Flood Zone 2 & 3 should be accompanied by an FRA. This should identify and assess the risks of all forms of flooding to and from the development and demonstrate how these flood risks will be managed, taking climate change into account.
- 6.2 For major developments in Flood Zone 1, the Flood Risk Assessment should identify opportunities to reduce the probability and consequences of flooding.
- 6.3 An FRA will also be required where the proposed development or change of use to a more vulnerable class may be subject to other sources of flooding or where the Environment Agency, Internal Drainage Board and / or other relevant bodies may indicate that there may be drainage problems.
- 6.4 Whilst the site is within Flood Zone 1 and a Flood Risk Assessment is not needed, the client wishes to highlight that that the proposed development will not have an adverse effect on the local drainage system and not increase flood risk in the surrounding areas.

7. The Sequential Test

- 7.1 The risk-based Sequential Test should be applied at all stages of planning. Its aim is to steer new development to areas at the lowest possibility of flooding i.e Zone 1.
- 7.2 The Flood Zones are the starting point for the sequential approach. Zones 2 and 3 are shown on the Environment Agency Flood Map with Flood Zone 1 being all the land falling outside Zones 2 and 3.
- 7.3 These Flood Zones refer to the probability of sea and river flooding only, ignoring the presence of existing defences.
- 7.4 Regional Flood Risk Appraisals (RFRA) will refer to Environmental Agency Flood Maps and will utilize further information such as Strategic Flood Risk Assessments to allow flood risks to be taken into account in a broad regional context.
- 7.5 Strategic Flood Risk Assessments (SFRA) will refine information on the probability of flooding, taking other sources of flooding and the impacts of climate change into account.
- 7.6 Where SFRA is not available, the Sequential Test will be based on the Environment Agency Flood Zones.

8. The Exception Test

- 8.1 The Exception Test, as set out in paragraph 102 of the NPPF, is a method to demonstrate and help ensure that flood risk to people and property will be managed satisfactorily, while allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available.
- 8.2 The two parts to the test require proposed developments to show that it will provide wider sustainability benefits to the community that outweigh flood risk, that is will be safe for its proposed lifetime without increasing flood risk elsewhere and, where possible, reduce the overall risk of flooding.
- 8.3 Under very special circumstances, which are set out in the NPPF extract below, an Exception Test is required.

Flood Risk Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	✗	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	✗	✗	✗	✓*

Key:

✓ Development is appropriate

✗ Development should not be permitted.

Table 1 – Flood Risk Vulnerability
(Extract from NPPF)

9. Summary of Test Results

9.1 The Strategic Flood Risk Assessment from the Environment Agency has been reviewed and has been reproduced below in Figure 1. The proposed development falls within Flood Risk Zone 1.

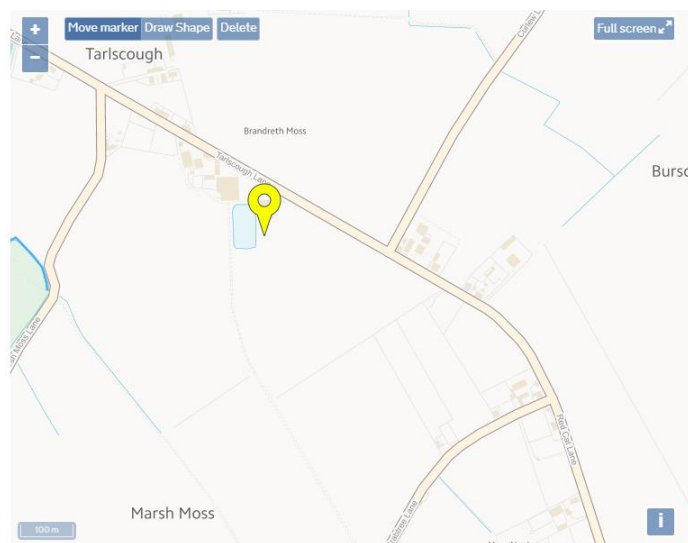


Fig. 1 – Environment Agency - Flood Map for Planning

10. Assessment of Flood Risk

10.1 Flooding from Rivers or Streams

10.1.1 Upon review of The Environment Agency Flood Map for Planning, the site falls within a Flood Risk Zone 1, thus indicating that flooding from rivers or streams is very unlikely.

10.2 Risk of Damage to Local Ordinary Watercourses

10.2.1 The proposal includes the use of the already present irrigation lagoon on site, all surface water from the building will be drained into the lagoon via guttering. The lagoon has a discharge outlet of 110mm in diameter with 1m of freeboard, this ensures adequate capacity of the lagoon and the water discharging the lagoon is at a rate of no more than 5l/s.

10.2.2 The proposal includes the development of 931.2m² of permeable hardstanding's within the site. The design of this hardstanding will be of an impermeable clay sub-base, followed by 300mm of course crushed hardcore with a top dressing of crush MOT 2. This permeable hardstanding will be drained via a single 110mm land drain which discharges to the local water course.

10.3 Design Considerations

10.3.1 The design of the proposed development will ensure that all surface water is controlled and distributed to the local drainage network at a rate that is not increased from the greenfield run off rate.

10.4 Flooding from Sea

10.4.1 The site is located 8.5 miles from the Irish Sea, so this is not a material consideration.

10.5 Flooding from Land

Whilst the site is located within the West Lancashire Plains, an area of mainly reclaimed land from Martin Mere and is within close proximity to the Nature Reserve Martin Mere, the site is approximately 11m AOD with the surrounding area below that figure. The sites natural topography ensures all water drains away from the site and the applicant has never experienced any serious flooding issues within the site in excess of 50 years.

10.6 Flooding from Groundwater

10.6.1 No ground water issues have been identified.

10.7 Flooding from Sewers

10.7.1 No sewers have been identified within the vicinity of the site.

10.8 Flooding from Reservoirs, canals or other sources

10.8.1 No other water sources within the immediate area, which are relevant for this FRA.

11. Conclusion

- 11.1 The site sits within Flood Zone 1, therefore a Flood Risk Assessment is not necessary for this planning application.
- 11.2 The proposed development will ensure that surface water is controlled within the site and discharged at a rate at or below the greenfield run off rate of 5l/s.
- 11.3 Using existing surface water drainage on site as approved through application 2020/0255/PNP. The development proposed will not have any detrimental effect on the local watercourses, with no increase to flood risk and increasing the water quality leaving the site.