

FLOOD RISK ASSESSMENT

LOCATION:

Whalley Road, Pendleton, Clitheroe

CLIENT:

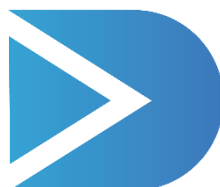
R Howarth

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May 2026



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ENGINEERING

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Revision	Description	Date	Author	Checked
A	First Issue	May 2026	A Dyson	R Thacker

1.0 INTRODUCTION

This Flood Risk Assessment (FRA) has been prepared in support of a Reserved Matters planning application for a proposed farm worker's dwelling at Lower Standen Hey Farm, Whalley Road, Clitheroe BB7 1PP. The FRA has been prepared in response to comments from Ribble Valley Borough Council following publication of the updated National Flood Risk Assessment mapping (NaFRA2), which identified limited areas of potential surface water flood risk affecting isolated sections of the existing access track serving the site.

The purpose of this assessment is to demonstrate that the proposed development will be safe for its lifetime, taking account of climate change, without increasing flood risk elsewhere, in accordance with the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG).

The assessment has been prepared on a proportionate basis appropriate to the scale and nature of the proposed residential development and the identified level of flood risk.

Site Name	Lower Standen Hey Farm
Location	WHALLEY TROAD, CLITHEROE, BB7 1PP
Development Type	Proposed Farm Workers Dwelling
NPPF Vulnerability	More Vulnerable
EA Flood Zone	Flood Zone 1
EA Office	Lancashire
Local Planning Authority	Ribble Valley Council

Table 1.1 - Site Summary

1.1 SOURCES OF DATA

The report is based on the following information:

- i. Site Location Plan (Appendix A)
- ii. Proposed Site Layout (Appendix B)
- iii. Environment Agency Flood Map for Planning (Rivers and Sea)
- iv. Environment Agency Risk of Flooding from Surface Water Mapping
- v. Environment Agency Reservoir Flood Risk Mapping
- vi. Published Strategic Flood Risk Assessment (SFRA) for the Local Planning Authority area
- vii. Ordnance Survey mapping
- viii. Professional judgement informed by similar developments in comparable flood risk settings

No site-specific hydraulic modelling has been undertaken as the site lies within Flood Zone 1 and no fluvial or tidal floodplain encroaches the site.

1.2 EXISTING SITE

The site is located to the west of Whalley Road, Clitheroe, and forms part of the existing Lower Standen Hey Farm holding. The proposed dwelling is situated adjacent to existing farm buildings and will be accessed via an established private access track extending from Whalley Road.

The application site itself lies within Flood Zone 1 and is not affected by fluvial flooding from rivers or the sea. The surrounding land is predominantly agricultural in character with existing farm infrastructure nearby.

Topography across the immediate development area generally falls gently toward the access track and surrounding fields. Review of available Environment Agency surface water mapping indicates that limited shallow overland flow paths occur at isolated low points along sections of the access road during extreme rainfall events. The proposed dwelling footprint itself is not located within a mapped surface water flood risk area.

The site currently comprises undeveloped land associated with the farmstead and drains naturally via existing ground infiltration and local drainage routes.

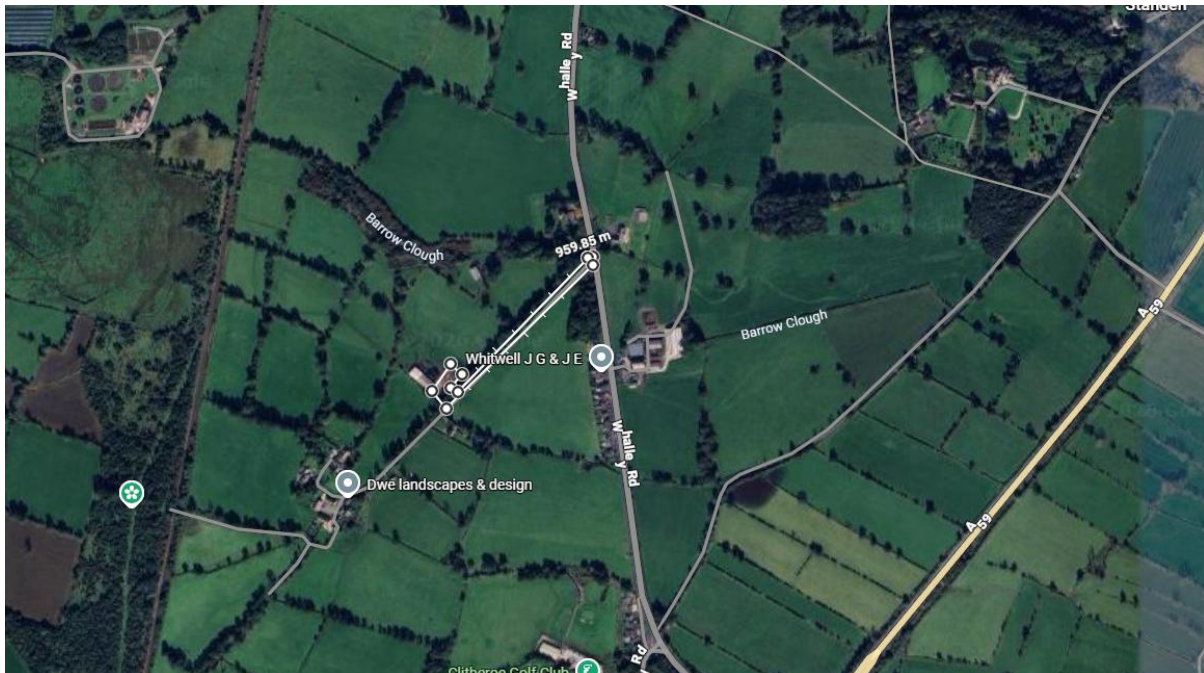


Figure 1.1 - Site Location

1.3 PROPOSED DEVELOPMENT

The proposed development comprises the erection of a single dwelling and detached garage associated with the existing agricultural holding together with associated access, parking, landscaping, and external works.

The proposed dwelling is positioned adjacent to the existing farm buildings and outside areas identified as being susceptible to surface water flooding. The development does not include basement accommodation and will not obstruct any significant overland surface water flow routes.

The scale of development is modest and will not materially alter runoff characteristics or increase flood risk elsewhere.

1.4 FLOOD RISK PLANNING POLICY

National Planning Policy Framework

The NPPF requires development to be directed away from areas at highest risk of flooding through application of the Sequential Test and, where necessary, the Exception Test.

The PPG classifies flood risk vulnerability and confirms that development within Flood Zone 1 is appropriate for all land uses, subject to consideration of other sources of flooding and surface water management.

This FRA confirms that the Sequential Test is satisfied as the site lies entirely within Flood Zone 1, and that no Exception Test is required.

Flood Zones

The Flood Zone Map for Planning has been prepared by the Environment Agency. This identifies areas potentially at risk of flooding from fluvial or tidal sources. An extract from the mapping is included as Figure 1.2.

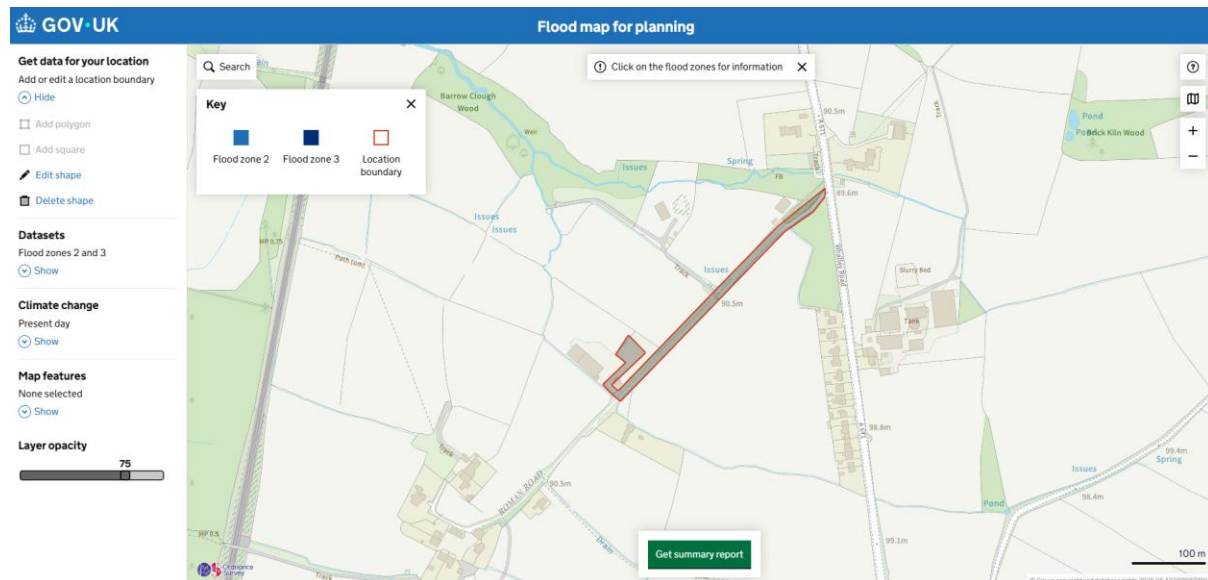


Figure 1.2 - Environment Agency Flood Zone Mapping

The site is shown to be located entirely within Flood Zone 1 (Low Probability) therefore the site is considered to be low risk of flooding. Flood Zone 1 is defined as land assessed as having less than a 0.1% annual probability of flooding from fluvial and tidal sources.

Table 2 of the Planning Practice Guidance classifies land use. Under these classifications the proposed farm workers dwelling unit is considered to be 'More Vulnerable' to the potential impacts of flooding.

Table 3 of the Planning Practice Guidance identifies that any development is considered appropriate within Flood Zone 1.

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable
Flood Zone 1	✓	✓	✓	✓
Flood Zone 2	✓	✓	Exception test required	✓
Flood Zone 3a	Exception test required	✓	x	Exception test required
Flood Zone 3b	Exception test required	✓	x	x

1.5 OTHER RELEVANT POLICY AND GUIDANCE

Strategic Flood Risk Assessment

The Lancashire Strategic Flood Risk Assessment (SFRA) was prepared to review flood risks on a much wider scale to assess the potential for new development within the study area. The SFRA was used as an evidence base for Local Development Frameworks for each Local Planning Authority.

The SFRA therefore aims to bring together all available flood risk information for a variety of sources to provide a robust assessment. The SFRA therefore is useful for this site-specific FRA by highlighting available data and instances of known flooding in the area. Although written under the guidance of Planning Policy Statement 25, the SFRA is still considered to include relevant information.

Regard has also been had to the Local Planning Authority’s Strategic Flood Risk Assessment (SFRA), which provides locally specific evidence relating to surface water, groundwater, and historic flooding.

Where relevant, this FRA also aligns with the National Standards for Sustainable Drainage Systems (June 2025), particularly in respect of ensuring that surface water is managed as close to source as reasonably practicable and that exceedance is safely routed.

2.0 POTENTIAL SOURCES OF FLOOD RISK

Each potential source of flooding has been assessed independently in accordance with PPG guidance. Both the risk to the site and the potential for the development to affect flood risk elsewhere have been considered.

2.1 FLUVIAL FLOOD RISK

The Environment Agency Flood Map for Planning confirms that the site lies wholly within Flood Zone 1, defined as land having less than a 0.1% annual probability of flooding from rivers or the sea.

There are no ordinary watercourses or main rivers within close proximity that pose a flood risk to the proposed dwelling. The site is not affected by the 1 in 100 year or 1 in 100 year plus climate change fluvial flood extents.

Accordingly, fluvial flood risk to the proposed development is considered low.

2.2 GROUNDWATER FLOOD RISK

The Environment Agency mapping indicates that the site is not located within an area identified as being at significant risk of groundwater flooding.

No evidence of historic groundwater flooding affecting the site or surrounding farmstead has been identified, and the site's elevated rural setting suggests groundwater emergence at the surface is unlikely.

While no site-specific groundwater monitoring data has been undertaken, the local geological conditions and existing long-term agricultural use of the land do not indicate any notable groundwater constraints.

Groundwater flood risk is therefore considered to be low and does not constrain the proposed development.

2.3 FLOOD RISK FROM RESERVOIRS & LARGE WATERBODIES

Reservoir failure flood risk mapping has been prepared by the Environment Agency, this shows the largest area that might be flooded if a reservoir were to fail and release the water it holds. The map displays a worst-case scenario and is only intended as a guide. An extract from the mapping is included as Figure 2.1.

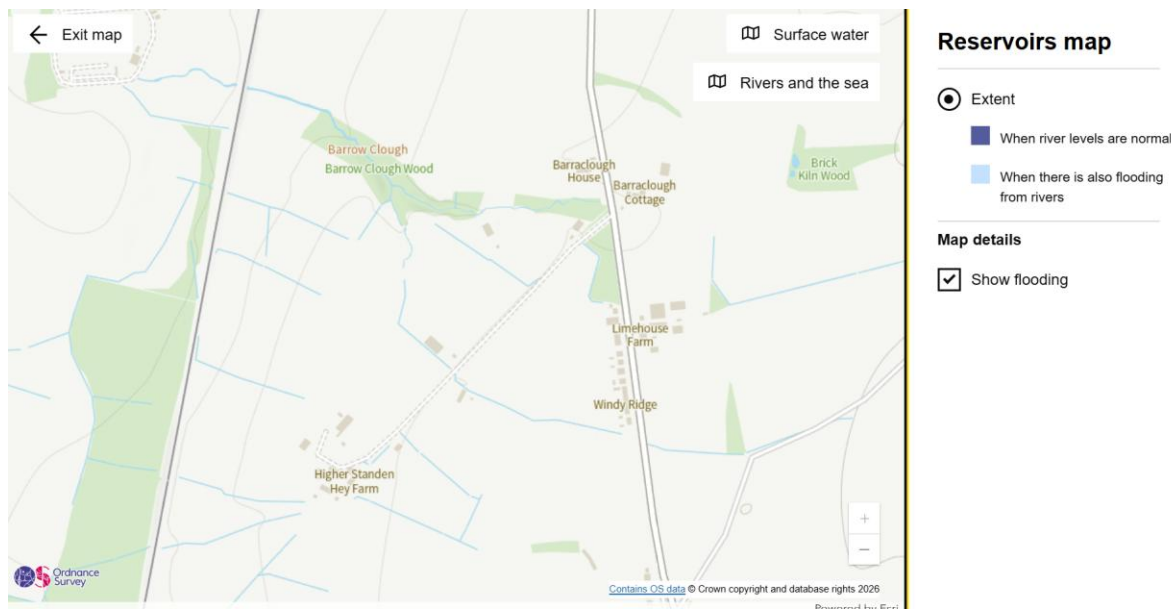


Figure 2.1 - Environment Agency Reservoir Failure Flood Risk Map

Reservoir failure flood risk mapping published by the Environment Agency identifies the maximum extent of flooding that could occur in the unlikely event of reservoir failure. The mapping represents a residual worst-case scenario and is intended for emergency planning purposes only.

Review of the Environment Agency reservoir flood mapping indicates that the site is not located within any mapped reservoir inundation extent. The proposed dwelling and associated access arrangements are therefore not considered vulnerable to flooding associated with reservoir failure.

There are no large waterbodies within the immediate vicinity of the site that would pose a material flood risk to the proposed development.

Given the highly residual nature of reservoir flooding and the site’s location outside identified inundation areas, no specific mitigation measures are considered necessary. As such, flood risk from reservoirs and large waterbodies is considered negligible.

2.4 FLOOD RISK FROM SEWERS

Flooding from sewers can occur during periods of intense rainfall when drainage infrastructure exceeds its design capacity.

The site is located within a rural agricultural setting and is not identified within any known sewer flooding hotspot. The proposed dwelling is positioned adjacent to the existing farmstead and local topography indicates that the site is unlikely to be adversely affected by surcharge from surrounding drainage infrastructure.

No records of historic sewer flooding affecting the site are known.

Accordingly, the risk of flooding from sewers is considered to be low.

2.5 PLUVIAL FLOOD RISK

Risk of flooding from surface water mapping has been prepared by the Environment Agency, this shows the potential flooding which could occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead. An extract from the mapping is included as Figure 2.2, 2.3 and 2.4.

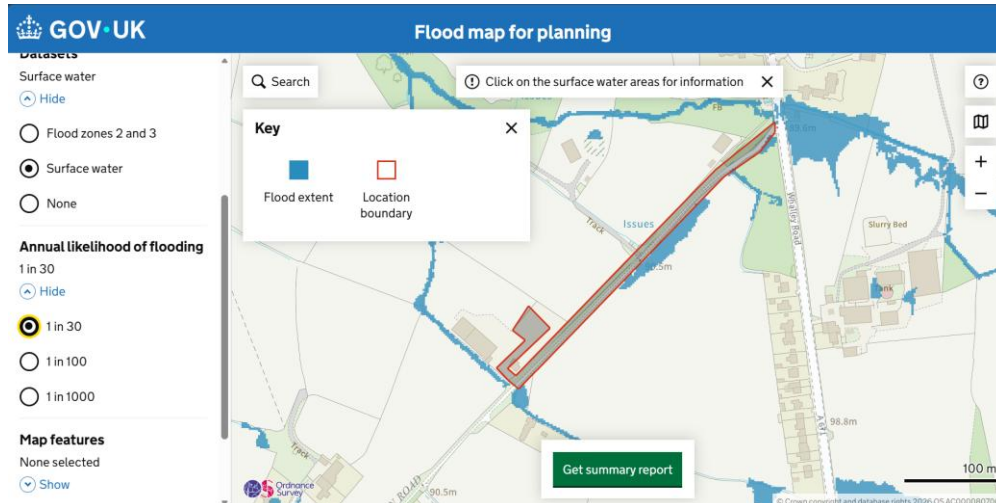


Figure 2.2 - Risk of Flooding from Surface Water Mapping (1in30 low risk)

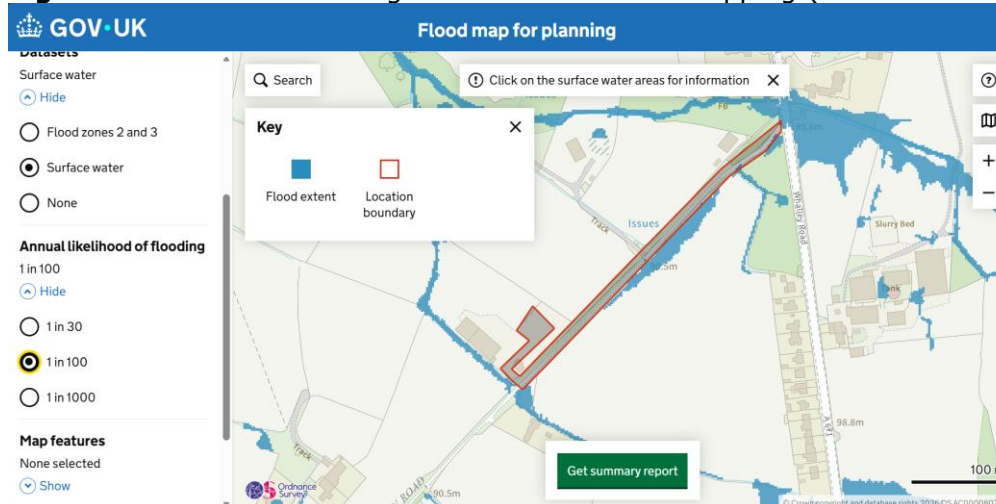


Figure 2.2 - Risk of Flooding from Surface Water Mapping (1in100 medium risk)

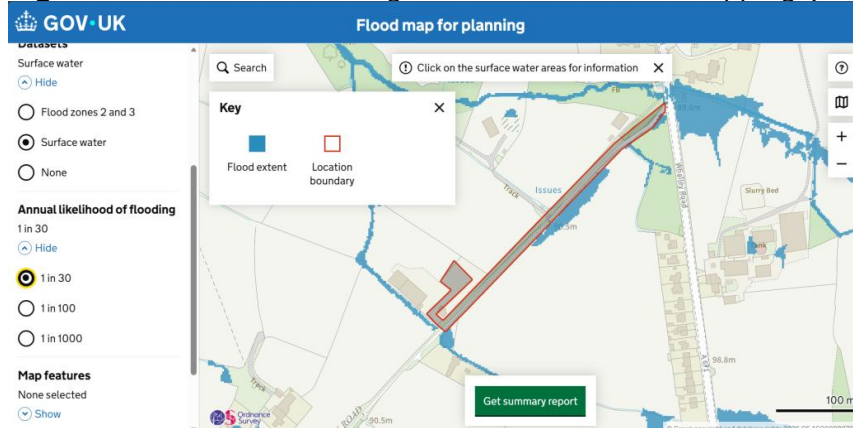


Figure 2.2 - Risk of Flooding from Surface Water Mapping (1in1000 high risk)

Environment Agency Risk of Flooding from Surface Water mapping indicates limited areas of surface water flood risk affecting isolated low points along sections of the existing access track leading from Whalley Road to the development site.

The mapping suggests that during extreme rainfall events shallow temporary ponding may occur locally along the track. The identified areas are limited in extent and do not affect the footprint of the proposed dwelling or garage.

The proposed dwelling itself is located outside the mapped areas of surface water flood risk and is positioned on slightly higher ground adjacent to the existing farm buildings. Given the shallow nature of the mapped surface water flooding and the limited extent of affected areas, safe access and egress can still be achieved during extreme rainfall events. Any floodwater would be expected to remain shallow, low velocity, and short duration in nature.

Surface water flood risk is therefore considered low and manageable for the proposed development.

2.6 EFFECT OF DEVELOPMENT ON WIDER CATCHMENT

2.6.1 Development Drainage

The proposed development is relatively small in scale and will not materially increase runoff rates or flood risk elsewhere.

Surface water generated by the development will discharge via natural infiltration and existing drainage arrangements. The proposals do not involve significant land raising or diversion of existing overland flow routes.

The development is therefore not expected to adversely affect the wider catchment.

2.7 CLIMATE CHANGE CONSIDERATIONS

In accordance with the National Planning Policy Framework and Planning Practice Guidance, the potential impacts of climate change on flood risk have been considered over the lifetime of the development.

Climate change is expected to increase the frequency and intensity of extreme rainfall events, which primarily affects surface water flood risk. The proposed development has been assessed with regard to these potential changes.

The site lies wholly within Flood Zone 1 and is not affected by fluvial flood extents, including the 1 in 100 year plus climate change event. Surface water flood risk mapping already represents extreme rainfall scenarios and therefore provides an appropriate basis for assessing climate change impacts.

Finished floor levels, site layout, and surface water flow routing ensure that the development will remain safe for its lifetime, without increasing flood risk elsewhere as a result of climate change.

3.0 FLOOD RISK MITIGATION

Although the site is at low risk of flooding, proportionate mitigation measures have been considered to address residual risks and to ensure compliance with national and local policy.

Section 2.0 has identified the sources of flooding which could potentially pose a risk to the site and the proposed development. This section of the FRA sets out the mitigation measures which are to be considered within the proposed development detail design to address and reduce the risk of flooding to within acceptable levels.

3.1 SITE ARRANGEMENTS

3.1.1 Sequential Arrangement

The proposed dwelling has been positioned within the area of lowest identified flood risk adjacent to the existing farm buildings and outside the mapped surface water flow areas identified along the access track.

This sequential approach ensures that the most vulnerable elements of the development are located within the safest part of the site.

3.1.2 Finished Levels

Finished floor levels for the proposed dwelling will be set no lower than surrounding ground levels and will provide appropriate freeboard above adjacent external areas.

This approach will ensure resilience against any localised surface water accumulation during extreme rainfall events.

3.2 SAFE ACCESS & EGRESS

The site is accessed from Whalley Road via an existing private farm access track.

Environment Agency surface water mapping identifies isolated areas of shallow ponding along limited sections of the access route during extreme rainfall events. The mapped flooding is indicative of low velocity surface water accumulation associated with topographic low points rather than deep or hazardous flooding conditions.

The proposed dwelling itself remains accessible during such events and the nature of the mapped flooding would not prevent pedestrian or emergency access for the short duration of extreme rainfall events.

Given the limited scale, shallow depth, and temporary nature of the identified surface water flooding, the access arrangements are considered acceptable for the proposed development.

3.3 FLOOD WARNING & EMERGENCY PLANNING

The site is not located within an area benefitting from Environment Agency Flood Warning or Flood Alert services, as it lies outside fluvial flood risk areas.

Given the low probability of flooding and absence of deep or fast-flowing floodwater, a site-specific Flood Emergency Plan is not considered necessary.

Nevertheless, building users will benefit from standard operational procedures, including awareness of severe weather forecasts and appropriate response during extreme rainfall events.

The residual flood risk at the site is low and can be managed through responsible site operation without reliance on formal flood warning systems.

3.4 RESIDUAL RISK & EXCEEDANCE ROUTING

Residual flood risk relates to flooding that may occur during events exceeding the design standard of drainage infrastructure.

In such exceedance scenarios, surface water would be routed along existing overland flow paths and across external areas of the site, away from buildings and access points.

Finished floor levels remain above predicted exceedance depths, ensuring no internal flooding occurs. This approach accords with good practice and the National Standards for Sustainable Drainage Systems.

4.0 CONCLUSIONS AND RECOMMENDATIONS

This Flood Risk Assessment has been prepared in accordance with the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance.

The assessment confirms that the proposed farm worker's dwelling at Lower Standen Hey Farm, Whalley Road, Clitheroe is located within Flood Zone 1 and is therefore at low risk of flooding from rivers and the sea.

Updated Environment Agency NaFRA2 mapping identifies limited areas of potential surface water flooding affecting isolated sections of the existing access track during extreme rainfall events. The proposed dwelling itself is located outside these areas and remains at low risk from flooding.

The scale and nature of the identified surface water flooding is limited, shallow, and temporary and does not present an unacceptable risk to the development or its occupants.

The development will not increase flood risk elsewhere and appropriate finished floor levels and site layout measures will ensure the development remains safe for its lifetime, including with consideration of climate change.

On this basis, there are no flood risk grounds to resist the proposed development.

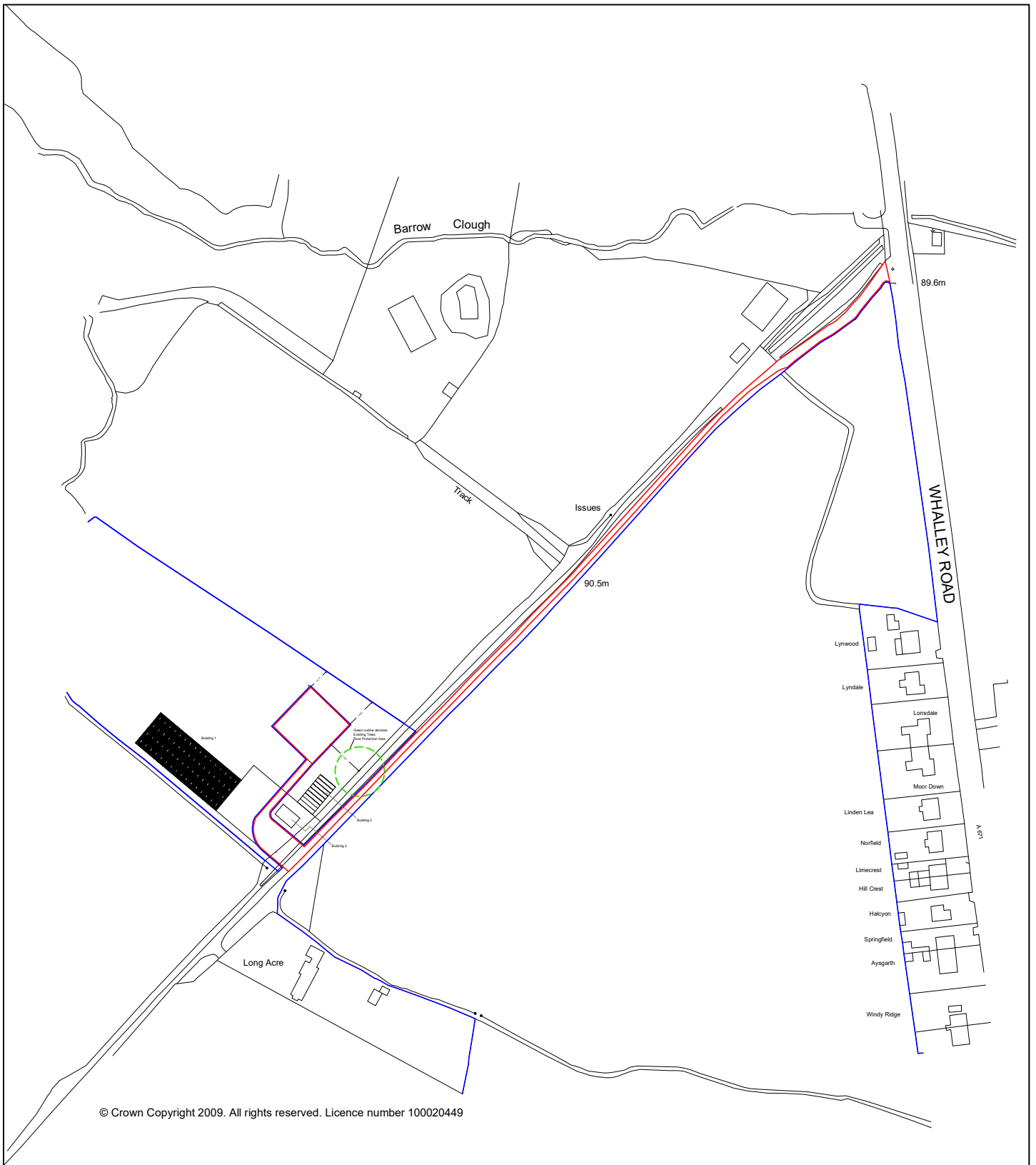
5.0 APPENDICES

Appendix A – Site Location Plan

Appendix B – Proposed Site Layout

Appendix A

Site Location Plan



Gary Hoerty Associates Chartered Surveyors
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Project: (No: How.391.3711.GH)

Drawing No: How/391/3711/04

Reserved Matters Application
 for a farm worker's dwelling on land at:
 Lower Standen Hey Farm
 Whalley Road
 Clitheroe, BB7 1PP

Title: Location Plan

Notes:

All work is to be carried out to the latest current British standard Codes of Practice and recognised working practices. All work and materials should comply with Health and Safety legislation. All dimensions are in millimetres except where explicitly shown otherwise. The contractor should check and certify all dimensions as work proceeds and notify the architect of any discrepancies. Do not scale off the drawings, if in doubt ask.

Client: Mr B. Howarth

**Drawn: KA
 Edited: LI**

Date: 26.03.26

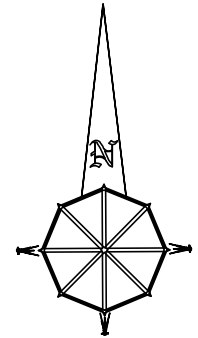
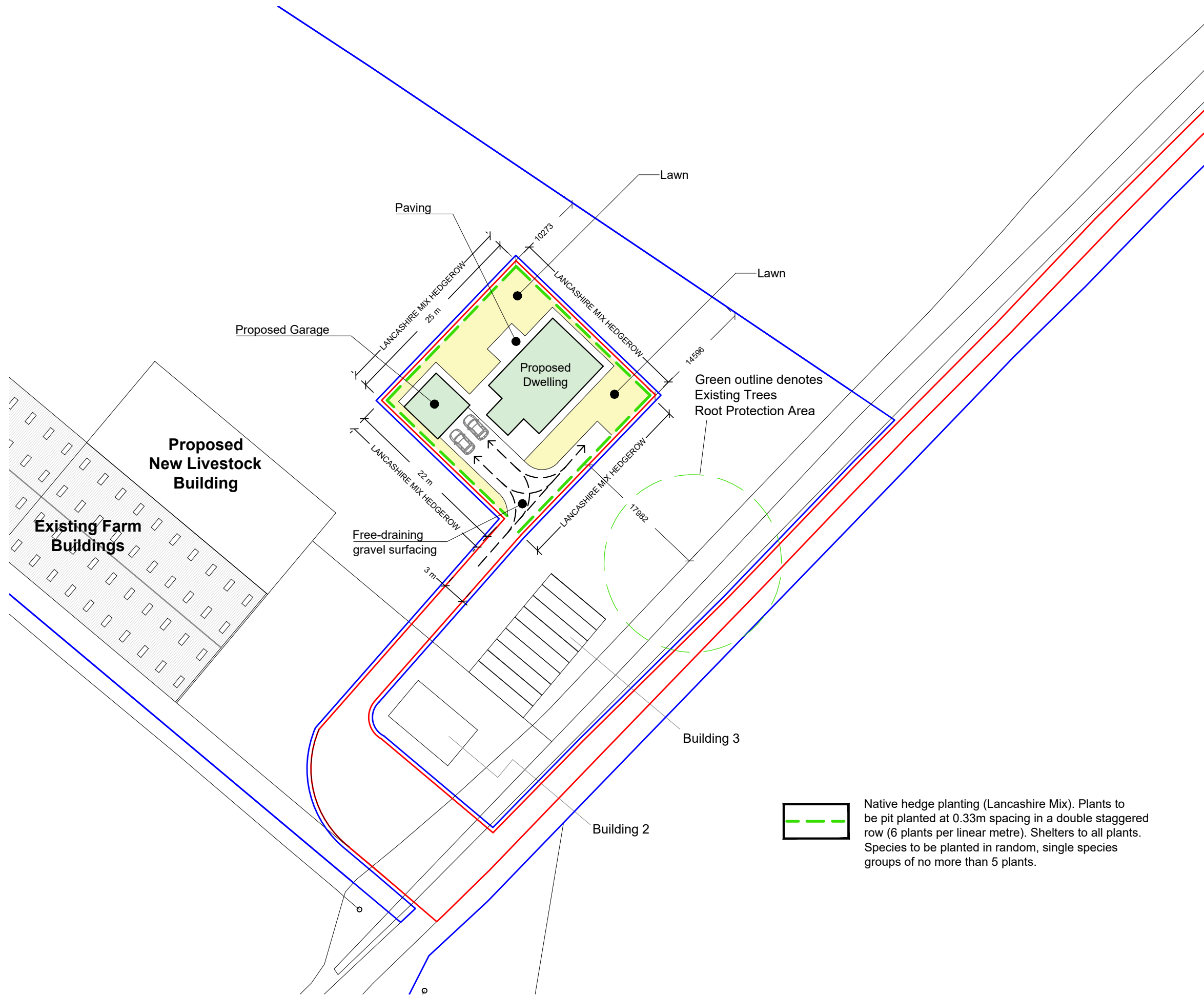
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Amendments:

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Appendix B

Proposed Site Layout



Green outline denotes Existing Trees Root Protection Area

Native hedge planting (Lancashire Mix). Plants to be pit planted at 0.33m spacing in a double staggered row (6 plants per linear metre). Shelters to all plants. Species to be planted in random, single species groups of no more than 5 plants.



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Project no: How.391.3711.GH	
Project description: Reserved Matters Application for a farm worker's dwelling on land at: Lower Standen Hey Farm Whalley Road Clitheroe, BB7 1PP	
Title: Proposed Site Plan	
Drawing No: How/391/3711/03	Drawn: MP
Client: Mr B. Howarth	
Date: 26.03.2026	Scale: 1:500 @ A3
Amendments:	