



Notes

- All dimensions are in millimetres unless stated otherwise.
- Levels are in metres related to Ordnance Datum.
- The locations and depths of all existing sewers and manholes to be used for new connections are to be accurately determined by the Applicant prior to the commencement of all drainage works on the site and the information conveyed to CFA Civils.
- All private drainage works are to be built in accordance with the recommendations of Building Regulations: Approved Document H 2015.
- Unless stated otherwise, all private drains are to be 100 nominal diameter drainage pipes at minimum gradient of 1:80 for foul or combined and 1:100 for surface water, bedded and backfilled to manufacturers' specification.

DRAINAGE STRATEGY

In accordance with the National Planning Policy Framework and Building Regulations, the site should be drained on a separate system with foul water draining to the public sewer where practical and surface water draining in the most sustainable way.

Surface Water

The National Standards for Sustainable Drainage Systems [SuDS] Standard 1 outlines the hierarchy to be investigated when considering a surface water drainage runoff destinations, in the following order of priority:

- Collected for non-potable use;
- Infiltrated to ground;
- Discharged to an above ground surface water body;
- Discharged to a surface water sewer, or another piped surface water drainage system;
- Discharged to a combined sewer.

Soil mapping from "Soilscapes" web-site by Cranfield Soil & Agrifood Institute, indicates the soil type in the area of the site as "Freely draining floodplain soils" draining to "local groundwater feeding into river". Whilst a recent Phase 2 Intrusive ground investigation revealed the soils around the development comprise made ground overlying medium brown clay with occasional gravel, the existing agricultural buildings on the site are drained locally into a piped system which leads onto the lower-lying agricultural land [in the ownership of the applicant] to the south-east of the site which drains freely by a combination of infiltration and field drains into an open watercourse 150m east of the site which in turn flows into the River Ribble approximately 550m south-south-east of the site.

Therefore, it is proposed to mimic the existing surface water destination in compliance with the hierarchical approach and re-use the existing surface water pipework and drainage channels for the proposed dwelling.

Flood Risk & Climate Change

The site lies in the Ribble Management Catchment of the North-west River Basin. The red-edge land is located entirely in Flood Zone 1 and is not considered to be at risk of flooding from Fluvial, Pluvial or Tidal sources either at present or the future when taking account of climate change.

As a residential development with an expected lifetime of 100years the Upper End Climate Change allowances for the 2070's epoch of 40% and 50% for the 3.3% AEP and 1% AEP storm events respectively should be considered when assessing surface water runoff from the site.

Design Principles

The existing buildings on the site have a total roof area of 1193m². The planning permission requires the large agricultural shed adjoining the southern side of the barn to be totally removed and the land returned partly to pasture and partly to form a new lawned garden area associated with the barn conversion.

The new development will have a greatly reduced roof area of 294m², a small area of car parking partly over the existing concrete slab, 132m² of new lawn and the remaining area (approximately 735m²) will be returned to pasture land.

As a result, the existing surface water runoff from the site will be reduced even taking the above climate change allowances into account and these have been calculated using Micro Drainage Simulation software as follows:

	Existing	Proposed	Difference
1yr	12.3 l/sec	4.7 l/sec	-62%
30yr	27.4 l/sec	16.3 l/sec [Inc 40% CC]	-41%
100yr	32.1 l/sec	21.8 l/sec [Inc 50% CC]	-32%

Therefore, it is proposed to allow free discharge into the existing drains serving the site without any formal attenuation.

Foul Water

Domestic foul water from the barn conversion will be drained to a suitable sized wastewater treatment plant located within the new pasture area based on a design population for a 4-bed dwelling of 6 persons [Flows and Loads 4].

Treated effluent from the plant will be connected into the existing site drainage and discharged with the surface water as described previously.

As the discharge volume is calculated as 0.9 cu m per day (< 5 cu m) this complies with the General Binding Rules 2023 and consent from the Environment Agency will not be required.

rev	description	date	by
B	Minor amendment to notes	Dec 2025	TMC
A	Drainage Strategy notes added	Nov 2025	TMC
Project			
Mr Andy Wilkinson Parsonage Farm Barn, Ribchester, PR3 3YE			
Drawing Title			
Foul and Surface Water Drainage Layout and Strategy			
Date	Scale	Drawn by	Checked by
November 2025	1:100	TMC	-
Job No.	Drawing No.	Revision	
CFC 25055	001	A1	B

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