

Formal Technical Objection to Calibro Flood Risk Assessment (FRA) - 23.04.25 & Surface Water Drainage Strategy

I submit this formal technical objection to application PL/2026/05064. The submitted Calibro FRA and drainage strategy rely entirely on broad desktop assumptions that ignore the highly sensitive physical, ecological, and structural realities of this riverbank site. Wiltshire Council and the Lead Local Flood Authority (LLFA) must issue a **Holding Objection** based on the following critical failures:

1. The Core Contradiction: Risk to the Cob Foundations (Rebuttal to Section 5.2.1)

The applicant's own Planning Statement explicitly admits that the historic cob walls are in poor repair, require structural stabilisation, and will need underpinning. It states that they must install specialised "Limecrete" flooring just to manage moisture "at the foot of the building."

Despite the architect acknowledging that these earth walls are highly sensitive to water, Calibro's drainage report (Section 5.2.1) claims that when their rainwater planters overflow, the water will simply *"gradually flow onto surrounding landscaped areas where it would percolate to the ground."* Saturating the ground on an easterly slope right next to cob walls that already require underpinning and structural stabilisation introduces an immediate, unacceptable risk of wall-softening and collapse.

2. Invalidation of Exceedance Strategy & Compounded Ground Saturation

While foul drainage is handled under a separate objection, Calibro's surface water infiltration models are technically invalid because they completely ignore the application's stated intent to install an on-site Package Treatment Plant (PTP).

The surrounding ground cannot be expected to safely "percolate" sudden stormwater exceedance when that exact same soil will be under a continuous, daily hydraulic load from treated effluent discharge.

Furthermore, Upper Woodford sits on a highly active chalk aquifer prone to severe groundwater flooding. Believing that unmonitored excess runoff will simply "percolate away" on a river-facing slope under these combined conditions is an unacceptable engineering failure.

3. Total Lack of Physical Percolation Testing (Rebuttal to Section 6.1.8)

The applicant has failed to conduct any physical on-site trial holes or percolation testing to establish actual filtration rates (Vp values) under **BRE Digest 365** or **BS 6297**.

A speculative desktop layout next to a fragile historic structure is entirely unsafe. If the winter water table rises—as it regularly does in the Avon valley—it will blind the drainage features, cause surface pooling, and trap moisture at the base of the building, completely undermining the architect's plans to let the cob walls "breathe."

4. Ecological Risk to the River Avon SAC / SSSI

Section 6.1.2 notes the site slopes directly toward the western bank of the **River Avon**, which is an internationally protected **Special Area of Conservation (SAC)** and a **Site of Special Scientific Interest (SSSI)**.

By allowing exceedance water to spill unmanaged across unverified landscaped areas on a river-facing slope, the design creates a direct surface pathway for silt, domestic detergents, and pollutants to wash straight into a globally rare chalk stream ecosystem. Wiltshire Council has a strict statutory duty to prevent adverse impacts on the River Avon SAC.

Conclusion & Action Required

Wiltshire Council cannot legally or technically accept a speculative desktop model that risks the structural collapse of a historic cob building and threatens a protected SAC chalk river.

I request that the **LLFA and Planning Officers issue a Holding Objection** until the applicant provides:

1. Physical, on-site **BRE Digest 365 soakaway testing** to prove infiltration viability.

2. Seasonal **groundwater level monitoring** to establish the true peak winter water table.
3. A fully modelled **Exceedance Flow Pathway plan** proving that overflow water will route entirely away from the vulnerable cob walls of The Old Forge and will not discharge untreated runoff into the River Avon SAC.