Wiltshire Council Planning Consultation Response

August 2023

Wiltshire Council Drainage Engineer
Technical Services Drainage Engineer
Wiltshire Council

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Application No: **PL/2023/06370**
Approval of details reserved by a condition
Discharge of conditions 4, 5 ,6 and 12 of planning application PL/2021/05546 (Refurbishment of Existing Buildings and Erection of 3 Dwellings)
The Maltings, 11 Farm Lane, Great Bedwyn, Marlborough, Marlborough

Please note the particulars in connection with the above planning application are available to view on the planning website http://www.wiltshire.gov.uk/planninganddevelopment.htm

Documents Reviewed:

- Covering Letter UNABLE TO REDACT SIGNATURE
- Drainage Design
- PD External Works
- Revised Schedule of Details for Approval
- Revised Schedule of Materials

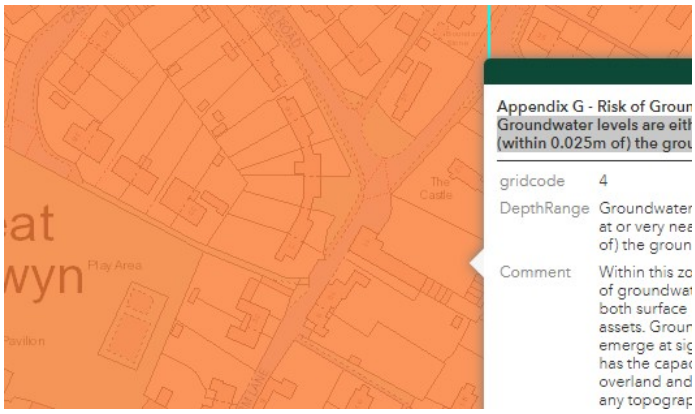
Condition 6 of PL/2021/05546 states:

No development shall commence on site until a scheme for the discharge of surface water from the site (including surface water from the access/driveway), incorporating sustainable drainage details, has been submitted to and approved in writing by the Local Planning Authority. The three new dwellings shall not be first occupied until surface water drainage has been constructed in accordance with the approved scheme.

REASON: The matter is required to be agreed with the Local Planning Authority before development commences in order that the development is undertaken in an acceptable manner, to ensure that the development can be adequately drained.

Review of ground conditions

The Wiltshire Council Strategic Flood Risk Assessment, SFRA Data Explorer, has indicated that the site is located has a high risk of ground water flooding (Image 1). Furthermore, BGS Mapping / Cranfield University Soilscapes mapping, shows that the site is underlain by the Newhaven Chalk Formation.



Recommendations

We have reviewed all documents associated with this site (PL/2021/05546, PL/2023/00110 and PL/2023/00071) and the following information is required before Condition 6 can be discharged.

1. The applicant is required to demonstrate that the surface water can be safely managed within the proposed development, up to and including a 1 in 100 year plus climate change event. Climate change rates for this catchment is 40%

2. The applicant is required to demonstrate that soakaways have been sited the appropriate distance from any building, road or structure foundations in line with CIRIA C574and Wiltshire Guidance.

   REASON: Settlement of foundations caused by water consolidation of loose sand infill to Chalk solution features can occur where soakaways are constructed due to the volume of water being concentrated in a relatively small area. However, clearance from buildings / public highways / structures is governed by the density and structure of the chalk.

3. The surface water drainage strategy must comply with Wiltshire Council's Surface Water Soakaway Guidance, which sets out the standards that must be met for planning approval and adoption. Soakage tests must be undertaken in accordance with BRE 365 to demonstrate that infiltration is feasible.

4. The applicant is to provide calculations that demonstrate that the soakaway has been designed for:

   - 1 in 100yr + cc flows
   - Half drain time <24hrs
   - Appropriate factor of safety in line with CIRIA C753 (Table 25.2) guidance has been included below.

TABLE 25.2 Suggested factors of safety, F, for use in hydraulic design of infiltration systems (designed using Bettess (1996). Note: not relevant for BRE method)

Size of area to be drained	Consequences of failure		
	No damage or inconvenience	Minor damage to external areas or inconvenience (eg surface water on car parking)	Damage to buildings or structures, or major inconvenience (eg flooding of roads)
< 100 m²	1.5	2	10
100–1000 m²	1.5	3	10
> 1000 m²	1.5	5	10

5. The applicant must demonstrate that the highest groundwater level (taking into account seasonal variations) has been determined and this is at least 1m below the proposed bottom of the soakaway.

REASON: To ensure that the soakaway can operate as designed and does not fill with groundwater.

6. No building can commence om site until the applicant has demonstrated that the finished floor levels above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the SW drainage cover levels. We recommend 150mm but this can be lower if it can be proved that the property will be safe from overland flows during extreme events.

   REASON: To ensure that there is no risk to persons or properties during extreme events.

7. No development shall commence on site until clear arrangements are in place for ownership and ongoing maintenance of SuDS over the lifetime of the development.

   REASON: To ensure that the SW drainage performs as designed and to avoid flooding due to lack of maintenance.

8. No development shall commence on site until a construction management plan, which shall include monitoring of, and measures to retain, the existing vegetation across the site, together with details of drainage arrangements during the construction phase, has been submitted to and approved in writing by the Local Planning Authority in consultation with the Lead Local Flood Authority.

   REASON: There's a statutory duty to ensure that surface water quality and quantity is managed throughout construction and as not to increase flood risk, or pollution of watercourses

INFROMATIVES

- Within the calculations, the MADD factor must be set to zero and the margin for “flood risk” warning in hydraulic models been set to >= 300mm.

- If a value other than 0m3/ha is selected for the MADD value, the applicant will need to provide quantitative evidence to demonstrate that this is appropriate.

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James Playfair (Atkins), working on behalf of Wiltshire Council Drainage.