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Sent: 27 October 2021 16:37
To: Planning Enquiries <planning_enquiries@herefordshire.gov.uk>
Cc: jennifer.allen2@balfourbeatty.com; Joel.Hockenhull@balfourbeatty.com
Subject: 213555 - Court Farm

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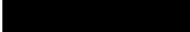
Good afternoon,

Thank you for the re-consultation. We have received the submission of the Flood Risk Assessment as requested in our previous consultation response. We also requested the submission of a surface water drainage strategy to clarify the existing surface water system which the proposed development is said to use and to state how the system will accommodate for the potential effects of climate change. These requests can be found in the previous consultation response attached to this email.

We will provide a further consultation response upon the submission of the relevant document.

Kind Regards,
Lauren

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SITE: Court Farm, Rectory Road, Hampton Bishop, Hereford, Herefordshire HR1 4JU
TYPE: Planning Permission
DESCRIPTION: Planning application for operational development following 210409/PA6 - Class R. This involves the removal of covered yards from the two, internal courtyards, as indicated previously on the drawings accompanying the 'prior approval' application and the insertion of doors and windows, predominantly within existing openings.
APPLICATION NO: 213555
GRID REFERENCE: OS 355357 238569
APPLICANT: Mr Layton
AGENT: Mr Ed Thomas

Our knowledge of the development proposals has been obtained from the following sources:

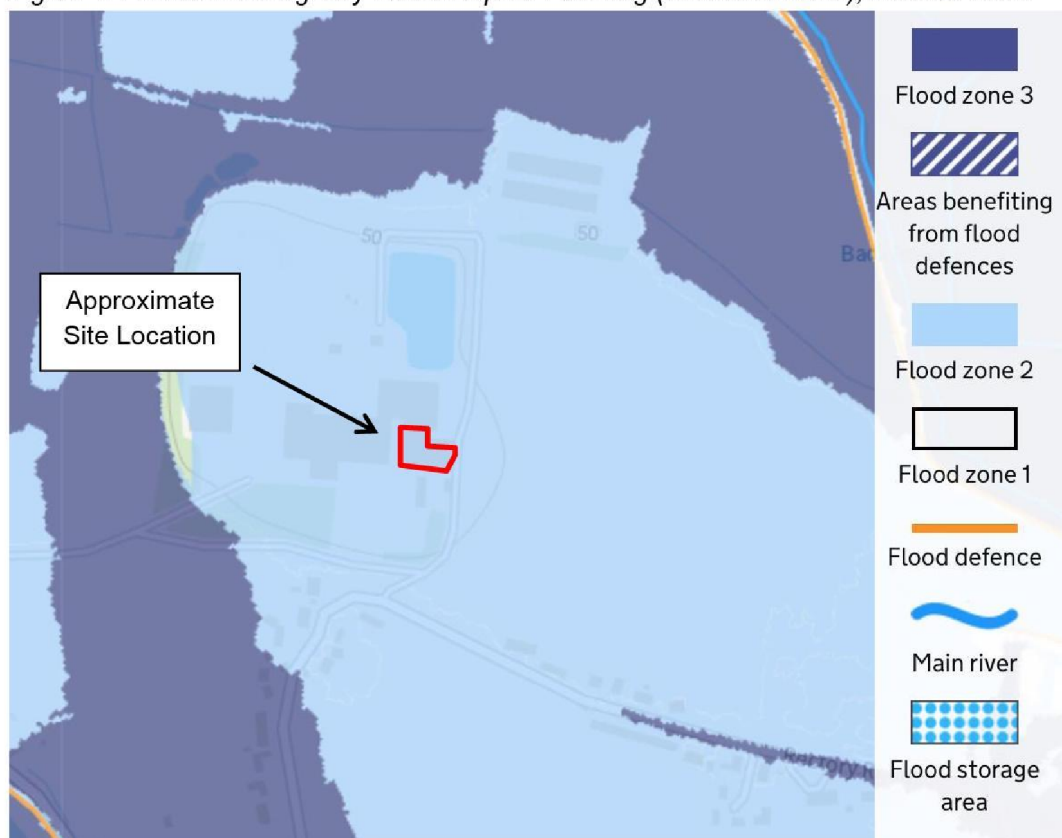
- Application for Planning Permission;
- Location Plan (Ref: 121-14A);
- Proposed Site Plan (Ref: 121-06B);
- Surface and Foul Water Drainage Strategy.

Overview of the Proposal

The Applicant proposes the removal of covered yards from the two, internal courtyards, as indicated previously on the drawings accompanying the 'prior approval' application and the insertion of doors and windows, predominantly within existing openings. The site covers an area of approx. 0.048ha and is currently brownfield. The site is located between two main rivers, the River Wye and River Lugg, to the south-west and north-east of the site, respectively, in addition to Back Brook ordinary watercourse located nearby, to the east of the site. The topography of the site is relatively flat however it appears to be elevated from the surrounding land.

Site Location

Figure 1: Environment Agency Flood Map for Planning (Rivers and Sea), October 2021



Flood Risk

Fluvial Flood Risk

Review of the Environment Agency's Flood Map for Planning (Figure 1) indicates that the site is located within the medium probability Flood Zone 2.

In accordance with NPPF new development should be steered away from areas at flood risk through the application of the Sequential Test. The NPPF states that development should not be permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding. The development may be subject to the Sequential Test where it is located in Flood Zone 2 or 3, or deemed to be in an area at particular risk of flooding from other sources. The Council should apply the Sequential Test and may require information to be submitted by the Applicant to support the test. If the development is considered appropriate at this location, NPPF also requires that a sequential approach is applied to guide new development to areas of lower flood risk, where possible.

If, following application of the Sequential Test, it is not possible for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied. For the Exception Test to be passed, a site-specific FRA must be prepared that demonstrates:

- It is not possible for the development to be located on land with a lower probability of flooding;
- The development provides wider sustainability benefits to the community that outweigh flood risk, and;
- The development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

In accordance with Environment Agency standing advice, the planning application should be supported by a Flood Risk Assessment (FRA) undertaken in accordance with National Planning Policy Framework (NPPF) and its supporting Planning Practice Guidance. This is summarised in Table 1:

Table 1: Scenarios requiring a FRA

	Within Flood Zone 3	Within Flood Zone 2	Within Flood Zone 1
Site area less than 1ha	FRA required	FRA required	FRA not required*
Site area greater than 1ha	FRA required	FRA required	FRA required

**except for changes of use to a more vulnerable class, or where they could be affected by other sources of flooding*

The FRA should clarify the extent and depth of fluvial flood risk within the site boundary and consider the potential effects of climate change.

Anecdotal evidence suggests that the Site could also be at risk of flooding from the River Lugg as when its banks burst in February 2020, flood waters came within close proximity to the site. We are also aware that areas within the vicinity of Rectory Road have been subject to surface water flooding.

The FRA should also identify how flood risk to the proposed development has been minimised, how the development has been made safe, and how the impacts of the development on people and property elsewhere have been avoided. The Applicant should also give consideration to any minor watercourses that could pose flood risk to the development as well as anecdotal evidence.

The Applicant should refer to Environment Agency Standing Advice for the requirements of their development in the identified flood zone (<https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>)

The potential effects of climate change should be considered when assessing the Flood Zones and flood risk at the site. The assessment of climate change effects must consider an appropriate range of

allowances for the development lifetime and its vulnerability. Refer to <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> for guidance.

Modelled flood data should be used where available and this may be held by the EA. Modelled data is always preferred however in accordance with EA advice alternative approaches may be acceptable for minor developments to determine the 100 year (with climate change) flood level at the site, as follows:

1. Interpolation of existing model results for a range of events to determine the 100 year level (with climate change);
2. Add the appropriate nominal allowance shown in Table 2 to the modelled 100 year level (present day); and
3. Establish the present day 100 year level at the site using topographic levels or an assessment of the watercourse and flow characteristics and add the appropriate nominal allowance shown in Table 2:

Table 2. Nominal allowances for increase in flood level

Allowance category	Total potential change in peak flow		
	2020s (2015 - 2039)	2050s (2040 - 2069)	2080s (2070 - 2115)
Upper End	25%	40%	70%
Higher Central	15%	25%	35%

The Planning Practice Guidance to NPPF identifies five classifications of flood risk vulnerability and provides recommendations on the compatibility of each vulnerability classification within each of the Flood Zones, as shown in Table 3:

Table 3: Flood risk vulnerability and flood zone compatibility

EA Flood Zone	Essential Infrastructure	Water Compatible	Highly Vulnerable	More vulnerable	Less vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception test required	✓	✓
Zone 3a	Exception test required	✓	✗	Exception test required	✓
Zone 3b	Exception test required	✓	✗	✗	✗
✓ Development considered acceptable ✗ Development considered unacceptable					

The Planning Practice Guidance to NPPF states that commercial/officer development is to be considered as 'less vulnerable' development. With reference to Table 3, 'more vulnerable' development would be considered appropriate in Flood Zones 1 and 2. However, for 'more vulnerable' development in Flood Zone 3a the Exception Test would need to be passed. No development would be considered acceptable in the functional floodplain Flood Zone 3b.

Although 'more vulnerable' development may be considered appropriate in Flood Zone 3a, the NPPF still requires that a sequential approach is applied to guide the new development to areas of lower flood risk, where possible.

Finished floor levels may need to be raised to protect the proposed development against flood risk. Typically, this would be 0.3m above adjacent ground levels and / or 0.6m above the 1 in 100 year + Climate Change flood level and allowing for the potential effects of climate change (as advised in the NPPF), whichever is greater. Consideration should also be given to the predicted depths during the 1

in 1000 year event or residual risk scenarios. If the finished floor levels are unacceptable, this should dictate the required finished floor levels or type of use within this depth. Wherever possible, internal flooding of properties should be avoided. Refer to Table 6 of climate change guidance for typical requirements on minimum freeboard and when the above can be relaxed. This would also apply to developments that are in Flood Zone 1 but close to the extent of a flood risk area including an ordinary watercourse.

If the proposed buildings are indicated to be at risk during the 1 in 100 annual probability event including the effects of climate change and considering blockage risks, additional flood resilience measures will also be required, including a flood warning and evacuation plan and demonstration of safe access and egress – particularly following overtopping or breach of the flood defences. This should be discussed and agreed with the Herefordshire Emergency Planners. This will be particularly important for any ground floor sleeping accommodation. We also recommend that flood resilience measures are built into the design of the new building, with guidance obtained from the report 'Improving the Flood Performance of New Buildings: Flood Resilient Construction, Communities and Local Government, May 2007'.

The Applicant should demonstrate the provision of safe access and egress. Where possible, vehicular and pedestrian access routes should remain dry for the 100 year event, and taking the effects of climate change into account. The effect of larger flood events on access and egress should be considered. It may be necessary to consult Herefordshire Emergency Planners where safe access cannot be achieved or where the development may place an additional burden on the emergency services.

This guidance is in accordance with requirements of the NPPF and Policy SD3 of the Core Strategy. Guidance on the required scope of the FRA is available on the GOV-UK website at <https://www.gov.uk/planning-applications-assessing-flood-risk>.

Surface Water Flood Risk

Review of the EA's Risk of Flooding from Surface Water map indicates that the site is not at risk of surface water flooding. The site is neighboured by small areas of low to high surface water flood risk associated with highways.

Other Considerations and Sources of Flood Risk

The FRA prepared to support the planning application should include an assessment of risk associated with all sources of flooding, in accordance with the NPPF. This should include considerations of surface water, groundwater, sewers, reservoirs and any other manmade sources. The management of the additional surface water runoff generated by the proposed development should also be considered.

Review of the EA's Groundwater map indicates that the site is not located within a designated Source Protection Zone or Principal Aquifer.

Surface Water Drainage

We note that the proposals for the conversion development, will continue to use the existing surface water drainage system and that there will be reduction in roof area. The Applicant has provided no further information on what the existing surface water drainage for the site is.

The Applicant should provide a surface water drainage strategy showing how surface water from the proposed development will be managed. The strategy must demonstrate that there is no increased risk of flooding to the site or downstream of the site as a result of development between the 1 in 1 year

event and up to the 1 in 100 year event and **allowing for the potential effects of climate change**. Note that in February 2016 the EA updated their advice on the potential effects of climate change and that a range of allowances should be considered to understand the implications: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>.

All new drainage systems for new and redeveloped sites must, as far as practicable, meet the Non-Statutory Technical Standards for Sustainable Drainage Systems and will require approval from the Lead Local Flood Authority (Herefordshire Council).

In accordance with the NPPF, Non-Statutory Technical Standards for Sustainable Drainage Systems and Policy SD3 of the Core Strategy, the drainage strategy should incorporate the use of Sustainable Drainage (SUDS) where possible. The approach promotes the use of infiltration features in the first instance. If drainage cannot be achieved solely through infiltration due to site conditions or contamination risks, the preferred options are (in order of preference): (i) a controlled discharge to a local watercourse, or (ii) a controlled discharge into the public sewer network (depending on availability and capacity). The rate and volume of discharge should strive to provide betterment and be restricted to the pre-development Greenfield values as far as practicable. For brownfield developments, a betterment of at least 20% is considered appropriate. Reference should be made to The SUDS Manual (CIRIA C753, 2015) for guidance on calculating runoff rates and volumes.

The Cranfield University Soils Map identifies the soils within the proposed development area to be freely draining thus the use of infiltration techniques may be a viable option for managing surface water. On-site testing undertaken in accordance with BRE365 should be undertaken to determine whether the use of infiltration techniques are a viable option. Where site conditions and groundwater levels permit, the use of combined attenuation and infiltration features are promoted to provide treatment and reduce runoff during smaller rainfall events.

It should be noted that soakaways should be located a minimum of 5m from building foundations, that the base of soakaways and unlined storage/conveyance features should be a minimum of 1m above groundwater levels and must have a half drain time of no greater than 24 hours.

For any proposed outfall to an adjacent watercourse, the Applicant must consider the risk of water backing up and/or not being able to discharge during periods of high river levels in the receiving watercourses. Discharge of surface water to an ordinary watercourse may require Ordinary Watercourse Consent from Herefordshire Council prior to construction.

The drainage system should be designed to ensure no flooding from the drainage system (which can include on-the-ground conveyance features) in all events up to the 1 in 30 year event. The Applicant must consider the management of surface water during extreme events that overwhelm the surface water drainage system (including temporary surcharging of gullies) and/or occur as a result of blockage. Surface water should either be managed within the site boundary or directed to an area of low vulnerability. Guidance for managing extreme events can be found within CIRIA C635: Designing for exceedance in urban drainage: Good practice.

The Applicant must confirm the proposed adoption and maintenance arrangements for the surface water drainage system. The Drainage Layout plan should reflect the ownership of the respective drainage components.

Foul Water Drainage

We note the proposals to install a new drainage field for the conversion development. Percolation testing undertaken at the site confirms that a drainage field is viable provided it is laid no deeper than 750mm below ground, as an acceptable average Vp rate of 33.6 was established.

The proposed drainage field is to be laid within 200m of an existing drainage field for Court Farmhouse. This does not adhere to the River Lugg Catchment Area Position Statement, we note that Ecology have yet to provide comment on the application.

The drainage field has been adequately sized at 88m² to accommodate an equivalent domestic population of 13persons (38 office staff). We assume that a gravity fed discharge is achievable to the drainage field.

Overall Comment

We recommend that the following information is provided prior to the Council granting planning permission:

- Submission of a Flood Risk Assessment;
- Submission of a surface water drainage strategy.