

SITE: T J Crump Oakwrights Ltd, The Lakes, Swainshill, Herefordshire, HR4 7PU
TYPE: Outline Permission
DESCRIPTION: Site for redevelopment to include 8 dwellings (use Class C3), a design studio (use Class B1), outdoor living area with display outbuilding, cycle storage building along with associated infrastructure and landscaping.
APPLICATION NO: P150173/O
GRID REFERENCE: OS 346008, 241934
DATE OF THIS RESPONSE: 26/02/15

This response is in regard to flood risk and land drainage aspects, with information obtained from the following sources:

- Environment Agency (EA) indicative flood maps;
- EA groundwater maps;
- Ordnance Survey mapping;
- Cranfield University Soilscape mapping available online;
- Strategic Flood Risk Assessment for Herefordshire;
- Herefordshire Unitary Development Plan - March 2007.

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

- Application for Outline Planning Permission;
- Flood Risk Assessment, dated November 2014;
- Site Topography, drawing no. DB-LD01-ST-01;
- Location Plan, drawing no. DB-LD01-PI-01;
- Site Plan, drawing no. CJM-001-PL-01;
- Proposed Section, drawing no. DB-LD01-ST-02;
- Letter from Welsh Water, dated 02 February 2015.

Site Location

Figure 1: Environment Agency Flood Map for Planning (Rivers and Sea), February 2015



Overview of the Proposal

The Applicant proposes the construction 8 dwellings, a design studio, an outdoor living area with display outbuilding, a cycle storage building and associated infrastructure and landscaping.

The site is a brownfield site which is currently used for commercial purposes. The site area is stated to measure 1.21 hectares (ha) and is located within the catchment of the Yazor Brook.

Fluvial Flood Risk

Figure 1 indicates that the site is located in the low risk Flood Zone 1, where the annual probability of flooding from fluvial sources is less than 0.1% (1 in 1000). As the site is greater than 1 ha, a Flood Risk Assessment (FRA) is required in accordance with National Planning Policy Framework (NPPF) as part of the planning application. A FRA has been provided by the Applicant, which confirms the low fluvial flood risk at the site.

Other Considerations and Sources of Flood Risk

As required by NPPF, the FRA also gives consideration to flood risk from other sources. The potential flood risk from surface water, groundwater, impounded bodies of water and sewers have been assessed and considered to be of low risk.

Surface Water Drainage

The submitted FRA provides an outline surface water drainage strategy explaining how surface water from the proposed development will be managed. This strategy, while comprehensive, does not adequately demonstrate that there will be no increased risk of flooding to the site or downstream of the site as a result of the 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.

Under Schedule 3 of the Flood Water Management Act 2010 (due to be enacted in 2015) all new drainage systems for new and redeveloped sites must meet the new National Standards for Sustainable Drainage (currently in draft) and will require approval from the Lead Local Flood Authority (Herefordshire Council). If approval is gained, the site drainage may be eligible for adoption by Herefordshire Council. Further guidance will be available from Herefordshire Council later in 2015.

In accordance with the draft National Standards for Sustainable Drainage and Policy DR4 of the Unitary Development Plan, 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. Reference should be made to Defra/EA document 'Preliminary Rainfall Runoff Management for Developments' (Revision E, January 2012) for guidance on calculating Greenfield runoff rates and volumes.

The submitted drainage strategy for the proposed development is in accordance with the draft National Standards for Sustainable Drainage and Policy DR4 of the Unitary Development Plan as it is proposed to discharge all surface water runoff from the proposed site to ground via soakaways. Preliminary infiltration testing has been carried out at the site which indicates that the site is suitable for infiltration techniques. Our review of the Cranfield University Soils mapping also indicates that soils in the vicinity of the site are 'freely draining' and confirms that the site is likely to be suitable for infiltration techniques. We recommend that further infiltration testing in accordance with BRE 365 is carried out at the location of the proposed soakaways and submitted to the Council for approval prior to construction. Groundwater levels should also be provided as Standing Advice recommends the invert levels of soakaways are a minimum of 1m above the groundwater level. The Applicant

must also demonstrate that the infiltration of surface water will have no adverse effects to water quality associated with the mobilisation of contaminants within the brownfield site.

The Applicant must consider the management of surface water during extreme events that overwhelm the surface water drainage system 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.

Consideration should also be given to the control of potential pollution of ground or surface waters from vehicles and other potentially contaminating sources. Evidence of adequate separation and/or treatment of polluted water should be provided to ensure no risk of pollution is introduced to groundwater or watercourses both locally and downstream of the site, especially from proposed parking and vehicular areas. SUDS treatment of surface water is considered preferential but 'Pollution Prevention Guidance: Use and design of oil separators in surface water drainage systems: PPG 3' provides guidance on the necessity and application of oil separators should one be required.

The Applicant must provide confirmation of the proposals for adoption and maintenance of the surface water drainage system as part of any reserved matters application.

Foul Water Drainage

We note that the Applicant intends to discharge the foul water from the development to the public sewer at the boundary of the site. We recommend that the Applicant contacts the relevant sewerage authority in regards to foul water discharge from the site to check whether it is feasible to connect to the public sewers.

If there are no sewers within the vicinity of the site, the Applicant should consult with the EA regarding the use of a package treatment plant or other on-site method of wastewater treatment and disposal.

Overall Comment

Overall, for outline planning permission, we do not object to the proposed development on flood risk and drainage grounds. However, we recommend that the submission and approval of detailed proposals for the disposal of foul water and surface water runoff from the development is included within any reserved matters associated with the permission. The detailed drainage proposals should include:

- Provision of a detailed drainage drawing, including supporting calculations, showing the proposed surface and foul drainage networks including the location and size of all soakaways;
- Soil infiltration rates (soil infiltration tests should be undertaken in accordance with BRE365 guidance), groundwater levels and consideration of contaminant mobilisation;
- Evidence that the Applicant is providing sufficient on-site attenuation storage to ensure no flood risk to development and no increased flood risk to third parties up to and including the 1 in 100 year rainfall event, with a 30% increase in rainfall intensity to allow for the effects of future climate change;
- Demonstration that appropriate pollution control measures are in place prior to discharge;
- Evidence that the Applicant has sought and agreed permissions to discharge foul water from the site with the relevant authorities;
- Confirmation of the proposals for adoption and maintenance of the surface and foul water drainage strategies.