| Consultation Response from KC Lead Local Flood Authority | | |
|---|---|---|
| 2019/90373 Land to north of, Scar Lane, Milnsbridge, Huddersfield | | |
| Outline application for the erection of 4 no. industrial units for B1c (light industry) use with associated parking and turning facilities (Within A Conservation Area) | | |
| Date Responded: 23 July 2019 | Responding Officer: Aleksandra Tomczyk | Responding Ref: 1 |


**Summary**

**Following submission of further information, Kirklees LLFA uphold our OBJECTION as the additional information on surface water management is insufficient to demonstrate the development proposals are suitable.**


**Kirklees LLFA refers to the previous response provided on this planning application – dated 27 March 2019, responding reference 0. We offer the following comments on the additional information received.**

**Additional Comments**

This application is for erection of 4 industrial units with matters reserved, permission is being sought for access, appearance, layout and scale. It is important given the range of permissions being sought that drainage is adequately considered as those matters for which permission is sought have a strong influence over the feasible drainage design.

Flood Risk Assessment

A Flood Risk Assessment has been submitted – Technical Note: 001 prepared by EWE Associates Limited, dated 25 June 2019, reference number 2019/2437. Kirklees LLFA has the following comments on this document:

- The FRA considered the flood risk from rivers and seas, surface water, reservoir failure, groundwater and sewers.
    - Kirklees LLFA accept flood risk from watercourses, reservoirs, groundwater and sewers has been demonstrated not to pose a risk to the development.
    - However, insufficient detail is provided to demonstrate surface water flood risk does not pose a risk to the development.
- The section *Overland Flow & Ponding* (page 3) of the FRA it states a filter drain will be used to intercept overland flow, however, there is no assessment or design provided to determine whether the sizing is suitable to demonstrate that flood risk will not remain from this source. Further work is also required to demonstrate the development will not increase flood risk elsewhere.
- The discharge point of the filter strip is also questionable, in the section *Overland Flow & Ponding* (page 3) it is stated that the filter drain along the western boundary will "collect flows from the west and convey them onto the access road". Discharging water from a filter drain onto a carriageway is not acceptable as this could pose risks to users of the development as well as having adverse impacts on highways assets. The applicant should consider alternatives to this that safely manage discharge from this proposed system.
- It is stated in section *Existing Runoff from the Site* (page 4) that there are no open or culverted watercourses close to the site. However, in section *Discharge to combined water sewer* (page 4) it is proposed to discharge surface water into an open watercourse within the south west site boundary. According to Kirklees records there is no watercourse in this location. The Drainage Layout & Details drawing provided (by EWE Associates Ltd, dated 25 June 2019, number EWE/2437/01, rev 0) shows a connection to a combined sewer along Scar Lane, supporting our

understanding of the site. Kirklees LLFA require the applicant to confirm the surface water discharge point and confirm the presence or non-presence of the watercourse.

Drainage Design

Kirklees LLFA have reviewed the proposed design (*Drainage Layout and Details*, Ref. *EWE/2437/01*) and associated MicroDrainage Storm simulations within the FRA and provide the following comments;

- Kirklees LLFA accepts in principle the proposed discharge rate of 5.7 l/s for the surface water due to it being equal to the pre-development greenfield runoff rate. We highlight that Yorkshire Water may need to be consulted on this planning application if the applicant proposes to discharge surface water into a public sewer.
- MicroDrainage simulations use a HydroBrake Flow Control with a restriction of 5.7l/s. The plans do not reflect this, suggesting an orifice plate or permafilter flow control could be used. Whatever systems are used in MicroDrainage simulations **must** be reflected in the associated plans and also placed on site. Parts such as this cannot be substituted without consultation and approval by Kirklees LLFA.
- Kirklees LLFA request clarification over the blue boxing surrounding the connecting pipe between SW2-SW4 and SW13-SW16.
- Reviewing plans, it would appear the crate storage will be laid without a gradient on the system. This could increase sedimentation risk. Even a shallow grade will improve dry/low flows through the system.
- Kirklees LLFA seek confirmation on the storage required in the system as a 175$m^2$ crate system of 1.2m depth would only provide a storage volume of 210$m^3$. Furthermore, for most storage systems a 1m x 1m x 1m unit would at best achieve 98% void ratio meaning that the storage provided for the proposed area and depth proposed would be at most 205.8$m^3$.
- Page 12 of the FRA states that the storage has an invert level of 113.00 m (Assumed Metres Above Ordnance Datum [AOD]) and a cover level of 114.5 m (Assumed AOD). This differs from plans where Invert level is 113.3 mOD with cover level of 115.70 mOD, it is unclear whether the 114.5 mOD annotation is referring to top of tank (creating a 1.5m deep tank) or whether this refers to the top of fill over tank. Either way, the simulation results do not match the plans provided. The applicant and their drainage consultant should provide revised plans AND a copy of the MicroDrainage model for auditing.
- Although not required at this stage, the applicant and their drainage consultant will need to demonstrate that any crates used will not be vulnerable to sedimentation. Crate storage can have an increased risk of sedimentation compared to piped storage systems. Whatever solution is decided will require a management and maintenance plan. Such a plan could be subject to a suitably worded condition, should the objections above be addressed.

The applicant proposes for the attenuation exceedance flow routing to flow onto Scar Lane, as per the Drainage Layout & Details. Impacts of such routing should be considered as it may increase flood risk outside of the proposed development.