

**Consultation Response from KC,
Lead Local Flood Authority**
2019/94110 adj, 41, Ashbrow Road, Fartown, Huddersfield, HD2 1DX
Erection of 7 dwellings
**Date Responded: 15
January 2020**
**Responding Officer:
Aleksandra Tomczyk**
Responding Ref: 0
Summary

Kirklees Flood Management and Drainage, as the Lead Local Flood Authority (LLFA), OBJECT to this planning application and require FURTHER INFORMATION is provided on surface water management.

Kirklees LLFA also offer the below additional information and comments.

Kirklees LLFA records

The site slopes from approximately 116mAOD in the north, to approximately 112m in south west. There are no watercourses on or near the site. There is a network of combined sewers in the area, including along Ashbrow Road and Central Avenue (south).

The site is located within Flood Zone 1, according to the Environment Agency's *Flood map for planning*. It is also located within an area of very low surface water flood risk, according to the Environment Agency's *Long term flood risk map*. There are, however, areas of high surface water flood risk along Ashbrow Road.

The proposed development location is likely to be suitable for infiltration features.

Additional comments

The applicant is seeking permission for erection of 7 dwellings in the area of Fartown, Huddersfield.

Flood Risk Assessment and Flow Routing

As per the *Planning Practice Guidance*, this development does not require a site specific Flood Risk Assessment to be submitted as part of the planning application. However, the applicant needs to ensure that the design of the site takes into account any sources of flood risk, and consideration for any identified risks is accommodated in the design. This consideration should be documented and submitted to Kirklees LLFA for review.

Kirklees LLFA require an analysis of flow routing for the site to be provided, including any inflows from offsite and any flows originating on site, such as drainage exceedance or gully bypass. Short, intense storms may bypass road gullies, particularly on steep ground. The designed flow route should avoid property curtilages where reasonably practicable, utilising roads and open spaces.

Flow routing from attenuation, or the lowest manhole chamber, should also be considered, in case of an exceedance event. The applicant should use *Designing for Exceedance* guidance to inform this design and safe disposal of any exceedance volumes.

Surface Water Drainage Design

No information on surface water management has been submitted. The only information provided by the applicant includes floor plans, long sections, site layout plan and a topographic survey. While these can inform Flood Risk and Surface Water Drainage Strategies, further work and reports need to be developed and submitted to Kirklees LLFA for review.

Surface water discharge options should be assessed using the following hierarchy of discharge, as described in the *Planning Practice Guidance: Flood Risk and Coastal Change*, paragraph 080:

- Into the ground (infiltration) – as previously stated in this response, Kirklees records show that the site area is likely to be suitable for infiltration features, therefore infiltration testing should be carried out to investigate this further. Kirklees LLFA require the infiltration testing to be

performed to BRE Digest 365 standard, in a location representative of the proposed location of any soakaway/infiltration feature(s) will be built. The rate determined from infiltration testing should be used to dictate the sizing and siting of these features.

If infiltration is proven not to be feasible, we require details of the present and future discharges from the site to be provided.

- To a surface water body – as stated before in this response, there are no watercourses in the area.
- To a surface water sewer, highway drain, or another drainage system – Kirklees LLFA records show no suitable systems in the area.
- To a combined sewer – Kirklees records do show combined sewers in the area. If the applicant chooses to discharge surface water into a public sewer, Yorkshire Water should be consulted.

Discharge rate from all sites should be at pre-development greenfield equivalent run off rates. This rate must be calculated for only the impermeable/positively drained areas, not for the entire site.

For this application, the site appears to be greenfield, therefore we require the applicant to provide attenuation on site and discharge surface water from development at greenfield equivalent rates. To account for these restricted discharge rates, the site will be required to provide surface water attenuation features. These can take many forms, as described in the CIRIA *SuDS Manual*.

The applicant must store the 1 in 30-year storm event within the designated surface water systems (swales, basins, pipes etc.) without flooding the development area (roads and plots/business areas). Above this, volumes generated by storms up to and including 1 in 100 + 30% climate change critical storm must also be retained on site in a safe manner. This can include opportunities to store water in non-critical areas such as car parks or landscaped areas. This must not result in flooding to properties, evacuation routes or other critical areas that could pose risk to users of the development.

Kirklees LLFA require the applicant to provide surface water drainage information. This should include the proposed discharge point, discharge rate (including associated calculations), surface water drainage layout and MicroDrainage outputs to satisfy the modern standards of design:

- No surcharging above pipe soffit for critical 1 in 1 year storm event;
- No surface water flooding for critical 1 in 30 year storm event;
- No surface water flooding that may pose a risk to users of the proposed development or area off site for critical 1 in 100 year event + climate change;
- A pipe and manhole schedule for the MicroDrainage Design including schematic and contributing area details;
- Simulations provided from 15 minute to 24 hour storm duration; and
- Simulations provided for both summer and winter profiles.

Kirklees LLFA require the applicant to provide the following:

- Assessment of discharge hierarchy;
- Proposed discharge point and rate;
- Infiltration testing results;
- Proposed surface water drainage layout;
- Attenuation sizing calculations (if applicable);
- MicroDrainage results, as described above; and
- Adoption and maintenance plan.