

**Consultation Response from KC,
Lead Local Flood Authority**
2020/93669 former railway goods yard, adj, Fold Farm, Netherton Fold, Netherton, Huddersfield, HD4 7HB
Discharge conditions 5-9, 13-16 on previous permission 2019/92361 for erection of 19 dwellings
**Date Responded:
25/05/2021**
**Responding Officer:
Alex Fraser**
**Responding Ref:
03**
Kirklees LLFA Summary

Kirklees Flood Management and Drainage as the Lead Local Flood Authority (LLFA) **have no objection** to the discharge of the following conditions

Kirklees LLFA have received documents via email from the developer some of which are not currently on the planning portal, therefore for avoidance of doubt all documents reviewed as part of providing this planning response are listed below:

- Surface Water Drainage Operation and Maintenance Manual, Produced by Met Engineers, dated April 2021, Report reference (**P10-00650-O+M-00**), Revision 02
- Site Land Drainage Plan Sheet 1, Produced by Met Engineers, Dated 31/03/2021, Reference (**P19-00650-M2-C-017**), Version 3
- Construction Phase Surface Water Management, Produced by Met Engineers, dated 19/02/2021, Report reference (**P19-00650-M2-C-016**), Version 3
- Land Drainage Flood Routing Plan, Produced by Met Engineers, dated 19/02/2021, Reference (**P19-00650-M2-C-039**), Version 1
- Flood Risk & Drainage Impact Assessment, Produced by Met Engineers, dated January 2021, Report Reference (**P19-00650-02**), Revision 02.
- Drainage Calculations and Simulation Results for Fold Farm Netherton, produced by Mett Engineers, dated Feb 2021, Reference (P19-00650), Revision 04/AK

Conditions
Condition 7

Development shall not commence until a scheme detailing temporary surface water drainage for the construction phase (after soil and vegetation strip) has been submitted to and approved in writing by the Local Planning Authority. The scheme shall detail:

- phasing of the development and phasing of temporary drainage provision; and
- include methods of preventing silt, debris and contaminants entering existing drainage systems and watercourses and how flooding of adjacent land is prevented.

The temporary works shall be implemented in accordance with the approved scheme and phasing. No phase of the development shall be commenced until the temporary works approved for that phase have been completed. The approved temporary drainage scheme shall be retained until the approved permanent surface water drainage system is in place for that phase and functioning in accordance with written notification to the Local Planning Authority.

Reason: To ensure the provision of adequate and sustainable systems of drainage in the interests of amenity and environmental well-being and to accord with Policies LP27 and LP28 of the Kirklees Local Plan and guidance in the National Planning Policy Framework. This is a pre-commencement condition to ensure that such matters are addressed at an appropriate stage.

Kirklees LLFA Comment: This has now been provided, the temporary surface water management plan shows clean stone will be used to filter out construction silt and existing land drainage systems will be used to discharge surface water to the watercourse. The applicant must monitor the outfall and

downstream watercourse, the use of a filter membrane at the inlet or filter bags at the outfall may be required if there is a heavy sediment load. If these systems are also implemented, then the LPA must be informed, and a revised plan provided for review and approval by the LLFA.

Condition 8

Notwithstanding the submitted information, a detailed drainage design for surface water and land drainage shall be submitted to and approved in writing by the Local Planning Authority before development commences (excluding demolition and site clearance). The drainage design shall include details of off-site works, outfalls, calculations, a full pipe and manhole schedule for all systems, an assessment of gully spacing across the site as well as inlet and outlet details for the two proposed land drainage networks). None of the dwellings shall be occupied until such approved drainage scheme has been provided on the site to serve the development, or each agreed phasing of the development to which the dwellings relate. The drainage scheme so approved shall thereafter be retained.

Reason: To ensure the provision of adequate and sustainable systems of drainage in the interests of amenity and environmental well-being and to accord with Policies LP27 and LP28 of the Kirklees Local Plan and guidance in the National Planning Policy Framework. This is a pre-commencement condition to ensure that such matters are addressed at an appropriate stage of the development.

Kirklees LLFA Comment: A Drainage Summary and Operations and Maintenance plan have been provided to support plans and calculations for the surface water drainage system. Additional information has been provided for the land drainage system to manage groundwater emergencies near the marked 'well' at the site entrance and from the former rail line.

Condition 9

A detailed exceedance flow routing plan for the development shall be submitted to and approved in writing by the Local Planning Authority before development commences (excluding demolition and site clearance). The exceedance flow routing plan shall take into consideration the potential for the two land drainage systems to fail/become overwhelmed. The development shall be provided in accordance with the flow routing plan so approved and shall thereafter be retained as such.

Reason: To mitigate the risk to property of flooding and to accord with Policies LP27 and LP28 of the Kirklees Local Plan and guidance in the National Planning Policy Framework. This is a pre-commencement condition to ensure that such matters are addressed at an appropriate stage of the development.

Kirklees LLFA Comment: A flood routing plan has been provided for the site showing that water will be routed away from properties. Levels adjacent Plots 7 and 8 will need to be managed during the construction phase to ensure that water would shed away from the rear of these properties.

Kirklees LLFA Technical Comments

1. The drainage strategy report outlines the plans for managing surface water and land drainage across the site as well as exceedance flows. The plans also show where land drainage will be abandoned and broken apart. The following bullets comment on each component individually:
 - **Surface Water Drainage:** The surface water management proposal for the carriageway and development plots proposes to use traditional piped drainage throughout the site with a restricted discharge rate to the existing watercourse. To

balance flows to meet this restricted rate the developer proposed to utilise 900mm diameter twin pipes. The system is proposed to be adopted by Yorkshire water via Section 104 agreement. Reviewing the design and simulations provided the LLFA have no objections to the proposals.

- **Land Drainage (Site Entrance):** The developer has identified potential for groundwater emergence and legacy land drainage systems to the North of the site entrance, west of a well shown on OS Mapping. The proposals show an open swale to collect overland flows with new pipework following the approximate route of existing land drainage that discharges into a watercourse south of the site. It has been agreed that any land drainage found during site clearance works will be diverted into the swale. This system is to be privately maintained and a management company will be required for the lifetime of the development, the details of which are provided in the Operation and Maintenance Manual. An agreement for the management company needs to be secured for the lifetime of the development as part of the LPA discharging the planning condition (any changes to the management company must be reported to the LPA and LLFA). Kirklees LLFA therefore remove our objection to these proposals.
 - **Land Drainage (Greenway):** The developer has proposed to upgrade this trackway to form part of the wider Kirklees Greenway network. Given the drainage here will not form part of a high traffic network Kirklees LLFA would traditionally prefer to see an open swale. The footprint of a swale would be too great (Using Ciria design standards), and levels along the track would prevent an open channel therefore the applicant has proposed a combination of open channels and piped drainage infrastructure. The applicant has identified that this is a compromised solution, however, without wider design of the greenway system it is not possible to plan/determine exactly what changes to the drainage could be made that comply with design standards for such a route. Flows will then be discharged to the open watercourse south of the site utilising the existing connection point but with new pipework. This system is to be privately maintained and a management company will be required for the lifetime of the development, the details of which are provided in the Operation and Maintenance Manual. An agreement for the management company needs to be secured for the lifetime of the development as part of the LPA discharging the planning condition (any changes to the management company must be reported to the LPA and LLFA). Kirklees LLFA therefore remove our objection to these proposals.
2. Adoption and maintenance of drainage systems:
- **Surface Water Drainage:** The Drainage under the carriageway that serves the roads and private plots is all to be transferred to Yorkshire Water as part of a Section 104 agreement.
 - **Land Drainage (Site Entrance & Greenway):** The land drainage systems both require private management and maintenance agreements the details of which are to be confirmed as outlined in the Operations and Maintenance manual. During the construction phase maintenance will be undertaken by the construction contractor, however, will transfer to a management company once construction is complete. As agreed with the developer the responsible organisation must be updated by agreement with the LPA in consultation with Kirklees LLFA (as stipulated in the Operations and Maintenance Manual).
3. The applicant has provided a Temporary Surface Water Management Plan (Construction phase surface water management). The plan shows proposals to use a combination of swales to intercept and store surface water with clean stone as filter media. Kirklees LLFA have no objection to the proposals to manage surface water during the construction phase, the operation of these systems must be monitored throughout the construction phase, additional treatments such as filter bags could be implemented prior to discharge to the downstream watercourse as necessary.

4. Flood routing has been provided across the site Kirklees LLFA have no objection to the flood routing presented. The developer will need to manage the levels immediately to the rear of plots 7 and 8 to ensure that water would be shed away from the properties as described in plans. The road shows a camber that would channel water to the eastern side (away from plots 7 and 8) and that ground shaping from plots 9-15 would ensure the low point remains in the carriageway rather than onto those plots. This is all in accordance with Kirklees LLFA approach to managing overland flows. Any excess runoff would be diverted to avoid properties and follow existing flow routes to the watercourse.