

CD6.22b

Carr Road, Deepcar

Appeal Reference: APP/J4423/W/21/3267168

FLOOD RISK & DRAINAGE

SUMMARY PROOF OF EVIDENCE

Produced on behalf of

Hallam Land Management

May 2021

P19-535

19535-RLL-21-XX-RP-C-004

# 1 Summary Proof of Evidence

1. My name is Kriston Harvey, I have an honours bachelor's degree (B Eng (Hons)) in Civil Engineering from the University of Wales, Swansea and am employed as a Director with Rodgers Leask Limited based in Derby. I have day to day responsibility for the whole of the Civil Engineering side of the company, working nationally. I have over 20 years-experience in a consultancy role in dealing with Civil Engineering including Flood Risk, Surface Water Drainage (including SuDS) and Foul Water Drainage.
2. I am instructed on behalf of the appellant to provide evidence relating to Flood Risk and Drainage matters concerning the planning appeal.
3. I confirm that I have inspected the site and locality and am familiar with the appeal site and its surroundings.
4. An outline Planning application reference 17/04673/OUT was submitted on behalf of the appellant to the Local Planning Authority (LPA) Sheffield City Council (SCC) on 14<sup>th</sup> November 2017.
5. A site-specific Flood Risk Assessment (FRA) report produced by ARP Associates (reference: 1265/10r1) accompanied the planning application. The report covers flood risk both to and from the site, the surface water strategy for the site including SuDS provision and the foul water strategy for the site.
6. The planning application (reference 17/04673/OUT) was refused for reasons related to impacts on landscape and heritage. Matters relating to flood risk and/or drainage are not reasons for refusal.
7. No objections to the development proposals were raised by the Lead Local Flood Authority (SCC Flood and Water Management Service) or Yorkshire Water Services Ltd (incumbent Water Company).
8. I have reviewed the above FRA document alongside national and local policy and relevant technical guidance and have revisited published mapping data relating to flood risk.
9. I consider that the relevant flood mechanisms which could put the site at risk of flooding have been comprehensively considered, and where issues have been identified, appropriate mitigation measures have been proposed which can be readily achieved within the proposed development. This position is agreed by the Lead Local Flood Authority at paragraph 2.5 of the 'Flood Risk & Drainage SoCG'.
10. I have considered changes in guidance relating to climate change since the original planning application was submitted and have demonstrated that the surface water drainage strategy proposed for the development can

accommodate these changes for both the December 2019 Illustrative Masterplan and the April 2021 Revised Illustrative Masterplan.

11. It is my opinion therefore that the surface water drainage strategy for the site appropriately addresses water quantity such that the development would not lead to an increase of flood risk elsewhere, over the lifetime of the development and considering climate change. This position is agreed with the Lead Local Flood Authority and detailed at paragraph 2.31 of the 'Flood Risk & Drainage SoCG'.
12. Furthermore, the proposed drainage strategy promotes a sustainable approach to drainage and water quality which will ensure that the scheme adequately removes contaminants prior to discharge (as agreed with the Lead Local Flood Authority at paragraph 2.31 of the 'Flood Risk & Drainage SoCG') and has made provision for appropriate management over the lifetime of the development.
13. With regard to foul water discharge, I consider that appropriate consultation has been undertaken with Yorkshire Water to outline the development proposals and established that there is sufficient capacity within the public sewer network to accept domestic foul flows from the proposed dwellings.
14. I have also reviewed consultation responses to the planning application provided by the relevant statutory consultees, the case officer's committee report, the Statement of Case, the Statement of Common Ground and representations from third parties relating to flood risk and drainage.
15. I note that no statutory consultees objected to the proposals on grounds of flood risk or drainage (subject to appropriate planning conditions being imposed) and that the case officer, as set out in the committee report, agrees that the proposal fully accords with national and local policy in respect of flood risk and drainage. This position is agreed by the Lead Local Flood Authority, as per paragraph 2.10 of the 'Flood Risk & Drainage SoCG'
16. I have considered the representations submitted by third parties and set out below the main issues raised and summarise my response (further detail being provided in my proof of evidence).

#### Third Party Representations

#### **The site is regularly waterlogged and at risk of flooding**

17. Ground conditions are observed to be relatively impermeable and therefore rainwater would be likely to collect in localised undulations, giving the appearance of being waterlogged.
18. Post development, the site would have a positive drainage system which would take runoff away from the surface and therefore reduce the risk of water collecting on the ground.

**Clough Dike, Fox Glen and Manchester Road are already at risk of flooding and the development proposals would exacerbate this**

19. A flow control device would be provided at the outfall from the proposed surface water drainage network. This would ensure that the rate of runoff from the site post development does not exceed that which is currently generated by the greenfield site and as such would not lead to an increase in flood risk elsewhere. This position is agreed with the LLFA and detailed at paragraph 2.31 of the 'Flood Risk & Drainage SoCG'.

**The development would pose a pollution risk to Clough Dike and Fox Glen & The impact of the proposed drainage outfall into Clough Dike on the local wildlife in Fox Glen**

20. SuDS detentions basin are proposed within the surface water drainage network which would be designed to nationally recognised standards and would provide sufficient water quality treatment to mitigate the potential pollutants associated with a residential development. This is agreed with the LLFA as per paragraph 2.31 of the 'Flood Risk & Drainage SoCG'.

Furthermore, a Water Framework Directive Assessment has been provided by the applicant and endorsed by the Council, which concludes that the proposals are compliant with the WFD and the Fox Glen Survey report concluded that potential impacts to the Local Wildlife Site would be appropriately mitigated (Mr Goodman deals with ecological issues).

**The rate of surface water runoff post development into Clough Dike and the risk that it will destabilise land at Glen Works**

21. The outfall from the site is proposed to discharge via a rock cascade, the route and form of which has been discussed with the LLFA and agreed in principle.
22. This rock cascade outfall would help to still the flow to ensure that it does not cause destabilisation downstream. Flows would be limited to agreed greenfield runoff rates.

**Future maintenance of SuDS elements**

23. The detention basins are intended to be adopted by Sheffield City Council. It should be noted that Sheffield City Council has already confirmed that it would be willing to adopt the SuDS components as agreed with the LLFA (see paragraph 2.19 of the 'Flood Risk & Drainage SoCG'). There would however be other options for maintenance of the SuDS basin such as a private management company or through adoption by a Sewerage Undertaker. These are matters which would be determined at detailed design stage.

### **Concerns relating to the lack of capacity within the Yorkshire Water network**

24. Yorkshire Water has assessed the development proposals and provided confirmation that a connection can be made to the public foul sewer on the basis that the public sewer network is capable of accepting the anticipated domestic foul flows.
25. With regard to third party representations, I conclude that measures are already proposed to address the concerns raised in an appropriate manner.

## **2 Conclusions**

1. When considering the findings of the Flood Risk Assessment report, committee report, Statement of Common Ground and giving due consideration to the comments of consultees and local residents, I have reached the following conclusions.
2. A site-specific Flood Risk Assessment report has been undertaken for the proposed development site which considers relevant flood mechanisms and where appropriate proposes mitigation measures to address issues which have been identified.
3. I have considered the proposals in the context of updated guidance relating to climate change since the original application was submitted, and it has been demonstrated that the surface water drainage strategy can accommodate the updated guidance.
4. The proposed drainage strategy promotes a sustainable approach to surface water drainage and water quality, and appropriate consultation has been undertaken with Yorkshire Water in regard to foul water drainage.
5. It is my opinion that the appeal proposal accords with the NPPF and the relevant statutory and regulatory requirements relating to flood risk and drainage and there is no reason why the appeal should not be allowed as a result of flood risk or drainage matters.