



Land at Teversham Road, Fulbourn, Cambridgeshire

Summary proof of evidence in respect of flood risk

Application reference S/3290/19/RM

Appeal reference APP/W0530/W/22/3291523

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Document Review Sheet:

Reference	Date	Author	Reviewed
CCE/B411/RM-SPoE-01	25 th April	RT	JH
CCE/B411/RM-SPoE-02	25 th April	RT	JH

1.0 Introduction

- 1.1 I am Richard Totman and I hold a Bachelor of Engineering Degree with Honours in Civil Engineering awarded by Nottingham University in 1996. I am a Graduate Member of the Institution of Civil Engineers.
- 1.2 I have 25 years' experience in Civil Engineering gained with consultants in the UK. This experience has included highway and infrastructure design but the majority of my experience relates to water engineering and management.

Declaration

- 1.3 The evidence which I have prepared and provide for this appeal (reference APP/W0530/W/22/3291523) is true and has been prepared and is given in accordance with the guidance of the Institution of Civil Engineers and I confirm that the opinions expressed are my true professional opinions.

Background

- 1.4 Cannon Consulting Engineers has provided support with regards to flood and surface water management at the Appeal Site for approximately 15 years. Our involvement includes site promotion work (in 2007/2008), supporting two outline planning applications (references S/2273/14/OL and S/0202/17/OL) and the planning appeal heard in 2016 (reference APP/W0530/W/15/3139730).
- 1.5 H R Wallingford (a third party flood modelling consultancy) has provided technical support on the project from 2016 onwards). Their modelling was first presented at the above mentioned planning appeal. The modelling also accompanied the 2017 outline planning application and was deemed suitable by the South Cambridgeshire District Council Sustainable Drainage Engineer (Mr Simon Bunn).
- 1.6 The approach to floodwater management for the permitted outline scheme is the same as is proposed in the appeal scheme. The approach comprises creating three raised development platforms on which the proposed dwellings will be constructed. Between two of these platforms (in the east of the site), a flood management area will be provided in order to avoid displacing floodwater from the site. The proposed platforms allow for the new dwellings, and access routes to these to be set above the flood levels.
- 1.7 The H R Wallingford flood modelling which supported the Reserved Matters application was based on a 2020 update to their earlier work. The resulting flood and floor levels were found acceptable by the South Cambridgeshire District Council Sustainable Drainage Engineer (Mr Chris Gray).

- 1.8 It is worth noting that the H R Wallingford modelling assesses the potential impact of the development platforms on floodwater by simulating them as obstacles to water. The modelling process effectively simulates the platform outlines as a wall at a height which excludes water from the platform areas. This assesses the impact of the platforms without first needing to define their ground level. The level of the platforms do not therefore influence their impact in the model.
- 1.9 The Reserved Matters application was accepted and recommended for approval by both the South Cambridgeshire District Council Sustainable Drainage Engineer in their response of 19/11/2020, and the Lead Local Flood Authority in their response of 9/9/2021. Both responses followed liaison with the respective parties.
- 1.10 The Reserved Matters application went to the October 2021 Planning Committee with a recommendation for approval.

Scope of Evidence

- 1.11 My evidence addresses how surface water floodwater (water running onto the Appeal Site from the surrounding land) will be managed without causing the proposed properties or those outside of the site to flood. My evidence also includes a draft surface water management strategy showing that runoff from the proposed development can be managed within the layout presented with the appeal scheme.

2.0 Reasons for Refusal and Rule 6 Party Comments

- 2.1 Reason for refusal 2 states that “insufficient information has been submitted to demonstrate that the reserved matters scheme can provide a satisfactory scheme of surface water drainage and prevent the increased risk of flooding”.
- 2.2 Reason for refusal 2 references three policies (CC/7, CC/8, and CC/9) from the South Cambridgeshire Local Plan September 2018 and one paragraph from the National Planning Policy Framework 2021 (Paragraph 167) but does not identify specific conflicts with the multi-part policies.
- 2.3 The flooding element of Policy CC/7 “Water Quality” is limited to the section of the policy which requires an adequate land drainage system (to which a site can drain). Surface water runoff will be discharged to the on-site watercourse which would not reasonably be considered as inadequate.
- 2.4 Policy CC/8 “Sustainable Drainage Systems” requires the use of appropriate “sustainable surface water drainage systems”. The layout submitted with the appeal scheme does not prejudice the inclusion of sustainable drainage systems with such detail being submitted for approval as part of Condition 8 of the outline permission.
- 2.5 Policy CC/9 “Managing Flood Risk” addresses flood risk management with regards to site location and the means by which flood risk can be assessed and managed as part the application process. The elements of the policy most applicable to a site with planning approval are parts 1b, 1c, and 1d of the policy which state:

1b

“Floor levels are 300mm above the 1 in 100 year flood level plus an allowance for climate change where appropriate and where appropriate and practicable also 300mm above adjacent highway levels.”

1c.

“Suitable flood protection / mitigation measures are incorporated as appropriate to the level and nature of flood risk, which can be satisfactorily implemented to ensure safe occupation, access and egress. Management and maintenance plans will be required, including arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime;”

1d.

“There would be no increase to flood risk elsewhere, and opportunities to reduce flood risk elsewhere have been explored and taken (where appropriate), including limiting discharge of surface water (post development volume and peak rate) to natural greenfield rates or lower”

- 2.6 With reference to Part 1b of CC/9, the finished floor levels which accompanied the appeal scheme were agreed with the South Cambridgeshire District Council Sustainable Drainage Engineer prior to their submission. The revised proposed finished floor levels (refer to Appendix D of my main Proof of Evidence) are set 300 mm above the adjacent 1 in 100 annual probability flood level with a 40 % allowance for climate change. It is not considered necessary to also set floor levels 300 mm above the adjacent road level as the site roads are not designed to flood or to function as overland flow routes for a notable depth of surface water runoff. The permeable paving proposed across the majority of the roads means that surface water ponding will be limited and short lived as it will be able to drain directly into the granular subsurface of the road make up where it lands (at source).
- 2.7 The proposed dwellings and their access/egress routes, are set above the modelled flood level and therefore comply with Part 1c of CC/9. The flood protection measures are passive, with no features requiring public adoption. Long term maintenance of elements of the flood water management scheme (channels, pipes etc) will be secured as part of the overall management of the site landscaping.
- 2.8 The conclusion in the flood modelling report included in Appendix A of my main Proof of Evidence is that the proposed development would not increase flood risk posed to properties outside of the site. The modelling exercise therefore addresses Part 1d of CC/9.
- 2.9 Paragraph 167 of the National Planning Policy Framework refers to a planning application rather than a Reserved Matters application. The flood modelling included in Appendix A of my main Proof of Evidence demonstrates that the layout presented with the appeal scheme can be delivered without increasing flood risk to properties outside of the site boundary.
- 2.10 The South Cambridgeshire District Council Statement of Case discusses Reason for Refusal 02 in its paragraphs 5.9 to 5.15. Comments on the eight paragraphs are included in my main Proof of Evidence. In summary however the key assertion of the Council is that insufficient information was submitted with regards to water management to allow the Council to approve the layout submitted with the appeal scheme. This assertion is not supported by the South Cambridgeshire District Council Sustainable Drainage Engineer or the Lead Local Flood Authority both of whom issued positive responses to the Reserved Matters application.
- 2.11 The Rule 6 Party Statement of Case includes a number of paragraphs (numbered 22 to 42) discussing various aspects of the water environment in and around the site and some of the planning history. For ease of reference the points raised are commented on with the table included in Appendix E of my main Proof of Evidence.