

Tetra Tech
Lakeland Business Park,
Lamplugh Road,
Cockermouth,
Cumbria, CA13 0QT

17th January 2024

PROPOSED RESIDENTIAL DEVELOPMENT, VICTORIA ROAD, WHITEHAVEN

COMMENTS ON DRAINAGE

Further to our discussions and the revised drawings issued to us associated with the properties and the comments received on the documents produced by Kingmoor Consulting, we write to confirm our responses to the items raised.

The following table presents the comments and our responses.

Comments	Response
Localised flooding and drainage issues are known in this area. An appeal on land at Elizabeth Crescent was dismissed on grounds of the failure to demonstrate that an acceptable drainage scheme was deliverable owing to the ground conditions and levels etc.	We understand United Utilities have undertaken works nearby and we believe this issue has been resolved. Works were undertaken over October and November 2023.
The results of the percolation tests in accordance with BRE365 are required in justifying the discounting of infiltration drainage	Noted and enclosed walkover and exploratory works.
The location of the geo-cellular tanks is not ideal from an maintenance access point of view. Maintenance arrangements or relocation of the tanks to outside the carriageway need to be explored.	Noted and due to the land locked nature this is the only solution to achieve available space and allow other services to pass into the site.

23-191c002

Kingmoor Consulting Ltd, Suite 4, Atlantic House, Fletcher Way, Parkhouse, Carlisle, Cumbria, CA3 0LJ

☎: 01228 915900 • ✉ : hello@kingmoorconsulting.co.uk

Company Registration 06442980 - VAT No 263 8130 10

Comments	Response
There is a private cut-off drain on the site which leads to the combined sewer in Victoria Road. It is not clear how this is dealt with in the scheme proposals. Is it within the red-line boundary? In which case the owners / management company will become the riparian owners. Please explain what happens to this drain?	We understand this is outside the red line boundary.
What precautions and provisions are included to manage overland flows from off-site? Properties may be at risk of flooding, especially if the site levels dictate that the slope to the SE corner is being cut into and retaining walls to the rear of properties are proposed.	Site modelling has been undertaken at 1:100Y + 50% climate change which is max considered to be assessed for overland flows. All overland flows are designed to be retained on site at this event.
United Utilities have been consulted. It is confirmed that the proposals are not acceptable. This is because they require full evidence of investigations which confirm the existing cut off drain does indeed drain to the combined sewer as shown, as this would be considered land drainage which should not drain to the public sewer. It is also not clear if this cut off drain is to remain in situ. These matters require review and further information.	We understand United Utilities have undertaken works nearby and we believe this issue has been resolved. Works were undertaken over October and November 2023.

In addition, we enclosed updated report ref 23-191r001 with a copy of the revised drawing reference 23-191 DWG001 Rev C appended, this has been updated in accordance with the

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We trust this is satisfactory for your needs at present and please do not hesitate to contact us if you require any more information.

Yours Sincerely

Colin Aimers
BEng Hons CENG CENV MICE
Kingmoor Consulting Ltd

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