

17 October 2025

Gravesham Borough Council
Civic Centre
Windmill Street
Gravesend
Kent
DA12 1AU

Dear Sir/ Madam,

Re: Land At Dalefield Way (West, Gravesend, Kent, DA12 2FL
Application No: 20250596 – KCC Flood and Water Management Consultation
Our Ref: 24045/WP01

Further to receiving KCC Flood and Water Management letter reference GBC/2025/106302 dated 7th August. KCC have advised that they have several key points relating to the drainage strategy which they request be addressed as noted below:

1. *As part of the submission, we request that modelling and drainage drawing is provided demonstrating the drainage system for the site as a whole (to include the new proposed areas and the existing). This is necessary to confirm that the new system does not adversely affect performance of the existing drainage and to determine the impact of the additional catchment.*
2. *We advise that the Environment Agency be consulted regarding the safety of development, particularly in light of findings that tidal flood defences around Gravesend were at a lower level than previously expected. While it is noted that the EA previously did not object to the proposal in 2016, given the time that elapsed and changes in planning standards we suggest further consultation.*
3. *As the outfall, of this wider network is located outside the red line boundary and discharges into the adjacent watercourse named "Shorne and Higham Marshes" via culverts, we require confirmation of sufficient capacity of the receiving network for these proposals. That said this site location falls under the remit of the North Kent Marsh Internal Drainage Board (set up in August 2016). They will also need to be contacted regarding connection into the ditch network and subsequent outfall into ordinary watercourse. Contact: enquires@lmidb.co.uk.*
4. *For the offsite connection to be made confirmation of ownership or 3rd party land consent will be required to install drainage through the adjacent land. This is essential to ensure a drainage outfall can be secured.*
5. *We note that a drainage drawing (dated May 2025) has been included in Appendix G. Please provide a key to confirm the features shown. Additionally, a*

detailed drainage drawing for the full drainage network that this site will connect into is required.

6. *We note that an impermeable area plan has been included within Phase 3A Flood Risk Assessment - January 2007 in Appendix D (drawing reference B140-019). Please confirm whether this layout and impermeable areas remain unchanged. Please supply an updated impermeable area plan if necessary. An impermeable areas plan should be provided to assist in reviewing the calculations.*

We require updated hydraulic calculations to be supplied:

7. *As part of the hydraulic calculations, we note that the seasonal default Cv values have been used. Given the drained area is impermeable we require this to be set at 1. We would seek for this to be updated and be provided moving forward.*
8. *As of the 10th of May 2022, the Environment Agency's climate change allowances have been updated. As part of this update, revisions have been made to the 'Peak Rainfall Intensity Allowances' that are used in applying climate change percentages to new drainage schemes.*

Our response to each item is as below:

1. The FRA has been updated to include a detailed drainage strategy, this shows the proposed drainage system to be employed on site and the impermeable and permeable areas for the current and proposed situations are included in appendices of the updated FRA.
2. The EA have been contacted as part of this application, in their response they confirmed that they have no objection to the installation of hard standing / surface treatment at the site with regards to flood risk. They consider the tidal flood risk affecting the site is very low and the construction will take place more than 9 metres away from the main river. A copy of their response to the application can be found on the LPA planning portal.
3. The discharges for each phase of development of the 1999 allocated site was set and approved with the EA by the original 1999 FRA. The agreed rates of discharge are shown on drawing M591/05 rev B included in Appendix B of the revised FRA. With regards to North Kent Marsh Internal Drainage Board they have also been consulted as part of the application, and they confirmed that they are satisfied that the current proposals align with the previously approved strategic drainage limits and SuDS principles. A copy of their response is available on LPA planning portal.
4. This application is for the redevelopment for open storage (Use Class B8) for the western plot within the larger existing industrial land plot, all of which is under the ownership of O'Halloran & O'Brien Ltd. No 3rd party land consent will be required. The application site is edged in red on the site location plan and the full land owned by O'Halloran & O'Brien edged in blue. The drainage system and outfall are within the land owned by the developer.

5. A detailed drainage drawing for the development has been provided within the appendices of the revised FRA, and the site wide drainage plan is included in Appendix B of the FRA which shows the watercourses / drains etc. that was implemented as part of the allocated site PM9.
6. Plans for the existing and proposed impermeable areas are included in the updated FRA.
7. The hydraulic calculations have used a cv value of 1.0 for summer and winter, copies of the calculations are included in the updated FRA.
8. Climate change allowances have been factored into the drainage design of the development in line with the Flood-Risk-Assessment-Climate-Change-Allowances, full calculations for the 3.3% and 1.0% with climate change allowance are included in the updated FRA
9. The areas have been confirmed in the FRA and plans show the current and proposed site areas, the greenfield rates have been based on that agreed as part of the allocated site PM9.
10. The greenfield runoff rates used are based on the agreed rates for the allocated site PM9 through the FRA and drainage strategy that was approved for the overall site.

We trust that the additional information above is satisfactory for the points raised by KCC with respect to the surface water drainage strategy.

Yours sincerely,
for Manhire Associates Limited

Grant McCann

Grant McCann
Associate Civil Engineer