

Ref. LM25100

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Kent County Council

Flood and Water Management
Invicta House
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28 October 2025

To Whom It May Concern,

RE: Application no: 20250778– KCC DRAINAGE COMMENTS

Kent County Council as Lead Local Flood Authority have reviewed the Drainage Strategy documents prepared by Leimen LTD (July 2025) and have the following comments:

We note that the drainage design differs from that which was submitted and approved as part of the Full planning application (ref: 20241011). Whilst we understand from the drawings provided that the presumed existing sewer was not located on site and that therefore an alternative pumped solution has been proposed we would expect for an updated technical statement to also be provided.

An updated technical statement and design package was provided with associated drawings, hydraulic calculation, details and SuDS maintenance schedule was provided on 29th July 2025. The updated design is appended to this response for ease – it includes the following:

Seacon Terminal, Tower Wharf_Drainage Strategy Report_r.02
LM235100-XX-D-XX-500_P4 Drainage Strategy Plan
LM25100-XX-D-XX-301 to 302 Drainage Details (Sheets 1, 2 & 3)
Hydraulic Calculations_Seacon Terminal, Tower Wharf_28.05.25
Seacon Terminal _SuDS Maintenance Schedule

We would emphasise that pumps should only be considered as a last-resort option, and only where infiltration or discharge via gravity can be demonstrated to be unviable. Any pumped system can be prone to failure within the associated development's lifetime and cannot be considered to be fully sustainable owing to the carbon-cost of the pump's operation.

The utilisation of a pumped outlet solution was arrived at as a last resort due to the invert level of the existing outfall manhole being significantly higher and impossible to reach without such pumping. The pump feature would serve as the flow control device, controlling the discharge offsite to the restricted discharge rate of 19.8l/s. All the other SuDS features – attenuation tank, petrol interceptor, trapped gullies, and catchpit manholes – are provided by the design.

With regards to SuDS, the features utilised in the design are deemed appropriate for the site's existing conditions and proposed land-use in providing the full benefits of SuDS namely, discharge volume control, water quality control, and futureproofing/managing the effects of climate change.

Further to this, on checking information available to ourselves, we have been unable to locate the network now proposed to be connected and as such assume this to be a private network. Given the original submission assumed the surface water from this catchment discharged to the Botany Marshes we require for information and evidence to be submitted which demonstrates that sufficient capacity exists within the network now proposed to be connected to.

Following a recent site investigation of the existing sewer runs onsite, commissioned by the client, it was found the existing site discharges unattenuated via a 450mm dia surface water pipe system running northward and eastward through the existing industrial yard to discharge into an existing surface water sewer to the east which ultimately outfalls to the River Thames via an existing headwall.

While the existing survey information may be a private network, the design has proposed to employ SUDS principles for the proposed site development and restricted the previously unattenuated fully impermeable site area to achieve an 80% betterment on runoff discharge from the proposed site.

An assessment of the current unattenuated surface water discharge from the site carried out by the Modified Rational formula of the Wallingford Procedure confirmed the current discharge from the site to be 98.8l/s. Therefore, applying an 80% betterment provides a discharge limit of **19.8l/s** which has been used in the hydraulic design of the proposed surface water drainage solution for the site, to be achieved via the pump flow control device.

Refer LM25100-XX-D-XX-0100 Impermeable Areas Plan – Existing and Proposed.

We would also highlight the latest requirement of DEFRA's SuDS Technical Standards:

"7.16 The surface water drainage system shall be evaluated for flood risk and water quality impacts associated with potential system failure during the operation phase due to blockage of any structures and flow controls or failure of pumps"

No such evaluation appears to have been included.

Furthermore, the standards also require that:

"7.18 Where the surface water drainage system incorporates motorised equipment such as pumps, or proprietary below ground products such as separators, provision shall be made for automatic monitoring of the component's function and transmission of failure warnings to the body responsible for maintenance"

And ask that this also be confirmed as part of any resubmission.

See appended the input data and results of a Pollution & Hazards Mitigation assessment undertaken for the proposed drainage strategy utilising the CIRIA Simple Index Matrix Approach.

With regards to maintenance provisions for the operation of the pump feature, also see appended specification of the submersible sludge pump XJS 50 the client is obtaining and a copy of their 24hr emergency response and maintenance agreement with K5 Construction who shall be the responsible party.

Kind regards,
Leimen LTD
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