



Castell Bach Engineering Ltd.

Re: Drainage Condition Release – Application No. P2021/0046

Dear Mr. Deeney,

We have had an opportunity to complete the drainage strategy for the proposed Margam Youth Club works. This work was completed with a view to release a condition (Condition 4) of the planning approval referenced above.

Drainage strategy has been compiled and presented in “**172-RP-001 - Margam Youth Club - Drainage Strategy**”.

Planning approval, condition 4 states that the drainage strategy shall include:

- 1. Provide information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site and the measures taken to prevent pollution of the receiving groundwater and/or surface waters;*
- 2. Include a timetable for its implementation; and*
- 3. Provide a management and maintenance plan for the lifetime of the development.*

The below summarises the information in report relating to each point:

1. Means of surface water disposal have been explored in the hierarchical order dictated by recommended non-statutory standards for sustainable drainage (SuDS) in Wales - designing, constructing, operating and maintaining surface water systems published by the Welsh Assembly Government in January 2016 which is echoed by Building Regulations Document H, 2002.

A storm return period of a 1 in 100-year storm have been used as a basis for design. To allow for the effects climate change, an additional 30% has been applied to the rainfall amount. Storm durations up to and including the 6-hour storm have been considered.

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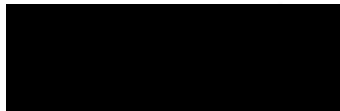
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Permeable paving coupled with soakaway have been utilised based on information from infiltration testing which has been undertaken. Pollution mitigation has been considered utilising a simple qualitative index approach.

2. Implementation will be during the main Contract works which has not yet been awarded, however NPT Building Control will be involved and so they can ensure the scheme is suitably detailed and implemented by the Principal Contractor.
3. Report provides guidance for the inspection and maintenance regime for the system, including soakaway and permeable paving systems. Section 10.2 of the report discusses further, however below is a summary:
 - a. Soakaway – inspected twice a year.
 - b. Permeable paving – inspected once a year, with a long-term renewal expected in approximately 15 years.

To summaries, we believe the drainage strategy report covers and satisfies all the key requirements of the Planning Condition 4.

Kindest Regards



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