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Contact Chris Bowyer
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Date 6 April 2023

Dear Mr Myers

RE: 6/2023/0013/COND – YMCA, 90 Peartree Lane, Welwyn Garden City, AL7 3UL

Thank you for your consultation on the above site, received on 14 March 2023. We have reviewed the application as submitted and wish to make the following comments.

The Discharge of Conditions application relates to Condition 5 (Drainage Scheme), 29 (Drainage Strategy), and 33 (Final Design of Drainage Scheme) of the Outline Application (6/2019/2714/OUTLINE) that was submitted on the 28 October 2019.

The previous application was for a hybrid application for the demolition of the existing hostel, development of a four-story 100 bed YMCA Hostel (All details submitted for determination), and up to 43 residential apartments (All details retained for future determination as reserved matters, except means of access) with associated car parking and landscaping.

The LLFA has reviewed the additional information that has been submitted in support of this planning application in the letter dated the 13 March 2023 from Scott White and Hookins. While this information has enabled the LLFA to progress with this application, there is still information and clarification that is required from the applicant. At present, the LLFA **maintains our objection** to the approval of the discharge of conditions 5, 29, and 33 as part of the application 6/2023/0013/COND.

Condition 5 is worded as follows

No development other than demolition, site clearance, or remediation works in respect of land contamination shall take place until the final design of the drainage scheme is completed and sent to the Local Planning Authority for approval. The surface water drainage system will be based on the submitted Drainage Strategy Report produced by Pinnacle Consulting Engineers, project number C190906, version 3.3, dated 03 December 2020, and Flood Risk Assessment produced by Pinnacle Consulting

Engineers, project number C190906, version 2.0, dated 3 June 2020. The scheme shall also include:

1. Detailed infiltration testing in accordance with BRE Digest 365 at the proposed depth and location of the proposed SuDS feature.
2. Provision of additional ground investigations to assess the potential for solution features.
3. Groundwater monitoring is to be carried out following any ground remediation works to determine the level of groundwater. If the site is found to be impacted by groundwater, an assessment of this flood risk and its mitigation should be provided. Details on how the site drainage features will be secured against groundwater should also be provided.
4. A minimum of 1m buffer zone needs to be provided between the bottom of any infiltration feature and the existing groundwater levels on the proposed development site.
5. Detailed engineering drawings of the proposed SuDS features including their location, size, volume, depth, and any inlet and outlet features including any connecting pipe runs and all corresponding calculations/modelling to ensure the scheme caters for all rainfall events up to and including the 1 in 100 years + 40% allowance for climate change event, with a supporting contributing area plan.
6. Demonstrate appropriate SuDS management and treatment for the entire site including the access road. To include exploration of source control measures and include above-ground features such as permeable paving.
7. Provision of half drain down times within 24 hours.
8. Exceedance plan for events greater than the 1 in 100 years plus 40% for climate change events.

REASON: To protect the surrounding environment from flooding in accordance with Policies R7 of the Welwyn Hatfield District Plan 2005 and the National Planning Policy Framework 2019.

Condition 29 is worded as follows

The development permitted by this planning permission shall be carried out in accordance with the Drainage Strategy Report produced by Pinnacle Consulting Engineers, project number C190906, version 3.3, dated 3 December 2020, and Flood Risk Assessment produced by Pinnacle Consulting Engineers, project number C190906, version 2.0, dated 3 June 2020 and the following mitigation measures:

1. Provision of drainage strategy based on infiltration (for catchments A and C) and discharge into Thames sewer (Catchment B)
2. Limiting the surface water run-off rates to a maximum of 5l/s for all rainfall events up to and including the 1 in 100 years + climate change event with discharge into the Thames surface water sewer.
3. Provide attenuation to ensure no increase in surface water run-off volumes for all rainfall events up to and including the 1 in 100 years + climate change event.

4. *Implement drainage strategy utilising lined permeable paving with sub-base and attenuation tanks.*
5. *Provision of a filter drain to manage existing surface water flood risk.*

REASON: To protect the surrounding environment from flooding in accordance with Policies R7 of the Welwyn Hatfield District Plan 2005 and the National Planning Policy Framework 2019.

Condition 33 is worded as follows

No development other than demolition, site clearance, or remediation works in respect of land contamination shall take place until the final design of the drainage scheme is completed and sent to the Local Planning Authority for approval. The surface water drainage system will be based on the submitted Drainage Strategy Report produced by Pinnacle Consulting Engineers, project number C190906, version 3.3, dated 03 December 2020, and Flood Risk Assessment produced by Pinnacle Consulting Engineers, project number C190906, version 2.0, dated 3 June 2020. The scheme shall also include:

1. *Detailed infiltration testing in accordance with BRE Digest 365 at the proposed depth and location of the proposed SuDS feature.*
2. *Provision of additional ground investigations to assess the potential for solution features.*
3. *Groundwater monitoring is to be carried out following any ground remediation works to determine the level of groundwater. If the site is found to be impacted by groundwater, an assessment of this flood risk and its mitigation should be provided. Details on how the site drainage features will be secured against groundwater should also be provided.*
4. *A minimum of 1m buffer zone needs to be provided between the bottom of any infiltration feature and the existing groundwater levels on the proposed development site.*
5. *Detailed engineering drawings of the proposed SuDS features including their location, size, volume, depth, and any inlet and outlet features including any connecting pipe runs and all corresponding calculations/modelling to ensure the scheme caters for all rainfall events up to and including the 1 in 100 years + 40% allowance for climate change event, with a supporting contributing area plan.*
6. *Demonstrate appropriate SuDS management and treatment for the entire site including the access road. To include exploration of source control measures and include above-ground features such as permeable paving.*
7. *Provision of half drain down times within 24 hours.*
8. *Exceedance plan for events greater than the 1 in 100 years plus 40% for climate change events.*

REASON: To protect the surrounding environment from flooding in accordance with Policies R7 of the Welwyn Hatfield District Plan 2005 and the National Planning Policy Framework 2019.

As Conditions 5 and 33 are identical, we will respond to these jointly. Condition 29 will be responded to separately.

As outlined in our previous letter, Points 1, 2, and 3 of Conditions 5 and 33 were able to be recommended for discharge by the LLFA. In addition, Points 6 and 7 can now also be recommended for discharge by the LLFA based on the maintenance schedule attached to the letter submitted on 13 March 2023. The LLFA are satisfied with this schedule. Furthermore, the LLFA is able to remove the requirement of half drain times as the surface water is being discharged into the Thames Water Public Surface Water Sewer at a controlled rate of 2.5 l/s. At this stage, the LLFA still requires further information and clarification on Points 4 and 8.

While for Condition 29, the LLFA has previously been able to recommend the discharge of point 2. The LLFA is now in a position to recommend the discharge of Points 1 and 5 of Condition 29 as the LLFA is satisfied that infiltration is not being used and evidence within the Drainage Design Information document shows the discharge hierarchy has been followed with no watercourses nearby to the site for discharge. There is also no requirement for a filter drain on site with underdrains being located at the building perimeter as stated in the letter from the applicant dated 13 March. The LLFA still requires further information or clarification on Points 2, 3, and 4.

All points of the conditions that require further information or clarification are discussed further below:

Point 4 of Conditions 5 and 33 outlines the requirement for a 1m buffer between the base of any infiltration feature and the existing groundwater level on the proposed development site. While we appreciate that the proposed development does not include any infiltration features, there is the inclusion of an attenuation tank constructed with polystorm units wrapped in impermeable geomembrane that could be at risk of floatation.

While the LLFA appreciates the applicants' information regarding the base of the proposed attenuation tank to be at a depth of 1.7m below finished ground level, the LLFA notes that along with the dimensions provided in the Proposed Drainage Layout drawing (Drawing Number C190906-AKSW-XX-XX-DR-C-9201), there is a potential overlap of 200mm between the base of the attenuation tank and the level at which the perched groundwater was encountered. While the floatation risk from the perched groundwater is likely to be reduced but is still present, the LLFA would like further information on the mitigation of the risk of floatation associated with the attenuation tank.

The LLFA requires the applicant to provide further information relating to the cover level. With the proposed design, the cover level used for comparison to the invert level is located outside the area in which the tank is positioned. The LLFA also requires engineering drawings that show the cross-section of the attenuation tank (including ground level information) and all other elements drainage scheme. Where the proposed tank location is, the Finished Ground Level falls from approximately 84.40m to 83.75m on the northern edge of the tank and 84.25m and 83.60m on the southern, both a 650mm drop. Therefore, if the cover level of 900mm has been proposed, the drawing would clarify whether the 900mm is at the lowest point and the highest point is at 1550mm.

The LLFA requires further clarification from the applicant as to their figure of 83.8mAOD for the location of the perched groundwater (as given in the letter dated 13 of March 2023). This level places the perched groundwater above a majority of the ground level across the site and is only 1.01m lower than the highest point within the proposed development site. Further information is required.

Based on the information provided in the Supplementary Ground Investigation Report produced by AKSWard Limited in August 2021 and the letter submitted on 13 of March 2023, the LLFA remains **unable to recommend the discharge of Point 4 of Conditions 5 and 33.**

The LLFA requests further clarification and definition of the risk being mitigated by including the additional 50m³ storage capacity. Within the AKS Ward report, there is an additional 35.6m³ of storage from the proposed porous areas voided subbase that has been excluded from the storage calculation. In the recent response, the applicant indicated the information was held in the AKS Ward and JBA reports. The LLFA requests the applicant identify where in the AKS Ward and JBA reports the information is regarding the anticipated predicted surface water flood volume. Until we receive a better definition of the risk being mitigated to explain the additional storage, we are still **unable to recommend the discharge of Point 5 of Conditions 5 and 33.**

The LLFA would like clarification that the finished floor and finished ground levels are in mAOD readings. The LLFA would also like further information as to why the finished floor levels are only 150 to 200mm higher than the finished ground level. Therefore, the design has not complied with the AKS Ward Drainage Strategy Report which states 'It will also be ensured that all final building floor levels will be built a minimum of 300mm above the critical 1:100 year plus 40% climate change storm event flood level elevation'. The LLFA requests further information on the mitigation for the southwestern corner of the development where it appears the land beside the building is raised to accommodate services that currently run through the site. This increase in finished ground level puts it at 75mm above the finished floor level of the building. The LLFA requests further information regarding this design matter to be provided to demonstrate there is no increase in flood risk due to the proposed design.

The LLFA requests the applicant to confirm the meaning of the arrows included on the Finished Levels Layout drawing (Drawing Number 203905-SWH-ZZ-XX-DR-C-5501-P01) (Appendix C of the letter dated 13 March 2023) as at present these are undefined. The LLFA reminds the applicant to identify any residual risks from the exceedance flood flows either onsite or elsewhere. While the LLFA appreciates the Finish Floor Levels and Finish Ground Levels submitted by the applicant as an appendix to the letter dated 13 of March, the LLFA is still **unable to recommend the discharge of Point 8 of Conditions 5 and 33.**

Based on the information provided, the LLFA is **unable to recommend the discharge of Conditions 5 and 33 of the 6/2019/2714/OUTLINE** planning application for the site at the YMCA Hostel on Peartree Lane at this time. For the LLFA to consider removing their objection, the applicant must provide the relevant information and clarification to address the points above.

The LLFA remains **unable to recommend the discharge of Point 3 of Condition 29** as the LLFA requires further information in support of the calculation of attenuation volume to ensure there is no increase in surface water runoff volumes. The letter dated 13 March 2023 states there is a reduction in the runoff rate from the pre-development runoff rate of 54.93 l/s to the post development rate of 2.5 l/s. The LLFA requires further direction from the applicant as to where in the submitted documentation the relevant information is.

The LLFA is pleased to note that alterations to the drainage design have been implemented to ensure all parking areas included in this development are discharging through the Hydro-Brake Flow Control Chamber. This ensures the proposed controlled discharge rate of 2.5 l/s from the development into the Thames Water Surface Water Sewer. The LLFA requests further information on the impact that an increased volume of surface water within the system will have as no updated hydraulic calculations have been provided. The LLFA reminds the applicant of the requirement to use the most up to date FEH method within the hydraulic calculations, along with including the correct climate change allowance for the 30 and 100 year return periods along with running the calculations with a MADD Factor of 0. Until these calculations have been undertaken and provided, the LLFA is **unable to recommend the discharge of Point 4 of Condition 29**.

Based on the information provided, the LLFA is **unable to recommend the discharge Condition 29 of the 6/2019/2714/OUTLINE planning application** for the site at the YMCA Hostel on Peartree Lane at this time. For the LLFA to consider removing their objection, the applicant must provide the relevant information and evidence to address the points above.

For further advice on what we expect to be contained within the FRA to support a planning application, please refer to our Developers Guide and Checklist on our surface water drainage webpage <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/surface-water-drainage/surface-water-drainage.aspx> this link also includes HCC's policies on SuDS in Hertfordshire.

In December 2022 it was announced FEH rainfall data has been updated to account for additional long-term rainfall statistics and new data. As a consequence, the rainfall statistics used for surface water modelling and drainage design have changed. In some areas, there is a reduction in comparison to FEH2013, and in some places an increase (see [FEH22 - User Guide \(hydrosolutions.co.uk\)](https://www.hydrosolutions.co.uk/FEH22-User-Guide)). Any new planning applications that have not already commissioned an FRA or drainage strategy to be completed, should use the most up-to-date FEH22 data. Other planning applications using FEH2013 rainfall, will be accepted in the transition period up to 1 April 2023. This includes those applications that are currently at an advanced stage or have already been submitted to the Local Planning Authority. For the avoidance of doubt, the use of FSR and FEH1999 data has been superseded by FEH 2013 and 2022, and therefore, use in rainfall simulations is not accepted.

Please note if you, the Local Planning Authority review the application and decide to grant planning permission, you should notify us, the Lead Local Flood Authority, by email at FRMConsultations@hertfordshire.gov.uk.

Yours sincerely
Chris

Chris Bowyer
SuDS and Watercourses Support Officer
Environment & Transport and Sustainable Growth

Annex

The following documents have been reviewed, which have been submitted to support the application;

- Boundary Plan – Planning Application (47-WPA-Z1-SP-DR-A-3003), Will + Partners, 7 December 2022, Revision T4
- YMCA Hostel, Peartree Lane, Welwyn Garden City, Drainage Design Information (Report Reference: 203905-SWH-ZZ-01-S-RP-0001), Scott White and Hookins, 20 December 2022, Revision 01
- Scott White and Hookins Letter to the LPA, 13 March 2023