



Highways and Engineering Service – Economy and Environment

DRAINAGE CONSULTATION ON APPLICATION – 24/01037/FUL - UNICORN AEROBIC FITNESS CENTRES CHEETHAM STREET MIDDLETON M24 4DG

LLFA Consultation Response on behalf of Head of Highways and Engineering

Date of Response: 17th March 2025

LOCATION & PROPOSED DEVELOPMENT

Unicorn Aerobic Fitness Centres Cheetham Street Middleton M24 4DG

Conversion of existing 2 storey commercial building to 12 residential apartments comprising of 1 and 2 bedrooms with associated works, landscaping and parking.

DOCUMENTS REVIEWED

- Sustainable Drainage Strategy 83401R1 23/09/24

DRAINAGE & FLOOD OFFICER COMMENTS

1. The planning application has included a 'Sustainable Drainage Strategy' which shows consideration of the SuDS drainage hierarchy, however further detailing is required.
2. The proposal is required to provide a drainage layout drawing of the development. This should provide the locations and sizing's of the proposed SuDS features and drainage design.
3. The aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable: The ordered drainage techniques to be assessed with the aim to reduce or omit lower techniques:
 - Control at Source (Infiltration / Recycling)
 - On Site Treatment (Basins, Swales, Rain gardens, Tree pits)
 - Local Treatment (Adoptable Ponds, Basins, Swales etc)
 - Regional Treatment (ditto usually to a larger scale)
 - Discharge to Watercourses / Bodies
 - Discharge to SW Sewers
 - Discharge to Combined Sewers
4. Primary Drainage Strategy
The Sustainable Drainage Strategy report, discusses various SuDS features to be included within the development. The proposal incorporates rainwater harvesting, permeable paving and soakaways, which are considered appropriate.

The proposal has based the design on an infiltration rate of 1×10^{-5} m/s (taken from table 25.1 of CIRIA SuDS Manual 2015). However, on-site infiltration testing is required to determine infiltration rates.

5. Secondary Drainage Strategy

The report outlines an alternative strategy in the event that infiltration is not found to be feasible. The secondary drainage strategy proposal still includes the use of rainwater harvesting systems but has replaced the proposed soakaways with an attenuation tank (providing 51.94 m³ of storage) and a hydro-break limiting discharge to 2 l/s.

The report states that there are no surface water features within 100m of the site and therefore proposes to discharge the attenuated flows to a combined sewer system.

However, there is a culverted watercourse less than 100m from the site and therefore if infiltration is not feasible then discharge to the watercourse should be assessed before discharge to a combined sewer could be considered

6. The proposal's drainage design feasibility is based on a 1-in-100-year storm event with a 45% allowance for climate change, which is appropriate for peak rainfall. This climate allowance is appropriate for the 'Irwell Management' Catchment area for 'More Vulnerable' vulnerability class with designs life that extends into the 2070's.

DRAINAGE & FLOOD OFFICER SUMMARY:

- I. The primary strategy is acceptable in principle subject to site based testing and detailed design.
- II. The secondary strategy is not acceptable in principle. Records indicate culverted watercourses or public SW sewers within 100m and discharge to these would need to be comprehensively investigated.
- III. The above points should be addressed before the application is approved.

However, if a decision is taken to approve the application as submitted then the following pre-commencement condition is suggested:

SUGGESTED DRAINAGE CONDITIONS

The **primary** drainage strategy is **acceptable** in principle subject to site based testing and detailed design.

The **secondary** drainage strategy is **not acceptable** in principle and would need to be revisited if the primary is found not to be viable.

Development of a detailed drainage proposal may impact the overall site layout and therefore this is not considered to be fixed.

Notwithstanding any submitted &/or approved plans and prior to the commencement of development and/or any earthworks, acceptable details of a sustainable surface water drainage scheme and a foul water drainage scheme shall be submitted to and approved in writing by the Local Planning Authority.

The drainage scheme shall consider / include, but is not limited to:

- (i) A comprehensive investigation of existing drainage regimes for the paved and permeable areas of the site. This should include for full connectivity surveys and infiltration assessment using site-based data.
- (ii) If infiltration is not found to be viable then either a surface water connection to a local watercourse or public surface water sewer which are considered to be within reasonable proximity (<100m).
- (iii) A restricted rate of surface water discharge shall not exceed 2 l/s as stated within the Sustainable Drainage Strategy subject to detailed design.
- (iv) Green surface-based SuDS source control and storage components should be promoted in preference to buried storage options.

- (v) Construction details for any permeable paving including kerbing and cross-section of open graded sub-base.
- (vi) Construction details for any surface-based SuDS components eg attenuation ponds / basins, swales, tree pits.
- (vii) Levels of the proposed drainage systems including proposed invert, ground and finished floor levels in mAOD.
- (viii) Detailed layouts providing conduit sizes, storage volumes, storage component footprint areas, controls, gradients and any other relevant details.
- (ix) The background calculations of the MicroDrainage® model or any other software or calculations that have been used for the drainage design. These should include drain down times for any storage features.
- (x) Provision of a Maintenance Document explaining how the surface water scheme will be maintained and managed after completion.

The approved scheme shall also be in accordance with the Non-Statutory Technical Standards for Sustainable Drainage Systems (March 2015) or any subsequent replacement national standards. Prior to occupation/ use of the proposed development, the drainage scheme shall be completed in accordance with the approved details and retained thereafter for the lifetime of the development.

Reason: To promote sustainable development, secure proper drainage and to manage the risk of flooding and pollution. To prevent an increased risk of flooding as a result of the development and to ensure satisfactory disposal of surface water from the site in accordance with Policy G8 of the adopted Rochdale Core Strategy, saved Policy EM/7 of the adopted Rochdale Unitary Development Plan and the National Planning Policy Framework.

Reason for pre-commencement condition: Drainage infrastructure will need to be implemented prior to commencement of above ground works and a scheme therefore needs to be agreed in advance of the same.

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