

CONDITIONS DISCHARGE – CONDITION 9b

1420 – 70 GREAT BRIDGEWATER STREET

24th May 2023

Planning reference: **129081/FO/2021**

Sir / Madam,

Planning Condition 9(b) associated with approved application 129081/FO/2021 states the following:-

An assessment of the possibility of providing a green roof, brown roof or blue/green roof and full justification of the results. If this is possible full details of proposals and a management and maintenance strategy for the chosen type of roof;

Sustainability has been a driving factor in the development of the project and all possible options for improving the sustainability performance of has been explored since inception. The proposed scheme has already successfully achieved a validated design stage BREEAM rating of 'Outstanding' and the team are now working towards maintaining this BREEAM score through the construction phase.

The team identified green, brown and blue roof areas as a potential way of achieving additional sustainable goals however, for the following reasons none of these arrangements or systems was considered appropriate or viable:-

Green or Brown Roof

Both green and brown roof areas require relatively large areas of uninterrupted roof to be viable. The proposed roof arrangement is extremely congested, the roof area already having to be fully utilised to achieve other elements of the sustainable energy and ventilation strategy. The areas are already utilised as follows:-

- The central roof area, enclosed by a louvred plant screen, is where the stair and lift over-runs are located; any remaining area is utilised for the large scale mechanical equipment associated with the buildings ventilation system and maintenance access areas associated.
- The periphery of the roof, beyond this central section, is where a large scale (m2) PV array is located covering the majority of the remaining roof area, the extent of this array is only limited by the necessary perimeter zone required for the sub-structure and track associated with the building's maintenance façade access equipment.

Once the above and the minimum necessary access zones are accounted for there is extremely limited remaining space and therefore any application of green or brown roof areas is therefore impractical.

Blue Roof

Blue roof areas could, in theory, be utilised despite the spatial pressures on the roof area. However, utilising such technologies was discounted due to the structural limitations of the building. The proposals consist of significant structural steel alterations and additions to an existing concrete frame. The existing structure was carefully analysed to maximise its potential to deliver additional floorspace to make the building as an attractive proposition to prospective tenants and to utilise the embodied carbon of the existing frame to its maximum potential.

Structural concerns regarding the additional weight associated with a blue roof when coupled with the potential restrictions on future adaptability of the roof mounted equipment or the building more generally led to the conclusion that blue roof areas were not a feasible option.

Finally, despite the above conclusions, particularly regarding blue roof areas, it should be noted that there is a rainwater harvesting system to be installed in the building which will significantly reduce the rate of water discharged into the mains sewer system which is likely to perform significantly better in this regard than a blue roof would be able to.

We trust the above is sufficient explanation of the design rationale to satisfy this condition and allow for a positive determination.

Yours sincerely,

Philip Etchells
Associate

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