75 Avenue Road, NW8 6JD

Note on basement level staff accommodation

Camden Development Policy 27 for Basements and lightwells (DP27) highlights a number of potential issues generally associated with this type of construction. These have been directly addressed in our Building Impact Assessment. This note has been prepared to summarise the investigation and analysis work completed in relation to the risk of flooding and the measures incorporated in the design to mitigate this.

The proposed development at 75 Avenue Road involves the construction of a new 3-storey dwelling over a double basement. The lower of the two basement levels will be predominantly taken up with car garaging, plant rooms and staff rooms such as kitchen, laundry and stores. The upper level of basement (generally termed 'Lower Ground Floor' on the drawings) provides space for a swimming pool, games room, gym and several staff bedrooms.

It is noted in the site-specific flood risk assessment that the site falls within the Environment Agency Flood Zone 1: *Areas with little or no potential risk of flooding (annual probability less than 0.1% for fluvial flooding).* This indicates that the site is not at risk from flooding of rivers.

The site-specific geotechnical investigation states that ground water is approximately 70m below ground level, separated from superficial ground water by the over-consolidated London clay. The site-specific Hydrogeological Review states that the Tyburn (or Aye Brook) formally crossed the site and a spring forming a tributary channel was located within 500m. However, it is understood that the Tyburn now flows within a man-made channel and would not cause significant surface or subsurface flow across the site. The risk of flooding from ground water is considered low

As the Tyburn formally flowed across the site it means that there is the potential for a buried channel to be present. The material in this channel is likely to show a greater permeability than might normally be expected from London clay and as such may form a route for ground water flow across the site. In order to make provision for this potential ground water flow, the scheme involves a land drain installed within a gravel trench, external to the perimeter of the basement construction. The level of this installation will largely be dependant on the ground conditions encountered during the works but is generally expected to be approximately 1m below ground level.

The Strategic Flood Risk Assessment (SFRA) prepared for North London highlights that Avenue Road was affected by flooding from overland flow in 2002. Using the topographical information it can be seen that any overland flow from developments upstream will run from southwest to southeast i.e. along the southern boundary of the site. This would result in flooding in Avenue Road itself and the areas downstream.

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The scheme includes simple measures to reduce the risk of flooding from overland flow. The level of the ground floor has been fixed approximately 250mm above the surrounding road levels and the external lightwells will be constructed with parapet-type walls at least 450mm above the surrounding ground level. These raised levels will prevent water from flooded roads entering the building.

The drainage design for the network with the site boundaries includes backflow prevention valves to both the gravity fed and the pumped systems.

In conclusion, the site at 75 Avenue Road has been assessed for the likelihood of flooding from rivers, ground water and overland flow. In each case the risks have been estimated to be either low or negligible. In addition to locating the staff accommodation on the upper of the two basement levels, the design of the basement and associated drainage works include a number of measures to prevent flooding.

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