Planning Statement on support of application for Minor Material Amendment in regard to Condition 7 of Approval of Details 2020/1900/P granted 07/06/2020 in regard to planning application 2019/4437 approved 11/03/2020

Condition 7: We have made a minor amendment to the carpark area during the course of construction to provide robust and necessary flood protection to the property.

We wish to substitute approved drawings DD-001 Rev B with DD-001 Rev D; DD-030 Rev B with DD-030 Rev D; and DD-033 with DD-033 Rev A.

In 2021 on two occasions the property was flooded to a depth of 6 inches during the extreme rainfall events which effected many parts of Hampstead. Unfortunately 99 South End Road suffers from a combination of factors which put it at extreme risk of flooding from surface water:

1. Topography. 99 and indeed 101 are at the lower end of Hampstead Heath, and the road system that surrounds it. In torrential downpours there is a significant risk of surface water flooding. On 2 occasions in 2021 heavy summer rain brought substantial amounts of fast running water down East heath Road, into Downshire Hill, where it combined with further run off from Willow Road and created a torrent into South End Road. This then entered our client's garden and flooded her lower ground floor.
2. Inadequate rainwater drainage in South End Road. The camber of the road favours the collection of surface water towards the south edge. The absence of road gullies in the vicinity of 99 and 101 means that in times of extreme rainfall surface water accumulates rapidly here, crosses the pavement, and enters the properties. There is evidence of a previous road gully near 99 SER which has been blocked, which repeated requests to the Highways team to have failed to have re-opened.
3. Soil conditions. The site sits on London clay which is virtually impervious to water. Once the thin layer of topsoil is saturated there is literally no where for further rainfall to go.
4. Inadequate sewer capacity generally to cope with extreme rainfall. During the last extreme weather event which flooded the house our contractor noted that water was actually coming back up the rainwater gullies in the lightwell. This can only be due to the sewers in the street themselves being totally overwhelmed, and therefore unable to assist in actually taking the rainwater coming into 99 away.

We worked with a drainage consultant to develop a multi-layed flood protection and drainage system for the property. This involved a mixture of measures including the replacement of all underground drainage, the inclusion of non-return valves on outgoing below ground drainage connections, the inclusion of 3m3 of rainwater storage/buffer tanks in the rear garden, but most importantly flood protection at the entrance of the site.

During the two flooding events of 2021 the volume and velocity of the water entering the front garden of No 99 caused it to run across both hard and soft landscaping before entering the lower ground floor of the property. Traditional permeable paving per the

approved details would not provide adequate protection to the house in these circumstances. The principal element of this was to prevent flood water from entering the site from the heath and roads in extreme rainfall events. To do this a storm water retention tank has been constructed at the site entrance, beneath the permitted parking area.

The storm water retention tank is formed of plastic drainage crates 80cm in depth wrapped in geotextile, giving an active storage capacity of 6.8m3. The manufacturer requires they be protected by a concrete slab. The concrete slab supports the granite sett paving which is laid to falls to direct any storm water or rainwater into perimeter drainage channels which are connected to the retention tank. The retention tank is accessible by a manhole for inspection and maintenance. Rainwater collected in the tank will either dissipate slowly to the subsoil beneath or be discharged via a choked (restricted flow) connection to the surface water drainage system of the property.

The velocity of incoming flood water crossing the parking area has been reduced to allow it to be intercepted at the channel drains by decreasing its finished gradient. This is in fact the only visual indication of the amendment made. We believe that the impact of this amendment on the visual amenity of the property, and its setting in the street is negligible. In exchange the property is now protected by a robust flood defence system.

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