

**65-69 Homes Road
Kentish Town
London NW5**

**BASEMENT IMPACT ASSESSMENT
Addendum No.2 to Approved Document**



Document Prepared For:

Hallmark Property Group Ltd
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1. Introduction

Pringuer-James Consulting Engineers (PJCE) were appointed by Hallmark Property Group Ltd. as the Structural Engineers for the proposed development at No.65-69 Holmes Road, Kentish Town. As part of the project brief PJCE prepared a Basement Impact Assessment (BIA) which was submitted to Camden Council and approved as part of the planning application in 2013. This addendum relates to the new D&A Statement – S73 Update together with the additional geotechnical information supplied by Geocon Site Investigations Ltd. and the impact it has on the original document was produced.

2. The site and the property

It is proposed to redevelop the 0.60 acre site located at No.65-69 Holmes Road to form a mixed use development which contains a two storey basement and rises up to a maximum of six floors above ground level at its highest point. The proposed site is bounded by Holmes Road to the North, Cathcart Street and Azania Mews apartment Complex to the West, existing single storey storage/light industrial buildings to the South, and the six storey apartment complex at No.55-57 Holmes Road to the East

The existing site contains an old Magnet warehouse building with an associated parking area. The proposed development will involve the demolition of the existing building and removal of all the existing hardstanding areas and underground services found within the confines of the site. The proposed building will comprise two readily identifiable blocks. The larger block rising seven stories to the Holmes Road elevation (Block1), and the smaller block rising three stories to the rear of the site bounded on three sides by the existing buildings (Block2).

The basement footprint below the developments entails a double storey basement. At the western boundary there is voided area above the lower basement Warehouse unit which can be assumed to be single level in terms of occupation. The rest of the building has traditional two levels basement construction.

3. Purpose of addendum:

The purpose of the addendum is to assess/review the changes presented in the new D&A Statement – S73 Update and how they impact on the original conclusions and to ensure that the approved BIA is still valid, together with the additional geotechnical information.

4. Site investigation addendum letter:

An addendum letter to the geotechnical investigation was undertaken to provide additional details of the ground conditions, soils strengths, engineering properties of the soils beneath the site, behaviour characteristics and subsequent advice on suitable foundation solutions.

It was confirmed that the clay beneath would be capable of supporting a raft foundation and has more than adequate capacity to carry any loads from above. It has highlighted the heave capabilities of the underlying clay soil and how these are manifested from construction stage up until completion.

It is estimated that this removal of soil to form the double storey basement is likely to give a total unloading of around 125kN/m². This stress reduction will result in heave of the London Clay the magnitude of which will be dependent on such factors as the construction programme duration, restraining effects of the retaining walls and any axially loaded piles. An initial assessment of the heave effects in relation to the slab has been undertaken and it is suggested that total unconstrained heave could be of the order of 110mm. With approximately 60 mm occurring prior to construction of the slab, dependant on programme, with the remainder expected as long term settlement. Analysis further suggested that the London Clays at 6.00m depth could provide an allowable increase in stress of 130kN/m².

It was recommended that the load on the London Clay to be maintained by the new construction because these would negate the effects of any heave occurring due to the unloading of the London Clay.

5. Summary of changes within the D&A Statement – S73 Update

The changes presented in the updated D&A Statement provide a more efficient working warehouse system by consolidating into two main levels - upper basement and lower basement linked by the forklift goods platform lift. A ramp was provided to allow access for small goods vans to access the upper basement warehouse level.

The current proposal maintains the upper basement and lower basement warehouse relationship with the insertion of an additional mezzanine level. On the main lower basement floor the headroom varies and provides sufficient volume and headroom for warehouse use. The upper basement level allows headroom and accommodation for manoeuvring of a 7.5T panel van. The vehicle ramp has been removed and replaced with a platform lift to create a more efficient warehouse plan and potentially maximising storage area. Part of the upper basement is provided with a double height which offers a potentially greater volume of storage.

Within the superstructure the current proposals are made slight alterations to the general arrangement of the student and social areas to suit the structural design of modular construction. At ground floor the social space between the two blocks has been reduced to create enlarge the double height space above the upper basement, thus providing more natural light into the warehouse area.

Externally the overall massing, height and scale have not altered except for adjustments made as a result of the consolidation of the proposed structural design of modular construction.

6. Conclusions

The updated D&A Statement shows that the changes primarily occur internally with amendments to the general arrangement of the student units, social area and warehouse areas, which do not affect the overall dimensions of the building in any way, nor do they increase the loads to the ground below, in fact, by inspection, they seem to reduce them slightly. It must be mentioned, that due to the double height opening from upper basement to first floor parallel to Azania Mews, the structural beams of the ground floor will protrude through the opening to provide lateral support for the perimeter sheet piled walls.

The addendum letter to the soil investigation gives a more in depth picture of the capabilities of the underlying soils and does not change the initial interpretations in any shape or form, thus all the original checks completed as part of the approved are still relevant. However, due to the exposed heave capability of the underlying clay (see section 4), tension piles will be constructed under the proposed raft at regular grids to minimize the heave effect during the construction process.