24033/JG

2nd April 2015

Mr Charles Béar,
83 Camden Mews,
London,
NW1 9BU

FLUID.STRUCTURES
ENGINEERS AND TECHNICAL DESIGNERS

Dear Mr Béar,

Ref. Proposed Basement at no.85 Camden Mews

As requested we have reviewed the documents received on 17th, 18th and 20th March 2015 for the proposed basement details for no.85 Camden Mews and are writing further to our letter 10th October 2014.

We have reviewed the following documents:-

- Independent Review of basement Impact Assessment for planning application 2014/4726/P by LBH Wembley dated December 2014.
- Basement Impact Assessment ref J12115 by ST Consult dated January 2015.
- Ground Movement Report by GCG dated 5th March 2015.
- Assumed Construction Sequence by Cullinan Studios with associated drawing no.85_CM_BIA_05 dated 26th February 2015.
- Drawing nos. 85_CM_BIA_01 rev B, 85_CM_BIA_02 rev A, 85_CM_BIA_03 rev A, 85_CM_BIA_05, 85_CM_BIA_06 rev A and 85_CM_BIA_07.
- Structural Engineer's Construction Method Statement by Axiom Structures dated March 2015.
- Determination of Loading on New Basement Walls – calculations by CS Ltd dated March 2015.

Many basements have been constructed in this area using safe and well established techniques such as underpinning. However, although it is fairly common to build basements in this area, the current proposals for no. 85 need further development and clarification before they are satisfactory. The following amendments and further information is required;-

1. The construction method statement by Axiom Structures is relatively detailed. However, there is no detail showing how excavation and underpinning will be carried out adjacent to the foundations of no.83. Also, the section details shown by Axiom Structures on pages 9 and 10 of their method statement are for underpinning directly beneath the party wall whereas the basement wall of no.85 will be constructed to one side of the party wall as shown in Cullinan Studio's drawing no.85_CM_BIA_01 rev B.
2. Drawing no.85_CM_BIA_01 rev B shows the new reinforced concrete underpinning constructed adjacent to the wall of no. 83 but does show any detail of the foundations of no.83

so it is not clear how these will be affected. Have trial pits been carried out to confirm foundation details?

3. The calculations provided are for underpinning directly supporting a party wall but do not cover the actual case for no.83 where the party wall is to one side of the basement wall and so is not directly supported by it. There will also be a surcharge load due to the party wall of no.83 acting on the basement wall.
4. Item no. 20 of the site investigation notes that heave due to unloading during basement construction will need to be dealt with. However the current design/drawings do not indicate any anti-heave precautions and the report by GCG indicates that ground movements will lead to small movements with any damage falling within category 1, very slight damage. Prior to any work commencing a condition survey of the party wall will need to be carried out and movement monitored during construction.
5. Page 9 of the Basement Impact Assessment ref J12115 by ST Consult notes that the presence of groundwater should be allowed for in the design but this does not appear to have been considered in the Cullinan Studio calculations received to date.
6. The method statement provided by Axiom Structures shows the base of the party walls retained and underpinned so that there is no direct connection between the ground floor slab and basement walls. However, the Cullinan Studio drawings show the base of the party wall removed with the ground floor slab connected to the basement wall. Which is correct?

It is essential that the above issues are clarified and dealt with before the project proceeds any further. I hope that the above is of assistance,

Yours sincerely

John Graham
Director Fluid Structures
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