1896/10/DBl 02 June 2023

Tottenham House and Estate

The Old Stables (Building 2 on the approved Master Plan):

Addendum to structural engineering notes on first floor proposals of 27 September 2021

1.0 Introduction

This note has been prepared by Alan Baxter Ltd. (ABA) on behalf of the client, to support the enquiry pack for recent design amendments to the proposed first floor structure of The Old Stables on the Tottenham House Estate. This note should be read in conjunction with the structural engineering note dated 27 September 2021, submitted in support of the initial Listed Building Consent application. The design proposals are being led by ADAM Architecture.

2.0 Summary of design amendments since initial LBC application

In the initial Listed Building Consent application, it was proposed to replace the deteriorated and largely collapsed timber first-floor structure with a new reinforced concrete floor, supported on new steel beams that will be installed at the locations of the historic timber primary beams.

The principles of this approach are unchanged in the revised proposals within the enquiry pack, but there several proposed amendments to the previously submitted information. These are a result of site discoveries, evolving brief and general design development.

A summary of the proposed amendments is as follows:

- Steel beam depths – Shallower sections have now been specified to increase the depth of the clear service zone beneath the first-floor slab soffit.
- First-floor trimmer beams – These have been added to the scheme to support the higher first floor partition and fixture load that are proposed.
- Elbow ties – The scope of elbow ties has developed in response to site discoveries that have arisen through improved access to the structure over the past two years. It has been discovered that the cross walls are not tied into the external elevations at present.
- East elevation gap infill – It was discovered that wall movement in the east range has created gaps between the intermediate cross walls and external elevations. Further to installing elbow ties, these gaps will be filled with concrete to improve robustness.
- Toothing and bonding existing nib in the west range – It was discovered on site that an existing brick nib was in poor condition and not bonded to the external elevation. This nib has been rebuilt to improve robustness.
- New steel-encased concrete lintels – In 5No. locations where primary beams bear directly above window openings, reinforced concrete lintels had previously been specified. Due to the more onerous load requirements, it is proposed to upgrade these lintels to concrete-encased steel beams.
- Additional steel angle supports – During the design development, locations in the corner bays were identified where additional short lengths of steel angle are required to support the first-floor slab.