

NO. 29 NEW END HAMPSTEAD LONDON, NW3 1JD FOR KARAWANA LTD

PROPOSAL TO PROVIDE ADDITIONAL SUPPORT TO SOUTHERN MOST BUTTRESS / RETAINING WALL

GB/8082 – Revision 1.0 24th September 2013

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1.0 ISSUE

1.1 This proposal responds to the concern raised in the RKD report dated 15 August 2013 in which Section 4.4 paragraph 2 states "It would appear likely that the buttress function will need complete replacement in view of the space needed to cut out to enable the piling".

2.0 THE RESPONSE

- 2.1 For the purposes of this response the southernmost buttress is considered to be the triangle of 215mm brickwork laid circa 1960s that sits atop the retaining wall such retaining wall being a part of the original hostel development as identified from the common brick.
- 2.2 The proposal is to cut vertically through the retaining wall at the toe of the buttress leaving the buttress intact and of overall projection from the garden wall circa 1970mm.
- 2.3 At a cut length of 1970mm the clear distance between the end of the retaining wall and the face of the piles will be 750mm (see hand annotated drawing CM03revC p4of7).
- 2.4 RKD raise several concerns:
 - a. Space for Piling
 - (i) Drawing PW01F (see hand annotated drawing PW01revF p5of7) highlights the step in the height of the piling.
 - (ii) The piling at the higher level is continued from the north past the southernmost buttress AT THE SAME level as the northern buttresses for which the RKD report concede there need be no conflict with the piling rig or the subsequent casting of the capping beam (see hand annotated drawing CSW-05 rev F p6of7).
 - (iii) In order to pile at the higher level south of the southernmost buttress it will be necessary to construct a pile mat at the higher level. This will be achieved by means of infill to within close proximity of the boundary wall between No. 29 and Lawn House.
 - (iv) Protection against surcharge to the boundary wall will be provided by installation of pre-cast concrete blocks which can either be left permanently or can be removed as required to achieve final ground levels.

b. Retaining Wall

- (i) RKD raise concerns over the stability of the retaining wall following the vertical cut to permit the piling.
- (ii) Initially it is considered that the stability of the wall will be unaffected owing to the infill required for the raised pile mat.
- (iii) Nevertheless prior to any cutting or demolition work it is proposed to prove either by excavation and exposure or by core drilling that the brickwork to the retaining wall is either mass masonry following the 1/4 rule or comprises a brick face to a concrete retaining wall/concrete backfill.
- (iv) Following verification of the structure of the retaining wall a decision will be taken as to its adequacy to continue to function as a retaining/buttress wall or whether additional support to the wall is required.

- (v) Notwithstanding (iv) above additional support will be provided in the form of a brick pier nominally 675mm x 215mm (but dimensions to be reviewed at detailed design stage) off a concrete foundation set below the foundation to any adjacent brickwork to be grabbed up or otherwise at the lower garden level of 117.10. (see hand annotated drawing PW01 rev F p7of7).
- (vi) A brick pier placed at right angles to the retaining wall/buttress and brick and bonded to the retaining wall section of the retaining/buttress wall will serve to replace the restraint lost by demolition of the curved staircase and will also seek to resist any turning moment arising from the boundary wall pressing against the buttress.

3.0 CONCLUSIONS

- 3.1 The raised pile mat will enable the piling rig to pile clear of the toe of the southernmost buttress and the depth of the retaining wall/buttress is sufficient to enable adequate clear space to be left for casting the pile capping beam.
- 3.2 The additional fin pier to the retaining wall will ensure the stability of both the remaining section of the retaining wall and the buttress above.
- 3.3 It is not necessary to replace the existing retaining wall/buttress in order to maintain the proposed pile line.

For and on behalf of TAYLOR WHALLEY SPYRA

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APPENDIX A

Hand mark up of TWS drawing 8082_CM03 rev $C-(page\ 4\ of\ 7)$ Hand mark up of TWS drawing 8082_PW01 rev $F-(page\ 5\ of\ 7)$ Hand mark up of TWS drawing 8082_CSW05 rev $F-(page\ 6\ of\ 7)$ Hand mark up of TWS drawing 8082_PW01 rev $F-(page\ 7\ of\ 7)$

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