Symmetrys Limited
Consulting Structural Engineers

6 The Courtyard, Lynton Road,
London. N8 8SL
[redacted]

2016061/RT/
6th June 2016

Andrew Budgen
Spacelab
18 Wenlock Road
London
N1 7TA

Dear Andrew

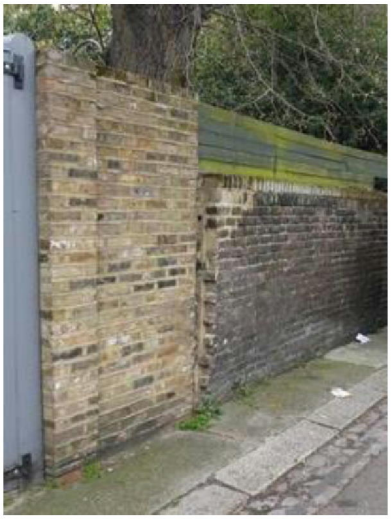
10 ROCHESTER SQUARE, LONDON NW1 – EXISTING TREE

We are writing following our visit to the above site regarding the existing tree on the eastern border of the site with the public pavement.

The tree in question is a lime tree, approximately 12m tall, directly adjacent to the eastern boundary of the site, close to the north east corner. We also understand the tree is under a Tree Protection Order. Crown Consultants, the arboreacultural consultants, have stated in their email report of 31st May 2016 that the tree is diseased at present and has also been previously pollarded severely in its upper reaches. Please see photograph below.

The principal structural issue is the proximity of the tree to the boundary wall of the site and its effect on that wall. The existing wall is Victorian stock brickwork, most probably in lime mortar with a shallow brick corbelled foundation on the local bearing strata, which is likely to be clay. The existing wall is now significantly out of plumb, as shown below.

Company No. 5873122
VAT Registration No. 894 2993 61
Registered In England And Wales



It appears the existing foundation has rotated and moved eastwards such that the wall above ground has moved approximately 100mm to the east at ground level then approximately 200mm to the east at the top of the wall. We believe this distortion is due to the growth of the lime tree, both in its roots and the increased volume of the trunk above ground. There is a horizontal force the growing tree would have applied to the wall and foundation but additionally the water demand of the tree would have caused volume changes in any clay bearing strata. This would cause additional movement of the foundation which has exacerbated the above ground movement.

The existing wall is typically 225mm thick so the degree of horizontal movement that has occurred means the wall is structurally unstable. There is therefore a tangible risk the existing wall could collapse due to the actions of the tree. That collapse would occur to the east, onto the public pavement along that boundary of the site. The existing wall could be rebuilt on new foundations but the volume and proximity of the lime tree would make this work unfeasibly extensive. In order to miminise the risk of collapse of the wall into public space, we suggest the tree should be removed for structural reasons. Once removed a new boundary wall could be rebuilt if required. Additionally, until the removal of the tree, we recommend the wall is either taken down or horizontally propped to prevent collapse.

We hope this provides all you need but please call if you have questions.

Yours sincerely
For SYMMETRYS LIMITED

[redacted]

Russell Thomas
BSc (Eng) Hons CEng MIStructE
Associate Director

Company No. 5873122
VAT Registration No. 894 2993 61
Registered In England And Wales