Ms Sarah Orchart
5 Elm Row
London
NW3 1AA

MPH0329/RHB

14 June 2011

Dear Ms Orchart

Re: 2 Hampstead Square

Instructions

Further to my instructions received from Jonathan Freegard Architects on the 23 May I have pleasure in submitting the following report.

Scope of Report

The report concerns the health and structural stability of the large Sycamore within the garden at the north side of the property and the tree's appropriateness within this setting.

The tree was assessed on site and viewed from ground level without a climbing inspection. This was a visual tree assessment only, no internal decay detection devices were employed. Further more detailed investigation could be undertaken if required. Recommendations have been given for any appropriate remedial action.

The tree has not been assessed with respect to its present or future relationship to the structure of the building, or any other built structures, including neighbouring buildings and I understand that there are no causes for concern with this respect.

The Tree

Sycamore

Height	Trunk Diameter at 1.5 metres	Crown Spread from trunk centre	Vigour	Age Range
Approx 18 metres	65 cms	5 to 8 metres	Normal	Mature

This is a large mature Sycamore of moderate form and possibly of self-sown origin.

Site Description

Hampstead Square is a residential area of Hampstead occupied by period properties at relatively high densities. Number 2 faces the square and the garden at the east. The property has a small garden at the north side of the house and which is enclosed by high walls to the north west and east. A further multiple residential building is located close to the northern side of the garden and with further gardens with residential properties beyond at the western boundary. The garden, in response to excessive shading, is laid with an artificial grass surface and paving and with a central raised bed at the western boundary within which the tree is located.

Tree Location

The tree is located within the raised bed at the western boundary of the plot. The raised bed is accommodated by a 40cms high retention wall 1.5 metres from the trunk centre. The western boundary wall is also 1.5 metres from the trunk centre. The tree is very close to the northern elevation of the house at a distance of 3.7 metres (see photos Appendix 1) and only 0.55m from the house at basement level. I understand this presents your architect with some concern over future cellar wall displacement.

Tree Condition

Base and Root Area of Tree

No evidence exists of any significant root damage, fungal pathogens or root plate displacement. No evidence exists of any displacement of the raised bed retention wall.

Crown Structure

The tree's form consists of two codominant stems which divide from the main stem at a height of approximately 3 metres (see photos Appendix 1). The union of the two codominant stems is tight and potentially weak. Closer examination revealed abnormality of the bark at the northern side of the tree at and below the union including ridging and evidence of included bark which extends below the union (see photos Appendix 1). This linear ridge within the bark and stem structure is evidence of an extended included union with poor bonding between the two codominant stems for a distance of 1.5 metres below the union. Further evidence exists of bark cracking adjacent to the included ridge, suggesting recent displacement of the two codominant stems at this point and a risk of potential failure (see photos Appendix 1).

At the southern side of the tree a large old wound exists just below the stem union with ridging and stem inclusion above this. A manual examination of the wound revealed some decay extending into the stem creating further weakness at this point (see photos Appendix 1).

At the northern side of the western codominant spar, a large old structural wound exists rendering this spar individually weak at this point (see photos Appendix 1).

Further multiple pruning wounds exists which may harbour decay including a wound to the eastern spar which is exhibiting a birdhole and possible extensive decay.

The remaining crown shows evidence of a possible old pollard point at 8 metres. More recent pruning is evident including an approximately 30% reduction of the trees crown volume with a heavier 40% reduction on the house or southern side. This may be a regular management programme, possibly in response to the trees weak structural codominant form, or to the spatial constraints of the tree's location.

Crown Foliage

The tree is of normal vigour with a dense crown and foliage structure and normal leaf size and colour.

Discussion

The tree is of poor structural form and condition. In particular the tight included union of the trees codominant spars is potentially weak and is showing evidence of possible displacement at the northern side. The weakness of this union is further compounded by a decayed wound at the southern side. Further lesser structural weaknesses exist including a large structural wound to the western stem and further multiple pruning wounds. Despite past crown reduction, which will have alleviated loading at the codominant union, there is a moderate to high risk of the failure of the tree at this point presenting a hazard to the property, neighbouring property and public use of Hampstead Square and its gardens.

The tree is in a very confined space for a specimen of forest dimensions. The trees proximity to the house (3.7 metres distance and 0.55m from the basement wall) is extreme and the dense shade that this species creates has prevented proper use of the small garden space and resulted in the resort to an artificial grass surface. Tree debris including 'Honey Dew' from aphid excretion is a particular nuisance in such a confined space and I understand a recent canvass of the properties neighbours to the north and west has revealed their difficulties in coexisting with the tree in the above respects. I understand also that the garden was previously occupied by a large flowering Cherry that was far more appropriate for the site and which had a far better relationship with neighbouring properties.

Conclusion and Recommendation

The tree is of poor structural form and presents a moderate to high risk of future failure and in particular at the weak included union of the trees codominant stems.

This specimen of larger forest dimensions is inappropriate within this location of dense residential urban land use and within its particular setting 3.7 metres from the northern elevation of the building and within a small urban garden.

I would therefore recommend that the tree is removed and is replaced by a semi mature tree of better form and safe future potential and more appropriate to this confined setting.

An ornamental tree of reasonable mature dimensions could be a suitable replacement including a larger flowering Cherry variety possibly of more fastigate form or an alternative species such as the ornamental pear Pyrus calleryana or the fastigate ornamental crab apple Malus tschonoskii.

I have no knowledge of the geology of the area but if shrinkable clay exists on site consideration should be given to the possibility of soil heave damage to surrounding properties as a result of tree removal. The tree is almost certainly younger than the surrounding properties and if no subsidence damage has been recorded to your property or neighbouring properties such a risk is low even in the presence of shrinkable clay. I would however advise that you consult your architect in this respect.

In the event of the presence of a local bat population and in order to conform to statutory obligations a check should be made to ensure that there are no bat roosts within the tree prior to the tree's removal.

Yours sincerely

Michael Honey
Honey Tree Specialists