



FAO: Andrew Wassell,
Wassells Arboricultural Services Ltd.
32B Elizabeth Avenue
Islington, London
N1 3BJ

Date 29-03-2022

Our Ref: SV220310-746: Mr& Mrs Holmes, Garden Flat, 37 Redington Road, NW3 7QY

Dear Sirs,

T1 Oak – Background history, pruning guidance and current pruning recommendations.

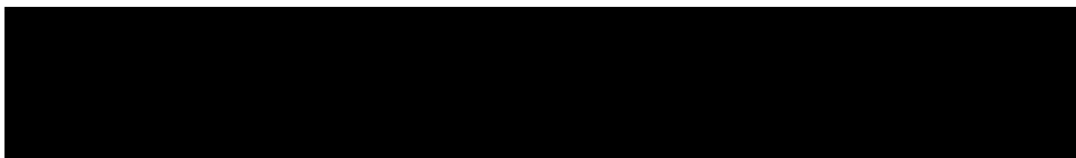
With reference to our site meeting of the 16/03/2022, we write to confirm the scope of works in respect of the suitable ongoing management and pruning requirements of the Oak, T1, within the rear garden of Garden Flat, 37 Redington Road, NW3 7QY.

Details below outline the history of the matter, the current tree works recommendations, and the future pruning requirements as discussed.

Summary:

Our recommendations for the current pruning specification are as follows:

Recommendations:	<p>General overall reduction of height and spread radius of up to 1.5m, focussing on selective thinning and/or reduction of regen. regrowth from previous pruning stumps,</p> <p>Combined with –</p> <p>Selective lateral reduction of up to 2.5m targeting misshapen crown portions to the south, south-west, and north-east [see images] to shape and balance crown,</p> <p>Combined with –</p> <p>Selective removal of duplicated previous pruning-stumps in order to form idealised scaffold limb structure [see images],</p> <p>Combined with –</p> <p>Selective removal of inner crown reactive epicormic growth – whilst ensuring inner crown natural-growth is retained as far as possible.</p>
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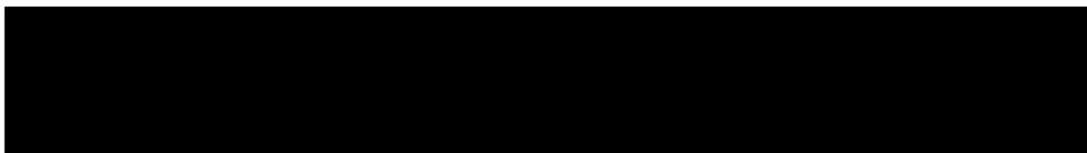
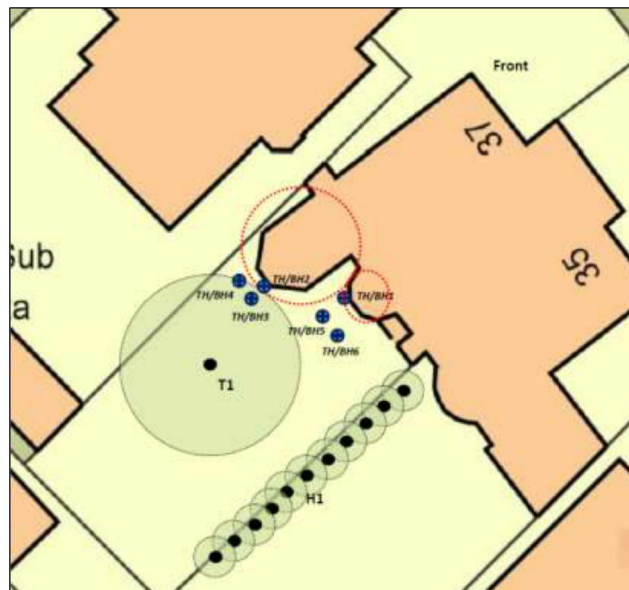


Introduction and History:

The tree in question, T1 Oak as per our report of the 11/08/2017 [Ref: SUB170724-1616], was implicated in subsidence damage focussed at the rear of the Garden Flat. The tree is also subject to a Tree Preservation Order, administered by the London Borough of Camden Council, ref: TPO REF 5H.

For a description of the tree in its original state at the time of our initial survey, our report refers as follows:

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Oak	16.0*	1290	15.0	8.4	Older than property	Policy Holder
Management history		Twin stemmed growth habit with main fork @ approx. 1.5m Large longitudinal decay column in south-eastern stem Moderate basal decay pocket to south side of main stem No signs of significant past management however understood to have been crown reduced C.2015					





View from Oakhill Avenue, NW3 of Oak T1 in pre-reduction condition
[Google Earth Image dated Feb. 2018]

Previous Arboricultural assessment (06/01/2017) concluded with a recommendation that T1 Oak should be removed. However, following further geotechnical investigations conducted over 17/02/2017 and 20/06/2017, a significant potential for soil heave was identified should complete removal of the tree been implemented – the extent of which would give rise to an increase in damage to the property.

Accordingly, a pruning specification was required as an alternative to complete removal of the tree, the result of which needed to achieve sufficient reduction in moisture demand so as to return the soil moisture to a point of equilibrium and remove the potential for further subsidence.

In order to formulate the pruning specification, reference was made to the relevant Building Research Establishment guidance *Hortlink 212: Controlling Water Use Of Trees To Alleviate Subsidence Risk, 2004*, as well as the London Tree Officers Association [LTOA] Tree Pruning Criteria in respect of the Joint Mitigation Protocol, *JMP V.2, 2008*; both of which impart that a 70 – 90% reduction in crown volume/leaf cover [i.e., semi-Pollard], with re-pruning of 2/3 years intervals, would, in most cases, be required in order to attain a sufficient reduction in soil moisture uptake.

In view of the historic past management of the tree, which had been mostly to crown lift and thin the tree in view of its dominance of the Garden Flat garden, the tree presented with an extensive crown spread and a distinct lack of inner crown growth; growth which would otherwise be cut-back to when



undertaking reduction works. In this regard, crown reduction to the extent that would have achieved a 70 – 90% reduction in crown volume, would have left the tree in an aesthetically unpleasing state.

In view of the age of the tree, it was also considered likely that such an extensive reduction would leave the tree in a state of physiological shock and that it would be unlikely to recover from such a severe reduction potentially resulting in a decline spiral and possibly ultimately death, which would in turn have the same effects on the soils as complete removal and the potential for excessive heave.

It was crucial, therefore, that the basis of any pruning specification needed to be such that a sufficient reduction in crown/leaf volume was achieved with a view to returning stability to the property, whilst still ensuring that the amenity value of the tree was retained and at no significant risk of physiological decline due to the extent of removed crown.

Accordingly, the final specification of works was determined in order to achieve a ~50% reduction in crown volume by way of a selective reduction in overall size whilst in turn retaining as much inner crown growth as possible.

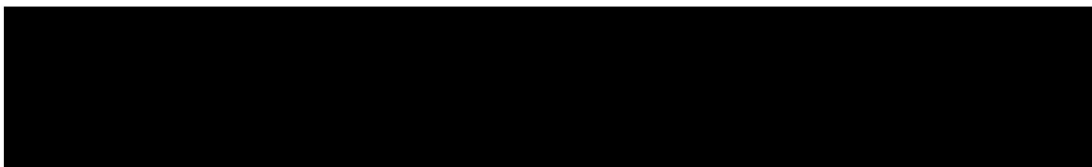
Our report, ref: SUB170724-1616 of 11/08/2017, therefore specified the previous pruning recommendation as:

Recommendation	<p>Reduce in height to suitable growth points at approx. 11m and reduce lateral limbs by approx. 3.5m radius to balance crown - ensure inner crown growth is retained.</p> <p>Do not allow to exceed new dimensions by a program of regular (triennial) re-pruning</p>
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Tree Preservation Order application - 2017:

An application was made to LB Camden by virtue of the TPO, for the Council's approval of above tree works specification on 05/10/2017. The application was validated on 11/10/2017.

Initially the LB Camden Tree Officer attended the property on 03/11/2017 to view the tree at which point concerns were raised to Mr Holmes as to the extent of reduction proposed. A follow-up site meeting was subsequently convened on the 21/11/2017 between ourselves [Andy Clark in attendance] and LB Camden to discuss the concerns raised by the Council apropos the proposed works. This meeting was followed up via e-mail comms. on the 23/11/2017.





On 28/11/2017, Consent was granted by LB Camden for the full extent of the proposed works as recommended.

Following approval from Insurers, the prescribed tree reduction works were undertaken on 03/04/2018 by Wassells Arboricultural Services Ltd.

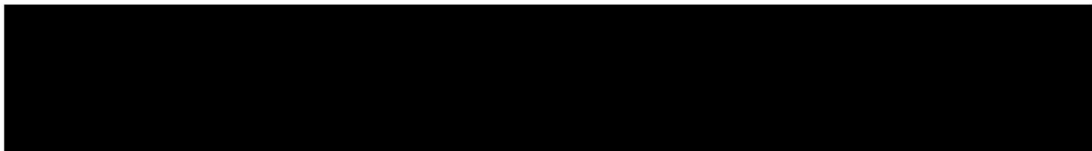


View from Oakhill Avenue, NW3 of Oak T1 in post-reduction condition
[Image dated 17 April 2018]

Future tree works requirements:

As of 31/08/18, up to date crack and level monitoring appeared to demonstrate that stability to the property had been achieved, with only minor vertical movement noted. Engineering verification carried out on the 26/09/2018 confirmed that cracks had closed and not opened through the summer. Given the exceptionally hot and dry climatic conditions of the summer of 2018, confidence was therefore high that the extent of crown reduction was sufficient to arrest movement.

A review of the trees health and condition following the reduction works was carried out on the 06/10/2018, which showed that the tree appeared to have responded well to the extent of reduction works carried out. Whilst particular dense in some areas, the tree exhibited obvious extension growth from both the past cut points and as reactive new epicormic growth throughout the inner crown.

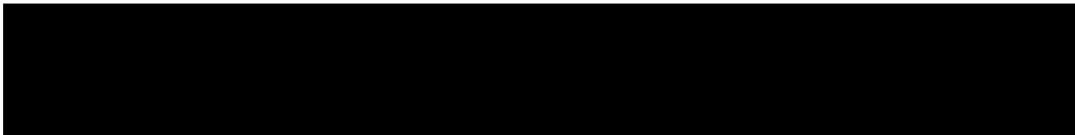




View from rear garden 37 Redington Road, NW3
[Image dated 08/10/2018]



View from Oakhill Avenue, NW3
[Image dated 08/10/2018]

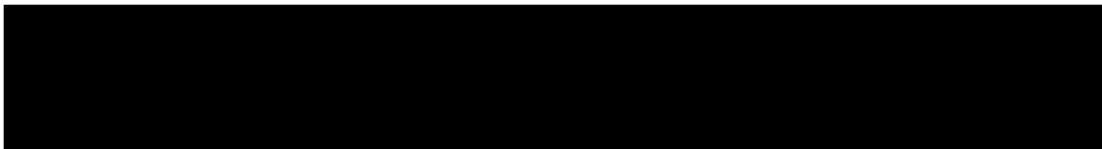


This reactive inner crown growth will be crucial to manage effectively going forward, as it will both increase the tree's leaf/crown volume if not kept in check, in turn giving rise to the trees moisture uptake and a potential return of damage to the building; but will also provide suitable future growth points that were otherwise not present at the time of the March 2018 crown reduction - enabling future crown reductions to lead to a more aesthetically pleasing appearance to the tree in keeping with the trees amenity value.

It was also noted at the inspection of the tree that certain portions of crown, particularly the lateral extent of the crown shape and form towards the south/south-west, north-west and north easterly directions, do remain slightly out of shape with the optimal crown outline. Images below refer and indicate.



View south-eastwards from Oakhill Avenue – note: lowest south/south- westerly limb extends beyond [approx. 2.0m] the optimal crown shape.
[Image dated 17/04/2018]

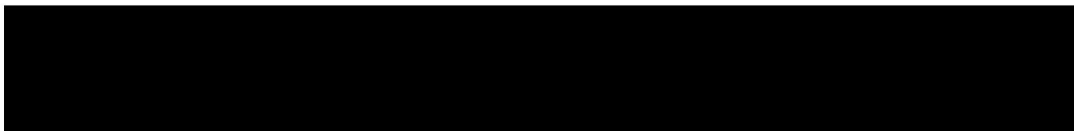




View south-westwards from rear garden 37 Redington Road – note: lowest north-westerly limb and upper easterly portions of the crown extend beyond the optimal crown shape.
 [Image dated 08/10/2018]



View south-eastwards from Oakhill Avenue – note: lowest south/south-westerly limb extends beyond the optimal crown shape.
 [Image dated 08/10/2018]



It is clear that future works will need to remain in keeping with the original ethos of achieving a sufficient check on the tree's crown/leaf volume, whilst still ensuring that the tree remains both healthy and aesthetically pleasing. Excessive reduction will potentially result in decline. Too little a reduction and an increased moisture uptake may result in an increase in movement of the building and a return of damage. It will be crucial that future tree works contractors, as well as the Local Authority when dealing with and deciding future tree works Applications, understand the importance of this balance.

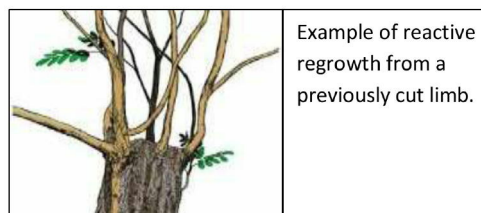
Future pruning works simply re-reduce the tree back to its most recent reduction points is likely to be insufficient. Whilst this form of future pruning will of course help to keep the tree aesthetically pleasing, it will only serve to promote increasing volumes of reactive regrowth - prompting the tree to ultimately form a smaller more-dense crown – and thus will likely not achieve suitable management of the crown/leaf volume.

Future pruning works must therefore selectively manage both the trees outer crown growth and shape, whilst also suitably managing the inner crown regrowth. The ultimate intention being, over time, to restore the tree to a small, natural shape, with well-proportioned and modest inner crown density.

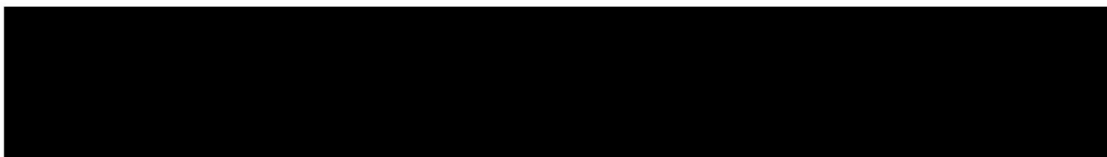
This end can be achieved by several ways –

- **Selective thinning of reactive regrowth**

When large diameter stems and branches are cut, the effect is to prompt more vigorous [reactive] growth in order to re-grow the lost portions as quickly as possible. Often, in healthy trees, the re-growth emerges from latent buds below the bark and can, more often than not, increase the amount of branches than were previously present in a very short space of time. This effect can be seen when pollarding trees. What was once one limb with several branches, is cut and from the 'stump' grows several newly forming limbs. If these are left unchecked, they will go on to form new limbs and branches in place of the originally reduced limb -



This regrowth can be selectively removed in order to thin the density of emergent twig growth.



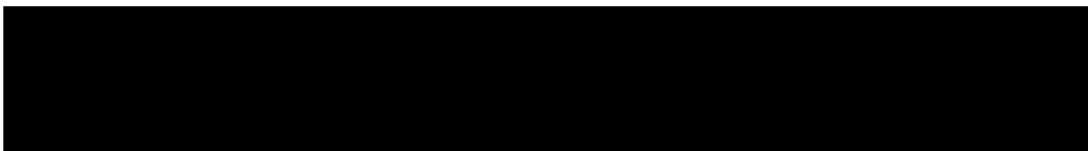
- **Selective removal of duplicating limbs/branches**

At the time of the previous crown reduction, in order to achieve as aesthetically pleasing shape as possible and avoid any 'holes' in the crown outline, many branches were stump cut in order to provide a suitable scaffold framework for re-growth in future years.

In some areas of the crown, this has led to a duplication of stumped limbs in close proximity with others. Example of this is as below -



As indicated and annotated with the red lines above, as the crown re-fills with the emergent regrowth over the coming years and in turn provides further options for where cuts can be made to suitable growth points, remaining stumps can begin to be selectively removed in their entirety.

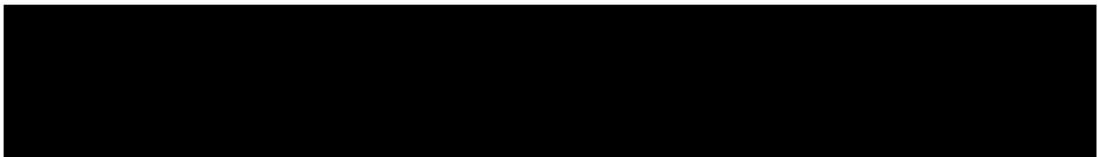


- **Selective linear reduction of crown portions which remain extending beyond the optimal crown outline**

As mentioned within the opening sections of this guidance, there are portions of the crown outline which remain as extending in the region of 2.0m beyond the optimal crown outline shape. Example of this is as below -



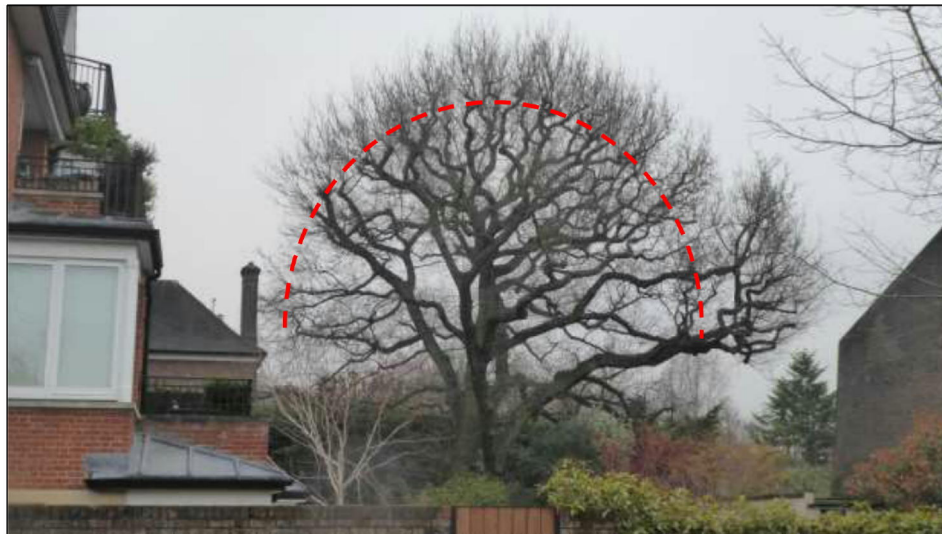
Further selective crown reduction works can therefore be carried out, with a view to achieving an optimal crown outline. Targeting pruning of the above indicated portions of the crown of up to approx. 2.5m, when combined with the selective removal and thinning of emergent regrowth, will further reduce and effectively manage the crown/leaf volume – thereby managing the trees moisture uptake to be as low as reasonably possible whilst leaving the tree in full keeping with its preserved status.



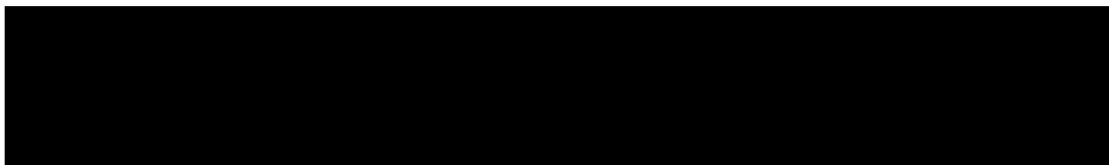
Current tree works:

As discussed, and agreed on site during our meeting of the 16/03/2022, our recommendations for the current pruning specification are as follows:

Recommendations	<p>General overall reduction of height and spread radius of up to 1.5m, focussing on selective thinning and/or reduction of regen. regrowth from previous pruning stumps,</p> <p>Combined with – Selective lateral reduction of up to 2.5m targeting misshapen crown portions to the south, south-west, and north-east [see images] to balance crown,</p> <p>Combined with – Selective removal of duplicated previous pruning-stumps in order to form idealised scaffold limb structure [see images],</p> <p>Combined with – Selective removal of inner crown reactive epicormic growth – whilst ensuring inner crown natural-growth is retained as far as possible.</p>
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View south-eastwards from Oakhill Avenue
[Image dated 16/03/2022]





Going forward, a tree works application to the London Borough of Camden will be submitted seeking their consent to the works as set out above.

Please do not proceed with any works to the tree until you have received a copy of any Consent notice from our office.

If you have any queries or require any further clarification at all regarding the above, please do not hesitate to get back to us at your earliest convenience.

Yours faithfully



Andy Clark
Arboricultural Consultant

