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Site Specific Arboricultural Survey & Impact Assessment

Land at 5 Compayne Gardens, NW6 3DG

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Client

Richard Mitzman Architects LLP, Unit 1, Primrose Mews, Sharpleshall Street, London NW1 8YW

Tel: 020 7722 8525

Scope of Report

This document has been produced to provide a survey of trees situated at the frontage of the above property and to discharge the concerns of the Planning draft decision refusal notice section 2, Reference: 2011/4115/P

Abbreviations:

All abbreviations introduced in brackets are used throughout the report

Location of Trees

There are 2 trees located at the front boundary of 5 Compayne Gardens that could be affected by the new basement stairwell construction. These are both Lime trees and are within 500mm of the front boundary wall. The trees are covered by a Tree Preservation Order within the London Borough of Camden.

The trees have been numbered as T1 & T2 with T1 being next to the entrance gate on the right hand side, as you enter and T2 being next to T1 and in the corner of the front boundary adjacent to the next door property.

The tree survey for the site can be found in appendix 2 below

See photo at end of report – T1 on left of picture and T2 on right of picture

Impact Assessment

Tree T1 is situated at 3.1 metres from the edge of the original basement steps, which pre-date the age of the tree with tree T2 being further away at 5 metres.

The new basement steps have been constructed alongside the original steps and further away from the front door of the property. These steps have been designed to provide a more suitable and safer access to the basement of the property.

The new steps have been constructed at 1.7 metres wide and extend a further 1.3 metres into the front garden and are thus that much closer to the existing trees T1 and T2.

The excavation and construction work will have encroached on the likely rooting zone of the 2 trees, T1 & T2 but the area of the likely root protection area (RPA) involved is negligible and is likely to have little or no effect on the 2 trees concerned.

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The regular maintenance regime that the trees appear to have will more than compensate for the loss of any rooting area and potential die-back associated with that loss. See table 1 below

As the new basement stairwell had been constructed already it is not now possible to see the excavation soil profile and thus determine the amount and size of the tree root system encountered, which would have acted as further evidence to substantiate the conclusion below.

Conclusion

1. That the potential rooting area loss is minimal and is unlikely to cause any damage to the trees T1 & T2
2. The current maintenance regime for the trees will act in mitigation for the loss of any roots that did occur
3. Table 1 is the reference for the tree protection measurements of trees T1 & T2

References

1. BS 5837 – 2005 Trees in Relation to Construction – Recommendations
2. Richard Mitzman Architects drawing number 10-189-000 dated 20/02/11
3. Application reference 2011/4115/P – draft refusal notice dated 11/10/2011

Declaration

This report has been written and checked by Richard Wassell of Wassells Arboricultural Services Ltd. and is provided, without prejudice, as an objective and professional assessment of the trees described.

Signed: *R.J.Wassell* Date: *24.10.MMXI*

Appendix 1

Table 1

Table of tree protection measurements

Tree Number As per tree survey plan & schedule	Crown Spread metres	Grading Category	Stem Diameter @ 1.5 metres agl. Millimetres	Root Protection Area (RPA) - Radius *measured from centre of stem* Metres	Tree/Root Protection Area (RPA) *portrayed as a circle around the tree* Sq. Metres	Affect of building proposal on the total RPA
T1 Tilia X europaea Lime	N =2 S = 2 E = 2 W =2	B (due to TPO)	370	4.4	60	Negligible affect as less than 5% of the total RPA
T2 Tilia X europaea Lime	N =2 S = 2 E = 2 W =2	B (due to TPO)	420	5.0	78	Negligible affect as less than 5% of the total RPA

Protecting Root Zone of Trees:

The Root Protection Area (RPA)

This is the area surrounding a tree that is considered to contain sufficient rooting volume to ensure the survival of the tree in the future. The root system is typically concentrated in the uppermost 600 – 1000mm of the soil and is not necessarily symmetrical around the tree, being dependant on a number of factors such as water, nutrients, oxygen, soil penetrability and physical obstructions such as existing foundations or changes in level (terracing).

The RPA is deemed to be a minimum area, which should be left undisturbed around each retained tree. This area is portrayed as a circle around each tree but where there appears to be restrictions to root growth the circle is reshaped to reflect more accurately the likely distribution of the rooting area of the tree concerned.

Key Points

1. AVOID building works within the RPA if at all possible but if not then carefully consider the following: where the RPA is likely to be severely affected because of site design constraints then felling and planting replacement(s) trees in a more suitable location on the site will need to be considered.

2. Where possible do not use strip foundations within the RPA, if absolutely necessary consider using a trenching saw or excavate by hand to avoid 'shatter damage' to the root system.
3. Consider using piling techniques for foundations @ maximum 350 mm diameter with ground beams on or above the surface of the root zone.
4. Do not exceed entering the root zone by more than one fifth of RPA radius.
5. Do not trench tangentially across the root zone for footings and services unless it cannot be avoided.
6. Consider 'no dig' techniques for services installation, with radial service lines being preferable to tangential across the root zone. Where this is undertaken then boring must be carried out below 600mm deep.
7. Any hard surfacing, paths and roads need to have the same considerations for the RPA and as in the above points. Where possible paths and hard surfacing (patios etc) need to be surface constructed (cellular) and semi-porous to allow water penetration and gaseous exchange into the root system of trees.

Excavation within Root Protection Area of retained trees

Where trees are to be retained then any proposed foundation, underground services work and hard surfacing such as roads/paths falling within the RPA of trees that are to be retained shall be kept as far away from tree stems as possible(SEE NOTE 1 ABOVE). Where any such works are necessary within the RPA there will be a requirement to dig carefully by hand and ensure any roots encountered of maximum 25mm in diameter shall be exposed and correctly pruned back by a competent Arborist. Where larger roots are encountered of above 25mm in diameter then advice from the Arboricultural Supervisor (AS) for the site must be sought prior to any work being undertaken.

Appendix 2

Schedule of Tree Survey Information

SITE: 5 Compayne Gardens, London NW6 3DG

DATE: 17th October 2011

Tree Number	Species	Diameter mm	Height metres	Crown Spread metres	Age Class	Grading Category	Estimated Future Lifespan	Structure	Physiology, Condition & other factors	Management recommendation
1	Tilia X europaea Lime	370	12	N =2 S = 2 E = 2 W =2	SM	B (due to TPO)	>40	Good	Previously crown reduced at 10 metres and regularly reduced overall. 80% epicormic growth throughout crown and basal growth typical of Lime. Average condition and within 500mm of front brick wall	RE and RC back to previous every 5 years AI in first growing season after completion of work
2	Tilia X europaea Lime	420	12	N =2 S = 2 E = 2 W =2	SM	B (due to TPO)	>40	Good	Previously crown reduced at 10 metres and regularly reduced overall. 80% epicormic growth throughout crown and basal growth typical of Lime. Average condition and within 500mm of front brick wall	RE and RC back to previous every 5 years AI in first growing season after completion of work

KEY:

Tree Number and Species = number of tree on plan and Common Name/botanical name

Height = estimated height of tree from surrounding ground level +/- 1.5 metres

Diameter = diameter of main stem @ 1.5 metres above ground level

Crown Spread = maximum extent of branches measured radially from the base of the tree, trees with asymmetrical crowns are shown with distances in relation to compass points. N = north etc.

Crown Height (H) = height to base of tree crown from ground level

Age Class = Young: age less than 1/3rd life expectancy | Semi-mature: 1/3rd to 2/3rd life expectancy | Mature: Over 2/3rd life expectancy | Over mature: mature and in state of decline | Veteran: Surviving beyond typical age range for species

Grading Category: As per BS 5837:2005 Table 1 – Tree quality assessment, which refers to tree quality and landscape/amenity value; A=high, B=moderate, C=low

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Estimated Future Lifespan = estimated useful and remaining contribution to the site in years

Structure = structural condition of the tree based on roots, trunk, and major stems/branches along with the presence of any structural defects and decay organisms. Categories are: Very Good; Good; Moderate; Poor; Hazardous

Physiology/Condition = Overall health, condition and function of the tree in comparison to a 'normal' specimen of its species and age. Categories are: Above average; Average; Declining

Other factors = any other physical/environmental factors that could influence the tree now/in the future

1. Management Recommendations: **N** = no work required. **CC** = removal of dead, diseased & dying wood from tree crown, thinning of overcrowded crown, removal of Ivy from crown & stem and removal of all epicormic growth within crown including stem & basal epicormic growth on Lime trees. **LC** = lift crown. **TC** = thin crown. **RC** = reduce crown. **P** = pollard. **SP** = scaffold pollard. **RE** = remove epicormic and basal growth. **FP** = Formative prune **F** = fell to ground level. **FG** = fell and grind out stump. **R** = carry out replacement planting. **AI** = 3 yearly arboricultural inspection

N/K = not known

Alan Mitchell System = Estimate of tree age based on open grown tree with full crown. Age in years = Girth (circumference) in centimeters measured at 1.5 metres above ground level and divided by 2.5 ie. Tree of girth 250 cm = 100years old

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