

ARBORICULTURAL IMPLICATION STUDY AND TREE PROTECTION STRATEGY

Proposed development at:

Kings College Court
55 Primrose Hill Road
London
NW3 3EA

Produced For: Jim Garland Architects Limited
Prepared By: Michael Honey, Dip. Arb. (RFS), F.Arbor.A. BA Hons
Reference: MPH/0421/RHB
Date: 11 December 2012

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▪ **Instructions**

Further to your recent instructions I have pleasure in submitting the following report.

▪ **Background**

The report concerns the above site which consists of a residential estate including terraced housing with Tobin Close and a single multi storey housing apartment block, Kings College Court, all set within their own grounds and gardens.

The site is subject to a development proposal which consists of the remodelling and the extension upwards of the existing apartment block Kings College Court and some upgrading and resurfacing of the car parking and access areas as outlined upon the proposal drawing included within Appendix 2 and which outlines those trees to be removed and those trees to be retained.

▪ **Scope of Report**

- a) The following report assesses all the trees on site in terms of their health and safety, amenity value and future potential. The trees were numbered and plotted on the drawing topographical and proposal drawing included within Appendix 1.
- b) The scope of this report is to assess the development proposal for this site with respect to its impact upon existing trees. The report determines which trees should be retained and which should be removed. All interfaces between the development and the trees, their root zones and their crowns are assessed and discussed.
- c) Root Protections Areas for those trees of amenity value graded B and above are also listed and with reference to BS5837:2012 'Trees in Relation to Design, Demolition and Construction' Table 2 and as the radius of the Root Protection Areas.
- d) The quality and future growth potential of the trees likely to be affected by the development are assessed.

- e) The report details those protective measures that will be necessary for the successful protection of retained trees during the construction process.
- f) Guidance is given with respect to the implementation of protective procedures and measures in relation to specific site sensitive trees and general site organisation and construction logistics.
- g) The use of a Tree Protection Method Statement is described as a potential tool to assist the successful logistical implementation of tree protective measures during the construction process. The general principles involved in the formation of a method statement and its contents are outlined

▪ **Site Description**

The site is a residential estate located within an urban area of north west London consisting of a mixture of residential and commercial/retail land use. The area has an established population of mature trees at modest densities consistent with this urban land use.

The estate consists of a complex of terraced houses within Tobin Close to the west and the large multiple residential block Kings College Court located to the east. Access driveways and car parking surround the residential buildings, including the main access driveway at the north west corner, with managed gardens and grounds predominantly occupying the eastern boundaries of the site and the south eastern garden. The majority of established trees, including several middle aged and mature specimens are located at the eastern boundary and within the south eastern garden.

▪ **Design Proposal and Tree Retention**

The proposal includes the retention and remodelling of the existing building Kings College Court and as such will have a very limited impact upon the surrounding trees.

All the sites important trees can be retained with little impact upon them including all the A and B grade specimens located along the eastern boundary and within the south eastern garden area.

Only three small insignificant trees will be removed to facilitate the development one of the poor self sown Prunus/plums T7 and one of the pair a small inappropriate Lawson Cypress T10 and an insignificant Cheery T13. The removal of these trees will have no impact upon the local landscape.

The remodelling of the building will not have any impact upon the Root Protection Areas of those trees to be retained. The exception is the new access ramp and vestibule at the eastern elevation which will encroach marginally within the Root Protection Area of the Sycamore T12. Such marginal encroachment, less than 2% of the trees total Root Protection Area, will have no significant impact upon this tree. No specific protective measures are therefore required with respect to the construction process and the trees to be retained beyond the general protective measures listed within the following report.

Similarly driveway and car park upgrading and resurfacing will be confined to within the layout of the existing driveway and car park areas and will have no impact upon the retained trees.

The exception is the two new disabled parking bays at the north east corner of the site which will encroach upon the Root Protection Areas of the A grade London Plane T8. Excavation of the raised bank within the trees Root Protection Area will be required to facilitate construction of these bays. However this will encroach upon only 5% of the trees total Root Protection Area and will therefore have no significant impact upon this specimen. Protective measures have been listed within the following report.

▪ **Protection of Trees During Construction**

General Principles

Existing trees can be easily damaged directly through root severance and inadvertently through soil compaction which disrupts the soil structure causing asphyxiation of roots and subsequent root dysfunction. Spillage of toxic materials can also cause root death. Protection for selected trees for retention is essential to ensure their lasting effect on the proposed scheme which will include a proportion of the tree/soil zone.

It is equally important therefore to ensure the protection of trees both above and below ground. Guidance is provided in British Standard 5837, 2012, 'Trees in Relation to Design, Demolition and Construction' as to the protection of existing trees before, during and after development.

Additionally, the Arboricultural Advisory and Information Service give guidance specifically with respect to driveways in the publication 'Through the Trees to Development'. Trenching close to trees can have a serious detrimental effect on tree physiology and stability. It will be necessary to consider alternatives to open trenching near trees in order to avoid damage. Guidance is given in the National Joint Utilities Group publication 'Guidance for the Planning Installation and Maintenance of Utility Services in Proximity to Trees'.

Protective Distances and Fencing

With reference to BS5837, 2012, recommendations for Root Protection Area for those trees of amenity value has been included within the Tree Schedule and as the radius of the Root Protection Areas.

These Root Protection Areas should be included on a separate drawing as part of the tree protection plan. The Root Protection Areas where possible and appropriate should be enforced by the use of robust protective fencing as outlined in BS5837, 2012.

In this instance would recommend fencing 2 metres high consisting of a scaffold framework supporting weldmesh panels (fig. 2 BS5837, 2012, Appendix 3).

Where construction processes are required to within the minimum protective distances the ground between the protective fencing and building should be protected by geo-textile fabrics beneath boarding and separated by a 150mm woodchip compression layer with reference to BS5837;2012 6.3.3.3.

High visibility tapes bearing the inscription 'Tree Retention Area Keep Out' should identify protective areas.

Tree Protection and Utilities

The location and siting of all utilities should if possible be outside of the minimum Root Protection Area as enforced on site. Where utilities need to encroach upon these areas thrust bore excavation techniques should be considered. I understand in this instance all utilities will use the existing utility and service runs and with no impact therefore upon the trees to be retained.

Tree Protection and Storage of Materials

All materials for construction purposes should be carefully stored outside of the enforced tree protection areas. All toxic substances such as oils, bitumens and residues from concrete mixing should be retained by effective catchment areas.

In this instance sufficient storage areas exist within the existing hardstanding and vehicle parking areas with no impact upon the trees to be retained.

Landscaping Works

All landscaping should avoid soil regrading and disturbance within the tree protective areas. This includes cultivations for the preparation of soil for turf, seeding or planting.

A new pedestrian footpath at the eastern side of the site and within the Root Protection Area of the London Plane T8 will be of No Dig Construction and set upon the soil surface to ensure no impact upon this tree.

▪ **Specific Tree Retention and Protection**

Site Access for Construction Traffic

Construction traffic can access to site from the existing access driveway of the north west corner and can utilise all the existing driveway and vehicle hardstanding areas with no impact upon the retained trees.

Domestic Hardstanding and Car Parking

The upgrading of the driveway and car parking areas, including some resurfacing, will retain the existing driveway and hardstanding area footprint with no impact therefore on the trees to be retained. Any resurfacing of this hardstanding within the trees Root Protection Areas should maintain the subbase intact to ensure no disturbance of the soil and root zone beneath. The exception however is the two disabled parking bays at the north east corner of the plot which will encroach within the Root Protection Area of the A grade London Plane T8. This will necessitate the excavation of the low grass bank at this location to facilitate level parking bay construction. However this will encroach upon only 5% of the trees total Root Protection Area and will therefore have no significant impact upon this tree.

It will be important however to ensure that the grade change is restricted to the bay footprint only. This can be achieved by the construction of a suitable retention wall to reduce the horizontal distance of the grade change.

Construction

Remodelling of the building will not increase the existing construction footprint and all construction activities will be outside of the Root Protection Areas of the trees to be retained.

The exception is the eastern vestibule and access ramp which will encroach marginally upon the Root Protection Area of the Sycamore T12 and less than 2% of the trees total Root Protection Area. Such minimal encroachment will have no significant impact. No specific protective measures are therefore required. Light construction processes including pedestrian activity may be required within the trees Root Protection Areas. The robust fencing specified should first be erected at a position to provide construction access and the ground between the fencing and the construction should be protected by boarding

overlying a geotextile layer and separated by a 150 millimetre woodchip compression layer and with reference to BS5837:2012 clause 6.3.3.3.

▪ **Tree Protection Method Statement**

Before construction works begin and in order to ensure that all the above protective measures are enforced a Method Statement should be devised outlining a logical framework and a reasonable sequence of events and supervisory procedures.

The tree protection method statement should include a drawing depicting all individual and general tree protective distances. The drawing should also depict all areas designated for the storage of materials including catchment areas for toxic fluids, and general access routes for utilities and services.

All protective fencing should be specified in detail for each tree and area.

Detailed specification for special operations including parking bay construction should be outlined and agreed.

The tree protection method statement should also include a schedule of the sequence of events to ensure all protective measures are adhered to, the proposed draft format of which is outlined. All relevant construction and development personnel should be informed with respect to the method statement and should be made available to them.

Site supervision to ensure that protective measures are employed and protective distances are strictly enforced should be carried out by both site agent and designated arboriculturalists. This to also include regular visits by the arboriculturalists during construction and a final visit on completion. A reporting procedure should also be implemented and agreed.

This protective method statement scheme can be endorsed by planning conditions, agreement or obligations as any appropriate arrangement between the developer and planning authority. Further discussion between these relevant parties might therefore be necessary in order to finalise this document.

▪ **Summary**

The proposal, which includes the retention and remodelling of the existing building Kings College Court will have a very limited impact upon the surrounding trees. All the trees of amenity value including the A and B grade trees of prominence to the local landscape located at the eastern boundary and south east garden will be successfully retained.

The remodelling and retention of the existing building and upgrading of the existing vehicle hardstanding footprint will ensure that the construction process will be outside of the majority of the trees Root Protection Areas and with no significant impact upon them.

The exception is the creation of the two new disabled parking bays within the Root Protection Area of the London Plane T8. This will however be less than 5% of the trees total Root Protection Area and will therefore have no significant impact upon this specimen.

With the implementation of this specific and the general protective measures listed the proposal will have no impact upon the sites important tree and their continued contribution to the local landscape.

This concludes our report but if we can be of any further assistance, or should you require any further information, please do not hesitate to contact us.

Michael Honey
HONEY TREE SPECIALISTS