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Site Specific Arboricultural Survey & Method Statement (AMS)

Land at 33 Kentish Lane, Brookmans Park, Hatfield AL9 6NG

Richard Wassell MIHort NDArb(RFS)Kew Diploma NEBOSHlevel3

29th February 2012

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Client

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Scope of Report

This document has been produced to provide a detailed survey of trees within the above demise and any trees that are nearby in surrounding demises to the land at 33 Kentish Lane, Brookmans Park, Hatfield AL9 6NG

The report will assess the quality, amenity and landscape value of all surveyed trees and describe the protection of all trees retained, where they are likely to be affected by the proposed development and also indicate the likely impact the proposals may have on those trees in the future.

The report will also recommend any required tree works to enable access and also to mitigate potential damage in the future.

This is intended to support the planning application for development of this site.

The tree survey for the site can be found in Addendum 3 below

Abbreviations:

All abbreviations introduced in brackets are used throughout the report

Tree Protection Fencing (TPF) & Tree Protection Plan (TPP)

The TPF for retained trees shall be provided by the site hoarding as erected prior to construction activity on site, as the trees are all situated either within the next door garden or along the South West boundary line of the site.

Site hoarding shall be no closer than 1.5 metres away from the stem of retained trees and consist of 20mm plywood sheets supported by minimum 100mm square posts and 100 x 50mm rails with posts at 2.5 metre centres.

Post holes for site hoarding that are required within the RPA of nearby trees shall be dug by hand and are to be a maximum of 300 x 300mm and 450mm deep

**** Please see Addendum1-section on Excavation within RPA of Trees****

Protection of Existing Surfaces within Root Protection Area (RPA) of Nearby Trees

Where construction activity extends into the RPA of trees T1, T4 and T5; this area will require protecting as per the specification below:

Ground Protection System:

- Level area of RPA concerned by blinding with sharp sand at maximum depth of 50mm
- Lay geo-textile membrane such as 'Terram' to cover area concerned
- Cover geo-textile with maximum of 100mm MOT Type 1 sub-base
- Retain MOT type 1 with edge restraint such as 30 x 100mm edging board pegged every 2 metres to prevent migration of the sub-base

**** Please see Addendum1-section on Excavation within RPA of Trees****

Access Facilitation Pruning & Tree Works

It may become a requirement for certain trees to be pruned to prevent damage by construction related plant and machinery. If this is the case then any work shall be undertaken by a competent Arborist as described in Appendix 2 below

The proposed tree works are described in Addendum 2 below.

Site Access and Construction Working Area (CWA)

Arrangements for these elements of the development of the site are unknown as at time of writing this report. However, access will be off of Kentish Lane and it is likely the CWA will be at the front of the site and nearest to the boundary with number 35

Both aspects will be carefully considered using the AS below to advise on protection of nearby trees prior to commencement on site.

Site Storage and Accommodation

Arrangements for these elements of the development of the site are unknown as at time of writing this report. This is also most likely to be at the front of the site and close to entrance point.

Both aspects will be carefully considered using the AS below to advise on best location to provide for protection of nearby trees prior to commencement on site.

Impact on Trees from Foundation Construction

There will not be an impact on the likely root zone of surveyed and retained trees from the foundation works to the proposed development of this site.

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Installation of Services

Arrangements for this element of the development of the site are unknown as at time of writing this report but are likely to remain as existing.

Changes to the service routes will be carefully considered using the AS below to advise on protection of nearby trees prior to commencement on site.

Arboricultural Supervision (AS)

AS shall be required during work within and adjacent to the RPA of retained trees. It must be undertaken at regular intervals with a written record of the meetings maintained and photographs taken if required. The AS must include a pre-construction commencement site visit and thereafter at intervals of not less than 2 weeks until completion or more regularly if found necessary by site requirements.

Conclusion

Provided the recommendations shown above in the methodology for protection of retained trees there will be no affect on their current condition.

Tree Grading Categories

Grading Category is as per BS 5837:2005 Table 1 – Tree quality assessment. This refers to tree quality and landscape/amenity value as below:

A=high,
B=moderate,
C=low,
R=trees of poor quality that require removal or trees selected for removal and replacement due to design proposal

Please refer to Tree Survey Schedule in Addendum3 for description of trees categorized

Trees for retention:

1 Category A trees (usually coloured in light green on plan) =

2 Category B trees (usually coloured in mid blue on plan) =

3 Category C trees (usually coloured in grey on plan)=

Trees for removal:

1 Category R trees and others (usually coloured in red on plan) =

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References

1. BS 5837 – 2005 Trees in Relation to Construction – Recommendations
2. Picture Gallery – at end of report
3. Tree Protection Plan – Dwg. 1111 98 500
4. Proposed Ground Floor Plan – Dwg. 1111 00 100

Declaration

This Tree Survey and AMS have been written and checked by Richard Wassell of Wassells Arboricultural Services Ltd. and are provided without prejudice as an objective and professional assessment of the trees described.

Signed: [redacted] Date: 29. 02. MMXII

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Addendum 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 in Metres*	Tree/Root Protection Area (RPA) Sq. Metres	Affect of building proposal on the total RPA
T1	N =4 S = 4 E = 4 W =4	C	470	5.6	98	Not affected
T2	N =3 S = 2 E = 3 W =1	R	250	n/a	n/a	Not affected Recommended for removal as part of project
T3	N =2 S = 2 E = 2 W =2	R	300	n/a	n/a	Not affected Recommended for removal as part of project
T4	N =4 S = 4 E = 1 W =1	C	200	2.4	18	Not affected
T5	N =3 S = 3 E = 2 W =4	C & R	2 stems 2x 200	2.4	18	Not affected
T6	N =2 S = 4 E = 2 W =3	C	200	2.4	18	Not affected
T7	N =2 S = 3 E = 2 W =4	C	200	2.4	18	Not affected
T8	N =2 S = 2 E = 2 W =2	Not graded	Multi-stemmed	n/a	n/a	Not affected
T9	N =2 S = 2 E = 2 W =2	Not graded	Twin stems 2x 200	2	13	Not affected

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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 in Metres*	Tree/Root Protection Area (RPA) Sq. Metres	Affect of building proposal on the total RPA
T10	N =3 S = 3 E = 3 W =3	C	400 estimate	4.8	72	Not affected
T11	N =2 S = 2 E = 2 W =2	Not graded	Twin stems 2x 150	1.5	7	Not affected
T12	N =4 S = 4 E = 4 W =4	C	250	3	28	Not affected

- **Crown spread shown as solid blue line around tree**
- **RPA shown as dashed red line around tree**

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 envisaged as and portrayed with 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.

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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. Unless unavoidable, 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 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.

Any roots exposed/ pruned back as part of the above operation shall NOT be left exposed to drying out. All roots exposed/pruned shall be either covered with damp Hessian sacking prior to backfill or backfilled/covered immediately with a suitable open and free draining compost/loam.

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Addendum 2

Schedule of Tree Works

(Reference Addendum 3 and Site Survey drawing/TPP))

Trees and vegetation recommended for removal:

Tree number	Species	Tree work
T2	Leyland Cypress	Fell and grind out stump
T3	Leyland Cypress	Fell and grind out stump

Recommended work for trees being retained:

Tree number	Species	Tree work
T1	Birch	Crown clean and reduction on house side **ONLY IF** required by construction activity
T4	Beech	Pollard @ 3 metres to retain as tall hedge screening
T5	Beech	Pollard @ 3 metres to retain as tall hedge screening

Tree work to be carried out to the following standards and guidelines:

1. BS 3998: 2010 Recommendations for Tree Work

2. Tree pruning cuts will be carried out using the 'Target Pruning' technique as defined by: *The Pruning of Trees, Shrubs and Conifers: George E. Brown & Tony Kirkham – 2nd edition revised & enlarged 2004 and Section 3.1.27 of The Arboricultural Association Specification for Tree Works June 2008.*
3. Crown clean involves removal of dead, diseased & dying wood from tree crown, thinning of overcrowded crown, and removal of all epicormic growth within crown including stem & basal epicormic growth on Lime trees.

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Addendum 3 - Schedule of Tree Survey Information – BS5837

SITE: 33 Kentish Lane, Brookmans Park, Hatfield, HERTS DATE: 31st January 2012

Tree Number	Species	Diameter mm	Height metres	Crown Spread metres	Age Class	Grading Category	Estimated Future Lifespan	Structure	Physiology, Condition & other factors	Management recommendation
T1	Betula pendula Birch	470	12	N =4 S = 4 E = 4 W =4	OM	C	20 to 30	Moderate	Declining with some dieback. Several broken out branches and stubs	CC
T2	X Cupresocyparis leylandii Leyland Cypress	250	10	N =3 S = 2 E = 3 W =1	SM	R		Moderate	Average Leaning hedge remnant	FG
T3	X Cupresocyparis leylandii Leyland Cypress	300	12	N =2 S = 2 E = 2 W =2	SM	R		Moderate	Average Leaning hedge remnant	FG
T4	Fagus sylvatica Beech	200	10	N =4 S = 4 E = 1 W =1	SM	C	40+	Moderate	Average Hedge remnant-raised	P @ 3M to retain as screening
T5	Fagus sylvatica Beech	2 stems 2x 200	10	N =3 S = 3 E = 2 W =4	SM	C & R	40+	Moderate	Average Hedge remnant-raised	P @ 3M to retain as screening
T6	Fagus sylvatica Beech	200	12	N =2 S = 4 E = 2 W =3	SM	C	40+	Moderate	Average In next door garden	
T7	Acer pseudoplatanus Sycamore	200	12	N =2 S = 3 E = 2 W =4	SM	C	40+	Moderate	Average In next door garden	

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Tree Number	Species	Diameter mm	Height metres	Crown Spread metres	Age Class	Grading Category	Estimated Future Lifespan	Structure	Physiology, Condition & other factors	Management recommendation
T8	Coryllus avellana Hazel	Multi-stemmed	5	N =2 S = 2 E = 2 W =2	Y	Not graded	40+	Moderate	Average In next door garden	
T9	Acer pseudoplatanus Sycamore	Twin stems 2x 200	8	N =2 S = 2 E = 2 W =2	Y	Not graded	40+	Moderate	Average In next door garden	
T10	X Cupresocyparis leylandii Leyland Cypress	400 estimate	18	N =3 S = 3 E = 3 W =3	M	C	40+	Good	Average In next door garden	
T11	Acer pseudoplatanus Sycamore	Twin stems 2x 150	8	N =2 S = 2 E = 2 W =2	Y	Not graded	40+	Moderate	Average In next door garden	
T12	Fraxinus excelsior Ash	250	12	N =4 S = 4 E = 4 W =4	SM	C	40+	Good	Above average In front boundary of site	
Between T1 and T12	Beech				SM	Not graded			All overgrown Beech hedge remnant along SW boundary of the site	

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

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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
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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Picture Gallery

View of front of property showing trees and overgrown hedge along SW boundary on LHS. Trees T6 and T7 in distant RHS overhanging car

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Trees T1 to T5 at front of house

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Trees T8 and T9 at rear of house and in next door garden

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Tree T10 on LHS and T11 between houses from rear garden

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