TREE SURVEY REPORT

PRE-DEVELOPMENT

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December 2016

SITE : **Jack Straw's Castle, Camden,**

CLIENT : **Albany Homes UK Limited**

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A pre-development advisory document, broadly in accord with British Standard 5837 : 2012 'Trees in relation to Design, demolition & construction - Recommendations', designed to inform the conceptual design by highlighting the above and below ground arboricultural constraints in the context of a proposed development.

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1.0 Terms of Reference

1.1 We are instructed by James Kon of Asserson Law Offices, on behalf of Albany Homes UK Limited, to undertake a pre-development tree survey and impact assessment on land to the west of Jack Straw's Castle, which is to be in line with B.S. 5837 : 2012 'Trees in Relation to Design, Demolition & Construction - Recommendations'.

1.2 All trees on or immediately adjacent the application site have been inspected from ground level only. Should further more detailed inspection be deemed appropriate, this will be covered under Recommendations. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on a number of external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.

1.3 The site survey and tree assessment was undertaken by Robert Yates, who holds the formal qualification Tech.Cert.(Arbor.A), the LANTRA Certificate in Professional Tree Inspection and is a member of the Consulting Arborist Society and the Arboricultural Association.

1.4 This report, its appendices and any subsequent revisions or additional information, will form part of any formal planning application in respect of the development of this site, and as such will be open to public scrutiny and comment.

2.0 Survey Methodology

2.1 The trees have been assessed using the current recommendations, as detailed in British Standard 5837 : 2012 'Trees in relation to Design, Demolition & Construction – Recommendations', in order to arrive at a Retention Category for each individual tree or group of trees. A Root Protection Area (RPA) has been assigned to each tree, based on its stem diameter and in some cases crown spread, which has then been used to produce the Tree Constraints & Protection Plan (attached as appendix 3). For full details of the relevant assessment criteria and retention categories see Table 1 of B.S. 5837 (attached as appendix 4).

2.2 All surveyed trees have been given a notional reference number i.e. T1 – T10. All collected survey data and work recommendations for the trees is presented in the survey schedule which forms appendix 2 to this report. For the location of the trees see appendix 3 (Tree Constraints/Protection Plan).

3.0 Site Overview / Design Brief

3.1 The survey area comprises part of an area of third party amenity land immediately adjacent the west boundary of the property known as Jack Straw's Castle. This land slopes from east to west and is retained by a low wall; the area is largely unkempt and unmanaged, with a dense ground cover of Ivy which has proliferated on the stems and within the crowns of the trees therein. The trees comprise semi-mature Sycamore, Elm and Cherry, two of which are confirmed dead.

3.2 The development proposal briefly comprises the erection of two residential dwellings on the site of the existing car park.

4.0 Summary of Findings & Conclusions

4.1 A total of **10**no. individual trees have been surveyed. A breakdown of the numbers of trees in each retention category can be seen in the table below:

Table 1

Retention Category	Individual Trees (T)	Groups of Trees (G)	Hedgerows (H)
A High Quality	0	n/a	n/a
B Moderate Quality	0	n/a	n/a
C Low Quality	8	n/a	n/a
U (Unsuitable for retention)	2	n/a	n/a
Totals	**10**	**0**	**0**

4.2 All U Category trees should generally be removed for reasons of sound arboricultural practice or health & safety, irrespective of any development proposals, unless they offer particular conservation value to the site, in which case this will be highlighted in the survey schedule along with appropriate recommendations.

4.3 As regards the C category trees; it may not always be possible or even desirable to retain low quality trees within the context of a proposed development, unless in such a location that they do not represent a significant constraint on the design brief. Young trees, and those with a stem diameter of less than 150mm, will normally be placed in the C category, unless it is considered that they are of especially good form or are of a species that is particularly rare, in which case they may be upgraded. In certain cases it may be appropriate to consider re-location of young C category trees within the site.

5.0 Arboricultural Impact Assessment

5.1 Based upon the proposed site layout as included at Appendix 3 the following impacts and implications have been identified and their significance assessed.

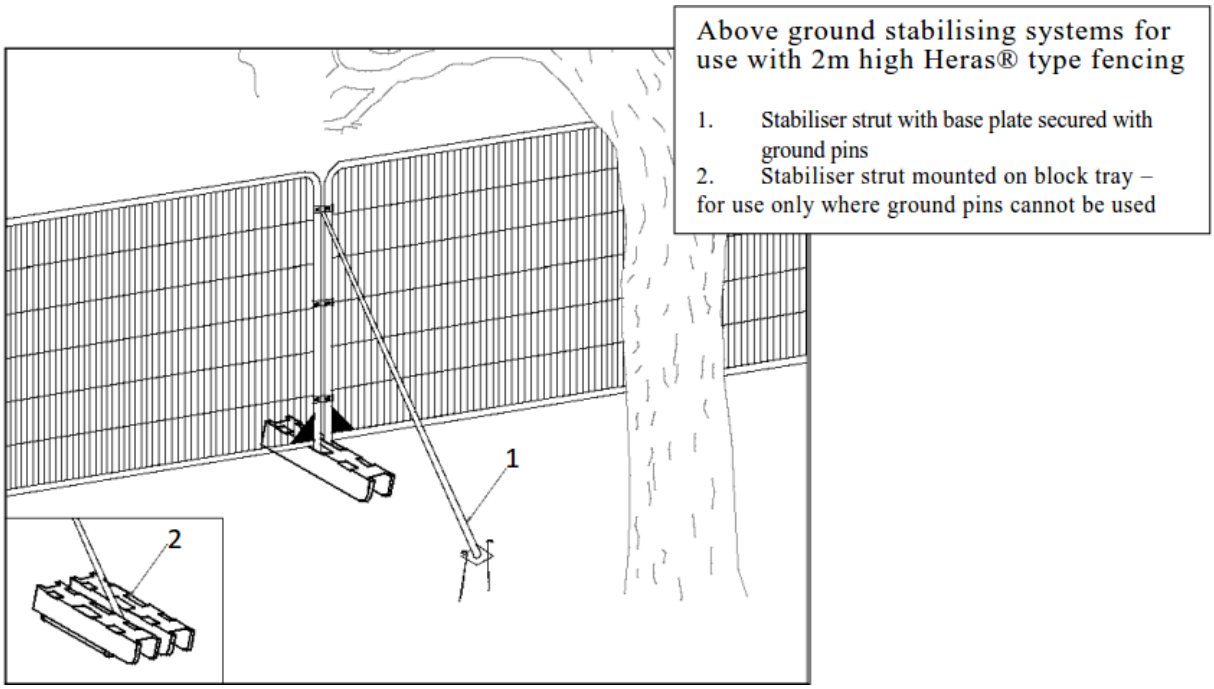
5.1.1 To facilitate the proposed development, and in particular construction access to the west elevation, it will be necessary to prune back the crowns of three of the trees (T1, T8 & T10). The root protection areas of these trees will be only very marginally compromised by this need for access, and hence no special ground protection measures will be required over and above standard Heras® type fencing.

5.1.2 The impact of the existing trees upon the proposed development is an issue that requires mention, since natural light will be severely diminished during summer months; a situation which will become more significant over time as the trees mature. Furthermore, there will be other nuisance factors which will impact upon residents i.e. aphids on the Sycamores and potentially Elm Bark Beetle on the Elms, and also leaf fall. (*Although currently none of the Elm trees are showing any symptoms of Dutch Elm Disease, it is probable that as they grow larger they will become infected, and ultimately will decline and die*).

6.0 Recommendations

6.1 All existing trees that are to be retained shall be afforded temporary protection in the form of barriers/fencing such as that indicated at Fig.1 below, for the duration of the construction phase of the development; a proposed location for which is included on the tree protection plan (appendix 3). Areas protected in this way shall be kept free of any construction related materials or equipment for the duration, and the fencing is to be maintained in good repair at all times. It is further recommended that appropriate signage is affixed to the fencing at regular intervals to warn that the enclosed areas are strictly 'off limits' to contractors.

Fig.1 Specification for temporary tree protection fencing for retained trees



6.2 All tree works, as recommended at Appendix 2, are to be undertaken by a suitably qualified and experienced contractor in accordance with British Standard 3998 : 2010 'Tree Work – Recommendations', and subject to formal agreement with the relevant landowner.

6.3 It is strongly recommended that consideration is given to a replanting scheme for the amenity area to the west of the application site. This would require the co-operation of the relevant landowner (thought to be the local authority), and would likely involve removal of all of the existing trees of low and poor quality, and the Ivy ground cover, followed by replacement with more appropriate species that can be more easily maintained and that will not have the same negative impact upon the development and its residents. Should this option be taken up the recommendations for tree protection at 6.1 above can be disregarded.

7.0 Statutory Obligations

- Works to trees which are covered by Tree Preservation Orders [TPOs] or are within a Conservation Area [CA] require permission or consent from your Local Planning Authority [LPA]. It is necessary to gain confirmation from the LPA of any TPOs or CAs within the site or on adjacent land, and to follow the necessary application procedure if tree surgery or indeed felling, is required in respect of protected trees. Full planning consent will however, override the need for a separate application, providing that details of all tree works were included in the submission and subsequently approved by the local authority.

- It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981, the 'Countryside and Rights of Way Act 2000' and the Conservation of Habitats & Species Regulations 2010 (as amended).
  Therefore, avoid carrying out significant tree works during the bird nesting season [mid-March to end of July] and ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any significant tree work. Further advice in this regard can be obtained from the local office of Natural England or any qualified ecologist.

APPENDIX 1 :

KEY TO SURVEY CRITERIA & HEADINGS:

Tree No.	Notional ID given to each tree or group of trees (unless tagged)
Species	Botanical name with common name in brackets
Age Class	Young, semi-mature, early mature, mature or over-mature
Height	Estimated in metres
Crown Spread	Crown spread (North / East / South / West) measured from centre of trunk, in metres
Crown clearance	Approximate height between lowest part of canopy and ground level (metres)
Stem dia.	Trunk diameter (mm) measured at 1.5m above ground level, or other height as specified
Vigour	Objective assessment of a tree's vigour e.g. shoot extension growth (normal, reduced or low)
Amenity	Subjective assessment of a tree's contribution to the amenity value of the immediate area: High to Low
Condition	Good, Fair or Poor, based on the general health and structural condition of the tree
Recommendations	Remedial works in order to facilitate retention, or recommendation to remove
Ret.Cat.	Based on B.S.5837 Retention categories: A = Those of High Quality & Value B = Those of Moderate Quality & Value (Sub-categories 1, 2, 3 for A & B categories in brackets) C = Those of Low Quality & Value U = Unsuitable for retention
RPA	Root Protection Area, measured in metres (radius) from centre of tree, or may be expressed in m2

APPENDIX 2 : SURVEY SCHEDULE (page 1 of 2)

Tree No.	Species (common name)	Age class	Height (m)	Crown Spread (m) :				Crown Clearance (direction)	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W									
T1	***Acer pseudoplatanus*** (Sycamore)	**Semi-mature**	**11**	**3**	**2**	**1**	**2**	**3.5**	**5x 100**	**normal**	**low**	**fair**	**Multiple stems, all Ivy clad**	**Sever Ivy at base, prune back crown to east by 0.5m to facilitate erection of scaffolding & construction access**	**C**	**2.7**
T2	***Ulmus sp.*** (Elm)	**Semi-mature**	**10**	**2**	**1**	**1**	**3**	**2.5**	**160**	**normal**	**low**	**fair**	**Ivy clad**	**Sever Ivy at base**	**C**	**1.9**
T3	***Ulmus sp.*** (Elm)	**Semi-mature**	**9**	**1**	**1**	**1**	**2.5**	**2**	**100 90**	**normal**	**low**	**fair**	**Ivy clad**	**Sever Ivy at base**	**C**	**1.6**
T4	***Prunus avium*** (Wild Cherry)	**Semi-mature**	**6**	**2**	**0**	**1**	**3**	**1,5**	**100 60**	**normal**	**low**	**fair**	**Co-dominant stems**	**No works required**	**C**	**1.4**
T5	***Prunus avium*** (Wild Cherry)	**Semi-mature**	**5**	**-**	**-**	**-**	**-**	**-**	**2x 90**	**low**	**low**	**poor**	**Dead tree, heavily Ivy clad**	**REMOVE**	**U**	**n/a**
T6	***Prunus avium*** (Wild Cherry)	**Semi-mature**	**5**	**-**	**-**	**-**	**-**	**-**	**140**	**low**	**low**	**poor**	**Dead tree, heavily Ivy clad**	**REMOVE**	**U**	**n/a**
T7	***Ulmus sp.*** (Elm)	**Semi-mature**	**7**	**1**	**1**	**1**	**1**	**3**	**100 60**	**normal**	**low**	**fair**	**Co-dominant stems 0.5m apart, both Ivy clad**	**Sever Ivy at base**	**C**	**1.4**

Tree No.	Species (common name)	Age class	Height (m)	Crown Spread (m) :				Crown Clearance (direction)	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W									
T8	***Acer pseudoplatanus*** (Sycamore)	**Semi-mature**	**7**	**3.5**	**3**	**1.5**	**2**	**1**	**160 150**	**normal**	**low**	**fair**	**Co-dominant stems, both Ivy clad**	**Sever Ivy at base, prune back crown to east by 0.8m to facilitate erection of scaffolding & construction access**	**C**	**2.6**
T9	***Ulmus sp.*** (Elm)	**Semi-mature**	**7**	**1**	**1**	**1**	**1**	**3**	**100 70**	**normal**	**low**	**fair**	**Ivy clad**	**Sever Ivy at base**	**C**	**1.5**
T10	***Ulmus sp.*** (Elm)	**Semi-mature**	**6.5**	**1**	**1**	**1**	**1**	**1.5**	**120**	**normal**	**low**	**fair**	**Ivy on stem**	**Sever Ivy at base, prune back crown to east by 1.4m to facilitate erection of scaffolding & construction access**	**C**	**1.5**
T11	***Ulmus sp.*** (Elm)	**Semi-mature**	**8**	**3**	**3**	**2**	**1**	**1.5**	**160**	**normal**	**low**	**fair**	**Ivy on stem**	**Sever Ivy at base**	**C**	**1.9**

CONSTRUCTION ACCESS POINT

1.2m wide construction access

Temporary Heras type fencing to limit construction access & protect existing trees

LIVING ROOM

WC

DOWN

UP

DENSE VEGETATION

TMAC

RG

BRW H 0.5M

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10

131.21 131.17 131.55 131.56 131.85 131.91 131.87 131.89 132.15 131.82 131.27 131.33 132.39 131.24 131.221 131.84 132.48 133.09 132.11 132.07 132.04 132.21 132.23 132.24 132.26 132.18 133.23

KEY:

- U Category Trees - REMOVE
- A Category Trees
- B Category Trees
- C Category Trees
- Root Protection Area for A, B & C category Trees
- Actual Crown Spread of individual & measured trees

1 : 50 @ A0

0 1 2 3 4 5 10M

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Client: Albany Homes UK Ltd

Title: Tree Constraints/Protection Plan
Site: Jack Straw's Castle
Camden
London

Surveyed: RY
Date: Dec2016
Sheet No: 1 of 1
Scale: 1/50 @ A0

Dwg No.: APPENDIX 3
Rev.

APPENDIX 4 **Table 1 : Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			Dark Red
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A Trees of **high** quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light green
Category B Trees of **moderate** quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Mid blue
Category C Trees of **low** quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter of 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey