HAYDEN'S
Arboricultural Consultants

5 Moseley's Farm
Business Centre
Fornham All Saints
Bury St Edmunds
Suffolk IP28 6JY
T: 01284 765391
E: info@treesurveys.co.uk
www.treesurveys.co.uk

Executive Summary -
Tree Survey & Arboricultural Impact Assessment

Site: Lambs Close, Cuffley, Hertfordshire, EN6 4FD

Project No: 3178

Consultant: Daniel Gospel

Date: 14th September 2012

This is an extract of the preliminary TS & AIA report and is not the complete document. It provides an overview of the proposals including all tree surgery and felling requirements, together with detailed BS 5837:2012 classifications.

For comprehensive details please refer to the full report.

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The purpose of this report is to provide a preliminary consideration of the arboricultural implications created by proposed development. In accordance with the feasibility and planning sections of BS5837:2012 *"Trees in relation to design, demolition and construction – Recommendations"*, trees deemed to be within the influencing distance of the projected construction have been evaluated for quality, longevity, and initial maintenance requirements. Where trees do not have to be removed for health and safety reasons, a detailed and objective assessment has been made of the consequences of the intended layout.

In this circumstance it is intended to It is proposed to develop the site at Lambs close through the demolition of the existing garages and hard surfaces and the construction of a single residential unit, with garaging, gardens and associated landscaped areas. As a result one hedge and twelve individual trees were inspected. The arboricultural related implications of the proposal are as follows:

1 **Implications on Construction** – No specialist construction techniques will be required for the main buildings, to avoid damage to retained trees however foundation design should take into account the potential effects of trees in the future. Protective fencing will be required prior to the commencement of demolition and will require realignment as the project progresses.

2 **Cultural Implications for Retained Trees** – Minor. One tree requires limited pruning.

3 **Landscape Implications** – No trees require removal as a result of the proposals.

4 **Post Development Implications** – The development will be affected by shading from retained trees, though the impact of this on users of the site is a matter of personal preference.

5 **Post Planning Permission** – Subject to achieving Planning Permission, a detailed Arboricultural Method Statement and Tree Protection Plan will be required. This will include the following: fencing type, access facilitation pruning specification, phasing and an extensive auditable monitoring schedule.

Given the above, there are no overt or overwhelming arboricultural constraints that can be reasonably cited to preclude the proposed construction.

Schedule of Trees

SCHEDULE OF TREES (AIA) Lambs Close, Cuffley, Hertfordshire

Surveyed By: Daniel Gospel Date: 31/08/2012
Managed By: Daniel Gospel

TreeNo / On site / Est.Dim	Species	DBH / Min Dist / RPA (m²)	Height: Crown Base / Aspect	Height: Lowest Branch / Aspect	Visual: Age / SULE	Crown Spread / Water Demand / Ground Cover	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
H001	Lawsons Cypress	200	6		Moderate	N0.5, E0.5, S0.5, W0.5	Hedgerow group located in neighbouring property to the south of the site. Provides good screening.	B2	No works required.	4		
No		2.4	0	0	Y	High						
Yes		18.1		E	2	0						
T001	English Oak	800	25		High	N5, E9, S10, W9	Early mature specimen located within the curtilage of the neighbouring property to which there is no access. As such all dimensions are estimates and all comments are based on that which is visible from the site.The stem has a slight, but apparently long existing lean towards the southern aspect. This appears to be the direct result of competition with the neighbouring Oak. The canopy is of asymmetric form and varying density . There are significant sections of deadwood present and the vigour appears poor.The site was re-visited on 31/08/2012, no significant changes were observed in the dimensions or condition of the tree since last surveyed.	A2	In order to lessen the leverage on the extended limbs it is recommended that careful reductive surgery is undertaken. Also, it is recommended that the major deadwood be removed. Operation to be subject of a separate tree works application and not undertaken until written approval has been received from the local planning authority.	3		
		9.6	4		E M	High						
		289.5			1	Grass						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
On site		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
Est.Dim		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover						
T002	English Oak	1100	25		High	N12, E12, S5, W10	Specimen located within the curtilage of neighbouring property to which there is no access. As such, all comments are based on that which is visible from the site and all dimensions are estimates. Tree rises with a clear stem to a height of approximately 3.5 metres before diverging into three major scaffold limbs which support an asymmetric crown. On the northern, eastern and western aspects the crown has considerable extension, estimated up to 12 metres in greatest extent. There is considerable deadwood within the crown and substantial leverage present. The vigour of the specimen appears poor.The site was re-visited on 31/08/2012, no significant changes were observed in the dimensions or condition of the tree since last surveyed.	A2	It is recommended that the lowest, most extended laterals on the northern and eastern aspects are removed back to the stem with major deadwood also being removed throughout the crown. Minor reduction should take place on the northern aspect to reduce the leverage towards the block of flats. Operation to be subject of a separate tree works application and not undertaken until written approval has been received from the local planning authority.	3		
		13.2	1		E M	High						
		547.4			1	Bare Earth						
T003	Leyland Cypress	200	7		Low	N1, E1, S1, W1	Tree on neighbouring property.	C1	No works required.	4		
No		2.4	0	0	Y	High						
Yes		18.1			3	Grass						
T004	Leyland Cypress	300	12		Moderate	N1, E3, S3, W3	Located in neighbouring property.	C1	No works required.	4		
No		3.6	0	0	SM	High						
Yes		40.7		N	3	Grass						
T005	Hornbeam	350	10		Moderate	N2, E3, S3, W5	Located in neighbouring property. Tree has been heavily pruned on northern aspect giving asymmetrical crown spread.	B2	No works required.	4	Prune overhanging branches back to boundary or previous pruning points as appropriate.	0
No		4.2	0	0	SM	Low						
Yes		55.4			2	0.5						
T006	Silver Birch	350	11		Moderate	N3, E4, S3, W3	Located in neighbouring property.	C2	No works required.	4		
No		4.2	0	1	SM	Low						
Yes		55.4		E	3	1.5						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
On site		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
Est.Dim		RPA (m^2)	Aspect	Aspect	SULE	Ground Cover						
T007	Ash	200	9		Moderate	N1, E1, S1, W1	Located in neighbouring property.	C2	No works required.	4		
No		2.4	0	1.5	Y	Moderate						
Yes		18.1		E	3	1.5						
T008	White Poplar	200	11		Low	N1, E2, S3, W3	Off site tree in area of scrub along railway lines to the east of the site. Unable to access closely due to dense vegetation.	C2	No works required.	4		
No		2.4	3	3	Y	High						
Yes		18.1		S	3	3						
T009	White Poplar	250	10		Low	N1, E2, S2, W2	Off site tree in area of scrub along railway lines to the east of the site. Unable to access closely due to dense vegetation.	C2	No works required.	4		
No		3	2	2	Y	High						
Yes		28.3		S	3	2						
T010	White Poplar	200	10		Low	N2, E2, S1, W2	Off site tree in area of scrub along railway lines to the east of the site. Unable to access closely due to dense vegetation.	C2	No works required.	4		
No		2.4	2	2	Y	High						
Yes		18.1		N	3	2						
T011	Hawthorn	268	7		Moderate	N3, E2, S2, W2	Off site tree in area of scrub and small trees along railway to the east of the site. Specimen displays multistem form.	C2	No works required.	4		
No		3.216	1	0.5	SM	High						
Yes		32.5		N	2	0.5						
T012	Hawthorn	184	5		Moderate	N2, E2, S2, W2	Off site tree in area of scrub and small trees along railway to the east of the site. Specimen displays multistem form.	C2	No works required.	4		
No		2.208	0.5	0.5	SM	High						
Yes		15.3		N	2	0.5						

Schedule of Works – Irrespective of Development

SCHEDULE OF WORK IRRESPECTIVE OF DEVELOPMENT

Lambs Close, Cuffley, Hertfordshire

Surveyed By: Daniel Gospel
Surveyed: 31/08/2012
Managed By: Daniel Gospel

Tree No.	Species	Work required	Priority
T001	English Oak	In order to lessen the leverage on the extended limbs it is recommended that careful reductive surgery is undertaken. Also, it is recommended that the major deadwood be removed. Operation to be subject of a separate tree works application and not undertaken until written approval has been received from the local planning authority.	**3**
T002	English Oak	It is recommended that the lowest, most extended laterals on the northern and eastern aspects are removed back to the stem with major deadwood also being removed throughout the crown. Minor reduction should take place on the northern aspect to reduce the leverage towards the block of flats. Operation to be subject of a separate tree works application and not undertaken until written approval has been received from the local planning authority.	**3**

Schedule of Works to Allow Development

SCHEDULE OF WORKS (AIA)

Lambs Close, Cuffley, Hertfordshire

Surveyed By: Daniel Gospel
Surveyed: 31/08/2012
Managed By: Daniel Gospel

Tree No.	Species	Work required	Priority
T005	Hornbeam	Prune overhanging branches back to boundary or previous pruning points as appropriate.	**0**

Explanatory Notes

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Categories

Below is an explanation of the categories used in the attached Tree Survey.

No Identifies the tree on the drawing.

Species Common names are given to aid understanding for the wider audience.

BS 5837 Main Category Using this assessment (BS 5837:2012, Table 1), trees can be divided into one of the following simplified categories, and are differentiated by cross-hatching and by colour on the attached drawing:

Category A - Those of high quality with an estimated remaining life expectancy of at least 40 years;

Category B - Those of moderate quality with an estimated remaining life expectancy of at least 40 years;

Category C - Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm;

Category U - Those trees in such condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

BS 5837 Sub Category Table 1 of BS 5837:2012 also requires a sub category to be applied to the A, B, C, and U assessments. This allows for a further understanding of the determining classification as follows:

Sub Category 1 - Mainly arboricultural qualities;

Sub Category 2 - Mainly landscape qualities;

Sub Category 3 - Mainly cultural values, including conservation .

Please note that a specimen or landscape feature may fulfil the requirements of more than one Sub Category.

***DBH* (mm)** Diameter of main stem in millimetres at 1.5 metres from ground level. Where the tree is a multi-stem, the diameter is calculated in accordance with item 4.6.1 of BS 5837:2012.

Age Recorded as one of seven categories:

Y Young. Recently planted or establishing tree that could be transplanted without specialist equipment, i.e. less than 150 mm DBH.

S/M Semi-mature. An established tree, but one which has not reached its prospective ultimate height..

E/M Early-mature. A tree that is reaching its ultimate potential height, whose growth rate is slowing down but if healthy, will still increase in stem diameter and crown spread..

M Mature. A mature specimen with limited potential for any significant increase in size, even if healthy.

O/M Over-mature. A senescent or moribund specimen with a limited safe useful life expectancy. Possibly also containing sufficient structural defects with attendant safety and/or duty of care implications.

V Veteran. An over-mature specimen, usually of high value due to either its age, size and/or ecological significance

D Dead.

Height Recorded in metres, measured from the base of the tree.

Crown Base Recorded in metres, the distance from ground and aspect of the lowest branch material.

Lowest Branch Recorded in metres, the distance from ground and aspect of the emergence point of the lowest significant branch.

Life Expectancy Relates to the prospective life expectancy of the tree and is given as 4 categories:

1 = 40 years+;

2 = 20 years+;

3 = 10 years+;

4 = less than 10 years.

Crown spread Indicates the radius of the crown from the base of the tree in each of the northern, eastern, southern and western aspects.

Minimum distance This is a distance equal to 12 times the diameter of the tree measured at 1.5 metres above ground level for single stemmed trees and 12 times the average diameter of the tree measured at 1.5 metres above ground level tree for multi stemmed specimens. (BS 5837:2012, section 4.6).

RPA This is the Root Protection Area, measured in square metres and defined in BS5837:2012 as "a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority". The RPA is shown on the drawing.. Ideally this is an area around the tree that must be kept clear of construction, level changes of construction operations. Some methods of construction can be carried out within the RPA of a retained tree but only if approved by the Local Planning Authority's tree officer.

Water Demand This gives the water demand of the species of tree when mature, as given in the NHBC Standards Chapter 4.2 "Building Near Trees".

Visual Concerns the planning and landscape contribution to the development site made by the tree, hedge or tree group, in terms of its amenity value and prominence on the skyline along with functional criteria such as the screening value, shelter provision and wildlife significance.

Problems/comments May include general comments about growth characteristic, how it is affected by other trees and any previous surgery work; also, specific problems such as deadwood, pests, diseases, broken limbs, etc.

Work required (TS) Identifies the necessary tree work to mitigate anticipated problems and deal with existing problems identified in the "Problems/comments" category.

Work required (AIA) Identifies the tree work specifically necessary to allow a proposed development to proceed.

Priority This gives a priority rating to each tree allowing the client to prioritise necessary tree works identified within the Tree Survey.

1 Urgent – works required immediately;

2 Works required within 6 months;

3 Works required within 1 year;

4 Re-inspect in 12 months,

0 Remedial works as part of implementation of planning consent.

NOTE:

Hayden's Arboricultural Consultants were not provided with a Topographical Survey or Base Plan showing the positions of the trees/landscape features on this site, so their locations have been fixed using GPS. As such the position of the trees/ landscape features should not be taken as exact but gives a fair distribution of their locations on site.

CATEGORY AND DEFINTION

Trees unsuitable for retention	
Category U	Those in such condition that they cannot realistically be retained as living trees in the current land use for longer than 10 years
Trees to be considered for retention	
Category A	**Trees of high quality** with an estimated remaining life expectancy of at least 40 years
Category B	**Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years
Category C	**Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

T002
T001
T003
T012
T011
T010
T009
T008
T005
H001
T004
T006
T007

LEGEND

- Existing Tree/Hedge BS 5837:2012 Category A
- Existing Tree/Hedge BS 5837:2012 Category B
- Trees which require crown reduction to facilitate the prospective development
- Existing Tree/Hedge BS 5837:2012 Category C
- Line of Root Protection Area (RPA) - calculated following guidelines set in BS 5837:2012
- Areas where existing buildings within the RPA are to be removed/ demolished by hand
- Existing hard surfacing within the RPA to be either lifted by hand and replaced or top-dressed
- Line of proposed temporary protective barrier (see appendix 1.3)

Scale 1:500
0m 5m 10m 15m 20m 25m
0m 2.5m 5m 7.5m 10m 12.5m
Scale 1:250

Existing gate removed & provide with new.

Denotes line of existing garage wall to be retained.

Kitchen 14.41 m²
Utility 7.42 m²
Double Garage 28.26 m²
Cloaks 2.16 m²
Dining/Breakfast Area 16.27 m²
Entrance Hall
Porch
Up
Study 6.0 m²
Store
Living Room 20.56 m²
Sitting Room 10.97 m²

Patio
246m² Private Garden area.
Parking & maneuvering area.

North (Indicative)

Rev:	Date:	By:	Revision:
-	14/09/12	AWG	Based on Barefoot & Gilles drawing no 1773 DE 10- 03 Rev B

The position, condition, and dimensions of the trees are based on a site survey undertaken on 31/08/12

"The original of this drawing was produced in colour - a monochrome copy should not be relied upon"

Do Not Scale

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Client: DPS Software	Drawing No: 3178-D		Drawn By: AWG
Site: Lambs Close, Cuffley		Drawing Title: TS & AIA	Checked By: DC
CAD File Ref: Cli\Pro\3178-D-LambsCl-TS&AIA.dwg	Date: 14/09/12	Scale: @ A3 1:250 @ A3	REV: -