Tree Survey and Assessment for a proposed Residential Development at Land off Hurstons Lane, Alton, Staffordshire. for Mr & Mrs Deakin.

March 2012

LL66

Land Lizard LLP

View along Hurstons Lane with the site to the left of the view.

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Site:	Land off Hurstons Lane, Alton, Staffordshire
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DRAWINGS

Above: Hurstons Lane looking southwest with the site to the right.
Below right: The hedgebank with trees T5 and T6 at the apex of the site.

1. INTRODUCTION

This report has been prepared to on the instruction of Mr and Mrs Deakin, applicants for planning permission to develop 3 residential properties on the site. It has been prepared to provide background information on the quality of the existing trees on the site and to alert the Planning and Design Team to potential constraints from existing trees. The site comprises a vacant site to the west of Hurstons Lane on the upper slopes of the Churnett valley and the eastern edge of Alton village.

The British Geological Survey defines the bedrock geology as Tarporley Siltstone Formation comprising a siltstone and sandstone sedimentary bedrock formed approximately 234 to 245 million years ago during the Triassic period when the dominant surrounding landscape was lakes and rivers. The superficial deposits are unrecorded. Overlying soils have not yet been investigated or tested at this stage.

2. TREE SURVEY - METHODOLOGY

The tree survey was carried out in late March 2012 within the criteria of BS 5837, "Trees in Relation to Construction". The findings are presented in tabular form on Pages 2 and 3 below. Tree locations are taken from the architect's, Forshaw Greaves and Partners, drawing number 8085 / 01 rev B. This has been used as the base for the Tree Survey, Constraints and Protection Plan LL66.01 attached to this document. The survey covers observations made from ground level as far as this was possible within the constraints of extensive bramble and uneven terrain. Common English names and Latin specifics are given as precisely as possible given the season and site conditions.

The survey describes the location, species, approximate height and spread of each tree. The diameter of the trunk is given in millimetres at 1.5m above bole level, or on the upper side where the tree is growing on a bank. Where the trunk forks below 1.5m the diameter at the base, above the flare, is given. The height of the canopy is referred to as crown clearance and is measured to the base of the lowest limb.

The age class used follows the terminology in the British Standard, namely young, middle-aged, mature, over-mature and veteran. Physiological condition refers to the health of the tree and is simply presented as good, fair, poor or dead / dying. Structural health is similarly classified.

Where relevant any management recommendations are offered to enable long term health of retained trees to be assured. An estimate of the remaining years available to each tree is also included. This has formed the criteria for the colour coding of the trees on the plan.

Quality Assessment

The Quality and Value of each tree is classified as per the Cascade Chart for tree quality assessment set out in the British Standard. Each tree is shown on the accompanying site plan. The colours used are as advised in BS 5837 Sept 2005. Off site trees are shown in black and white.

Colour on Plan	Quality	Lifespan	Criteria /Contribution
Light Green	Category A.	More than 40 years remaining.	Trees of high quality and value.
Mid Blue	Category B	20 – 40 years remaining.	Trees of moderate quality and value.
Grey / Brown	Category C	10 – 20 years remaining.	Trees of low quality and value.
Dark Red	Category R	Up to 10 years remaining.	Trees of removal quality.

This survey and assessment is based upon normal climatic conditions within the UK and does not attempt to guarantee tree health and stability in the event of abnormal weather conditions including storm occurrence or climate change.

3. TREE SCHEDULE

The location of the following trees TE1 etc are taken from the architect's plan. Trees labelled T7 etc are additional trees on neighbouring land but where their roots potentially extend in to the site. These have been roughly located by Land Lizard.

Tree No & location	Species	Height	Bole diam. at 1.5m or base	Canopy spread	Crown height	Age	Physical Condition	Structural Condition	Management recommendations	Contribution and category	Calculated radius of root protection area.
TE1 In hedgebank	Sycamore *Acer pseudo-platanus*	25m	1m @ base	N 7 S 8 E 9 W 5	8m	Mature	Good	Moderate	Remove and prevent regrowth of ivy.	B1 20-40 years	10m radius.
TE2 In hedgebank	Hazel *Corylus avellana*	10m	1m @ base 5 poles of 150mm diameter	N 5 S 5 E 4 W 6	3m	Over mature	Poor	Fair	Remove ivy and deadwood. Coppice as part of hedge.	C2b - R Up to 10 years More as hedge.	10m radius.
TE3 In hedgebank	Sycamore Acer pseudo-platanus	14m	0.6m @ base	N 2 S 2 E 5 W 4	4m	Over mature	Fair	Poor	Remove ivy. Consider coppicing as part of hedge.	C3 10 - 20 years More as hedge.	6m radius. Nest in crown.
TE4 In hedgebank	Sycamore Acer pseudo-platanus	14m	1m @ base	N 5 S 0 E 5 W 5	3m	Over mature	Fair	Poor	Remove ivy. Consider coppicing as part of hedge.	C3 10 - 20 years More as hedge.	10m radius.
T5 In adjacent garden	Weeping willow *Salix alba "Babylonica"*	7m	0.3m @ base	N 4 S 4 E 5 W 2	1m	Young	Good	Moderate	Not applicable as not owned	B2b 20 - 40 years.	3m radius
T6 In adjacent garden	Ornamental cherry *Prunus cultivar*	7m	0.4m @ base	4m overall	1m	Over mature	Moderate	Poor	Recently pruned.	Short lived species, less than 10 years.	4m radius
T7 In hedgebank.	Sycamore *Acer pseudo-platanus*	12m Pol-larded @ 10m	1m @ base	N 4 S 3 E 4 W 4	4	Mature	Good	Moderate	Remove ivy. Monitor pollard point and repollard periodically as desired.	B1 20 - 40 years	10m radius.

Hedgerows

The hedgerow to Hurstons Lane is a recently cut hedge on a bank 0.6 to 1m high. In addition to the hedgerow trees above it comprises established sycamore, bramble, ivy, holly, yew and blackthorn plus newly planted hawthorn.
The hedgerow to the north of the plot, bordering the lane to houses 1 - 6 comprises elder, holly, beech, blackthorn and hawthorn.

Right: T1 on the Hurstons Lane boundary.
Below: T8, T7 and T6 on the boundary with "The Sycamores".

4. CASCADE CHART FOR QUALITY TREE ASSESSMENT.

Trees Recommended for removal in the context of the Proposed Development. Nil.

There are no Category A trees on the current development site.

Category R		Criteria	Identification on Plan
"Those trees that are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management."	R1	• 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 R category trees.	Red canopy. R;- Nil
	R2	• Trees that are dead or showing signs of significant, immediate and irreversible decline.	
	R3	• Trees that are infected with pathogens of significance to health and / or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality.	

Trees Considered for Retention but removed to accommodate the proposed development. Nil.

Category A Trees of high quality and value: in such a condition as to be able to make a substantial contribution over time. (A minimum of 40 years is suggested.)	A1	• Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, formal or semi formal features eg the dominant trees within an avenue.	Green Canopy A1: Nil
	A2	• Trees, groups or woodlands which provide screening or a softening effect to the locality in relation to views into or out of the site, or those of particular visual importance eg avenues or other arboricultural features assessed as groups.	A2: Nil
	A3	• Trees groups or woodlands of significant conservation, historical, commemorative or other value. (eg veteran trees or wood pasture.)	A3: Nil
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution. (A minimum of 20 years is suggested.)	B1	• Trees that might have been high category but have been downgraded due to impaired condition.	Blue canopy. B1: Nil
	B2a	• Tree groups stronger than as individual trees or	B2a: Nil
	B2b	• Individual trees with strong impact on interior of site (but not wider situation).	B2b: Nil
	B3	• Trees with clearly identifiable conservation or cultural benefit.	B3: Nil
Category C "Those of low quality and value: currently adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm.	C1	• "Trees not qualifying for higher categories.	Grey canopy. C1: Nil
	C2a	• "Trees present in groups or woodlands, but without this conferring on them any significantly greater landscape value, and / or trees offering low or	C2a: Nil C2b: Nil
	C2b	• only temporary screening benefit."	
	C3	• Trees with very limited conservation or other cultural benefits.	C3: Nil

5. DESIGN PROPOSALS

It is proposed to construct three new houses within the site, served by an existing access from Hurstons Lane. No trees will be lost.

6. ARBORICULTURAL IMPLICATIONS ASSESSMENT

The following impacts are expected on the trees below. Advice is given where appropriate to minimise damage during the detailed design phase of the project.

Tree No	Species	Anticipated impact	Advice
TE1	Sycamore	Loss of roots to mature tree.	Create new access using "no dig" techniques. Ensure all pavings are porous. Plant a hedge to boundary, possibly reinforced with a fence for initial privacy, with posts driven in between main roots. Allow minimum necessary trench to construct house walls. No access, impermeable surfaces, traffic or storage inside protection fence.

No other trees affected.

7. TREE CONSTRAINTS AND PROTECTION.

Tree Protection and the Planning Background.

The site is within a Conservation Area and as such all trees are protected. There are no individual Tree Preservation Orders covering trees on or adjacent to the site. It is proposed that all existing trees are to be retained to maintain site maturity and to ensure visual amenity and wildlife habitats from the outset.

Root Protection Area.

A root protection area has been mathematically calculated for each tree. This indicates the area where roots may be encountered. It also provides a useful guide to both where hand tools should be used as a precaution and the extent of porous ground needed to sustain each existing tree. BS 5837 advises capping of the RPA at 707m^2 or a 15m radius. The radius of the RPA for each tree is shown in the right hand column of the Tree Schedule. Clearly where a tree is recommended for removal the RPA can be ignored. Trees recommended for removal due to existing hazard or life expectancy of less than 10 years are shown in the schedule and on the Quality Assessment Table above.

Tree Protection during Site Construction Works.

In order to protect the existing trees to be retained, their roots and their soils, the following measures will be undertaken:
As soon as site possession is granted trees to be removed are to be felled and superfluous limbs, recommended for removal, are to be taken down. All tree surgery and pruning works are to be undertaken by a competent and experienced tree surgeon or landscape contractor working in accordance with CP 3998.

These works are further subject to the constraints of the Wildlife and Countryside Act whereby nesting and fledgling birds are protected. This is a flexible time period, generally taken to be from mid February to mid August. The local Natural England office will advise on precise dates for the year / area in question. Alternatively if works are to be progressed during the bird nesting season, each tree / hedge will be checked for active nests by an ecologist / ornithologist and his advice taken. For this reason the tree schedule notes nests spotted during the survey.

A scheme for physical tree protection during the construction period including the fencing of all root protection areas as calculated in this report is shown on the Tree Survey, Constraints and Protection Plan, drawing number LL66. 01. This fence also encloses roots to neighbours trees. All fencing is to be in compliance

with BS 5837 Trees in Relation to Construction. In open areas this may be a Heras type temporary fence, at least 1.2m high, secured to avoid tipping over in the event of impact or a chestnut pale fence fastened between braced posts driven into soft areas. High visibility tape attached to the top of the fence can assist in prevention of potential accidents. In close proximity to buildings however a high level fence will enable scaffolding at height, see Figure 3, Scaffolding within the RPA from BS 5837 : 2005.

Subject to agreed phasing of the works, the whole of the fencing is to be erected at the outset. The duration of the protective fencing is to be from the initial site set up, throughout all active demolition and construction works. No access, trafficking, storage or disposal activities are to be permitted within the fence. Care is to be taken that liquid wastes do not drain or run into the retained soils / rooting areas or the pond. Subject to completion of the major construction works the fence / sand bags may be removed to allow landscape works under the tree canopy. All dismantling, cultivation and re-surfacing works within the root protection areas are to be carried out by hand.

8. CONCLUSION

A small site on the edge of the village of Alton is being proposed for 3 new houses. A new access will replace the existing field gate. There is one significant tree on the Hurstons Lane frontage. This mature sycamore compliments others on adjoining street frontages including the cemetery opposite. In addition there are three further hedgerow trees that have developed from unmanaged hedge. These offer some initial privacy but may in time be replaced by new garden planting and reincorporated back into the managed hedgerow. There are no trees to the northern boundary and three to the southwest within the garden to the Sycamores.

The proposed development has no impacts on the majority of the trees. TE1 will be impacted through root loss, but this can be either avoided by minor adjustment to the access and Plot 3 or minimised by careful detailed design. Advice has been given regarding tree protection fencing during the construction period. In this way the long term health and amenity of the trees can be maintained.