TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL					
Site:	Land by A59, Barrow, Lancashire, BB7 9X	**Surveyor:**	Phill Harris – Chartered Arboriculturist	**Page:** 1 of 3	
Agent for Client:	Avalon Town Planning	**Survey Date:**	1 November 2016		
		Job Ref:	BTC1211		

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T1	Ash	17.5	920	N E S W	7.5 10.5 7.5 7	7-E 5	M	M	▪ Stem divides into multiple primary branches at a height of approximately 7m. ▪ Several cavities evident on primary branches. ▪ Lowest primary branch to east is growing horizontal and has extended growth outside the extent of the remainder of the crown. ▪ Crown showing signs of a moderate reduction in vitality.	▪ Climbing arboriculturist to carry out aerial inspection of branch cavities and report findings to consulting arboriculturist.	10+	C1	383	11.04
T2	Common Oak	12.5	730	N E S W	6 7 6 6	2.5-E 0	M	G	▪ Located on neighbouring land, on woodland edge.	▪	40+	A1	241	8.76
T3	Common Oak	18	1100#	N E S W	10 10 10 10	4-E 0	M	G	▪ Located on neighbouring private land and not inspected in detail. ▪ Two primary branches, of approximately 400mm diameter, arise from east side of stem at a height of approximately 4m with a tight fork between them.	▪	40+	A1	547	13.2
T4	Wych Elm	7	1x260 1x160 (ts)	N E S W	8 3 0 5	N/A 0	SM	M	▪ Located on neighbouring private land and not inspected in detail. ▪ Severe stem lean and highly biased crown north. ▪ Stems are causing damage to boundary fence, and tree should therefore be removed in order to avoid future damage.	▪ Inform tree owner of issue regarding fence damage.	<10	U	42	3.66
T5	Lime	10	380#	N E S W	5 5 5 5	3-N 0	SM	G	▪ Located on neighbouring private land and not inspected in detail.	▪	40+	A1	65	4.56
T6	Wych Elm	7	160	N E S W	7 4 0 4	N/A 0	Y	M	▪ Located on neighbouring private land and not inspected in detail. ▪ Severe stem lean and highly biased crown north. ▪ Stems are causing damage to boundary fence, and tree should therefore be removed in order to avoid future damage.	▪ Inform tree owner of issue regarding fence damage.	<10	U	12	1.92
T7	Hawthorn	7	1x110 1x90 (ts)	N E S W	2 2 2 2	N/A 1.5	SM	G	▪ Located in neighbouring highway verge. ▪ Stem in contact with wooden post and rail boundary fence, and causing damage to structure. ▪ Tree should therefore be removed in order to avoid future damage.	▪ Inform tree owner of issue regarding fence damage.	<10	U	9	1.71

Headings and Abbreviations:

No. Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species: Common name
Height: In metres, to nearest half metre – where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.: Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread: Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Branch & Canopy Clearances: Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point – to inform on crown to height ratio, potential for shading, etc.
Life Stage: Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC: Physiological Condition - a measure of the tree'(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments: Comments relating to the tree'(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.
Management Recommendations: Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take exiting site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
ERC: Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
Cat. Grade: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA m²: Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
RPA Radius (m): Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
 # (Estimated Dimensions): Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

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Site:	Land by A59, Barrow, Lancashire, BB7 9X	Survey Date:	1 November 2016	
Agent for Client:	Avalon Town Planning	Job Ref:	BTC1211	

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T8	Hawthorn	6	7x40 (ms)#	N 1.5 E 1.5 S 1.5 W 1.5	N/A 1	Y	G	▪ Located in neighbouring highway verge. ▪ Stem in contact with wooden post and rail boundary fence, and causing damage to structure. ▪ Tree should therefore be removed in order to avoid future damage.	▪ Inform tree owner of issue regarding fence damage.	<10	U	4	1.18
T9	Ash	9	1x220 1x180 (ts)	N 3.5 E 3.5 S 3.5 W 3.5	1.5-S 1.5	SM	G	▪ Located in neighbouring highway verge. ▪ Stem bifurcates at a height of approximately 500mm.	▪	20+	B1	37	3.41
T10	Ash	7	130	N 2.5 E 2.5 S 2.5 W 2.5	2-W 1.5	Y	G	▪ Located in neighbouring highway verge. ▪ Stem approximately 200mm from wooden post and rail boundary fence, and is therefore projected to cause damage to structure. ▪ Tree should therefore be removed in order to avoid future damage.	▪ Inform tree owner of issue regarding fence damage.	<10	U	8	1.56
T11	Common Oak	7.5	260	N 4.5 E 4.5 S 4.5 W 4.5	1-S 0	SM	G	▪ Located in neighbouring highway verge.	▪	40+	B1	31	3.12
T12	Hawthorn	5.5	6x80 (ms)#	N 2.5 E 2.5 S 2.5 W 2.5	N/A 1	SM	G	▪ Located in neighbouring highway verge. ▪ Multi-stemmed from ground level with tight forks. ▪ Stems approximately 200mm from wooden post and rail boundary fence, and therefore has potential to cause damage to structure.	▪	10+	C1	20	2.54
T13	Ash	14.5	360	N 5 E 5 S 0 W 5	1-W 0.5	SM	G	▪ Located in neighbouring highway verge. ▪ Moderate stem lean and highly biased crown north due to suppression by neighbouring tree in group G3. ▪ Crown growing around street lamp.	▪	10+	C1	59	4.32
T14	Ash	4.5	90	N 2.5 E 2.5 S 0 W 2.5	N/A 0.5	Y	G	▪ Stem growing through wooden post and rail boundary, with associated deformities. ▪ Severe stem lean and highly biased crown north.	▪ Remove as is growing through boundary fence. ▪ Treat stump with suitable herbicide to prevent regrowth.	<10	U	4	1.08
T15	Corsican Pine	9	590	N 4 E 4 S 4 W 5.5	6 1	EM	M	▪ Located in neighbouring highway verge. ▪ Has sustained upper stem failure, and evidently has associated decay to remaining upper stem.	▪ Inform tree owner of tree's structural defects.	<10	U	157	7.08
G1	Leyland Cypress	≤ 11	≤ 350#	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	N/A ≥ 0	SM	G	▪ Closely spaced linear group along boundary fence. ▪ Located on neighbouring private land and not inspected in detail. ▪ Most evidently have Included bark unions of branches.	▪	10+	C1	≤ 55	≤ 4.2

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Surveyor:	Phill Harris – Chartered Arboriculturist
Survey Date:	1 November 2016
Job Ref:	BTC1211

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m^2)	RPA Radius (m)
G2	approx. 3no. Hawthorn, 1no. Ash	≤ 8	≤ 110	N ≤ 1.5 E ≤ 1.5 S ≤ 1.5 W ≤ 1.5	N/A ≥ 1	Y	G	▪ Closely spaced self-set group located in neighbouring highway verge. ▪ All stems very close to wooden post and rail boundary fence and are therefore projected to cause damage to structure. ▪ Trees should therefore be removed in order to avoid future damage.	▪ Inform tree owner of issue regarding fence damage.	<10	U	≤ 5	≤ 1.32
G3	2no. Corsican Pine	≤ 17.5	≤ 560	N ≤ 5 E ≤ 5 S ≤ 5 W ≤ 5	2-SW ≥ 0	EM	G	▪ Moderately closely spaced group located in neighbouring highway verge. ▪ Not inspected in detail.	▪	40+	A1/2	≤ 142	≤ 6.72
G4	2no. Corsican Pine	≤ 17.5	≤ 570	N ≤ 6 E ≤ 6 S ≤ 6 W ≤ 6	1.5-S ≥ 0	EM	G	▪ Moderately closely spaced group located in neighbouring highway verge. ▪ Not inspected in detail.	▪	40+	A1/2	≤ 147	≤ 6.84
G5	2no. Corsican Pine	≤ 16.5	≤ 590	N ≤ 4 E ≤ 6 S ≤ 4 W ≤ 6	4-SW ≥ 0.5	EM	G	▪ Moderately closely spaced group located in neighbouring highway verge. ▪ Not inspected in detail.	▪	40+	A1/2	≤ 157	≤ 7.08
W1	Common Oak, Beech, Larch, Silver Birch, Rowan, Ash, Hazel, Field Maple, Scots Pine, Holly, etc.	≤ 17.5	≤ 400#	N ≤ 5 E ≤ 5 S ≤ 5 W ≤ 5	N/A ≥ 0	Y-SM	G	▪ Very closely spaced woodland belt located on neighbouring land to south-west. ▪ Large percentage of young trees within.	▪	40+	A1/2	≤ 72	≤ 4.8
W2	Field Maple, Birch, Oak, Blackthorn, etc.	≤ 15	≤ 250	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	N/A ≥ 0	Y-SM	G	▪ Closely spaced relatively recently planted woodland belt located on neighbouring land to north.	▪	40+	B1/2	≤ 28	≤ 3
H1	Hawthorn	7	4x100 (ms)	≤ 6 wide	N/A ≥ 0.5	M	P-M	▪ Two lengths of outgrown hedgerow, to either side of tree T1. ▪ Plants are widely spaced. ▪ Number of branch and stem failures.	▪	10+	C1	18	2.4

DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only.

Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potentially unacceptable risk to persons and/or property has been identified during our survey. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

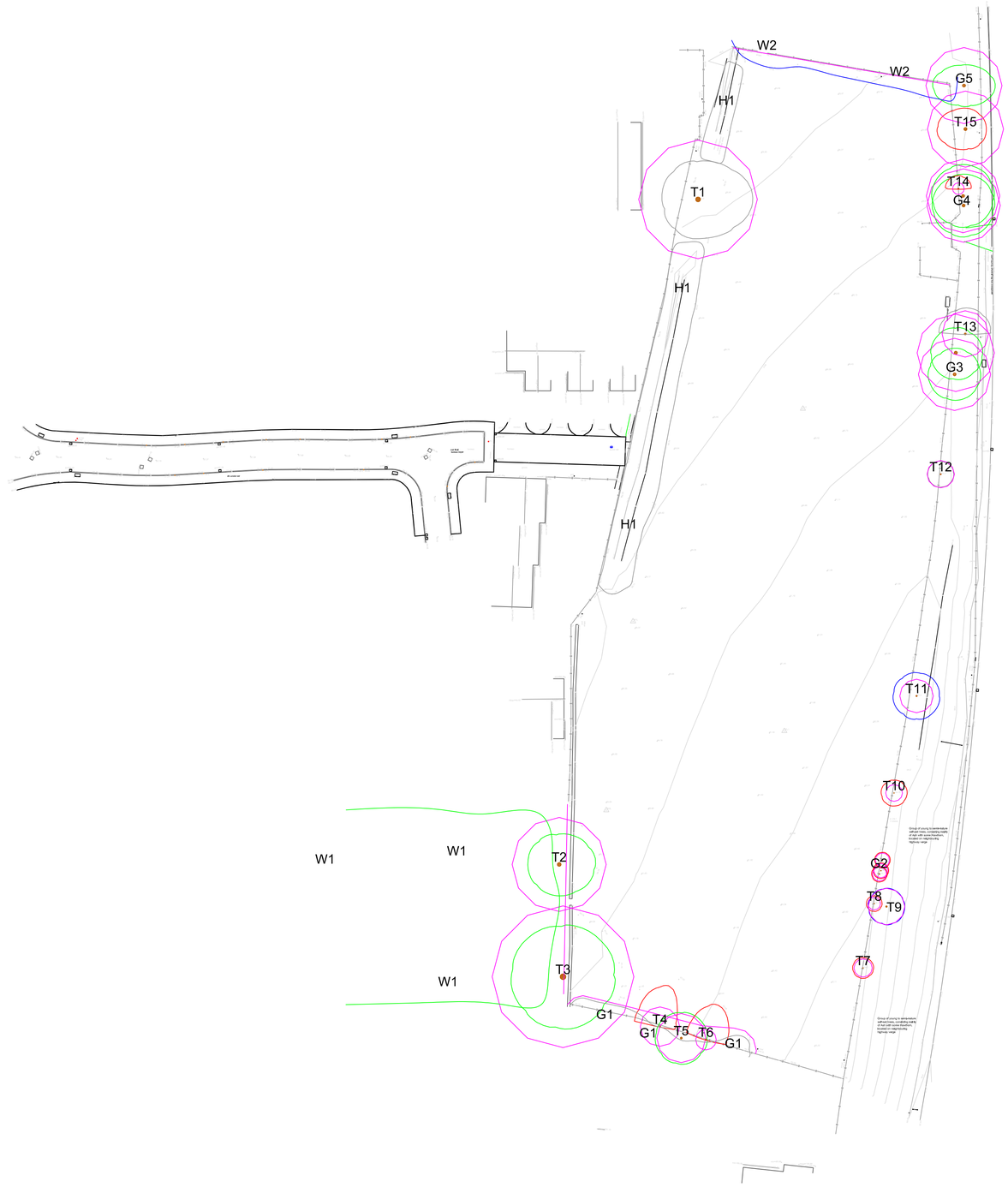
Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The tree survey and any report information provided is intended as a guide to identify key tree related constraints to site development only. As such, the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

Third Parties: Any disclosure of this document to a third party is subject to this disclaimer. The report was prepared by Bowland Tree Consultancy Ltd at the instruction of and for use by our client, as named. This report does not in any way constitute advice to any third party who is able to access it by any means. Bowland Tree Consultancy Ltd excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage arising from reliance on the contents of this report.

BS5837:2012 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 BS5837:2012 paragraph 4.5.7.*			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)	Green
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.	Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage	Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	Blue
Category C Those trees of low quality and value: currently in 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 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	Grey
	Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation			



KEY

T = Individual Tree
G = Group of Trees
W = Woodland

Please refer to associated Tree Survey Schedule for specific details in respect of items below:

Tree Categorisations :

Those to be Considered for Retention:

Category 'A' Tree/Group/Woodland
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years

Category 'B' Tree/Group/Woodland
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years

Category 'C' Tree/Group/Woodland
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

Category 'U' Tree/Group/Woodland
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

Note: The locations of the stems of trees T2 to T6, T9 and T14, as well as the location and extent of group G1, were not indicated on the topographical site survey plan provided, and their locations were subsequently plotted by the arboricultural surveyor at the time of the survey using GPS siting. As such, the plotted locations of these trees cannot therefore be considered to be wholly accurate.

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone

Important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon.

Project:
LAND BY A59
BARROW
LANCASHIRE
BB7 9X

Agent for Client:
AVALON TOWN PLANNING

Title:
TREE CONSTRAINTS PLAN
in Relation to Proposed Residential Development

Scale:	1:500@A1
Date:	November 2016
Drawn by:	PH
Checked by:	JK

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