

TREE SURVEY SCHEDULE FOR ARBORICULTURAL CONSTRAINTS APPRAISAL
Site: Proposed Employment Development, Barrow Brook, Barrow, Lancashire, BB7 9

Client: Admiral Taverns

Surveyor: Phill Harris – Chartered Arboriculturist

Assessment Date: 18 July 2012

Job Reference: BTC358-R

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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	Hawthorn	5	250	N 2.5 E 2.5 S 2.5 W 2.5	1.5 1.5	M	P	- Stem bifurcates into co-dominant primary branches at a height of approximately 1.7m - Crown showing signs of a substantial reduction in vitality with very small leaves. - Low value and therefore unsuitable for consideration for long-term retention in context of site development.	- Retain or remove in accordance with detailed development proposals - Retention only possible if Root Protection Area (RPA) can be adequately protected in context of proposals	10+	C1/2	28	3
T2	Hawthorn	4.5	5x60 (ms)#	N 3 E 3 S 3 W 3	0.5 0.5	EM	M	- Located on neighbouring land and therefore not inspected in detail. - Stem bifurcates into co-dominant primary branches at a height of approximately 0.4m with a tight fork.	Ensure protection of RPA is achievable in context of proposed development	40+	C1/2	8	1.61
T3	Hawthorn	3.5	3x70 (ms)#	N 2 E 2 S 2 W 2	1 0.5	SM	G	- Located on neighbouring land and therefore not inspected in detail. - Stem bifurcates into co-dominant primary branches at a height of approximately 0.4m with a tight fork.	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development	40+	C1/2	7	1.45
T4	Ash	12.5	2x320 (ts)#	N 5 E 5 S 5 W 6	2-N 1	EM	G	- Located on neighbouring land in hedge and therefore not inspected in detail. - Stem bifurcates into co-dominant sub-stems at a height of approximately 0.3m with an acute included bark union.	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development	10+	C1	93	5.43
T5	Ash	11	2x250 1x200 (ms)#	N 4 E 5 S 5 W 5	2-N 1	SM	G	- Located on neighbouring land in hedge and therefore not inspected in detail. - Stem trifurcates into sub-stems at a height of approximately 0.3 to 0.5m with acute included bark unions.	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development	10+	C1	68	4.66
G1	6no Hawthorn	≤ 9.5	≤ 550	N ≤ 4.5 E ≤ 4.5 S ≤ 4.5 W ≤ 4.5	≥ 0.5 ≥ 0.5	PM	P-M/P	- Linear group formed from outgrown hedge - Crowns are showing signs of a significant reduction in vitality - Low value and therefore unsuitable for consideration for long-term retention in context of site development.	- Retain or remove in accordance with detailed development proposals - Retention only possible if Root Protection Area (RPA) can be adequately protected in context of proposals.	10+	C1	≤ 137	≤ 6.6

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 half nearest 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 existing 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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G2	approx. 12no Hawthorn	≤ 6.5	≤ 1x200 4x150 (ms)	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	≥ 0.5 ≥ 4	PM	P-D	- Linear group. - Outgrown hedge. - Most stems are decayed and/or with stem cracks - Short projected remaining safe life expectancies and therefore unsuitable for consideration for retention in the context of development.	Remove in context of development proposals	<10	U	≤ 59	≤ 4.33
G3	3no Hawthorn Hawthorn	≤ 4.5	≤ 5x60 (ms)#	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 0.2 ≥ 0.5	SM	M	- Located on neighbouring land and therefore not inspected in detail - Closely spaced group. - All are multi-stemmed.	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development	40+	C2	≤ 6	≤ 1.34
G4	2no. Ash	≤ 12.5	≤ 1x320 1x250 (ts)#	N ≤ 5 E ≤ 5 S ≤ 5 W ≤ 6	≥ 2-W ≥ 0.5	EM	G	- Closely spaced group. - Located on neighbouring land in hedge - Not inspected in detail. - Both trees' stems bifurcate or trifurcate at less than 0.5m with tight forks.	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development	20+	B1	≤ 75	≤ 4.87
H1	Hawthorn	≤ 6	≤ 200 (ms)#	≤ 7 wide	N/A	EM	G	Previously laid hedge located within neighbouring highway verge.	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development.	40+	B2	≤ 12.57	≤ 2
H2	Hawthorn	≤ 6	≤ 3x100 (ms)#	≤ 6 wide	N/A	M	M	Two sections of remnant hedge located on neighbouring land next to boundary fence	Ensure protection of Root Protection Area (RPA) is achievable in context of proposed development.	10+	C1	≤ 14	≤ 2.08

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 <i>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.</i>			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 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	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 below 150 mm	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

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DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. 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.

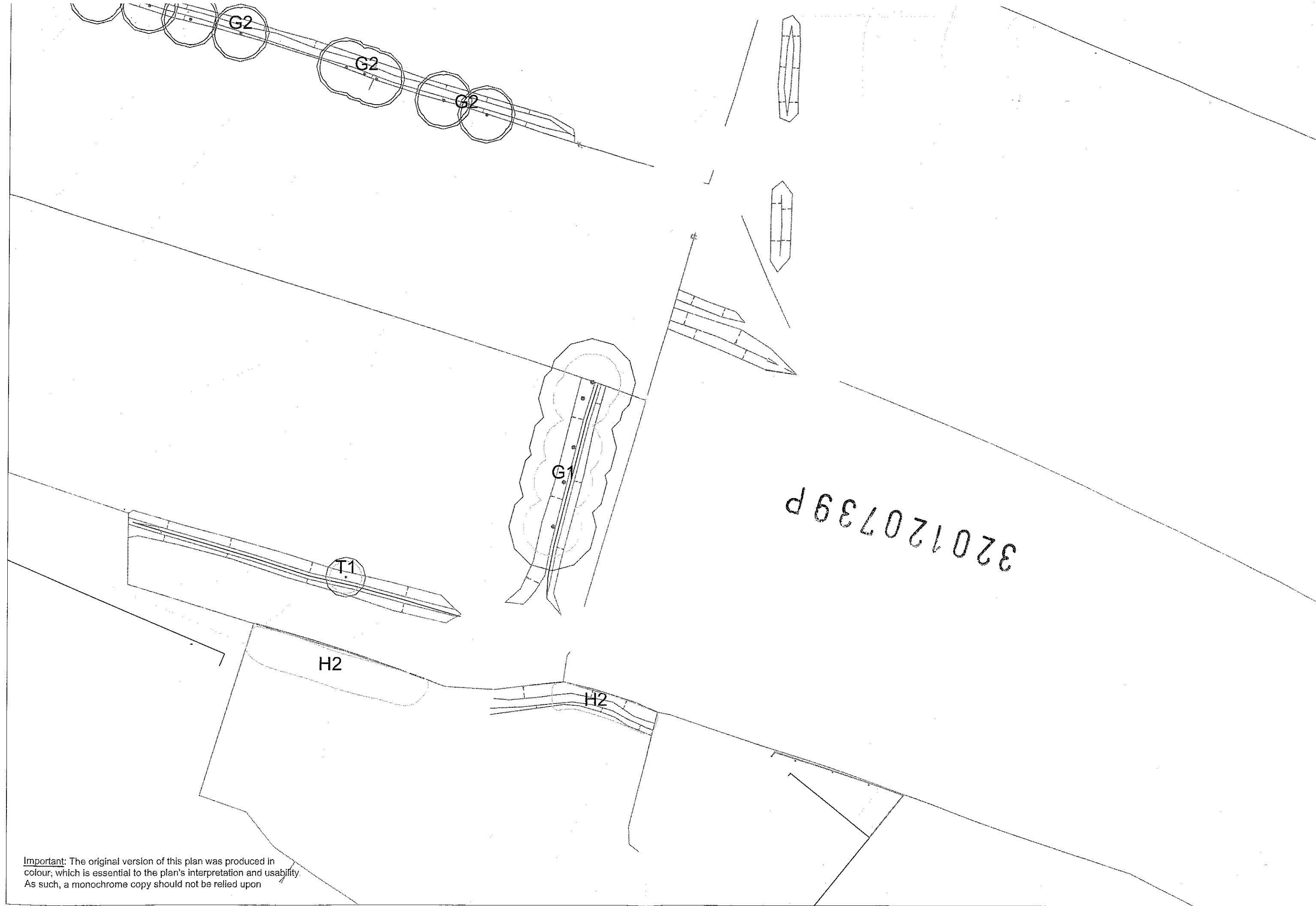
Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments 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 or, if applicable, where permissible works are required to implement a proposed development. 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 potential influence of trees upon buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The advice of a structural engineer must be sought with regard to appropriate foundation depths for new buildings, with reference to NHBC Standards Chapter 4.2 (NHBC, 2008).

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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