

Trees and Construction

BS5837 Arboricultural Report

Site: The Gloucester Arms, Leighton Road,
London, NW5 2QH

Ref: 12722 / A1

Client: Automist Ltd



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- August 2012 -

TABLE OF CONTENTS

Chapter	Title	Page
1	Introduction	3
2	Site & Application Information	4
3	Arboricultural Assessment	5
4	Method Statement Considerations	6

Appendices

Caveat	I
Terms and Definitions	II
Tree data table & Tree Constraints Plan	III

1. INTRODUCTION

- 1.1 **Instruction:** This advice has been prepared for Automist Ltd (hereafter; client) in conjunction with Automist Ltd. It is based on the information provided on behalf of the client and is in respect of the arboricultural related planning considerations at the The Gloucester Arms, Leighton Road, London, NW5 2QH (hereafter; site).

As the proposal relates to development works at site, the advice herein is produced in accordance with the British Standard 5837 : 2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter; BS5837).

- 1.2 **BS5837:** The scope of BS5837 is to provide guidance on how trees and other vegetation can be integrated into construction and development design schemes. The overall aim is to ensure the protection of amenity by trees which are appropriate for retention.

- 1.3 **Scope of this advice:** This advice has been produced in accordance with BS5837 and is intended to show consideration for the potential impacts on trees from the proposed development works at site and vice versa. Recommendations for design detail, tree protection and mitigation works will be included where relevant.

- 1.4 Following instruction the consultant surveyed the site on the 28th August 2012. Pursuant to the agreed brief a site assessment and a BS5837 tree survey were carried out; all trees on and around the site were surveyed from ground level and plotted as either an individual or a tree group.

In attendance at site was the council's Arboricultural Officer Mr Tom Little (hereafter; Arb. Officer) where the site's realistic arboricultural considerations were discussed.

- 1.5 This advice is subject to caveat at Appendix I, outlines relevant terms and definitions at Appendix II and constitutes the findings of the preliminary site assessment, design review and associated arboricultural recommendations.

- 1.6 The survey data and site observations were used to illustrate the site's trees, these are illustrated in plan format as a 'Tree Constraints Plan' (hereafter; TCP); the tree survey data table and TCP are at Appendix III.

2. SITE INFORMATION & TREE ASSESSMENT

- 2.1 The site (application boundary) is bound by Leighton Road to the south, an access road to the east, properties to the west (6-10 Leighton Road) and a playground at the north (rear of site).

The public house is accessed directly off Leighton Road and butts the highway. Through the property the rear courtyard is accessed as well as a side gate off the east access road. This, and the surrounds of the site, are almost entirely hard surfaced and accessible.

The rear courtyard is bound by a 1.5-2.0m high wall which represents a restriction to both the visibility of trees contained within as well as root growth extents; this aspect will form part of the assessment.

- 2.2 **Proposal:** A development scheme is being explored by the client to '*demolish the existing building on site and replace with a mixed use scheme containing commercial space and residential units*'.

2.3 Trees & Site Features

- 2.3.1 The objective assessment resulted in BS5837 quality/retention categories of 'C - low' and 'U - poor' being attributed to two trees on site.

The closest proximity trees to the site are illustrated on the TCP, this shows that they are clear of the site and separated by existing structures; regardless of the proposed works at site, no impact will occur to offsite trees.

- 2.3.2 T1 is a self seeded tree which has been allowed to grow in the current environment. As such the location was not decided through a considered approach and the proximity to the boundary wall compared to the existing and future growth potential of the tree are not suitable.

T1 is in direct contact with the base of the boundary wall and has cambial flattening. The presence of the 2m+ wall have foundations which will restrict root development, anticipated within the site area and as such no offsite root stabilisation is anticipated. Also, the tree has multiple stems at 0.5-1.5m, a poor form and has been previously heavily crown reduced to manage the canopy sail with decay, deadwood and dead stems are also noted at the pruning points.

- 2.3.3 T2 is a small scale tree / shrub which is entirely internal to the rear courtyard of the public house. Due to the boundary wall height and the small scale of T2, it is only clearly visible from the onsite or immediately surrounding area and hence should not present a constraint on a scheme.

3. ARBORICULTURAL ASSESSMENT

- 3.1 The following information, as with the prior contents of this advice, should be read in conjunction with the appended Tree Survey Data Table and the 'Tree Constraints Plan' Plan (ref: 12722/TCP/01).
- 3.2 For the purpose of this assessment, the 'proposed site plan' (as produced by Chassay Last Architects) as well as the proposed development plans for comments 23.08.12 have been used as a basis for consideration. This takes account of anticipated tree removals, tree protection options and potential alterations to account for arboricultural features.
- 3.3 Taking account of T1's defects and the unsuitability of retention, removal of the tree is recommended as part of the scheme. Although the removal arises in conjunction with the scheme, removal would be a requirement in the near future for risk management.
- However, in recognition for the tree's current canopy cover and the contribution to the close proximity surroundings, new tree planting is recommended to enhance the long term canopy cover of the borough.
- Although the site has limited available space for new tree planting, the proposed scheme could incorporate some small scale fastigate species into the ground floor layout, i.e. Hornbeam varieties etc. Where this is considered achievable, the proposed scheme is to illustrate new tree planting. Alternatively, and as agreed with the Arb. Officer, the funding for a replacement tree could be provided to the council.
- 3.4 Due to the small scale, poor form and limited visibility of T2, the removal will not impact on the amenity of the surrounding area. Further, the incorporation of simple landscaping as part of the proposal will easily replicate the current contribution to the site itself; removal is recommended in conjunction with the scheme.
- 3.5 The finer details of the tree planting proposal could be accounted for as part of planning conditions. This is to involve an agreement on a replacement tree for the site or for the funding for a replacement which can be agreed with the council.
- 3.6 In reference to the above, following the removal of T1 and T2 as agreed with the Arb. Officer [due to poor quality and condition] as well as the clearances from offsite trees, no conflicts remain in relation to the scheme. As a result of this no restrictions to construction processes are considered necessary although recommendations are thus -
- The removal of T1 and T2 is to be undertaken prior to the start of site works; and
 - Where new tree planting is proposed on the site, a suitable specification is to be provided including planting location, species and stock selection, planting pit preparation and maintenance.
- The above details could be addressed as a planning condition where the construction programme integrates the necessary additional details based on an accepted scheme.

4. METHOD STATEMENT CONSIDERATIONS

4.1 Arboricultural Construction Restrictions

4.1.1 The following restrictions are considered relevant for site management in relation to trees (as part of planning conditions for an approved scheme):

- a) Tree works are to be completed prior to any and all site works: no tree works not specified as part of the proposed plan (or leaning against or attaching of objects to a tree) are permitted unless agreed in writing by the council.
- b) No fires are to be lit and no machinery, plant or vehicles are to be washed down within 10m of the tree's canopy.
- c) A suitable area is to be allocated for materials storage and mixing which is clear of trees and is to ensure that no chemical run-off will occur in proximity to offsite trees.
- d) Where tree planting is to be undertaken on site, only following construction completion can the tree planting and soft landscape works be undertaken.

4.2 Tree Works

4.2.1 The removal of the site's trees (T1 and T2) is to be undertaken prior to any site works (including material delivery, ground works, access etc.).

4.2.2 Tree works must be undertaken with the written permission of the council (subject to the normal statutory exemptions) and must be undertaken to BS3998 by a tree service contractor who is suitably qualified, experienced and insured to carry out said works.

4.3 Additional Recommendations

4.3.1 The surveyed trees have been subject to a detailed inspection and the arboricultural considerations detailed within this advice. Typically, the aforementioned considerations can form part of tree related planning conditions and can be detailed within the client's construction programme.

4.3.2 This report is released to the client for them to distribute at their discretion. The consultant is available via telecom and/or email (via the methods on the title page) for any queries relating to this report and/or any other matter relating to arboriculture.

This concludes our advice.

Appendix I

Caveat

Any and all information supplied to Indigo Surveys Ltd by/on behalf of the client is assumed to be accurate unless otherwise informed. | This advice is limited to the observations made on the date of inspection as detailed herein and any deletion, editing or alteration will result in the advice being null and void in its entirety. | This advice in its entirety may be deemed null and void if remedial works are undertaken on any area of the site, on or after the date of the survey. | No liability is assumed by the author or by Indigo Surveys Ltd for any misuse, misinterpretation or misrepresentation of this advice. | This advice is not valid in adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events. | No responsibility is assumed either by the author of this advice or by Indigo Surveys Ltd for any legal matters that may arise as a consequence. | Neither the author nor Indigo Surveys Ltd will be required to attend court or give testimony as part of this agreement. | The responsibility for any works undertaken on the basis of the recommendations of this advice does not form part of this agreement.

Appendix II

Terms and Definitions

“Arboriculturist” - person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.

“Competent Person” - person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.

“Topographical survey” - an accurately measured land survey undertaken to show all relevant existing site features. *A method of carrying out topographical surveys is given in RICS specification Surveys of land buildings and utility services at scales of 1:500 and larger.*

“BS5837 Tree survey” - should be undertaken by an arboriculturist to record information about the trees on or adjacent to a site. The results of the tree survey, including material constraints arising from existing trees that merit retention, should be used (along with any other relevant baseline data) to inform feasibility studies and design options. For this reason, the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development.

“Tree categorization method” - trees should be categorised in accordance with the BS5837 cascade chart by an arboriculturist. This is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

“Root protection area (RPA)” - 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, shown as an arboricultural constraint in m². The radius is calculated using the BS5837 calculation method. An arboriculturist may change the shape of an RPA but not reduce its area.

“Arboricultural implications assessment” - a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

“Arboricultural method statement” - methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.

“Tree protection plan” - a scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.

Appendix III

Data Table: As appended (BS5837 Tree Survey Key & Table)

Tree Constraints Plan: As appended (12722/TCP/01)

TREE SURVEY IN ACCORDANCE WITH BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'

SITE: Gloucester Arms, Leighton Road, NW5 2QH

ARBOR CONSULTANT: Andrew Turnbull MArborA

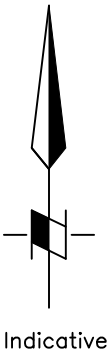
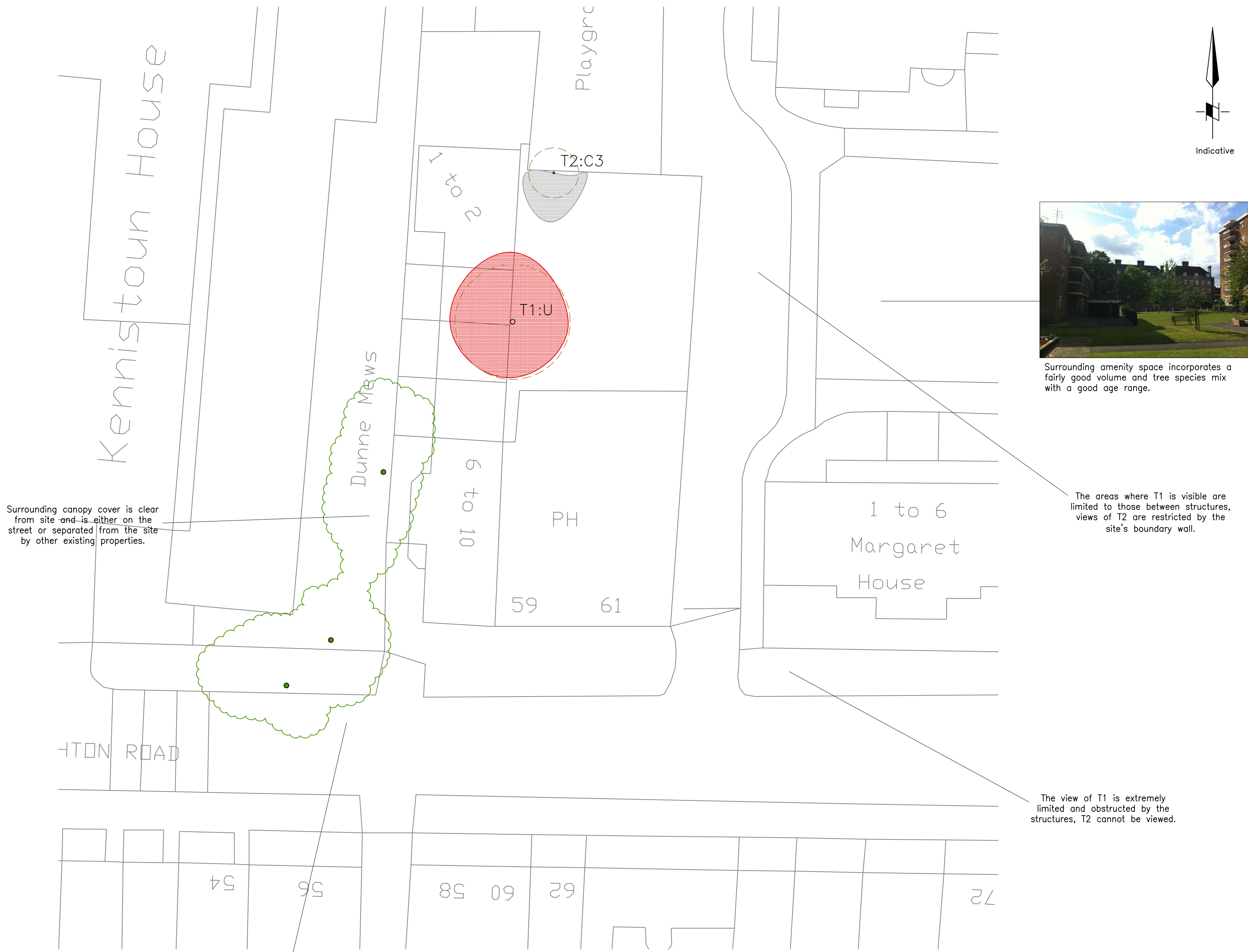
CLIENT: Automist Ltd

SURVEY DATE: 28 Aug 2012

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W	STEM (in mm)	RPA (in m²)	CLEARANCE (in m)	LIFE & VITALITY	NOTES	BS CAT.	MANAGEMENT
T1	Ash; <i>Fraxinus, Oleaceae</i>	SM	10.5	5 4 4 4.5	345	54	1.5	Poor	Unusual multiple stem base formation with grafts and branch attachments, 3x stem measurements taken (410mm, 370mm and 270mm), likely to be a self seeded tree which has grown next to the wall, cambial flattening up against wall, no root growth anticipated offsite and hence no roots anticipated on west side, multiple stems at 0.5m - 1.5m, risk of wind-throw due to canopy sail and existing root growth restrictions.	U	Consider removal rather than pollard to manage sail due to direct wall contact.
T2	Staghorn Sumac; <i>Rhus, Anacardiaceae</i>	M	4	0 3.5 2 2	150	10	1.5	Normal	Close to wall, small scale, plane of lean South, in beer garden with wall surrounds 1.5-12.0m high, multiple stems at around 1.5m.	C 3	

FIELD KEY:

TREE REF. #	-	Tree reference number: tag or plan number (T - individual tree, G - group of trees/shrubs, H - hedge);
SPECIES	-	Genus, species and/or common name;
TPO/CA	-	On client request: presence of Tree Preservation Orders (TPO) / site location within a Conservation Area (CA) as applicable;
AGE	-	Age classification (Y - young, EM - early mature, M - mature, LM - late mature, OM - over mature);
HEIGHT (in m)	-	Approximate height of tree in metres;
CANOPY (in m)	-	Approximate branch spread in metres of the four principal compass points (N, S, E, W);
STEM (in mm)	-	Stem diameter in millimetres: measured in accordance with s.4.6 of BS5837;
RPA (in m²)	-	Root Protection Area: calculated as a function of the STEM measurement (single stem/multiple stem variant, as outlined within BS5837);
CLEARANCE (in m)	-	Height in metres of crown clearance above the adjacent ground level;
VITALITY	-	A measure of physiological condition typically gauged from annual extension growth (normal, poor, dead);
NOTES	-	Structural and physiological condition observations;
	-	BS5837 tree quality assessment category: resulting from structural/physiological condition and remaining contribution (approximate useful life expectancy);
	-	Standard retention category U : in such a condition that any existing value would be lost within 10 years;
BS CAT.	-	Standard retention category A : high quality and value, in such a condition as to be able to make substantial contribution of 40+ years;
	-	Standard retention category B : moderate quality and value, in such a condition as to make a significant contribution of 20+ years;
	-	Standard retention category C : low quality and value, currently in adequate condition to remain until new planting could be established 10+ years;
	-	Standard retention sub-category, mainly due to: 1 - Arboricultural values, 2 - Landscape values, 3 - Cultural values, including conservation;
MANAGEMENT	-	Preliminary management recommendations (as appropriate);
' * '	-	Within the survey schedule denotes an estimate



KEY

- Tree Crown Spread
- Root Protection Area (RPA)
- Tree Stem
- T1 Tree No.

Tree Condition Category

- A
- B
- C
- U

The tree constraints are illustrated on this plan in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'

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



Surrounding amenity space incorporates a fairly good volume and tree species mix with a good age range.

Surrounding canopy cover is clear from site and is either on the street or separated from the site by other existing properties.

The areas where T1 is visible are limited to those between structures, views of T2 are restricted by the site's boundary wall.

The view of T1 is extremely limited and obstructed by the structures, T2 cannot be viewed.

The view of T1 is extremely limited and obstructed by the structures and neighbouring trees, T2 cannot be viewed.

DO NOT SCALE FROM DRAWING

REV.	DESCRIPTION	DWN	CHK'D	DATE
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CLIENT	Automist Ltd
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PROJECT	12722 The Gloucester Arms, Leighton Road, NW5 2QH
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TITLE	Tree Constraints Plan
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DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RCK	31/08/12					1:500


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Drawing Number	A2
12722/TCP/01	REV.

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