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ARBORICULTURAL AND WOODLAND CONSULTANTS

TITLE: **Arboricultural Constraints**
Advice: Mandeville Grange Care
Home, 201 – 203 Wendover Road,
HP21 9PB

DATE: 22nd March 2021

PREPARED BY: Dominic Poston

REF: HWA10613_APIII



ARBORICULTURAL CONSTRAINTS ADVICE (APII)

**Mandeville Grange Care
Home**

**HWA10613_APII
22/03/2021**

Prepared For
Chiltern Care Services

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Contents

1	Introduction	3
2	Limitations.....	3
3	Methodology	5
4	Constraints Appraisal	7
5	Recommendations and Conclusions.....	7

Appendices

APPENDIX A - Tree Survey Schedule

APPENDIX B – BS 5837 Tree Categorisation Cascade Chart

APPENDIX C - Plans

1 Introduction

1.1 **Particulars of instruction:** Hallwood Associates Limited (HWA) have been instructed by Enter client here. to undertake a tree survey in accordance with BS5837:2012 (Trees in relation to design, demolition and construction – recommendations) at Mandeville Grange Care Home and provide the following:

- A survey and schedule of all relevant trees on or adjacent to the site including an assessment of condition;
- Appraisal of the above and below ground constraints imposed by existing trees on the potential development of the site;
- Preliminary tree work recommendations on the basis of good arboricultural management.

1.2 **Use of this document:** The purpose of this report is to provide an analysis of development constraints above and below ground which are imposed on the site by existing trees. Its primary purpose is as an aid for the scheme architects in developing a proposal which considers all existing constraints. This report considers all significant trees on the site or other area as designated within our instructions. Adjacent properties may also contain trees that pose a constraint on development and where necessary their details will be included.

1.3 **Provided documents and information:**

- Survey Solutions Topographical Survey dated 21.03.2019

1.4 **Authorship:** This report has been prepared by Dominic Poston MICFor, FArborA, CEnv, PDArb (RFS), BSc, HND Hort. The findings in this report are reached through site observations and conclusions are made in light of the author's experience. Details are available upon request or at www.hallwoodassociates.com.

2 Limitations

2.1 The following is a brief description of legal constraints as they apply to trees. Please note the information is for guidance only and is not a definitive interpretation of the law as it affects trees. HWA have undertaken a preliminary review of Buckinghamshire Councils online mapping database and can confirm that several trees are currently protected by Tree

Preservation Order. Therefore you **must** carry out a statutory tree protection check if you intend to undertake any tree works prior to formal planning consent being issued.

Tree preservation orders: A tree preservation order gives statutory protection to trees and makes it a criminal offence to carry out most work to them without written permission from the local planning authority. Tree work necessary to implement full planning consent overrides the need to apply separately. Please note there may be a need to discharge pre commencement conditions before tree works can be undertaken.

Conservation areas: If trees are within a conservation area, a minimum of six weeks' written notice (a Section 211 Notice) must be given to the LPA of the intention to carry out works to trees. The LPA then has the option to allow the works or to place a TPO on the tree/s to manage the works. Tree work necessary to implement full planning consent overrides the need to notify separately. Please note there may be a need to discharge pre-commencement conditions before tree works can be undertaken.

Trees and the planning system: LPAs have a statutory duty to consider the protection and planting of trees when granting planning permission. The potential effect of development on trees is a material consideration, whether statutorily protected (e.g. by a TPO or by being within a CA) or not.

Other legal restrictions: Restrictive covenants and existing planning conditions sometimes restrict works to trees. Sites within or adjacent to Sites of Special Scientific Interest, Ancient Semi-Natural Woodland, nature reserves and other land designations, restrict some works to trees. Legal advice may be required in some of these cases.

Occupiers Liability 1957 and 1984: The Occupiers Liability Act places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore, this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of trees (National Tree Safety Group 2012)' states that 'the owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at common law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property.'

Common Law: This enables pruning back of the crown and roots of trees on adjacent land where they overhang neighbouring property, providing the work is reasonable and does not cause harm. This right does not override TPO and CA legislation.

Ecological constraints: The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees. These could impose significant constraints on

the use and timing of access to the site. It is the responsibility of the main contractor and tree surgery contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works. Unless competent to do so, the advice of an ecologist must be sought.

- 2.2 **Validity:** The statements, findings and recommendations made within this report do not take into account any effects of extreme climate and weather incidences, vandalism, changes in the natural and built environment around the tree(s) after the date of this report, nor any damage whether physical, chemical or otherwise. Hallwood Associates cannot accept any liability in connection with the above factors, nor where recommended tree management is not carried out in accordance with modern tree health care techniques, within any proposed timeline.
- 2.3 All rights in this report are reserved. Its content and format are for the exclusive use of the addressee in dealing with this site. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without the written consent of Hallwood Associates Limited.
- 2.4 This report is restricted to those trees shown on the attached plans and described in the tree survey schedule. All plans and discussions within this report are based entirely on the drawings provided to Hallwood Associates and referenced above. Any material planning changes after the date of report issue will invalidate this report.
- 2.5 Due to the above statements, this report remains valid for two years from the date of issue only.

3 Methodology

- 3.1 **Site visit:** The site was visited by Dominic Poston on 17 March 2021 and comprises an existing care home for the elderly with associated parking and garden.



This aerial image is provided courtesy of Google. The yellow line indicates the approximate site boundary and is illustrative only.

- 3.2 **Tree Survey:** Each tree was surveyed and given a number corresponding to the tree constraints plan (TCP) found at appendix B. For each group or individual information was collected as recommended at 4.4.2.5 of BS 5837. The survey was preliminary in nature and did not involve aerial or detailed inspection. This data is held within the tree schedule (table 2) which can be found at Appendix A.

The survey is based on the Visual Tree Assessment (VTA) method developed by Mattheck and Breloer (1994); it is preliminary in nature and should not be interpreted as a detailed tree condition inspection. Works are recommended to those trees that present an immediate and serious hazard to life or property, or maybe affected by a pest or pathogen that may spread to other trees on the site.

- 3.3 **Interpretation of data:** BS5837 recommends that trees within categories A-C (where A is highest quality) are a material consideration in the development process, however young trees with a stem diameter less than 150mm could be considered for relocation. Category U trees are those that will not be expected to exist for long enough to justify their consideration in the planning process. The tree categories are illustrated on the plans with colour coding. Category A trees are light green, category B are mid blue, category C are grey and category U are dark red.

4 Constraints Appraisal

- 4.1 **Below ground constraints:** Section 4.6 of BS5837 recommends that the trunk diameter measurement for each tree is used to calculate the root protection area (RPA), which can then be interpreted to identify the design constraints and, once a layout has been developed, the Construction Exclusion Zone (CEZ) to be protected by barriers (tree protection plan (TPP)). Figure 1 in appendix C (TCP) graphically shows the surveyed trees and their relevant RPA. RPA's may have been altered where it is deemed necessary due to predicted eccentric root morphology. Root morphology will be influenced by the ground conditions; roots will proliferate where soil conditions are favourable and less so where the ground conditions are poor. Buildings and metalled road with deep foundations may inhibit root growth into the area.
- 4.2 **Above ground constraints:** The second constraint is the amount of space required around a tree(s) in order for it to be successfully retained once development is finished and the pressures of human occupation come to bear. This area would not normally be suitable for occupied accommodation, but un-occupied structures or hard surfacing may be feasible. This is represented by a separate polygon on figure 1 in appendix C (TCP).
- 4.3 **Indirect damage:** Damage by indirect action can occur in shrinkable soils such as clay when vegetation takes moisture from the ground, causing a significant volume change resulting in ground movement. Buildings and drainage need to be protected against the effects of subsidence and heave. Therefore specialist soil assessment must be commissioned in order to influence layout development and the engineering design of built structures.

Subsidence: Occurs when water is withdrawn from the soil causing it to shrink.

Heave: Occurs when previously dehydrated soils take up water and swell. This can happen when vegetation is removed or roots severed.

Note: Advice from an arboriculturist on the zone of influence of existing vegetation along with guidance and specifications from a qualified engineer must be sought when considering the above constraints.

5 Recommendations and Conclusions

- 5.1 **Concept and design:** The location of T10 (Horse chestnut protected by TPO) poses a significant constraint to the development. Whilst there is the space available, the current layout proposal will need amendment to either avoid the identified root protection areas of moderate and

high value trees, or bridge their roots through the use of a low impact alternative to access the easier to develop garden space beyond T9 and T10.

- 5.2 **Arboricultural Impact Assessment:** Following the development of a considered design layout an Arboricultural Impact Assessment (AIA) must be commissioned to support the planning application.
- 5.3 **Preliminary tree works:** Detail of preliminary (remedial) tree works required are detailed within the tree survey schedule which can be found at Appendix A. These works are considered required for good arboricultural management and should be considered irrespective of any development proposal.

Appendices

APPENDIX A - Tree Survey Schedule

APPENDIX B - BS 5837 Tree Categorisation Cascade Chart

APPENDIX C - Plan(s)

Appendix A

TREE SURVEY SCHEDULE

(Ref) No.	Species	Height (m)	Stem diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	Base of crown (m)	Life Stage	Observations	Preliminary Recommendations (irrespective of development proposals)	Remaining contribution (yrs)	Value categorisation (BS 5837)
T1	Horse Chestnut	16	1090	10	10	10	10	4	M	Previous lateral reduction and crown raise. Minor deadwood noted.	None	40+	A1
T2	Cherry Plum	5	360	0	3	6	1	2	M	Suppressed by T1. Unsustainably close to nearby structure. Basal split - suspect structural condition.	Consider fell.	10+	C2
T3	Holly	7	ave 150	3	3	3	3	2	M	Congested basal unions.	None	20+	C1
T4	Ash	13	300; 225	6	5	1	3	4	M	Outside but growing unsustainably close to boundary wall	Consider fell.	20+	B2
T5	Ash	13	250; 250	4	5	5	3	2	M	Outside but growing unsustainably close to boundary wall. Dense ivy on stem and into crown.	Consider fell.	20+	B2
T6	Cabbage palm	5	50; 50; 75	0.5	0.5	0.5	0.5	2	SM	In raised planter.	None	10+	C1

(Ref) No.	Species	Height (m)	Stem diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	Base of crown (m)	Life Stage	Observations	Preliminary Recommendations (irrespective of development proposals)	Remaining contribution (yrs)	Value categorisation (BS 5837)
T7	Fig	4	ave 50	1	2.5	2.5	2.5	0	M	Managed by reduction. Poor form.	None	10+	C2
T8	Cabbage palm	2	20; 20; 50; 50; 50	0.5	0.5	0.5	0.5	1	SM	In raised planter.	None	10+	C1
T9	Beech	14	est 750	6	7	7	7	4	M	Ivy on stem means estimated stem diameter measurement. Reduced laterally on northern side.	Sever and remove ivy.	20+	B1
T10	Horse Chestnut	14	860	8	8	7	5	3	M	Previous heavy reduction. Multiple areas of minor decay noted at old pruning wounds.	Apical and lateral crown reduction of up to 4m	20+	B1
T11	Weeping willow	9	est 800	1	3	7	3	0	M	Dense ivy on stem. Managed as pollard. Acute lean to S.	None	10+	C1
T12	Crab apple	7	250	1	3	5	4	2	M	Suppressed by T10. Not shown on topo. Decay at old pruning wounds.	None	10+	C1
T13	Lawson cypress	9	350	3	1	3	3	2	SM	Previously topped at 5m. Hawthorn growing up through crown.	Reduce hawthorn to hedge height.	10+	C1

(Ref) No.	Species	Height (m)	Stem diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	Base of crown (m)	Life Stage	Observations	Preliminary Recommendations (irrespective of development proposals)	Remaining contribution (yrs)	Value categorisation (BS 5837)
T14	Maple	4	150	2.5	2.5	2.5	2.5	1.5	SM	Managed by regular reduction in shrub bed.	None	10+	C2
T15	Apple	3	ave 25	2.5	2.5	2.5	2.5	0	SM	Managed by regular reduction.	None	10+	C2
T16	Weeping ash	4	290	4	5	2	4	0	M	Suppressed by T17 with assymetric crown.	None	20+	C2
T17	Wild cherry	9	290	6	6	1	6	1	SM	Ivy on stem. Assymetric crown due to group pressure.	None	20+	C2
T18	Wild cherry	9	300; 325	8	4	6	6	1	M	Lean to north.	None	20+	B2
T19	Fig	5	ave 50	0	1	3	1	0	SM	Poor form	None	10+	C2

(Ref) No.	Species	Height (m)	Stem diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	Base of crown (m)	Life Stage	Observations	Preliminary Recommendations (irrespective of development proposals)	Remaining contribution (yrs)	Value categorisation (BS 5837)
T20	Beech	16	680	10	6	9	7	2	M	Minor lean to N. Raised levels to SE due to garden waste.	Reduce levels to original.	40+	A1
T21	Weeping willow	10	1100	4	4	4	4	1	M	Extensive basal decay from ground level to 2m on 30% of circumference. Managed as pollard. Dense ivy	Fell	<10	U
T22	Hybrid cherry	9	350	4	3	3	4	0	M	Reverting from root stock. Previously reduced. Decay in old pruning stubs.	None	10+	C2
T23	Maple	11	500	7	5	7	7	3	SM	Dense ivy. Moderat edeadwood.	None	20+	B1
T24	Leyland cypress	8	350	4	4	4	4	1.5	SM	Previously topped at 2m.	None	20+	C2
Grp1	Portugese Laurel	2	<50	0.5	0.5	0.5	0.5	1.5	Y	8 standard trees.	None.	10+	C2

(Ref) No.	Species	Height (m)	Stem diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	Base of crown (m)	Life Stage	Observations	Preliminary Recommendations (irrespective of development proposals)	Remaining contribution (yrs)	Value categorisation (BS 5837)
Grp2	Cypress	<7	<200	1	1	1	1	1	SM	Minor dieback noted.	None	10+	C2
Grp3	Mixed	<7	<200	-	-	-	-	0	SM	Outgrown hazel and cherry on boundary.	Consider management as hedge.	20+	C2
Grp4	Pear/Apple	<5	<150	1	1	1	1	1.5	SM	Group of trees in bed and managed through reduction.	None	20+	C2
H1	Privet	1	<100	0.5	0.5	0.5	0.5	0	SM	Managed hedge	None	20+	C2
H2	Leyland cypress	<2	<100	0.5	0.5	0.5	0.5	0	SM	Managed hedge	None	20+	C2
H3	Privet	1.5	<100	0.5	0.5	0.5	0.5	0	SM	Managed as hedge.	None	20+	C2



(Ref) No.	Species	Height (m)	Stem diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	Base of crown (m)	Life Stage	Observations	Preliminary Recommendations (irrespective of development proposals)	Remaining contribution (yrs)	Value categorisation (BS 5837)
H4	Privet	1.5	<100	0.5	0.5	0.5	0.5	0	SM	Managed as hedge.	None	20+	C2
H5	Leyland cypress	<4	<150	1	1	1	1	0	SM	Managed high hedge.	None	20+	C2
H6	Leyland cypress	<4	<150	1	1	1	1	0	SM	Managed short hedge.	None	20+	C2

Appendix B

BS 5837 TREE CATEGORISATION CASCADE CHART

TREES TO BE CONSIDERED FOR REMOVAL

CATEGORY AND DEFINITION	CRITERIA	Identification on plan
Category U Those 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	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 U category trees (i.e. 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 (e.g. Dutch elm disease), or very low-quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. U category tree used as a bat roost: installation of bat box in nearby tree).	DARK RED

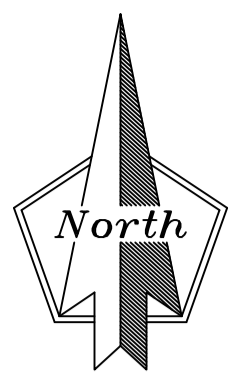
TREES TO BE CONSIDERED FOR RETENTION

CATEGORY AND DEFINITION	CRITERIA — Subcategories			Identification on plan
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT 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 (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those 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 150 mm should be considered for relocation.			

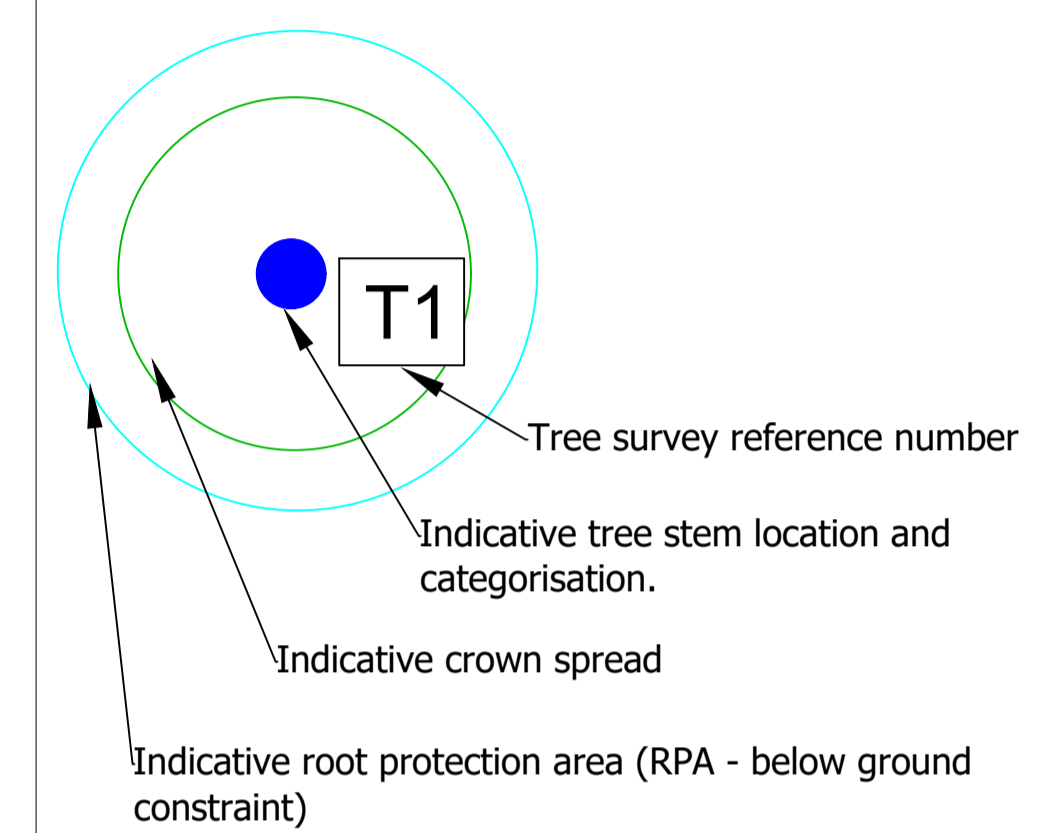
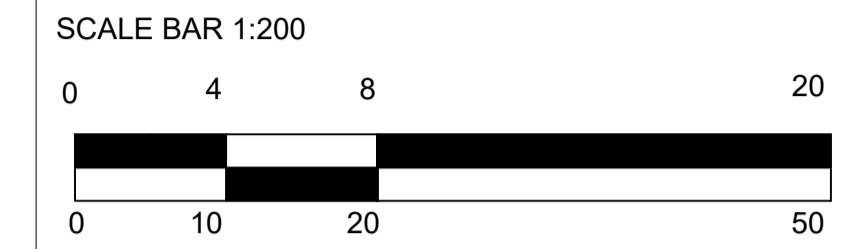
Appendix C

PLANS

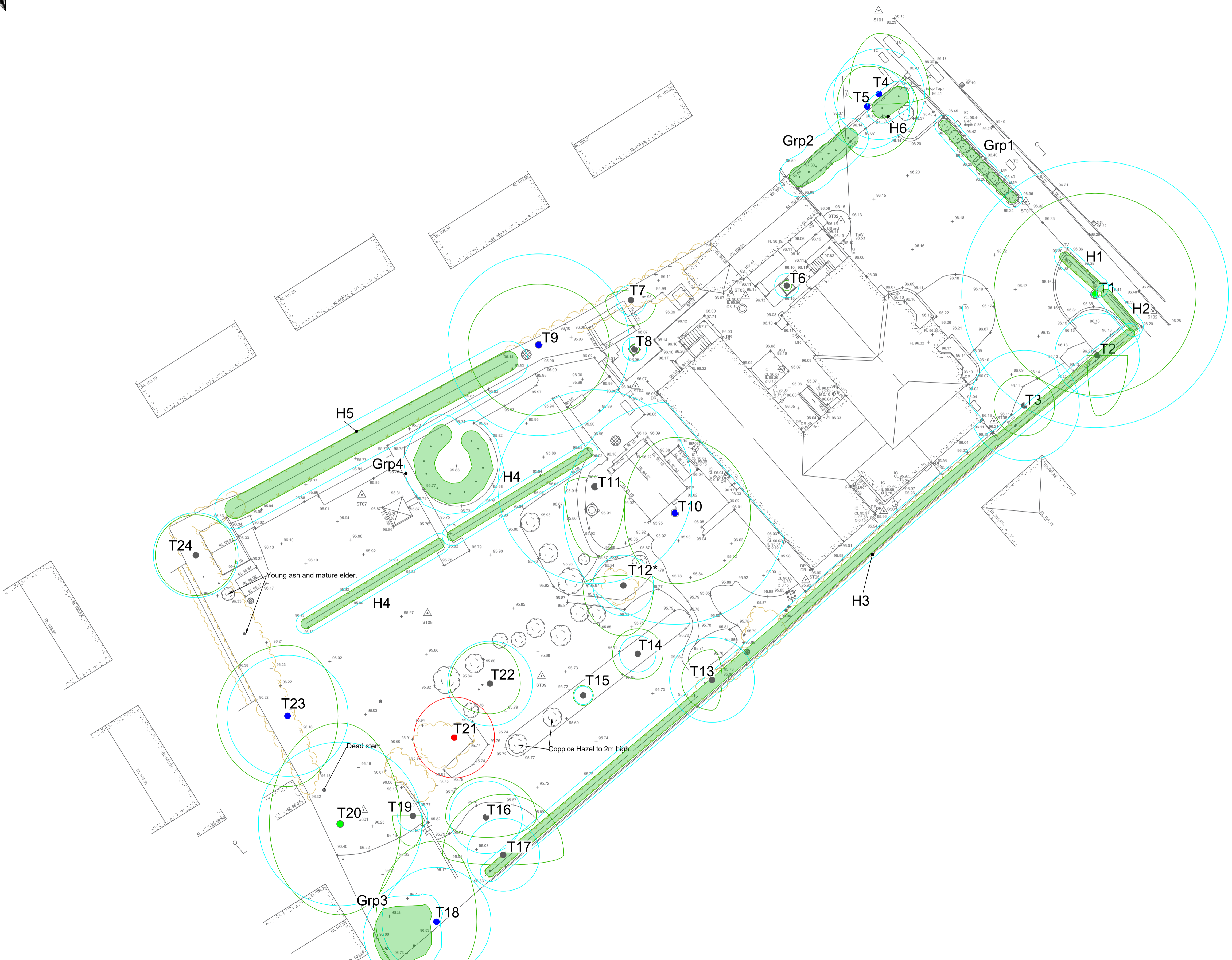
Figure 1: Tree Constraints Plan (TCP)



NOTE:
 This drawing is to be read in conjunction with all other relevant technical information, statutory approvals, specifications and 3rd party information. Do not scale from this drawing. Use only dimensions provided. All dimensions and levels to be checked on site and all discrepancies must be reported to the drawings author immediately. This drawing was based upon drawings provided by the client. The original of this drawing was produced in colour and monochrome versions cannot be relied upon. This drawing is to be used only for the purposes indicated. It is the responsibility of the contractor to ensure any necessary consents are in place. This drawing is copyright and the property of Hallwood Associates Ltd (HWA) and must not be reproduced without prior written agreement.



- Tree stem location and value category according to BS 5837:
- Red - No value
 - Grey - Low value
 - Blue - Moderate value
 - Green - High value



NOTE:

- Trees marked with an '*' are indicatively plotted as they were not shown on the provided topographical survey.
- Other vegetation shown on the topographical survey and not itemised within the tree survey are either considered shrub masses, too small or insignificant to be included.

Rev.	Description	Date
HALLWOOD ASSOCIATES LTD t: 01621 770168 e: enquiries@hallwoodassociates.com		
Client: Chiltern Care Services		
Site: Mandeville Grange Care Home, Aylesbury		
Drawing Title: Tree Survey & Constraints Plan 1 of 1		
Date:	22.03.2021	Drawn By: DAP
Scale:	1:200 @ A1	Checked By: GLP
Drawing Number: HWA10613_TCP		Rev.