Christopher Hoare Tree Services Ltd
Arboricultural Contracting & Consultancy
Limited Company No: 04766544 VAT Registration: 750117661

Arboricultural Report

Q3264 - Pre-development Arboricultural Survey

CRAIGLEA COTTAGE,
WHINFIELD ROAD,
DIBDEN PURLIEU,
HAMPSHIRE

Prepared for:
Mr & Mrs Marsh

October 2022

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PRE-DEVELOPMENT ARBORICULTURAL SURVEY

At:

CRAIGLEA COTTAGE,
WHINFIELD ROAD, DIBDEN PURLIEU,
HAMPSHIRE

For:

MR & MRS MARSH

This report was compiled by
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Arboricultural ASSOCIATION
Technician Member

This report is the responsibility of Christopher Hoare Tree Services Ltd.
It should be noted that whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment.

Report Number: Q3264-01

October 2022

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1. INTRODUCTION

1.1 PROJECT BRIEF

Mr and Mrs Marsh commissioned Christopher Hoare Tree Services Ltd to undertake a Pre-development Arboricultural Survey of trees situated on land at Craiglea Cottage, Whinfield Road, Dibden Purlieu. The site is within the administrative boundary of New Forest District Council and within the county of Hampshire.

It is understood that the site will be the subject of a planning application, however, the details were not provided during the preparation of this report.

The purpose of this report is to:

- Record the current condition of the trees found on and immediately adjacent to the site and categorise them using criteria outlined in BS5837:2012 "Trees in relation to design, demolition and construction - Recommendations".
- Using the data obtained during the survey, publish a Tree Constraints Plan showing the above ground and below ground constraints in terms of minimum root protection area (RPA) and canopy spread.
- Provide guidance detailing arboricultural constraints to development and factors to be considered during the detailed design of the proposed development.

1.2 SITE DESCRIPTION

The site is generally rectangular in shape and located within a residential area of the town of Dibden Purlieu and situated towards the south-western fringes of the settlement. The site is situated off Whinfield Road, minor trunk road. The site is dominated by the existing residential building a number of outbuildings, areas of hard surfacing and amenity grassland. The trees surveyed were situated within the grounds of the site and predominantly towards the northern section of the property within off-site positions.

The front of the property is orientated to the south-west. The site is delineated from neighbouring land by a mix of boundary features. To the north and south, the site abuts further properties off Whinfield Road, minor trunk road. The eastern boundary was delineated by properties off Crete Cottages, minor trunk road. The western boundary was demarcated by Whinfield Road, minor trunk road.

The site is centred at National Ordnance Survey Grid Reference SU 41410 05916.

The topography of the survey area generally flat.

2. ARBORICULTURAL SURVEY METHODOLOGY

2.1 DESK STUDY

A desk study was undertaken to identify if any of the trees present within or in close proximity to the site are covered by Tree Preservation Orders (TPOs) or if the site is situated within a Conservation Area. This involved consultation with the local council. See Section 4 for the results.

2.2 CONDITION STATUS

To determine the status of the trees within the site a full arboricultural survey has been undertaken, assessing the species and status of all trees present. This survey has been carried out in accordance with British Standard 5837: 2012 Trees in Relation to design, demolition and construction – Recommendations.

All trees have been given a unique reference number. Individual trees above 75 mm (diameter at 1.5 m above ground level) have had their position confirmed on a survey drawing. The trees were visually assessed and a schedule prepared listing tree number, species, trunk diameter at 1.5 m above ground level (or in accordance with Annex C of BS5837:2012), tree height, crown spread (cardinal points), crown clearance (cardinal points), height of first branch and growth direction, age class and estimated remaining years. Any specific observations or recommendations with regard to management were also noted. Groups of trees and hedgerows have had their specific dimensions (as per individual tree) averaged and recorded as such. All these observations and measurements are summarised in Section 3.3.

Each tree was assessed and assigned to one of the following categories:

- Category A: Those trees of high quality and value with an estimated remaining life expectancy of at least 40 years.
- Category B: Those trees of moderate quality and value with an estimated remaining life expectancy of at least 20 years.
- Category C: Those trees of low quality and value with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150 mm.
- Category U: Trees 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.

Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

1: Mainly arboricultural qualities.
2: Mainly landscape qualities.
3: Mainly cultural values, including conservation.

2.3 ROOT PROTECTION AREA (RPA)

In order to avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated for each of the Category A, B and C trees. This is a minimum area around a tree which is deemed to contain sufficient roots and rooting volume to maintain the trees viability. Protection of the roots and soil structure in this area should be treated as a priority.

These figures have been calculated utilising the formulas within Section 4.6 and Annex D of British Standard 5837:2012.

2.4 ENVIRONMENTAL BENEFITS OF TREES

It is worthwhile noting that the trees can intercept many of the hostile elements humans and animals need shelter from. Trees provide shading and offer significant humidity regulation and a cooling effect felt at ground level. All trees will consume a considerable amount of ground water that will regulate the local

hydrology and may assist with the removal of local flooding issues. A mature tree will consume tens of thousands of litres of water during a year. A group of trees can provide an element of acoustic dampening effect at ground level and growing next to a road many tree species have been linked with the sequestration of impurities from the atmosphere. Finally, the trees will provide some shelter from prevailing winds and inclement weather. Therefore, it can be seen that the trees will benefit, rather than hinder, the landscape in which they are growing.

2.5 PLANNING CONTEXT

It is important to note that trees are a material consideration in the UK planning system and existing trees are an important factor requiring forethought when assessing the development potential of a site, whether they are within the working area or within such proximity to it that they may be affected by construction operations.

Older mature trees, particularly of oak and beech, are a particular characteristic of Hampshire. They are a feature not only of the ancient woodlands of an open Woodland or Forest, but of the villages and other settlements that have developed over time as an integral part of the wider landscape. Local Authorities, through planning and other policies, are committed to conserving the stock of mature trees wherever possible in order to maintain the local character, cultural history and wildlife value of the area.

3. RESULTS

3.1 DESK STUDY

It is understood that all of the Oak trees located adjacent to this site are the subject of a Tree Preservation Order. See Section 4 for further details.

The site is not situated within a Conservation Area.

3.2 WEATHER CONDITIONS

The survey was completed on 7th October 2022 by Marco Bartolini, Arboricultural Consultant. The weather conditions at the time of the survey are shown in Table 3.1.

Conditions	Result
Temperature (°C)	17
Cloud Cover (%)	80
Precipitation (%)	6
Wind Speed (Beaufort)	F3

Table 3.1: Weather Conditions at Time of Survey

3.3 SURVEY RESULTS

Tree and shrub species recorded during the survey are listed in Table 3.2.

Common Name	Scientific Name
Apple	*Malus domestica*
Bay	*Laurus nobilus*
Cherry Laurel	*Prunus laurocerasus*
Holly	*Ilex aquifolium*
Leyland Cypress	*Cupressus × leylandii*
Oak	*Quercus robur*
Privet	*Ligustrum ovalifolium*
Rhododendron	*Rhododendron* spp.
Spotted Laurel	*Acuba japonica*
Yew	*Taxus baccata*

Table 3.2: Tree and Shrub Species Recorded During Survey

The full results of the Arboricultural Assessment are detailed in Table 3.3.

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Yew	1	400	4.0	0.0 S	2.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	M	F	G	10+	C1	• Hedgerow tree. • Off-site tree. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	-
2	Apple	2	170	4.0	1.0 W	0.5	1.5	2.5	2.5	1.0	1.0	1.0	1.0	M	F	F	10+	C1	• Artificial structures within RPA. • Pruned for crop. • Asymmetrical canopy due to proximity to boundary feature.	-
3	Magnolia	5	140	4.0	1.0 W	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	EM	F	G	10+	C1	• Multi-stemmed at ground level. • Heavily pruned. • Quadrifurcated at ground level and bifurcated on one stem at 1.0 m above ground level.	-
4#	Oak	1	800	24.0	5.0 E	11.0	10.0	12.0	9.0	5.0	8.0	2.0	4.0	M	G	G	20+	B1,2,3 Int	• Off-site tree. • Restricted access prevented detailed assessment. • Overhangs site 2.0 m. • Major deadwood in crown. • Artificial structures within RPA.	Crown clean deadwood.
5#	Oak	1	700	18.0	4.0 S	9.0	8.0	10.0	2.0	3.0	4.0	3.0	10.0	M	F	G	20+	B1,2,3 Int	• Off-site tree. • Restricted access prevented detailed assessment. • Major deadwood in crown. • Overhangs site 9.0 m. • Artificial structures within RPA.	Crown clean deadwood.
6#	Oak	1	500	16.0	6.0 E	7.0	6.0	2.0	2.0	6.0	7.0	11.0	14.0	M	F	F	10+	C1 Int	• Off-site tree. • Major deadwood in crown. • Suppressed by T5 & T7. • Crown shape distorted. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	Crown clean deadwood.
7#	Oak	1	1090	25.0	2.0 S	12.0	12.0	10.5	12.0	4.0	8.0	3.0	6.0	M	G	G	20+	B1,2,3 Int	• Off-site tree. • Major deadwood in crown. • Overhangs site 10.0 m. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	Crown clean deadwood.

Table 3.3: (cont'd) Results of Arboricultural Survey (continues)

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	H't 1st Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
G1	Holly	1	300	8.0	0.0 E	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	Y EM M	F	F	10+	C2 Int	• Off-site group. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	-
H1	Yew, Cherry Laurel, Leyland Cypress, Spotted Laurel.	1	50	2.0	0.0 W	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	Y EM M	F	F	10+	C2 Int	• Off-site hedgerow. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	-
H2	Holly, Rhododendron, Privet, Bay.	1	50	2.0	0.0 S	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	Y EM M	F	F	10+	C2 Int	• Off-site hedgerow. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	-
H3	Cherry Laurel, Yew	1	50	2.0	0.0 N	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	Y EM M	F	F	10+	C2 Int	• Off-site hedgerow. • Restricted access prevented detailed assessment. • Artificial structures within RPA.	-

Key

Age Class
Y: Young = tree within first third of average life expectancy
EM: Early mature = tree within second third of average life expectancy
M: Mature = tree within final third of average life expectancy
OM: Over mature = tree beyond average life expectancy
V: Veteran = shows signs of retrenchment and in decline.
D: Dead.

Physiological Condition
G: Good = no health problems
F: Fair = symptoms of ill health that may be remedied
P: Poor = poor health
D: Dead

Structural Condition
G: Good = no structural defects
F: Fair = remedial structural defects
P: Poor = significant structural defects
D: Dead

000: Estimated measurement due to access restrictions or deformed stems

RPA: Root Protection Area

Major deadwood: branches in excess of 50 mm diameter
Minor deadwood: branches/twigs less than 50 mm diameter

Int: Interim category due to access restrictions.

#: Trees subject to Tree Preservation Order - Group

Table 3.3: (cont'd) Results of Arboricultural Survey

3.4 ROOT PROTECTION AREA (RPA)

Table 3.4 provides details of the Root Protection Area (RPA) of all trees, group and hedgerows surveyed. This table also gives an approximate root protection radius for these trees.

Tree No.	Species	Diam (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m^2)
1	Yew	400	4.8	72
2	Apple	170	2.1	14
3	Magnolia	140	1.8	10
4	Oak	800	9.6	290
5	Oak	700	8.4	222
6	Oak	500	6.0	113
7	Oak	1090	13.2	547
G1	Holly	300	3.6*	41*
H1	Yew, Cherry Laurel, Leyland Cypress, Spotted Laurel.	50	0.9*	3*
H2	Holly, Rhododendron, Privet, Bay.	50	0.9*	3*
H3	Cherry Laurel, Yew	50	0.9*	3*

Key:
000: estimated dimensions due to access restrictions or deformed stems
*: Average measurement taken around centre of group

Table 3.4: RPA and Approximate Root Protection Radius of Trees, Group and Hedgerows Surveyed

4. DISCUSSION AND CONCLUSIONS

4.1 DESK STUDY

Examination of the New Forest District Council (2022) Interactive WebMap (https://maps.newforest.gov.uk/publicmap/map.aspx?mapname=tpo) accessed on 7th October 2002, indicated, that at the time of the assessment, all of the Oak trees surveyed are the subject of a Tree Preservation Order.

Tree Preservation Order Land of 24, 27 and 28 Crete Cottages, Dibden Purlieu in Hampshire number 25/07 dated 15th June 2007 applies.

The Town and Country Planning (Tree Preservation) (England) Regulations 2012, Part 4 – Applications for Consent under Tree Preservation Orders states that an application for consent to the cutting down, topping, lopping or uprooting of any tree in respect of which an order is for the time being in force shall be made in writing to the authority on a form published by the Secretary of State for the purpose of proceedings under these Regulations.

Until such time as the application has been granted no works must be undertaken on the trees identified as being subject to TPOs that contravene the order. Works include pruning, topping, lopping, uprooting or wilfully damaging these trees. Any proposed pruning works will need to be fully specified and agreed within any planning application. If works are subsequently identified and not included within the original planning application, a separate TPO application will be required to be submitted to the Local Authority for permission to undertake any works (approximately an 8-week process).

Apart from limited exceptions, permission must be sought from the local planning authority by submitting a standard application form. The form is available from the Local Authority Planning Portal. It is important that the information on the form makes clear what the proposed work is and provides adequate information to support the case.

The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a **full planning permission**. For example, the Order is overridden if a tree has to be removed to make way for a new building for which **full planning permission** has been granted. Conditions or information attached to the permission may clarify what work is exempt.

Further examination of the New Forest District Council (2022) Interactive WebMap (https://maps.newforest.gov.uk/publicmap/map.aspx?mapname=tpo) accessed on 7th October 2002, indicated, that at the time of the assessment, none of the trees are situated within a Conservation Area.

4.2 TREE QUALITY

Seven trees, one group of trees and three hedgerows have been inspected in accordance with British Standard 5837:2012 Trees in relation to design, demolition and construction - Recommendations.

- None of the trees surveyed are considered to be Category A – Trees of high quality and value.
- Three trees surveyed are considered to be Category B – Trees of moderate quality and value.
- Four trees, one group of trees and three hedgerows surveyed are considered to be Category C – Trees of low quality and value.
- None of the trees surveyed are considered to be Category U – Trees whose long-term contribution are limited.

A summary of the trees in each of the four categories is given in Table 4.1.

BS 5837 (2012) Category	Tree Number
A	-
B	4, 5, 7.
C	1, 2, 3, 6, G1, H1, H2, H3.
U	-

Table 4.1: Summary of Trees in BS 5837:2012 Categories

4.3 LIMITATIONS AND CONSTRAINTS

The four Oak trees (numbers 4, 5, 6 and 7) along with G1, H1, H2 and H3 were off site and with restricted access. Therefore, the health and safety of these trees have not been verified. In addition, a full assessment of the trees, group and hedgerows could not be carried out due the fact they were growing within third-party land. Should a full assessment be required then the landowners should be contacted and a further assessment be made with access to all land.

5. ARBORICULTURAL DESIGN GUIDANCE

5.1 THE TREE CONSTRAINTS PLAN

The Tree Constraints Plan is designed to show the influence that the trees have upon the site by virtue of their size and position. The plan seeks to act as a design tool that shows both the above and below ground constraints presented by the trees. The Christopher Hoare Tree Services Ltd, Tree Constraints Plan, Drawing Number Q3264-01-01 in Section 7 identifies these constraints.

The information provided within this section of the report is to assist in the interpretation of the ground survey results and aims to ensure that those trees selected for retention can be successfully integrated within the proposed development.

The Tree Constraints Plan can be used as a tool by the developing architect to ensure that the proposed development remains outside of the influence of all vegetation during the initial consultation processes.

5.2 TREE RETENTION / REMOVAL

The prioritisation for tree retention should be based upon the guidance contained within BS5837:2012. Category A trees should be seen as the highest priority for retention and Category C the lowest.

Category U trees generally have no retention value (although they may contribute to the overall landscape) and in most circumstances such specimens would not be considered for retention within development proposals.

When considering which Category C trees to retain, in the design of any new development, priority should be given to those trees that have been included within this category solely due to their having stem diameters of less than 150 mm at 1.5 m above ground level. These specimens are normally relatively young trees with future potential. Where possible and practicable, consideration should be given to the translocation of trees in favour of complete removal. Trees with a stem diameter below 75 mm, measured at 1.5 m above ground level, have not been included within the report, however, it is deemed that these trees can be translocated elsewhere across the site.

5.3 BELOW GROUND CONSTRAINTS

Root Protection Areas

Root Protection Areas for each tree surveyed have been determined in accordance with BS5837:2012 and a schedule of Root Protection Areas is detailed within this Report at Table 3.4 above.

It must be noted that there are areas on site where, due to the presence of existing structures (artificial and natural) and hard surfaces, tree root development will have been restricted as a result of soil distribution, reduced nutrient or moisture availability and a lack of provision for gaseous exchange. In such areas it may be appropriate to modify the shape of the RPAs, whilst not reducing their area, to take into account the likely root morphology and distribution of the affected trees. However, it is not a simple process to determine exactly where a tree's root system will extend to and whilst roots can generally be considered to be absent beneath substantial buildings, such as houses, they may well be present, if not abundant, beneath lighter structures and areas of hard surfacing. Employing a root radar would provide additional information should it be desirable.

Where possible all development, including new hard landscaping, shall be situated outside of the retained trees designated Root Protection Areas.

Removal of Existing Hard Surfaces and Structures
As noted above, there are areas on site where buildings and hard surfaces are present within the initial Root Protection Areas of trees on the site.

In addition to the effects that such construction may have upon the shape and location of the Root Protection Area of the tree, the presence of existing construction within the trees initial RPA's is also of note. Removal of such construction, should it be required, has a greater potential to cause harm to the trees due to the need for works in close proximity to them.

Where existing hard surfaces are located within the Root Protection Areas of retained trees, care should be taken in their removal, and such works should be completed by hand and supervised by an Arboricultural Consultant.

Where existing buildings are located within the Root Protection Areas of retained trees, care shall be taken in their demolition and works should be completed from outside the RPA with buildings being pulled back away from the trees. Again, it is recommended that such works are supervised by an Arboricultural Consultant.

New Hard Surfaces and Buildings within Root Protection Areas
The construction of new hard surfaces and buildings around trees has the potential to cause soil compaction, to cause root damage and to reduce nutrient and moisture availability to tree roots; to the detriment of tree health and vitality.

To minimise harm occurring as a result of such works, where installation of new hard surfacing is proposed within the Root Protection Areas of retained trees, it must be installed in accordance with no-dig principles.

Should new buildings be proposed within the RPA of an existing tree it will be necessary to take steps to minimise the potential impact to the tree to allow construction. In this respect the guidance contained within BS5837:2012 at clause 7.5 should be considered. This states: "*The use of traditional strip footings can result in extensive root loss and should be avoided. The insertion of specially engineered structures within RPAs may be justified if this enables the retention of a good quality tree that would otherwise be lost (usually Categories A or B). Designs for foundations that would minimise adverse impact on trees should include particular attention to existing levels, proposed finished levels and cross-sectional details. In order to arrive at a suitable solution, site-specific and specialist advice regarding foundation design should be sought from the project arboriculturist and an engineer. In shrinkable soils, the foundation design should take account of the risk of indirect damage.*"

Building Foundations
Any structures built on the site should comply with the foundation depths for buildings near or adjacent to trees and allow for the potential size of the trees at maturity. The soil types throughout the site will need investigating and appropriate measures taken.

If trees are removed across the site the potential for soil heave should be assessed and foundations designed accordingly (see NHBC Chapter 4.2).

Service Runs
All service runs, utilities and similar infrastructure should take note of trees and allow for working methods that will minimise damage to trees by referring to documents such as NJUG Volume 4 - Guidelines for the planning, installation and maintenance of utility services in proximity to trees (National Joint Utilities Group 2007).

5.4 ABOVE GROUND CONSTRAINTS

Existing Canopy Spreads

The current spread of the tree is a constraint due to its dominance, size and movement in strong winds. It will typically be unacceptable to design any built development within the current spread of a tree.

Where built development is proposed in close proximity to existing trees consideration should be given to the amount of working space required to allow its construction; scaffold, machinery, cranes etc.

Additionally, where development is proposed in close proximity to the existing canopy spread of a tree the likelihood of leaf or fruit fall or an accumulation of honeydew causing nuisance must be given.

It should also be noted that where the Root Protection Areas for retained trees do not extend to the edge of existing canopy spreads it is possible that those parts of the trees extending beyond the RPA may sustain damage during construction.

Where this occurs, there are two primary options available to manage and minimise the potential for damage to tree canopies during development and these may be used singularly or in combination. The first option is to create a Construction Exclusion Zone (CEZ), by the erection of protective fencing, around the full extent of the tree's canopy. The second is to undertake pre-development pruning works to the trees to reduce the potential for branch damage to occur.

Future Tree Growth

It must be remembered that any trees surveyed (or any recently planted) are not yet fully mature and have the potential for future growth. Should these trees be retained then consideration of their ultimate crown spread should be given as future branch growth may result in interference with the proposed development, damage to branches and the need for a tree pruning regime. Even a veteran tree that may seem to be dying will still grow additional wood each year amounting to at least a metric tonne.

Within the area of maximum branch spread, construction activities should be restricted for the long-term health and vigour of the trees. It is considered that within the area of maximum branch spread, single storey buildings and the installation of hard surfaces would be an appropriate form of construction, however should car parking be proposed beneath the ultimate spread of trees the likelihood of fruit fall, leaf litter or sap exudation causing a nuisance must be considered.

In addition, it is important to consider the likelihood of damage to trees or structures that may be caused by continuous whipping of branches in windy conditions. In such circumstances, branches may have to be repeatedly cut back which will introduce wounds in the tree and may spoil its form or shape. Repeated pruning can introduce pathogens that could eventually harm the tree beyond remediation. In general terms trees, should not be retained upon the basis that their ultimate branch spread can be significantly controlled by periodic pruning.

Furthermore, consider the future use of the site. Where a building is to be constructed near to a large tree with overhanging branches, the likelihood is that the first owner will either want the tree removed due to a perceived threat (big tree = big risk) or continual pruning to remove areas of shade. This would be unfair to a living organism and so the design process should take account of nearby trees too.

Finally, the ecological benefits of trees have a long scientific record and supports thousands of species across the animal kingdom. Engaging with an ecologist and arboriculturalist early in the design process will ensure that the biodiversity of the site is retained as much as possible.

6. RECOMMENDATIONS

The following site-specific recommendations are made:

- Reduce the impact to the retained trees by developing the proposed redevelopment of the site using the Tree Constraints Plan as a guide.
- The retention of the Category B trees is strongly recommended.
- The retention of Category C trees should be considered where possible though it must be noted that these specimens have a low retention value and are likely to only offer a temporary contribution to the landscape character of the site.
- Tree works to be carried out in accordance with BS3998:2010 Tree works – Recommendations.
- Where possible all trees suitable for retention should be retained and protected as part of the development.
- Any proposed new planting should consist of native and wildlife attracting species with a robust five-year management plan to assist with the development proposal and to offer mitigation for any tree loss.
- This Arboricultural Survey is valid for a period of 12 months. If works are not commenced within this time period, then it is advised that the trees are re-inspected to ensure no significant defects have developed since the original survey.

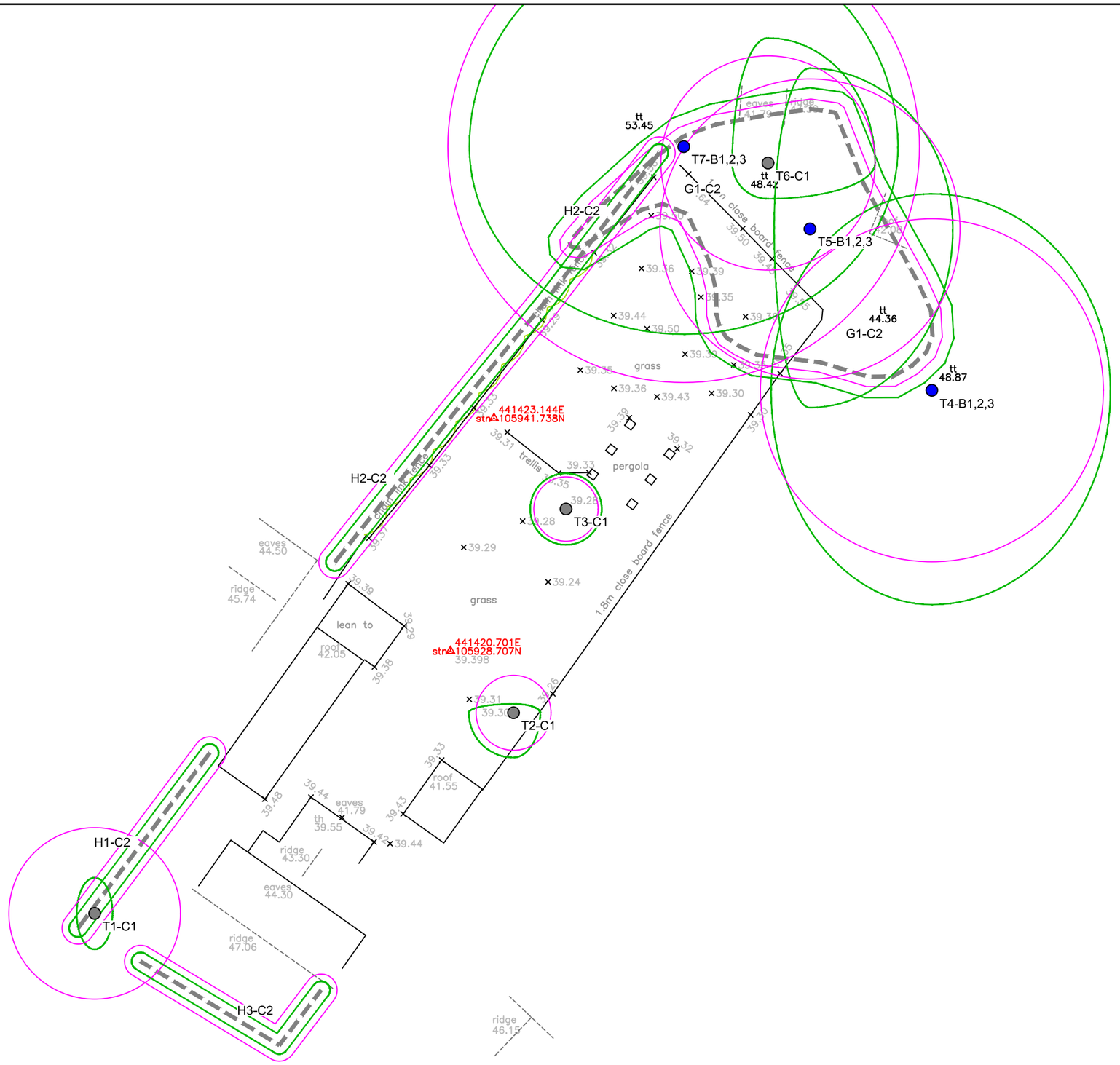
The following generic guidance should also be taken into account during the construction phase of any development, or significant engineering. The following proposals are made for this site:

- Any trees or hedgerows that are to be retained should be adequately protected by Heras fencing, in line with BS5837: 2012, extending at least to the Root Protection Radius, to prevent accidental damage by vehicles or contractors (see Table 3.4, page 9 for RPA data for each tree).
- All tree works are to be carried out by a competent and qualified arborist to BS3998:2010 standards.
- Tree protection should be included in the induction and/or briefing sessions by the contractors to site personnel.
- Soil compaction, from the storage of large quantities of materials and plant tracking, may result in changes to soil permeability and local drainage. This may lead to waterlogging or loss of soil crumb structure. These effects may in turn lead to root asphyxiation and root death, a cause of instability and or mortality in trees. For this reason, heavy machinery and the storage of materials should be excluded from the crown and Root Protection Radius of all trees.
- The recommendations of BS5837:2012 and National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees) (as appropriate to operations) should be followed when working close to trees.
- If works take place during the bird breeding season, usually from March to September inclusive, trees and hedgerows should be checked for nesting birds. If any trees are to be removed this should be done outside the breeding season or in the presence of a suitably qualified ecologist.

7. DRAWINGS

Q3264-01-01 Tree Constraints Plan

General Notes
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
The original of this drawing was produced in colour; a monochrome copy should not be relied upon.



Key

Trees
Showing Canopy extents, category colour and tag number (with category).

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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.

Category U
Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.

Tree Groups
Shown as dashed centre/boundary line. Colour represents category (see above)

BS 5837:2012 Root Protection Area

N

1:250
0 5 10m

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Client	Mr and Mrs Marsh
Project	Craiglea Cottage, Whinfield Road, Dibden Purlieu
Drawing Title	**Tree Constraints Plan**

Scale	Date	DB	CB
1:250 - A3	08/10/2022	CS	MB

Drawing Number	Rev
Q3264-01-01	A

REFERENCES AND BIBLIOGRAPHY

Ancient woodland, ancient trees and veteran trees: advice for making planning decisions (2022) https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions accessed 07/10/22.

Arboricultural Advisory Information Services. (2007) 'Practice Note 12. Through Trees to Development'.

Arboricultural Association. (2009) Guidance Note 7. *Tree Surveys: A guide to Good Practice*. The Arboricultural Association, Stonehouse.

British Standards Institution. (2010) *British Standard 3998:2010; Tree work – Recommendations.* British Standards Institution, London.

British Standards Institution. (2012) *British Standard 5837:2012, Trees in relation to design, demolition and construction – recommendations.* British Standards Institution, London.

British Standard Institution. (2014) *British Standard 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.* British Standards Institution, London.

Johnson & More **(**2004) *Tree Guide, Collins*. London.

Lonsdale, D. (1999) Principles of Tree Hazard Assessment and Management. DETR, London.

Mattheck, C., Breloer, H. (1994) *The Body Language of Trees: A Handbook for Failure Analysis*. Department of the Environment; Lonsdale, D. (Ed) Research for Amenity Trees. HMSO, England.

National House Builders Council (NHBC) (2017) Standards Part 4.2, Building Near Trees. Milton Keynes.

National Planning Policy Framework (2022). https://www.gov.uk/guidance/national-planning-policy-framework/. Department for Communities and Local Government. Accessed 12/05/22.

National Joint Utilities Group. (2007). Volume 4: NJUG Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees. NJUG, London.

New Forest District Council (2022) Interactive WebMap (https://maps.newforest.gov.uk/publicmap/map.aspx?mapname=tpo) accessed on 07/10/22.

Planning Practice Guidance. (2022). Tree Preservation Orders and trees in Conservation Areas. http://planningguidance.planningportal.gov.uk. Accessed 07/10/22.

Phillips, R. (2006) *Mushrooms. A Comprehensive Guide*. MacMillan Publishers Ltd, London.

Roberts *et al.* (2013) *Tree Roots in the Built Environment. Research for Amenity Trees No.8*. Arboricultural Association, Stonehouse.

Slater, D. (2018) *Natural bracing in trees: management recommendations*. The Arboricultural Journal.

Strouts, R.G., Winter, T.G., (2004) *Diagnosis of Ill Health in Trees*. Forestry Commission, Office of the Deputy Prime Minister; Research for Amenity Trees. TSO, England.

Tree Council (2022) https://treecouncil.org.uk/science-and-research/ accessed 07/10/22.