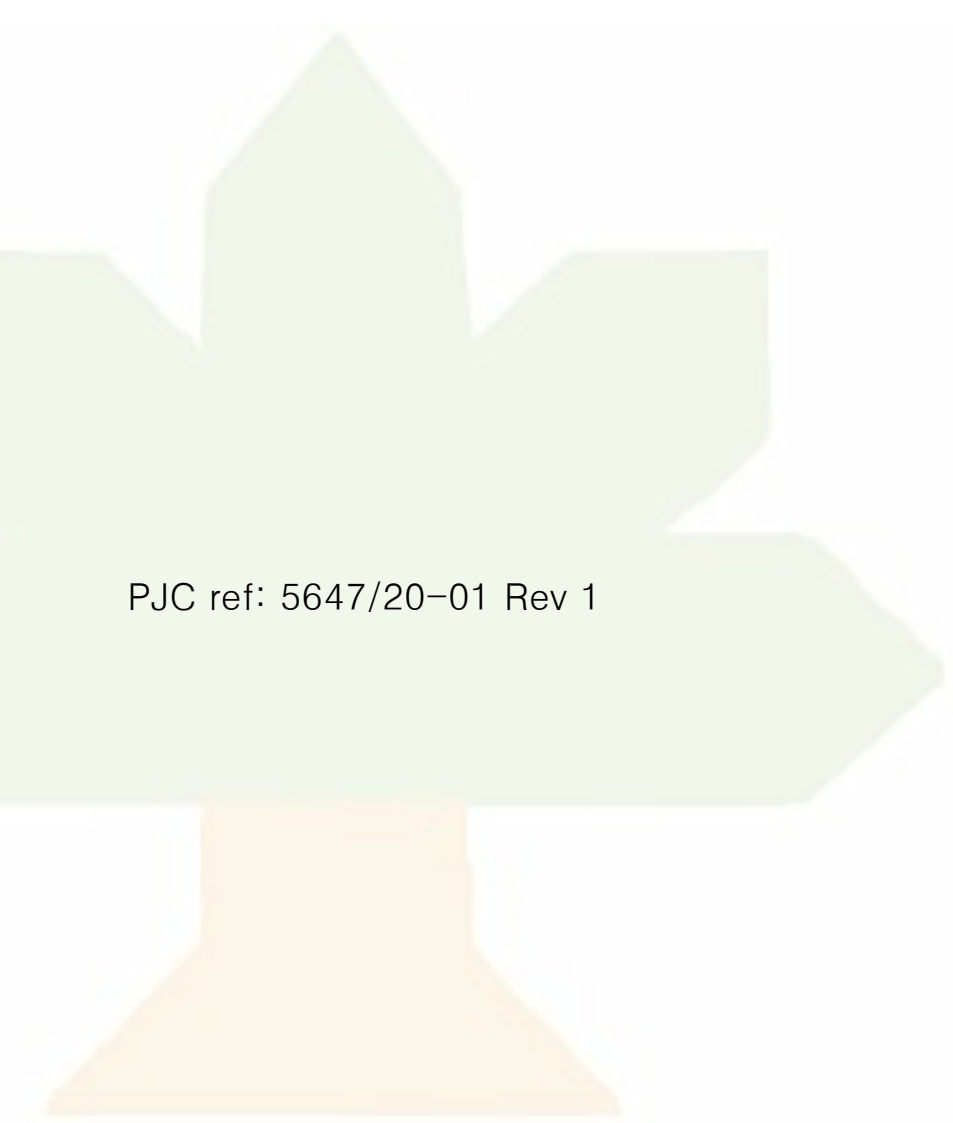


Arboricultural Survey

Hatchgate End
Hatchgate Lane
Cockpole Green
Berkshire RG10 8NE

6th November 2020

A large, stylized graphic of a tree in the bottom left corner. The canopy is a light green, multi-pointed shape, and the trunk is a solid orange-brown color.

PJC ref: 5647/20-01 Rev 1

This report has been prepared by

PJC Consultancy Ltd

on behalf of

Mr N. Hart

Prepared by **Abi St. Aubyn DipARB(RFS) MEng(Hons) M.Arbor.A MICFor**

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1. Tree Constraints Plan
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1 INTRODUCTION

1.1 Instruction: PJC Consultancy has been instructed by Mr N. Hart to provide an initial arboricultural survey of Hatchgate End, Hatchgate Lane, Cockpole Green, Wargrave RG10 8NE in order to inform a tree protection plan and method statement to discharge condition 6 of Wokingham Borough Council's planning permission reference 182314. The survey is to be undertaken in accordance with BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

1.2 Survey objectives: This survey has been undertaken with the following objectives:

- To provide the baseline arboricultural information required to inform a tree protection plan and method statement to discharge condition 6 of planning permission 182314.
- To record a schedule of all trees of 75mm diameter or more (dimensions and locations) situated on or adjacent to the prospective development site.
- To assess the quality and value of the existing tree stock in terms of arboricultural, landscape, historical/conservation, or public amenity value.
- To provide information relating to planning constraints that may restrict works to trees at the site.

1.3 Scope of this report: This report is concerned with all significant trees and arboricultural features located within the site boundary. Additionally, trees located around the curtilage of the site have also been surveyed when they are considered likely to have the potential to impact on the development (in relation to root and crown protection or foundation design).

1.4 Contents of report: This report includes the following:

- A summary of the existing tree stock and notable arboricultural features.
- Tree Constraints Plan in accordance with BS5837: 2012.
- Tree Survey Schedule containing the relevant measurements and information for each tree or tree group as required in BS5837: 2012.

1.5 Documents and information provided: The following documents were used to aid the preparation of this report:

- Topographical survey A D Horner Ltd Drawing ref. 4958-16JAN17-01

2 SITE VISIT AND SURVEY METHODOLOGY

2.1 Site visit: A site visit was carried out on Tuesday the 27th October 2020. The weather conditions at the time were overcast but mostly held dry. The visibility was adequate for visual tree inspection from ground level. Trees were in partial leaf.

2.2 Tree survey information: The following information was recorded in the Tree Survey Schedule for each individual tree (average dimensions are recorded for groups):

- Tree reference number. (T=tree, G=group, H=hedgerow, W=woodland block). Tree numbers suffixed with PA on the Tree Constraints Plan indicate the trees location was not included on the site plan provided so the tree's position is approximate.
- Species (common and scientific name).
- Overall tree height (m).
- Stem diameter (mm) per stem or average diameter for multi-stemmed trees with six or more stems.
- Branch spread (m) measured to the four cardinal points.
- Existing height (m) above ground level of lowest significant branch and direction of growth (for individual trees only).
- Existing height (m) above ground level of canopy.
- Age class (young, semi mature, early mature, mature, over mature or veteran).
- Physiological condition (good, fair, poor).
- Structural condition (good, fair, poor).
- Comments (general description of tree(s) including any notable features).
- Preliminary management recommendations (prescriptions for tree management processes based on the current land use and not related to the prospective development).
- Tree categorisation (see below).
- Root protection area (m²).
- Root protection radius (m).

2.3 Tree categorisation: The condition and value of each tree was evaluated based on the current land use. Each tree or tree group has been awarded either category A, B, C or U and a subcategory of either 1,2 or 3 or a combination of the subcategories.

2.4 Tree categorisation summary:

- A – Trees of good condition and high arboricultural, landscape or conservation value. Must have a potential life span in excess of forty years.
- B – Trees of moderate condition, with minor defects or sub-optimal form but are still of modest arboricultural, landscape or conservation value. Must have a potential life span in excess of twenty years.
- C – Unremarkable trees of poor condition or form with limited arboricultural, landscape or conservation value, or trees with a stem diameter under 150mm. Must have a potential life span in excess of ten years.
- U – Trees of such impaired condition that they cannot realistically be retained as living trees in the context of the current land use for more than ten years. These trees do not need to be removed if they are not dangerous and do not conflict with the proposed development, but should not be considered a constraint to development.

2.5 Tree sub categorisation summary:

- 1 – Trees have mainly arboricultural value, e.g. trees of good condition, form and vitality or rare tree species.
- 2 – Trees have mainly landscape value, e.g. trees of landscape prominence, that serve to screen unsightly views or that are required for privacy. Also trees present in groups that attain higher collective rating that they would as individuals.
- 3 – Trees with mainly cultural value including conservation, e.g. commemorative trees, trees of historical significance or veteran trees.

2.6 Each tree can only be categorised as A, B or C but may comply with more than one subcategory. A cascade chart further explaining how tree categorisation is decided is included in Appendix 3.

2.7 Root protection areas: A root protection area represents a calculation of the minimum volume of rooting medium required to support a tree. It is a standardised calculation based on the stem diameter(s) measured at 1.5m and is not necessarily representative of the actual root spread or total rooting area of a tree. The formulas used to calculate root protection areas are shown below:

Table 1: Root protection area formulas

For single stemmed trees, root protection areas are calculated as follows:

$$\text{Root protection area (m}^2\text{)} = \frac{(\text{stem diameter (mm)} \times 12)^2 \times \pi}{1000}$$

For trees with two to five stems, a combined stem diameter is calculated as follows:

$$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \cdots + (\text{stem diameter 5})^2}$$

For trees with more than five stems, the combined stem diameter is calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

2.8 The root protection areas are plotted onto the Tree Constraints Plan in Appendix 1 and are recorded in the Tree Survey Schedule in Appendix 2. These are represented as a circle on the plan (unless significant rooting constraints are present), and are colour coded depending on the category the tree has been awarded. Where existing site conditions/features are present that are deemed likely to have affected the root morphology, the root protection areas have been represented as a polygon of equivalent area.

2.9 The proposed layout should avoid level changes or the placement of new buildings and areas of hard standing within the root protection areas of retained trees. In certain situations, engineered solutions are available to allow construction within the root protection areas however further input from an arboriculturist should be sought regarding their site-specific viability before these methods are relied upon.

2.10 The disturbance of a tree's root system can result in crown dieback and even death of the tree. Roots are used to support the tree structurally as well as the absorption of moisture and nutrients from the soil. They also act as storage and transport for water and nutrients.

2.11 Direct damage such as root severance can lead to ill health, as can compaction of the soil by construction traffic, heavy plant and storage of materials. Changing the nature of the surface above the growing medium, (i.e. from porous to non-porous), can alter the resources available to the tree, which in turn can lead to its decline.

2.12 The majority of root growth is usually found within the top 600mm of soil. As such, even a shallow disturbance within a root protection area can potentially have a significant impact on the tree.

2.13 The root protection areas must be left free from excavation and disturbance, and protected from compaction or contamination during any proposed works. Any construction works within a root protection area required for the proposed development must be justifiable within an arboricultural impact assessment.

2.14 **Limitations of survey:** The survey methodology was restricted to a visual tree assessment from ground level. No tree climbing or invasive ground investigation was carried out for this report. Where existing site constraints are present such as ivy covered trees, a very dense under-storey, or where trees are located on third party land to which access was not granted, tree dimensions were estimated by eye as accurately as possible.

2.15 This survey represents a preliminary overview of the condition and value of trees at the site. It is not a detailed assessment of any individual tree and although preliminary management recommendations are included, this report will not be sufficient to be used as a detailed condition and safety survey.

2.16 The information and measurements in this report are representative of the date of the site visit. The tree survey data will need to be updated to reflect tree growth and changes in the condition of the trees after prolonged periods.

3 SITE DETAILS AND SURVEY FINDINGS

3.1 Site location: The site is situated to the south-east of Henley Upon Thames in the village of Cockpole Green, on the south side of Hatchgate Lane. It has a central national grid reference of S799810. The surrounding land use is comprised of neighbouring residential properties at No. 3 Hatchgate Lane to the north and No. 6 The Crescent to the south. To the rear, the property has a large garden beyond which are agricultural fields. On the east side of Hatchgate Lane, opposite the property is Cockpole Green. The location of the site within its environs is shown in figure 1.



Figure 1: Location of Site and Environs (Map data: © 2020 Google)

3.2 Statutory tree protection: The verge to the front of the property is within the Royal Borough of Windsor and Maidenhead and the property itself is within the boundary of Wokingham Borough Council.

3.3 Wokingham Borough Council's online mapping tool was used on the 6th November 2020 to establish restrictions to tree works at the site. The site is not in a Conservation Area and no tree preservation orders (TPOs) were identified.

3.4 However, any persons proposing to undertake tree works should still check the status of the trees with the local authority, and gain the necessary consent before the works are undertaken. Financial penalties and/or criminal proceedings can result if tree works are carried out on a protected tree without consent. The entirety of the tree is protected, both above and below ground.

3.5 Site layout: The site has a pedestrian access to the north of its boundary with Hatchgate End and a vehicular entrance to the south. The house of Hatchgate End is located at the northern end of the site. To the rear there is an extensive private garden.

3.6 Tree categorisation & appraisal of tree stock: Table 2 below shows a summary of the BS5737:2010 categorisation for the trees surveyed. Measurements and further information for each tree can be viewed in the Tree Survey Schedule in Appendix 2.

Table 2: Tree categorisation summary

Tree category	Individual tree	Tree group	Hedgerow
A			
B	9		
C	11	2	4
U	1		
Total	21	2	4

3.7 A total of 21 individual trees, 2 tree groups and 4 hedgerows were surveyed and recorded in the Tree Survey Schedule. Of these, the key arboricultural features of the site are the larger trees which are visible in public views from Hatchgate End road and Cockpole Green. These are weeping willow T1 and Monterey cypress T28 to the north of the pedestrian entrance, and hornbeam T11, Monterey cypress T12 and ash T13 around the vehicular entrance. All of these have been assessed as category 'B' trees. Photographs of these trees can be found at Appendix 4.

3.8 There are a further four category 'B' trees located internally within the site, with no or very limited public visibility. These include the category 'B' box elder T27, which is screened in public views by weeping willow T1 and Monterey cypress T28. See photographs 1, 2 & 5 at Appendix 4.

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Key:

- Root protection area for category B* tree
- Root protection area for category C* tree
- Root protection area for category U* tree
- Tree canopy

* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. PJC/5647/20-01 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.



Drawing no: PJC/5647/20/A Rev: - Sheet number: 1 of 1

Client and site:

Hatchgate End,
Hatchgate Lane,
Cockpole Green, RG10 8NE

Drawing title: Tree Constraints Plan

Date drawn: 05/11/2020

Scale: 1:200 at A2

Drawn by: PD Checked by: ASA



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APPENDIX 1

Tree Constraints Plan

APPENDIX 2

Tree Survey Schedule

Tree Survey Schedule

Site: Hatchgate End
Survey date: 27/10/2020
Surveyor: Abi St.Aubyn



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category	Root Protection Area (m²)	Root Protection Radius (m)
T13	ash (Fraxinus excelsior)	16.5	300, 350	N: 5 E: 5.5 S: 6.5 W: 7	Crown: 5.5N Branch:	early mature	fair	fair	High crown; visible in street scene; however of short term potential only due to the threat of ash dieback; no access to base stem diameters estimated.	None recommended.	C2	96.1	5.5
T14	ash (Fraxinus excelsior)	11.5	335	N: 6 E: 4 S: 4 W: 4	Crown: 5.5 N Branch:	early mature	fair	fair	High crown; flowering climber, Wisteria sp. in its crown; of short term potential only due to the threat of ash dieback.	None recommended.	C2	50.8	4.0
T15	whitebeam (Sorbus aria)	9	160, 130, 125, 95, 180	N: 3.5 E: 3.5 S: 3.5 W: 4	Crown: 2 Branch:	early mature	good	fair	Growing adjacent to track leading to field.	None recommended.	B1+2	45.0	3.8
T16	fig (Ficus carica)	4	85	N: 3 E: 1 S: 1 W: 2	Crown: 0.5 Branch:	semi mature	good	fair	Small fruit tree, espaliered on trellis.	None recommended.	C1	3.3	1.0 (amended on Tree Constraints Plan)
T17	wedding cake tree (Cornus controversa 'Variegata')	2.5	85, 65	N: 3 E: 3 S: 3 W: 3	Crown: 1.5 Branch:	mature	good	fair	Ornamental large shrub/small tree; not visible from a public viewpoint.	None recommended.	B1	5.2	1.3
T18	Indian bean tree (Catalpa bignonioides)	5	145, 220, 135	N: 3 E: 3.5 S: 3 W: 3	Crown: 1.5 Branch:	mature	good	fair	Pollarded at 2m from trunk; small tree; not visible from a public viewpoint.	None recommended.	B1	39.7	3.6

Site: Hatchgate End

Survey date: 27/10/2020

Surveyor: Abi St. Aubyn

Tree Survey Schedule



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T19	hazel (Corylus avellana)	7	100 x 3, 150, 15 x 15	N: 4 E: 4 S: 4 W: 4	Crown: 2	early mature	good	poor	Lapsed coppice.	Consider recoppicing.	C2	28.0	3.0
T20	Photinia 'Red Robin' (Photinia fraseri 'Red Robin)	6	65 x 5	N: 2.5 E: 2.5 S: 2.5 W: 2.5	Crown: 0.5	mature	good	fair	Well maintained large shrub; small tree; not visible from a public viewpoint.	None recommended.	C2	9.6	1.7
T21	flowering cherry (Prunus sp.)	6.5	160	N: 1.5 E: 1.5 S: 2.5 W: 2	Crown: 4	over mature	fair	poor	High crown; string and wood ladder attached to one of limbs and the string has partially cut through the limb – at risk of failure.	Remove ladder; reduce end weight on affected branch by reducing length by 1/3.	C2	11.6	1.9
T22-T23	hazel (Corylus avellana)	5.5	70 x 10 & 20 x 30	N: 4 E: 4 S: 4 W: 4	Crown: 2	early mature	good	fair	Coppiced; not visible from a public viewpoint.	None recommended.	C2	27.6	3.0
T24	hazel (Corylus avellana)	9	80 x 10, 25 x 30	N: 5 E: 5 S: 5 W: 5	Crown: 0.5	mature	fair	poor	Lapsed coppice; no public views.	Consider recoppicing in order to allow space for T25 to develop.	C2	37.4	3.5
T25	snake bark maple (Acer davidii)	11	165, 105, 70	N: 0 E: 0 S: 4.5 W: 4.5	Crown: 5	early mature	fair	poor	Suppressed by T24; main union at 1.25m; all three stems lean to the west.	None recommended.	B1	19.5	2.5

Tree Survey Schedule

Site: Hatchgate End
Survey date: 27/10/2020
Surveyor: Abi St. Aubyn



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Preliminary management recommendation	Category	Root Protection Area (m ²)	Root Protection Radius (m)
H2	hornbeam (Carpinus betulus)	2	Average 30	N: 0.5 E: 0.5 S: 0.5 W: 0.5	Crown: 0	mature	good	fair	Well maintained hedge; provides low level screening in views from the road.	None recommended.	C2	0.4	0.4
H3	mixed species	2.5	Max 50 Min 10	N: 1 E: 1 S: 1 W: 1	Crown: 0 Branch: –	semi mature	good	fair	Well maintained hedge with mix of ornamental species including cherry laurel (Prunus laurocerasus), Privet (Ligustrum ovalifolium) & Viburnum tinus.	None recommended.	C2	1.1	0.6
H4	yew (Taxus baccata)	2	10 x 20	N: 0.5 E: 0.5 S: 0.5 W: 0.5	Crown: 0 Branch: –	early mature	good	good	Well maintained; provides low level screening across private garden.	None recommended.	C2	0.9	0.5

APPENDIX 3

Cascade Chart for Tree Quality Assessment

Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of their 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 the 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			Red
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 remedial 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 150mm.	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

APPENDIX 4

Photographs

Photograph 1

Showing the front of Hatchgate End, with the weeping willow T1 and Monterey cypress T28 on the rhs.

Only the uppermost section of the crown of box elder T27 is visible (see red arrow).



Photograph 2

The view of weeping willow T1 and Monterey cypress T28, from a point to the north of the site. Note there is no view of any part of the crown of box elder T27 from this viewpoint.



Photograph 3

View from in front of weeping willow T1 looking towards the vehicular entrance to the south. Note hornbeam T11, Monterey cypress T12 and ash T13 on the far left.



Photograph 4

Shows the driveway to Hatchgate End adjacent to hornbeam T11 and Monterey cypress T12.



Photograph 5

Shows box elder
T27 within the front
garden with
Monterey cypress
T28 behind.

