



The Battleaxes, Wraxall

Arboricultural Report containing:

- **Arboricultural constraints**
- **Arboricultural impact assessment (AIA)**



On behalf of
Studio HIVE Properties

Prepared by:
Chris Wright M.Arbor.A
Arboricultural Consultant
December 2022

Content

- 1.0 Instructions/Scope
- 2.0 Survey methodology
- 3.0 Report limitations
- 4.0 Legal duty
- 5.0 Site and Tree assessment
- 6.0 Arboricultural constraints
- 7.0 Contact details
- 8.0 References
- 9.0 Appendices
 - Tree schedule sheet
 - Tree constraints plan (TCP)
 - Arboricultural impact assessment plan (AIA)

1.0 Instructions/Scope

Silverback Arboricultural Consultancy have been instructed to compile an arboricultural report containing a tree survey, tree constraints plan and arboricultural impact assessment regarding trees growing within and adjacent to The Battleaxes, Wraxall. This report is intended to accompany a planning application relating to the retention of ancillary bed & breakfast accommodation and part retention of licensed space, change of use of remainder to multi-use business and local community hub, together with rear two-storey extension and 9 new residential dwellings. This document has been produced to demonstrate that the implications of the proposed development to the existing trees has been fully considered during the detailed design process.

1.1 Recommendations for the safeguarding of trees in close proximity to development are set out in BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. We have therefore carried out the assessment of the trees in accordance with that document.

1.2 Specifically, this report and the accompanying information are supplied to:

- Identify the constraints that trees on and adjacent to the site present to the development of the site to inform the site design process.
- Present information regarding the above ground constraints (crown spreads) and below ground constraints (Root Protection Areas – RPAs), in a Tree Schedule and on a Tree Constraints Plan.
- Assess the impact of the proposed development on the trees on or adjacent to the site and the impact that retained trees will have on the site post development.
- Identify trees to be removed, trees to be retained, and specify measures necessary to protect retained trees during the construction phases of the development.
- Recommend necessary remedial tree works to be undertaken to trees that will be retained prior to commencement of the construction phases of the development.

1.3 This report is based on a ground level assessment of the trees. Except where stated, all dimensions are estimated. We were not presented with any information on the soil type and no soil samples have been taken. An arboricultural consultant visited the site on Thursday 8th December 2022. The weather was bright with good visibility.



1.4 Documents Provided

- Topographic survey dwg N° 2105-ASH-XX-00-DR-A-90010
- Proposed site layout dwg N° 2105-ASH-DR-PL-A-90111

2.0 Survey Methodology

The survey includes tree and shrubs with a stem diameter over 75mm at 1.5m height, located within the area shown on the plan included in this report.

2.1 All inspections were made from ground level with the use of binoculars, sounding hammer, and metal probe where necessary, using the Visual Tree Assessment method (Mattheck & Breloer, 1995). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies, and any structural defects that could affect the structural integrity of the trees have been noted.

2.2 Tree numbers have been noted on the plan. The following details were recorded for each tree and are included in the tree schedule sheets accompanying this report:

Number: an identity number for each tree, prefixed with a 'T' which cross references locations shown on the plan with the tree survey sheets. Where several trees, normally of the same species, are located close together and are similar in character and requirements, they have been treated as a Group under a single number, prefixed with a 'G'

Species: common name and botanical name in *italics*

Tree Height: approximate height in metres

Stem Diameter: diameter measured in millimetres, taken at 1.5m above ground. Where the tree is multi-stemmed the diameter is calculated in accordance with BS5837:2012

(# estimated dimensions for off-site or inaccessible trees)

Crown spread: approximate spread in metres taken at the four main compass points N, E, S, W

Crown clearance: approximate height from ground to lowest part of canopy

Age class: Young, Semi Mature, Early Mature, Mature, Over-Mature, Veteran

Structural condition: Good, Fair, Poor, Collapsed

Physiological condition: Good, Fair, Poor, Diseased, Dead

Observations: observations noted during tree inspections

Preliminary recommendations: recommended action to ensure the health and safety of the tree.

Remaining contribution (years): <10, 10+, 20+, 40+



BS Cat- category grading in accordance with BS 5837:2012

- A** - trees of high quality with an estimated remaining life expectancy of at least 40 years.
- B** - trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- 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.
- 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.

BS Sub Cat - sub-category grading in accordance with BS 5837:2012

- 1- Mainly arboricultural qualities
- 2- Mainly landscape qualities
- 3- Mainly cultural values including conservation

RPA – Root Protection Area - measured in metres from the centre of the tree stem.

2.3 Presentation of the Data Collected

- Data collected regarding individual trees and groups of trees are presented in the Tree Schedule table in Appendix 1 in accordance with BS5837:2012 Trees in Relation to Construction – Recommendations.
- The data significant to the proposed site layout is also presented on the Tree Constraints Plan (Drawing Number 221215-BA-TCP-NB (appendix 2) and Arboricultural Impact Assessment Plan (Drawing Number 221215-BA-AIA-NB (appendix 3).
- All other relevant data are presented within the main body of this report.
- Trees have been allocated an individual tree number. This tree number is used to identify individual trees and/or groups of trees throughout this report, within the Tree Schedule and on all plans presented in the appendices of this report.

3.0 Report Limitations

Trees are living, dynamic organisms that can be affected by external conditions. It is therefore not possible to state with any certainty that a tree is safe.

- 3.1 No internal decay devices or other invasive tools to assess tree condition were used. No soil excavation or root inspection was undertaken.



- 3.2 This report has not considered the effect that trees or vegetation may have on the structural integrity of adjacent buildings or structures.
- 3.3 The survey contained within this report is not a tree safety inspection. It has been carried out to inform the planning process. Where clear and obvious hazards have been observed, these have been addressed in the recommendations contained within the tree schedule sheets (appendix 1). A full assessment of the levels of risk posed by trees would be informed by considering site use together with hazards present within the aerial parts of a tree(s). Changes in site use are likely to occur during, and result from, the proposed development. In the light of these changes, regular tree risk assessments are advised.
- 3.4 Tree condition can change rapidly, the recommendations contained within this report are based on the condition of the tree at the time they were inspected. Any amendments to the design or position of the proposed development will invalidate this report.
- 3.5 While this appraisal is not a tree risk assessment it nonetheless considers observed structural defects of the inspected trees to inform conclusions regarding their retentive worth.

4.0 Legal duty

It is the responsibility of the tree owner to ensure that their tree(s) is in a safe and stable condition, including the effects of root activity, through duty of care in the *Occupiers Liability Act (1957 & 1984)*.

- 4.1 The Wildlife and Countryside Act, 1981 makes it an offence to disturb a nesting bird or recklessly endanger a bat or its roost. Professional advice should be sought, where relevant, before undertaking any recommended works.
- 4.2 Searches of North Somerset Council online mapping system showed there are no Tree Preservation Orders or other statutory constraints covering the trees on the site.

5.0 Tree and Site Assessment (to be read in conjunction with the survey schedule sheets)

'The proposed development is for the retention of ancillary bed & breakfast accommodation and part retention of licensed space, change of use of remainder to multi-use business and local community hub, together with rear two-storey extension and 9 new residential dwellings. The area proposed for development currently comprises of a section of hard standing, previously used as car parking, to the rear and the east of the main building. The hard standing to the rear of the existing building is on two levels with a grassed slope between the levels containing several trees. There is a coppiced Hazel hedgerow along the south boundary of the site containing two Alders. There is a group of trees growing together at the southeast corner of the site in a raised grassed area.

- 5.1 On inspection, evidence was found that all the surveyed Ash trees are infected by Ash dieback disease (*Hymenoscyphus fraxineus*). This was evident in the few remaining leaves in the canopies of the trees and the leaf litter around the base of the trees.
- 5.2 Ash dieback disease destroys the tree's phloem and xylem, which results in the tree being unable to move water and nutrients around its structure. This lack of water and nutrient movement will cause the branches of the tree to fail and the tree to 'die back.' The ongoing loss of nutrition and water plus the depletion of energy reserves due to the lack of foliage, causes the tree to become brittle, lose branches and make it susceptible to other pathogens such as Honey Fungus (*Armillaria*).
- 5.3 The latest evidence nationwide and from local tree surgery teams, is that infected trees can decline rapidly becoming structurally unsound in a matter of months. It is therefore considered that the Ash trees have a very short useful life expectancy and should not be considered as a constraint to any proposed development.
- 5.4 Twelve trees and one group of trees were surveyed. Of the trees surveyed no trees were categorized **A**, one tree was categorized **B**, three trees were categorized **U**, the remaining trees and group of trees were categorized **C**. The trees were assessed and categorized in accordance with the Cascading Chart of Tree Quality Assessment contained within BS5837:2012.



6.0 Arboricultural Constraints

Trees have a widely spreading, shallow root system. In most cases, the majority of tree roots are situated within the top 600 mm of soil although some roots may extend down to 2m. Small feeder roots can also be expected to extend beyond the outer edge of the canopy. Roots can therefore be easily damaged by construction activity

6.1 Constraints on the design of the development are presented in the Tree Schedule Sheets (appendix 1) Tree Constraints Plan (appendix 2) and the Arboricultural Impact Assessment Plan (appendix 3). These constraints are also considered in the main body of the report below and recommended remedial works and mitigating measures.

6.2 The Tree Constraints Plan (TCP), (appendix 2), shows the Root Protection Areas (RPAs) for the individual trees identified in the tree schedule tables. This represents the minimum area in m² which ideally should be left undisturbed around each tree were it to be retained. The TCP also shows a representation of the crown spread of each tree measured in four cardinal directions. The RPA has been calculated in accordance with Section 4.6 of BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.

6.3 Trees Identified for Retention and Removal.

It is proposed to remove all existing trees to facilitate the proposed development.

6.3.1 Trees Outside Site Boundary

There are no trees outside of the site boundary which are impacted by the proposed development.

6.4 Mitigation

It is proposed to mitigate for the loss of these trees by the implementation of a landscaping scheme including replacement trees and shrubs to enhance the landscape and visual amenity of the site. The details and specification for the proposed landscaping will be agreed with the Local Planning Authority.

6.5 Programme of Works

- Arboricultural works
- Construction of proposed development
- Soft landscaping and replacement tree planting

7.0 Contact Details

7.1 Arboricultural Consultant

Chris Wright

Silverback Arboricultural Consultancy

E-mail: chris@silverbackarb.co.uk

7.2 Local Authority Tree Officer

Jason Cox

Tree Officer, Natural Environment Team

North Somerset Council

E-mail: jason.cox@n-somerset.gov.uk

8.0 References

Mattheck, C. and Breloer, H. (1995). The Body Language of Trees: A handbook for failure analysis. Research for Amenity Trees **4**. HMSO, London.

British Standard 5837:2012 - Trees in relation to design, demolition and construction – Recommendations. British Standards Institution, London

British Standard 3998:2010 - Tree Work Recommendations. British Standards Institution, London

9.0 Appendices

- Tree schedule sheets
- Tree constraints plan
- Arboricultural impact assessment (AIA)

Chris Wright *M.Arbor.A*

Principal Arboricultural Consultant

Silverback Arboricultural Consultancy

19th December 2022



Arboricultural
ASSOCIATION
Professional Member

Arboricultural Survey Battleaxes, Wraxall

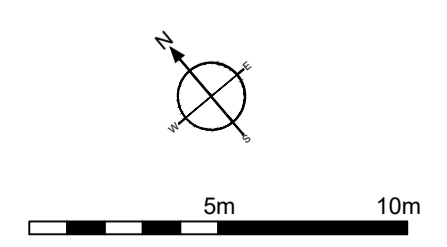
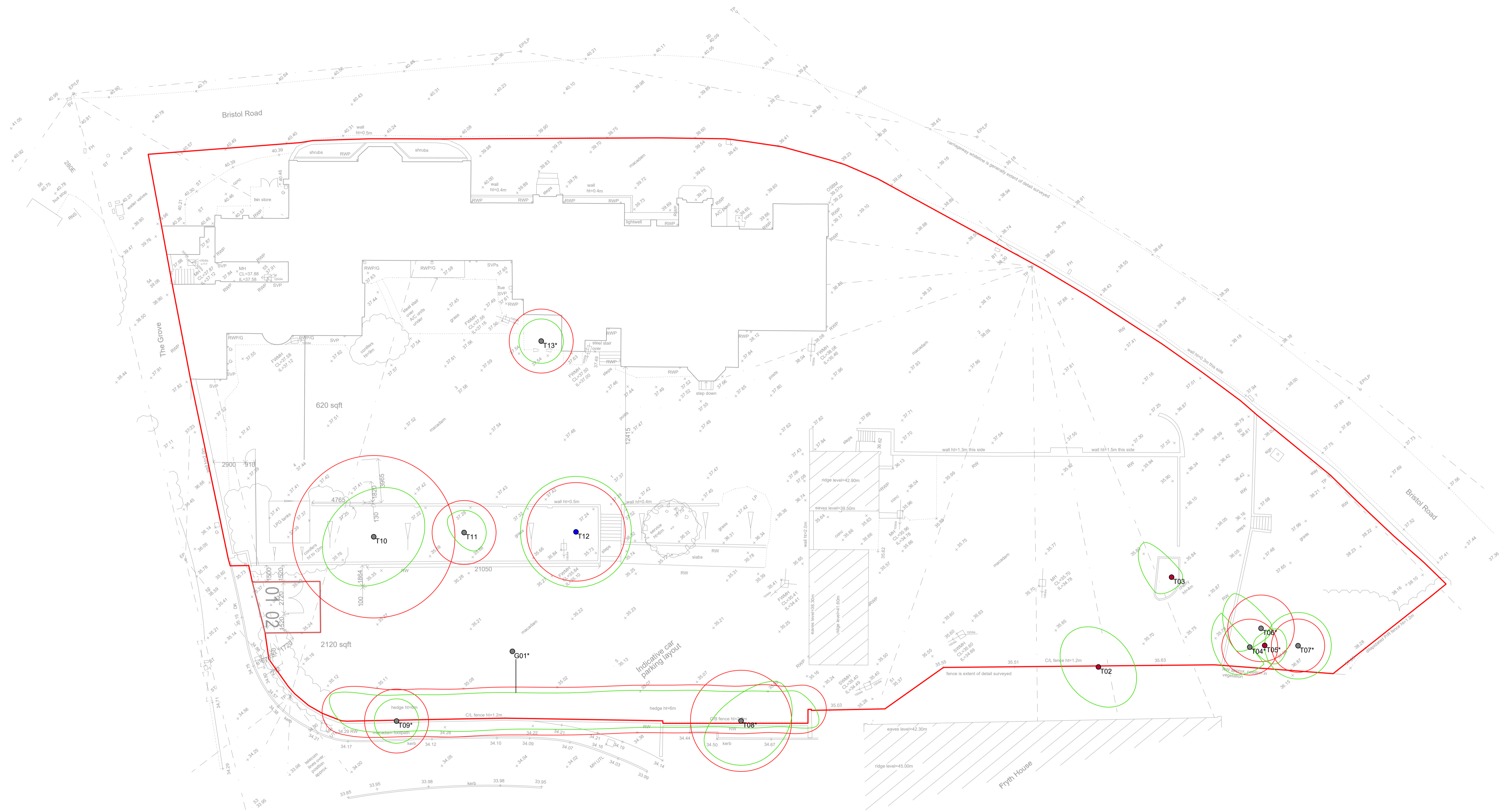
Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m ²
						N	E	S	W									
G01	Hazel	<i>Corylus avellana</i>	5	4	180	2	1	2	1	0	Mature	Fair	Good	Linear group of coppiced hazel, previously topped at 1m to form hedgerow No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.2m. Area: 15 sq m.
T02	Common Ash	<i>Fraxinus excelsior</i>	8	1	370	4	3	4	3	1	Mature	Poor	Diseased	Growing on site boundary Multi- stemmed from base Electric cables running through canopy Previously crown reduced Dieback in the canopy chlorotic, sparse foliage Evidence of Ash Dieback Disease in canopy	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.
T03	Wild Cherry	<i>Prunus avium</i>	4	1	280	4	1	1	2	1	Over Mature	Poor	Poor	Fracture up main stem Extensive decay in main stem, extending into lower branches Previously crown reduced Asymmetric crown	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.
T04	Common Birch	<i>Betula alba</i>	8	1	210	4	0	2	3	1	Early Mature	Fair	Fair	No significant defects visible at time of inspection Suppressed by neighbouring trees Asymmetric crown Slight lean to west	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.5m. Area: 20 sq m.
T05	Common Ash	<i>Fraxinus excelsior</i>	8	1	160	1	2	2	1	1	Early Mature	Fair	Diseased	Suppressed by neighbouring trees Asymmetric crown Dieback in the canopy chlorotic, sparse foliage Evidence of Ash Dieback Disease in canopy	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.

Arboricultural Survey Battleaxes, Wraxall

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m ²
						N	E	S	W									
T06	Common Birch	<i>Betula alba</i>	8	1	250	4	1	1	3	1	Early Mature	Fair	Fair	No significant defects visible at time of inspection Suppressed by neighbouring trees Asymmetric crown Heavy lean to north	No action required at the time of inspection.	20-40 Years	C2	Radius: 3.0m. Area: 28 sq m.
T07	Bay Tree	<i>Laurus nobilis</i>	7	1	200	3	3	3	3	0	Mature	Good	Good	No significant defects visible at time of inspection Multi- stemmed from base	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.4m. Area: 18 sq m.
T08	Common Alder	<i>Alnus glutinosa</i>	7	1	380	2	5	4	4	2	Mature	Fair	Fair	Growing in hedgerow Previously pollarded at 2m, allowed to grow on Slight decay in pollard head Suppressed by neighbouring trees Asymmetric crown	No action required at the time of inspection.	20-40 Years	C2	Radius: 4.6m. Area: 66 sq m.
T09	Common Alder	<i>Alnus glutinosa</i>	7	1	240	2	2	2	2	2	Mature	Fair	Fair	Growing in hedgerow Previously pollarded at 1m, allowed to grow on Suppressed by neighbouring trees Asymmetric crown	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.9m. Area: 26 sq m.
T10	Whitebeam	<i>Sorbus aria</i>	6	1	610	4	5	4	5	1	Mature	Fair	Fair	No significant defects visible at time of inspection Previously crown reduced Lower canopy north side cut back for access	No action required at the time of inspection.	20-40 Years	C2	Radius: 7.3m. Area: 167 sq m.
T11	Crab Apple	<i>Malus sylvestris</i>	6	1	240	2	2	2	1	0	Mature	Fair	Fair	Previously crown reduced Prolific ivy throughout canopy	No action required at the time of inspection.	20+ Years	C2	Radius: 2.9m. Area: 26 sq m.
T12	Wild Service	<i>Sorbus torminalis</i>	6	1	370	5	5	5	5	1	Mature	Good	Good	No significant defects visible at time of inspection Previously pollarded at 2m	No action required at the time of inspection.	20-40 Years	B2	Radius: 4.4m. Area: 61 sq m.

Arboricultural Survey Battleaxes, Wraxall

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T13	Lawson Cypress	<i>Chamaecyparis lawsoniana</i>	7	1	240	2	2	2	2	0	Mature	Good	Good	Growing against building No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.9m. Area: 26 sq m.



Silverback
arboricultural consultancy ltd
01454 227458 / 07775 576738 / chris@silverbackarb.co.uk

Site: Battleaxes

Drawing Title: Tree Constraints Plan	1:200 @ A1
Drawing Number: 221215-BA-TCP-NB	Dec 2022

Key:

- Category A
- Category B
- Category C
- Category U

Category Crown Spread
 Tree Number Root Protection Area

NOTE: Tree/group numbers marked with an * have approximate locations.

BRISTOL ROAD

THE GROVE

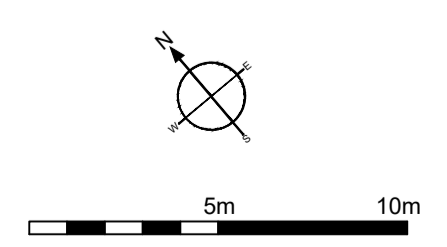


Site: Battleaxes	
Drawing Title: Arboricultural Impact Assessment	1:200 @ A1
Drawing Number: 221215-BA-AIA-NB	Dec 2022

Key:

- Category A
- Category B
- Category C
- Category U
- Proposed Tree for Removal

● Category
● Root Protection Area
● Crown Spread
● Tree Number



NOTE: Tree/group numbers marked with an * have approximate locations.