

Stileways, Wraxall

Arboricultural Report containing:

- **Arboricultural survey sheets**
- **Arboricultural constraints plan**



On behalf of
Nick Smythe

Prepared by:
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April 2023

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1.0 Instructions/Scope

- 1.1 Silverback Arboricultural Consultancy have been instructed to compile an arboricultural survey and tree constraints plan regarding trees situated within an area of land at Stileways, West Hill, Wraxall, BS48 1PH. This report is intended to give a general overview of the site and constraints posed by the existing trees to guide the design process.
- 1.2 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.
- 1.3 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, and to inform the site design process.
 - Present information regarding the above ground constraints (crown spreads) and below ground constraints (Root Protection Areas – RPAs) in Tree Schedule Sheets (appendix 1) and on a Tree Constraints Plan (drawing number 230413-SW-TCP-SD) (appendix 2).
- 1.4 This report is based on a ground level assessment of the trees. A site visit was undertaken by qualified arboriculturists Deb Randall BSc (Hons) and Chris Wright M. Arbor.A, Tech. Cert. with 35 years combined experience and Lantra certified Professional Tree Inspectors. 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. The site was visited on Tuesday 4th April 2023. The weather was bright with good visibility.
- 1.5 Documents Provided
- Topographic survey (drawing number T_PPM899).

2.0 Survey Methodology

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

2.2 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, 1994). 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.

2.3 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

Calculated 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

Life stage: 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

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

2.4 Presentation of the Data Collected

- Data collected regarding individual trees and groups of trees are presented in the Tree Schedule table in Appendix 1 and presented on the Tree Constraints Plan (TCP) (appendix 2).
- The trees were assessed and categorised in accordance with BS5837:2012 Trees in Relation to Construction – Recommendations.
- 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 Tree Constraints Plan presented in the appendices of this report.

3.0 Report Limitations

- 3.1 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.
- 3.2 No internal decay devices, or other invasive tools to assess tree condition, were used. No soil excavation or root inspection was undertaken.
- 3.3 This report has not considered the effect that trees or vegetation may have on the structural integrity of adjacent buildings or structures.
- 3.4 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.



- 3.5 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.
- 3.6 While this appraisal is not a tree risk assessment it nonetheless considers observed structural defects of the inspected trees to inform conclusions about their retentive worth.

4.0 Legal duty

- 4.1 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)*.
- 4.2 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.
- 4.3 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 Assessment and Site (to be read in conjunction with the survey sheets)

- 5.1 The site consists of the rear garden of the house and part of the adjacent field to the west. There are trees growing around the boundary of the garden and the field. There is a public footpath within the adjacent field where the majority of trees are Ash. T08 is an over mature Sycamore growing on the site boundary's western edge. The tree has extensive decay within the main stem and major dieback within the canopy.
- 5.2 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. 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 It is currently estimated that Ash dieback has a mortality rate of 90% with few trees showing any signs of resistance. (ref: Tree Council Ash Dieback Action Plan Toolkit Summer 2019). The precise speed of decline of any individual tree is currently impossible to predict and will be influenced by other factors including soil type, soil moisture levels and topography.
- 5.4 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 the approved development.
- 5.5 Nine trees and one group of trees were surveyed. Of the trees surveyed four trees and one group of trees was categorised **U**, the remaining trees were categorized **C**. The trees were assessed and graded in accordance with the Cascading Chart of Tree Quality Assessment contained within BS5837:2012.

6.0 Arboricultural Constraints

- 6.1 Trees have a widely spreading, shallow root system. In most cases the majority of tree roots are within the top 600 mm of soil and can be expected to extend beyond the outer edge of the canopy. Roots can therefore be easily damaged by construction activity.
- 6.2 Constraints on the design of any potential development are presented in the Tree Schedules (appendix 1) and the Tree Constraints Plan (appendix 2).
- 6.3 The Tree Constraints Plan 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.

7.0 Contact Details

7.1 Arboricultural Consultant

Chris Wright

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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. (1994). 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

Deb Randall BSc

Arboricultural Consultant

Silverback Arboricultural Consultancy

14th April 2023

Arboricultural Survey Stileways, West Hill, 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									
T01	Lawson Cypress	<i>Chamaecyparis lawsoniana</i>	6	1	120	1	1	1	1	4	Early Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.4m. Area: 6 sq m.
T02	Elder	<i>Sambucus nigra</i>	6	1	140	4	1	1	2	2	Mature	Fair	Fair	Heavy lean north Suppressed by neighbouring trees	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.7m. Area: 9 sq m.
T03	Common Ash	<i>Fraxinus excelsior</i>	12	1	470	5	6	7	6	2	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.
T04	Norway Spruce	<i>Picea abies</i>	14	1	360	3	3	3	3	2	Early Mature	Good	Good	No significant defects visible at time of inspection Minor deadwood in canopy Ivy growing up main stem	No action required at the time of inspection.	20-40 Years	C2	Radius: 4.3m. Area: 58 sq m.
T05	Common Walnut	<i>Juglans regia</i>	12	1	590	6	6	6	6	1	Mature	Good	Fair	Wound extending 2m up main stem east side, unidentified dessicated fungi present Major deadwood in canopy	No action required at the time of inspection.	10+ Years	C2	Radius: 7.1m. Area: 158 sq m.
T06	Common Ash	<i>Fraxinus excelsior</i>	14	1	620	5	6	5	5	4	Mature	Fair	Diseased	Suppressed by neighbouring trees Asymmetric crown Dieback in the canopy chlorotic, sparse foliage Evidence of Ash Dieback Disease in canopy Major deadwood in canopy Ivy growing up main stem	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.

Arboricultural Survey Stileways, West Hill, 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									
T07	Sycamore	<i>Acer pseudoplatanus</i>	14	1	760	7	4	2	6	3	Mature	Fair	Fair	Suppressed by neighbouring trees Asymmetric crown Epicormic growth around base Prolific ivy throughout canopy obscuring stem and branches	No action required at the time of inspection.	20-40 Years	C2	Radius: 9.1m. Area: 260 sq m.
T08	Sycamore	<i>Acer pseudoplatanus</i>	12	1		3	3	4	4	0	Over Mature	Poor	Poor	Growing adjacent to footpath and garage Extensive decay cavity at base of stem extending 2m+ up main stem Overburdening around base of stem Epicormic growth around stem Fractured limbs - storm damage Dieback in the canopy chlorotic, sparse foliage Major deadwood in canopy Woodpecker holes in stem	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.
T09	Common Ash	<i>Fraxinus excelsior</i>	14	1		5	5	6	6	3	Mature	Fair	Fair	Overburdening around base Multi- stemmed from 0.5m Dieback in the canopy chlorotic, sparse foliage Major deadwood in canopy Evidence of Ash Dieback Disease in canopy Prolific ivy throughout canopy obscuring stem and branches	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.
G10	Common Ash	<i>Fraxinus excelsior</i>	14	4		5	2	3	4	2	Early Mature	Fair	Diseased	Stand of Ash trees forming single canopy Multi- stemmed from base Suppressed by neighbouring trees Asymmetric crown Dieback in the canopy chlorotic, sparse foliage Major deadwood in canopy Evidence of Ash Dieback Disease in canopy Ivy growing up main stem	No action required at the time of inspection.	<10 years	U	None - due to Retention Category of U.



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Site: Stileways, Wrexhall	
Drawing Title: Tree Constraints Plan	1:200 at A3
Drawing Number: 230413-SW-TCP-SD	April 2023

Key:

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

13 Category 13 Crown Spread
13 Tree Number
13 Root Protection Area

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