


SJ Stephens Associates

ARBORICULTURAL, LANDSCAPE &
MANAGEMENT CONSULTANTS

Savernake Barn
Stokke Common
Great Bedwyn
Marlborough
Wiltshire SN8 3LL



Tree Condition Survey

At:-


Gainsborough Gardens
London
NW3 1BJ

On behalf of:-

Madeleine Strobel
5 Gainsborough Gardens
London
NW3 1BJ

Prepared by:

Simon Stephens MA Oxon, Dip
Arb(RFS), MArborA, C Env. MICFor



Survey Date: 7th February 2023
Report Date: 15th February 2023
Project no: 1540

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1 BACKGROUND

- 1.1 This report has been prepared by SJ Stephens Associates as per instructions from Madeleine Strobel. It covers all trees enclosed within the Gainsborough Gardens road, as shown on the plan included as Appendix A.
- 1.2 Over the past five years a number of large mature trees have had to be removed from the gardens, which has changed its character, and new specimen trees have been planted. This survey has been instructed to recommend any management which could safeguard and improve remaining mature trees and to identify any tree hazards.
- 1.3 Under the Occupiers Liability Acts (1957 and 1984), an owner, or occupier, has a duty of care for the reasonable safety of people and property. This duty of care extends to those who may come onto the property and for adjoining property that might be affected as a consequence of the structural failure of trees.
- 1.4 The measures which the law might expect an owner to employ to ensure *reasonable* safety is not a "black and white" issue. However, case law suggests that for an estate where grounds staff are employed, there should be a systematic tree hazard assessment system in place. In the event of an accident, the court would want to see documented evidence that appropriate systems were in place and were complied with.
- 1.5 The assessment of risk is based on three factors:
 - The level of occupancy within striking range ie. the "target"
 - The likelihood of failure
 - The size of the tree/tree part that is at risk of failing

- 1.6 Since the site is covered by a Conservation Area, six weeks notification must be given to Camden Council of intended tree surgery works, to allow them 6 weeks to consider placing a Tree Preservation Order.
- 1.7 Tree locations are shown on the site plan included in Appendix A, with tree numbers cross referencing with the Tree Schedule in Appendix B.
- 1.8 The site survey was undertaken and this report has been prepared, by Simon Stephens MA Oxon, Dip Arb (RFS), MArborA, C Env, MICFor a Registered Consultant with the Arboricultural Association, with over 20 years relevant experience.

2 SURVEY DETAILS AND SCOPE

- 2.1 Tree inspection took place from ground level with the use of binoculars, sounding hammer and metal probe 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 increase the risk of structural failure were noted.
- 2.2 Trees details have been added to plans included as Appendix A. Tree positions are approximate, fixed by reference to the plan provided or by pacing distances on site from features shown on the plan. The following information was recorded for each tree, and is shown in the Tree Schedule included as Appendix B:
- **Number:** an identity number for each tree, which cross references locations shown on the plan with the schedule in Appendix B. Where possible, numbers used on the original layout plan have been used. For trees not included on the plans provided, numbers have been allotted starting with no.200. Where a number of 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.
 - **Tree height:** approximate height in metres.
 - **Stem diameter:** approximate diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, the diameter has been taken just above the root flare.
 - **Crown spread:** approximate crown spread to N, S, E and West.
 - **Age class:** Young, Middle aged, Mature, Over-mature, Veteran.
 - **Condition:** features that affect the safe useful life expectancy and amenity of the tree, including the presence of decay or any physical defect.
 - **Management Recommendations:** recommendations to ensure the health and safety of the tree, within the future development.
 - **Estimated Remaining Contribution:** <10 years, 10-20 years, 20-40 years, >40 years.
 - **Category grading:** tree classification taken from BS 5837:2012, Trees in Relation to Construction (see Appendix C for details), as follows:

- Category U: trees with less than 10 years life expectancy, normally recommended for removal (Red)
- Category A: high quality trees, able to make a substantial contribution for at least 40 years. (Green)
- Category B: moderate quality trees, able to make a significant contribution for at least 20 years. (Blue)
- Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter.(Grey/Uncoloured)
- **Gang hours:** an approximate guide on how long it would take a fully equipped 2-man gang of tree surgeons to undertake the work.
- **Priority:** whether the works specified at Low, Medium or High priority.

3 SURVEY LIMITATIONS

- 3.1 No internal decay devices, or other invasive tools to assess tree condition, were used.
- 3.2 No soil excavation or root inspection was carried out.
- 3.3 This survey has not considered the effect that trees or vegetation may have on the structural integrity of future building through subsidence or heave.

4 FINDINGS AND PROPOSALS

4.1 Overview

- 4.1.1 Trees were surveyed on 7th February 2023. At the time of the survey, the weather was fine with no restrictions to visibility. Broadleaf trees were not in leaf. There were no limitations to access around the trees.
- 4.1.2 Tree condition and tree work recommendations are provided in the tree schedule included as Appendix B.
- 4.1.3 Tree works are prioritised as of Low, Medium or High priority. It is recommended that works should be completed within the following timescales:-
 - High: within 2 months
 - Medium: within 8 months – ie. by 30th October 2023
 - Low: not essential for safety – normally to improve amenity value or reduce risks in the future.
- 4.1.4 There are a number of high quality mature trees remaining including yew, turkey oak, lime and Horse chestnut.

- 4.1.5 A number of young extra heavy standard and semi-mature trees have recently been planted which are all show good form and vigour.

4.2 Tree Work Proposed

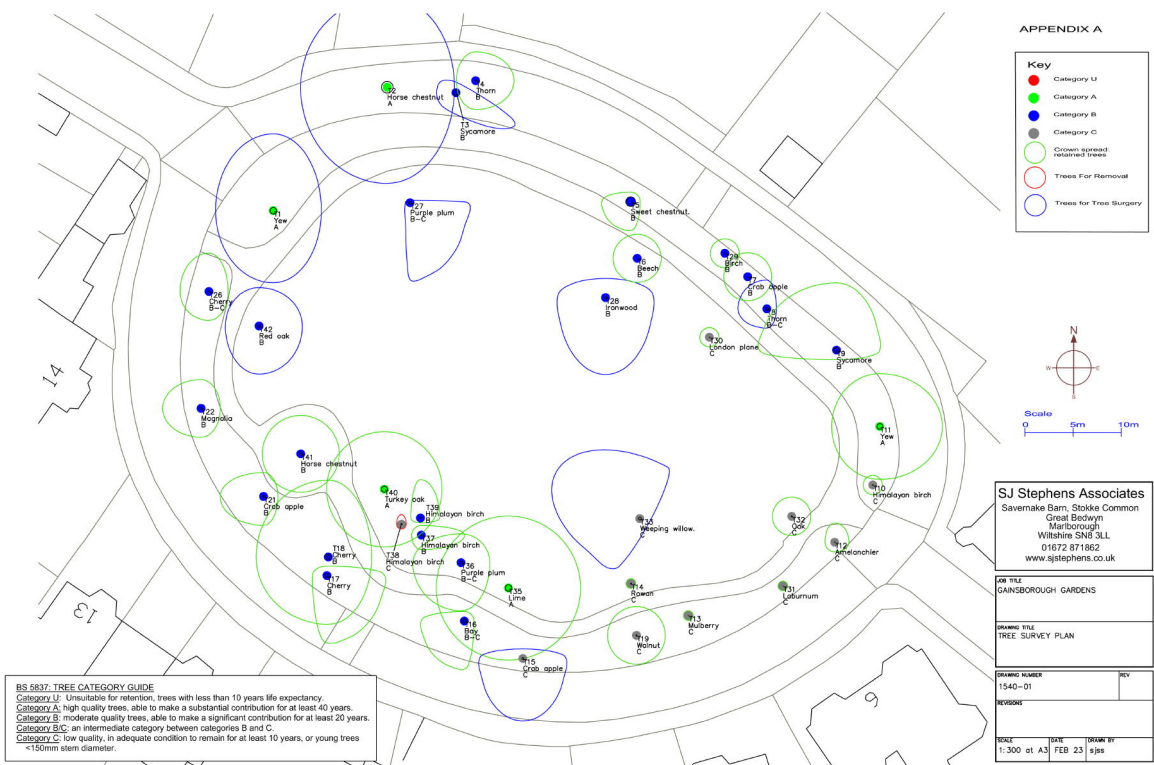
- 4.2.1 The only tree recommended for removal is the birch, T38. This is one of three planted in a closely spaced group close to the Turkey oak, T40. This tree has been drawn up by group pressure. Its removal is recommended to allow adjacent trees more space to develop. All other recommendations are for crown reduction to reduce the likelihood of failure.
- 4.2.2 Various stems have broken out of the mature yew, T1, in the past. As seen in the photo in appendix Ei), lateral branches, originating close to previous break out points, have recently put on vigorous vertical growth and could be susceptible to further break out. A minor reduction in height and pruning to smooth the canopy shape will reduce the risk of future wind damage and will not materially affect the look of the tree.
- 4.2.3 Removal of end weight from the large Horse chestnut, T2, is proposed to reduce stresses on large limbs. At the same time a climber should probe any cavities and carry out an aerial inspection for any structural weaknesses.
- 4.2.4 The early mature weeping willow, T33, shown in the photo in Appendix Eii) has an acute lean and has basal decay developing which may well spread to anchor roots. No definite identifying signs were seen but this could be honey fungus, *Armilleria* sp., in which case there is a risk of wind throw. The same is true for the Crab apple, T15. Reduction of the crown spread of both trees has been recommended to reduce this risk.
- 4.2.5 No tree work is assessed as High Priority. The majority is Medium Priority, for completion within 8 months ie. by the end of October 2023 allowing time after the end of the bird nesting season.
- 4.2.6 The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1st March to 31st July, however this can vary depending on species and location. During these months a careful inspection must be made before work commences and works must be postponed if active nests are found.
- 4.2.7 The current legislation makes it a criminal offence to disturb, damage or destroy any bat roost or hibernation area. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.
- 4.2.8 Newly planted trees are establishing well, however, some are competing with grass. To aid establishment an area of 1m radius around the stem should be kept free of competition, by applying mulch where trees are growing in lawn areas. Regular watering will be required for the first 1-3 summers after planting.

4.3 Recommendations

- 4.3.1 An application should be made to Camden Council for approval to undertake the works specified
- 4.3.2 Tree work should be undertaken to the standards set out in BS 3998:2010 British Standard recommendations for Tree Work, if possible, by an Arboricultural Association Approved Contractor. See www.trees.org.uk for details.
- 4.3.3 The tree schedules and plans attached to this report (appendices A and B) should be used as a base to record relevant information over time to demonstrate a systematic approach to tree hazard assessment.
- 4.3.4 All trees should be re-inspected within 19 months ie. by 31-07-2025, when the trees are in leaf, to:-
 - Review tree works undertaken
 - Re-inspect all trees
 - Provide a report, updating the tree schedule and plan to record works undertaken and provide any further recommendations.

5 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.*
- *BS3998:2010 Tree Work. Recommendations.*
- *BS8545:2014 Trees: from nursery to independence in the landscape. Recommendations.*
- *Common sense risk management of trees (FCMS024). Published by the National Tree Safety Group (www.ntsgroup.org.uk)*
- *Mattheck & Breloer (1994). HMSO London. Research for Amenity Trees No4: The Body Language of Trees.*



Gainsborough Gardens

Appendix B
Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Gang hours	Priority
				N	S	E	W								
T1	Yew	13.5	670	8	7.5	5	6	1.2	Mature	Central stem removed in past; together with further stems that must have broken out.	Reduce height by approximately 2m to smooth canopy shape and reduce future risk of future breakout, as shown in photo in Appendix E(i).	>40	A	2	Medium
T2	Horse chestnut	19	1200	9.5	10	7	9	3	Mature	Crown spread reduced in the past. Occasional cavities developing in previous pruning wounds. Possible risk of branch breakout. Reduce by crown reduction, although this can result in decay in pruning wounds leading to future problems.	Carefully remove end weight from major limbs, to reduce stress while preserving crown shape, reducing height by approx 2m, as shown in photo in Appendix E(i). Probe cavities and record any significant structural weakness.	20-40	A	6	Medium
T3	Sycamore	19.5	560	1	2	7	2	4.5	Mature	Asymmetric canopy, caused by competition with T2, but good vigour.	Reduce height by 1.5m, crown spread to south by 2m and thin out 3-4 spindly branches to south to encourage more compact canopy formation and reduce future risk of breakout, as shown in photo in Appendix E(i).	20-40	B	2	Low
T4	Thorn	7	160	3	3	4	2	1.7	Mature	Three stems from 0.5m- average 90mm. Good vigour.		15-30	B		
T5	Sweet chestnut.	8	1000	1	3	1	3	0.6	Mature	Top dead. Woodpecker holes. Some low growth. Burring. Attractive feature and good deadwood habitat.		10-20	B		
T7	Crab apple	4	100	2.5	2.5	2.5	2.5	1.5	Early mature	Attractive small tree.		20-40	B		
T6	Beech	8.5	100	2.5	2.5	2.5	2.5	1.5	Young	Good form and vigour. Developing well.		>40	B		
T8	Thorn	6.5	280	3	2	1	3	1	Mature	Twin stems from base- 190,210mm. Eastern stem with extensive basal decay.	Remove eastern stem.	15-30	B-C	0.5	Low
T9	Sycamore	17.5	530	7	1	4.5	8	4.5	Mature	Asymmetric canopy. Open crown structure.		20-40	B		

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				N	S	E	W								
T10	Himalayan birch	5	90	1	1	1	1	1.6	Young	Establishing well.		>40	C		
T11	Yew	13.5	600	5.5	5.5	6.5	5	3	Mature	Good vigour. Bifurcates at 2.5m- tight fork. Some thinning of foliage at apex.		>40	A		
T12	Amelanchier	6	70	2	1	1.5	1	0.8	Young	Leaning to north.		20-40	C		
T13	Mulberry	3	50	0.5	0.5	0.5	0.5	1.6	Young			>40	C		
T14	Rowan	3.5	120	0.5	0.5	0.5	0.5	1.5	Young	Good vigour.	Mulch around base to reduce competition.	20-40	C		
T15	Crab apple	6.5	190	1	6.5	4.5	4.5	2.5	Mature	Leaning to south. Patches of dead bark around base- possible honey fungus, which could have affected roots.	Reduce crown spread to south by 2m and height by 1.5m.	5-15	C	1.5	Medium
T16	Bay	7.5	450	1	5	1	4.5	5	Mature	Three stems from base- average 260mm. Largest stem removed. Low branches removed.		15-30	B-C		
T17	Cherry	17.5	390	1	7	6	1.5	5	Early mature	Slight lean to south. Rose growing in canopy. Growing vigorously. Twin stems from base- 220,320mm.		20-40	B		
T18	Cherry	17	490	8	7	4.5	7.5	5	Early mature	Twin stems from base- 320,370mm- tight fork. Northern stem bifurcates at 2m. Growing vigorously.		20-40	B		
T19	Walnut	7	120	3	3	3	3	1.7	Young	Good form and structure.		>40	C		
T21	Crab apple	6.5	210	2.5	3	1.5	4.5	1.6	Mature	Good vigour.		15-30	B		
T22	Magnolia	5	170	3	3	2	4	1.6	Early mature	Good vigour. Cavity at base.		15-30	B		
T26	Cherry	5.5	110	4	3	2	3	1.8	Semi-mature	Autumn flowering variety, showing good vigour.		>40	B-C		
T27	Purple plum	7	300	0	8	6	0.5	1.7	Mature	Previously windblown and reduced- now with vigorous regrowth.	Cut back lowest horizontal limb over lawn by approximately 2m, back to live shoots.	10-20	B-C	0.25	Low
T28	Ironwood	7.5	250	2	8	5	5	0	Early mature	Appears to have been windblown in past, but now with vigorous regrowth. Spectacular autumn colour.	Reduce over extended branches to smooth canopy shape, reducing height by approximately 2m and crown spread to south by 3m.	10-20	B	2	Low
T29	Birch	6.5	80	1.5	1.5	1.5	1.5	0.5	Semi-mature	Good vigour. Developing well.		>40	B		
T30	London plane	3.5	60	1	1	1	1	2	Young	Newly planted tree.		>40	C		
T31	Laburnum	3.5	20	0.5	0.5	0.5	0.5	1.6	Young			>40	C		
T32	Oak	5	110	2	2	2	2	1.7	Young	Newly planted tree.		>40	C		

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				N	S	E	W								
T33	Weeping willow.	5	300	6	6	1	10	1.6	Early mature	Acute lean to west. Basal decay developing, which may spread to roots.	Reduce crown spread to west by approximately 3m to reduce stress on base.	10-20	C	1	Medium
T35	Lime	22	670	7.5	7.5	7.5	7.5	3.5	Mature	Good tree.		>40	A		
T36	Purple plum	8.5	330	3	5	3	5	3	Mature	Twin stems from base- 220,250mm. Good vigour, but tend not to be long lasting.		15-30	B-C		
T37	Himalayan birch	11	150	1	1.5	4.5	1	1.7	Semi- mature	Slight lean to east.		20-40	B		
T38	Himalayan birch	10.5	110	1	0.5	0.5	0.5	3.5	Semi- mature	Drawn up.	Remove to allow remaining birch to develop.	10-20	C	1	Low
T39	Himalayan birch	11	150	4	0.5	2	1	1.7	Semi- mature			20-40	B		
T40	Turkey oak	17.5	610	6	6	6	6	0	Early mature	Good vigour.		>40	A		
T41	Horse chestnut	10.5	300	4	4	4	4	1.7	Semi- mature	Surface roots exposed, but showing good vigour.		>40	B		
T42	Red oak	11	280	4	5	4.5	3.5	1.7	Semi- mature	Included bark to major limb to south. Good vigour.	Reduce limb to south by 50% to encourage remainder of tree to dominate and avoid future problems, as shown in photo in Appendix Eii).	>40	B	0.5	Medium

BS 5837:2012, Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those 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	<ul style="list-style-type: none">Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other 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 declineTrees 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 <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
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)	See Table 2
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 remediable 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	See Table 2
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	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	See Table 2

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				N	S	E	W				
T1	Yew	13.5	670	8	7.5	5	6	1.2	Mature	Central stem removed in past; together with further stems that must have broken out.	Reduce height by approximately 2m to smooth canopy shape and reduce future risk of future breakout, as shown in photo in Appendix E(i).
T2	Horse chestnut	19	1200	9.5	10	7	9	3	Mature	Crown spread reduced in the past. Occasional cavities developing in previous pruning wounds. Possible risk of branch breakout. Reduce by crown reduction, although this can result in decay in pruning wounds leading to future problems.	Carefully remove end weight from major limbs, to reduce stress while preserving crown shape, reducing height by approx 2m, as shown in photo in Appendix E(i). Probe cavities and record any significant structural weakness.
T3	Sycamore	19.5	560	1	2	7	2	4.5	Mature	Asymmetric canopy, caused by competition with T2, but good vigour.	Reduce height by 1.5m, crown spread to south by 2m and thin out 3-4 spindly branches to south to encourage more compact canopy formation and reduce future risk of breakout, as shown in photo in Appendix E(ii).
T8	Thorn	6.5	280	3	2	1	3	1	Mature	Twin stems from base- 190,210mm. Eastern stem with extensive basal decay.	Remove eastern stem.
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T27	Purple plum	7	300	0	8	6	0.5	1.7	Mature	Previously windblown and reduced- now with vigorous regrowth.	Cut back lowest horizontal limb over lawn by approximately 2m, back to live shoots.
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T38	Himalayan birch	10.5	110	1	0.5	0.5	0.5	3.5	Semi-mature	Drawn up.	Remove to allow remaining birch to develop.
T42	Red oak	11	280	4	5	4.5	3.5	1.7	Semi-mature	Included bark to major limb to south. Good vigour.	Reduce limb to south by 50% to encourage remainder of tree to dominate and avoid future problems, as shown in photo in Appendix E(ii).

Approx extent of crown reduction



Appendix Eii)

