

# SJ Stephens Associates

ARBORICULTURAL, LANDSCAPE & MANAGEMENT CONSULTANTS

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# Preliminary Arboricultural Impact Assessment

- Tree Survey
- Tree Protection Plan
- Arboricultural Method Statement

For:-Garden Design Proposals

#### <u>At:-</u> 20

20 Redington Road London NW3 7QY

On behalf of:-Nick Luff & Catherine Milward 20 Redington Road London NW3 7QY

Prepared by:

Simon Stephens MA Oxon, Dip Arb(RFS), MArborA, C Env. MICFor Email: <u>simon@sjstephens.co.uk</u>

Survey Date: Report Date: Project no: 7<sup>th</sup> February 2023 5<sup>th</sup> September 2024 2058

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# 1 BACKGROUND

- **1.1** This Arboricultural Impact Assessment has been instructed by Huntsmore, on behalf of Nick Luff & Catherine Milward to specify tree protection measures and assess the arboricultural impact of the proposed plan for the garden. This will include rebuilding of the retaining wall adjacent to the pavement which is failing.
- **1.2** Trees were surveyed, with findings shown in the Tree Schedule in Appendix B and plotted on the Tree Protection Plan in Appendix A. This also shows tree protection measures, which are specified in the Preliminary Arboricultural Method Statement in section 5 below. The arboricultural impact is assessed in section 6, which assumes that these measures are followed.
- **1.3** The Arboricultural Method Statement is only preliminary at this stage. Once planning permission has been granted, a detailed Arboricultural Method Statement will be prepared which will include engineering and tree protection details for rebuilding the front wall, which will need to be approved before work starts on site.
- **1.4** The tree 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.
- **1.5** This survey and report have been prepared in accordance with the recommendations of BS 5837:2012, Trees in relation to design, demolition and construction Recommendations.

- **1.6** Documentation supplied:
  - Topographical Survey
  - SJ Stephens Associates, Tree Constraints Plan, drawing no: 2058-01
  - Huntsmore, Proposed Garden Plan: drawing no D3-110revA

# 2 SURVEY DETAILS AND SCOPE

- **2.1** The site survey included trees and shrubs, within and immediately adjacent to the front garden, with a stem diameter over 75mm at 1.5m height, as shown located on the Tree Protection Plan, included as Appendix A.
- **2.2** 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.
- **2.3** Tree diameters were measured using a girthing tape and tree heights were measured using a hypsometer. Where use of a tape was restricted by site factors, diameters were estimated, with the diameter recorded in the tree schedule as eg "est 300".
- **2.4** At the time of the survey, the weather was fine, but with no restrictions to visibility. Broadleaf trees were not in leaf. There were no limitations to access around the trees within the site.
- **2.5** Tree details are shown on the Tree Protection Plan included as Appendix A. Tree locations have been taken from the topographical survey provided. Where not included on the topographical survey, they have been determined by measuring distances from features shown on the plan, using a laser measuring device. 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, prefixed with a "T", which cross references locations shown on the plan with the schedule in Appendix B. Where a number of trees are located close together and are similar in character and management 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**: diameter in millimetres, taken at 1.5m above ground. Where there are a number of stems, stem diameters are recorded in the condition column.
  - **Branch spread**: approximate spread in metres to N,S,E and W of the trunk. The approximate branch spread is drawn on the plan.

- **Canopy clearance**: approximate height of the canopy above ground. Where a significant, low lateral branch is present, its height and direction of growth is included in the Condition column.
- Age class: Young, Semi-mature, Early mature, 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, 5-15 years, 10-20 years, 15-30 years, 20-40 years, >40 years.
- **Category grading**: tree classification taken from BS 5837:2012, Trees in relation to design, demolition and construction (see Appendix C for details), as follows:
  - Category U: Unsuitable for retention, 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, normally retained unless there is an over-riding reason for removal and appropriate mitigation. (Green)
  - Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained. (Blue)
  - Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not unreasonably constrain the layout. (Blue)
  - Category C: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting. (Grey)

For category A, B and C trees, a subcategory has been allocated, providing information on the reasons for selection of a specific category, as follows:

- Subcategory 1: mainly arboricultural values.
- Subcategory 2: mainly landscape values.
- Subcategory 3: mainly cultural values, including conservation.
- Trees have been classified irrespective of the possible proximity to future construction. The BS 5837 category is colour coded, as indicated above, on the plan included as Appendix A.
- **Protection Distance:** the protection distance in metres required to provide the Root Protection Area recommended in BS 5837, assuming a circular area centred on the tree.
- Root Protection Area (RPA): the area in m<sup>2</sup>, as recommended in BS 5837, to provide sufficient rooting area to ensure tree survival and which, in most situations, should be fenced off to prevent root damage from construction activities.

# **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.
- **3.4** The tree survey has been undertaken for planning purposes. Although any obvious structural defects have been noted, a Tree Hazard Assessment has not been carried out. Mature trees close to highly populated areas or public highways should normally be checked for safety annually, by a suitably qualified person.

# 4 LEGAL PROTECTION OF TREES

- **4.1** The Camden Council website was viewed on 24-06-2024.. No information was available, on Tree Preservation Orders, however the site does fall within a Conservation Area. The presence of Planning Conditions currently attached to the site, was not checked.
- **4.2** Since the site is covered by a Conservation Area, six weeks notification must be given to the Local Planning Authority of any intended tree surgery works, to allow them the option of placing a Tree Preservation Order.
- **4.3** Once planning permission has been granted, provided the application clearly shows any trees to be removed or pruned, this overrides protection provided by Tree Preservation Orders or Conservation Areas, provided the work is necessary to implement the approved development. If not essential, a separate tree work application will need to be submitted for trees protected by a Tree Preservation Order.

# 5 PRELIMINARY ARBORICULTURAL METHOD STATEMENT

## 5.1 Site Overview

5.1.1 The proposal is for the redesign of the garden, including a new pedestrian access from Redington Road and rebuilding of the retaining wall adjacent to the pavement which is failing. The proposed garden plan is included as Appendix F and details been added to the survey drawing, along with tree details, to create the Tree Protection Plan attached as Appendix A. 5.1.2 Following planning approval a structural engineer will be appointed to work with the arboricultural consultant to prepare construction and tree protection details for rebuilding the front retaining wall with the retention of the sycamore, T16. These details will be included in a detailed Arboricultural Method Statement which will be submitted for approval before work on site starts.

# 5.2 Tree Work

- 5.2.1 Details of proposed tree works are included in the Tree Schedule included as Appendix B.
- 5.2.2 8 trees and 2 tree groups are proposed for removal, as detailed in section 6.1 below.
- 5.2.3 In addition, crown reduction of the sycamore, T16, is proposed ahead of works to the adjacent retaining wall.
- 5.2.4 All tree work must be undertaken to the standards set out in BS 3998:2010 Tree work Recommendations.

## 5.3 Root Protection Areas

- 5.3.1 Root Protection Areas are shown for all trees in the tree schedule included as Appendix B. They are also shown for all retained trees, as circular areas centred on the trunk, on the Tree Protection Plan included as Appendix A. Where there are physical obstructions to root growth the Root Protection Area should be shown as an equivalent area that is more likely to reflect actual root growth. The Root Protection Area shows the area around a tree in which all construction activity must normally be excluded, unless appropriate protection measures are implemented.
- 5.3.2 For the birch, T3, where the underground garage within the Root Protection Area will have prevented root growth and for the sycamore, T16, the Root Protection Areas are shown as polygons of equivalent area, to more closely reflect the likely actual root spread.

# 5.4 Tree Protection Fencing

- 5.4.1 Tree Protection Fencing must be erected where shown on the Tree Protection Plan, included as Appendix A. This will provide full protection of the Root Protection Areas of all retained trees within the site, other than for:
  - areas hatched in blue on the Tree Protection Plan, where No-Dig Construction must be used, as described in section 5.5 below, to protect underlying roots.
  - areas shaded/hatched cyan on the Tree Protection Plan, indicating Ground Protection Areas, where roots must be protected, as described in section 5.6 below.

- areas cross hatched red on the Tree Protection Plan, where there will be excavation at the edge of the Root Protection Area of T16, but where hand excavation must be used, as described in section 5.7, to minimise potential root damage.
- 5.4.2 Tree works can be completed before Tree Protection Fencing is erected, however no contractors plant or vehicles must be allowed to track within the Root Protection Areas unless ground protection panels are laid.
- 5.4.3 Tree Protection Fencing must be from weldmesh panels, at least 2m high, securely fixed, with wire or scaffold clamps, to a rigid framework. This framework must be constructed from scaffold tubes with vertical tubes, at a maximum interval of 3m and driven into the ground at least 0.6m. The structure must be well braced to resist impacts, constructed as per Figure 2 of BS5837:2012, which is reproduced in Appendix D. Alternatively, weldmesh panels can be supported on blocks, providing the blocks are pinned to the ground with road pins, or similar, and the panels are braced, as per Figure 3 of BS5837:2012, which is also reproduced in Appendix D.
- 5.4.4 After erection of Tree Protection Fencing and installation of ground protection, 2 days notice must be given to the Local Planning Authority before demolition or construction, including any ground work, starts on site.
- 5.4.5 Tree Protection Fencing must be maintained and retained for the duration of the works, or until such time as agreed in writing with the Local Planning Authority.
- 5.4.6 Weatherproof notices must be fixed to the Tree Protection Fencing, and maintained, stating:-

# TREE PROTECTION AREA

## **KEEP OUT**

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND CONSERVATION AREA STATUS CONTRAVENTION MAY LEAD TO CRIMINAL PROSECUTION THE FOLLOWING MUST BE OBSERVED BY ALL PERSONS:

- The Protection Fence must not be moved
- No person or machine must enter the area
  - No excavation must be permitted

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

# 5.5 No-Dig Construction Areas

5.5.1 The No-Dig areas, shown hatched blue on the Tree Protection Plan included as Appendix A, must be constructed without excavation apart from the removal of turf/organic matter, which must be carried out by hand. Excavators, dumpers and other site traffic must not be allowed to track on the No-Dig areas until roots are protected by the No-Dig surfacing or ground protection.

- 5.5.2 A typical section is shown on the Tree Protection Plan included as Appendix A. As well as being fit for purpose, the design and methodology must protect tree roots, by ensuring the following:-
  - topsoil/turf can be removed carefully by hand to a maximum of 75mm, but less if roots are found nearer the surface.
  - following leveling with soil or sand, a permeable, non-woven geotextile membrane, must be laid.
  - a suitable two dimensional geogrid, such the TriAx Geogrid supplied by Tensar International (www.tensar.co.uk), or the Biaxial Geogrid supplied by Geosynthetics Ltd (www.geosyn.co.uk), must be laid over the entire area and underneath the edging.
  - pressure treated timber edging boards, supported by driven stakes must be used.
  - a suitable cellular confinement system must then be laid to manufacturers instructions on top of the geogrid. Products that might be considered include Geoweb, supplied by Greenfix (www.greenfix.co.uk) or Cellweb, supplied by Geosynthetics Ltd (www.geosyn.co.uk). The depth of the system must be adequate to take the maximum axle weight, as per manufacturers guidance.
  - the cellular confinement system must be filled with clean (no fines), washed angular, 20/40mm, stone to provide load support, while allowing air and moisture to permeate to the root zone.
  - a further permeable, non-woven geotextile membrane, such as TreetexT300, or an alternative approved product which has similar oil trapping qualities, must be laid over the cellular confinement system.
  - a porous, surfacing material, free from contaminants, must then be laid. Either sand bedding and block paving, gravel or permeable tarmac would be suitable.
  - removed turf/topsoil can be used to grade surrounding ground levels.
- 5.5.3 Site traffic, including pedestrians, must not be allowed on the No-Dig areas unless roots are protected by existing hard surfacing, new No-Dig surfacing or unless suitable ground protection panels are laid. Either Trakmats (supplied by the Marwood Group, <u>www.marwoodgroup.co.uk</u>), Groundtrax panels (see <u>www.groundtrax.com</u>), Ground-Guards, as supplied by Greentek (<u>www.greentek.org.uk</u>), or a similar approved product, must be used, laid on top of a compressible layer of sand or woodchips, laid onto a geotextile. If access is only required for pedestrians, 25mm plywood or side butting scaffold boards can be laid, on top of a compressible layer of sand or woodchips, laid onto a geotextile.
- 5.5.4 No-Dig construction will result in an increase in levels. This must be fully taken account of in all other aspects of the design.

# 5.6 Ground Protection Areas

5.6.1 The Ground Protection Areas, which are hatched cyan on the Tree Protection Plan, contain hard surfacing which is protecting any underlying roots and which must stay in place during the construction period unless further protection measures are implemented.

- 5.6.2 Hard surfacing in Ground Protection Areas can be replaced if the existing sub-base remains in place and if the new surfacing is permeable.
- 5.6.3 If the existing sub-base is to be replaced, following removal, ground protection must be laid immediately and then No Dig Construction, (as per section 5.5) used for the build up. No excavation must be permitted beneath the base course in these areas.
- 5.6.4 The Ground Protection Areas, which are shaded cyan on the Tree Protection Plan, contain soft areas where ground protection must be laid to protect any underlying roots. Trakmats, as supplied by either the Marwood Group, (<u>www.marwoodgroup.co.uk</u>) or Ground-Guards, (www.ground-guards.co.uk) or a similar approved product, must be used, laid on a compressible layer of sand or woodchips, laid onto a geotextile, with adjacent panels held together with connectors.
- 5.6.5 Ground protection must be laid before any construction starts on site and must be maintained in good condition until all construction operations have been completed. Ground protection must be fit for purpose and be replaced with an alternative product if panels start to move or any sign of ground compaction is seen.
- 5.6.6 An excavator must only be used for the removal of the existing hard surfacing within the Root Protection Areas, if it can work only from areas of hard standing, or from outside the Root Protection Areas. A banksman must be present and excavation must go no deeper than the existing base course and must cease immediately if roots are found. Once hard surfacing has been removed, the area must immediately be topsoiled using good quality topsoil supplied to BS3882:2015.

# 5.7 Hand Dig Area

- 5.7.1 The Hand Dig area, shown cross-hatched red on the Tree Protection Plan, must be dug to formation level by hand, neatly severing any roots found, using secateurs or a hand saw.
- 5.7.2 Heavy-duty polythene must be used to line the side of the excavated area adjacent to the trees, before concrete is poured for the retaining wall, to avoid the toxic effects of cement on tree roots.
- 5.7.3 On no account must use of an excavator be used for the Hand Dig area, which would rip roots and cause unnecessary damage.

# 5.8 General measures

- 5.8.1 No construction activity whatsoever, including routing of underground services, storage of materials or on-site parking, must be allowed within Root Protection Areas, other than that specifically described above.
- 5.8.2 No mixing or storage of cement, concrete, oil, fuel, bitumen or other chemicals must be permitted within 10m of the trunk of any retained trees, nor in any position where the slope of the ground could lead to contamination of the Root Protection Area.
- 5.8.3 Fires must not be lit in a position where their flames could extend to within 10m of foliage, branches or trunk.
- 5.8.4 Landscape works carried out within Root Protection Areas must be undertaken with great care so as not to damage shallow roots. Rotovators or other heavy mechanical cultivation must not be used within the Root Protection Areas.
- 5.8.5 If any tree shown for retention is removed, uprooted or destroyed, another tree must be planted in the same location, at a size and species to be agreed in writing with the Local Planning Authority.
- 5.8.6 A copy of this report and the Tree Protection Plan must be kept on site and must be fully understood by the Site Agent.

# 5.9 Bat roosts

5.9.1 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.

# 5.10 Birds

5.10.1 The current legislation makes it a criminal offence to disturb nesting birds. The nesting season is generally assumed to be from 1<sup>st</sup> March to 31<sup>st</sup> 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.

# 5.11 Arboricultural Supervision

- 5.11.1 A qualified Arboricultural Consultant must be retained during the period of construction to carry out the following:
  - to prepare a detailed Arboricultural Method Statement, to include details of rebuilding the front wall. The Arboricultural Method Statement must be approved by the Local Planning Authority, prior to construction or ground work starting on site.
  - to inspect Tree Protection Fencing and ground protection, prior to construction or ground work starting on site.
  - as necessary, to advise on any issues at the request of the local planning authority, the developer, architect or contractor.

The details of each site visit must be recorded using a site visit proforma, with copies circulated to the contractor, developer and the local authority Tree Officer within 3 working days of the visit.

# 6 ARBORICULTURAL IMPACT ASSESSMENT

- **6.1** The following trees / tree groups, categorized as per BS 5837 (see Appendix C for details), are proposed for removal:
  - Category C low quality:
    - T8 a 3.5m variegated holly
    - G19 a 1-1.5m high yew hedge
    - T20 an 11m yew with thinning foliage
  - Category B/C between categories B and C:
    - T10 an 11m cherry, obstructing the path
    - T13 and T14 two holly up to 9m in height
    - $\circ$  T17 a 4m laurel
    - G18 a clump of laurel up to 5.5m in height
  - Category B moderate quality:
    - T11 an 11.5m sycamore growing on a steep slope
    - T12 a 6m yew with an asymmetric canopy
- **6.2** Although trees will be removed, none are of particular significance and they will be replaced by new planting as shown on the plan included as Appendix F.
- **6.3** Protection measures have been specified to protect the Root Protection Area of all retained trees, and further details will be provided for protection of the sycamore, T16, in a detailed Arboricultural Method Statement which will be submitted for approval before work on site starts.

- **6.4** Construction of the new steps from the pavement will necessitate shallow excavation of 6.7m2, or 4% of the Root Protection Area. This is unlikely to have a significant impact on the long term health of the tree.
- **6.5** Provided the recommendations in this report are followed, the arboricultural impact of these proposals on existing tree cover is considered acceptable as the new planting will provide long term benefit.

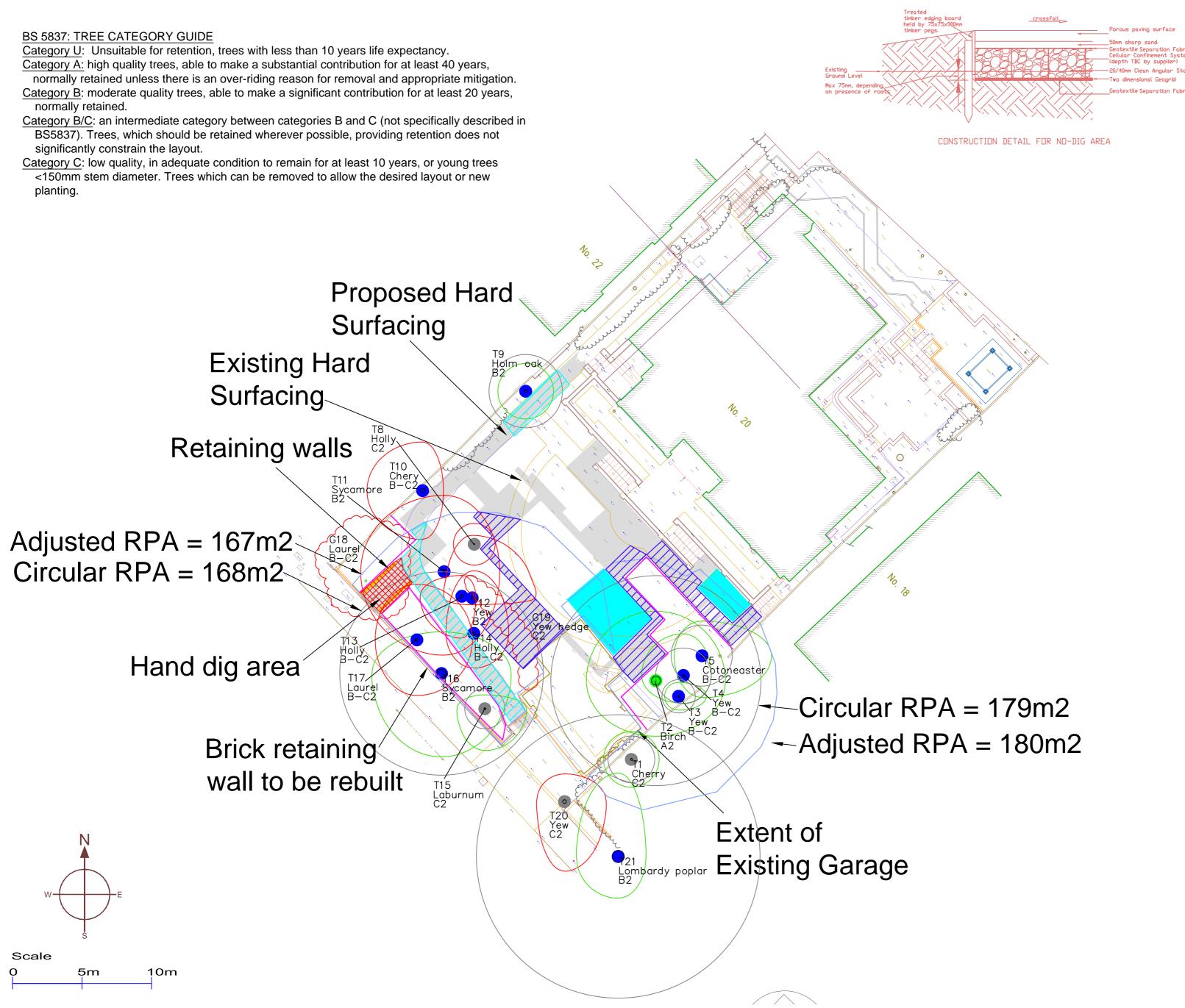
# **7** REFERENCES

- 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 (<u>www.ntsgroup.org.uk</u>)
- The use of Cellular Confinement systems near Trees: a guide to good practice Arboricultural Association Guidance Note 12.

normally retained.

BS5837). Trees, which should be retained wherever possible, providing retention does not significantly constrain the layout.

<150mm stem diameter. Trees which can be removed to allow the desired layout or new planting.



# APPENDIX A



# SJ Stephens Associates

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### Appendix B BS 5837: 2012 Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Bra	anch S	pread	(m)	Canopy Cleara -nce (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect -ion Distance (m)	Root Protect. Area (m2)
				N	S	Е	W								
T1	Cherry	7.5	140	2	2	2	2	2	Semi- mature	Growing in adjacent garden. Good potential.		>40	C2	1.7	9
Т2	Birch	20	630	5	4	5	5	4.5	Mature	Attractive tree, showing good vigour. Slight lean to north.		20-40	A2	7.6	179
Т3	Yew	4	100	1	1	2	1	0.8	Semi- mature	Good vigour.		>40	B-C2	1.2	5
T4	Yew	4	170	3	2	2	3	0.3	Semi- mature	Tight forks, but good vigour.		>40	B-C2	2.0	13
T5	Cotoneaster	4.5	180	2.5	3	5	2	1.8	Mature	Leaning to east.		10-20	B-C2	2.2	15
Т8	Holly	3.5	60	1.5	1.5	1.5	1.5	0.7	Early mature	Variegated variety. Low vigour.	Remove for new garden design	5-15	C2	0.7	2
Т9	Holm oak	9	220	2	2	2	2	2	Semi- mature			>40	B2	2.6	22
T10	Cherry	11	300	3.5	3.5	1.5	4	3	Early mature	Growing on bank down to path. Swollen root buttresses.	Remove for new garden design	15-30	B-C2	3.6	41
T11	Sycamore	11.5	290	5.5	6	4	6	3	Early mature	Growing on steep slope. No leader, but good vigour.	Remove for new garden design	20-40	B2	3.5	38
T12	Yew	6	180	4.5	0.5	4.5	2	0.5	Semi- mature	Asymmetric canopy. Growing on steep slope.	Remove for new garden design	>40	B2	2.2	15
T13	Holly	9	190	1.5	3	1	3	1.5	Early mature	Stem leans to south west, but straightens.	Remove for new garden design	15-30	B-C2	2.3	16
T14	Holly	8.5	200	4.5	2.5	2.5	2	1.4	Early mature	Growing out of stone retaining wall. Moderate vigour.	Remove for new garden design	15-30	B-C2	2.4	18
T15	Laburnum	3	120	1	3	3	2	1.6	Semi- mature	Three stems from base- average 70mm.		15-30	C2	1.4	7
T16	Sycamore	17	610	3	6	5	5	3.5	Mature	Bifurcates at 1m- stems 400,460mm. Growing on top of 1.3m brick retaining wall to pavement- structural damage beginning. Previous crown reduction. Brick retaning wall has to be rebuilt which ineviatbly will cause disturbance, necessitating reduction in height to reduce risk of failure.	Reduce height by 4m with minor reduction in crown spread to balance canopy.	20-40	B2	7.3	168
T17	Laurel	4	220	4	4	4	3	0.3	Mature	Growing on top of brick retaining wall.	Remove for new garden design	15-30	B-C2	2.6	22
G18	Laurel	4-5.5	90-200					0.3	Mature		Remove, as necessary, to construct steps.	15-30	B-C2	2.4	18
G19	Yew hedge	1-1.5	25-90					0	Semi- mature	Tightly clipped hedge- thinning in places.	Remove for new garden design	15-30	C2	1.1	4

# 20 Redington Road

#### Appendix B BS 5837: 2012 Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Bra	anch S	pread	(m)	Canopy Cleara -nce (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect -ion Distance (m)	Root Protect. Area (m2)
				Ν	S	E	W								
T20	Yew	11	260	2	5	3	2	1.8	Early mature	Foliade Ininnind	Remove for new garden design	5-15	C2	3.1	31
T21	Lombardy poplar	30	est 850	6	3	2	3	1.6	Mature	Growing outside site- base not inspected.		20-40	B2	10.2	327

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

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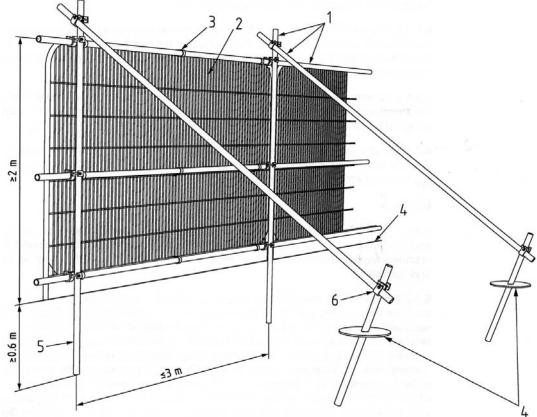
Category and definition	Criteria (including subcategories where a	ppropriate)		Identificatior on plan
Trees unsuitable for retention	(see Note)			
Category U		le, structural defect, such that their early loss		See Table 2
Those in such a condition that they cannot realistically	reason, the loss of companion shelte			
be retained as living trees in	<ul> <li>Trees that are dead or are showing s</li> </ul>	igns of significant, immediate, and irreversible	e overall decline	
the context of the current land use for longer than 10 years	<ul> <li>Trees infected with pathogens of sig quality trees suppressing adjacent trees</li> </ul>	nificance to the health and/or safety of other ees of better quality	trees nearby, or very low	
to years	NOTE Category U trees can have existing see 4.5.7.	g or potential conservation value which it mig	ght be desirable to preserve;	
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	÷
Trees to be considered for rete	ention			
Category A	Trees that are particularly good	Trees, groups or woodlands of particular	Trees, groups or woodlands	See Table 2
Trees of high quality with an estimated remaining life expectancy of at least 40 years	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)	visual importance as arboricultural and/or landscape features	of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B	Trees that might be included in	Trees present in numbers, usually growing	Trees with material	See Table 2
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	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	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	conservation or other cultural value	
Category C	Unremarkable trees of very limited	Trees present in groups or woodlands, but	Trees with no material conservation or other	See Table 2
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	merit or such impaired condition that they do not qualify in higher categories	without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	cultural value	(b)

# British Standard BS 5837:2012 Default specification for protective barrier

#### Figure 2

Key

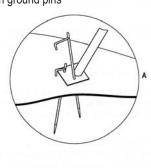
- 1 Standard scaffold poles
- 2 Heavy gauge 2 m galvanised tube and welded mesh infill panels
- Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps



### Examples of above-ground stabilising systems

#### Figure 3a

Stabiliser strut with base plate secured with ground pins



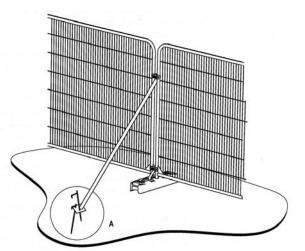
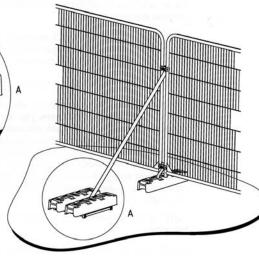


Figure 3b Stabiliser strut mounted on block tray



# SJ Stephens Associates Ltd

# Appendix E





1. Do not scale this drawing.

2. For structural dimensions and details see Structural Engineers' drawings.

3. All dimensions to be checked on site proir to commencement of any works or preperation of any shop drawings.

4. All errors in co-ordinates, levels and dimensions, are to be reported to the Architect.

5. All temporary works to be responsibility of the contractor.

6. This drawing to be read in conjunction with all relevant Architect's drawings and specifications and with other Consultant's Information.

#### Rev Date Description A 08/08/2024 Alterations to gate design and retaining structures

Powder coated steel railings over retaining wall to replace existing

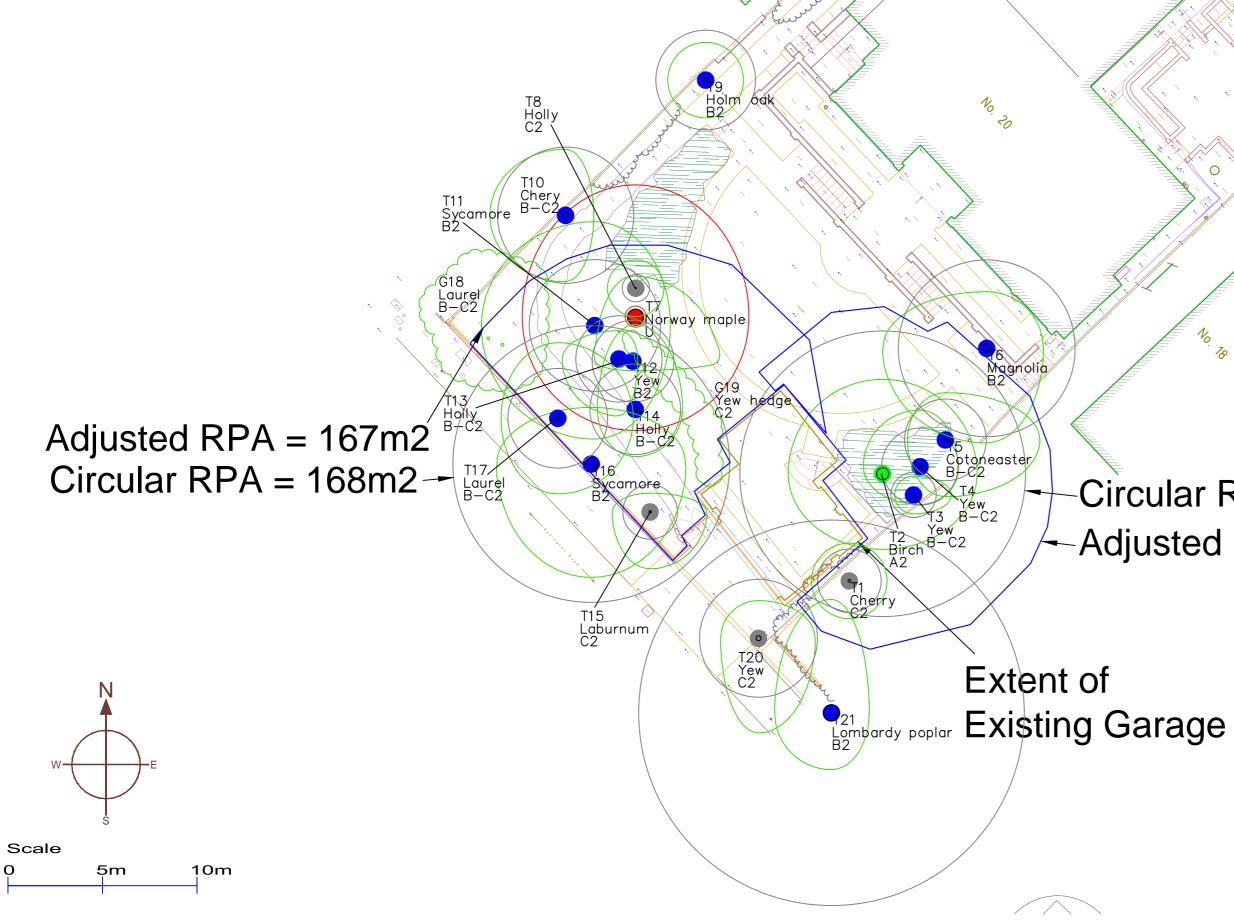
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Site Ad	dress		20	Reding	ton Ro	bad, NW3
Project				F	easib	ility Study
Drawing	g Title			Propose	ed Ga	rden Plar
Drawing	g Number					D3_110
Status					PL	ANNING
Date	09/07/2024	Revision		A		200 @ A3

### BS 5837: TREE CATEGORY GUIDE

Category U: Unsuitable for retention, trees with less than 10 years life expectancy. Category A: high quality trees, able to make a substantial contribution for at least 40 years, normally retained unless there is an over-riding reason for removal and appropriate mitigation. Category B: moderate quality trees, able to make a significant contribution for at least 20 years, normally retained.

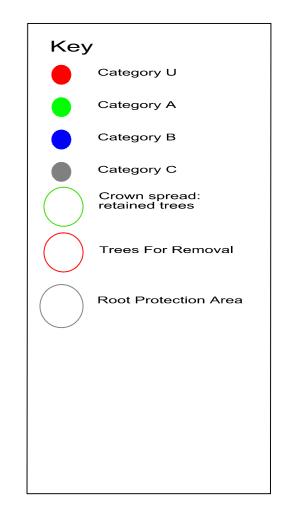
Category B/C: an intermediate category between categories B and C (not specifically described in BS5837). Trees, which should be retained wherever possible, providing retention does not significantly constrain the layout.

<u>Category C</u>: low quality, in adequate condition to remain for at least 10 years, or young trees <150mm stem diameter. Trees which can be removed to allow the desired layout or new planting.



No. 22

# APPENDIX G



# SJ Stephens Associates

Savernake Barn, Stokke Common Great Bedwyn Marlborough Wiltshire SN8 3LL 01672 871862

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JOB TITLE			
20 REDINGTO	N ROAD		
DRAWING TITLE			
TREE CONSTR		A N I	
IREE CONSTR	CAIN IS PL	AN	
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2058-01			REV
2058-01 REVISIONS			REV
2058-01 REVISIONS SCALE	DATE	DRAWN BY	REV
2058-01 REVISIONS			REV

Circular RPA = 179m2 Adjusted RPA = 180m2

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