



SJ Stephens Associates

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Arboricultural Impact Assessment

- Tree Survey
- Tree Protection Plan
- Arboricultural Method Statement

For:-

A Garden Building

At:-

23 Kewferry Road
Northwood
London
HA6 2NS

On behalf of:-

Mr and Mrs Carson
23 Kewferry Road
Northwood
London
HA6 2NS

Prepared by:

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Arb(RFS), MArborA, C Env. MICFor
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Survey Date: 20th May 2016
Report Date: 29th October 2025
Project no: 698

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1 BACKGROUND

- 1.1** This Arboricultural Impact Assessment has been instructed by David Carson to assess the arboricultural impact of the proposed construction of a new outbuilding adjacent to a protected oak tree at 23 Kew ferry Road.
- 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 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 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.
- 1.4** 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.
- 1.5** Documentation supplied:
 - Topographical Survey
 - SJ Stephens Associates, Arboricultural Impact Assessment, dated 22-06-2020
 - Proposed Site Plan and Elevations: as included in Appendix F

2 SURVEY DETAILS AND SCOPE

2.1 The site survey included trees and shrubs, within influencing distance of the proposed building, 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 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 m², 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

- 4.1.1 The London Borough of Hillingdon have a Tree Preservation Order which protects trees on the site. The presence of Planning Conditions currently attached to the site, was not checked.
- 4.1.2 Once planning permission has been granted, provided the application clearly shows any tree work proposed, this overrides protection provided by Tree Preservation Orders or Conservation Areas.

5 ARBORICULTURAL METHOD STATEMENT

5.1 Site Overview

- 5.1.1 The proposal is for the construction of an outbuilding adjacent to the rear boundary of the garden. The proposed site plan is included as Appendix F and the footprint has been added to the survey drawing, along with tree details, to create the Tree Protection Plan attached as Appendix A.
- 5.1.2 Services are already in place immediately adjacent to the site for the new building which is to be constructed on screw piles to avoid having to affect the roots of the adjacent oak tree.
- 5.1.3 There is a fine mature oak tree (T10) growing in the corner of the garden which must be protected in any proposals.

5.2 Tree Work

- 5.2.1 No tree work is proposed.

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.

5.4 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 garden, 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 cyan on the Tree Protection Plan, indicating Ground Protection Areas, where roots must be protected, as described in section 5.6 below.
- the areas cross hatched red on the Tree Protection Plan, where there will be excavation within the Root Protection Area of T10 for trial holes for screw piles, where hand excavation must be used, as described in section 5.7, to minimise potential root damage.

5.4.2 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.

5.4.3 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.

5.4.4 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.

5.4.5 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 A TREE PRESERVATION ORDER

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 materials or spoil must be deposited
- 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 proposed outbuilding, which falls within the Root Protection Area of T10, will be a timber building supported on screw piles.
- 5.5.2 The existing hard surfacing will be removed. An excavator must only be used for the removal of the existing hard surfacing within the Root Protection Area of T10, if it can work only from areas of hardstanding, or from outside the Root Protection Area. A banksman must be present during this operation 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, if any roots are exposed they must immediately be covered in topsoil.
- 5.5.3 After hard surfacing has been removed ground protection panels must be laid. Either Trakmats (supplied by the Marwood Group, www.marwoodgroup.co.uk), Groundtrax panels (see www.groundtrax.com), Ground-Guards, as supplied by Greentek (www.greentek.org.uk), or a similar approved product, must be used, laid on top of a compressible layer of sand or woodchips.
- 5.5.4 Screw piles will be used, which avoids the need for concrete in the root zone, which will support a steel/timber frame.
- 5.5.5 The ground protection panels must remain in place while the screw piles are driven and only removed sequentially, at the last possible point, as the building is constructed.
- 5.5.6 A 50mm ventilation gap must be allowed underneath the building.

5.6 Ground Protection Area

- 5.6.1 Ground protection panels must be laid within the Ground Protection Areas shown on the Tree Protection Plan to protect any underlying roots. Trakmats, as supplied by either the Marwood Group, (www.marwoodgroup.co.uk) 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.
- 5.6.2 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.

5.7 Hand Dig Areas

- 5.7.1 Screw pile locations must be marked and trial holes dug by hand to a depth of 750mm. If roots over 25mm diameter are found, the pile positions must be shifted to avoid them.

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.

6 ARBORICULTURAL IMPACT ASSESSMENT

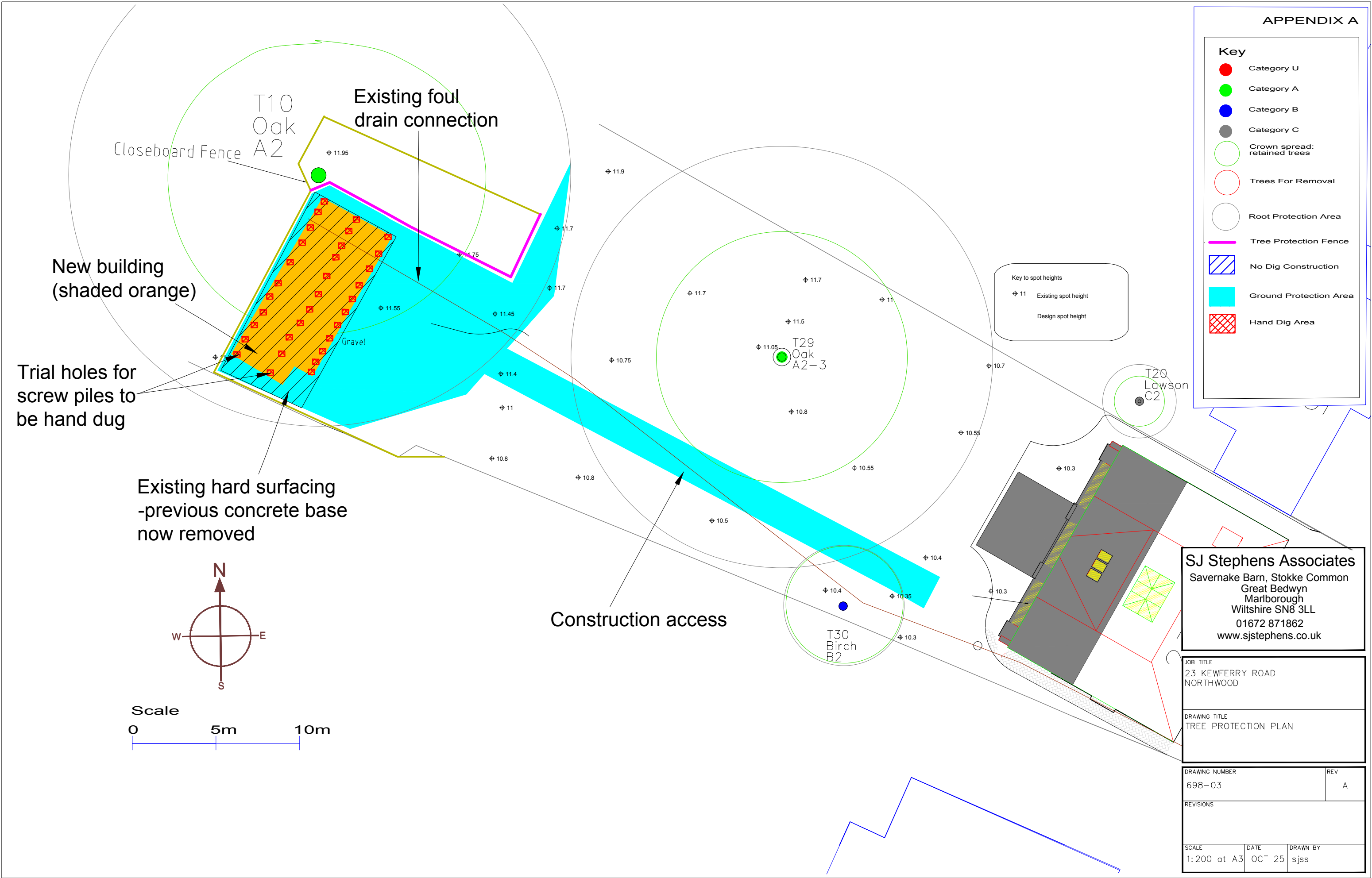
- 6.1 No tree work is proposed.
- 6.2 Protection measures have been specified to protect the Root Protection Areas of all retained trees.
- 6.3 Screw piles will be used and a ventilation gap provided.
- 6.4 Services to the site are already installed so no trenching will be required.
- 6.5 As shown in the elevations provided in Appendix F, ground levels under the new building will be reduced by 250mm before screw piles are driven. Since the new building is entirely within

the existing hard surfaced areas, where the hard build up is at least 250mm deep, this is unlikely to have any effect on underlying tree roots.

- 6.6 Removal of the previous concrete base to the shed that has been removed will have improved circulation of gases to and from tree roots, improving rooting conditions. Rainwater will run directly off the back of the building into the soil.
- 6.7 Provided the recommendations in this report are followed, the arboricultural impact of this development on existing trees is considered acceptable.

7 REFERENCES

- *BS5837:2012 Trees in relation to design, demolition and construction – 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.*



Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Cleara- nce (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect- ion Distnce (m)	Tree Protect. Area (m2)
				N	S	E	W								
T10	Oak	21	1320	8	9.5	10	9	2	Mature	Fine tree, showing good vigour. Occasional dead and broken branches.		>40	A2	15.0	707
T20	Lawson cypress	5.5	180	1.5	1.5	1.5	1.5	1	Early mature	Tree Preservation Order. Growing in adjacent garden. Strangled by washing line. Poor quality specimen.		10-20	C2	2.2	15
T29	Oak	22	1050	7.5	7.5	7.5	7.5	1.6	Mature	Tree Preservation Order tree. Reduced in the past. Occasional dead branches, but showing good vigour. Cavities in old pruning wounds at 4m and 7m.		>40	A2-3	12.6	499

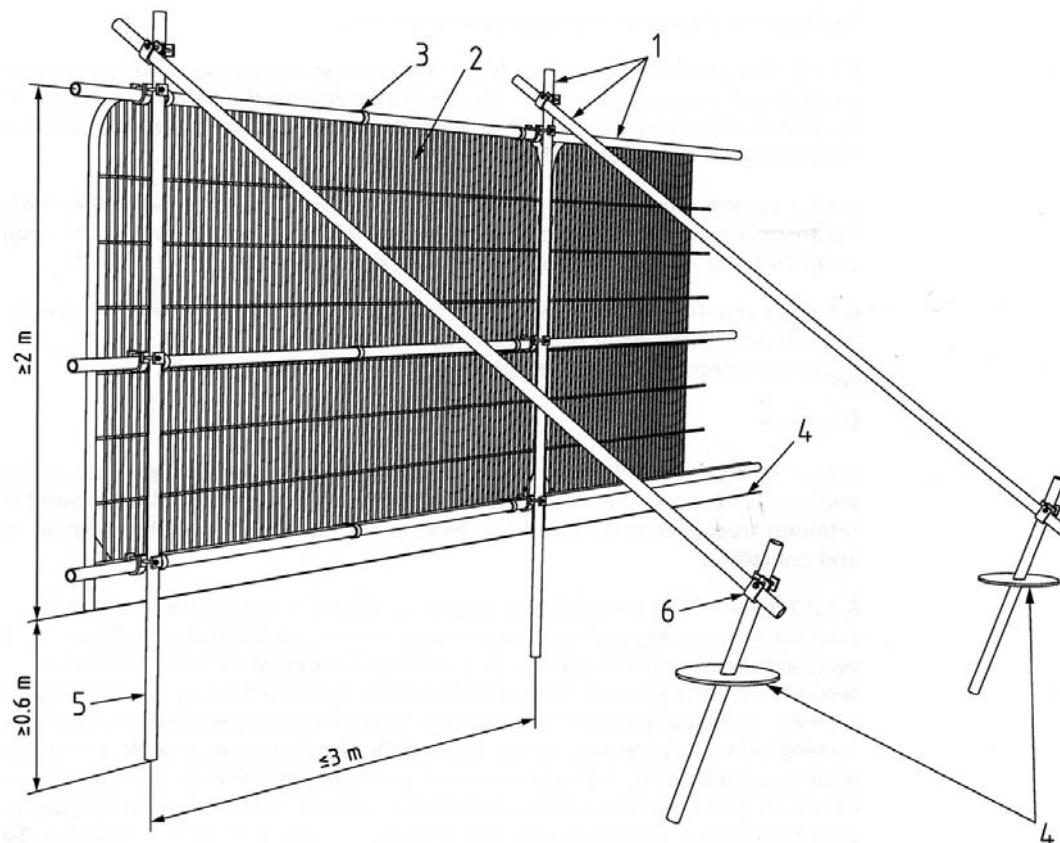
BS 5837:2012, Table 1 Cascade chart for tree quality assessment

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	- 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 decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			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

Figure 2

Key

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m galvanised tube and welded mesh infill panels
- 3 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

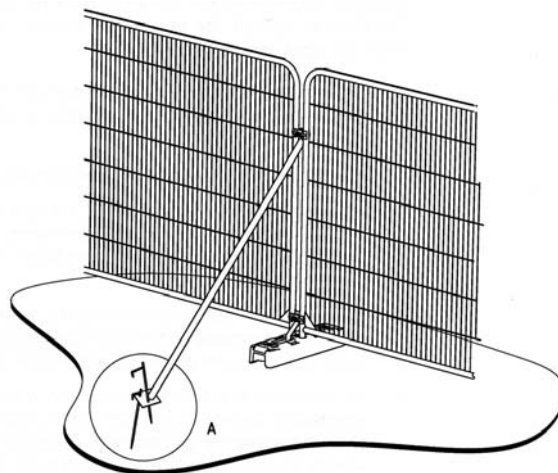
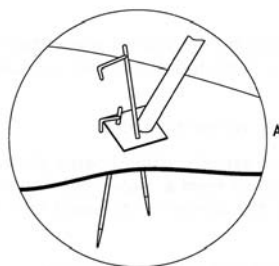
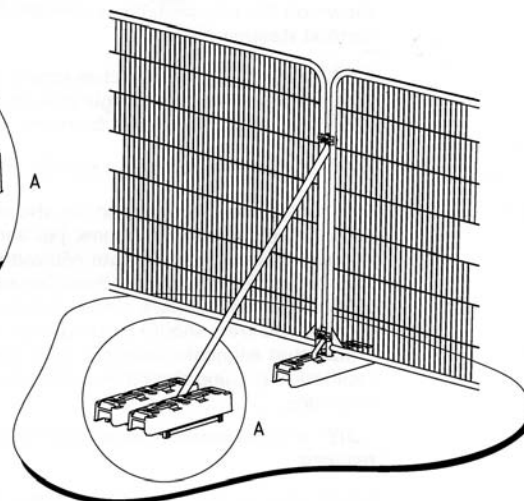
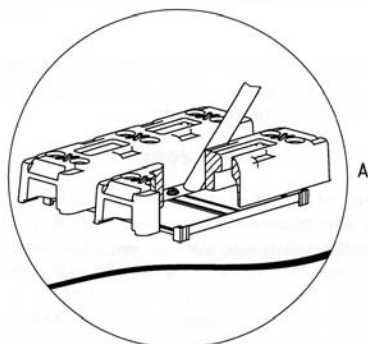
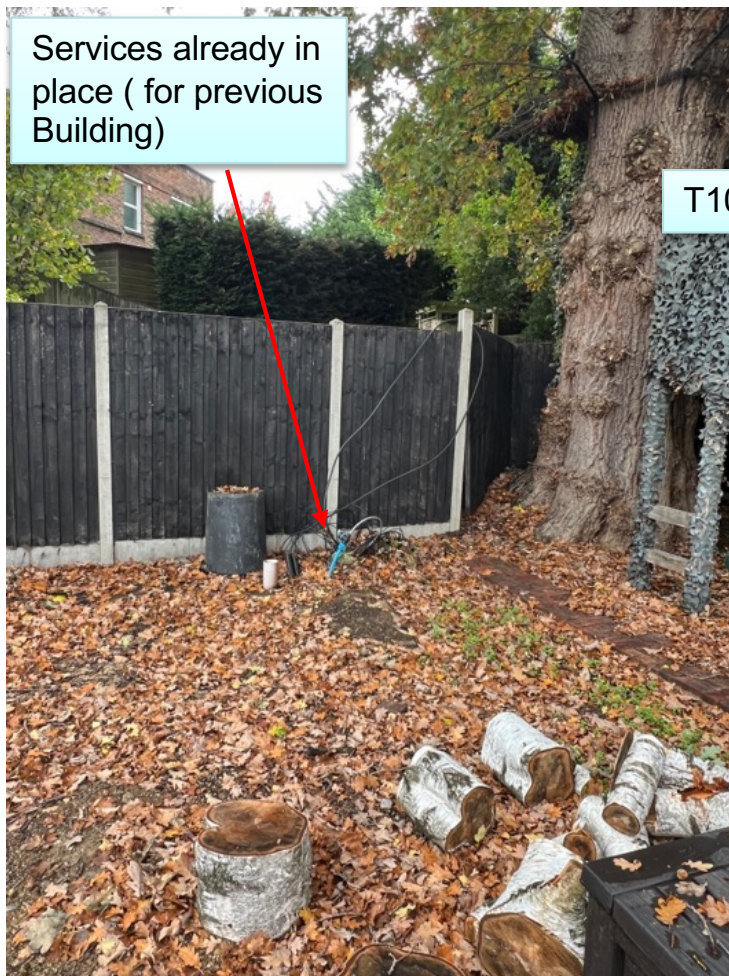
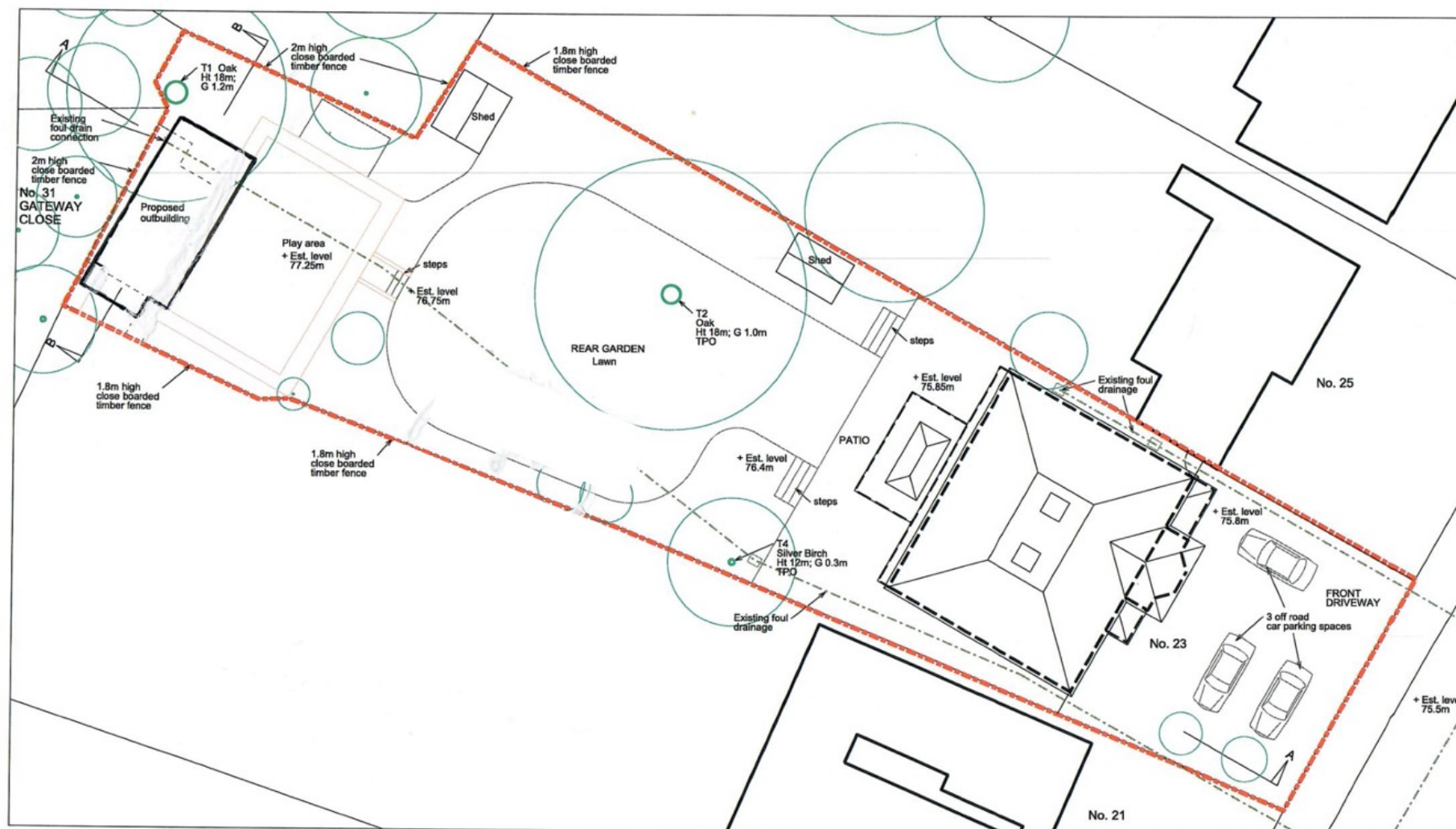


Figure 3b

Stabiliser strut mounted on block tray



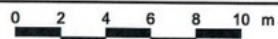




NOTES



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SCALE

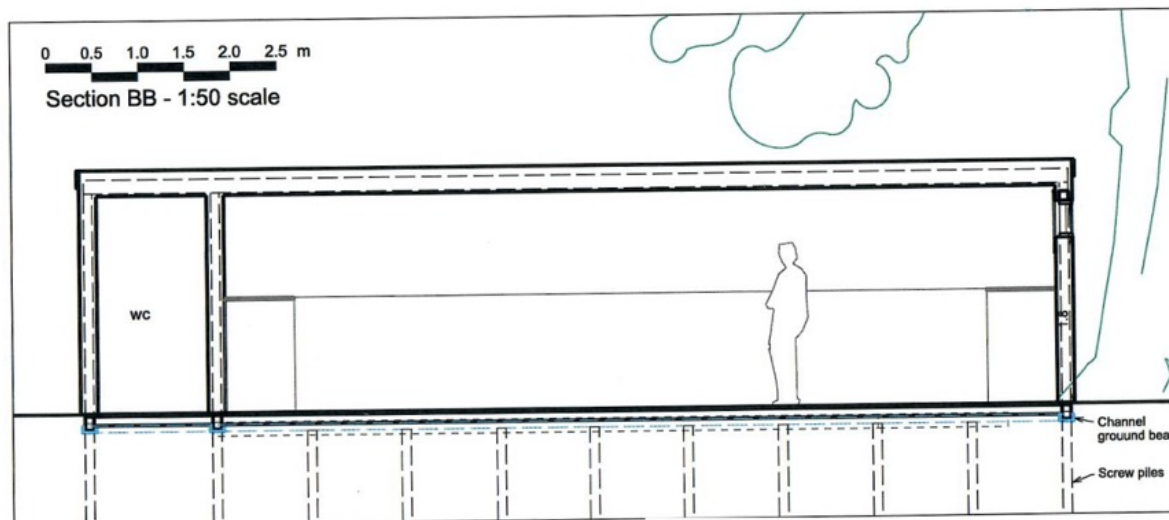
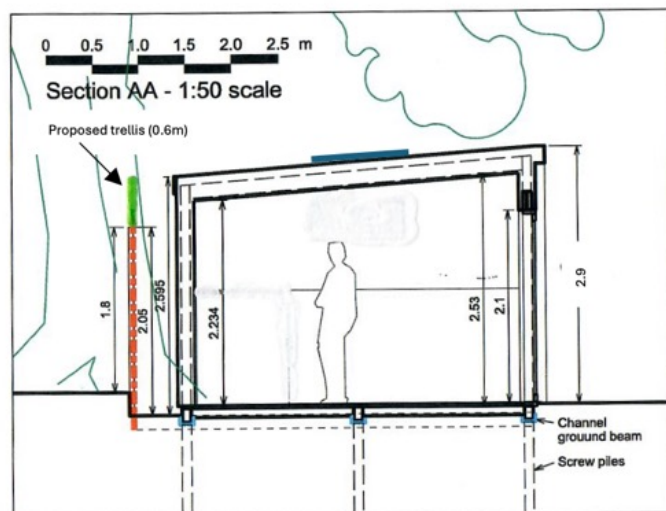
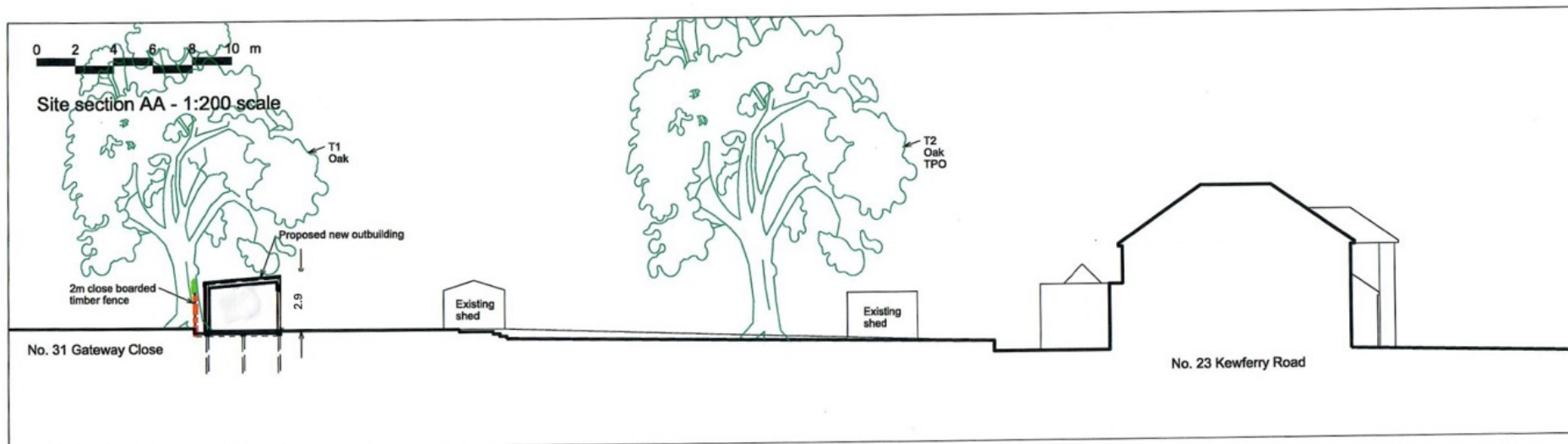
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PROJECT

23 Kewferry Road
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DRAWING

Site plan - proposed



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SCALE DATE

1:200/1:50 02.06.20

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Sections