

BS5837:2012

Arboricultural Method Statement

Replacement Garage
Acrefield, Charvil Lane
Sonning, RG4 6TH

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1. Introduction

- 1.1. This report provides an arboricultural method statement for the proposed garage replacement at Acrefield, Charvil Lane, Sonning, RG4 6TH in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 1.2. This report was instructed by Elegant Homes in October 2024 and is based on the proposed layout reference 3872 - 255A - PROPOSED GARAGE - PLOT 2. The proposed layout is shown on the Tree Protection Plan reference TGA.2671.TPP.002.
- 1.3. Planning permission has been granted on 16th October 2024 by Wokingham Borough Council for the '*Proposed demolition of the existing garage to slab level and erection of a detached garage on the existing built footprint*', planning application number 241771.
- 1.4. Condition 9 of the approval states:
 9. a) *No development or other operation shall commence on site until an Arboricultural Method Statement and Scheme of Works which provides for the retention and protection of trees, shrubs and hedges growing on or adjacent to the site in accordance with BS5837: 2012 has been submitted to and approved in writing by the local planning authority. No development or other operations shall take place except in complete accordance with the details as so-approved (hereinafter referred to as the Approved Scheme).*
 - b) *No operations shall commence on site in connection with development hereby approved (including any tree felling, tree pruning, demolition works, soil moving, temporary access construction and or widening or any other operation involving use of motorised vehicles or construction machinery) until the tree protection works required by the Approved Scheme are in place on site.*
 - c) *No excavations for services, storage of materials or machinery, parking of vehicles, deposit or excavation of soil or rubble, lighting of fires or disposal of liquids shall take place within an area designated as being fenced off or otherwise protected in the Approved Scheme.*
 - d) *The fencing or other works which are part of the Approved Scheme shall not be moved or removed, temporarily or otherwise, until all works including external works have been completed and all equipment, machinery and surplus materials removed from the site, unless the prior approval in writing of the local planning authority has first been sought and obtained.*
- 1.5. This report provides the required information for the works to be carried out as per the requirements of this condition.
- 1.6. A survey was carried out on 22nd October 2024 in accordance with BS5837:2012 to identify the constraints and opportunities on the site presented by the existing trees which is appended below.

2. Survey method & limitations

- 2.1. The survey has been carried out following BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. Further notes on survey method are included in the comments section of the schedule where required.
- 2.2. Trunk diameters were measured at 1.5m above ground level using a diameter tape. For trees that were offsite or inaccessible at the time of survey, stem diameters may be estimated. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter given may be an estimated average or an estimated maximum.
- 2.3. Tree heights were measured with a Hagloff clinometer or estimated in relation to those measured with the clinometer.
- 2.4. Crown clearance is interpreted as the height of lowest foliage from the crown above ground level.
- 2.5. Tree canopies were measured in four directions using a Leica Deisto laser measure. Where required dimensions were estimated by pacing. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar.
- 2.6. Categories are based on the Table 1 -Cascade chart for tree quality assessment from BS5837:2012 (see appendix 1 below). An assessment was made of each tree's health and condition, and an assessment of its life expectancy if its surroundings were to be unchanged.
- 2.7. Where dimensions were estimated the reason is given in the survey comments for that tree or group.
- 2.8. Where trees are located on neighbouring land dimensions are estimated.
- 2.9. Where stems or branches are obscured by ivy or other materials a full assessment of those parts was not possible.
- 2.10. No soil assessment was carried out at the time of survey.
- 2.11. Where trees were not plotted on the topographical survey their positions must be considered as estimated.
- 2.12. Information from this survey may be used for NHBC chapter 4.2 foundation calculations with the limitation that the survey was not carried out explicitly for that purpose. It is recommended that further advice is sought from the author prior to use of this report for this purpose.
- 2.13. This report provides tree survey data in accordance with BS5837:2012. The survey was not carried out for health and safety purposes.

3. Arboricultural Method Statement

3.1. Tree protection plan

- 3.1.1. The position for the tree protection fence is indicated on the Tree Protection Plan drawing number TGA.2671.TPP.002.
- 3.1.2. The Tree Protection Fence must be installed as follows:
- 1) The tree protection fence must be installed before any demolition, groundworks or construction take place.
 - 2) The tree protection fence must be installed in the position shown on the approved Tree Protection Plan, and not estimated.
 - 3) The position of the tree protection fence must be set out by a surveyor if required, with node points marked clearly on site for the fencing contractor to work to using wooden pegs.
 - 4) The tree protection fence must be installed as per the specification given below. Any variation to the specification must be approved by the council.
 - 5) The position of the tree protection fence is approved as part of the planning permission and must not be moved once installed.
 - 6) The tree protection fence must comprise of 'Heras' type wire mesh panels on boots, clamped together with two metal clamps between panels.
 - 7) Each panel must be secured (with galvanised wire or strong cable ties) to a scaffold pole upright driven firmly into the ground.
 - 8) All weather notices must be fixed to every second panel stating, 'Tree Protection Fence - Keep Out'
- 3.1.3. Once installed, the tree protection fence must remain in place whilst any demolition, groundworks and construction take place.
- 3.1.4. Once construction is finished, the tree protection fence may be removed to allow soft landscaping to take place.
- 3.1.5. The specification for the tree protection fence is given on the Tree Protection Plan. If an alternative specification for the fence is to be used, this must first be approved by the council.

3.2. Phasing of works in relation to tree protection

3.2.1. Works on site must be carried out in the following order:

- 1) Tree surgery
- 2) Tree protection fence installed
- 3) Ground protection installed
- 4) Demolition of existing garage (retain existing foundation)
- 5) Construction of new garage (on existing foundation)
- 6) Removal of tree protection fencing/ground protection
- 7) Soft landscaping

3.2.2. The above phasing must not be changed without approval from the project arboriculturist and Council.

3.3. Restrictions within tree protection areas

3.3.1. The purpose of the tree protection fence is to prevent damage to retained trees from following causes:

- Damage to the main trunk, branches and foliage
- Roots being severed as a result of excavation
- Root damage from soil compaction
- Chemical damage

3.3.2. The following restrictions therefore apply within the areas protected by the tree protection fence unless otherwise specified within this report:

- 1) No movement of vehicles or plant machinery
- 2) No excavation
- 3) No hand digging
- 4) No raising or lowering of levels for any reason
- 5) No storage of plant or materials
- 6) No fire lighting such that flames come within 5m of tree foliage.
- 7) No substances injurious to tree health to be used or stored, including fuels, oil, bitumen, cement washings, builders sand, concrete mixing and other chemicals
- 8) Care must also be taken with site operations outside of the fenced off areas to ensure that wide or tall loads, or plant with booms, jibs and counterweights etc. do not cause damage to tree canopies.

3.4. Site operations

- 3.4.1. Provisions will be required for site operations such as working access, materials storage, contractor parking, welfare facilities, temporary services/drainage etc.
- 3.4.2. Site operations must be designed to avoid the areas designated as tree protection, with none of the above provisions sited within RPAs of retained trees. Tree protection fence must not be moved to accommodate site operations.
- 3.4.3. If the requirement for working space or temporary construction access is unavoidable for any reason, any alterations to the tree protection plan must be approved by the project arboriculturist.

3.5. Ground Protection (adjacent to garage)

- 3.5.1. Within the hatched area indicated on the tree protection plan, ground protection must be used to prevent soil compaction, root damage, and other impacts caused by construction activity near the trees.
- 3.5.2. The following methodology will be used to provide ground protection for pedestrian movement within RPAs in the areas indicated on the Tree Protection Plan.
- 3.5.3. Where directly adjacent to proposed buildings, an additional layer of scaffolding will be installed just above ground level to form a suspended walkway (specification given on Tree Protection Plan). As an alternative ground protection boards can be used on top of a compressible layer such as woodchip to prevent soil compaction.
- 3.5.4. There is to be no-excavation within ground protection area whatsoever. This includes installation of services and associated utilities.

3.6. Ground Protection (existing hard surface)

- 3.6.1. In the hatched area indicated as 'Existing hard surface' on the tree protection plan reference TGA.2671.TPP.002, within the root protection areas of T7, T8 & T9, there is existing block paving driveway surface.
- 3.6.2. The existing driveway must be retained intact to act as ground protection during construction, rather than being removed during demolition.
- 3.6.3. If for any reason there is the requirement for vehicle movements on the driveway exceeding 3.5t (i.e. more than a transit type van), additional ground protection boards must be used as per the following specification.
- 3.6.4. Ground protection shall consist of interlocking heavy-duty ground protection boards (such as GroundGuards or similar), over rubber matting or sand to further distribute load and prevent damage to the block paving.

- 3.6.5. There is to be no-excavation within ground protection area whatsoever. This includes installation of services and associated utilities.

3.7. Tree surgery

- 3.7.1. It is proposed that the existing trees are crown lifted to 3m above the new driveway surface, and to 5m above ground level over the garage building such that there is a 2m clearance between the canopy and the roof. All cuts must be made to suitable growth points and without leaving stubs.
- 3.7.2. Any further tree surgery works required during the development must be approved by the Local Planning Authority before being carried out.
- 3.7.3. All work will be carried out in accordance with BS 3998:2010 Recommendations for Tree Work, industry best practice and in line with any works already agreed with the Council.
- 3.7.4. It is the sole responsibility of the instructed arboricultural contractor to ensure that correct health and safety planning for any proposed works is identified and managed prior to commencement of proposed works. All risks associated with the work should be identified by carry out a site-specific risk assessment and managed by the use of appropriate safe working procedures.
- 3.7.5. The statutory protection afforded by the Wildlife and Countryside Act and Countryside and Rights of Way Act must be adhered to. If further advice is required, particularly if bats are discovered during tree work, Natural England or a competent ecologist must be contacted.
- 3.7.6. According to the Arboricultural Association: When tree or vegetation clearance work has to be undertaken during the nesting season, a pre works survey needs to be carried out by a suitably competent person. As a general rule, it should be assumed that birds will be nesting in trees, and contactors have the responsibility to assess, record and confirm that any works carried out in the management of trees and other vegetation has not disturbed actively nesting birds.

3.8. Demolition of existing garage

- 3.8.1. The existing garage is to be demolished, but the foundation retained and reused for the new garage.
- 3.8.2. Demolition of the existing garage within the hatched area shown on the tree protection plan must be carried out so as to avoid damage to retained trees from following causes:
- Damage to the main trunks, branches and foliage
 - Roots being severed as a result of excavation
 - Root damage from soil compaction
 - Chemical damage
- 3.8.3. Stages for demolition within tree protection areas:
- 1) Tree protection must be installed prior to works being carried out.
 - 2) Plant machinery may be used to carry out the demolition, but to avoid soil compaction must not be sited within RPAs.
 - 3) Buildings to be folded in on themselves away from trees.
 - 4) Foundations and footings must be removed without causing root damage, pulling away from the direction of retained trees.
 - 5) Slab foundations can be lifted carefully by machinery if appropriate.
 - 6) Ground level below demolished building not to be lowered further.
 - 7) Clean topsoil may be used to reinstate levels where foundations or other features have been removed.
 - 8) Any exposed roots and surrounding newly exposed areas to be covered with up to 100mm of clean topsoil.

3.9. Construction of new garage

- 3.9.1. The existing foundation is to be retained and reused for construction of the new garage.
- 3.9.2. Construction must be carried out so as to avoid damage to retained trees from following causes:
- Damage to the main trunk, branches and foliage
 - Roots being severed as a result of excavation
 - Root damage from soil compaction
 - Chemical damage

3.10. Soft landscaping within RPA

3.10.1. All landscaping and associated ground preparation within exclusion zones will be carried out sensitively to ensure root damage is mitigated as much as is practicable.

3.10.2. Turfing

- 1) Remove tree protection fence to allow access to work area
- 2) No plant or other machinery to be used within tree protection area
- 3) Any existing vegetation to be removed using hand tools only
- 4) Prepare ground using hand tools only
- 5) If required import good quality top-soil to lay turf on using wheelbarrow, or plant located outside of protected area.
- 6) Import turves by hand in wheelbarrow
- 7) Lay turves as per recommended practice

3.10.3. Planting

- 1) Dig individual planting pits for each plant by hand (including hedging which must not be trench planted)
- 2) When digging holes for planting, no damage must occur to tree roots, with all roots to be protected and retained.
- 3) New trees/shrubs planted carefully by hand importing compost into the planting holes as required.
- 4) Any mulch to be imported and spread by hand.
- 5) No works will be carried out within any protected areas if the soil moisture is of a level likely to allow compaction to occur

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25 October 2024

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4. Tree Survey Schedule

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T1	Populus tremula (Aspen)	17(6)	460(1)	4, 4, 4, 2	M	20+	Unbalanced crown shape. Ivy on main stem.	B2
T2	Ulmus procera (English Elm)	8(1)	150(1)	2, 2, 1, 2	SM	<10	Limited life expectancy due to Dutch Elm Disease. 4.8 & 6.3m from corners of garage.	U
T3	Quercus robur (Common Oak)	15(3)	790(1)	3, 6, 6, 6	M	40+	7.5m from T4, 9m from corner of garage. Broken top with vertical crack at 10m.	B2
T4	Tilia X europaea (Common Lime)	15(1)	480(1)	6, 2, 6, 6	EM	40+		B2
T5	Quercus robur (Common Oak)	15(3)	760(1)	5.5, 5.5, 5.5, 5.5	M	40+	Ivy on main stem. Cavity in base to North.	B2
T6	Quercus robur (Common Oak)	15(3)	1020(1)	6.5, 5.5, 5.5, 4.5	M	40+	Ivy on main stem. Cavity in base to North.	A2
T7	Tilia X europaea (Common Lime)	17(1)	730(1)	4.5, 4.5, 4, 4.5	M	40+	Low canopy. Crown lift over new driveway to 4m as required.	B2

No.	Species	Ht (crown)	Dia (stems)	Crown spread (NESW)	Life stage	ERC	Comments & preliminary recommendations	BS Cat
T8	Tilia X europaea (Common Lime)	17(1)	580(1)	3, 3.5, 3.5, 4.5	M	40+	Surrounded at base by driveway and garage. Low canopy. Crown lift over new driveway to 4m.	B2
T9	Tilia X europaea (Common Lime)	17(1)	470(1)	3, 3, 3, 3	M	40+	Surrounded at base at North and west by driveway and garage. Low canopy. Crown lift over new driveway to 4m.	B2
T10	Tilia X europaea (Common Lime)	16(1)	430(1)	3, 3, 3, 3	M	40+		B2
T11	Tilia X europaea (Common Lime)	16(1)	450(1)	3.5, 3, 3, 3	M	40+		B2
T12	Tilia X europaea (Common Lime)	16(1)	340(1)	3, 3, 3, 3	M	40+		B2
T13	Tilia X europaea (Common Lime)	16(1)	350(1)	3, 3, 3, 3	M	40+		B2
T14	Aesculus hippocastanum (Horse Chestnut)	13(2)	410(1)	3, 3, 3, 3	M	<10	Moribund with little live foliage. Remove as required as part of site management.	U
T15	Tilia X europaea (Common Lime)	13(1)	560(1)	3, 4, 3, 3	M	40+		B2