



ARBORICULTURAL IMPACT ASSESSMENT	
Site:	Brook Farm, Longsight Road, Clayton-le-Dale, Lancashire, BB1 9EX
Survey Date:	8 March 2013
Report Date:	27 March 2013
Prepared By:	Phill Harris – Chartered Arboriculturist
Report Ref:	BTC451
Agent for Client:	Keith Fowler Partnership

Introduction and Rationale. Bowland Tree Consultancy Ltd was instructed to carry out an appraisal of the potential for the construction of a detached residential property with detached garage at the above site to impact upon trees and, in turn, to advise on appropriate protective measures during development and on facilitation pruning and/or felling works where identified as necessary. Further to this instruction I confirm that I visited the site on 8 March 2013 and carried out a survey of trees in accordance with BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations, and our disclaimer at page 5.

In this respect I set out a brief overview of my observations, findings and recommendations below, along with comments on any issues raised. I also enclose a Tree Survey Schedule (TSS) detailing specific tree related information and a Tree Impact Plan (TIP). The TIP shows the existing site under consideration with pertinent tree constraints detailed and an overlay of the proposed development with associated tree impacts indicated. The TIP is based upon a scaled electronic plan supplied by the project agents, the Keith Fowler Partnership and, for the purpose of this report, I presume the details of the plan to be accurate. However, I would emphasise that the plan provided did not include any tree stem locations, and the trees were subsequently plotted by the arboricultural surveyor by a combination of GPS and triangulation from existing site features. As such, their locations cannot therefore be considered to be exact, and this should be taken into consideration when planning for tree retention within the context of the design appraisal.

The Site and the Proposal. The site under consideration, Brook Farm, is located in a suburban/rural area to the north-west of the village of Clayton le Dale, Lancashire, within the administrative boundaries of Ribble Valley Borough Council. Brook Farm itself consists of the farmhouse to the centre, a converted barn to the east, and various outbuildings and areas of hard-standing to the north and west (see Figs. 1 & 2, below).



Fig. 1: Existing storage building (right of centre), looking west, with Ash T2 (centre) sited between a gas tank and the car-port



Fig. 2: Kennel buildings inside the site, looking west, with Oak trees T6 (right) and T7 (left) visible to rear

The area where development is proposed is located to the west of the farmhouse and currently houses several kennel buildings, a storage building, a stone car-port and various areas of concrete hard-standing (see Figs. 1 & 2, above). Brook Farm itself is bordered to the south by the high usage A59 Longsight Road and on all other sides by open fields.

I am informed by the project agents that the proposal is to demolish all the existing outbuildings but the storage building to the north-east, and to then construct a detached two-storey property with a detached

garage, associated hard-standing and outdoor amenity space, as detailed on the appended TIP. Vehicular access is proposed via the existing ingress from Longsight Road to the wider Brook Farm site's south-east, subsequently accessing the site itself to the north-east, as detailed on the TIP.

The Trees. 11 individual trees (prefixed 'T'), two groups of trees (prefixed 'G') and two hedges (prefixed 'H') were surveyed in respect of the proposal and its associated potential to impact upon said vegetation, and the respective constraints of these items are plotted on the TIP attached. I have not been informed if the site is within a Conservation Area (CA) or if any of the trees at the site are the subject of a Tree Preservation Order (TPO), and it is therefore important to contact the planning office at Ribble Valley Borough Council to check for the presence of any such statutory protection prior to scheduling or carrying out any tree works.

The surveyed trees consist of various deciduous and evergreen broadleaf and evergreen coniferous species including Oak, Leyland Cypress and Holly. They are in the young to mature age range and stand at heights of up to 15 metres, have maximum diametrical crown spreads of up to 14.5 metres and stem diameters of up to 600 millimetres. Tree dimensions and other pertinent information such as structural defects and physiological deficiencies, along with recommendations for remedial management works, are included in the TSS attached.

The trees were appraised in accordance with BS5837:2012 Table 1 (appended) and, as detailed in Table A (below), one of the trees was allocated a high retention value of 'A', one of the trees was allocated a moderate retention value of 'B', and seven of the trees, both the groups and both the hedges were allocated a low retention value of 'C'. In addition, two trees were classed as being unsuitable for retention (i.e. 'U' category). With regard to Table A it should be noted that tree quality and value is categorised within the existing context without taking into account any site development related issues, but that the recommendations for works take the proposal into consideration where there are clearly definable potential impacts upon trees.

Table A: BS5837-2012 Retention Categories of the Surveyed Trees

	Retention Categories	Tree Numbers	Totals
Trees of a high quality that should be afforded appropriate consideration in the context of development	'A'	T6	1 Tree
Trees of a moderate quality that should be afforded appropriate consideration in the context of development	'B'	T7	1 Tree
Trees of a low quality that should be afforded appropriate consideration in the context of development	'C'	T1, T3, T4, T8, T9, T10, T11, G1, G2, H1, H2	7 Trees 2 Groups 2 Hedges
Trees unsuitable for retention	'U'	T2, T5	2 Trees
			= 11 Trees, 2 Groups & 2 Hedges in Total

The Proposal's Projected Impacts on Trees. As detailed in Table B (below) and on the TIP, implementation of the proposed development will require the removal of seven individual 'C' category (i.e. low quality) trees and two 'C' category groups. Nonetheless, the loss of these trees is projected to have a negligible impact upon the visual amenity of both the immediate locality and the wider landscape. As also detailed in Table B two of the trees are considered unsuitable for retention and should therefore be removed in accordance with prudent arboricultural management regardless of the proposals.

Table B: Arboricultural Impacts of Proposed Development & Other Tree Removal Proposals

	Ret. Cats.	Removals necessary to implement development	Removals suggested for non-development related reasons	Total number of tree removals
Trees of a high quality that should be afforded appropriate consideration in the context of development	'A'	-	-	-
Trees of a moderate quality that should be afforded appropriate consideration in the context of development	'B'	-	-	-
Trees of a low quality that should be afforded appropriate consideration in the context of development	'C'	T1, T3, T4, T8, T9, T10, T11, G1, G2	-	7 Trees 2 Groups
Trees that should be removed for sound management reasons regardless of site plans	'U'	-	T2, T5	2 Trees
Totals		7 Trees 2 Groups	2 Trees	= 9 Trees & 2 Groups in Total

Mitigation for Projected Tree Losses. As indicated on the TIP the provision of new tree planting in mitigation for the necessary removals is proposed to site boundaries. In consideration of the site's rural edge location and the character of the surrounding landscape I am of the opinion that it would be most suitable to

plant trees locally native Oak trees. The locations, numbers and species of any such newly planted trees should be agreed with the LPA, and their provision, initial maintenance and management conditioned to a planning approval as part of a site landscaping scheme which can be conditioned to a planning approval. Overall therefore, in consideration of the site's capacity to accommodate a number of newly planted trees as part of the development's landscaping scheme, it is projected that the necessary tree removals, all of which are low quality, can be adequately mitigated for over the long-term.

Tree Retention Recommendations. Adequate protection of retained tree Root Protection Areas (RPAs) during construction is essential if their long-term viability is to be assured. RPAs, which are calculated through a method provided in BS5837:2012, are ground areas around trees that are to be kept free from major disturbance throughout development through the installation of temporary protective fencing to form a Construction Exclusion Zone. The TSS lists the RPAs of the individually surveyed trees as areas in square metres and as radial distances in metres from stem centres, whilst the RPAs are indicated in magenta on the TIP. A Temporary Protective Fencing Specification is attached which gives details of the type, purpose and construction of the temporary protective fencing that should be used.

In respect of retained tree protection BS5837:2012 recommends that, where considered expedient, an Arboricultural Method Statement and Tree Protection Plan be prepared detailing special mitigation construction. Essentially, the Arboricultural Method Statement and Tree Protection Plan describe the procedures, working methods and protective measures to be used in relation to retained trees in order to ensure that they are adequately protected during the construction process. In respect of the site under consideration it is strongly recommended that an Arboricultural Method Statement be produced in order to ensure adequate protection of Oak trees T6 and T7 throughout development and the provision of subsequent ground improvement works within the trees' root-zones at the completion of construction. The production of and adherence to an Arboricultural Method Statement and Tree Protection Plan should therefore be conditioned as part of any subsequent planning approval.

In addition to the points raised herein I would also emphasise the importance of ensuring that all relevant recommendations included under the General Recommendations section at page 4 be followed accordingly.

Summary and Conclusions. The construction of a detached residential property and garage is proposed at the site under consideration. As such, 11 individual trees, two groups of trees and two hedges were surveyed in respect of the proposal and its associated potential to impact upon said vegetation. One tree has a high retention value, one tree has a moderate retention value, seven trees, the two groups and the two hedges have low retention values, and two trees are considered unsuitable for retention.

My appraisal determines that implementation of the proposed development will require the removal of seven low quality trees and two low quality groups, but that the removal of the trees in question will have a negligible impact upon the visual amenity of both the immediate locality and the wider landscape, and that their loss can be adequately mitigated for through new native tree planting, the provision of which can be conditioned to a planning approval as part of a landscaping scheme.

I also conclude that the existing moderate and high quality trees that are to be retained can be adequately protected throughout the development in accordance with BS5837:2012, provided that various recommendations made herein are followed, in particular the preparation and implementation of an Arboricultural Method Statement, which can also be conditioned to a planning approval.

Phill Harris MSc BSc(Hons) HND CEnv MArborA MICFor
Chartered Arboriculturist

 Institute of
Chartered Foresters
Registered Consultant



Enclosures: Tree Survey Schedule
BS5837:2012 Table 1
Temporary Protective Fencing Specification
Tree Impact Plan

GENERAL RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations. Any general management pruning works for retained trees that are stated to be non-development related, as detailed in the TSS, are recommended in accordance with prudent arboricultural management and should therefore be carried out regardless of any site plans and potential changes in land usage. All tree works should be carried out in accordance with BS3998:2010 - Tree Work – Recommendations.

Tree Work Related Consents. No tree pruning or removal works should commence on site until necessary consents have been obtained from the LPA as part of a planning approval or in respect of any statutory tree protection.

Protected Species. Hedges, climbing plants, shrubs and trees should be inspected for birds' nests prior to any clipping, pruning or removal works, and any work likely to destroy or disturb active nests should be avoided until the young have fledged. All personnel carrying out tree works should also be vigilant of the possibility that roosting bats may be present in trees and, if any bat roosts are identified, then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigate prior to works continuing.

Arboricultural Contractors. All tree works should be carried out by suitably qualified and experienced arboricultural contractors carrying appropriate public liability insurance cover and be implemented to the minimum current CE and UK industry standards and in accordance with industry codes of practice. Only certificated personnel should, in accordance with The Control of Pesticides Regulations, apply any pesticides.

Contractors and Subsequently Identified Tree Defects. Contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

New Tree Planting. Where trees are removed in order to facilitate construction then new tree planting proposals should be included as part of the landscape design plan for the site. All tree planting should be carried out in accordance with BS4428:1989 - Code of Practice for General Landscape Operations, BS3936-1:1992, Nursery Stock – Part 1: Specification for Trees and Shrubs and BS4043:1989, Transplanting Root-Balled Trees where applicable.

Retained Tree Management. Any tree risk management appraisal and subsequent recommendations made in this report were based on observations and site circumstances at the time of my survey. Trees are dynamic living organisms whose structure is constantly changing and even those evidently in good condition can succumb to damage and/or stress. In this respect I would note that, under the Occupiers' Liability Act (1957 & 1984), site occupants have a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land they occupy. It is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey their trees in order to identify any risk of harm to persons or damage to property that they may present and, where unacceptable risks are identified, taking suitable remedial action to negate those risks.

DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only. Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potential risk to persons and/or property has been identified during our survey or, if applicable, where permissible works are required to implement a proposed development. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The potential influence of trees upon buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The advice of a structural engineer should be sought with regard to appropriate foundation depths for new buildings with reference to NHBC Standards Chapter 4.2 (NHBC, 2008).

Copyright & Non-Disclosure Notice: The content and layout of this report are subject to copyright owned by Bowland Tree Consultancy Ltd, save to the extent that copyright has been legally assigned to us by another party or is used by Bowland Tree Consultancy Ltd under license. This report may not be copied or used without our prior written agreement for any purpose other than those indicated.

Third Parties: Any disclosure of this document to a third party is subject to this disclaimer. The report was prepared by Bowland Tree Consultancy Ltd at the instruction of and for use by our client, as named. This report does not in any way constitute advice to any third party who is able to access it by any means. Bowland Tree Consultancy Ltd excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage arising from reliance on the contents of this report.

TREE SURVEY SCHEDULE & BS5837:2012 'TABLE 1'



TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT & PROTECTION APPRAISAL							
Site:	Brook Farm, Longsight Road, Clayton-le-Dale, Lancashire, BB1 9EX						
Client:	Mr & Mrs Church						

Surveyor:	Phill Harris – Chartered Arboriculturist
Survey Date:	8 March 2013
Job Reference:	BTC451

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)	
T1	Leyland Cypress	4	140	N E S W 1	1 1.5 1.5 1	1-SE 1	Y	G	▪ Crown previously heavily reduced.	▪ Remove in order to construct development as proposed. ▪ Grub out stump.	10+	C1	9	1.68
T2	Ash	11	310	N E S W 4	4 4 4 4	3-NE 2.5	SM	G	▪ Stem base almost in contact with stone garage wall of garage and is subsequently projected to cause significant structural displacement.	▪ Remove due to projected structural damage. ▪ Grub out stump.	<10	U	43	3.72
T3	Sargent Cherry	9	2x190 1x170 1x110 (ms)	N E S W 6	6 5.5 6 1.5	N/A 2	M	M	▪ Multi-stemmed from ground level.	▪ Remove in order to construct development as proposed. ▪ Grub out stump.	10+	C1	51	4.04
T4	Hawthorn	7	2x180 1x120 1x110 (ms)	N E S W 5	2.5 1 5 5	N/A 0.5	M	M	▪ Growing in built up area of stones. ▪ Multi-stemmed from ground level.	▪ Remove in order to construct development as proposed. ▪ Grub out stump.	10+	C1	41	3.63
T5	Apple	6	240	N E S W 2	2.5 4 4 2	N/A 2	EM	P	▪ Severe stem lean to south, evidently resultant of past partial rootplate failure. ▪ Extensive bark damage to lower stem. ▪ Crown showing signs of a substantial reduction in vitality.	▪ Remove in order to construct development as proposed. ▪ Grub out stump.	<10	U	26	2.88
T6	Common Oak	15	600	N E S W 6	6 8.5 7 6	4-E 2	EM	M	▪ Moderate amount of deadwood to approximately 30mm diameter. ▪ Large amount of adventitious growth to branches. ▪ Outhouse and hard-surface is within tree's Root Protection Area (RPA).	▪ Retain in context of proposed development. ▪ Ensure protection of RPA throughout construction. ▪ Prepare Arboricultural Method Statement for removal of structure(s) and subsequent ground improvement works within RPA.	40+	A1	163	7.2

Headings and Abbreviations:

No.	Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species:	Common name
Height:	In metres, to half nearest metre – where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.:	Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread:	Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Branch & Canopy Clearances:	Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point – to inform on crown to height ratio, potential for shading, etc.
Life Stage:	Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC:	Physiological Condition - a measure of the tree(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments:	Comments relating to the tree(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.
Management Recommendations:	Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related
ERC:	Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
Cat. Grade:	Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
RPA m²:	Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA Radius (m):	Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
# (Estimated Dimensions):	Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
	Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a “#” symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT & PROTECTION APPRAISAL						
Site:	Brook Farm, Longsight Road, Clayton-le-Dale, Lancashire, BB1 9EX					
Client:	Mr & Mrs Church					

Surveyor:	Phill Harris – Chartered Arboriculturist
Survey Date:	8 March 2013
Job Reference:	BTC451

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T7	Common Oak	10.5	350#	N E S W 5 5# 5 5	3.5-E 3	SM	G	- Not inspected in detail as sited between wall of outhouse and overgrown hedge. - Outhouse is within tree's RPA.	- Retain in context of proposed development. - Ensure protection of RPA throughout construction. - Prune east side of crown back by approximately 1.5m to obtain sufficient clearances from building. - Prepare Arboricultural Method Statement for removal of structure(s) and subsequent ground improvement works within RPA.	40+	B1/2	55	4.2
T8	Leyland Cypress	6.5	230	N E S W 2 2 2 2	N/A 0.5	SM	G	Several included bark unions of branches.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1	24	2.76
T9	Willow	7	170	N E S W 2 2 2 2	N/A 4.5	Y	M	Moderate mid to lower stem curvature.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1	13	2.04
T10	Cherry	5	4x80 (ms)	N E S W 2 1.5 1.5 1.5	N/A 2	Y	M	Two stems arise at ground level, both of which bifurcate at a height of approximately 1m.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1	9	1.7
T11	Common Oak	5.5	130	N E S W 2.5 2 2 2	1-N 1.5	Y	G	No visible structural defects.	- Remove in order to construct development as proposed. - Grub out stump.	40+	C1	8	1.56
G1	approx. 6no. Leyland Cypress	≤ 6.5	≤ 250	N E S W ≤ 2 ≤ 2 ≤ 2 ≤ 2	N/A ≥ 0.5	Y	M	Very closely spaced group.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1/2	≤ 28	≤ 3
G2	3no. Leyland Cypress	≤ 6	≤ 190	N E S W ≤ 2 ≤ 2 ≤ 2 ≤ 2	N/A ≥ 1	Y	M	- Loose group. - Most have included bark unions of branches.	- Remove in order to construct development as proposed. - Grub out stump.	10+	C1/2	≤ 16	≤ 2.28
H1	Hawthorn, Elder, Holly	≤ 7	≤ 100	≤ 6 wide	N/A ≥ 0	SM	G	- Overgrown hedge along western boundary. - Mainly Hawthorn with smaller elements of Elder and Holly. - Several spaces to south.	- Retain in context of proposed development. - Ensure protection throughout construction. - Lay existing hedge. - Infill plant spaces with Hawthorn.	40+	C1/2	N/A	≤ 1.2
H2	Hawthorn, Hazel, Sycamore, Elder, Holly, etc.	≤ 2.5	≤ 2x100 (ms)	≤ 3 wide	N/A ≥ 0	M	G	- Maintained hedge along road frontage. - Mainly Hawthorn with smaller elements of Elder and Holly.	- Retain in context of proposed development. - Ensure protection throughout construction.	40+	C1/2	N/A	≤ 1.7

BS5837:2012 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 BS5837:2012 paragraph 4.5.7.</i>			Red
	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)	Green
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	Blue
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	Grey

- TEMPORARY PROTECTIVE FENCING SPECIFICATION -

Construction Exclusion Zones (CEZs), enclosed by **Temporary Protective Fencing**, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:

1. be retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area defined on the Tree Protection Plan (TPP);
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties; and
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

Temporary Protective Fencing Construction

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per 3 to 5 below.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per 4 to 5 below.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist shall inspect the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

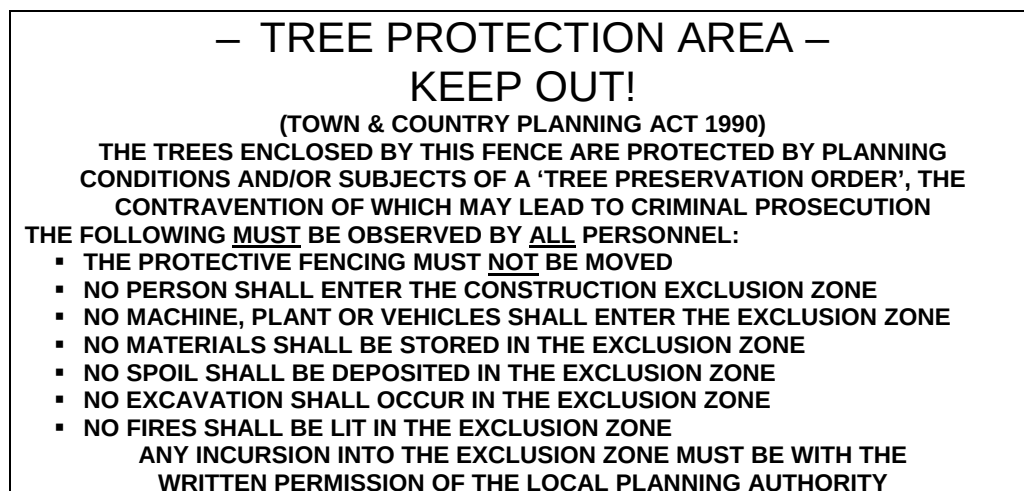


Figure 2: BS5837:2012 Default specification for protective barrier

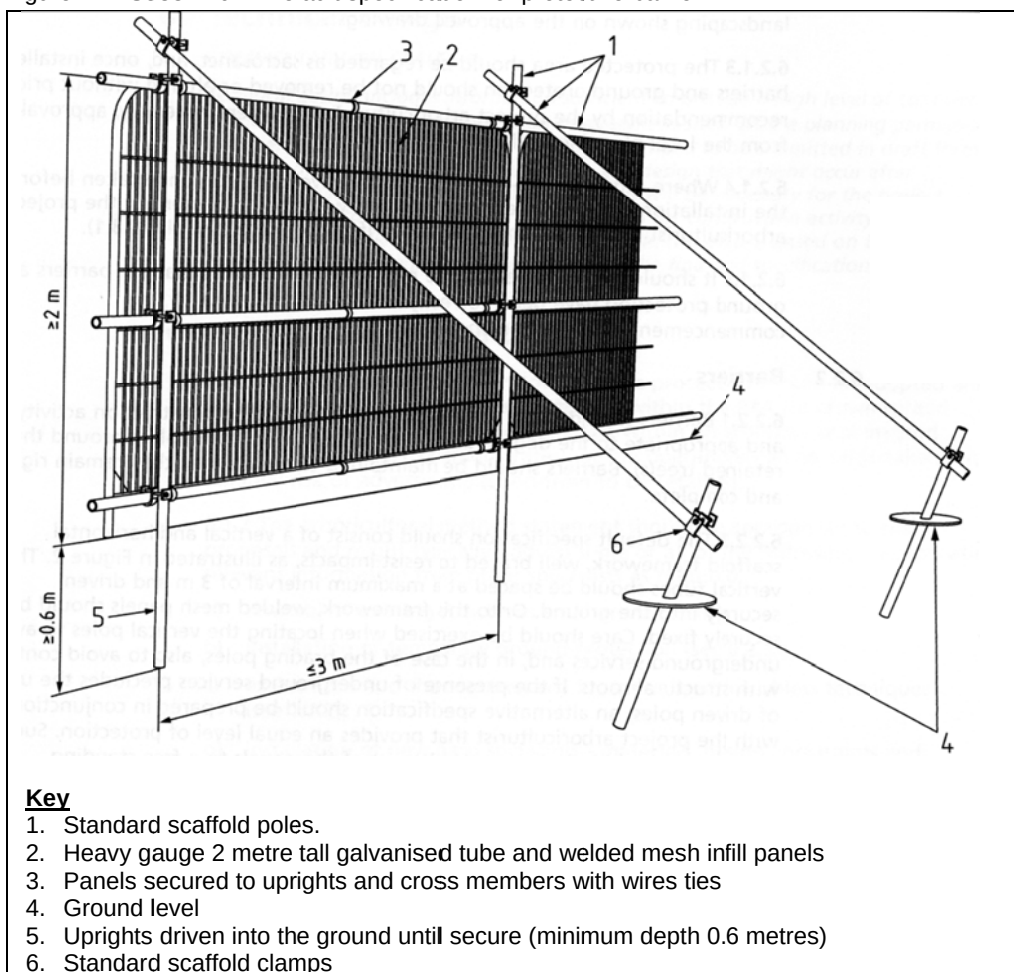
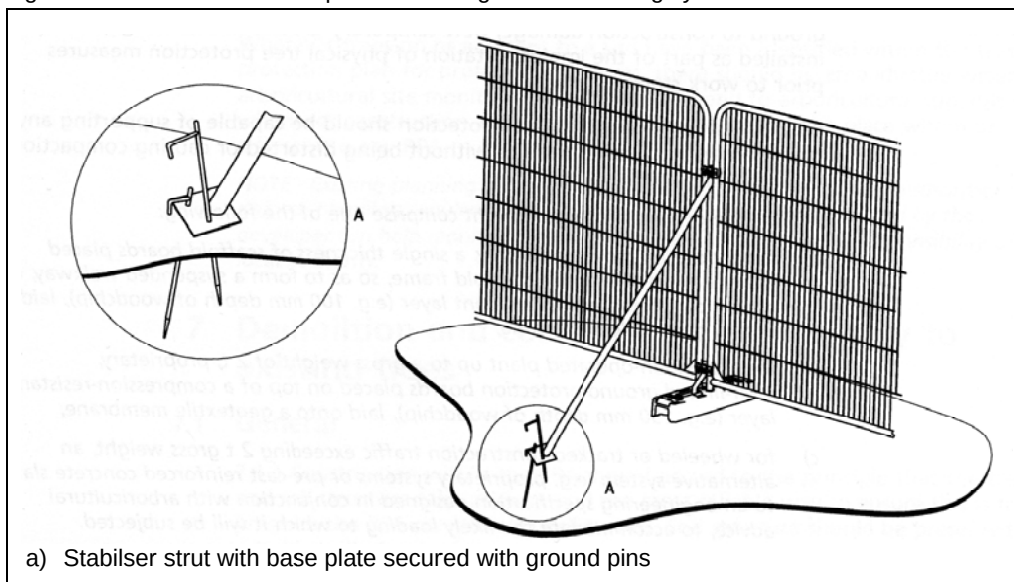
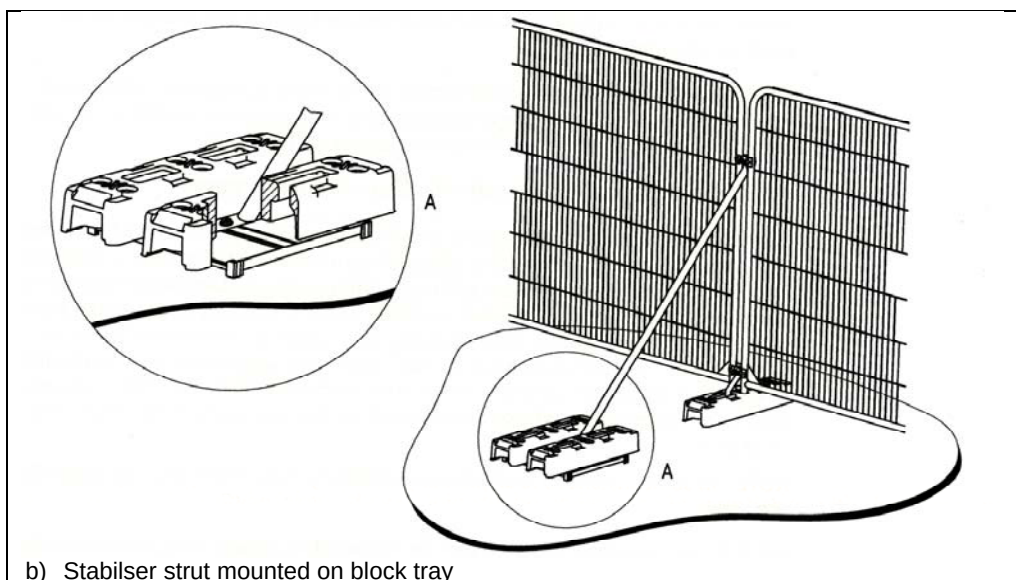


Figure 3: BS5837:2012 Examples of above-ground stabilising systems





b) Stabiliser strut mounted on block tray

