



ARBORICULTURAL METHOD STATEMENT

16 Park Crescent, Emsworth

-prepared on behalf of Mr D Fisher –

The Granary, White Chimney Row, Westbourne PO10 8RS

mob: 07875 520881 - email: bernieharverson@gmail.com - VAT Reg No 881 5056 16

Section	Subject Heading
1	INTRODUCTION & CLIENTS BRIEF
2	DOCUMENT DISCLOSURE STATEMENT
3	TREE SURVEY & ROOT PROTECTION SCHEDULE
4	IMPACT ASSESSMENT & TREE PROTECTION MEASURES RECOMMENDED
5	RECOMMENDED TREE WORK
6	METHOD STATEMENT
7	MONITORING & SUPERVISION
8	CONCLUSIONS

<u>Appendices</u>	<u>Subject</u>
BH1	Figure 1- Flow Diagram from BS5837 + Tree Survey Notes
BH2	Tree Survey Plan BJH 01 & Root Constraints Plan – BJH 02
BH3	Tree Retention & Removals Plan BJH 03 & Tree Protection Plan – BJH 04 + BS5837 – Figure 2
BH4	Qualifications & Experience

1.0 INTRODUCTION & CLIENTS BRIEF

- 1.1 My clients are **Mr & Mrs D Fisher** who own the property at **16 Park Crescent, Emsworth**
- 1.2 They wish to redevelop part of the existing building by adding an extension to the north side.
- 1.3 There are off site trees which will need to be catered for in this process as they are within influencing distance of the project.
- 1.4 I have been commissioned to prepare a report to satisfy the arboricultural aspects of this project to meet planning requirements.
- 1.5 My work is to be compiled in accordance with the recommendations contained within BS5837:2012.

2.0 DOCUMENT DISCLOSURE STATEMENT

I have been provided with a copy of the Planning Layout drawing as prepared by **BESPOKE Architects**

Ref : **Block & Location Plan – 19.133 – Drawing : P03C – 1:200 @A3 – 07.02.20**

- This plan has been provided to me for the purposes of my work and I rely totally on its accuracy in terms of tree location; applying crown spreads and setting out protective fencing.

3.0 TREE SURVEY & ROOT PROTECTION SCHEDULES & IMPACT ASSESSMENT

- 3.1 I visited the site on **18th December 2019** and carried out a tree survey exercise in accordance with BS5837:2012 recommendations on those trees which are closest to the areas of proposed redevelopment (see explanatory tree survey notes [at appendix BH1](#)).

Tree No.	Species	Ht m	Diam mm	Brch Sprd m	GC m	LS	Comments	Preliminary Management Recommendations	Rem Con yrs	Cat
1	Pedunculate Oak <i>Quercus robur</i> <i>TPO'd tree</i> <i>(TPO1300)</i>	20	710	N 7 E 8 S 4 W 7	3	M	Off site tree—crown lifted to 3m in the past and old wounds have occluded-previously heavily topped out-flatter pruned on south side where it overhangs the boundary line	No works required at this time	>40	B1
2	Common Lime <i>Tilia europaea</i>	14	440 200	N 4.5 E 4.5 S 4 W 3.5	2	SM	Off site tree—suppressed by the Oak- previously heavily topped out-flatter pruned on south side where it overhangs the boundary line—subsidiary trunk to south side of main trunk-poor quality tree that cannot reach its potential at this location	No works required at this time	20-30	C1
3	Ornamental Thorn <i>Crataegus spp</i> <i>TPO'd tree</i> <i>(TPO1300)</i>	8	200	N 5 E 7 S 2 W 3	0	M	Off site tree –rootplate lifted and re-settled over time-significant trunk lean acutely to the northeast-low branch overhang of the access drives to the north side	No works required at this time	20-30	C1

3.2 A Tree Root Protection Schedule has been prepared in accordance with BS5837:2012 recommendations (see Plans BJH 01 & 02 at [appendix BH2](#))

Tree No.	Tree Species	Cat	Diam mm	BS5837:2012 Table D1 Radial Protect. Zone m	BS5837:2012 Table D1 Root Protect. Area m ²	Is An Offset Required To Cater For Existing Rooting Pattern Restrictions
1	Pedunculate Oak <i>Quercus robur</i> <i>TPO'd tree</i> <i>(TPO1300)</i>	B1	710	8.5	228	NO – fairly free rooting to all directions
2	Common Lime <i>Tilia europaea</i>	C1	440 200	5.8	106	NO – fairly free rooting to all directions
3	Ornamental Thorn <i>Crataegus spp</i> <i>TPO'd tree</i> <i>(TPO1300)</i>	C1	200	2.4	18	NO – fairly free rooting to all directions

4.0 IMPACT ASSESSMENT & TREE PROTECTION MEASURES RECOMMENDED

4.1 The finalised planning layout drawing has been provided to me and an assessment made as to the viability of retaining trees as part of this layout in order that they meet the RPA requirements of BS5837 - the data is presented here in tabular format:-

Key: **NO-RSAM** = Remove for sound arboricultural management reasons **NO-RTFD** = Remove to facilitate development **UF** = under footprint of proposed development

YES = Yes can be retained and fully protected

YES (1) = Yes can be retained subject to mitigation measures being applied

Tree Nos	Species	Cat	Stem Diam mm	BS5837:2012 Radial Protection Area m	BS5837:2012 Table D1 Root Protect. Area m ²	Distance from Site Features (see key above)	Can Trees Be Retained
1	Pedunculate Oak <i>Quercus robur</i> <i>TPO'd tree</i> (TPO1300)	B1	710	8.5	228	6.5m to new extension	YES (1)
2	Common Lime <i>Tilia europaea</i>	C1	440 200	5.8	106	6.2m to new extension	YES (1)
3	Ornamental Thorn <i>Crataegus spp</i> <i>TPO'd tree</i> (TPO1300)	C1	200	2.4	18	7.5m to new extension	YES

4.2 **Summary**

	YES Can be retained and fully protected in accordance with BS5837 recommendations - see Tree Protection Plan BJH.03/04 at appendix BH3	YES (1) Can be retained and protected in accordance with BS5837 recommendations (see Tree Protection Plan BJH.03/04 at appendix BH3) - subject to adherence to the methodology prescribed in this report – see Section 6 for full details.	NO-RTFD Recommended for removal in order to facilitate development proposals	NO-RSAM Recommended for removal on sound arboricultural management grounds [health and safety grounds] regardless of any redevelopment proposals
A	-	-	-	-
B	-	1 Oak	-	-
C	3 Hawthorn	2 Lime	-	-
U	-	-	-	-

5.0 **RECOMMENDED TREE WORKS**

No	Species	Tree Works Recommended
1	Pedunculate Oak <i>Quercus robur</i> <i>TPO'd tree</i> (TPO1300)	- Off site tree – not under clients direct control - Has been crown lifted and reduced and reshaped on the south side in the past so there is adequate ground clearance at present
2	Common Lime <i>Tilia europaea</i>	- Off site tree – not under clients direct control - Has been crown lifted and reduced and reshaped on the south side in the past so there is adequate ground clearance at present
3	Ornamental Thorn <i>Crataegus spp</i> <i>TPO'd tree</i> (TPO1300)	- Off site tree – not under clients direct control - Has been crown lifted and reduced and reshaped on the south side in the past so there is adequate ground clearance at present

6.0 METHOD STATEMENT

Generic

- 6.1 All of the recommended tree works should be undertaken by an approved and experienced tree contractor prior to any construction contractors commencing works on site. ***None required on this project.***
- 6.2 Erect the protective fencing as specified and shown on the **Tree Protection Plan BJH03/04** at [appendix BH3](#). Barriers are to be ‘Fit For Purpose’ to exclude construction activity and must be maintained to ensure that they remain rigid and complete and in the original setting out positions. These checks will need to be incorporated into a schedule of site monitoring visits to be agreed with the clients subject to phased development operations and subsequently copies of these site visit reports will need to be copied in to the Council.
- 6.3 A copy of the Tree Protection Plan is to be pinned up in the offices/mess hut on site for all site staff to see. The area within the fenced off exclusion zone is to be regarded as **sacrosanct** and the fencing shall not be taken down or relocated at any time without the prior written approval of the monitoring arboriculturist or local authority tree officer, unless this has already been agreed as part of the planning application consent process and is detailed in writing and shown on a plan.

The following prohibitions shall apply within the area enclosed by the Tree Protection Fencing [**Construction Exclusion Zone**] :-

- **No** mechanical digging or scraping once the initial ground cover vegetation has been cleared and the site fenced off.
- **No** storage of plant, equipment or materials
- **No** vehicular or plant access
- **No** fire lighting
- **No** handling, discharge or spillage of any chemical substance, including cement washings
- **No** action likely to cause localised water-logging
- **No** change in ground levels

- 6.4 All site works storage areas and compounds/welfare units/toilet blocks and any mixing areas are to be located outside of and well clear of retained tree RPA's.
- 6.5 All Utility Service connections are to be located outside of tree RPA's and there is adequate space on this site to ensure that retained trees are not placed under pressure by this process.

Site Specific

6.6 Tree 1 Oak

- Works will be taking place marginally within the RPA of T1 Oak so there will be a requirement for mitigation measures to be applied in order to comply with BS5837 recommendations and to ensure that the tree survives the development in a safe and healthy condition.

Piled Foundations

- Standard trench footings cannot be applied here as this would cut through the root system of this tree causing unacceptable levels of damage.
- A Structural Engineer will need to devise an augered Pile and beam foundation design which will cause the minimum level of root disruption.
- The piling rig will need to work from inside the site across protected ground and the use of a mini piling rig [[see example at appendix BH3](#)] would be appropriate here. There is a significant ground clearance and separation from tree crowns to accommodate this.
- The locations designated to receive augered piles will first need to be probed with a hand auger to make sure that they are free of major roots – ***IF roots are encountered then the design must have the flexibility to allow for moving the pile location to one side or the other of the roots to avoid direct contact with same.***
- As far as possible the existing soil levels will need to be maintained and the Pile Caps formed above ground although the removal of the existing structures will allow some flexibility here and it may be possible to sink them in to the ground to the depth of existing sub-base materials.
- There will be reinforced beams used to link between the pile caps and the suspended floor will then provide the base for constructing the extension above this.

Demolition of Existing Structures

- The existing conservatory and sundry walls and an outbuilding will first need to be removed to accommodate the new design and layout.
- Machinery can be used for this purpose, but it must work over adequate ground protection in accordance with BS5837 recommendations – Section 6.2.3.3. The use of machinery must cease once open ground is exposed below the sub-base layer and no further excavation [by machine or by hand] would be permitted below this level.
- The existing conservatory and sundry walls and an outbuilding will need to be pulled in onto their own footprint and all debris and arisings removed promptly and safely and legally disposed of.

Ground Protection

- Due to cramped space requirements for working room there will be no opportunity to erect protection fencing at the specified distances for T1 & T2 so the laying of adequate ground protection will be essential and must be in place before any demolition or construction work takes place on site.

6.7 Tree 2 Lime

- Works will not be taking place within the RPA of T2 Lime but do immediately abut same and thus there will be a requirement for mitigation measures to be applied in order to comply with BS5837 recommendations and to ensure that the tree survives the development in a safe and healthy condition.
- Due to cramped space requirements for working room there will be no opportunity to erect protection fencing at the specified distances for T2 so the laying of adequate ground protection will be essential and must be in place before any demolition or construction work takes place on site.

7.0 SITE MONITORING & SUPERVISION

BS5837 recommends that wherever trees on or adjacent to a site have been identified on the Tree Protection Plan as requiring special protection measures, there should be an auditable system of arboricultural site monitoring. This should extend to direct arboricultural monitoring whenever demolition/construction and development activity is to take place within or adjacent to any RPA.

- 7.1 A Pre-commencement site meeting is to take place between the development teams arboricultural consultant and the site manager and client representative where the protective fencing will be inspected to verify that it is 'Fit For Purpose' and has been erected as shown on the **Tree Protection Plan**.
- 7.2 There would be a requirement for a further site visit by the Arboricultural Expert when the excavation work to form the Piles is being carried out.
- 7.3 Lines of communication will need to be established with the Site Manager and a Contact Directory compiled and issued to all development team members so that in the event that an incident occurs involving the retained trees that requires urgent advice and guidance from the project Arboricultural Expert this can be easily organised.

- 7.4 The details of the PCSM works will be photographed by the Arb Expert and the following reporting procedure will be adopted. This is an example of the format for the **Site Monitoring Schedule** that would be prepared. :-

Schedule Of Site Monitoring & Supervision for – 16 Park Crescent, Emsworth

- In accordance with the Arboricultural Method Statement Report - 1102.bjh.Feb20 & Tree Protection Plan - BJH 03/04

Date of Inspection	Item	In Attendance	Notes/Observations From Inspection	Details Of Any Follow Up Action Required
tba	Pre-Commencement Meeting	Local Authority Tree Officer (to be invited to attend) Project Arb Consultant & Site Construction Manager	A joint site inspection was conducted and agreement reached that the protection measures are in place and that everyone understands their responsibilities in respect of protecting the trees.	
tba	Excavation Work for Piling Construction	Project Arb Consultant & Site Construction Manager	A joint site inspection was conducted and agreement reached that the root runs have been respected and not damaged during excavation works.	

8.0 CONCLUSIONS

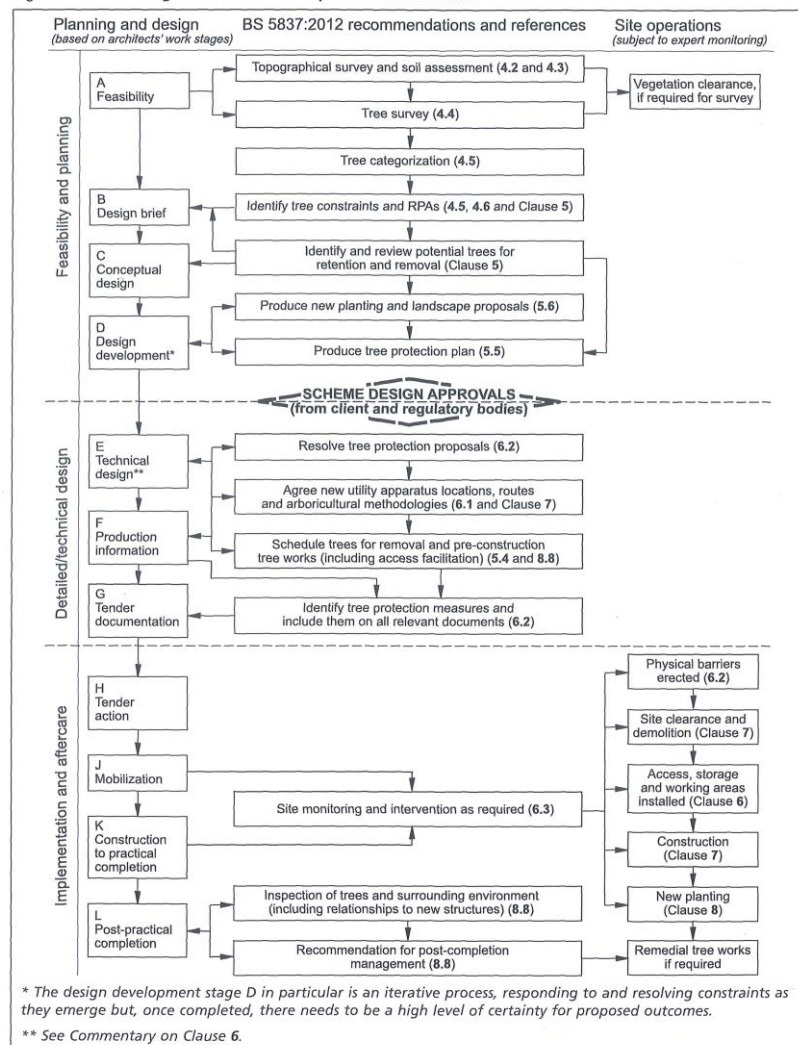
- There will not be a requirement to remove any existing trees in order to facilitate this layout.
- Applying the mitigation measures proposed in this report will ensure compliance with BS5837 recommendations.
- Provided that the above methodology is strictly adhered to and in the manner set out in this report then I would not foresee any detrimental impact taking place that might undermine the health and stability or visual amenity value of those trees shown for retention on this site.



BH 1

Figure 1 - Flow Diagram
& Tree Survey Notes

Figure 1 The design and construction process and tree care



TREE SURVEY NOTES

These Tree Survey Notes have been prepared in accordance with the recommendations of **British Standard 5837:2012** and they define the criteria for pre –development tree surveys.

- Each tree/group/hedge/shelterbelt/woodland has been allocated a unique number (**No.**), where specifically requested and appropriate fees are agreed small durable numbered metal tags can be applied to each tree/group surveyed.
- The tree species (**Species**) is provided in both English and Latin name formats.
- Height assessments (**Ht**) are estimated in metres. This will be adequate for the majority of cases, but where accurate heights become a critical issue it may be necessary to return to site, as a separately commissioned exercise, to collect accurate measurements with the aid of optical instruments.
- Trunk/stem diameters (**Diam**) are measured in millimetres **at 1.5m above ground level** – where the tree is inaccessible the diameter is estimated as indicated by suffix #
- Radial crown spread assessments (**Brch Sprd**) are estimated in metres from the centre of the trunk/group to each of the four primary points of the compass (**N**-north; **E**-east; **S**-south and **W**-west) in order to achieve a representation of the crown shape which will be shown on the accompanying tree survey plan. These provide a general guide as to the main bulk outline of a tree/groups crown but **are not tape measured dimensions**. These would only be undertaken as part of a separately commissioned exercise, where precise dimensions are critical to the project at hand.
- Both the canopy ground clearance (**GC**) and the height & compass direction of the lowest major branch (**LMB**) are estimated and shown in metres
- An assessment of a tree/groups 'life stage' (**LS**) is made in terms of its site specific maturity as part of the surrounding landscape, taking into account its overall shape and form in that setting, and is recorded thus :-
Y - Young tree/group; **SM** - Semi-Mature tree/group; **EM** - Early-Mature tree/group;
M – Mature tree/group; **OM** - Over – mature tree/group
- Data on the structural condition (**Condition Comments**) of the tree/group is provided to give its visual appearance and any significant health and safety issues.
- Details of any recommended tree works required at the time of survey is given under the heading – **Preliminary Management Recommendations**.
- An estimate of a tree/groups remaining contribution in years (**RC**) is made and is recorded thus :-
0-5; 5-10; 10-20; 20-30; 30-40 or **>40** years.
- The category grading (**Cat**) for each tree/group is assessed according to the criteria provided within **BS5837:2012**. The assessment is made of the tree/group in its current condition and within the environment encountered bearing in mind its suitability for retention as part of any future proposed

development; although the exact layout detail of any specific scheme will not be known at the time of surveying. The trees have been classified into one of four categories and colour coded as BS5837 recommends :- **U** (dark red); **A** (light green); **B** (mid-blue) and **C** (grey). Please note that suffixed numerical sub-categories are also applied for guidance only and do not carry any cumulative or increased value for the tree/group. This colour coding scheme will be applied to all drawings provided.

Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria			Colour on plan
Trees unsuitable for retention				
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 (i.e. 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 NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.			Dark Red
Trees to be considered for retention				
	Criteria – Subcategories			
	1	2	3	
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)	Light Green
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in the 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	Mid 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 150mm	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



BH 2

Tree Survey & Root Protection Plans

BJH 01/02

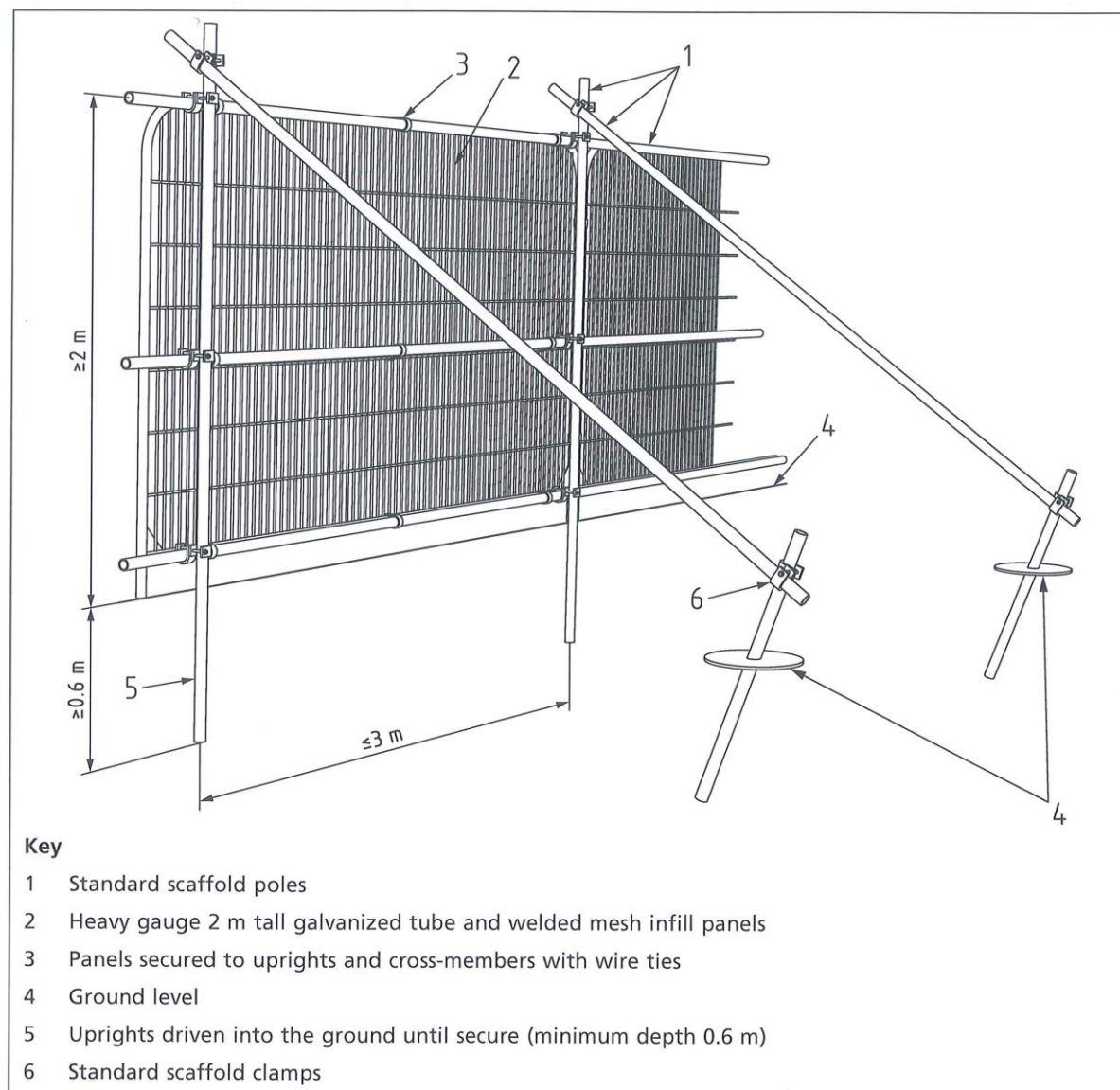


BH 3

Tree Protection Plan BJH 03/04

- + BS5837:2012 – Figures 2
- + Section 6.2.3.3 Ground Protection Measures
- + Example of Piling Rig

Figure 2 Default specification for protective barrier



BS5837:2012 – Section 6.2.3.3 - New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

Note The ground protection might comprise one of the following:

- a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;*
- b) for pedestrian –operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;*
- c) for wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.*

Mini Piling Rig





BH 4

Qualifications & Experience



QUALIFICATIONS AND EXPERIENCE

- My name is Bernie Harverson and I am a self employed independent arboricultural consultant in private practice. I take instructions primarily in the South of England but also on occasions work nationwide and abroad and have offices at : –

The Granary, White Chimney Row, Westbourne PO10 8RS

- I hold the following arboricultural qualification – **National Diploma in Arboriculture (Royal Forestry Society – 1976)**
- I have **forty nine** years of practical and managerial experience in the arboricultural industry including periods in both the public and private sectors.
- My Local Government sector experience comprises one year as a tree surgeon with Brighton Parks and nine years spent in Arboricultural Officer posts with both Westminster City Council and Portsmouth City Council.
- My past practical experience in the private sector includes two years at Tilhill Forest Nursery and over ten years for various companies as a Climbing Arborist/Tree Surgeon.
- Managerial work in the private sector includes two years as manager of Beechings Tree Surgeons and twelve years with CBA Trees as Managing Director & Senior Arboricultural Consultant.
- As an independent self employed Arboricultural Consultant I now provide a comprehensive range of services including :-
tree surveys, appraisals, assessments and inspections with particular reference to planning and development and tree safety audits with a service offered as a climber to undertake full climbing inspections to better understand the condition of a given tree before prescribing a management strategy.
- I also undertake litigation work appearing as an Expert Witness in Court Actions and at Planning Appeals, Hearings and Public Local Inquiries.

The Granary, White Chimney Row, Westbourne PO10 8RS

- **mob: 07875 520881 - email: bernieharverson@gmail.com - VAT Reg No 881 5056 16**