Bernie Harverson
arboricultural consultant

# ARBORICULTURAL METHOD STATEMENT

**26 Bound Lane, Hayling Island**

*-prepared on behalf of* **Mr A Johns** –

3 Foxcombe Cottages - South Harting - West Sussex GU31 5PL

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| 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 | PRE – DEVELOPMENT TREE WORK |
| 6 | METHOD STATEMENT |
| 7 | MONITORING & SUPERVISION |
| 8 | CONCLUSIONS |

| Appendices | Subject |
|---|---|
| BH1 | Figure 1- Flow Diagram from BS5837 + Tree Survey Notes |
| BH2 | Combined Tree Survey Plan & Root Constraints Plan – **BJH 01/02** |
| BH3 | Combined Tree Retention & Removals Plan & Tree Protection Plan – **BJH 03/04 +** BS5837 Figure 2 & 3 |
| BH4 | Qualifications & Experience |

## 1.0 INTRODUCTION & CLIENTS BRIEF

1.1 My clients on this project are **Mr A Johns** who are the owners of the property at:- **26 Bound Lane, Hayling Island**

1.2 The proposal is to divide the existing Plot into two and construct a new dwelling to the south side of the original one.

1.3 There are trees both on and off this site that could be impacted by these proposals so I have been commissioned to consider and advise on all of the arboricultural aspects of this project and to then prepare a supporting AMS report to satisfy these planning requirements.

1.4 My work is to be compiled in accordance with the recommendations contained within BS5837:2012.

## 2.0 DOCUMENT DISCLOSURE STATEMENT

I have seen and studied the full set of Planning Drawings prepared by **Helyer Davies Architects** for this project and my tree survey work has been applied to both the existing site Topo plan and the proposed layout – the AMS is based on the following drawing **:-**

- **Planning Drawing – Proposed Site Plan – Drawing Number 17001-154 – Rev A - 1:200 @ A2 – October 17**

***N.B. - this plan has been provided for the purposes of my work - I rely totally on its accuracy for tree locations; crown spreads & protective fencing.***

## 3.0 TREE SURVEY & ROOT PROTECTION SCHEDULES & IMPACT ASSESSMENT

3.1 I visited the site on **23rd October 2017** and carried out a tree survey exercise in accordance with BS5837:2012 recommendations.

| Tree No. | Species | Ht m | Diam mm | Brch Sprd m | GC m | LS | Condition Comments | Preliminary Management Recommendations | Rem Con yrs | Cat |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Pedunculate Oak *Quercus robur* | 8 | 510 510 | N 6 E 9 S 7 W6 | 4 | EM | Off-site TPO'd tree - bifurcated at 1m above ground – open splayed habit – small and large diameter deadwood – crown lifted to 4m with old pruning wounds occluding – previously heavily topped out – stunted by salt laden winds – some major dead limbs above the road | Recommend that the trees owner has the major dead limbs removed and crown lifts branches over garage roof | >40 | B1 |
| 2 | Snowy Mespilus *Amelanchier lamarckii* | 4 | 75 x 4 | N 3 E 3 S 3 W3 | 1.5 | EM | Multi-stemmed at ground level – ivy smothering through lower crown - good shape and form | Remove ivy | 20-30 | B1 |
| 3 | Lawsons Cypress *Chamaecyparis lawsoniana* | 2.5 | 150 | N 1 E 1 S 1 W1 | 0 | Y | Previously topped out and stunted – poor quality tree | Fell and stump grind | <10 | **U** |
| 4 | Bay Laurel *Laurus nobilis* | 6 | 180 # | N 3 E 4 S 1 W2 | 1 | SM | Unable to access basal area due to being an off-site tree – suppressed and dominated by the Gum Tree – crown shape dictated by group pressures | No works required at this time | 10-20 | C1 |
| 5 | Gum Tree *Eucalyptus gunnii* | 9 | 600 # | N 5 E 5 S 5 W5 | 3 | EM | Unable to access basal area due to being an off-site tree – leans heavily south – crown shape dictated by group pressures – small diameter deadwood throughout – previously heavily topped out – significant decay in main trunk on north side with considerable bark dieback - poor quality tree | No works required at this time | 10-20 | C1 |
| Grp 1 | Domestic Apples *Malus domestica* | 2 to 3 | Av 100 | N 2 E 0.5 S 2 W3 | 0.5 | SM | Of straggly form and in need of formative pruning | No works required at this time | 10-20 | C2 |
| Grp 2 | English Yews *Taxus baccata* | 1 to 1.5 | 70 | N 1 E 1 S 1 W1 | 0 | Y | Stunted by heavy lopping to leave them as small domes shrubs rather than trees. | No works required at this time | 10-20 | C2 |

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 *Quercus robur* | B1 | 510 510 | 8.7 | 235 | NO – there are constraints all around this tree that cancel each other out |
| 2 | Snowy Mespilus *Amelanchier lamarckii* | B1 | 75 x 4 | 1.8 | 10 | NO – free rooting to all directions |
| 3 | Lawsons Cypress *Chamaecyparis lawsoniana* | **U** | 150 | n/a | n/a | NO – this tree would be removed for sound arboricultural management reasons regardless of any redevelopment proposals |
| 4 | Bay Laurel *Laurus nobilis* | C1 | 180 # | 2.2 | 15 | NO – fairly free rooting to all directions |
| 5 | Gum Tree *Eucalyptus gunnii* | C1 | 600 # | 7.2 | 163 | NO – fairly free rooting to all directions |
| Grp 1 | Domestic Apples *Malus domestica* | C2 | Av 100 | 1.2 | 5 | NO – free rooting to all directions |
| Grp 2 | English Yews *Taxus baccata* | C2 | 70 | 0.8 | 3 | NO – 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 No | Species | Cat | Stem Diam mm | BS5837:2012 Radial Protection Area m | BS5837:2012 Polygon Area $m^2$ | Distance from Site Features (see key above) | Can Tree Be Retained |
|---|---|---|---|---|---|---|---|
| 1 | Pedunculate Oak<br>*Quercus robur* | B1 | 510<br>510 | 8.7 | 235 | 10m to new entrance point/driveway<br>16.5m to new parking bays<br>28m to new dwelling | **YES** |
| 2 | Snowy Mespilus<br>*Amelanchier lamarckii* | B1 | 75<br>x 4 | 1.8 | 10 | 6.5m to new entrance point/driveway<br>7m to new parking bays<br>19m to new dwelling | **YES** |
| 3 | Lawsons Cypress<br>*Chamaecyparis lawsoniana* | **U** | 150 | n/a | n/a | 2.7m to new entrance point/driveway<br>7m to new parking bays<br>19m to new dwelling | **YES** |
| 4 | Bay Laurel<br>*Laurus nobilis* | C1 | 180<br># | 2.2 | 15 | 2.7m to new parking bays<br>11.8m to new dwelling | **YES** |
| 5 | Gum Tree<br>*Eucalyptus gunnii* | C1 | 600<br># | 7.2 | 163 | 2.7m to new parking bays<br>9m to new dwelling | **YES (1)** |
| Grp 1 | Domestic Apples<br>*Malus domestica* | C2 | Av<br>100 | 1.2 | 5 | Half – 8.5m to new entrance point/driveway<br><br>Half - UF of development proposed | **YES**<br><br>**NO-RTFD** |
| Grp 2 | English Yews<br>*Taxus baccata* | C2 | 70 | 0.8 | 3 | 8.5m to new entrance point/driveway<br>25m+ to new dwelling | **YES** |

4.2 **YES**

There are four **(4)** trees and one and a half groups (**1.5**) in this category where work will be taking place outside of their RPA and they can be fully protected in full compliance with BS5837:2012 recommendations.

Trees – **1 Pedunculate Oak (TPO'd -B); 2 Snowy Mespilus (B); 3 Golden Lawson (U) & 4 Bay Laurel (C)**

Groups – **Grp1 Apples (C) [half of] & Grp2 Yews**

4.3 **YES (1)**

There is one (**1**) tree in this category where work will be taking place within its stated RPA and mitigation measures will need to be applied to ensure that it can be safely retained. For the full details of how this will be achieved please refer to 6.5 of this report.

Trees – **5 Gum Tree (C)**

4.4 **NO-RTFD**

There is half of one (**0.5**) group of trees in this category whose loss cannot be avoided with this layout and they will be lost to development:-

Groups – **Grp1 Apples (C) [half of] –** these are not trees of any great value or merit in the landscape and there is room on the front of the site to undertake new tree planting as part of landscaping proposals for this project.

## 5.0 PRE-DEVELOPMENT TREE WORKS

***N.B. – These works are recommended not only to facilitate works but also to improve the shape and form of retained trees for the future.***

| No | Species | Tree Works Recommended |
|---|---|---|
| 1 | Pedunculate Oak<br>*Quercus robur* | ***Off-site tree not under my clients control*** |
| 2 | Snowy Mespilus<br>*Amelanchier lamarckii* | • Remove all ivy that is beginning to smother the tree. |
| 3 | Lawsons Cypress<br>*Chamaecyparis lawsoniana* | • Retain in the short term with no works recommended - but this is a very poor quality tree stunted by heavy lopping. |
| 4 | Bay Laurel<br>*Laurus nobilis* | ***Off-site tree not under my clients control*** |
| 5 | Gum Tree<br>*Eucalyptus gunnii* | ***Off-site tree not under my clients control*** |
| Grp 1 | Domestic Apples<br>*Malus domestica* | • Remove the trees that will be under the footprint of the new access drive<br>• Grub or grind out the stump and roots<br>• The remainder will be retained within the existing Plot and should be periodically pruned to encourage fruiting potential. |
| Grp 2 | English Yews<br>*Taxus baccata* | • NO works required at this time – will be retained within the existing Plot |

## 6.0 METHOD STATEMENT

**Generic**

6.1 Undertake any tree works that are specified at Section 5.

6.2 Erect the protective fencing as specified under **BS5837 Section 6** as 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.

6.3 The area within the fenced off **CONSTRUCTION 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:-

- **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 It will be very important for any vehicle drivers to have undergone a pre-contract induction session where the trees to be retained are to be highlighted and the need for care and attention when working nearby with wide loads; tall loads; plant with swinging booms, jibs and counterweights (including drilling rigs) or slewing hydraulic arms to avoid contact with trunks or crowns.

**Site Specific**

6.5 **Tree 5 – Gum Tree**

- The new parking bays will be constructed within the RPA of this off site tree.
- Initially the protective fencing will be erected at the full specified distance of 7.2m radius from trunk centre and then when the new dwelling has been constructed there will be a need to relax the protective fencing to allow access and at this time the fencing will skirt the parking bays as shown on plan BJH 03/04.
- There is to be no digging within the RPA and a porous finish will be required to the bays.
- The bays can therefore either be simply edged in treated wooden pegged board edging to retain an infill of gravel laid over a geotextile membrane or a more elaborate CellWeb expandable cellular confinement system can be laid over a geotextile membrane and then small diameter washed aggregate used to fill the voids. The latter would be the advised system as it absorbs and spreads the loads of vehicles and provides a much more stable wearing surface whereas simple gravel can be displaced and rutted.

6.6 **Utility Services & Drainage & Lighting**

- It is my understanding that all such new connections can be made outside of tree RPA's down the route of the new drive.

6.7 **Site Set Up/Delivery/Materials Storage/Works Compound/Site Office/Welfare Units**

- It is suggested that protective sheeting is laid across the frontage of the existing garden to No 26 to accommodate these features – this is outside any retained tree RPA's and will have no adverse impact on same.
- Any mixing of concrete or other operations that might lead to overspill and soil contamination must be carried out on specially prepared impervious ground protection materials that can safely collect any spillage and not allow them to percolate into the surrounding soil.

## 7.0 SITE MONITORING & SUPERVISION

7.1 There will need to be a **Pre-Commencement Site Meeting** [PCSM] between the development teams arboricultural consultant and the clients builders to verify that the protective measures are in place before any work commences out on site.

7.2 Once the protective fencing is in place there will be no further requirement for ongoing Site Monitoring and Supervision on this project until such time as the dwelling has been constructed and the protective fencing needs to be entrenched to the stage 2 position to allow for the car parking bays to be formed.

7.3 The details of the PCSM and follow up inspection of entrenched fencing will be photographed by the Arb Expert and the following reporting procedures will be adopted:-

This is an example of the format for the **Site Monitoring Schedule** that would be prepared and updated after each site monitoring visit with copies going to the clients and the local planning authority:-

**Schedule Of Site Monitoring & Supervision for – 26 Bound Lane, Hayling Island**

**Notes:**

- **In accordance with the Arboricultural Impact Assessment & Method Statement Report Ref: 0918.bjh.Nov17 & & Tree Protection Plan BJH 03/04**
- **To satisfy LPA arboricultural related Conditions No's ……**

| Date of Inspection | Item | In Attendance | Notes/Observations From Inspection | Details Of Any Follow Up Action Required |
|---|---|---|---|---|
| | Pre-Commencement Meeting [Condition No…. ] | Council Tree Officer to be invited Bernie Harverson- Arbor. Expert [BH] + Site Construction Manager | • A joint site inspection was conducted and agreement reached that the Protective Fencing was 'Fit For Purpose' and in the correct locations. | • |
| | Post Construction of Dwelling | Bernie Harverson- Arbor. Expert [BH] | • An inspection was conducted to verify that the protective fencing had been entrenched to its new location surrounding the parking bays correctly as per the TPP. | • |

## 8.0 CONCLUSIONS

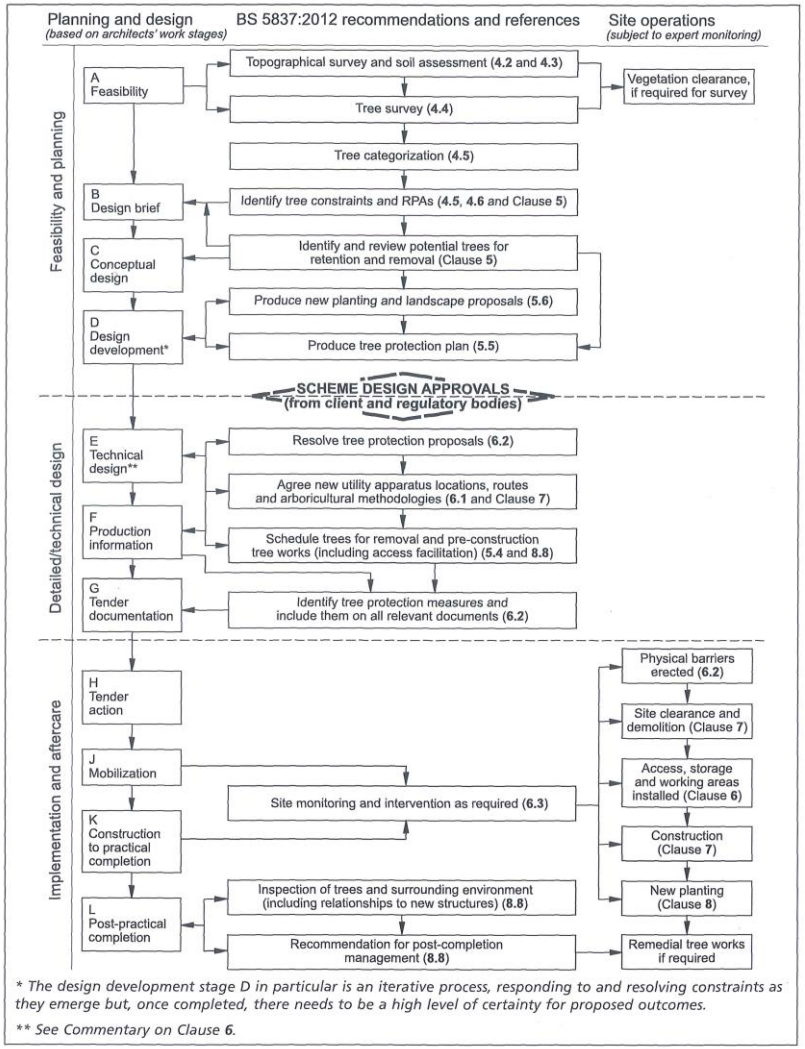
- All of the trees shown to be retained can be adequately protected behind Protective Fencing and with the use of mitigation measures in accordance with BS5837 recommendations and their vigour and vitality and stability will not be compromised by same.
- This project only requires the loss of half of a poor quality group of Apple trees that are small and within the site not visible to the general public and which make very little contribution to the overall landscape of the area. If required there is scope to plant new trees on the site frontage.
- Provided that all development works are undertaken in strict accordance with this report and its associated plans I can see no reason why the retained trees would suffer any ill effects to the detriment of their ongoing health and vitality.

Bernie Harverson
arboricultural consultant

# 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**<br>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)<br>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline<br>• 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<br>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**<br>**Trees of high quality**<br>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**<br>**Trees of moderate quality**<br>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**<br>**Trees of low quality**<br>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** |

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# BH 2

Tree Survey & Root Protection Plans

BJH 01/02

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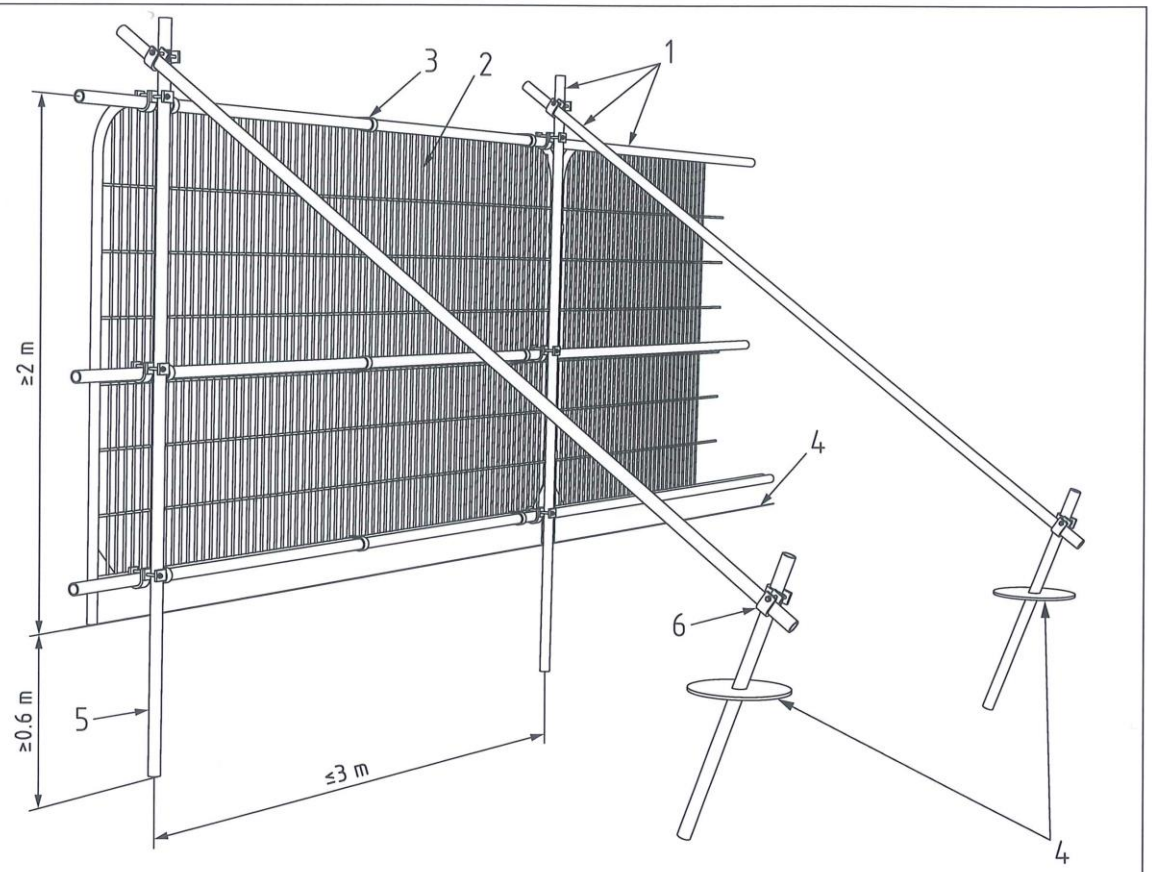
# BH 3

Tree Retention & Protection Plan BJH 03/04

+ BS5837 Figure 2 & 3
+ Examples of No Dig Porous surfacing

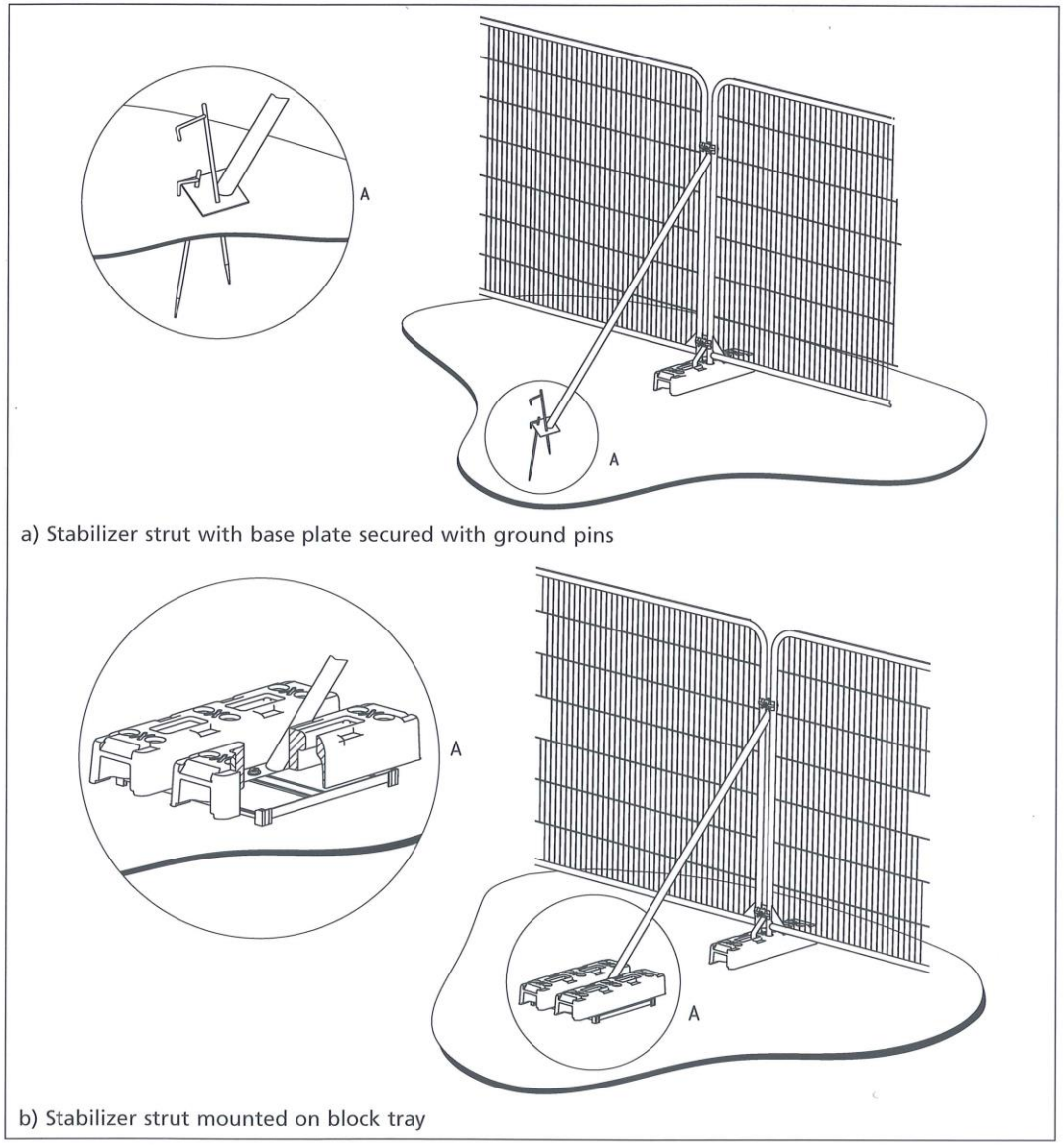
Figure 2 **Default specification for protective barrier**




**Key**

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized 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

Figure 3 **Examples of above-ground stabilizing systems**




a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

Bernie Harverson
arboricultural consultant

# BH 4

Qualifications & Experience

Bernie Harverson
arboricultural consultant

## ***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 : –
  3 Foxcombe Cottages, South Harting, West Sussex GU31 5PL and at Cedar Court, 5 College Street, Petersfield GU31 4AE
- I hold the following arboricultural qualification – **National Diploma in Arboriculture** (Royal Forestry Society – 1976)
- I have **forty seven** 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 the CBA Tree Consultancy Practice as Managing Director and Senior Arboricultural Consultant.
- As an independent self employed Arboricultural Consultant [since 2005] 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 Local Inquiries.

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