

**URCHFONT GARAGE, URCHFONT, DEVIZES,
WILTSHIRE, SN10 4QH**

**TREE SURVEY, ARBORICULTURAL IMPACT ASSESSMENT
AND TREE CONSTRAINTS PLAN
FOR
PROPOSED RESIDENTIAL DEVELOPMENT**

**On behalf of
GAIGER BROS LTD**

July 2024

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REV: A



WH Landscape Consultancy Ltd
Sandcliffe House
Northgate Street
Devizes
Wilts
SN10 1JT

t: 01380 727539

e: info@whlandscape.co.uk

APPOINTMENT

WH Landscape Consultancy Ltd (**WHLandscape**) has been appointed by Gaiger Bros Ltd to undertake a Tree Survey and to prepare an Arboricultural Impact Assessment (AIA) and Tree Constraints Plan (TCP). These will support the proposal to construct a residential development on land at Urchfont Garage, Urchfont, Devizes, Wiltshire, SN10 4QH.

WHLandscape has an established track record of carrying out Tree Surveys for development proposals using British Standard (BS) 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.

This report has been undertaken by: Seb Macleod NC Hort/Arb. L6 Dip Arb. (Lantra Professional Tree Inspection)

Checked by: Will Harley BSc (Hons) CMLI

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CONTENTS

1. INTRODUCTION
2. CONSTRAINTS TO PROPOSED DEVELOPMENT
3. TREE SURVEY
4. TREE SURVEY FINDINGS
5. TREE SURVEY CONCLUSIONS/RECOMMENDATIONS
6. ARBORICULTURAL IMPACT ASSESSMENT
7. REFERENCES

TABLES

TABLE 1: TREE SURVEY KEY AND SCHEDULE

TABLE 2: BS 5837 SURVEY SCHEDULE

ILLUSTRATIVE MATERIAL

ARB-1742-01: TREE CONSTRAINTS PLAN

ARB-1742-02: TREE CONSTRAINTS PLAN (DESIGN OVERLAID)

APPENDICES

APPENDIX 1: BS 5837:2012 DEFAULT SPECIFICATION FOR PROTECTIVE BARRIER

APPENDIX 2: BS 5837:2012 ABOVE GROUND STABILISING SYSTEMS

APPENDIX 3: CASCADE CHART FOR TREE QUALITY ASSESSMENT

1. INTRODUCTION

1.1. WHLandscape has been instructed by Gaiger Bros Ltd to conduct a Tree Survey and to provide an AIA and TCP. These will support the proposal to construct a residential development on land at Urchfont Garage, Urchfont. The survey is to guide the design of the proposed development, outline any constraints that the trees on or adjacent to the site pose to its development, and indicate measures required to protect those trees to be retained during any construction process. The report conforms to the guidance set out in BS 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.

1.2 This initial arboricultural report includes a survey of the significant trees (those with stem diameter 150mm, measured at 1.50m above ground level), hedges or groups of trees currently found on the site (outlined by the plan provided), as well as those on adjacent land that could impact on any proposed development. The quality and condition of these trees is to be assessed and categorised. Any management recommendations deemed necessary are to be put forward.

1.3 The trees surveyed are to be categorised A, B or C, for those to be considered for retention, or U for those unsuitable for retention. Further sub-categories of 1, 2 or 3 are given for those to be considered for retention (see Cascade chart for tree quality assessment in Appendix 3). Categorisation will be made in accordance with BS 5837:2012.

1.4 A TCP guided by the above and the below ground constraints that the surveyed trees on site, or adjacent land, may pose to the development proposal, is provided in Illustrative material at plan ARB-1742-01. The constraints to be considered will include the Root Protection Areas (RPA) and Construction Exclusion Zones (CEZ) that trees will require during demolition/construction if they are to be retained, as well as the current ground clearance and spread, that may affect the design proposal and construction access.

1.5 The report includes an AIA to outline and mitigate the potentially adverse tree related impacts that the design proposal poses and to suggest any changes that may benefit the scheme.

1.6 Following the granting of planning consent and prior to the commencement of any construction activity, an Arboricultural Method Statement may need to be provided as a condition of approved planning consent. This will guide the application of the special measures required to ensure the protection of retained trees during and post construction.

1.7 The area proposed to be developed is situated centrally within Urchfont village. It is currently operating as a commercial garage accessed from the highway, Hillsborough, at the southern end of the dog-legged site which is otherwise bordered by the buildings and gardens of adjacent residential properties. Single storey metal garage structures line the western and most of the northern boundary of the site which is otherwise largely open hardstanding ground but used to park/store vehicles and a significant amount of piled up commercial debris related to the operation of the site.

1.8 The arboricultural features within the site are limited to a group of trees which line the far eastern boundary composed of several broadleaved and coniferous evergreen species. A mixed hedgerow borders part of the south-eastern boundary within adjacent land where several trees stand near the boundary in the garden of the residential property to the south-east.

1.9 The proposal is to demolish the existing commercial structures and build a residential development consisting of five houses a single detached garage and other associated infrastructure including residential parking and an access road to serve the individual plots. A plan of the proposed scheme has been provided by PKA Architects drawing no. SITE_2081-PLANNING1.dwg. No trees are proposed to be removed on the plans provided. A landscape scheme to include new tree planting is to accompany the application for the development of the site.

1.10 The soil type for the site is described as 'Freely draining slightly acid loamy soils'. Therefore, the site does not appear to be on a shrinkable clay with the potential for subsidence damage to be caused, by trees, to new structures. It is recommended that a soil survey of the site is undertaken to establish the exact nature of the soil type.

1.11 The village conservation area dissects the site with approximately half the western side being within it and the eastern side outside of it. No trees assessed are within the conservation area. No trees on or adjacent to the site are subject to Tree Preservation Orders.

1.12 A site visit was undertaken on the 23rd of October 2023 by Seb Macleod in fair weather conditions.

2. CONSTRAINTS TO PROPOSED DEVELOPMENT

2.1 GENERAL

2.1.1 The trees surveyed represent above and below ground constraints to the proposed development. Above ground constraints include the size and nature of the branching canopy that can influence where structures/utilities can be placed, or that present barriers to access during or after construction. Shade cast by individual trees can be beneficial or a nuisance and needs to be considered. In addition, the potential ultimate height and spread of any younger trees on site, and the future impacts they may have, must also be a consideration.

2.1.2 Below ground constraints are principally concerned with the RPA, or the rooting area, of an individual tree that must be maintained in its current condition (i.e. not excavated, compacted or re-graded) to ensure the continuing health of the tree during and after development. Roots that are 25mm or over must not be damaged, in order to ensure the future structural and physiological function of the tree.

2.1.3 New buildings should not be positioned within the RPA of a tree to be retained. No ground should be disturbed, materials stored, or vehicle/pedestrian traffic undertaken within the RPA of a retained tree. It is also the default position that construction access must be outside the RPA of any tree to be retained on site. Above and below ground constraints can be mitigated by felling, or pruning, if justified in the impact assessment. Incursion of works into the RPA of a tree to be retained can be facilitated by special construction techniques, if justified in the impact assessment.

2.1.4 The RPAs are calculated as per Section 4.6 of BS 5837:2012 and, where applicable, are recorded as an area of a nominal circle or a radius of that circle. The British Standard states the following:

- For single-stem trees, the RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter.
- For trees with more than one stem, one of two calculation methods is to be used:
- For trees with two to five stems:

$$\sqrt{(stem\ diameter\ 1)^2 + (stem\ diameter\ 2)^2 \dots + (stem\ diameter\ 5)^2}$$

- For trees with more than five stems:

$$\sqrt{(mean\ stem\ diameter\ 1)^2 \times number\ of\ stems}$$

2.1.5 In all cases, the stem diameters are measured in accordance with Annex C of BS 5837:2012, and the RPA is determined from Annex D. The RPA is capped at 707 metres (m) squared or a 15m radius.

2.1.6 Where trees are positioned close to adjacent areas of hardstanding, which are impervious to air and water, and where tree roots are unlikely to ingress, the RPA may be off set from the centre of the tree to reflect the areas where the roots are more likely to have established.

2.1.7 RPAs for hedges will normally be set at a distance from the central base of the hedge calculated as half its average height.

2.2 OTHER CONSTRAINTS

2.2.1 Potential constraints to the development of the site include the above ground area occupied by the crowns of the trees, potential shade and debris cast by the trees, working space during development and, if applicable, allowances for future growth of the trees. The extent of these constraints is determined by considering the suitability of the species and its characteristics within the context of the proposed development, plus the existing and future crown spread of the tree. A further consideration is that the crown could be modified by appropriate tree surgery. Site planning and development design must therefore give consideration to these issues in order to prevent future problems arising.

2.2.2 Any remedial works on trees to improve safety or to facilitate construction must be undertaken in accordance with BS 3998:2010 British Standard *Tree Work - Recommendations*. Work must be undertaken by qualified and experienced professionals.

2.2.3 All services should be directed outside the retained trees' RPAs. However, where it is agreed that services can be located within a RPA, they must be hand-dug in accordance with the principles contained within National Joint Utilities Group Guidelines Vol. 4, in a position no closer than four times the stem circumference of the tree and dug down to the required level. Small diameter roots should be neatly cut with clean secateurs, whilst roots over 25mm in diameter, and/or large root masses, must be retained undamaged. Alternatively, if underground services are to run through the RPAs of trees to be retained, specialist construction techniques, such as impact moling, could be employed to install any pipework at a depth greater than 600mm from ground level, where tree roots are unlikely to be found.

2.2.4 No unplanned construction activity whatsoever must be allowed within the RPAs of trees to be retained. This includes storage of materials, unplanned routing of underground services or incursions by vehicles or site operatives unless specified and accompanied by specialist protection measures.

2.2.5 Mixing of cement or concrete, or the storage of fuels must not take place within 10m of the retained trees, nor in any location where a slope in the ground could lead to contamination of the RPA of any tree to be retained.

2.2.6 Fires must not be lit in a position where flames could extend to within 15m of the foliage, branch framework or trunk of any tree to be retained.

2.2.7 Landscape works undertaken within the RPAs must be done so as not to damage shallow roots and are to be agreed by the arboricultural consultant. Heavy mechanical cultivation of the soil must not be undertaken within the RPAs of trees to be retained.

2.2.8 Changes in soil level should not be undertaken within the RPAs of retained trees, unless otherwise agreed in writing with the Local Planning Authority (LPA). This is in order to ensure that the rooting systems, including the delicate non-woody roots, are not inadvertently severed or the roots and rooting zones are not compromised by compaction.

2.3 TREE PROTECTION MEASURES

2.3.1 Tree protection fencing will be required to form a CEZ, to prevent construction activity within the RPAs of trees to be retained, or to protect the crowns of retained trees. This must be constructed from weldmesh panels of at least 2m height and securely fixed with wire or scaffold clamps fixed to a rigid framework. This framework must be constructed from horizontal and vertical scaffold tubes during the construction period, in accordance with the requirements of BS 5837:2012. Examples of the design specification are shown in Appendices 1 & 2.

2.3.2 Where tree protection fencing falls outside the RPAs of the retained trees, robust high visibility plastic mesh barrier is recommended in place of the above-mentioned fencing. This will create a visual deterrent and signify the extent of the CEZ.

2.3.3 The location of CEZ fencing will be determined when the final site layout is agreed. This will provide the minimum protection of the retained trees. Any surfacing within the RPA, be it temporary or permanent, must be of a no-dig design in accordance with the principles of BS 5837:2012.

2.3.4 After the erection of the CEZ fencing a minimum of two days' notice must be given to the LPA before any construction, including any groundwork, starts on site. The CEZ fencing must be maintained and retained for the duration of the works or until such time as agreed in writing with the LPA.

2.3.5 Services and drain runs must be kept outside the fenced RPA of the retained trees unless agreed in advance of construction.

2.4 ARBORICULTURAL SUPERVISION

2.4.1 A suitably qualified arboriculturist must be retained during the development period to carry out the following:

- To inspect tree protection fencing once erected prior to construction or ground works starting on site.
- To advise of any issues at the request of the LPA, the property owner or contractor as necessary.

2.4.2 The details of each visit are to be recorded in a site visit pro-forma, with copies circulated to the contractor, developer and the LPA Tree Officer.

3. TREE SURVEY

3.1 TREE SURVEY CRITERIA

3.1.1 This tree survey has been undertaken in accordance with BS 5837:2012 in order to establish and record:

- The principal attributes of those trees on site of stem diameter over 150mm measured at 1.50m from ground level (such as height, stem diameter, height of first branch break, crown spread, crown clearance).
- The Condition, Quality and Value of the trees on site.
- The retention value of those trees as categorised by BS 5837:2012.
- The outline and area of RPA required for those trees to be retained on site, and any other remedial works necessary to ensure a reasonable level of safety; or to facilitate the development in accordance with conditions set out in BS 5837:2012.

3.1.2 The findings of the survey highlight which trees are of particular merit and should be marked as a material constraint in the planning process.

3.1.3 The suitability of trees for inclusion in the proposed development is considered, with particular regard given to their safe, useful life expectancy, and suitability in the site after development is completed.

3.1.4 The Tree Survey was undertaken in accordance with Section 4 of BS 5837:2012, which grades trees into the following categories (See Appendix 3: Cascade chart for Tree Quality assessment):

- A – Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- 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.
- U – Trees in such a condition that they cannot be realistically retained due to poor condition.

Further subcategories are given as follows:

- Mainly arboricultural qualities (1).
- Mainly landscape qualities (2).
- Mainly cultural values, including conservation (3).

3.2 SURVEY LIMITATIONS

3.2.1 This survey was undertaken from ground level using visual assessment techniques only. Physical assessment of suspected decay has been limited to probing with metal rods or sounding with a hammer. No specialist decay equipment or internal investigation tools have been employed during the assessment. No soil samples have been taken in the course of this assessment.

3.2.2 The observations and recommendations presented are based on the knowledge, qualifications and experience of the surveyor only.

3.2.3 All dimensions are measured as far as reasonably practicable, with the plotting of tree locations dependent on the topographical survey provided, or the available satellite coverage at the time of inspection. Stem diameter may have been estimated where trees are on third party land or where stems are inaccessible due to obstructions by undergrowth. Stem diameter may also have been estimated from best measurements available if the tree is ivy clad. The survey methodology follows that prescribed in BS 5837:2012.

3.2.4 Trees are dynamic evolving organisms subject to a range of external influencing factors (particularly the weather) the consequences of which may not always be foreseeable under the scope of this survey.

3.2.5 This survey will be valid for 12 months from the date of inspection and may become invalid within this period if any works are undertaken on or near to trees assessed in the survey. Such works include un-prescribed tree surgery, soil level changes, trenching etc.

3.2.6 Under the terms of the Wildlife and Countryside Act 1981 (as amended), the Countryside Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2010, it is an offence to disturb any protected species, including their habitat or resting place. It may, therefore, be necessary to obtain expert advice in this area prior to the commencement of any works. This is particularly relevant to nesting birds, bats and their roosts. Contractors must be reminded of their responsibilities and should contact the relevant authorities if any signs of bats are found.

3.2.7 The nesting season for most birds runs from 1st March to 31st July. However, this can vary depending on the species and location. During these months, careful inspection must be made before any work commences and works must be postponed if active nests are found.

3.2.8 Trees with a Tree Preservation Order or those sited in a conservation area are protected under section 198 and 211 (1) of the Town and Country Planning Act 1990. Consent from the LPA must be sought before any works are to be undertaken on such trees, unless the proposed works to protected trees are a necessary consequence of granted full planning consent.

4. TREE SURVEY FINDINGS

4.1 Altogether twelve individual trees and a boundary hedgerow were assessed and appear in the survey schedule (Table 2). Three of the trees (T1-T3) included in the schedule are in the adjacent residential garden to the south-east but were included in the assessment as they have the potential to pose a constraint to the development proposals. The western end of the hedgerow H1 which runs along the south-eastern boundary of the site is within the ownership of the adjacent residential property, the line of the hedgerow then appears to fall within the red line boundary of the site approximately halfway along this boundary line. A cypress conifer (T12) situated at the northern corner of the site is on adjacent land.

4.2 The remaining trees included in the schedule (T4-T11) are confirmed to be within the site and are located at its far eastern boundary. Other trees or hedges on or adjacent to the area proposed to be developed may not have been assessed or included in the schedule as they were either a considerable distance from areas proposed to be developed or too small to be considered as arboricultural features that could pose a constraint to the development proposals.

4.3 Critical values of trees on adjacent land such as stem diameters (on which the RPAs are calculated) and crown spreads have been estimated from inside the site and are therefore unlikely to be accurate. Close access to the majority of the trees within the site was also not possible due to dense debris piled up at its eastern side, dense vegetation and parked vehicles obscuring access. Consequently, the visual assessment of key structural features, particularly stems and basal areas of all of the trees included in the schedule have not been possible due to accessibility issues.

4.4 The trees that are within the site at its eastern boundary are relatively low-quality C grade retention category features with much of the structure here dominated by three C grade cypress conifers (T6, T9 & T10) centrally along the boundary with a young C grade ash (T8) growing very close to the stem of T9. To the north of this group a C grade hazel coppice stands with a crown that extends westward into the site. A better-quality wide spreading B grade holly (T5) appearing almost as a hedge dominates much of the southern end of the eastern boundary and together the trees above contribute to what is likely to be considered to be an important screen between the current commercial site and the residential property to the east although of low amenity value.

4.5 The most prominent tree within the site and at the northern end of the eastern boundary is an early-mature (in the first third of its life cycle) ash (T11) that has an open and relatively wide spreading

crown for a tree of its height. The tree is considered to be suffering from the early onset of ash dieback (*Hymenoscyphus fraxineus*). This necessitates its categorisation as a U grade retention category feature due to likely limited life expectancy. Ash dieback is a chronic fungal disease of ash trees in the UK and Europe that causes a vascular wilt characterised by leaf loss and crown dieback in infected trees of all age classes which is expected to kill over 80% of trees of the species over the coming seasons. The presence of dieback in the ash assessed is concluded due to relatively sparse bud cover and some dead branch tips spaced throughout its outer crown. The U grade ash has the high potential to deteriorate in physiological condition in the coming seasons and ultimately die from the vascular wilt caused by this disease becoming structurally unstable and hazardous as it declines. However, the current structural condition of the tree is not considered to be excessively hazardous.

4.6 A small elm (T4) at the southern end of the eastern boundary has succumbed to Dutch elm disease (*Ophiostoma novo-ulmi*) and is dead rendering it U grade retention category.

4.7 The off-site trees in the garden to the south-east of the site (T1-T3) cast an element of shade into its central area. While the hazel (T1) has largely achieved its ultimate height, the horse chestnut (T2) and Norway spruce (T3) have not, and their shading profiles can be expected to increase.

4.8 The northern edges of the RPAs of the off-site trees T1 & T2 beyond the south-east boundary come within the proposed development area as shown in the TCP. These trees both stand ground raised form that inside the site with an approximate 0.5m high retaining wall running from east to west along the boundary between the site and the residential garden where these trees stand to the south. The RPAs of the trees assessed are shown as normal circles centred on the stems of individual trees as per the guidance in the British Standard BS5837:2012. However, the topography of the ground and structural features will have had an effect on the actual root morphology of T1 & T2, specifically the impact of the retaining wall to the north of these trees and the impervious hardstanding area within the site to the north of the wall (tree roots are unlikely to have developed below impervious ground) which is highly likely to have affected the developing root systems of these adjacent trees. Consequentially, it is assumed that the root systems of both T1 & T2 do not ingress into the site as is shown by the representation of their RPAs using the BS5837:2012 guidance and their critical rooting zones are off-set and have developed within the garden area to the south of the boundary line.

4.9 The RPAs of trees T1 & T2 on adjacent land to the south are shown to conflict with area of existing hardstanding to become block paving and including a car port adjacent to plot 5, although this conflict

is considered not to exist if the effects of the raised ground on which these trees stand, the retaining wall and existing hard standing ground within the site are taken into account.

4.10 The low retaining wall which runs along the southern boundary and within close proximity to trees T1-T3 on adjacent land is proposed to be replaced. There is the potential for the root systems within the RPAs of these trees to be subject to damage during the works to replace this retaining wall.

5. TREE SURVEY CONCLUSIONS/RECOMMENDATIONS

5.1 The trees and hedgerow assessed can be split into two categories, those outside the site, trees T1-T3, the western end of the hedgerow H1 and conifer T12 to the east, then the remaining trees along the eastern boundary which are within the site. The impacts of any constraints (such as RPAs) that the off-site trees and hedgerow pose to the development area will have to be considered and accepted through the design process for the scheme as they will have to be retained. However, with the exception of the replacement of the retaining wall along the southern boundary and the conflicts between the replacement hardstanding to the north of trees T1 & T2, no other conflicts appear to exist between the scheme and the remaining trees included in the schedule.

5.2 The trees (T5-T11) along the eastern side of the site are all of very low-quality and amenity value and their removal and replacement with better quality species has been considered through the design process for the proposed development. However, these trees do serve a purpose as screening between the site and the adjacent residential properties to the east. Gaiger Bros Ltd have held direct discussions with various site neighbours including the current owners of 1 St Michael's Close. Through this consultation they have expressed a clear preference for the trees along the eastern boundary (T5 to T11) to be retained to maintain the existing screening that they provide. Gaiger Bros Ltd have given this full consideration and taken the decision to accommodate this approach, as opposed to some selective removal and replacement with native species. On this basis trees T5 to T11 are proposed to be retained. The small dead U grade elm (T4) within this group is recommended to be removed due to its high potential for failure.

5.3 The U grade ash (T11) although considered to be suffering from the early on-set of ash dieback is proposed to be retained. As the tree is not considered to be in a structurally hazardous condition as a consequence of ash dieback infection its proposed retention is in line with current industry guidance relating to the management of ash trees suffering from this disease. However, the condition of the tree will need to be monitored over future seasons to ensure that any decline in its condition does not render it as hazardous.

5.4 Parts of the central area of the site are shaded by the shading profiles of the off-site trees T1-T3 has been considered by the design process along with the likelihood that if the adjacent owners retain these trees the shading profiles of T2 and T3 will increase as they grow. The currently affected area will however not be constantly shaded, and shading can be considered as beneficial as well as a negative impact, particularly considering the increasingly hot summers experienced in the UK and

predictions of further temperature rises in future seasons. Therefore, this impact is not considered to be significant or necessarily negative.

5.5 It is concluded that due to aspects of the topography of the ground to the north of trees T1 & T2, the impacts of the retaining wall and existing impervious ground to the north, that the conflict between the replacement of the hardstanding with block paving and a car port to the west of plot 5 and the RPAs of T1 & T2 does not exist. Therefore, the proposed replacement of the existing hardstanding with block paving in this area does not have the potential to cause any significant damage to the critical root systems of T1 & T2.

5.6 The replacement of the section of retaining wall that runs through the RPAs of T1-T3 on adjacent land will need to be undertaken to a methodology which reduces the potential for the root systems of these trees to be damaged during the construction process. Ground beyond the southern profile of the wall must remain intact and not be excavated during this process once the existing wall is removed. An impervious membrane will also need to be established between the new wall and the ground to the south within the RPAs of these trees to ensure that concrete leachate resulting from the works do not contaminate the ground within the RPAs of the adjacent trees.

5.7 In order to protect the sensitive features of the trees to be retained that are potentially threatened by the construction process at the site, a CEZ would need to be established protected by CEZ fencing before all other demolition construction activity commences at the eastern side of the site to protect trees there to be retained. This will ensure that their RPAs and critical root systems are not inadvertently damaged during the construction process, particularly through ground compaction by the passage of vehicles or plant, storage of materials or via ground contamination. The proposed position of the CEZ fencing is marked as a blue dashed line in the TCP provided at plan ARB-1742-02 (Design Overlaid) and should be of the specification of fencing exemplified in Appendix 1 & 2.

6. ARBORICULTURAL IMPACT ASSESSMENT

6.1 The calculated RPAs of trees that are marked for retention are highly sensitive. The ground within the RPAs can be easily damaged by construction activity, with potentially negative impacts for those trees concerned. The severance of roots within the RPA of a tree has the impact of reducing its physiological function in terms of its ability to store energy, as well as draw water and nutrients from the soil to the effect that severe dysfunction or death of the tree can result. The removal of larger roots within the RPA can have the impact of reducing the structural integrity of the tree, leaving it exposed to failure during adverse weather conditions. The wounding resulting from the severance of roots can offer tree pathogens entry points for infection, which can cause dysfunction, loss of structural integrity or death.

6.2 Roots require access to oxygen and water in order to respire, as well as providing the rest of the tree with water and nutrients. Compaction of the soil will reduce this function to the effect that severe dysfunction or premature death of the tree can result. Installation of a non-porous hard-standing area within the RPA of a tree will have the same impact as compaction of the soil. Contamination of the soil from substances such as cement, fuel or chemicals, can have severe negative impacts on the physiological function of the root system in terms of its ability to store energy. It can also affect the drawing of water and nutrients from the soil, which can lead to physiological dysfunction, loss of structural integrity or premature death of the tree.

6.3 The stems and branching structure of trees are important to their physiological and structural function. The pruning of trees has the impact of reducing their ability to store energy, maintain their physiological system, and photosynthesise, which requires energy from the sun. This can lead to a loss of physiological function, expose the tree to pathogens and potentially lead to decline or premature death. The wounding resulting from the removal of branches can offer tree pathogens entry points of infection. A tree can be unbalanced by excessive pruning on one side, which can leave it exposed to new stresses and lead to failure during adverse weather (the removal of adjacent trees can have the same effect). The inadvertent damage of the stem and branching structure that may be a consequence of construction activity, has similar potentially negative impacts to pruning.

6.4 There are no trees proposed to be removed as a consequence of the development proposals which limits the potential negative arboricultural impact of the scheme. The exception is the recommended removal of the U grade dead elm (T4) which is not any consequence of the development proposals. The retention of the existing arboricultural features does not appear to have any tangible impact on

the scheme or the requirements of construction activity and will benefit the scheme in terms of limiting its overall impact on the natural features of the site and surrounding area.

6.5 The current or ultimate shading profile of those trees assessed are not considered any significant constraint to the proposed use of the site by excessive shading.

6.6 It is assessed that conflict between the proposed replacement of hardstanding with block paving to the west of plot 5 and the construction of a car port does not conflict with the RPAs of off-site trees T1 & T2. However, the recommendations in para 5.7 will need to be followed during the replacement of the retaining wall in proximity to trees T1-T3 to reduce potential negative impacts to be inflicted on these trees.

6.7 There exists the potential for inadvertent damage to be inflicted on the trees to be through the construction process which would bring negative arboricultural impacts. However, if the recommended protective measures are followed, specifically the establishment of fenced construction exclusion zone, then the potential for such damage to be inflicted should be negligible.

6.8 Overall, there are no tangible negative arboricultural impacts of the proposed scheme as all trees (bar the dead elm T4) are proposed to be retained. Landscape proposals for new planting including hedgerows within the site will benefit its arboricultural character in terms of species diversity along with introducing a new age class of trees and hedgerows to complement and eventually succeed the existing arboricultural features at the site.

7. REFERENCES

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TABLES

Table 1 Tree Survey Key and Schedule

Tree/Tag No: Individual trees will be denoted as T1, T2 etc. on plans or diagrams. Groups of trees too numerous to individually survey or groups comprising of mainly trees of a stem diameter less than 150mm will be denoted as G1, G2 or W1, W2, etc. Hedgerows will also be shown as groups denoted as H1, H2, etc. Tree stumps denoted by S. Individual trees located in a group or hedgerow can still be assessed individually.

Species: using common and scientific name.

Measurement Conventions:

1. Height, crown spread, and crown clearance is recorded to the nearest half metre (crown spread is rounded up) for measurements up to 10m and to the nearest whole metre if over 10m.
2. Stem diameter is recorded in millimetres rounded to the nearest 10mm.
3. Any estimated dimensions (e.g. for inaccessible trees or those located on adjacent land) are suffixed by "#".

Tree height measured using an electronic clinometer. Site conditions may render this technique impractical in which case an estimated height will be suffixed by "#".

Stem Diameter: normally measured at 1.5m from ground level or using techniques as stated in Annex C of BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. If estimated denoted by #.

Ivy clad trees will be noted as without removing the ivy a stem diameter will have to be estimated from best measurement available.

Age Class: Y - a young tree in first third of life cycle.

EM - an early mature tree in second third of life cycle.

M - a mature tree in the last third of its life cycle.

OM - an over-mature tree in decline due to age.

Physiological Condition:

Good (G) - tree appears to be in a satisfactory physiological condition showing no signs of poor health.

Fair (F) - may be showing some minor signs of stress.

Poor (P) - slightly compromised showing significant signs of stress i.e. crown retrenchment.

V. Poor (VP) - significantly compromised e.g. advanced retrenchment.

D - dead.

Structural Condition: (Crown, stem and base of tree each given a value)

Good (G) - tree appears to be in a satisfactory structural condition with no significant defects found.

Fair (F) - some defects, but of low significance.

Poor (P) - slightly compromised e.g. poor branch unions found or evidence of decay.

V. Poor (VP) - profoundly compromised and imminent failure likely.

- cannot be assessed due to ivy/vegetation cover.

D/W - deadwood.

Estimated Remaining Contribution: Measured in years: <10 (under 10 years), >10 (over 10 years), >20, >40.

Retention Category: Denoted as U, A, B, C with sub-categories 1, 2, 3. as defined in Table 1 of BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

Root Protection Area (RPA): Radius given in m. Area given in m².

Table 2 BS5837 Survey Schedule

Site: Urchfont Garage

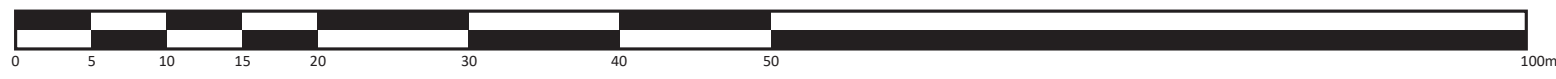
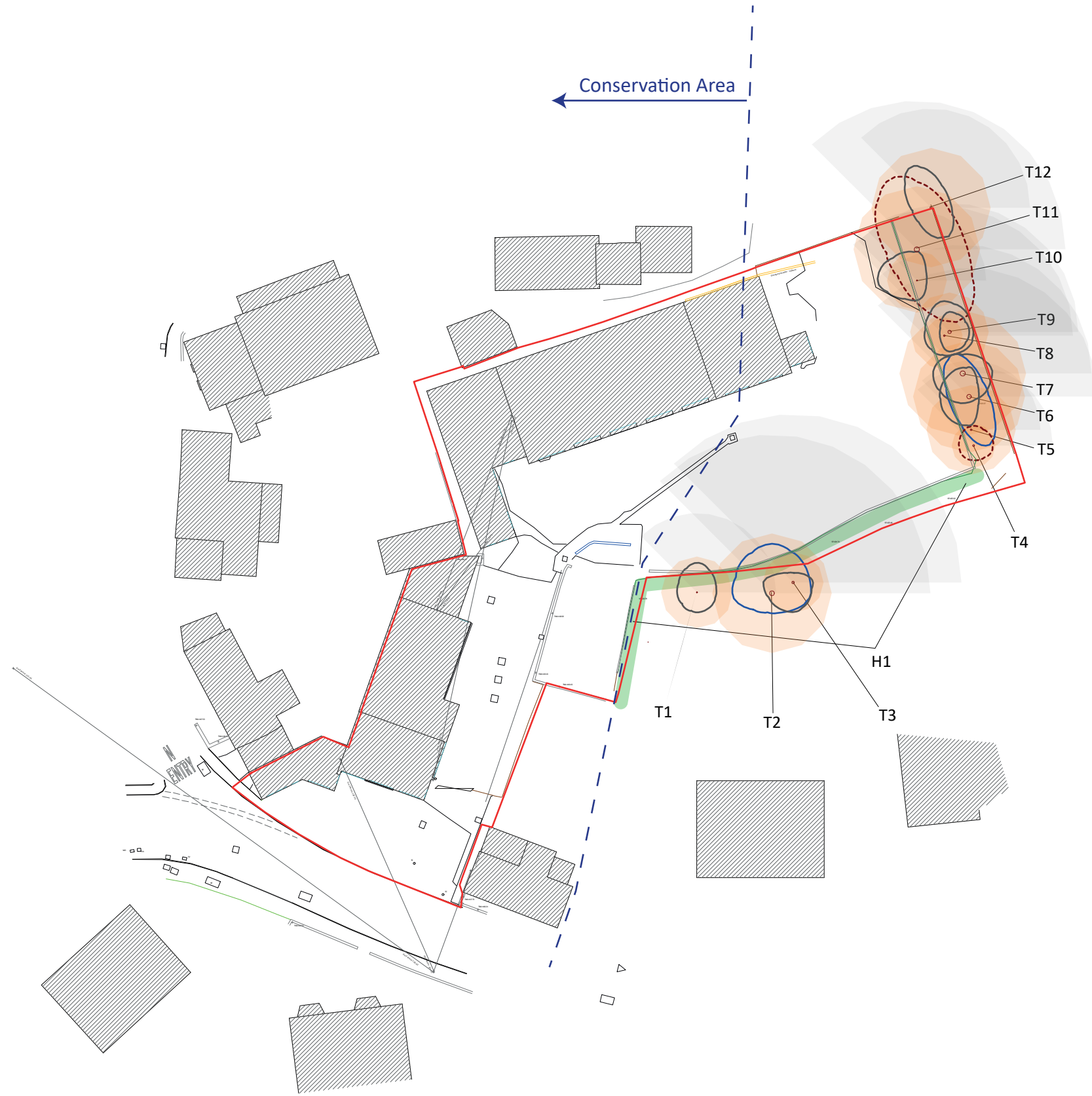
Client: Gaiger Bros Ltd

Date: 23rd November 2023

Tree/Tag. No	Species	Tree Height (m)	Stem Diameter (mm)	Crown spread (m)				Height & Direction of 1 st Branch	Min. Crown Clearance (m)				Life Stage	Physiological Condition	Structural Condition: CROWN/STEM/BASE General Observations: Preliminary Management Recommendations	Estimated Remaining Contribution	Retention Category	RPA R (m)	RPA A (m ²)
				N	E	S	W		N	E	S	W							
H1	Mixed hedgerow	3	-	-	-	-	-	-	-	-	-	-	M	G	G/G/G Mixed boundary hedge Hazel/Holly/Privet	>40	C1	-	-
T1	Hazel <i>Corylus avellana</i>	8	120 X6	3	2	2	2	-	0	0	0	0	M	G	F/#/# On raised bank Ivy clad On adjacent land Values estimated	>10	C1	3.6	41
T2	Horse chestnut <i>Aesculus hippocastanum</i>	16	300 300 250	5	4	2	4	2n	2	2	2	2	EM	F	F/#/# On raised bank On adjacent land Values estimated	>20	B1	6.0	113
T3	Norway spruce <i>Picea abies</i>	17	250	1	2	3	3	5s	6	6	4	6	EM	G	G/G/# On raised bank On adjacent land Values estimated	>10	C1	3.0	28
T4	English elm <i>Ulmus procera</i>	8	180	2	2	1.5	1.5	2n	2	2	2	2	D	D	P/P/P Dead elm Inside site Remove	-	U	-	-
T5	Holly <i>Ilex aquifolium</i>	7	150 X6	2	5	2	5	-	0	0	0	0	M	G	G/#/# On raised bank Inside site	>20	B1	4.5	64

T6	Lawson cypress <i>Chamaecyparis lawsoniana</i>	13	350 300	3	1	3	3	-	0	0	0	0	M	G	G/F/F On raised bank Inside site Difficult to access due to debris	>10	C1	5.4	92
T7	Lawson cypress <i>Chamaecyparis lawsoniana</i>	13	300 300 300	2	3	3	3	-	0	0	0	0	M	G	G/F/F On raised bank Inside site Difficult to access due to debris	>10	C1	6.3	124
T8	Ash <i>Fraxinus excelsior</i>	13	150	3.5	3	2	2	2n	2	2	2	2	EM	G	G/G/G Young ash growing in structure of adjacent conifer On raised bank inside site Difficult to access due to debris	>10s	C1	1.8	10
T9	Lawson cypress <i>Chamaecyparis lawsoniana</i>	13	300 120	2	2	2	1	-	0	0	0	0	M	F`	G/F/# On raised bank inside site Difficult to access due to debris	>10	C1	3.9	48
T10	Hazel <i>Corylus avellana</i>	7	100 X6	3	1	2	4	-	1	1	1	1	M	G	F/F/# On raised bank inside site Difficult to access due to debris	>10	C1	3.0	28
T11	Ash <i>Fraxinus excelsior</i>	15	300 300 300	4	9	4	7	-	5	8	8	8	EM	VP	F/#/# Very wide spreading structure Inaccessible due to debris Early ash dieback symptoms	<10	U	-	-
T12	Lawson cypress <i>Chamaecyparis lawsoniana</i>	10	200 X6	2	4	2	4	-	1	1	1	1	EM	G	G/#/# On adjacent land	>10	C1	6.3	124

ILLUSTRATIVE MATERIAL



KEY:
Tree Retention Categories

- 'A' Category

- 'B' Category

- 'C' Category

- 'U' Category

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

Other Plan Features

- Shading arc

- Root Protection Area (RPA)

- Hedge

- Extent of development area

- Conservation area boundary

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

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WHLandscape
landscape architecture & arboriculture
Sandcliffe House, Northgate Street,
Devizes, Wiltshire SN10 1JT
t: 01380 727539 e: info@whlandscape.co.uk

Project:
Urchfont Garage

On behalf of:
Gaiger Bros Ltd.

Drawing title:
Tree Constraints Plan

Drawing number:
ARB-1742-01

Rev:
DB: SM

Date:
Jul 24

Scale:
1:500 @ A3

CB: WH



KEY:
Tree Retention Categories

- 'A' Category

- 'B' Category

- 'C' Category

- 'U' Category

The Tree Retention Categories symbols shown in the key are for reference and may not always be present on the plan.

Other Plan Features

- Shading arc

- Root Protection Area (RPA)

- Hedge

- Extent of development area

- Conservation area boundary

- Proposed position of CEZ fencing

- Area where development is shown to conflict with tree RPAs

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WHLandscape
landscape architecture & arboriculture
Sandcliffe House, Northgate Street,
Devizes, Wiltshire SN10 1JT
t: 01380 727539 e: info@whlandscape.co.uk

Project:
Urchfont Garage

On behalf of:
Gaiger Bros Ltd.

Drawing title:
Tree Constraints Plan (Design Overlaid)

Drawing number:
ARB-1742-02

Rev:
Date:
Jul 24

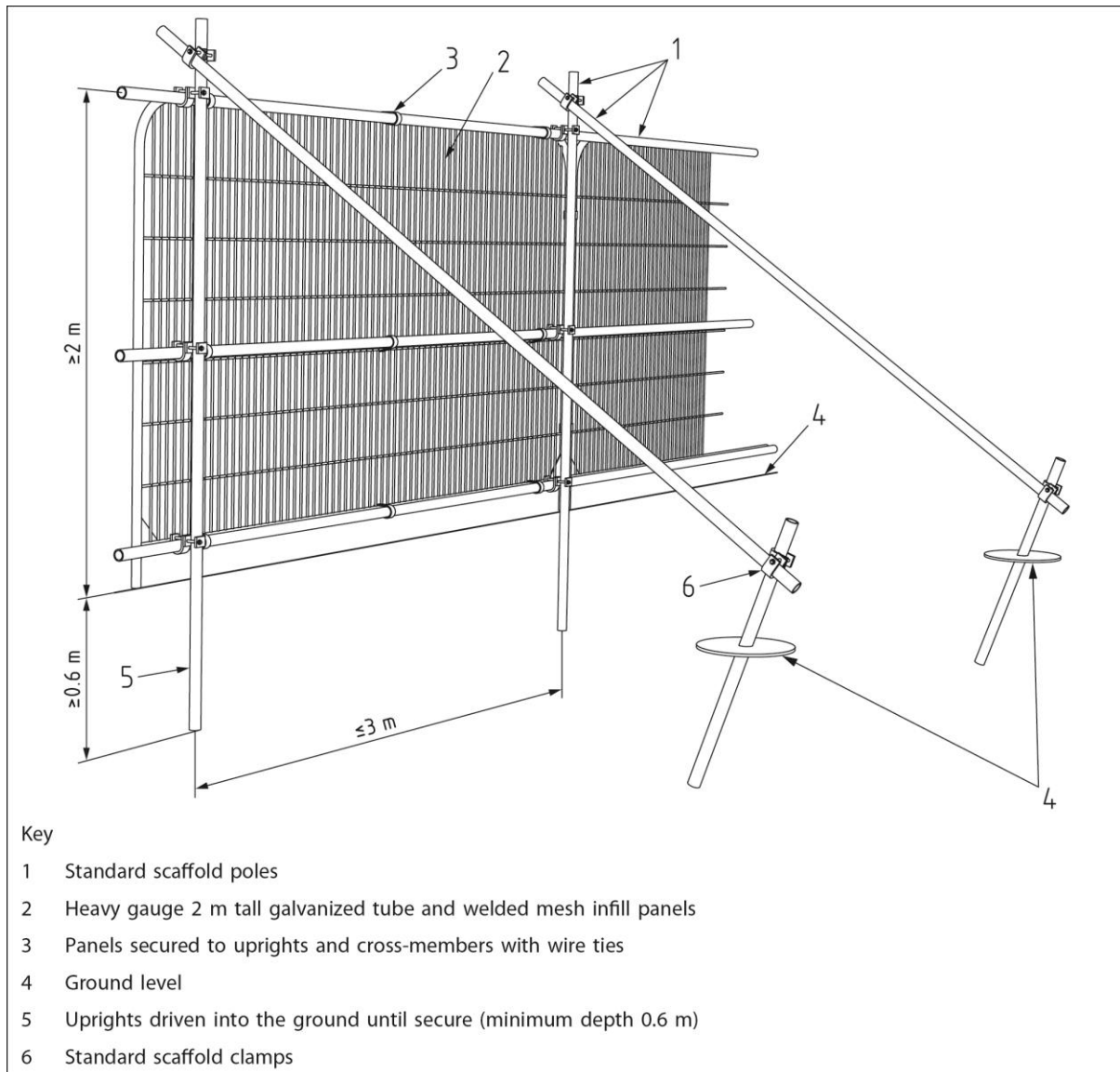
Scale:
1:500 @ A3

DB:
SM

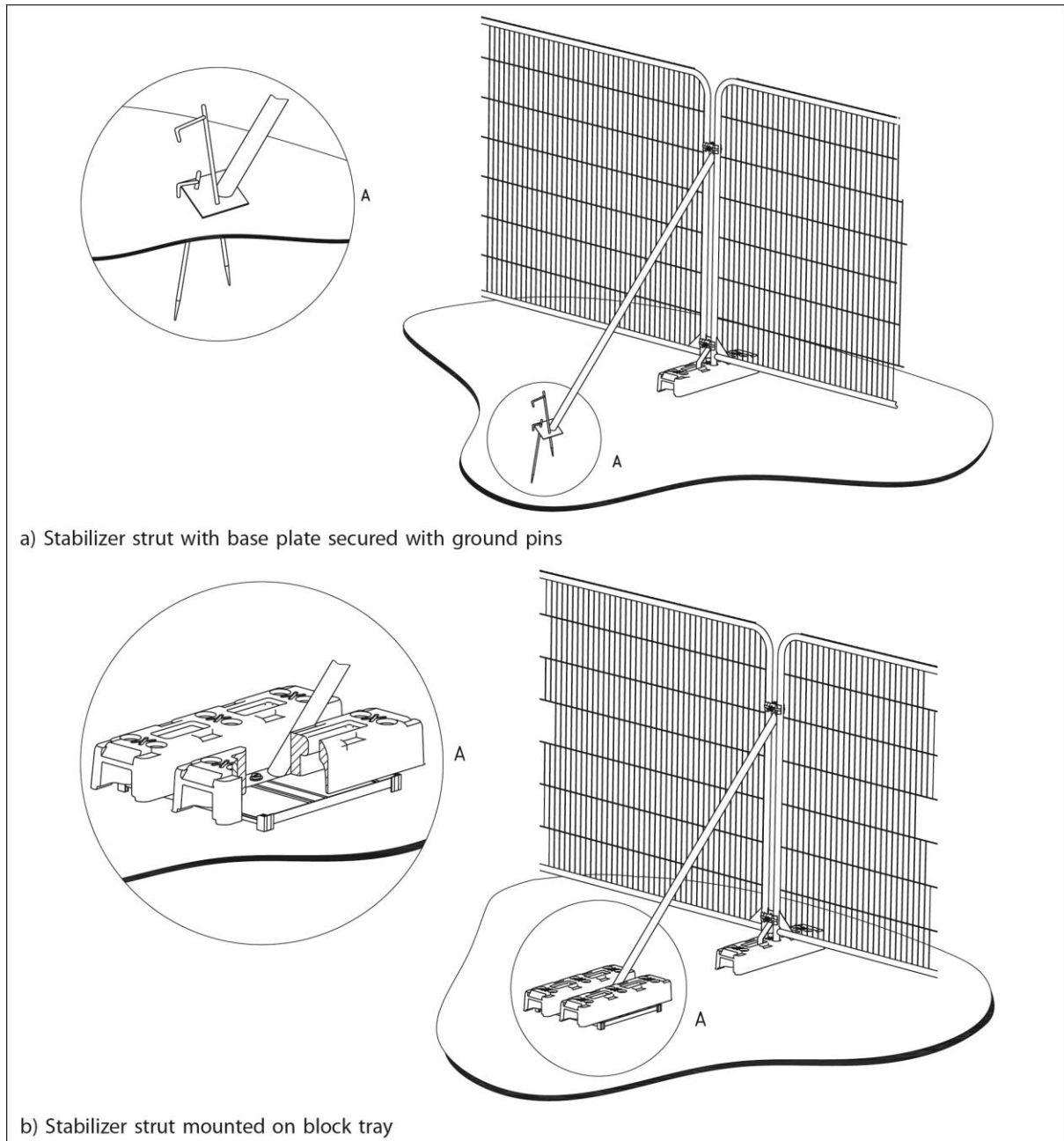
CB:
WH

APPENDICES

APPENDIX 1: BS5837:2012 DEFAULT SPECIFICATION FOR PROTECTIVE BARRIER



APPENDIX 2: BS5837:2012 ABOVE GROUND STABILISING SYSTEMS



APPENDIX 3: CASCADE CHART FOR TREE QUALITY ASSESSMENT

Category and definition		Criteria (including subcategories where appropriate)		
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 (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>		
Trees to be considered for retention				
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
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).	
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.	
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.	