

BS5837:2012 ARBORICULTURAL METHOD STATEMENT

**SOUTH MARCHES DISTRICT SCOUT GROUP
(SCOUTS CORNER), HEREFORD, HR1 2RX**

for

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CONTROL SHEET

South Marches District Scouts
South Marches District Scout Group (Scouts Corner), Hereford, HR1 2RX
BS5837:2012 Arboricultural Method Statement

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1. INTRODUCTION

1.1 Overview & Client Brief

Focus Environmental Consultants was commissioned by South Marches District Scouts to produce an Arboricultural Method Statement for South Marches District Scout Group (Scouts Corner), Hereford in accordance with BS5837:2012 - *Trees in Relation to Design, Demolition and Construction*.

1.2 Personnel & Quality Assurance

The report was prepared by an experienced arboricultural consultant (Callum Andrew BSc (Hons) MArborA) from Focus Environmental Consultants.

1.3 Scheme & Planning Background

Planning permission has been granted by Herefordshire District Council for the replacement of the existing scout hall, stores, sheds and shipping containers with new scout hall, which includes garage and stores at Scouts Corners, Hereford.

This Arboricultural Method Statement has been written to satisfy Conditions 5 and 6 of Planning Application No. 203891, which state:

5. Except where otherwise stipulated by condition, the development shall be carried out strictly in accordance with the following documents and plan:

- *BS5837:2012 Arboricultural Survey and Impact Assessment (Focus Environmental Consultants)*

Reason: To ensure that the development is carried out only as approved by the Local Planning Authority and to conform with Policies LD1 and LD3 of the Herefordshire Local Plan – Core Strategy and the National Planning Policy Framework.

6. Prior to the commencement of any works, a method statement including appropriate no dig measures in relation building demolition/removal (which shall include arboricultural site supervision), must be submitted and approved by the local planning authority and the development shall be carried out in accordance with the approved method statement.

Reason: To safeguard the character and amenity of the area and to ensure that the development conforms with Policies LD1 and LD3 of the Herefordshire Local Plan – Core Strategy and the National Planning Policy Framework.

Please Note: There is no requirement for the use of ‘no dig’ measures within root protection areas for this particular proposed development and therefore no such details have been provided within this document.

1.4 Terms and Definitions

The following particular terms may be used within this AMS. These terms are defined by BS5837 as follows, unless otherwise clarified:

•**Arboricultural Clerk of Works** - “person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction”;

•**Construction Exclusion Zone ('CEZ')** - “area based on the root protection area from which access is prohibited for the duration of a project”;

•**Root Protection Area ('RPA')** - “layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority”; and

•**Tree Protection Plan ('TPP')** - “scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures”.

2. ARBORICULTURAL IMPACT ASSESSMENT SUMMARY

This section of the report should be read in conjunction with the Arboricultural Impact Assessment Plan (Annex 4.3).

2.1 Trees Highlighted for Removal

The removal of two Category 'C' items (G12 & T13) is required to facilitate the proposed development. One Category 'U' tree (T9) has also been highlighted for removal for safety management purposes. These are self-seeded trees that are poorly positioned and their removal will be beneficial regardless of development to prevent future problems, being situated so close to the neighbouring property.

2.2 Trees Impacted by Proposed Development

The following parts of the proposed development will be carried out within close proximity to the retained trees. These works **must** be carried out sympathetically as specified within this arboricultural method statement.

- The existing shipping container will be removed from beneath T2's crown and from within its RPA (see Section 3.3).
- The existing shipping container will be removed from within T3's RPA and within close proximity to the its crown (see Section 3.3).
- The removal/demolition of a shipping container and light weight structures from within T10's RPA (see Section 3.3).
- The removal/demolition of a shipping container and light weight structures from within T11's RPA and beneath its crown (see Section 3.3).
- The construction of the new scout hall within H14's RPA and within close proximity to its crown (see Section 3.2).

3. ARBORICULTURAL METHOD STATEMENT

This section describes how the trees highlighted for retention will be safeguarded during the development and should be read in conjunction with the Tree Protection Plan (TPP) (Annex 4.3).

3.1 Project Arboriculturalist

A qualified arboriculturalist will be instructed as the Arboricultural Clerk of Works (ACoW) for the site. It is the responsibility of **THE SITE MANAGER** to formally instruct an ACoW prior to the commencement of any other site works. The ACoW will inform Hereford District Council's tree officer of the instruction and provide them with regular updates. The ACoW's responsibilities will include:

- Pre-commencement site meeting to inspect and sign-off the tree protection measures as well as providing the opportunity to work through this AMS with the site manager to ensure they are aware of, and understand all points within its contents.
- Supervision of **all works** required within the root protection areas (RPAs) and in close proximity to above ground parts of retained trees.
- Monthly site visits to inspect the tree protection and discuss any upcoming development stages with the site manager that may impact upon the trees and require further input from the ACoW.
- Maintain a progression log of all site visits and supervisions that can be presented to the LPA to show that the development has been completed in line with this AMS.

3.2 Facilitation Tree Works

The tree removal / pruning works will be completed only once approval has been acquired from Hereford District Council. The tree removal / pruning works will be completed prior to the commencement of any other site works and before the installation of tree protection fencing.

3.2.1 Tree Removal / Pruning Specifications (Table 1)

TREE ID	TREE WORK SPECIFICATIONS
T9	Fell/Remove to ground level.
G12	Fell/Remove to ground level.
T13	Fell/Remove to ground level.
H14	Trim back to site boundary.

3.2.2 Tree Work Standards

The necessary tree removal and pruning will be carried out by a suitably qualified and fully insured arboricultural contractor in accordance with BS3998:2010 – *Recommendations for Tree Work*.

3.2.3 Nesting Birds

Where the removal of trees and/or hedgerows is required, removal of potential bird nesting habitat should be undertaken outside the bird nesting season (March – August inclusive) or otherwise under the direct supervision of a suitably qualified ecologist who will be able to identify nesting birds and advise of appropriate safe working distances.

3.3 Removal of Shipping Containers/Light Structures

Due to the shipping containers and light structures being situated within tree RPAs which will be protected using fencing during the development, the removal/demolition of these structures will be the first work to be completed on site following the tree removal / pruning (Section 3.2).

3.3.1 Tree Protective Stem Boxes

With the shipping containers being in close proximity to T2, T10 and T11's stem, there is a risk of damage being caused whilst moving the shipping containers. Solid plywood hoarding tree protective stem boxes will be installed around T2, T10 and T11's stem to prevent damage being caused.

The plywood hoarding should be securely attached onto a lightweight timber frame that is secured to the ground. The frame will be installed around the stem, maintaining a gap between the stem and the plywood hoarding. The plywood hoarding will be a minimum of 2.5m high. No materials will be attached/nailed to the tree.



Plate 1: Example of plywood hoarding used as tree protection. ©Google.

The plywood hoarding will be carefully dismantled following the removal / demolition of the shipping containers / lightweight structures as the above ground parts of the trees will be suitably protected by the tree protection fencing for the remainder of the development (see Section 3.4).

3.3.2 Removal of Shipping Containers

A suitable crane/ will be used to move the shipping containers. As well as being of a suitable size to lift the containers, it should also be as small as possible to avoid damage being caused to the above ground parts of the trees. When lifting, a banksman and the ACoW will guide the operator to ensure contact between the crane/container and the trees is avoided. The crane / container should be kept as

low to the ground as possible, slewing horizontally until the container is away from the tree crowns.

The crane or crane mounted vehicle will be positioned outside of RPAs or upon areas of existing hardstanding to prevent soil compaction from occurring. If the vehicle needs to access areas of exposed ground within RPAs, then temporary ground protection matting will firstly be laid (see Section 3.4).

3.3.3 Demolition / Removal of Light Structures

The demolition / removal of the light garage structures within T10 and T11's RPA will be carried out manually where possible. Where plant / machinery is required, this will be positioned outside of RPAs or upon areas of existing hardstanding to prevent soil compaction from occurring. If the vehicle needs to access areas of exposed ground within RPAs, then temporary ground protection matting will firstly be laid (see Section 3.4). As materials are dismantled they will be pulled away from the trees using a 'top down, pull back' technique to avoid damage from occurring.

3.3.4 Removal of Concrete Bases

If the concrete bases of the shipping containers / light structures are to be removed, then this will be carried out manually using hand-held tools. A hand-held pneumatic breaker will be used to break up the base. The broken up rubble will then be removed from the area by hand using a wheel barrow or similar. The rubble will be piled up / stored outside of tree RPAs. The sub-base layers will be carefully removed using hand-held tools, working around any tree roots and ensuring that no excavation works occur beyond the depth of the built material and into the soil layer below. The area will then be back filled with a good quality top soil immediately after the work to avoid root desiccation from occurring.

3.3.5 Exposed Roots

If tree roots < 25 mm diameter become exposed during the hand digging, then the ACoW will cleanly prune them back to the edge of the excavated area using secateurs or a sharp hand saw. Roots > 25 mm diameter will be retained and carefully worked around. These will be wrapped in hessian and wetted whilst exposed.

3.4 Tree Protection Measures

The specified tree protection will be correctly installed following the supervised removal / demolition of the shipping containers / lightweight structures. No further development works will be carried out until the tree protection has been correctly installed and signed-off by the ACoW.

3.4.1 Tree Protection Fencing

A tree protection fence will be erected to the correct specification and positioned as specified by the dimensions on the TPP (Annex 4.3). The tree protection fencing will only be dismantled and removed from site following the completion of all works and the removal of machinery and vehicles from site.

Once installed, the tree protection fencing will be defined as a Construction Exclusion Zone (CEZ) and will be sacrosanct throughout the development and no access within this area will be allowed. If tree protection fencing requires temporarily moving for unforeseen reasons, the ACoW will be firstly consulted and approval requested from Herefordshire District Council if the proposals are considered viable.

3.4.2 Tree Protection Fencing Specifications

The tree protection fencing will comprise of **2 metre high welded mesh panels on rubber feet**. The fence panels will be joined together using a **minimum of two anti-tamper couplers**, installed so that they can only be removed from inside (tree side) the fence. The distance of the fence couplers will be at least 1 metre and should be uniform through the fence. The panels will be supported on the inner side by **stabilizer struts** (one installed between each fencing panel), which will be attached to a **base plate** secured with **ground pins** (Annex 4.4).

3.4.3 Tree Protection Signage

The fence will have A1 laminated signs attached to every fourth panel, stating that this is a Construction Exclusion Zone (CEZ) and that **NO WORKS** are permitted within the CEZ (Annex 4.4).

3.4.4 Temporary Ground Protection

Temporary ground protection matting will be laid within T11 and H14's RPA, between the tree protection fencing / boundary fencing and the footprint of the proposed scouts hall. This helps to safeguard tree roots and minimise soil compaction, whilst also providing enough space for the development to be carried out without being constrained by tree protection fencing. The temporary ground protection will be installed as follows:

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 (Plate 2).



Plate 2: An example of temporary ground protection laid up against the tree protection fencing. This protects the RPA whilst also providing adequate space between the fencing and the development footprint.

3.4.5 Additional Requirements within the Vicinity of CEZs

- No storage of materials, machinery, temporary structures, chemicals or fuel shall occur within the CEZs or upon temporary ground protection.
- No unapproved groundworks will be carried out within CEZs.
- Planning of site operations should take sufficient account of wide loads, tall loads and plant with booms, jibs and counterweights (including drilling rigs), in order that they can operate without coming into contact with retained trees.
- Any transit or transverse of plant in proximity to trees should be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is maintained at all times.
- Fires will not be lit within 10 metres of the CEZs. Fires will not be lit when the trees are situated down wind from the fire's position, during periods of strong wind.
- Activities that can lead to soil contamination (e.g. refuelling and concrete mixing) will not be carried out within 10 metres of the CEZs.

3.5 Landscaping

The requirement for any landscaping works within the CEZs will be carried out at the end of the development. Any works within these areas will be carried out manually, using hand-held tools. Grass seed will be used opposed to turf to prevent soil compaction and young shrubs / plants will be planted that require minimal excavation works. Young shrubs / plants can be notch planted to minimise the chance of tree root damage from occurring.

3.6 Site Meetings

3.6.1 Pre-commencement Meeting

A pre-commencement site meeting, attended by the LPA tree officer (unless they state otherwise), ACoW and site manager, will be carried out prior to the commencement of any site works. It is the responsibility of **THE SITE MANAGER** to arrange this meeting. The meeting will be held to go through this AMS with the site manager to ensure they are aware of and understand all points within its contents.

3.6.2 Post-development Meeting

Following the completion of the development, the same three parties detailed above, will attend site to confirm that the development has been completed in line with this AMS. It will also give the opportunity to confirm all works have been completed and that all materials and machinery have been removed from site. The tree officer/ACoW will then be able to give approval for the dismantling and removal of the tree protection fencing.

3.7 Supervision/Key Events

Site specific key events that will require input and supervision from the ACoW are provided below (Table 2). It is the responsibility of **THE SITE MANAGER** to inform the ACoW when these events are to be completed, providing a minimum of one-weeks' notice. This will allow the ACoW to suitably schedule in the supervision works.

Table 2: Key events that require supervision from the ACoW.

Task	Site Manager Signature	ACoW Signature
Pre-commencement meeting between LPA tree officer, ACoW & site manager to go through this AMS (Section 3.6).		
Supervision of the removal / demolition of the shipping containers / lightweight structures (Section 3.3).		
Inspection and sign-off of tree protection measures by ACoW (Section 3.4).		
Confirmation from ACoW that main stage of the development can proceed.		
Post-development meeting to clarify that the development has been completed in-line with this AMS.		
Site meeting between ACoW & landscaper to clarify how any landscape works within the CEZ will be carried out.		
Confirmation from ACoW that tree protective measures (e.g. fencing & ground protection) can be removed.		
Monthly site visits from ACoW.		

3.8 Arboricultural Monitoring

During the development process a monthly site visit will be completed and signed-off by the ACoW to ensure all tree protection still remains *in situ* and fit for purpose. Site visits will give the opportunity for the ACoW to highlight any concerns, and also give the site manager the opportunity to clarify any issues where they are unclear. The visits will be dated and signed-off by the ACoW using the Table 3 below.

Table 3: arboricultural monthly monitoring sign-off table.

[illegible]

3.9 Contact Details

The details of the relevant parties involved in the project will be provided below (Table 4). This working document will be updated with the relevant details in due course as they are confirmed.

Table 4: Relevant party contact details.

Name	Role	Company/ Authority	Number	Email
	Client			
	Site Manager			
	Arboricultural Clerk of Works			
	Tree Officer	Herefordshire District Council		

4. ANNEXES

4.1 Tree Survey Schedule

4.2 Tree Survey Key

4.3 Plans

4.4 Tree Protection Measures & Signage

4.5 Scope & Limitations

4.6 References & Bibliography

4.1 Tree Survey Schedule

ID (TPO)	Common Name	Scientific Name	Maturity	Height (m)	Height/Direc 1st Branch (m)	Stem Diam (mm)	Crown Spread N/E/S/W				Ground Cl (m)	Structure/ Form	Physical Condition	Life Expectancy (yrs)	Observations Recommendations	Retention Category	RPA Radius (m)	RPA (M ²)
T1 (TPO)	Ash	<i>Fraxinus excelsior</i>	Mature	21	W6	1170	5.5	7	5	7.5	4	Fair	Good	20 to 40	<p>A significant tree. Dead ivy present from 2m to 8m high. Cavity present on west side of stem at 3m high that hosts bees. Major wounds in crown from large scaffold limb removal - the extent of the decay unclear from ground-level. <i>Daldinia concentrica</i> fungal fruiting bodies present on westerly scaffold limb at 8m high with no live growth. Black lesions in crown are possible areas infected by <i>Inonotus hispidus</i> but no fungal fruiting bodies present during the survey.</p> <p>Aerially inspect in autumn to assess the conditions of the cavities and to check for fungal fruiting bodies.</p> <p>Possible aerial decay detection through the use of a Resistograph or PiCUS Sonic Tomograph required.</p>	B2	14.0	619
T2 (TPO)	Sycamore	<i>Acer pseudoplatanus</i>	Mature	21	E4	1000	9.5	8	9	9.5	4	Good	Good	>40	<p>Significant tree. No accurate inspection could be completed of the stem base due to dense epicormic growth. Stem forks at 4m high into triple stems. Occluded wounds present throughout the crown. Deadwood present in crown.</p> <p>Sever and remove epicormic growth at stem base, then re-inspect.</p> <p>Remove deadwood from crown.</p>	A2	12.0	452

ID	Common Name	Scientific Name	Maturity	Height (m)	Height/Direc 1st Branch (m)	Stem Diam (mm)	Crown Spread N/E/S/W				Ground Cl (m)	Structure/Form	Physical Condition	Life Expectancy (yrs)	Observations Recommendations	Retention Category	RPA Radius (m)	RPA (M ²)
T3 (TPO)	Sycamore	<i>Acer pseudoplatanus</i>	Mature	21	S4	590	6.5	6.5	2.5	5.5	4	Good	Good	20 to 40	No accurate inspection could be completed due to minor epicormic growth and ivy present at stem base. Dead ivy present from 2m to 6m high. Possesses a northerly crown bias due to being suppressed by T2. Bird box present on stem at 2m high. Deadwood in crown. Sever and remove minor epicormic growth and ivy, then re-inspect. Remove deadwood from crown.	B2	7.1	157
T4	Common lime	<i>Tilia x europaea</i>	Semi-mature	10	W1	300	4	1	2	3	0	Fair	Good	10 to 20	No accurate inspection could be completed due to dense epicormic growth. Growing close to fencing rails. Sever and remove epicormic growth, then re-inspect.	C2	3.6	41
T5	Common lime	<i>Tilia x europaea</i>	Mature	14	N2	600#	5.5	3	3.5	3	0	Fair	Good	20 to 40	No accurate inspection could be completed due to dense epicormic growth. DBH was estimated due to dense epicormic growth preventing access to the stem. Sever and remove epicormic growth, then re-inspect.	B2	7.2	163
T6	Elder	<i>Sambucas nigra</i>	Mature	7	N1	90 m/s x 6 stems	3	2.5	1	1	1	Fair	Fair	10 to 20	Multi-stemmed specimen growing close to the boundary fence. Deadwood present over the offsite footpath. Remove deadwood.	C2	2.6	21

ID	Common Name	Scientific Name	Maturity	Height (m)	Height/Direc 1st Branch (m)	Stem Diam (mm)	Crown Spread N/E/S/W				Ground Cl (m)	Structure/Form	Physical Condition	Life Expectancy (yrs)	Observations Recommendations	Retention Category	RPA Radius (m)	RPA (M ²)
T7	English oak	<i>Quercus robur</i>	Semi-mature	12	S1	240	2.5	2.5	3.5	4	1	Good	Good	10 to 20	A well-formed developing specimen. Minor ivy present. Sever ivy at base.	C2	2.9	26
T8 (TPO)	Holm oak	<i>Quercus ilex</i>	Early-mature	10	N/A	240 230 170 160	5	3.5	3.5	3.5	0	Fair	Good	10 to 20	A multi-stemmed specimen from ground-level. No accurate inspection could be completed due to dense ivy. Sever and remove ivy, then re-inspect.	B2	4.9	75
T9	Wych elm	<i>Ulmus glabra</i>	Dead	10	E2	200	5	5	2	2	2	Poor	Dead	<10	Dead specimen situated on roadside. Fell/Remove.	U	2.4	18
T10 (TPO)	Sycamore	<i>Acer pseudoplatanus</i>	Mature	19	E6	560	9	4	1	4	3	Fair	Good	20 to 40	Possesses a northerly lean and crown bias over the offsite road. Ivy previously severed at stem base, but still obscures the completion of an accurate inspection. Codominant form from 7m high with a possible bark inclusion present. Remove ivy, then re-inspect. Remove deadwood from crown. Aerially inspect branch union suspected of possessing a bark inclusion at 7m high.	B2	6.7	142

ID	Common Name	Scientific Name	Maturity	Height (m)	Height/Direct 1st Branch (m)	Stem Diam (mm)	Crown Spread N/E/S/W				Ground Cl (m)	Structure/Form	Physical Condition	Life Expectancy (yrs)	Observations Recommendations	Retention Category	RPA Radius (m)	RPA (M ²)
T11 (TPO)	Sycamore	<i>Acer pseudoplatanus</i>	Mature	19	W6	690	2.2	4	7	6	2	Fair	Good	20 to 40	No accurate inspection could be completed due to dense ivy throughout structure. Deadwood present in crown. Sever and remove ivy, then re-inspect. Deadwood present in crown.	B2	8.3	215
G12	Robinia	<i>Robinia pseudoacacia</i>	Semi-mature	7	S2	130	See plan.				2	Good	Good	10 to 20	Three trees of similar dimensions growing closely together. Individual crown spreads recorded to form Tree Constraints Plan. Growing close to site boundary and the neighbouring offsite garage. Unsuitable location considering ultimate size and suckering nature. Fell/Remove due to unsuitable, close proximity to the offsite garage.	C2	1.6	8
T13	Ash	<i>Fraxinus excelsior</i>	Semi-mature	7	W1.5	180	2.5	3.5	3	3	2	Good	Good	10 to 20	Growing in close proximity to the storage unit and the neighbouring offsite garage. Unsuitable location considering ultimate size. Fell/Remove due to unsuitable, close proximity to the offsite garage.	C2	2.2	15
H14	Cherry laurel	<i>Prunus laurocerasus</i>	Semi-mature	3	N/A	150	See plan.				0	Good	Good	10 to 20	A small offsite hedgerow that is overhanging the site boundary.	C2	1.8	10
T15	Common pear	<i>Pyrus communis</i>	Young	3	S0.5	110	1.5	1.5	1.5	1.5	1	Good	Good	10 to 20	A developing fruit tree. Transplantable if required.	C2	1.3	5

4.2 Tree Survey Key

Table 65: Tree Survey Key

Reference Code	Description
ID (TPO)	Each plotted position has been allocated a sequential reference number: T1, G1, H1. Where (TPO) is present below the ID number, this means the tree is protected by a Tree Preservation Order.
Species	Listed by common name and scientific name.
Maturity	Young – not yet established, can be moved or replaced relatively easily and less than 1/3 of their potential mature size. Semi-mature – established in the landscape and approximately 1/3 of their potential mature size. Early-mature – approximately 2/3 of their potential mature size. Mature – considered to have reached mature size. Veteran – by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. Dead – Dead specimen.
Height (m)	Measured in metres from ground level.
Stem Diameter (mm)	Diameter is measured at 1.5m above ground level (DBH – diameter at breast height). For multi-stemmed (M/S) trees, the diameter of each stem is measured and the squares of the stems are added together. The square root of this figure is then calculated to give the equivalent single stem diameter. In some instances, this method may provide a misleading figure (e.g. for coppiced trees). The diameter at ground level may be recorded instead, or a diameter that provides a more appropriate RPA.
Crown Spread (m)	The spread of the crown is measured in metres on the north, east, south and west sides. This has been recorded either with a laser or by pacing, depending upon site conditions.

Reference Code	Description
Ground CI (m)	This is the clearance of the first significant branch from ground level, measured in metres.
Structure/form	An assessment of the form of the tree, with reference to any significant defects found (e.g. decay, weak forks, exposed roots). Good – No obvious major defects observed Fair – Minor defects present Poor – Major defects present
Physical condition	This refers to how well the tree is functioning as a living organism. Factors including: leaf size and condition; shoot growth; and presence of deadwood have provided an indication of its overall health. Good – Appears a healthy example of this species Fair – Early signs of stress present Poor – Not a healthy example of this species, with substantial signs of stress/decline evident Dead – No remaining contribution.
Life expectancy	The approximate remaining contribution in years has been assessed with consideration of the species and site. <10 – less than 10 years remaining contribution 10 – 20 years remaining 20 – 40 years remaining >40 – greater than 40 years remaining
Retention category	BS5837:2012 Table 1 categories (Annex 5.4) have been used to assess the quality and value of tree, tree groups and hedgerows. A – High B – Moderate C – Low U – 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.
RPA (m ²)	Root Protection Area (in m ²) calculated as a circle with a radius of 12 x the stem diameter.
RPA (m)	The radius in metres of the Root Protection Area.

4.3 Plans

4.3.1 Arboricultural Impact Assessment Plan

4.3.2 Tree Protection Plan

a) Stabilizer strut with plate secured with ground pins

b) Stabilizer strut mounted on block tray

Any landscaping behind the tree protection fencing will be carried out at the end of the development in a sympathetic manner (see Section 3.5 of the AMS).

Temporary Ground Protection

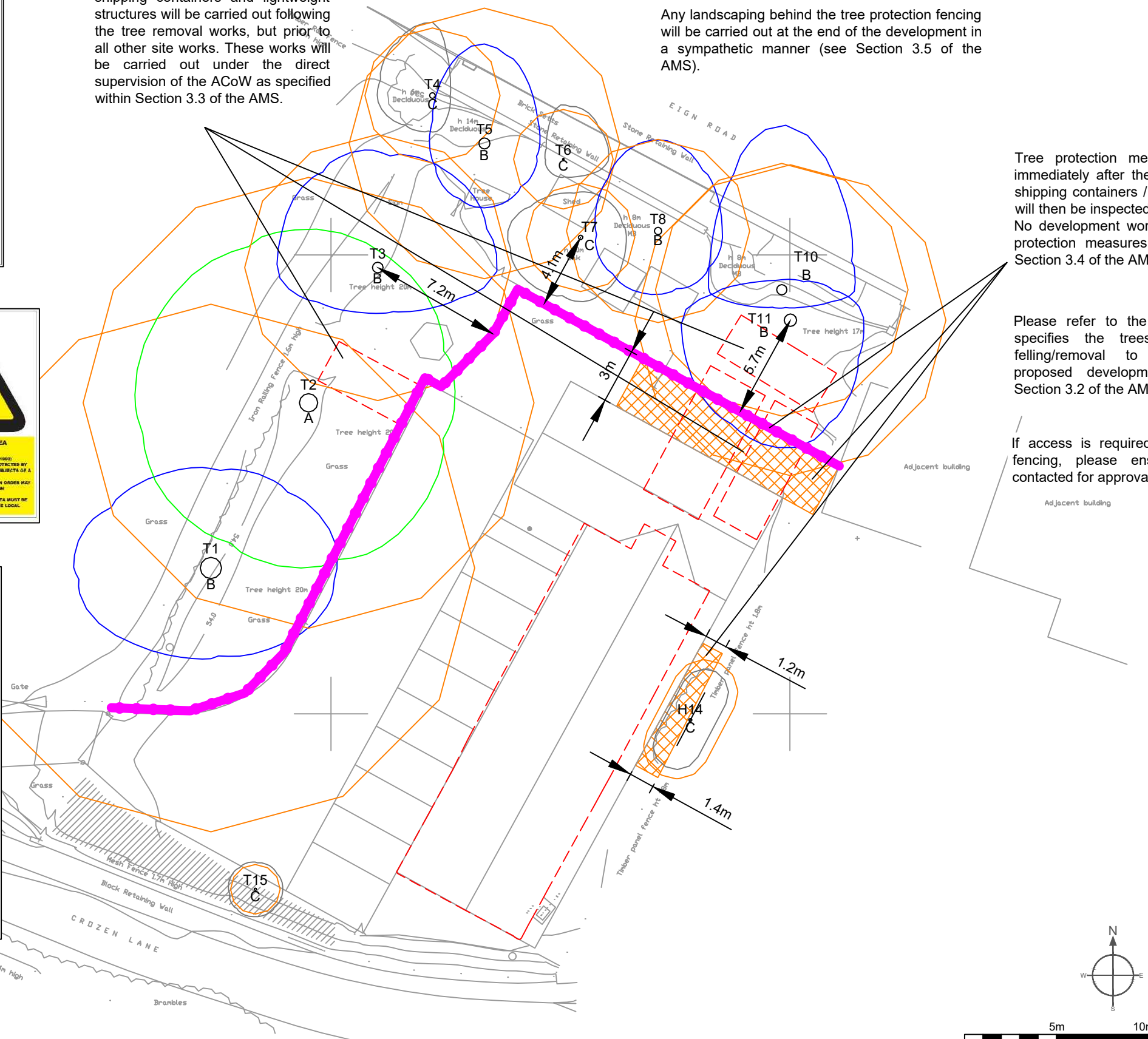
Temporary ground protection will be capable of tolerating pedestrian-operated plant up to a gross weight of 2 t. Machinery of a weight greater than 2 t will be removed from moving over these areas.

Installation Specification:

1. Timber edgerails at 200 mm high x 50 mm wide will be secured to the ground with timber stakes. Timber stake dimensions will be 50 x 50 x 500 mm and will be positioned at 1 m spacings. Timber edgerails will be installed at both sides of the ground protection's specified position.
2. A geotextile membrane will be laid on the ground between the timber edgerails.
3. A layer of woodchips at a depth of 150 mm will be laid upon the geotextile membrane.
4. Proprietary ground protection boards at 1200 mm wide x 2400 mm long will be laid upon the woodchip. A single row of boards will be used to cover the areas specified for 1.2 m wide temporary ground protection. Two rows of boards laid next to each other will no gaps between will be required in boards used for 2.4 m wide temporary ground protection.
5. The ground protection boards will be secured together using metal couplers.


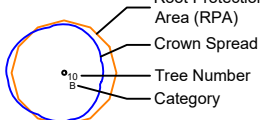


The diagram shows a cross-section of the temporary ground protection system. It is installed on a paved surface. A wooden edgerail is secured to the ground with stakes. Inside the edgerail, a layer of woodchips is placed on top of a geotextile membrane. Proprietary ground protection boards are laid on top of the woodchips, secured together with metal couplers. The diagram is labeled with numbers 1 through 6 corresponding to the components: 1. Timber Edgerails, 2. Geotextile Membrane, 3. Woodchip, 4. Proprietary ground protection, 5. Metal couplers, and 6. Timber Stakes.

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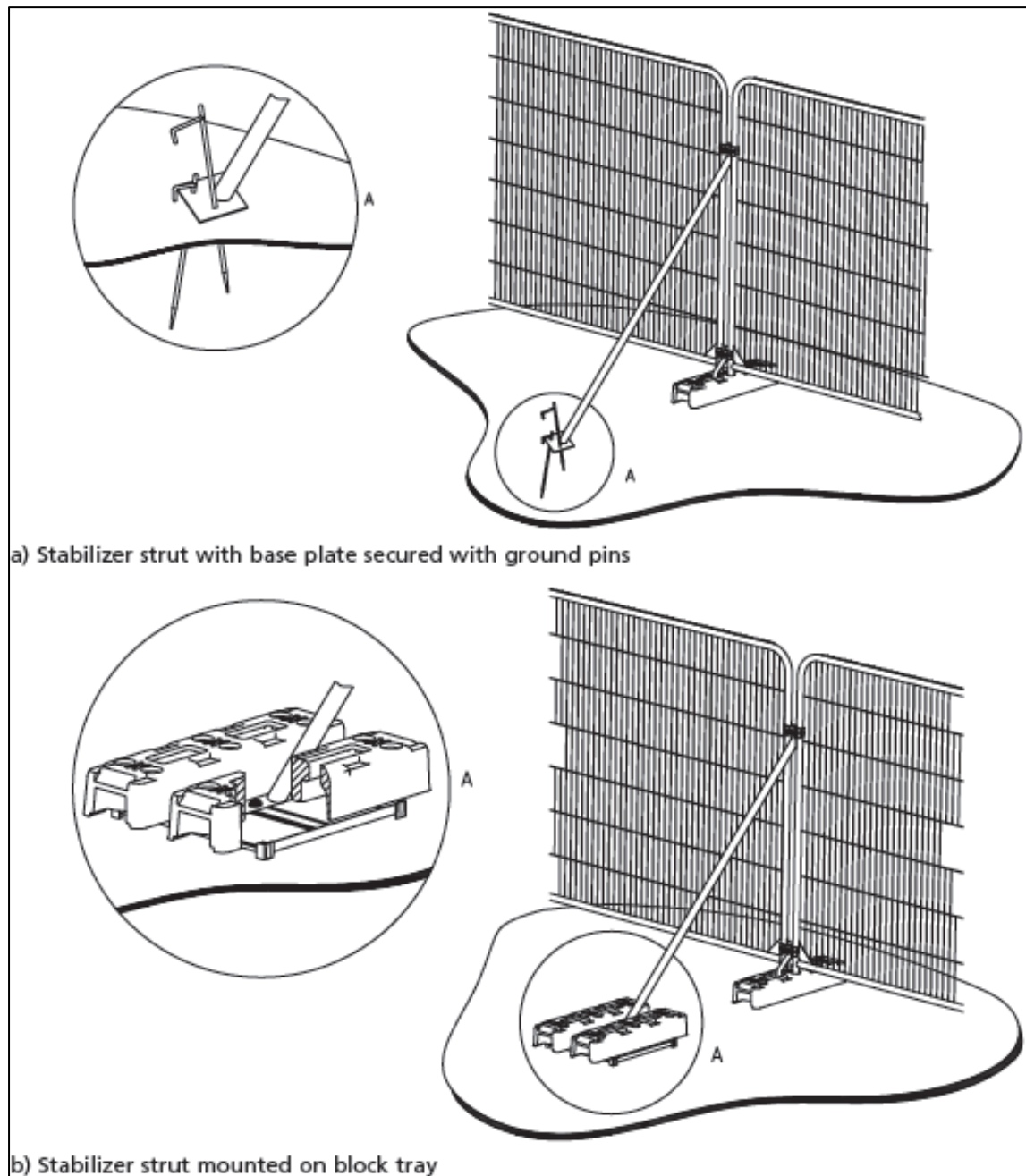
Please refer to the AIA plan that specifies the trees that require felling/removal to facilitate the proposed development (also see Section 3.2 of the AMS).

If access is required behind the tree protection / fencing, please ensure the ACoW is firstly / contacted for approval and / or guidance.

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<p>Focus Environmental Consultants Unit 2 Ball Mill Top Business Park Hallow Worcester, WR2 6PD</p>			
Site: Scouts Corner, Hereford		1-250@A3	
Drawing Title: Tree Protection Plan		April 2021	
Client: South Marches District Scout Group		Ref: 1938	
<p>Key:</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <div style="display: flex; align-items: center; margin-bottom: 10px;">  Tree Protection Fencing </div> <div style="display: flex; align-items: center;">  Temporary Ground Protection </div> </div> </div>			

4.4 Tree Protection Measures & Signage

4.4.1 Tree Protection Fencing Design



4.4.2 Temporary Ground Protection

Installation Specification:

1. Timber edge rails at 200 mm high x 50 mm wide will be secured to the ground with timber stakes. Timber stake dimensions will be 50 x 50 x 500 mm and will be positioned at 1 m spacings. Timber edge rails will be installed at both sides of the ground protection's specified position.
2. A geotextile membrane will be laid on the ground between the timber edge rails.
3. A layer of woodchip at a depth of 150 mm will be laid upon the geotextile membrane.
4. Proprietary ground protection boards at 1200 mm wide x 2400 mm long will be laid upon the woodchip. A single row of boards will be used to cover the areas specified for 1.2 m wide temporary ground protection. Two rows of boards laid next to each other with no gaps between will be required in areas specified for 2.4 m wide temporary ground protection.
5. The ground protection boards will be secured together using metal couplers.



4.4.3 Signage for Tree Protection Fencing



4.5 Scope & Limitations

The scope of this report is as follows:

- To produce an Arboricultural Method Statement in line with BS5837:2012 to specifically protect on site trees and reduce the impact on adjacent trees.

Trees and hedgerows can support a variety of vertebrate and invertebrate fauna, including species that are afforded protection under wildlife legislation (e.g. The Wildlife and Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations (2017)).

Where the presence of legally protected species is known or suspected, advice should always be sought from an experienced ecological consultant and/or the relevant statutory nature conservation organisation (e.g. Natural England) for formal advice. Such detailed advice is beyond the remit of this report, but obvious wildlife constraints will be identified wherever feasible.

4.6 References & Bibliography

British Standards Institute (2010). *British Standard 3998:2010 Tree Work – Recommendations.* BSI, London UK.

British Standards Institute (2012). *British Standard 5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations.* BSI, London UK.

Focus Environmental Consultants (2020). *BS5837:2012 Arboricultural Survey and Impact Assessment (AIA) – South Marches District Scout Group (Scouts Corner), Hereford, HR1 2RX.* Worcester, UK (unpublished).

5. QUALIFICATIONS & EXPERIENCE

Focus Environmental Consultants® has the expertise to provide sure-fire environmental solutions to a wide range of projects. The company ethos forges the highest standards of professional scientific practice with a best value approach for our clients. Our core area of expertise is in the production of specialist environmental reports and advice to support planning applications. Our comprehensive services include tree constraints surveys, Arboricultural Impact Assessments (AIA) and Method Statements, Health and Safety tree assessments, reports to accompany insurance/mortgage applications and production of Woodland Management Plans. The arboricultural team at Focus Environmental Consultants are all members of the Arboricultural Association and Institute of Chartered Foresters. Our flexible approach, range of skills and broad project experience from major infrastructure contracts to small private developments allows us to adapt to your individual requirements. As well as offering a full suite of arboricultural services, Focus Environmental Consultants is able to provide expert ecological advice and reports and is building an enviable reputation for innovative habitat creation and management solutions. Focus Environmental Consultants is situated in Worcestershire, providing a convenient and central UK location.

Callum Andrew BSc (Hons) MArborA

Callum is a Senior Arboriculturalist who joined Focus Environmental Consultants in 2018. He holds a BSc (Hons) in Arboriculture from the University of Central Lancashire (UCLAN) / Myerscough College and is also a member of the Arboricultural Association. Prior to completing his degree Callum gained a BTEC National Diploma qualification in Forestry and Arboriculture at Askham Bryan College, York. Before joining the company, Callum worked at a Leeds based company for four years. His role involved surveying of trees and producing reports in accordance with BS5837:2012; for safety management purposes, and for property mortgage and insurance applications and claims. He also completed practical arboricultural tasks as a climbing arborist including pruning, dismantling and aerially inspecting trees.