TREE CONSULTANTS

ARBORICULTURAL METHOD STATEMENT

to BS 5837:2012 at

Land at

Broad Lane
Upperthong
Holmfirth
West Yorkshire
HD9 3JS

This document describes how the trees will be protected and managed during the development of this site. It explains how and when the protection measures must be installed and maintained throughout the development.

A copy of this document report must be permanently available on site for the duration of all development activity and should be referenced for practical guidance on how to protect the retained trees at this site.

Prepared for:
Wake Architects Ltd
1 Dunford Road
Holmfirth
West Yorkshire
HD9 2DP

Date: *November 2020*
Reference: *AWA3507AMS*

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instruction

1.1.1 We are instructed by Wake Architects Ltd to prepare an arboricultural method statement for the proposed development at:

- **Broad Lane, Upperthong, Holmfirth, West Yorkshire, HD9 3JS**

1.2 Purpose

1.2.1 This method statement has been prepared in order to demonstrate that the development operations at this site can be undertaken with minimal risk of adverse impact on the trees to be retained.

1.2.2 This method statement conforms to BS 5837:2012 *Trees in relation to design, demolition and construction - Recommendations*. It is based on the arboricultural data, collected at a site visit during September 2018, detailed within Appendix 4 of this report.

1.3 Description of Development

1.3.1 It is proposed to build 4 new residential dwellings with associated access, parking, landscaping and facilities. The proposed development layout has been provided by my client and is the basis for the Tree Protection Plan (TPP) at Appendix 5.

1.4 Details of Consent

1.4.1 Planning consent is subject to this method statement being agreed upon in advance by the Local Planning Authority. The contents of this report must be adhered to, before, during, and after the construction phase.

1.4.2 As such, no equipment, machinery or materials shall be brought onto the site in connection with the development until this arboricultural method statement detailing tree management and tree protection measures has been submitted to and approved by the Local Planning Authority.

2. Method Statement Timeline

2.1 Overview of Sequence of Operations

2.1.1 In overview, it is necessary to undertake the following sequence of operations in relation to arboricultural input for development operations.

1 Method Statement approved by the LPA.

2 Undertake removal of 2m section of the group G2, and minor pruning works to G2 and T17 (as detailed in Appendix 4).

3 Install tree protective fencing.

4 Pre-commencement meeting/confirm tree protective fencing is as specified.

5 Construction of new development.

6 Removal of tree protective fencing.

2.2 Specific Sequence of Operations

2.2.1 The following timeline table informs the key principles for development operations proceeding in relation to arboricultural requirements conditioned as part of this method statement.

2.2.2 The actions and timescales within this table must be adhered to in order to discharge the arboricultural method statement planning condition for this site.

2.2.3 The precise timing and order of some of the development operations may need to be changed due to site specific operational requirements, yet any operations that may affect the trees on the site must be done so under arboricultural supervision by a suitably qualified person appointed by the contractor.

Sequence of Operations		
Stages	***Action***	***Arboricultural Input***
1 Approval	This AMS is submitted to and approved in writing by the LPA.	If necessary, liaise with contractor and LPA to discuss methodologies detailed.
2 Tree Works	Tree removals and pruning works shall be carried out as the first operation on site, in accordance with Appendix 4 and as detailed in section 3.1.	Review the tree work requirements with the tree contractor. If necessary, liaise with the contractor on site during tree works.
3 Tree Protection	Installing the tree protective fencing will take place prior to any storage of plant, materials and machinery. As shown at Appendix 5.	If necessary, liaise with the contractor installing the protective fencing until completed to the standard specified in this method statement.
4 Site Meeting	Following installation of tree protection measures, the LPA shall be invited to inspect the fencing and tree works, and discuss any other site operations that have implications for trees.	Meeting with a representative of the LPA and the site manager. Alternatively, contractor can confirm the fencing and tree works are as specified by taking photographs of the tree protection measures.
5 Construction	Undertake the construction of the new development, including installation of hard surfaces.	If required, the installation of hard surfaces within RPAs shall be carried out under arboricultural supervision and a written record kept at Appendix 3. If necessary, liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
6 Site Finishing	Removal of tree protective fencing must only be undertaken when all site traffic and machinery has left the site.	If acceptable to the LPA, the contractor can take photos of the site to give to the LPA to gain approval for the removal of protective fencing.

3. Tree Management

3.1 Tree Works

3.1.1 The development will require the removal of a small section (approximately 2m) of the Leyland Cypress group G2.

3.1.2 The section of this group that requires removal is highlighted in red on the plan at Appendix 5 and detailed in the tree data schedule at Appendix 4.

3.1.3 The group G2 and the tree T17 will also require minor pruning works to facilitate the new development (as detailed in the tree data schedule at Appendix 4).

3.1.4 All tree work should be carried out according to British Standard 3998:2010 Tree Work - Recommendations.

3.1.5 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

4. Tree Protection

4.1 Tree Protection Fencing

4.1.1 The protective fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 5 (as illustrated with a thick purple line).

4.1.1 The precise fencing location may need to be slightly adjusted on site due to local site conditions, but is not expected to differ from that shown on the TPP. The final fencing position must be agreed on by the LPA before the commencement of any site works.

4.1.2 The tree protective fencing details should be incorporated into relevant subsequent plans, method statements used for design purposes and construction drawings issued for use on site, to ensure that all interested parties are fully aware of the areas in which access and works may and may not take place.

4.1.3 The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, the default BS 5837:2012 tree

protection fencing is deemed disproportionate. It is suggested (if acceptable by the LPA) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.

4.1.4 The fencing should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The fencing panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins or mounted on a block tray (see Appendix 1 for an example).

4.1.5 The area enclosed by the fencing is referred to as the Construction Exclusion Zone (CEZ); this area should be considered a restricted area. No pedestrians, vehicles, storage of materials, equipment or machinery should be allowed with the CEZ unless specified within this method statement. The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.

4.1.6 Once the fencing is erected, waterproof warning signs labelled '*Tree Protection Area'* should be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the fenced-off area (see Appendix 1 for an example sign).

4.1.7 The protective fencing should be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects should be repaired or replaced as soon as is reasonably practicable. The Tree Protection Fencing shall not be removed, breached or altered without prior written authorisation from the local planning authority and under arboricultural supervision by a suitable named responsible individual appointed by the site manager.

4.2 New Hard Surfaces

4.2.1 New hard surfaces, in the form of driveways and footpaths, are proposed within the RPA of the retained trees.

4.2.2 It is understood the new hard-surfaces have been implemented by others in line with a previous planning approval 2012/62/91370/W.

4.2.3 The design and construction of the hard surfaces needs to be sensitive to the requirements of tree roots, substantial enough to withstand the expected levels of traffic and practicable in terms of ease of fabrication.

4.2.4 The finished surface must be porous in order to allow air and water to reach the tree roots, whilst at the same time being able to withstand the load applied. Toxic substances which could leach into the ground must be avoided. Severance of roots and soil compaction should be avoided. Any minor excavations in these areas to remove the existing surface vegetation/turf layer must be done so using hand tools only and under arboricultural supervision.

4.2.5 We are not qualified to recommend any particular construction method in terms of durability or structural integrity and any proposed construction should be approved by a qualified structural engineer prior to implementation.

4.2.6 The construction of hard surfaces, within the RPA of the retained trees should be done under arboricultural supervision and a written record kept at Appendix 3.

4.3 New Boundary Fencing

4.3.1 New boundary fencing is proposed within the RPA of the trees T5, T6, T7, T8, T9, T10, T11, T12, T13, T15, T16, T17 and T18. The encroachment into the trees' RPA should not significantly adversely impact on the health or future condition of the trees, provided care is taken during the construction to avoid root damage, including the use of posts and panels or pile and beam type footings as opposed to strip footings.

4.3.2 The foundations for the fences are to be built using posts and panels or mini-pile and beam type foundations so as to minimise any root damage to the retained trees. The rooting activity at the point where the piles are proposed should be investigated by hand excavation. Consultations should first be undertaken with a structural engineer to ensure that this method of construction is viable and to assess the minimum diameter piles that would suffice for the structure.

4.3.3 The machinery required to dig and install the mini-piles is to pass over the RPA of the retained trees. Before the mini-pile machinery is brought onto site an assessment must be made as to whether ground protection will be needed to distribute the machinery weight. The details of the mini-pile machinery should be made available to the LPA prior to accessing the site. Significant tracked or wheeled machines will require ground protection (e.g. interlinking, non-slip road plates) over the RPA to access the area.

4.4 Drainage and Utilities

4.4.1 Drainage and utilities are to be directed away from the retained trees. Over-ground services should ideally be routed away from areas where they are likely to interfere with the crowns of mature trees.

4.4.2 New underground services should be grouped together and routed away from RPAs. *NJUG 10: Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees* should be considered when installing services.

4.5 Additional Precautions

4.5.1 Allowance should be made for operations outside of the CEZ that could indirectly impact on trees. Including space for site huts, temporary toilet facilities (including their drainage) and other temporary structures; and space for storing (whether temporary or long-term) materials.

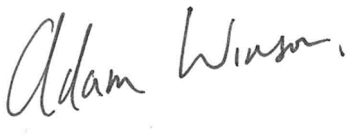
4.5.2 Care must be taken to prevent contamination with chemical spillages, including petrol, diesel and oils. Cement mixers and any other toxic materials should not be permitted within the RPA of the trees. Any materials whose accidental spillage would cause damage to a tree should be stored and handled well away from the outer edge of its RPA.

4.5.3 Fires on the site should be avoided if possible. Where they are unavoidable, and approved by the Local environmental health authority, they should not be lit in a position where heat could affect foliage or branches. The potential size of a fire and the wind direction should be considered when determining its location, and it should be attended always until safe enough to leave.

5. Signature

I trust this report provides all the required information.

Signed



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Adam Winson
Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.

20th November 2020

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Appendix 1: Images and Figures

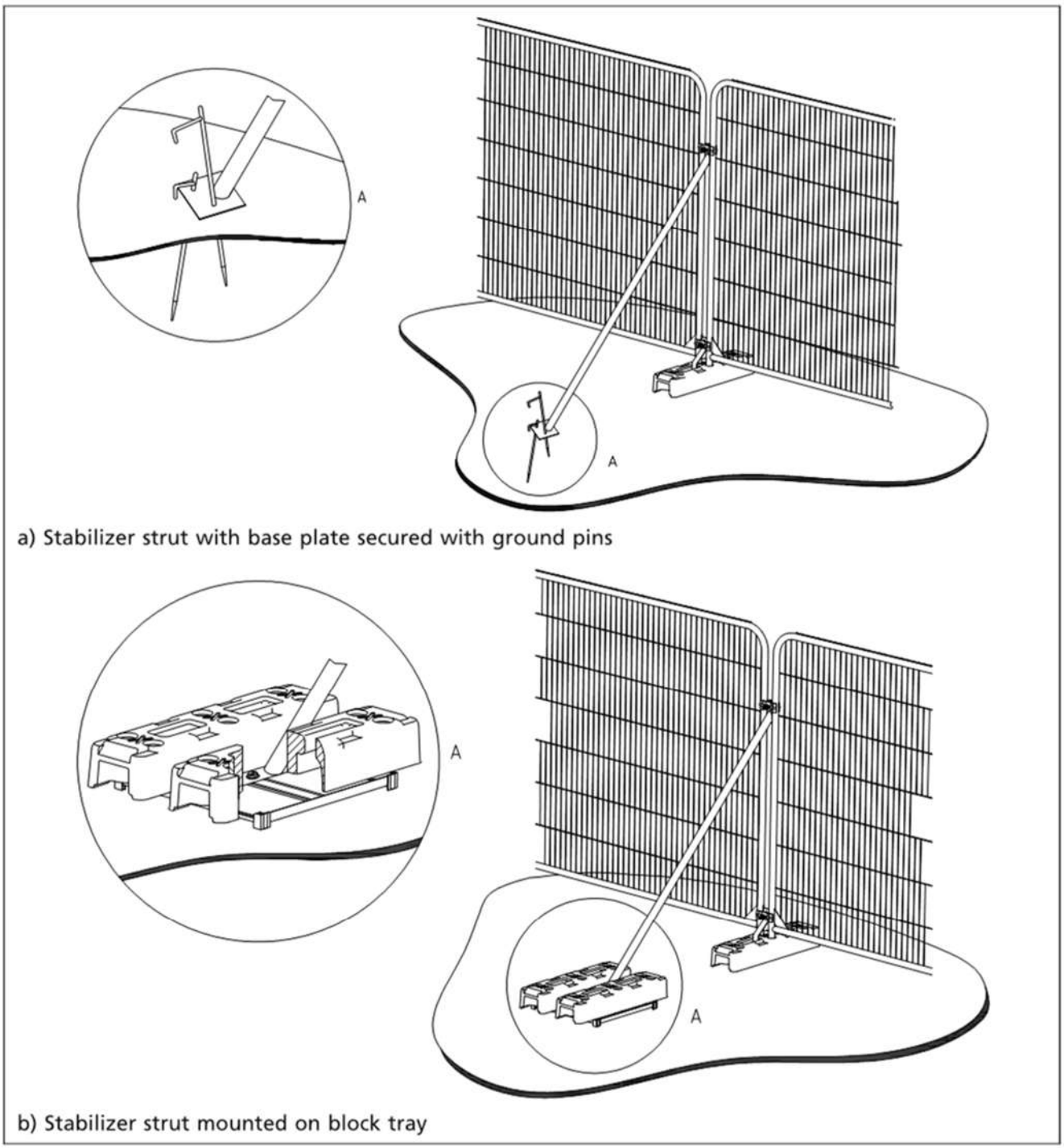

Figure 1: Secured 'Heras' type fencing with stabilizing system and fixed central pins (©BSI)

Figure 2: Example of warning sign for fencing

Figure 3: Secured 'Heras' type fencing with stabilizing system and anti-tamper couplers

Figure 4: Anti-tamper couplers to secure fencing and avoid unauthorised access

Appendix 2: Relevant Contact Details

Contact Name	Organisation/ Details	Contact Number	Contact E-mail
Adam Morley	Wake Architects Ltd.	01484 681755	adammorley@wakearchitects.com
Adam Winson	AWA Tree Consultants Ltd. Arboricultural Consultant.	0114 2721124	adam@awatrees.com
Joe Robertson	Kirklees Council. Tree Officer.	01484 414909	dc.admin@kirklees.gov.uk

Appendix 3: Record of Arboricultural Supervision

Required Site Visits	
Name of Site Inspector/ Arboricultural Consultant	
Supervision Stages	**Comments/ Required Actions**
Site visit 1: Inspect the tree protective fencing prior to any development works. Confirm tree protection completed to the standard specified in this method statement.	***Signed and Dated***
Site visit 2: If required, supervision of contractors during construction of hard-surfaces within RPA of retained trees.	***Signed and Dated***
Site visits - Monthly: Supervise any other sensitive operations, if required, as they arise in relation to trees.	***Signed and Dated***
Additional Comments/ Required Actions:	

Additional Comments/ Required Actions:

Signed and Dated

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Oak	*Quercus robur*	Mature	14	4	390, 380, 360, 300	No	2.5	5	5	3	4	No visual defects, Soil compaction	Multiple stemmed at base, Vertical, Old pruning wounds, Stubs, Epicormic growths, Ivy covered, Minor cavities	Normal, Minor deadwood		Good	Fair	>40 yrs	High	**B**	No works required
G2	Leyland Cypress	*X Cuprocyparis leylandii*	Semi-mature	6	10+	140 avg	No	1	See Plan				No visual defects, Soil compaction	Single & Multiple stemmed, at base, Vertical, Old pruning wounds, Tight union	Old pruning wounds	Relatively unmanaged boundary feature. Occasional Holly.	Good	Fair	20 to 40 yrs	Moderate	**C**	Remove 1 small section of approx 2m; Prune back western crown as required to facilitate development (not pruning beyond live growth)
T3	Oak	*Quercus robur*	Early-mature	14	1	380	No	3.5	2	3.5	3.5	3	No visual defects, Soil compaction	Single stemmed, Vertical, Stubs, Epicormic growths	Slightly unbalanced, Minor deadwood	Situated within the hedgerow, G2.	Fair	Good	>40 yrs	Moderate	**B**	No works required
T4	Oak	*Quercus robur*	Semi-mature	11	1	230	No	4	0.5	2	4	3.5	No visual defects, Soil compaction	Single stemmed, Vertical, Stubs, Epicormic growths	Slightly unbalanced, Minor deadwood	Situated within the hedgerow, G2.	Fair	Good	>40 yrs	Moderate	**B**	No works required
T5	Sycamore	*Acer pseudoplatanus*	Early-mature	15	2	350, 160	No	2	5	3.5	1	3	Soil erosion, Increase in soil level, Adjacent ground works	Single stemmed, Vertical, Old pruning wounds, Epicormic growths	Slightly unbalanced, Minor deadwood	Growing on steep bank, with soil erosion to south and increase in soil level to north of stem.	Good	Fair	20 to 40 yrs	Moderate	**B**	No works required

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	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T6	Sycamore	*Acer pseudoplatanus*	Mature	15	3	480, 280, 170	No	2	3.5	4	2.5	5	No visual defects, Soil erosion	Single stemmed, Vertical, Epicormic growths, Minor cavity	Normal, Minor deadwood	Stones from failed wall piled at base.	Good	Fair	>40 yrs	Moderate	**B**	No works required
T7	Oak	*Quercus robur*	Early-mature	15	1	480	No	4	4.5	2.5	3.5	4	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Minor cavities	Slightly unbalanced, Moderate deadwood	Large 1.5m long decayed stub at 2m, from previously removed branch.	Fair	Fair	>40 yrs	Moderate	**B**	No works required
T8	Oak	*Quercus robur*	Early-mature	13	5	370, 360, 250, 240, 190	No	3.5	1.5	5.5	3.5	4.5	No visual defects	Multiple stemmed at base, Vertical, Epicormic growths, Old pruning wounds, Stubs, Tight union, Partially included bark	Normal, Minor deadwood	Several stubs from previously removed branches on west of stem. Sycamore saplings at base.	Good	Fair	>40 yrs	Moderate	**B**	No works required
T9	Oak	*Quercus robur*	Early-mature	13	5	410, 200, 170, 170, 150	No	4	2.5	6	1.5	5	No visual defects	Multiple stemmed at 1m, Vertical, Epicormic growths, Old pruning wounds, Stubs, Moderate cavity, Minor decay	Slightly unbalanced, Moderate deadwood	Several stubs from previously removed branches on west of stem. Moderate cavity at base with minor decay. Tree has grown around several stones at base.	Fair	Fair	>40 yrs	Moderate	**C**	No works required

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	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T10	Sycamore	*Acer pseudoplatanus*	Mature	14	5	420, 410, 390, 370, 140	No	3	3	5	5	4.5	Exposed roots, Damage to buttress roots	Multiple stemmed at 1m, Vertical, Old pruning wounds, Epicormic growths, Tight union, Partially included bark, Minor cavities	Normal, Moderate deadwood		Good	Fair	>40 yrs	Moderate	**B**	No works required
T11	Sycamore	*Acer pseudoplatanus*	Early-mature	12	10	190 avg	No	2.5	1	3	3.5	4	No visual defects	Multiple stemmed at base, Vertical, Epicormic growths, Old pruning wounds, Stubs, Tight union, Partially included bark, Ivy covered	Slightly unbalanced, Minor deadwood	Several stubs from previously removed branches on west of stem.	Good	Fair	>40 yrs	Moderate	**B**	No works required
T12	Sycamore	*Acer pseudoplatanus*	Mature	12	7	240 avg	No	3	4.5	4.5	4.5	4.5	No visual defects, Soil erosion	Multiple stemmed at base, Vertical, Old pruning wounds, Stubs, Epicormic growths, Tight union, Partially included bark	Normal, Minor deadwood		Good	Fair	>40 yrs	Moderate	**B**	No works required
T13	Sycamore	*Acer pseudoplatanus*	Early-mature	15	2	410, 360	Yes	2.5	3	2	3.5	3.5	No visual defects, Soil erosion	Twin stemmed at base, Vertical, Old pruning wounds, Bark damage, Ivy covered, Tight union	Normal, Minor deadwood		Fair	Fair	>40 yrs	Moderate	**B**	No works required

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T14	Birch	*Betula pendula*	Early-mature	13	1	340	No	1.5	3.5	3.5	3.5	3	No visual defects, Soil erosion	Single stemmed, Vertical, Old pruning wounds, Ivy covered, Stubs	Normal, Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	**C**	No works required
T15	Birch	*Betula pendula*	Early-mature	11	1	330	No	1.5	3.5	3	3	3	No visual defects, Soil erosion, Exposed roots	Single stemmed, Vertical, Old pruning wounds, Ivy covered, Minor cavity	Normal, Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	**C**	No works required
T16	Birch	*Betula pendula*	Mature	10	2	420, 380	No	1.5	3.5	4.5	4	4.5	No visual defects, Soil erosion, Exposed roots	Twin stemmed at 1m, Vertical, Old pruning wounds, Stubs, Minor cavity, Minor decay	Normal, Minor deadwood	Barbed wire fence pressing against both stems.	Good	Fair	20 to 40 yrs	Moderate	**B**	No works required
T17	Oak	*Quercus robur*	Semi-mature	10	3	280, 180, 150	Yes	0.5	4.5	5.5	4.5	4.5	No visual defects	Twin stemmed at 0.5m, Multiple stemmed at 1m, Vertical	Normal, Minor deadwood		Good	Good	>40 yrs	Moderate	**C**	Prune back north eastern canopy by 2m to facilitate development
T18	Oak	*Quercus robur*	Semi-mature	7	1	130	No	1	2.5	2	0.5	2	Increase in soil level	Single stemmed, Slight lean, Old pruning wounds, Stubs, Bark damage	Unbalanced, Small / sparse, Minor deadwood	Situated on the boundary line. Barbed wire fence is digging into the stem.	Fair	Fair	20 to 40 yrs	Low	**C**	No works required

Broad Lane

Existing Footpath

Trees to remain

1.5m wide footpath

Bin Corral

Existing stone walls

Entrance works including visibility splays, boundary treatments and surfacing implemented by others inline with approval ref: 2012/62/91370/W

Footpath link to Broad lane

Footpath

Existing stone walls

EXISTING SURFACE WATER DRAIN ALREADY INSTALLED FROM BROOK/STREAM UP TO NO. 31

Existing gabions

Existing gabions

Visitor parking

Bin store, bins taken to road edge as previously agreed on collection days

Drystone walling

150ø SW Drain

EXISTING 225ø SW Drain

Drainage proposals inline with approval ref: 2018/62/92298/W

New 1.2m high post and rail fence to woods

New 1.2m high post and rail fence to woods

Drystone walling

Drystone walling to be repaired where required

Current approval shown dashed

Previous approval shown dashed

New 1.8m high close boarded timber fence

New 1.8m high close boarded timber fence

New 1.8m high close boarded timber fence

100mm foul drain

100mm foul drain

Crow Wood

OH Elec 217.67

PLOT 1

PLOT 2

PLOT 3

PLOT 4

T1 T3 T4 G2 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18

6.5 m 9.5 m 8.0 m 4.0 m 4.5 m 6.5 m

MH1 CL +226.250 IL +224.500

FWMH1 FWMH2 FWMH3 FWMH4 FWMH5

RG1 RG2 RG3 RG4 RG5 RG6

V1 V2

Bins

Clocks Hall Utility WC Living Balcony

P1 P2 P3 space in Garage above Study Snug / Area 5

225.0 227.5 222.5 220.0 217.5 215.0

NORTH

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Appendix 5:
TREE PROTECTION PLAN

Broad Lane, Upperthong, HD9 3JS
Ref: AWA3507AMS

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A2

	TREES TO BE RETAINED
	TREES FOR REMOVAL
	TREE STEM
	TREE PROTECTION FENCING
	SUPERVISION OF HARD SURFACES REQUIRED IN THESE AREAS
	RPA: ROOT PROTECTION AREA