TREE CONSULTANTS

ARBORICULTURAL METHOD STATEMENT

to BS 5837:2012

at

Barnsley Road / Saltersbrook, Goldthorpe, Barnsley, South Yorkshire

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:

Yorkshire Housing,
Regent House,
161 Briggate,
Leeds,
LS1 6LY

May 2014

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instruction

1.1.1 I am instructed by Yorkshire Housing to prepare an arboricultural method statement for the proposed development at: ***Barnsley Road / Saltersbrook, Goldthorpe, Barnsley, South Yorkshire.***

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 arboricultural data detailed within the associated Arboricultural Report Ref: AWA1185, dated 28th May 2014.

1.3 Description of Development

1.3.1 It is proposed to develop the site for housing, comprising 6 wheelchair accessible bungalows, including associated access routes and soft landscaping. The proposed development layout has been provided by my client and is the basis for the **Tree Protection Plan (TPP)** detailing Tree Protective Fencing at **Appendix 4**.

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.

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 Recommended tree works

3 Install protective fencing

4 Pre commencement meeting

5 Removal of existing hard-standing and structures.

6 Construction of new structures

7 Removal of tree protection

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 arboricultural method statement document is submitted to and approved in writing by the LPA.	If necessary, liaise with contractor and LPA to discuss methodologies detailed within this method statement.
2 Tree Works	Undertake tree removals associated with this development, as detailed on the plan at Appendix 4 and the Tree Works Schedule at Appendix 3.	Review the site tree work requirements with the tree contractor.
3 Tree Protection	Installing the tree protective measures will take place prior to any demolition, storage of plant, materials and machinery. Tree Protection Fencing shall be located as shown on the Tree Protection Plan at Appendix 4. The Tree Protection Fencing shall not be removed, breached or altered without prior written authorisation from the local planning authority or under arboricultural supervision as detailed in this AMS. It shall remain in a functional condition throughout the entire development, until all development related machinery and materials have been removed from site. If the fencing is damaged beyond effective functioning then works that may compromise the protection of trees shall cease until the protection can be repaired or replaced.	If necessary, liaise with the contractor installing the protective fencing until completed to the standard specified in this method statement.
4 Site meeting	Following the full installation of the Tree Protection, the LPA shall be invited to inspect the fencing 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 is as specified by taking photographs of the tree protection measures.

5 Demolition	Following approval of the tree protection measures the site team can commence with demolition of any remaining existing structures, existing hard surfaces and other related activities.	Provide ongoing arboricultural advice and, if required, supervision of demolition within areas that could affect trees.
6 Construction	Undertake the construction of the new development.	Provide ongoing arboricultural advice and, if required, supervision of construction activities within areas that could affect trees. Liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
7 Site Finishing	Removal of tree protection measures must only be undertaken following the completion of the construction phase and when all site traffic and machinery has left the site.	If necessary, meeting with a representative of the LPA and the site manager. Alternatively, 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. Site Specific Tree Protection Issues

3.1 Tree Works

3.1.1 The development will require the removal **T1, T2, T4, T5, T6, T7** and **T8** as highlighted in red on the plan at Appendix 4 and as detailed in the tree data schedule in Appendix 3.

3.1.2 All tree works should be carried out in accordance with BS 3998: 2010 - *Recommendations for tree work* and should be carried out by qualified, experienced contractors who should be adequately insured.

3.2 Protective Fencing

3.2.1 The protective fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 4 (as illustrated with a thick purple line) and in accordance with the specifications given within section 4 and Appendix 1.

3.2.2 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 inspected and agreed on by the LPA before the commencement of any site works.

3.2.3 The highlighted tree protection fencing shows the Root Protection Area (RPA) of 3 Rowan trees, T11, T12 and T13, as slightly exposed beyond the protective fencing. Due to the existing hard surfaces around the trees roots it is very unlikely any significant roots will be damaged by the required works in this area and the trees will be adequately protected by the suggested fence line.

3.2.4 In this instance, if acceptable by the LPA, an adequate level of protection for the trees could be provided 'Heras' type fencing, of welded mesh panels. The 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 if not feasible due to ground conditions, the stabilizer struts should be mounted on a block tray.

3.2.5 The installation of the 1.5m timber fencing, which runs through several RPAs, should be undertaken by hand as part of the site finishing and soft landscaping phase, after the development phase is complete and the tree protection fencing removed.

4. General Tree Protection Issues

4.1 Protective Fencing

4.1.1 The protective fencing will be appropriate to the degree and proximity of likely construction works. The default specification of BS 5837: 2012 recommends a vertical and horizontal, scaffold framework, well braced to resist impacts, with vertical tubes at no more than 3m intervals. These should be driven into the ground. Weld mesh panels should be affixed to this framework with scaffold clamps (see Appendix 1, figures 1 and 2).

4.1.2 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.

4.1.3 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, figure 3 for an example sign).

4.1.4 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.

4.2 Drainage and Utilities

4.2.1 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. Similarly any landscaping should take account of over-ground services and mature tree size. New underground services should be grouped together and routed away from Root Protection Areas.

4.2.2 *NJUG 10: Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees* is a principle set of guidelines on working near trees for the utilities sector and should be considered when installing services.

4.3 Site Compound

4.3.1 The site compound, that typically includes the site office, mess facilities, toilets, storage of materials and parking, must be located away from trees.

4.3.2 Care should also be taken to prevent contamination with chemical spillages, including petrol, diesel and oils. Cement mixers and toxic materials should not be permitted close to trees.

5. Signature

I trust this report provides all the required information.

Signed



.....

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

28th May 2014

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Appendix 1: Images and Figures

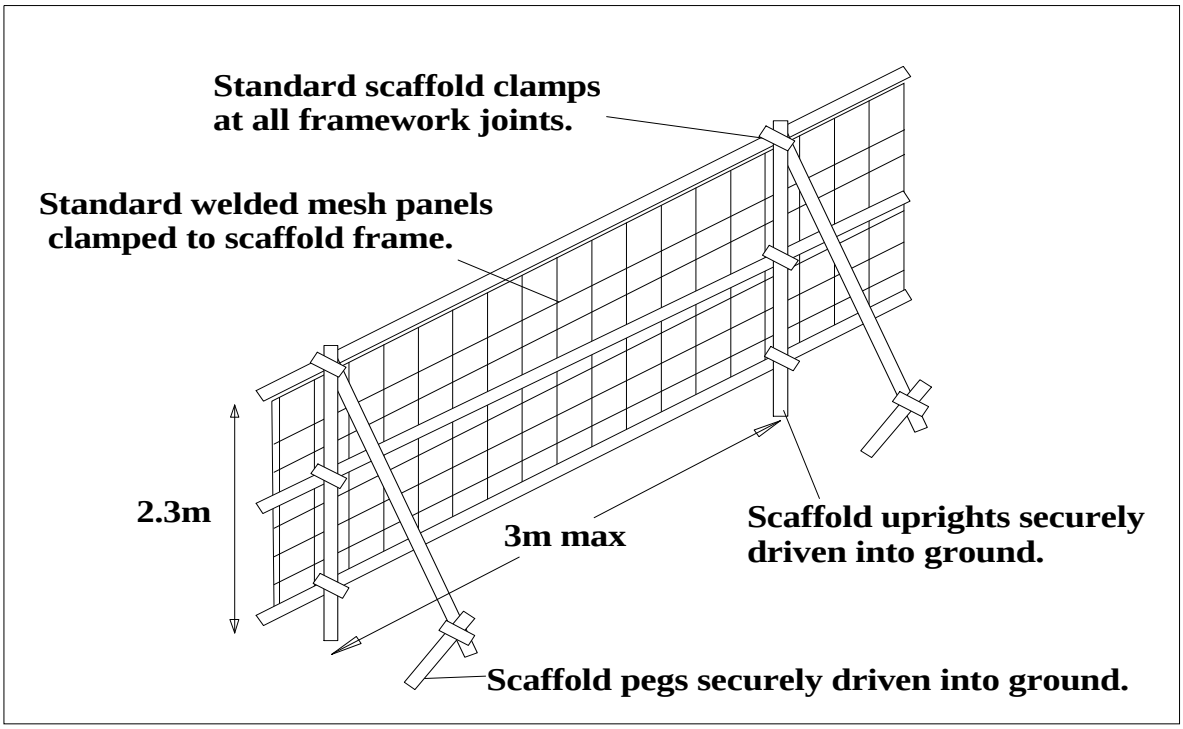

Figure 1: 'Fencing to BS 5837: 2012'.



Figure 2: 'Photo of Fencing to BS 5837: 2012'.



Figure 3: `Example of warning sign for fencing '.

Appendix 2: Relevant Contact Details

Contact Name	Organisation / Details	Contact Number	Contact E-mail
Edward Jowett	Barnsley Council Tree Officer	01226 770770.	edwardjowett@barnsley.gov.uk
Adam Winson	AWA Tree Consultants Ltd. Arboricultural Consultant	0114 272 1124	adam@awatrees.com

Appendix 3: Tree Data

	Tree Species		Measurments					Crown (m)						Tree Condition							Value		Management	
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*First branch*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*	*Priority (Mths)*
T1	Birch	*Betula pendula*	Semi-mature	10	1	210	No	3n	2	2	4	3	3	No visual defects	Single stemmed; Slight lean; Old pruning wounds	Normal; Minor dieback	Slight kink in lower stem.	Fair	Good	>40 yrs	Mod	**C**	Remove to facilitate new development	NA
T2	Alder	*Alnus glutinosa*	Young	7	1	180	No	2w	2	3	3	2	3	No visual defects; Soil compaction	Single stemmed; Vertical	Normal	Reasonable prospects	Good	Good	>40 yrs	Low	**C**	Remove to facilitate new development	NA
G3	Cherry	*Prunus 'Kanzan'*	Early-mature	11	1	350	Yes	2w	2	4	4	4	4	No visual defects	Single stemmed; Vertical	Normal	Line of trees situated in adjacent land	Good	Good	>40 yrs	Mod	**B**	No action	NA
T4	Alder	*Alnus glutinosa*	Semi-mature	6	1	180	No	2s	1	2	2	2	2	No visual defects	Single stemmed; Slight lean; Bark damage	Normal; Small / sparse		Fair	Good	20 to 40 yrs	Low	**C**	Remove to facilitate new development	NA
T5	Cherry	*Prunus avium*	Early-mature	10	1	450	No	2s	1	5	5	6	5	No visual defects; Exposed roots	Multiple stemmed at 2m; Vertical; Tight union; Partially included bark; Minor	Normal	Reasonable prospects	Good	Fair	>40 yrs	Mod	**B**	Remove to facilitate new development	NA
T6	Birch	*Betula pendula*	Semi-mature	4	1	130	No	1n	1	3	1	0	2	No visual defects	Single stemmed; Slight lean	Unbalanced	Suppressed form	Fair	Fair	10 to 20 yrs	Low	**C**	Remove to facilitate new development	NA
T7	Rowan	*Sorbus aucuparia*	Semi-mature	12	1	240	No	2w	2	2	4	3	3	No visual defects	Twin stemmed at 2m; Vertical	Normal; Overhanging adjacent land		Fair	Fair	20 to 40 yrs	Mod	**C**	Remove to facilitate new development	NA
T8	Rowan	*Sorbus aucuparia*	Semi-mature	8	1	200	No	2n	2	3	3	2	3	No visual defects	Single stemmed; Twin stemmed at 2m; Vertical	Normal; Slightly unbalanced; Overhanging adjacent land		Fair	Fair	20 to 40 yrs	Low	**C**	Remove to facilitate new development	NA
T9	Oak	*Quercus sp*	Semi-mature	11	1	250	No	2e	2.5	2	4	5	2	No visual defects	Multiple stemmed at 2m; Vertical	Normal; Slightly unbalanced	Good potential	Fair	Good	>40 yrs	Mod	**B**	No action	NA

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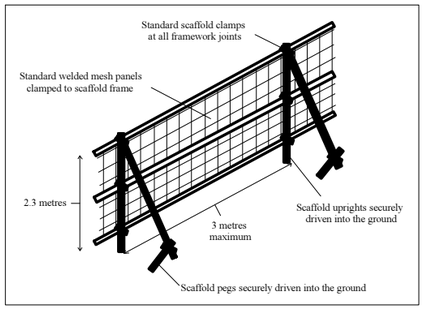
	Tree Species		Measurments					Crown (m)						Tree Condition							Value		Management	
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*First branch*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*	*Priority (Mths)*
T10	Oak	*Quercus sp*	Semi-mature	11	1	350	No	2w	2	3	3	6	5	No visual defects	Single stemmed; Vertical	Normal	Good potential	Good	Good	>40 yrs	Mod	**B**	No action	NA
T11	Rowan	*Sorbus aucuparia*	Semi-mature	12	1	240	No	2w	2	2	3	3	2	No visual defects	Twin stemmed at 2m; Vertical	Normal; Overhanging adjacent land		Fair	Fair	20 to 40 yrs	Mod	**C**	No action	NA
T12	Rowan	*Sorbus aucuparia*	Semi-mature	8	1	200	No	2n	2	2	2	2	2	No visual defects	Single stemmed; Twin stemmed at 2m; Vertical	Normal; Slightly unbalanced; Overhanging adjacent land		Fair	Fair	20 to 40 yrs	Low	**C**	No action	NA
T13	Rowan	*Sorbus aucuparia*	Semi-mature	7	1	180	No	2w	2	2	2	3	3	No visual defects	Single stemmed; Vertical	Normal		Fair	Fair	20 to 40 yrs	Low	**C**	No action	NA
T14	Poplar	*Populus canescens*	Early-mature	16	1	550	Yes	3s	5	5	5	5	5	No visual defects	Single stemmed	Normal	Situated beyond boundary limited access around stem base	Fair	Fair	20 to 40 yrs	Mod	**B**	No action	NA
G15	Poplar	*Populus canescens*	Semi-mature	5	1	150	Yes	1n	1	2	2	2	2	No visual defects	Single stemmed; Multiple stemmed	Normal	Dense group of natural regeneration situated beyond boundary	Good	Fair	>40 yrs	Mod	**C**	No action	NA
G16	Poplar	*Populus tremula*	Semi-mature	11	1	130	Yes	2s	2	2	2	2	2	No visual defects	Single stemmed; Multiple stemmed	Normal	Dense group of natural regeneration situated beyond boundary limited access around stem base	Good	Fair	>40 yrs	Mod	**C**	No action	NA

AWA TREE CONSULTANTS

	Tree Species		Measurments					Crown (m)						Tree Condition			Value		Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Dia (mm)	Estimated	First branch	Ave Height	N	E	S	W	Physiology	Structural	Life Expectancy	Amenity	Category	Works	Priority (Mths)
T1	Birch	*Betula pendula*	Semi-mature	10	1	210	No	3n	2	2	4	3	3	Fair	Good	>40 yrs	Mod	C	Remove to facilitate new development	NA
T2	Alder	*Alnus glutinosa*	Young	7	1	180	No	2w	2	3	3	2	3	Good	Good	>40 yrs	Low	C	Remove to facilitate new development	NA
G3	Cherry	*Prunus 'Kanzan'*	Early-mature	11	1	350	Yes	2w	2	4	4	4	4	Good	Good	>40 yrs	Mod	B	No action	NA
T4	Alder	*Alnus glutinosa*	Semi-mature	6	1	180	No	2s	1	2	2	2	2	Fair	Good	20 to 40 yrs	Low	C	Remove to facilitate new development	NA
T5	Cherry	*Prunus avium*	Early-mature	10	1	450	No	2s	1	5	5	6	5	Good	Fair	>40 yrs	Mod	B	Remove to facilitate new development	NA
T6	Birch	*Betula pendula*	Semi-mature	4	1	130	No	1n	1	3	1	0	2	Fair	Fair	10 to 20 yrs	Low	C	Remove to facilitate new development	NA
T7	Rowan	*Sorbus aucuparia*	Semi-mature	12	1	240	No	2w	2	2	4	3	3	Fair	Fair	20 to 40 yrs	Mod	C	Remove to facilitate new development	NA
T8	Rowan	*Sorbus aucuparia*	Semi-mature	8	1	200	No	2n	2	3	3	2	3	Fair	Fair	20 to 40 yrs	Low	C	Remove to facilitate new development	NA
T9	Oak	*Quercus sp*	Semi-mature	11	1	250	No	2e	2.5	2	4	5	2	Fair	Good	>40 yrs	Mod	B	No action	NA
T10	Oak	*Quercus sp*	Semi-mature	11	1	350	No	2w	2	3	3	6	5	Good	Good	>40 yrs	Mod	B	No action	NA
T11	Rowan	*Sorbus aucuparia*	Semi-mature	12	1	240	No	2w	2	2	3	3	2	Fair	Fair	20 to 40 yrs	Mod	C	No action	NA
T12	Rowan	*Sorbus aucuparia*	Semi-mature	8	1	200	No	2n	2	2	2	2	2	Fair	Fair	20 to 40 yrs	Low	C	No action	NA
T13	Rowan	*Sorbus aucuparia*	Semi-mature	7	1	180	No	2w	2	2	2	3	3	Fair	Fair	20 to 40 yrs	Low	C	No action	NA
T14	Poplar	*Populus canescens*	Early-mature	16	1	550	Yes	3s	5	5	5	5	5	Fair	Fair	20 to 40 yrs	Mod	B	No action	NA
G15	Poplar	*Populus canescens*	Semi-mature	5	1	150	Yes	1n	1	2	2	2	2	Good	Fair	>40 yrs	Mod	C	No action	NA
G16	Poplar	*Populus tremula*	Semi-mature	11	1	130	Yes	2s	2	2	2	2	2	Good	Fair	>40 yrs	Mod	C	No action	NA





Inset 1: an example of protective fencing

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Appendix 4:
TREE PROTECTION PLAN

Barnsley Road / Saltersbrook
Ref: AWA1185 /AMS

BRITISH STANDARD 5837:2012

SCALE :1:500 PAPER: A3

	TREE TO BE RETAINED
	TREE FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM
	TREE PROTECTION FENCING
	NEW DEVELOPMENT