



ARBORICULTURAL METHOD STATEMENT

to **BS 5837:2012** at

***Barnsley Road,
Flockton,
Wakefield,
West 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:
Persimmon Homes West Yorkshire
*3 Hepton Court,
York Road,
Leeds,
LS9 6PW*

June 2016

 Institute of
Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instruction

- 1.1.1 I am instructed by Matt Burrow of Persimmon Homes West Yorkshire, to prepare an arboricultural method statement for the proposed new development at: **Barnsley Road, Flockton, Wakefield**

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 an associated arboricultural report dated 1st December 2014, reference AWA1292.

1.3 Description of Development

- 1.3.1 It is proposed to develop the site for residential housing with associated facilities. 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 *'Prior to construction commencing, an Arboricultural Method Statement shall be submitted to and approved in writing by the Local Planning Authority. The statement shall detail how the development during the construction period will be constructed in a way to avoid damage to retained trees. The development shall then be carried out in accordance with the approved details'.*
- 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 associated tree and hedge removals
- 3 Install protective fencing
- 4 Pre commencement meeting/ confirm fencing is as specified
- 5 Undertake construction works
- 6 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 required tree and hedge removals as highlighted in red on the Tree Protection Plan	Provide advice to the tree contractors as required.
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.	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 Fencing, 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. Record of visit kept at Appendix 3. Alternatively, contractor can confirm the fencing is as specified by taking photographs of the tree protection measures.
5 Construction	Undertake construction works.	Provide ongoing arboricultural advice and supervision of contractors during installation of 'no-dig' parking bay section. If necessary liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
6 Site Finishing	Removal of tree protection measures must only be undertaken following the completion of the construction, 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 Work

- 3.1.1 The new development will require the removal of the southern section of the hawthorn hedge G6 and the small trees and shrubs located by the site access area G10 (Laburnum and Privet shrubs) T11 (Rowan) and T12 (Apple).
- 3.1.2 The vegetation requiring removal is highlighted in red on the attached tree plan at appendix 4.

4. Tree Protection Issues

4.1 Protective Fencing

- 4.1.1 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).
- 4.1.2 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 agreed on by the LPA before the commencement of any site works.
- 4.1.3 The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, due to the nature of the site and the development works (and if acceptable by the LPA), an adequate level of protection for the trees could be provided by a mixture of 'Heras' type fencing, of welded mesh panels on rubber or concrete feet, and heavy duty plastic mesh barrier fencing, secured to fencing pins.
- 4.1.4 The sections of Root Protection Area (RPA) that has not been fully enclosed by the tree protection fencing is highlighted in light blue. Specialist methods of excavation and construction must be used within this area.
- 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). 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 practicable.
- 4.1.7 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 and a written record kept.
- 4.1.8 The Tree Protection Fencing adjacent to the Beech tree T1 will require adjusting following the demolition and removal of the existing barn structure. This will involve moving the fence line further away from the tree stem, by approximately 2m so as to fully enclose the Root Protection Area. This work should be done under arboricultural supervision by a suitable named responsible individual appointed by the site manager and a written record kept.

4.2 Construction of Hard Surfaces

- 4.2.1 Hard surfaces, in the form of a new parking areas, are proposed within the RPA of the retained tree T1. The works within the RPA should not adversely impact on the health or future condition of the trees provided a **no-dig** method of construction is utilised in accordance with the specifications given below.
- 4.2.2 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. 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.

- 4.2.3 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. Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement system, such as those provided by Greenfix (<http://greenfix.co.uk/product/geoweb-tree-root-protection-system/>).

4.3 Drainage and Utilities

- 4.3.1 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. 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.

4.4 Site Compound

- 4.4.1 The site compound, that typically includes the site office, mess facilities, toilets, storage of materials and parking, is to be located away from all retained trees.

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.

28th June 2016

**AWA Tree Consultants Limited
Union Forge
27 Mowbray Street
Sheffield
S3 8EN**

www.awatrees.com

Appendix 1: Images and Figures

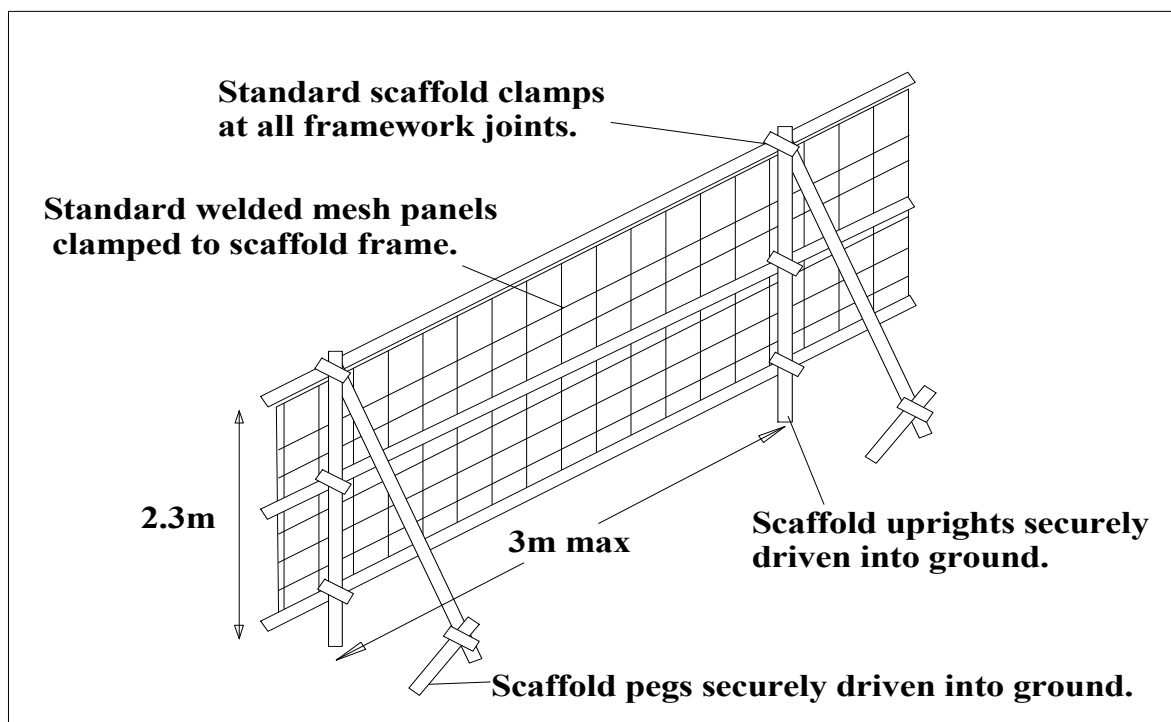


Figure 1: 'Fencing to BS 5837: 2012'.



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
Trees Team	Kirklees Council - Trees Section	01484 414909	trees.planning@kirklees.gov.uk
Adam Winson	AWA Tree Consultants Ltd. Arboricultural Consultant	0114 272 1124	adam@awatrees.com

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 fencing prior to any development works. Confirm protective fencing completed to the standard specified in this method statement.	<i>Signed and Dated</i>
Site visit 2: Supervision of contractors during installation of 'no-dig' parking bay section adjacent to T1.	<i>Signed and Dated</i>
Site visits - Monthly: Supervise any other sensitive operations, if required, as they arise in relation to trees.	<i>Signed and Dated</i>
Additional comments/required actions:	

Additional Comments / Required Actions:

Signed and Dated

Appendix 4: Tree Protection Plan

Technical drawing of a mobile screen for a water intake. The drawing shows a rectangular screen frame with a mesh, supported by a structure with a diagonal brace. Dimensions are given: height is approximately 2 m, width is approximately 3 m, and a small offset is approximately 0.5 m. A detail view shows a cross-section of the screen frame with labels 1, 2, 3, 4, and 5.

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