

**ARBORICULTURAL METHOD STATEMENT
to BS 5837:2012
at
Land off Catherine's Walk
Barnsley
South Yorkshire
S71 3BS**

Client:

Acanthus WSM Architects

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0113 239 3414

JCA Ref:

13749b/EW

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1. Introduction

1.1 Purpose of the Method Statement

- 1.1.1 This Arboricultural Method Statement has been prepared to ensure good practice in the protection of retained trees during the development at **Land off Catherine's Walk, Barnsley**.

1.2 Terms of Reference

- 1.2.1 JCA Limited is instructed by **Acanthus WSM Architects** to prepare an Arboricultural Method Statement for the proposed development, based on our arboricultural report dated 12th October 2017 (JCA Ref: **13749/EW**). The arboricultural survey and report conforms to the most recent specifications outlined in BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*.
- 1.2.2 It is proposed to construct a residential development is proposed on site consisting of 56 houses with associated access roads, parking areas and gardens.
- 1.2.3 The following drawings have been provided and these are the basis of the Arboricultural Method Statement and the Tree Protection Plan at **Appendix 3**:
- Development Layout (Drawing Ref. **2791.14.102**).

1.3 Status of the Method Statement

- 1.3.1 This Arboricultural Method Statement should be included as part of the specification and schedule of works issued to the building contractor, and can form part of the contract.
- 1.3.2 This Arboricultural Method Statement should be available on site for inspection by the local authority, contractors and other relevant persons.

2. Tree Works Prior, During and Post Construction

2.1 Tree Works Prior to Construction

- 2.1.1 Prior to any construction activity, the first operation on site will be the undertaking of the necessary arboricultural works, as described at **Appendix 1**.
- 2.1.2 The tree works include:
- The removal of **G12** and **T13**, for arboricultural reasons.
 - The removal of **G2**, **H5**, **G6**, **H7**, **H8**, **T9**, **T10** and **T11**, to facilitate the proposed development.

2.2 Tree Works During Construction

- 2.2.1 In this case, no tree works are envisaged to be required during the construction phase.
- 2.2.2 Damage to trees during the construction phase should be entirely prevented by the installation of the temporary protective barrier (fencing), to create a Construction Exclusion Zone (CEZ). All persons on site must be aware of limitations that apply within the CEZ (please refer to **Section 3.1.3**).
- 2.2.3 If any trees on site are damaged, this must be immediately reported to JCA to agree on appropriate remedial action. Contact numbers for all parties can be found at **Section 7**.

2.3 Tree Works Post Construction

- 2.3.1 When the construction phase is complete and when the temporary protective barrier has been removed, some minor remedial works may be required. This may be for aesthetic purposes; to give clearance for new paths or to provide ground clearance for landscaping schemes.
- 2.3.2 No post construction remedial works are to be carried out on the trees until permission has been granted by the Local Planning Authority.

2.4 Recommendations For Tree Works

- 2.4.1 All work must be undertaken to BS 3998: 2010 - *Recommendations for tree work* and carried out by qualified, experienced and, ideally, Arboricultural Association approved contractors who must be adequately insured.

- 2.4.2 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the attention of JCA immediately.
- 2.4.3 No liability can be accepted by JCA in respect of the trees unless the recommendations of this Method Statement are carried out under our supervision.

3. The Protective Barrier Prior, During and Post Construction

3.1 Protective Barrier Prior to Construction

- 3.1.1 The installation of the temporary protective barrier will be the very first job to be undertaken on site following the completion of the tree works (**Section 2.1**).
- 3.1.2 Once installed, the appointed arboriculturalist will be invited on site to inspect the protective fencing and ground protection, ensuring that it is located in the correct position and that it has been constructed in accordance with this Method Statement. No other work, including soil stripping, excavation, or the bringing onto site of materials or machinery, shall commence until the barrier is installed and confirmed to be acceptable by the appointed arboriculturalist.
- 3.1.3 The protective fencing must be constructed in accordance with BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations* and will be located as shown on the Tree Protection Plan at **Appendix 3**. Where possible, the protective barrier will enclose the entire Root Protection Area (RPA) of the trees to make a Construction Exclusion Zone (CEZ); **this area is to be considered a restricted area; no pedestrians, vehicles, storage of materials, equipment or machinery are allowed within the CEZ unless specified within this Method Statement.**
- 3.1.4 The protective fencing will comprise of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground, taking care to avoid underground services and structural roots. Finally, weld mesh panels are to be securely fixed on the scaffold framework. Please refer to **Appendix 2 (Fig 1)** for protective fencing details.
- 3.1.5 Once the protective fencing is installed, waterproof signs with the sentence '*Protected tree zone, no storage or operations within this area*' are to be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the cordoned off area. A prepared sign is available at **Appendix 2**.

3.2 Protective Barrier During Construction

- 3.2.1 No operations shall take place which require the removal of part of the protective barrier without prior agreement with the Local Planning Authority or JCA.
- 3.2.2 The protective barrier must 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 must be repaired or replaced as soon as is reasonably practicable. Details of the site manager and relevant contact details can be found at **Section 7**.

3.3 Removal of the Protective Barrier

- 3.3.1 When the development phase is complete and the main site machinery has been removed, the Local Planning Authority should be invited to inspect the site to give approval for the removal of protective barrier.
- 3.3.2 When this approval has been given the protective barrier may be dismantled and removed from site.
- 3.3.3 It should be noted the same restrictions apply to all RPAs as the CEZ (please refer to **Section 3.1.3**).

4. Construction Phase

4.1 Demolition Works

4.1.1 In this case, no demolition works are required adjacent to retained trees.

4.2 Ground Level Changes

4.2.1 No ground level changes are required within the RPA of any tree to be retained on this site. As such no mitigation actions are considered necessary.

4.3 Construction of Hard Surfaces

4.3.1 In this case, no new hard surfaces are proposed within the RPA of retained trees. As such, no specialist mitigation actions are required.

4.4 Construction of New Buildings

4.4.1 In this case, the proposed buildings are located at a sufficient distance from retained trees that no specialist foundation methods are required for arboricultural purposes.

4.5 Excavations and Services

4.5.1 In this case the routing of the proposed utilities is situated outside the RPAs of retained trees. As such, no mitigation actions are considered necessary to limit potential damage to tree roots.

4.6 Location of the Site Compound

4.6.1 The site compound, typically including the site office, mess facilities, toilets, storage of materials and parking, must be located away from, and outside the RPA of retained trees. Areas designated for the storage and/or mixing of chemicals, including petrol, diesel and oils must also be located away from, and outside the RPA of retained trees. Such areas should be constructed with consideration to, and contingencies for, the occurrence of spillages, preventing the leaching of chemicals into unprotected, open ground.

5. Post Construction Phase

5.1 Completion Meeting

- 5.1.1 Upon completion of the works as specified in **Section 4**, a JCA consultant will invite the Local Planning Authority representative to meet with them on site to agree on any remedial works which may be required.
- 5.1.2 Any necessary remedial works will be confirmed in writing and must be carried out in accordance with BS 3998: 2010 - *Recommendations for tree work*.
- 5.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, JCA recommend that a further check is carried out prior to any works being undertaken post development.

5.2 Post Construction Landscaping

- 5.2.1 Following completion of the main construction phase, the protective fencing may be removed and the landscaping phase can commence.
- 5.2.2 The proposals include for the installation of wooden boundary fences and gate posts within the RPA of **G1**, **T3** and **T4**. Post holes will be dug by hand and they are to be as small as practically possible. They may be driven in either by hand or using mechanical means. However, if construction plant is to be used, it must work from outside of the RPA at all times.
- 5.2.3 The retained trees on site may be subject to some form of landscaping or seeding beneath their canopies after the development phase. At this stage the protective barrier will have been removed and the property may be occupied.
- 5.2.4 Landscaping works must be carried out in such a way as to avoid ground level changes or deep digging within RPAs. Tractor mounted rotovation or other mechanised cultivation methods must not be used within the RPAs of retained trees.
- 5.2.5 Heavy machinery is not permitted in the vicinity of retained trees, unless otherwise stated in this method statement.
- 5.2.6 Herbicides should be appropriate for the purpose and should not be used in such a way as to damage any retained trees or vegetation.
- 5.2.7 If in doubt, regarding the impact of proposed landscape operations, please contact the appointed arboriculturalist.

5.3 Tree Planting Scheme

- 5.4.1 A Tree Planting Scheme has been formalised for this development as part of the planning consent requirements.
- 5.4.2 The planting of these trees may go ahead in the first tree planting period after construction is complete.

6. Timescale of Works

6.1.1 The timescale for arboricultural requirements are summarised below:

Timescale	Action	✓	Initial
Stage 1	All requirements listed in the planning consent are approved by the Local Authority planning office.		
Stage 2	Undertake the tree works (as detailed at Appendix 1).		
Stage 3	Install the temporary protective fencing around the trees (as detailed at Appendix 2 and as shown on the Tree Protection Plan at Appendix 3).		
Stage 4	Have the Local Planning Authority inspect the fencing and ground protection measures prior to any on site construction. Once inspected, the protective fencing must not to be moved or breached.		
Stage 5	Construction Phase: Undertake the construction of the new buildings.		
Stage 6	Following the completion of the construction phase and when all site traffic and machinery has left, the protective fencing and ground protection can be removed.		
Stage 7	Post construction remedial tree works to be undertaken.		
Stage 8	Undertake landscaping and Tree Planting.		

7. Relevant Contact Details

Contact Name	Organisation/Detail	Contact Number
Emily Wilde Arboricultural Consultant	JCA Limited	01422 376335
TBC Tree Officer	Barnsley Metropolitan Borough Council	01226 770770
TBC Site Manager	TBC	TBC
Howard Kent Architect	Acanthus WSM Ltd	0113 2393414

Appendices

Tree Ref.	Age Common Name Botanical Name	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
G 1	Semi-mature Leyland Cypress <i>X Cupressocyparis leylandii</i>	7	2.5	1 n/a	20#	See plan.	Situated on adjacent land. Location prevented detailed inspection. No major visible defects.	No action required. n/a	FAIR	FAIR	LOW	HIGH	20+	C 2
G 2	Semi-mature Hawthorn <i>Crataegus monogyna</i>	5	1	1 n/a	4 x 8	See plan.	Scrubby and leggy multiple-stemmed specimens that have recently been pruned. Located along and overhanging the boundary. Provide limited screening.	<i>Remove to facilitate the development.</i> n/a	FAIR	FAIR	LOW	HIGH	20+	1 C 2
T 3	Early-mature Sycamore <i>Acer pseudoplatanus</i>	14	3	3 n/a	54#	4.5 5 5 6	Situated on adjacent land. Location prevented detailed inspection. Twin-stemmed at 2m with a balanced crown. The crown overhangs the boundary. Included bark at main union with some natural bracing occurring within the crown.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	1 B 2
T 4	Early-mature Sycamore <i>Acer pseudoplatanus</i>	13	2.5	3 N	38#	6 5 4 3	Situated on adjacent land. Location prevented detailed inspection. Single-stemmed and vertical with a balanced crown. The crown overhangs the boundary. No major visible defects.	No action required. n/a	GOOD	GOOD	MOD	MOD	40+	1 B 2
H 5	Semi-mature Mixed species <i>Details in observations</i>	2	0	0 n/a	10	See plan.	Sycamore and Hawthorn hedging providing some screening. Little arboricultural value.	<i>Remove to facilitate the development.</i> n/a	GOOD	GOOD	LOW	MOD to HIGH	40+	1 C 2
G 6	Semi-mature Aspen <i>Populus tremula</i>	5	2.5	2 n/a	14	See plan.	Located along the boundary line. Wounds noted to the main stems which are semi occluded. Barb wire around stems but not yet incorporated. Tree species would not be appropriate for retention within the context of this proposed development due to their potential for root suckering and their high water demand.	<i>Remove to facilitate the development.</i> n/a	GOOD	FAIR	LOW	HIGH	40+	1 C 2
H 7	Young Hawthorn <i>Crataegus monogyna</i>	4	0	0 n/a	10	See plan.	Hawthorn hedge providing some screening.	<i>Remove to facilitate the development.</i> n/a	GOOD	GOOD	LOW	HIGH	20+	1 C 2
H 8	Semi-mature Hawthorn <i>Crataegus monogyna</i>	2.5	2	0 n/a	10	See plan.	Maintained boundary hedging providing some screening.	<i>Remove to facilitate the development.</i> n/a	GOOD	GOOD	LOW	HIGH	20+	1 C 2

Tree Ref.	Age Common Name <i>Botanical Name</i>	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 9	Mature Hybrid Black Poplar <i>Populus x canadensis</i>	15	0.5	3 n/a	106	8 8.5 16 8.5	Multi-stemmed at 3m with a slight lean and a balanced crown, which overhangs the footpath. Broken low brick wall around the rooting area to the southwest and northwest. Minor to medium deadwood within the crown.	<i>Remove to facilitate the development.</i> n/a	GOOD	FAIR	MOD	HIGH	20+	B 2
T 10	Semi-mature Downy Birch <i>Betula pubescens</i>	5	0	0.5 n/a	15 12	1.5 2.5 1.5 2	Twin-stemmed at ground level, leaning, with a slightly unbalanced crown. Tear wound to one stem which is not occluding	<i>Remove to facilitate the development.</i> n/a	FAIR	FAIR	LOW	LOW	10+	1 C 2
T 11	Young Hybrid Black Poplar <i>Populus x canadensis</i>	6	1	0.5 n/a	14	2 2 1 1	Single-stemmed and vertical with a slightly unbalanced crown.	<i>Remove to facilitate the development.</i> n/a	GOOD	GOOD	LOW	HIGH	40+	1 C 2
G 12	Semi-mature Mixed Species <i>Detail in observations</i>	9	0	0 n/a	18	See plan.	Multi-stemmed at ground level with a slightly unbalanced crown. Short row of Goat Willow with the occasional Ash and Poplar specimen. Significant bark and stem wounds to the Goat Willow with extensive decay. Limited long term future.	Remove. Moderate	FAIR	POOR	LOW	MOD to HIGH	<10	U
T 13	Mature Hybrid Black Poplar <i>Populus x canadensis</i>	14	1	2.5 W	91	8.5 6 6.5 7	Multi-stemmed at 2.5m with a balanced crown. Large tear wound at the main union (2.5-3m) northeast with bacterial wetwood exudates. Large snapped branch at 3m with canker and wound at branch union. Epicormic growth and deadwood throughout the crown. Limited long term future.	Remove. Moderate	FAIR	POOR	MOD	HIGH	<10	U
G 14	Semi-mature Mixed Species <i>Detail in observations</i>	8	3	3 n/a	27	3.5 3.5 3.5 3.5	Situated on adjacent land with crowns overhanging the boundary Single-stemmed English Oak and Norway maple providing screening. No major visible defects.	No action required. n/a	GOOD	GOOD	MOD	HIGH	40+	1 B 2
G 15	Semi-mature Mixed Species <i>Detail in observations</i>	8	0	0 n/a	22	See plan.	Situated on adjacent land but may require protecting during any proposed development. Species include, Cherry, Field Maple, Hazel, Rowan, English Oak and Common Ash.	No action required. n/a	GOOD	GOOD	MOD	MOD to HIGH	40+	1 B 2

Appendix 2: Protective Barrier

A2.1 The protective barrier will be installed in accordance with BS5837: 2012. The default specification of BS 5837: 2012 (pictured below for reference) 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 Figure 1.

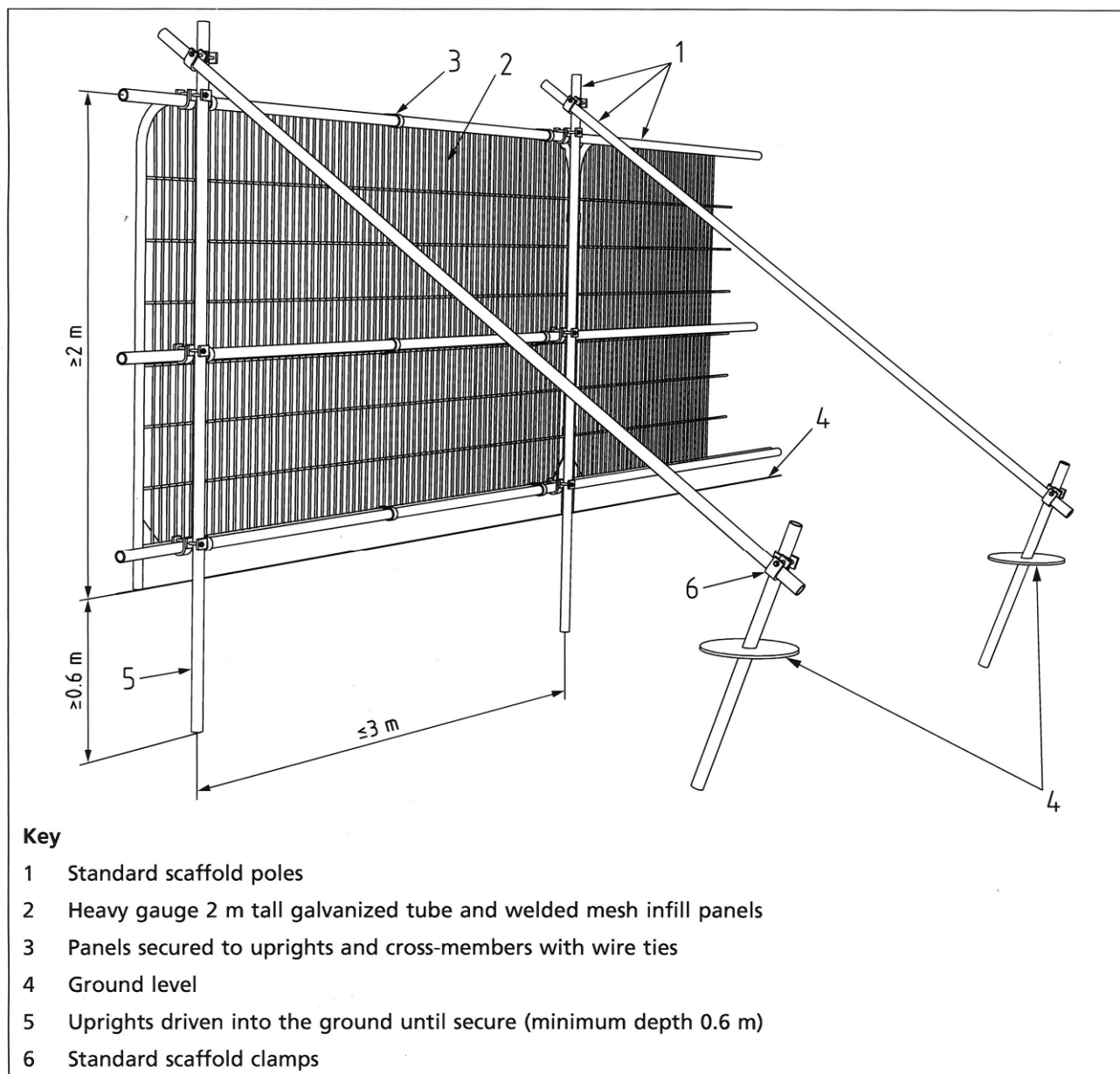


Figure 1: 'Protective Barrier to BS 5837: 2012'. To be used where situated in open ground.

TREE PROTECTION ZONE

KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED
BY STRICT PLANNING CONDITIONS

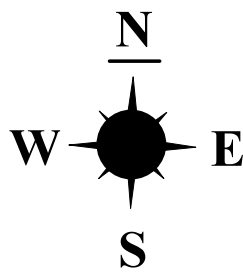
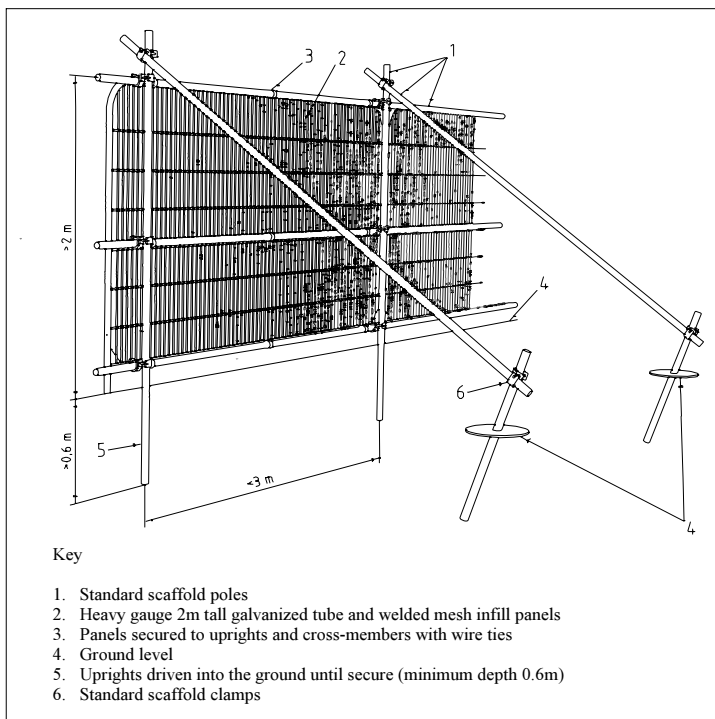
ANY DAMAGE CAUSED TO THESE TREES MAY
RESULT IN CRIMINAL PROSECUTION

RESTRICTED AREA:

- THE PROTECTIVE FENCE MUST NOT BE MOVED OR BREACHED
- NO PERSON, MACHINERY, VEHICLE OR PLANT IS PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO MATERIALS SHALL BE STORED WITHIN THE TREE PROTECTION ZONE
- NO EXCAVATIONS ARE PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO SPOIL IS TO BE DEPOSITED WITHIN THE TREE PROTECTION ZONE
- NO FIRES ARE TO BE LIT WITHIN THE TREE PROTECTION ZONE

REPORT TREE DAMAGE TO JCA LIMITED ON
01422 376 335

Default specification for a protective barrier



Appendix 3:
Tree Protection Plan

ADDRESS: Land off Catherine's Walk,
Barnsley, South Yorkshire, S71 3BS.
JCA REF: 13749b/EW

SCALE: 1:500 PAPER SIZE : A2

SURVEYED BY: EW DRAWN BY: EW APPROVED BY: EW

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA (RPA)
	PROTECTIVE FENCE LINE (CEZ)
	PROPOSED NEW DEVELOPMENT

JCA Limited
Arboricultural & Forestry Consultants

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



.....

Emily Wilde *Fdsc (Arboriculture)*

3rd January 2018

For and on behalf of **JCA Ltd**

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- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys,
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

HEAD QUARTERS:

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