

**ARBORICULTURAL METHOD STATEMENT
to BS 5837:2012
at
Land off Bankfield Drive
Holmbridge
Huddersfield
West Yorkshire
HD9 2PH**

Client:
Orion Homes

Client Address:
5 Benton Office Park
Bennet Avenue
Horbury
Wakefield
West Yorkshire
WF4 5RA

JCA Ref:
18204-C/AJB

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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 Bankfield Drive, Holmbridge, Huddersfield.**

1.2 Terms of Reference

- 1.2.1 JCA Limited is instructed by **Orion Homes** to prepare an Arboricultural Method Statement for the proposed development, based on our arboricultural report dated 22nd March 2023 (JCA Ref: **18204/AJB**). 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 The proposed development will consist of the construction of a residential housing estate.
- 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 4**:
- Topographical Survey (Drawing Ref. **2605-001 BANKFIELD DRIVE HOLMEBRIDGE**).
 - Development Layout (Drawing Ref. **Site Layout 003 M**).

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 a small, negligible section of **G2**, as indicated in red on the plan at **Appendix 4**.

2.2 Tree Works During or Post-Construction

- 2.2.1 In this case, no above ground 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 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**.
- 2.2.4 Root pruning is required to enable the construction a private drive within the RPA of **T1**. This operation will be undertaken during the construction phase and will be supervised throughout by the appointed arboriculturalist.
- 2.2.5 For this method, the closest point of the proposed private drive in relation to **T1** will be marked on-site by an appointed engineer or another qualified person, using an appropriate method (e.g. temporary, biodegradable spray paint or pegs and lines). A trench will then be excavated along this line to the required depth. Any roots exposed during this operation will be cleanly severed using appropriate hand tools (e.g. sanitised hand saws or bypass secateurs).

2.3 Recommendations For Tree Works

- 2.3.1 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.
- 2.3.2 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.
- 2.3.3 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 fencing will be the very first job to be undertaken on site following the completion of the tree works (**Section 2.1**).
- 3.1.2 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 4**. 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, equipment or machinery are allowed within the CEZ and the storage of materials is not permitted, unless specified within this Method Statement.**
- 3.1.3 The protective fencing will be installed in accordance with BS 5837: 2012 and 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**) for protective fencing details.
- 3.1.4 Once the 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 Checking the Protective Fencing Prior to Construction

- 3.2.1 Once installed, the appointed arboriculturalist will be invited on site to inspect the protective fencing, 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.
- 3.2.2 It is important that the protective fencing be checked by the arboricultural consultant prior to any construction works being carried out on site. **If at any time during construction the protective fencing is not correctly installed, or if it does not comply with BS 5837: 2012, this could result in damage being caused to trees and consequently, a stop notice may be served by the LPA.**

3.3 Protective Fencing During Construction

- 3.3.1 No operations shall take place which require the removal of part of the protective fencing without prior agreement with the Local Planning Authority.
- 3.3.2 The protective fencing 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**.

3.4 Removal of the Protective Fencing

- 3.4.1 When the development phase is complete and the main site machinery has been removed, the protective fencing may be dismantled and removed from site.
- 3.4.2 It should be noted the same restrictions apply to all RPAs as the CEZ (please refer to **Section 3.1.2**).

4. Construction Phase

4.1 Demolition Works

4.1.1 No demolition works are required adjacent to retained trees.

4.2 Ground Level Changes

4.2.1 To the knowledge of JCA, 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 Proposed hard surfacing in the form of a private drive is located within the calculated RPA of T1. In this case, the road only encroaches into RPA minimally and as such no specialist construction detail will be required. However, root pruning will be utilised to prevent any 'ripping' damage, a problem associated with mechanical excavations. See **Section 2.2** for more details.

4.4 Construction of New Buildings

4.4.1 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 Precise details on service routes are not available at this time. As such, no provision for the routing of utilities within the RPAs is made within the scope of this report.

4.5.2 All utilities should ideally be located outside the RPA of retained trees. If, for whatever reason, incursions into the RPAs are considered unavoidable, the consulting arboriculturalist and/or the LPA must be consulted immediately, to prevent a breach of planning conditions and/or damage to retained trees.

4.5.3 Guidance and methodologies on the installation of underground services whilst minimising damage to tree roots is provided at **Appendix 3**.

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.
- 4.6.2 Those 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 Post Construction Landscaping

- 5.1.1 Following completion of the main construction phase, the protective fencing may be removed and the landscaping phase can commence.
- 5.1.2 The proposals include for the installation of wooden boundary fences and gate posts. Where these are located within the RPA of retained trees, 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.
- 5.1.3 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.
- 5.1.4 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.
- 5.1.5 Heavy machinery is not permitted in the vicinity of retained trees, unless otherwise stated in this method statement.
- 5.1.6 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 Mycorrhizal Fungi Inoculation

- 5.2.1 As the proposed development will encroach into the RPA of T1, possibly resulting in some root loss, the application of an appropriate *mycorrhizae fungi* will be undertaken to the soils around these trees after the construction phase is complete.
- 5.2.2 Certain *mycorrhizae* fungi form a symbiotic relationship with tree roots. A tree root associated with such *mycorrhizae* will take up nutrients more effectively and this will therefore help the tree to produce new roots more effectively, so benefitting their recovery.

5.3 Tree Planting Scheme

- 5.3.1 A Tree Planting Scheme has been formalised for this development as part of the proposals. The planting of 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 4).		
Stage 4	Have the Arboricultural Consultant inspect the fencing measures prior to any on site construction. Once inspected, the protective fencing must not to be moved or breached.		
Stage 5	Undertake the construction phase. Root pruning to be undertaken under arboricultural supervision in line with Section 2.2 .		
Stage 6	Following the completion of the construction phase and when all site traffic and machinery has left, the protective fencing can be removed.		
Stage 7	<i>Mycorrhizal</i> inoculation to be undertaken within the rooting zone of T1		
Stage 8	Undertake the tree planting and landscaping scheme.		

7. Relevant Contact Details

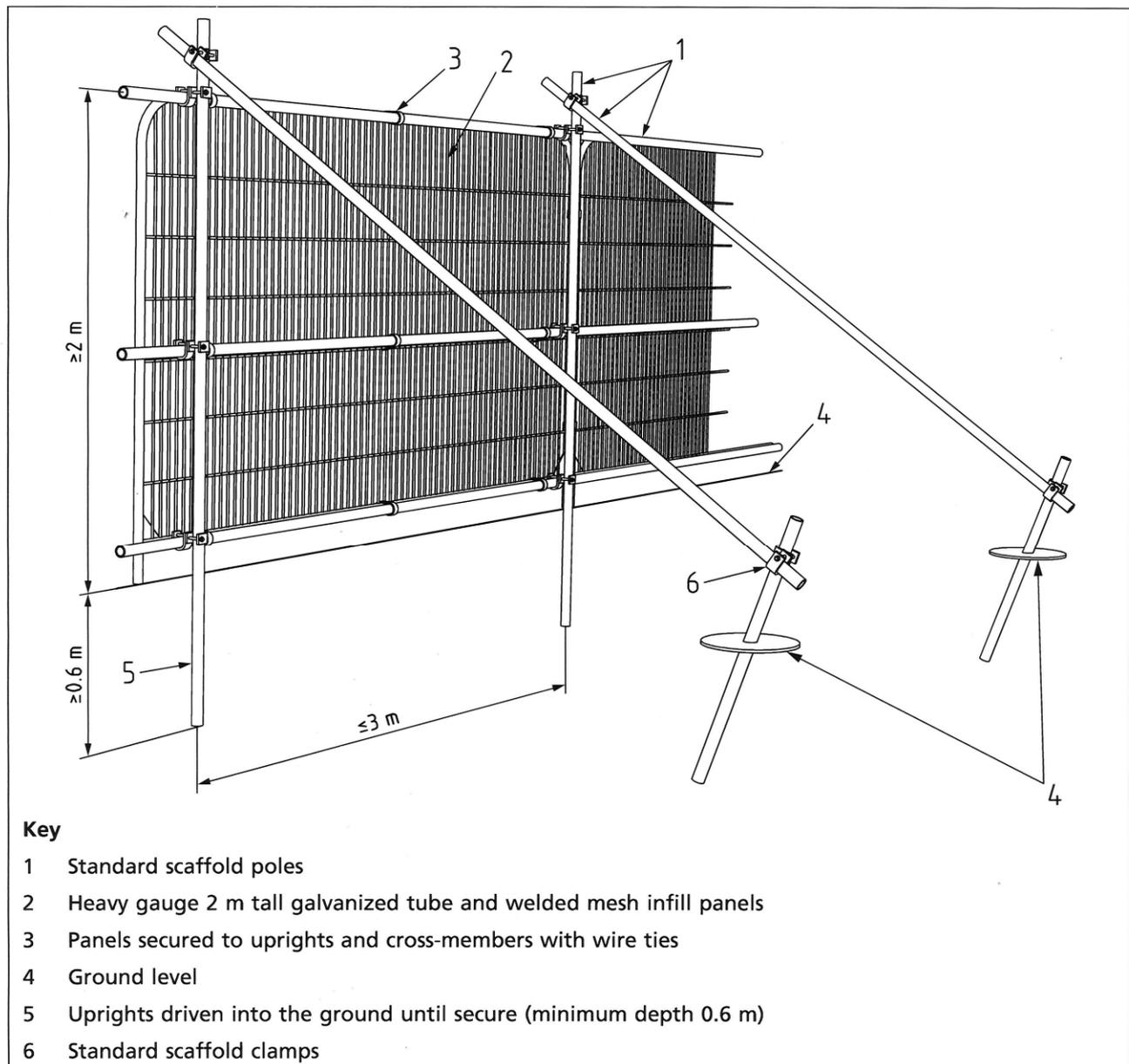
Contact Name	Organisation/Detail	Contact Number
Andrew Bussey Arboricultural Consultant	JCA Limited	01422 376335
Nick Goddard Tree Officer	Kirklees Metropolitan Borough Council	01484 414909
TBC Site Manager	TBC	TBC

Appendices

Tree Ref.	Age	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread			Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
	Common Name					Botanical Name	N	W								
T 1	Early-mature English Oak <i>Quercus robur</i>	12#	0+	0+ n/a	47	4	5	5	Single-stemmed and vertical with a fairly balanced crown. Growing on the top of a retaining wall adjacent to Dobb Top Road. Limited detailed inspection.	Root prune the area shown in blue shade on the plan at Appendix 4 under arboricultural supervision.	GOOD	GOOD	MOD	HIGH	40+	B 1
G 2	Semi to early-mature Mixed	To 11#	0+	0+ n/a	Avg. 25#	See Plan			Mixed species comprising Holly, English Oak and Hawthorn. Group provides screening from the adjacent Dobb Top Road. Limited detailed inspection.	Remove the small section shown in red on the plan at Appendix 4 to facilitate the proposed development.	GOOD	GOOD	MOD	LOW TO HIGH	40+	B 1 B 2
G 3	Early-mature Elder <i>Sambucus nigra</i>	To 6#	1	0+ n/a	Avg. 10#	1.5	1.5	4	Two multi-stemmed trees. Limited detailed inspection.	No action required.	FAIR	FAIR	LOW	LOW	20+	C 1 C 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.



Protective Barrier to BS 5837: 2012.

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

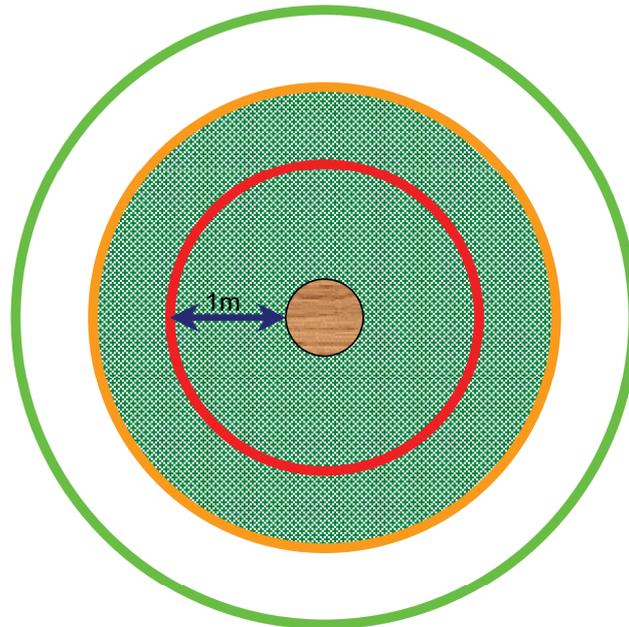
REPORT TREE DAMAGE TO JCA LIMITED ON
01422 376 335

Appendix 3: Utilities and Drainage

- A3.1 Over-ground services should be routed away from areas where they are likely to interfere with the crowns of trees. Similarly any landscaping should take account of over-ground services and mature tree size.
- A3.2 Underground services must be routed outside the RPA of retained trees, unless otherwise specified within this report. NJUG Volume 4 Issue 2 (on the next page) is a set of accepted guidelines for installing services in the proximity of trees. Please note that this is not a substitute for site-specific advice by an arboriculturalist and consultation should be made wherever incursions of RPAs are envisaged. The contents of this report, specifically **Section 4.5**, supersede the set of guidelines on the next page, which are only included for reference.



NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2



TREE PROTECTION ZONE

Key to Diagram



Trunk of Tree



Spread of canopy or branches



PROHIBITED ZONE – 1m from trunk. Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.

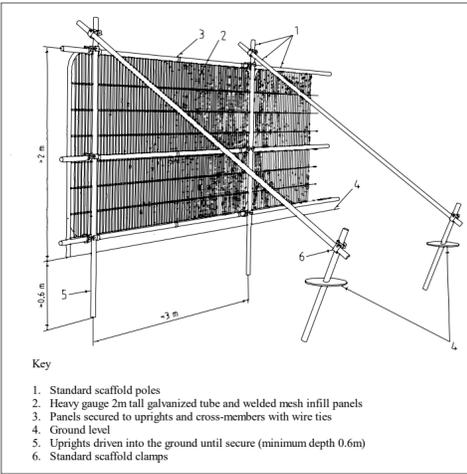


PRECAUTIONARY ZONE – 4 x tree circumference. Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with Local Authority Tree Officer if in any doubt.



PERMITTED ZONE – outside of precautionary zone. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.

Default specification for a protective barrier



TREE PROTECTION MEASURES

THE ROOT PROTECTION AREA (RPA) SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

UNLESS OTHERWISE STATED IN THE ARBORICULTURAL METHOD STATEMENT, THE RPA NEEDS TO REMAIN UNDISTURBED.

TO ACHIEVE THIS, PROTECTIVE FENCING WILL BE INSTALLED TO ENCLOSE THE RPA TO MAKE A CONSTRUCTION EXCLUSION ZONE (CEZ);

THIS AREA IS TO BE CONSIDERED A RESTRICTED AREA; NO PEDESTRIANS, VEHICLES, THE STORAGE OF MATERIALS, EQUIPMENT OR MACHINERY ARE ALLOWED WITHIN THE CEZ, UNLESS SPECIFIED WITHIN THE ARBORICULTURAL METHOD STATEMENT.

IT IS IMPORTANT THAT THE PROTECTIVE FENCING IS CHECKED BY THE LPA OR THE ARBORICULTURAL CONSULTANT PRIOR TO ANY CONSTRUCTION WORKS BEING CARRIED OUT. IF THE TREE PROTECTION MEASURES ARE NOT CORRECTLY INSTALLED OR IF THEY DO NOT COMPLY WITH BS 5837: 2012, THIS COULD RESULT IN DAMAGE BEING CAUSED TO TREES AND CONSEQUENTLY A STOP NOTICE MAY BE SERVED BY THE LPA.

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 18204-B/AJB)

Appendix 4: Tree Protection Plan

ADDRESS: Land off Bankfield Drive, Holmbridge, Huddersfield, HD9 2PH
JCA REF: 18204-CAJB

SCALE: 1:500 PAPER SIZE: A2

SURVEYED BY: AJB DRAWN BY: AJB APPROVED BY: LW

	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)
	ROOT PROTECTION AREA ENCRoACHED BY THE PROPOSED DEVELOPMENT WHERE ROOT PRUNING MUST BE UNDERTAKEN UNDER ARBORICULTURAL SUPERVISION



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



.....
Andrew Bussey *LANTRA Accredited PTI.*

29th March 2023

For and on behalf of **JCA Ltd**

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Advice for Local Authorities and Social Housing

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- 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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