

# **Blockley Shop & Café**

## **Proposed Development**

### **Arboricultural Method Statement**



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Minerva Mill, Station Road, Alcester, B49 5ET 01789 761355

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## **1. Introduction**

Crawshaw Environmental has been instructed to devise an Arboricultural Method Statement (AMS) for the proposed development of new premises for the Village Shop and Cafe in the centre of Blockley Village.

This method statement sets out a time table of works, tree protection measures and monitoring. All aspects of the AMS should be strictly adhered to.

This method statement should be used in conjunction with the Arboricultural survey and Tree Constraints Plan (TCP) and the Landscape Impact Assessment conducted by Portus & Whitton.

## **2. Site**

The Application Site is located in the centre of the village of Blockley close to the existing Shop adjacent to the Parish Church. The site is situated within the village centre within the Blockley Conservation Area on Bell Lane close to the existing Village Shop. It currently accommodates the public lavatories which sit at the north eastern entrance to the churchyard of St. Peter & St. Paul's Parish Church.

## **3. Proposals**

The proposals allow for the relocation of the community shop from its current location of the old school building to a new purpose built structure on the site of the current public lavatories. The new building will incorporate the Post Office, Village Shop and Cafe whilst also providing the public conveniences which will continue to be open in line with the currently provided service.

The building will be of Cotswold stone construction incorporating the existing boundary walls (rebuilt where necessary) and a pitched, stone tiled roof. The western elevation of the building will largely front onto the street although the main entrance will be recessed back to allow for a small sheltered terrace to be located to the front of the building.

The footings of the building will be piled lintels designed to over-sail the identified root protection areas of the retained trees. The process by which this will happen is as follows:

1- Identification of major root systems through onsite investigations (potentially using a mix of hand dig and 'air spade' methods) to produce a working plan of on-site roots.



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2- Production by Engineer / Architect of a piling plan that respects the tree root systems on site.

The proposals include a basement area to the northern extent of the building that will house the store for the shop and cafe. This is outside the identified root protection area but to ensure the protection of adjacent tree roots a comprehensive method statement regarding excavations for the basement will be produced.

#### **4. Tree constraints**

With reference to the Arboricultural Report and Tree Constraints Plan (TCP), particular attention should be given to the trees that are to be removed and in particular, retained. The TCP clearly identifies the Root Protection Areas (RPA) for the tree that will be retained. This method statement sets out in addition a Construction Exclusion Zone (CEZ) by way of protective fencing and signage. Protection of the retained trees is paramount to the granting of planning permission, the design of the development and the future health and success of the trees.

#### **5. Time table**

Pre-commencement meeting prior to construction works to discuss the tree protection
Tree works to facilitate construction.
Installation of tree protection measures (barriers / ground protection / special surface facilitate construction works.
Tree protection measures to be signed off by either the LPA Arboricultural Officer or the Arboriculturalist.
Installation of access routes
Demolition of existing building
Main construction and hard landscaping works.
Inspection by the LPA Arboriculturalist or appointed arboriculturalist to agree the removal protection measures to allow the soft landscaping works.
Soft landscaping works
Tree survey for remedial works and monitoring of tree health



## **6. Tree Surgery**

It is anticipated that the retained trees require no pre development intervention, in terms of canopy pruning. It may be necessary to undertake light and minimal pruning to facilitate the development works. This should not be undertaken without prior consultation with the arboricultural consultant. All pruning should be minimal and sympathetic to the tree species and situation in line with BS3998 2010 Tree Work Recommendations.

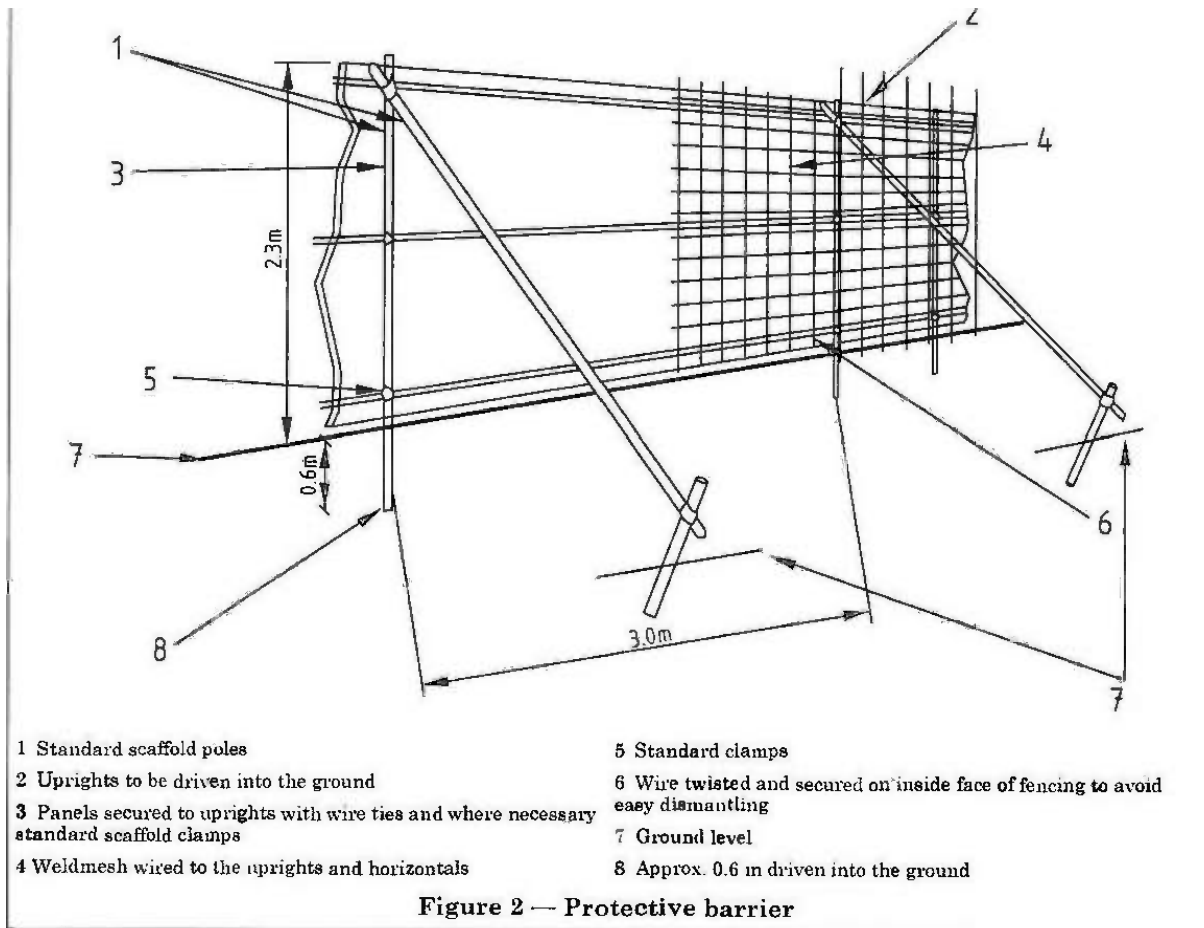
Post development pruning may be deemed necessary to promote health and vigour and to ensure minimum conflict between trees and buildings. An assessment should be made by the arboricultural consultant regarding any proposals.

## **7. Tree Protection**

Prior to construction the trees are to be protected by tree protection fencing, installed in accordance with Figure 2. of BS 5837:2005 as identified within the Tree Protection Plan for approval by the local authority.

The tree protection fencing is to be erected as detailed below and maintained in place until the completion of the project.





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### **Excavations within the RPA**

All excavations within the Root Protection Zone of those trees to be retained are to be excavated by hand or non-invasive machinery in accordance with clause 11.3.5 of BS 5837:2005.

Any excavations which have to be undertaken within the root protection area should be carried out carefully by hand, avoiding damage to the protective bark covering larger roots.

Roots, whilst exposed, should be wrapped in dry, clean hessian sacking to prevent desiccation and to protect from rapid temperature changes.

Roots smaller than 25mm diameter may be pruned back, preferably to a side branch, using a proprietary cutting tool such as bypass secateurs or handsaws.

Roots larger than 25mm should only be severed following consultation with an arboriculturalist, as they may be essential to the trees health and stability.

Prior to backfilling, any hessian wrapping should be removed and retained roots should be surrounded with sharp sand, or other loose granular fill before soil or other material is replaced.

### **Demolition of existing building/walls**

All demolition works should be carried out from within the development site and only in extreme situations, from the church yard.

Vehicle access including plant and machinery should not be permitted onto the RPA within the churchyard. Where safety prohibits this and access is to be via the church



yard, suitable measures should be in place to protect the roots from compaction and damage.

A temporary method of spreading the weight over the rootplate should be used, in the form of boarding and plating (wood/steel)

Extreme care should be taken as not to damage the roots, trunks and branches of any retained trees. It is anticipated that the works will be very close to the above trees and it may be deemed impractical to erect any protective fencing during this work. Advice from the Arboriculturalist should be sought and any temporary protection put in place. Protective fencing should be resurrected following the close proximity working to ensure protection from the wider development. Tree protection fencing and ground protection is to be installed to protect the existing trees in accordance with Clause 11.2 of BS 5837:2005.

### **Foundation & Wall Construction**

Any proposed walls and associated foundations require careful consideration including how the existing tree is to be protected during construction and how walling is to be constructed whilst causing minimal damage to the adjacent trees. During the excavation of foundations and construction of the walling the ground within the root protection zone of adjacent trees is to be protected from compaction with a geotextile membrane and scaffolding boards.

Prior to the laying of the concrete foundation the full length of the wall foundation trench within the Root Protection Zone is to be excavated by hand or air spade in accordance with clause 11.3.5 of BS 5837:2005;

The foundation will be designed by the project engineers to the minimum required depth introducing Micro Piled or Pile and Beam foundations to minimise the impact on the root systems of adjacent trees. In accordance with 11.5.2 of BS 5837:2005 and subject to agreement

Roots with a diameter greater than 25mm are to be protected in accordance with clause 9.4.2 BS 5837:2005 care should be taken when planning site operations to ensure that wide or tall loads or plant with booms or jibs and counterweights can operate without coming into contact with the retained trees. This is of particular relevance to the



pouring of the concrete foundations and the delivery and placement of the heavy masonry blocks.

Reference is also made to materials which could contaminate the soils e.g concrete mixings, concrete washings and mortar which should not be discharged within 10m of the Root Protection Area or under or within 10m of any other tree or shrub.

Accordingly the materials should not be mixed within the Root Protection Area or on an area sloping towards the tree.

On completion of the works all surplus materials are to be collected and disposed of offsite, the temporary ground protection removed and the affected area made good.

### **Possible Mini-Pile Construction Methods**

To avoid damaging the roots of this tree, a specialist construction method will be used. The details of such a system will need to be confirmed by specialist engineers, but the defining principles of the foundation types will be as follows:

- Mini-piles will be used. The positions for the piles will be ascertained prior to sinking the piles, following investigation by an air-spade.
- The air spade will be used by or in the presence of an appointed consulting arboriculturist.
- If roots in excess of 25mm are encountered they will be avoided.
- Roots of 25mm or less will be pruned by the arboriculturist using sharp hand tools.
- Piles will be sheathed to avoid leachates from the wet concrete affecting the soil around the tree roots.
- Piles will be of the smallest practical size to avoid disturbance to roots.
- The floor surface, made of suspended floors, beams or slabs, will be supported by the mini-piles at or above ground level.
- No excavation will be carried out within the RPA of the tree.

### **Underground Services**

There are several instances where the proposed underground services may impact on the RPA's of existing trees and hedgerows (refer to the project engineer's services plan). Trenching for the installation of underground services severs any roots present



and may change the localised soil hydrology in a way that adversely affects the health of the tree. Particular care should be taken in the routing and installation of all underground services.

Excavations for proposed services within or immediately adjacent to the RPA's of retained trees are to be undertaken by hand or non-invasive machinery as

The installation of underground service routes within the RPA's of existing trees to be retained are to be installed using trenchless techniques in accordance with Clause 11.7 of BS5837 and local utilities recommendations.

## **8. Supervision & Reporting**

The developer, site manager/foreman, developer's Arboriculturalist and the Council's Arboriculturalist must meet on site before any development activity begins to confirm the timing and implementation of the agreed tree works and installation of the tree protection measures.

A suitably competent Arboriculturalist is to make regular site visits, at intervals of not more than 14 days (to be determined at the pre-commencement site meeting which is also to determine the manner in which those visits are to be recorded and logged), to confirm that the protection measures agreed and employed are functional and achieving their purpose and to liaise with the LPA's Arboriculturalist and agree any changes or revisions that may be necessary, before they are implemented.

Any changes to the agreed protection measures or procedures are to be agreed in writing by the LPA, recorded and circulated to all parties as an addendum to this method statement.

## **9. Contingency Plans**

In the event of unforeseen incidents occurring, that may adversely affect or threaten the welfare or security of the trees, the resident Site Agent/Manager shall inform the Arboricultural Consultant at the earliest opportunity and not more than one working day following the incident

The Arboricultural Consultant will visit the site to inspect and assess the circumstances and make any appropriate recommendations The Local Planning



Authority Tree Officer will be informed by the Arboricultural Consultant of such incidents and recommendations will be submitted for approval by the Local Planning Authority, initially verbally, and then in writing

A record of any emergency incidents and works shall be maintained by the Arboricultural Consultant

- Incidents which may merit such contingency plans include
- Accidental / unauthorised damage to the limbs, roots or trunk of trees
- The spillage of chemicals within or adjacent to a Root Protection Area
- The discharge of toxins / waste within or adjacent to a Root Protection Area
- The un-scheduled

## **10. Aftercare & Monitoring**

Where possible health, vigour and future development of the root systems should be encouraged, below are recommendations for maintaining the roots ability to breath, take up water and nutrients and expand if needed.

- Tree roots should be undisturbed in the existing environment as much as possible
- Any building should not be built directly onto the soil. A gap should be built in and backfilled with no fines stone as to allow oxygen through to the roots.
- Water runoff from the roof space should be allowed to drain and permeate into the root areas. Care should be made to a design, where excessive amounts of water does not swamp the area and become waterlogged. Some water may need to be distributed elsewhere.
- A slow release nitrogen fertiliser specific for trees should be incorporated into the soil within the root areas beneath the new building
- Where the existing building is situated and subsequently removed and where possible, new soil and organic matter should be imported to allow roots the opportunity to explore and develop further. All material should be screened and checked to make sure it is disease free and contains no pathogens harmful to trees. Again this should be topped with no fines stone to allow oxygen.



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A qualified arboriculturalist should visit the site post development and undertake a health & safety assessment of the trees to determine any issues arising and to recommend an adjustment or any additional measures he deems suitable to maintain the health a viability of the trees.

## 11. References

British Standards 5837: 2005 Trees in relation to construction.

Tree Preservation Orders - A Guide to Good Practice· Diagnosis of ill health in trees - R G Sprouts and T G Winter - Forestry

Principles of tree hazard management - David Lonsdale - Forestry

Commission Publication ISBN 0-11-753355-6

The body language of trees - Claus Mattheck and Helge Breloer - Forestry

Commission Publication ISBN 0-11-753067-0

Arboriculture research and Information note 12 'Tree Root Systems'.

Tree Roots and in the Built Environment John Roberts, Nick Jackson and

## 12. Terms and Conditions

Any report is provided for the sole use of the named client and is confidential to the client and his professional advisors. The consultant accepts responsibility to the client alone for the stated purposes of the report, which will be prepared, with the skill, care and diligence reasonably expected of a competent Arboricultural Consultant, but no responsibility whatsoever is accepted to any person other than the client himself. Any other such person relies upon the report entirely at his own risk. Neither the whole nor any part of the report or any reference thereto may be included in any published document, circular or statement nor may it be published in any way without the Consultant's prior written approval of the form and context in which it may appear.

The client shall pay the consultant his fee for the report regardless of any outcome. In addition, the client will reimburse the Consultant the cost of all reasonable out of pocket expenses which he may incur. Payment in full of the total amount due must be paid within 30 days and the Consultant shall be entitled to charge interest both before and after any judgement of the amount unpaid, at the rate of 10% per month from time to time, until payment in full is made (a part of the month shall be treated as a full month for the purpose of charging interest). No discount nor retention or set off against the same due is allowed unless previously agreed by the Consultant in writing. The report is valid from the date of the report for one year following the receipt of payment in full for the services provided.

In making the report, the following assumptions will be made by the Consultant (and these are therefore matters for which no responsibility can be accepted by the Consultant):

(i) that the land, which is the subject of the inspection or survey, is not subject to any unusual or especially onerous restrictions, encumbrances or outgoings and that good title can be shown

(11) that the land and its value are unaffected by any matters which might be revealed by a local land search or replies to conveyance enquiries or by any statutory notice and that neither the land nor its condition nor its uses nor its intended uses is, or will be unlawful or contrary to planning or building regulations

(Hi) that inspection of those parts of the land or soil strata or any tree which have not been inspected would neither reveal material defects nor cause the Consultant to alter his opinion materially



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(IV) that there are not underground pipes, wires, cables or others services or installations which might be damaged as a result of work recommended or necessary

(V) that no tree is the subject of or protected by a Tree Preservation Order or the terms of a planning consent, in relation to which the Client must make his own enquiries of the Local Planning Authority responsible.

The Consultant will provide his opinion on those matters in respect of which he has given the Client express written confirmation and subject to the limitations and conditions then stated.

It is possible that the report will suggest further investigation works to be carried out by a specialist firm or person e.g.

Structural Engineer, Surveyor, drain or electrical engineer. On no account will liability be accepted by the consultant in respect of matters on which the client is recommended to obtain such other specialist advice or if the client proceeds or acts without obtaining and acting upon the relevant further advice.

The report will not purport to express an opinion about or to advise upon the condition of un-inspected parts of the land or trees and should not be taken as making any implied representation or statements about such parts.

The consultant will carry out such work with the skill, care and diligence that can reasonably be expected of a competent arboricultural consultant, always bearing in mind the limitations of the inspection.

Preliminary surveys are visual inspections that do not include any information on engineering, no root or soil samples are taken for analysis and trees are not Climbed.

The consultant will inspect as much of the land and trees as is practicable given the scope of his instructions and the level of fee agreed. He will be under no obligation to inspect those areas that are unexposed or not readily accessible.

Except where the contrary is stated, parts of the land or of the trees which are covered, unexposed without excavation or inaccessible without climbing, will not be inspected.

Without specific written instructions, the consultant will not report on the condition of other parts of the land or trees.

The report shall provide information as to the overall condition of the land and trees and is not intended to be an inventory of every single defect that might insignificantly affect the clients' proposal.

Any verbal information given by the consultant prior to the clients' receipt of the written report shall not be construed as a representation or warranty and should not be relied or acted upon.

(i) Subject as expressly provided in these conditions, and except where the client is sold to a person dealing as a consumer (within the meaning of the Unfair Contract Terms Act 1977) all warranties, conditions or other terms implied by the statute or common law are excluded to the fullest extent permitted by law.

(ii) Any claim by which the *client* is based on any defect in the nature or quality of the consultant's services shall be notified to the consultant within 7 days from the date of supply.

(iii) Except in respect of death or personal injury caused by the consultant's negligence, the consultant shall not be liable to the client by reason of any representation, or implied warranty, condition or other term, or any duty at common law, or under the express terms of any contract, for any consequential loss or damage (and whether caused by the negligence of the consultant, his employees or agents or otherwise) which arise out of or in connection with the consultant's services, except as expressly provided in these conditions.

(iv) The consultant shall not be liable to the client or be deemed to be in breach of the contract by reason of any delay in performing, or any failure to perform, any of the consultant's Obligations in relation to the services he renders if the delay or failure was due to any cause beyond the consultant's control.

Each provision of these conditions limiting or excluding liability operates separately in itself and survives independently of the others.

Any dispute arising out of or in connection with the contract between the client and the consultant shall be referred to the arbitration or a single arbitrator appointed by agreement between the parties or, in default of agreement, nominated on the application of either party to the Arboricultural Association.

The consultant reserves the right to refuse work(s) if a conflict of interest is identified or arises. Quotations are valid for 28 days from the date of the quotation.

The contract between the client and the consultant shall be governed by the laws of England.



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