

Arboricultural Method Statement [90492]

A report for ARCADIS APS Ltd

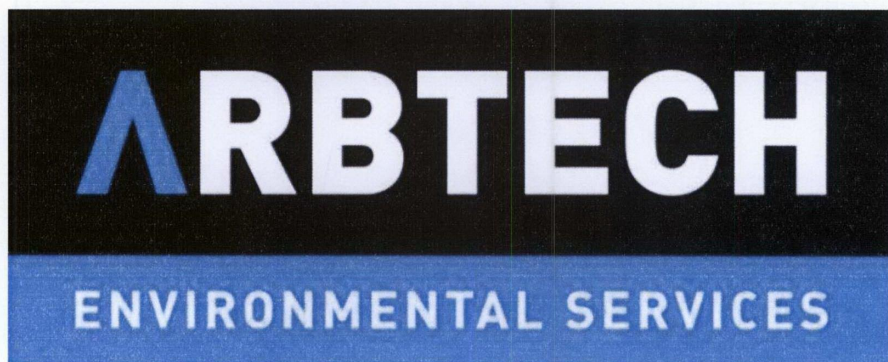


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If this report has been released electronically the appendices listed above can be found in annexed zip folder as *.pdf* or *.dwg* files. If this report has been released in hard copy the above appendices will be bound into the back of this report. Plans may be annexed separately as A1 or A0 copies where a bound-in A3 copy is not appropriate.

FOREWORD

1. British Standard 5837:2005 'Trees in relation to construction' ("BS5837") supersedes BS5837:1991 which has since been withdrawn. The scope of BS5837 is to provide recommendations and guidance on how trees and other vegetation may be satisfactorily integrated into construction and development projects. The overall aim of this is to ensure the continued longevity and quality of amenity contribution that trees appropriate for retention and protection provide. This report and its appendices follow precisely the strategy for arboricultural appraisal and input intended to provide councils with evidence that trees have been properly considered throughout the development process.

PARTICULARS OF INSTRUCTION

2. This report has been prepared to discharge the instruction of our client: Mike Stott on behalf of ARCADIS APS Ltd in respect of a discharge of planning conditions at 1 Radlett Place, London, MW8 6BT. Throughout this report Arbtech Consulting Ltd will be referred to interchangeably as the 'company' and the 'consultant'.

CONTACT LIST

3. A list of names and contact information for persons involved in the project are reproduced below. An asterisk (*) denotes the lead consultant to whom all comments/queries relating to the content of this report and its appendices should be addressed in the first instance.

Architect	MMM Architects LLP
Planning Consultant	The London Planning Practice LLP
Project Manager*	ARCADIS APS Ltd
Engineer	Dewhurst Macfarlane & Partners LLP
Principle Contractor	Unknown
Landscape Architect	Clifton Design Ltd.
Lawyer	Unknown
Client/Developer	Radlett Estates Ltd
Quantity Surveyor	Unknown

APPLICATION BACKGROUND

4. Planning consent, subject to conditions, has been granted on appeal (APP/X5210/A/09/2104199) for the demolition of a dwelling and erection of a new dwelling with associated landscaping, car parking, two storey guest house and single storey annex in accordance with the terms of application Ref 2008/3500/C.
5. This method statement relates specifically to Condition 3 of the planning consent:
No development shall take place until there has been submitted to and approved in writing by the Council details and locations of all existing trees on the land, together with measures for their protection in the course of development. These measures shall be carried out in accordance with the guidelines and standards set out in BS5837: 2005 "Trees in relation to Construction".
6. This method statement should be read in conjunction with the appended Tree Protection Plans and the Arboricultural Statement (June 2008) submitted and approved under the application.

ARBORICULTURAL METHOD STATEMENT ("method statement")Tree works & removals

7. All tree works recommended are to be carried out prior to any site personnel being present or commencing works or any materials being delivered. Reason: for the welfare, health and safety of site personnel.

Summary of tree works & removals

Tree reference #	Remedial works description		
	Remove	Canopy works	Other
122		Reduce the canopy on south side to 6.0m from ground level by 1.0m	To ensure the safe retention of the tree during the erection and use of scaffolding
123		Raise canopy on south side to 6.0m from ground level	To ensure the safe retention of the tree during the transport of piling plant and materials

8. All tree works must be undertaken in accordance with detailed planning permissions or otherwise with the consent of the council if trees are subject of statutory protection (subject to the normal statutory exemptions).
9. All tree works must be undertaken to British Standard 3998:1989 and by an arboricultural/forestry contractor. The minimum level of insurance indemnity for this type of works should be £5,000,000 public and products liability and £10,000,000 employer's liability.

The consultant can organise site clearance/remedial tree works via an associate business.

Specification for protective barrier fencing ("PBF")

10. PBF is to be installed immediately following the completion of the tree works as per the TPP. PBF is to remain in situ as per the TPP for the entire duration of the development unless otherwise agreed in writing by the council.

11. PBF is appropriate for the intensity and proximity of the development. PBF will protect trees where development activity is in close proximity. PBF will comprise a scaffold construction of “a scaffold vertical and horizontal framework, well braced to resist impact with the vertical tubes spaced at a maximum of 3.0m. Onto this, weld mesh panels should be securely fixed with wire or scaffold clamps. Weld mesh panels on rubber or concrete feet are not resistant to impact and should not be used.” Signage denoting the words “tree protection area” at 5.0m intervals will be fixed to the PBF (the company can supply and install PBF and signage).

Specification for prohibition

12. All tree works will be completed and PBF installed in accordance with the TPP, prior to commencement of development.
13. No mechanical digging or scraping is permitted within an RPA excepting operations specifically permitted in this report.
14. No fires are to be lit within 10.0m of any vegetation.
15. No machinery, plant or vehicles are to be washed down within 5.0m of vegetation.
16. Tree works not specified in this report (or leaning against or attaching of objects to a tree) is permitted.
17. No chemicals or materials are to be transported or stored or used or mixed within an RPA.
18. Only following build completion can landscaping/tree planting works be undertaken.

Specification for ground protection

19. The protective barrier fencing only protects a small portion of the RPA. The remainder of the RPA can be protected by specially engineered ground protection that is sensitive to tree roots in its presence and installation techniques – or in so far as is reasonable and practicable. The council has indicated that pursuant to BS5837 there is a need to protect the RPA outside of the protective barrier fencing

from severe soil shearing and compaction. This can be achieved by the installation of a “concrete apron” appropriate for the purpose of supporting piling rigs and other plant and materials. The ground protection shall be in the form of a steel reinforced concrete slab. This will be of the following specification:

- 200mm thick steel reinforced concrete slab cast from C40 concrete, containing 2no. layers of A525mesh (1 top, one bottom with 40mm cover and 450mm laps)
20. The slab will have the design capacity to spread the load of the 4 tonne piling rig proposed by the engineer so that the resulting ground pressure is of the order of 2.5kN/m^2 (the weight of the slab itself is 4.8kN/m^2). The slab may change in its specification and howsoever this is revised the council shall be notified prior to its installation.
 21. This slab will cover the entire RPA which is not worked within (in accord with s.11.23), excepting the area cordoned off by the protective barrier fencing. This slab will more than adequately protect the RPA from above ground pressure or soil shearing.
 22. In the immediate area of the proposed excavation a level surface is required, onto which the piling rig can get access. In this area the ground will be levelled out by using approximately 0.15m (150mm) of hardcore to create a “piling matt”.
 23. Ground protection is to remain in situ for the entire duration of the demolition and construction processes unless otherwise agreed in writing by the council. It will only be removed immediately prior to soft landscape works commencing / build completion following an assessment by the consultant.
 24. The ground protection will need to be installed and checked by the consultant prior to works on site commencing.
 25. The tree protection plans will clearly illustrate the siting and alignment of ground protection. The tree protection plans must be read in conjunction with this method statement. Once installed, the ground protection will be inspected and maintained so that it may adequately perform the function of restricting access to within the RPA. The company will visit the site on a periodic basis to ensure that the ground protection is serving its functional purpose and to ensure its condition and siting is

satisfactory. This will be reported electronically to the council. The ground protection shall remain in situ until the build is complete. Before the ground protection is removed the company will visit the site to sign it off as build complete and report to the council that this has been done satisfactorily from the view of the consultant (i.e. without damage to the trees).

Specification for soil amelioration

26. The RPAs of retained trees are to have amelioration works undertaken following construction completion. Aeration, via air spade de compaction works to a depth of approximately 500mm is to be undertaken using a radial trenching technique. This assists in creating preferential conditions for root development over and above those currently in situ, thereby promoting the best possible chance of the tree being able to contribute its amenity while tolerating a minor degree of fine (fibrous) root loss. A mix of NPK fertilizer and well composted bark mulch should be incorporated via air spade into the radial trenches.
27. Following the completion of the landscaping woodchip/bark mulch should be applied to a maximum depth of 40mm atop the RPA for a distance of 2m from the tree's stem to control weed growth and retain moisture.
28. Amelioration work will form part of a separate contract.

Phasing and site monitoring

29. The development shall be phased as follows. The stages highlighted in red will require the company's input. After each stage is successfully completed a brief report will be sent electronically to the council for their records.
 - a) Site meeting with project manager and engineer to brief on tree protection measures
 - b) Install the protective barrier fencing in accordance with the approved protection plans and this report
 - c) Clear all vegetation from the site using manual tools only
 - d) Install the steel reinforced concrete slab for ground protection (allowing 7 days to gain strength).
 - e) Remove the existing building and its annexes
 - f) Excavate and remove spoil from site

- g) Install piling and allow time to gain strength
- h) Install temporary propping to piles and carry out excavation
- i) Construct new retaining structures
- j) Construct new superstructures
- k) Remove plant and materials from site
- l) Demolish and remove concrete slab from site without the use of tracked machines or vehicles
- m) Remove protective barrier fencing from site
- n) Soils amelioration (de compaction) and radial trenching introducing well composted bark mulch into the soils around the tree along a radius of 5.00m (see earlier report).
- o) Re instate landscaping
- p) Sign off from the company as no further involvement required

Communication

30. All site personnel and representatives from the contact list (s.3) are to be provided with a copy of this report and its associated documents for distribution at their discretion (notwithstanding our terms of business). The company can be contacted at any time for clarification of information contained herein or for further advice (which may form part of a separate contract)

31. Arbtech's principal contact details can be found at www.arbtech.co.uk.

This concludes our advice.



General company information

Arbtech Consulting Ltd (Companies House registration 05678552) is a private limited company registered in England. Arbtech Consulting Ltd is registered for value added tax GB903660148. Arbtech Consulting Ltd is a wholly owned subsidiary of Robert Oates Holdings Ltd (Companies House registration 06645997).

Mission

Arbtech's mission is to be the #1 brand for environmental surveys in Great Britain. We will do this by supplying consistently high quality advice and investing in great people.

People

Our intellectual capital is our product and principle asset. Arbtech's focus is on attracting talented people to the business; then investing in training and retaining them. Our culture is very entrepreneurial, enabling us to craft cost saving and value added solutions to often complex problems faced by our clients.

The name Arbtech is synonymous with driven individuals and unmatched client focus. Arbtech is widely respected for its relationships with clients and the senior management interest in every project we undertake. Irrespective of location, sector or service, clients of Arbtech have confidence in us to deliver: on time, to specification and on budget.

Since our company's inception, Arbtech has never had a client refused planning on the basis of our advice.

Location

The firm is headquartered in Chester with a well established office in the heart of London.

More

www.arbtech.co.uk