Greenman Arboriculture Tree Surveys & Consultancy

Pre-Development Tree Survey,

Arboricultural Impact Assessment,

Arboricultural Method Statement,

Tree Protection Plan

For installation of Electric cable and Light Bollards

St Margaret's Church, Church Lane

Draycott le Moors, ST11 9AG

Contents

1.0 General notes and introduction

1.1 Greenman Arboriculture Tree Surveys and Consultancy provided a fee estimate to the Revd Jonathan Roberts to undertake a pre-development tree survey in accordance with BS5837:2012 and was instructed to progress the survey on 15th February 2017.

1.2 All the trees in this survey have been surveyed from the ground. The survey is based on a purely visual assessment of the trees. A climbing survey was not undertaken. Where relevant, specific recommendations for remedial tree surgery works have been included. Such recommendations are valid for a period of 12 months from the date of this inspection, following which it may be necessary to re-assess this advice in accordance with sound arboricultural advice.

1.3 The protected status of the trees included in the survey has not been confirmed with the Local Planning Authority (LPA) or Local Authority (LA) with regard to current tree preservation orders or conservation area status at the site.

1.4 This survey is to be read with the associated tree position plan. Where comments relating to non-arboricultural matters are given, such as soils and built structures, any such opinion expressed should be treated as unqualified, and confirmation from a suitably qualified professional should be sought. Such points are clearly identified in the report.

2.0. Tree survey assessment notes

2.1 This tree survey has been structured to accord with the requirements of Sections 4.4 and 4.5 of British Standard 5837 of 2012: Trees in relation to design, demolition and construction – recommendations. The columns in the Tree survey assessment refer to The following items:

Tree/Group number: Tree reference number as shown on drawing.

Common name *Scientific name*: Identifies individual species by common name. For avoidance of doubt the botanical name is shown (in italics N/A).

Tree height: Estimated height of the tree in metres.

Stem diameter: Diameter of the trunk(s) measured in accordance with Annex C of the Standard and expressed in millimetres.
Branch spread: Measured radial spread of the crown broken down into the 4 main compass points and expressed in metres.

Height above ground level of: Estimated measurement (in metres) to inform on ground clearance, crown/stem ratio and shading presented in two sub-categories:

- First significant branch (at point of attachment with parent stem) and direction of growth (eg 2.4 N).
- Canopy ie assessment of clearance above ground of lowest branch tips. Where irregular, and potentially significant towards development proposal, direction of assessed crown height has been added.

NB: For tree height, stem diameter and branch spread, the measurement Conventions are as follows:

- Height and crown spread are recorded to the nearest half metre (crown spread being rounded up) for dimensions up to 10m and the nearest whole metre for dimensions over 10m.
- Stem diameter is recorded in millimetres (using a calibrated girth tape), rounded up to the nearest 10mm (0.01m).
- Estimated dimensions (eg for off site or otherwise inaccessible trees where accurate data cannot be recovered) are identified by being suffixed with a #.

Life stage: The estimated age: young, semi mature, early mature, mature or over mature, shown as Y, SM, EM, M or OM respectively.

Physiological condition: Physiological condition being good, fair, poor or dead, shown as A, B, C or D respectively.

Structural condition: Structural condition being good, fair, poor or dangerous (eg collapsing, the presence of decay and physical defects), shown as A, B, C or D respectively.

General observations, including preliminary management recommendations: Particularly of structural and/or physiological condition, including further investigations of suspected defects that require more detailed assessment and potential for wildlife habitat.

Estimated remaining contribution in years (RC) : <10, 10–20, 20–40 or >40.
Retention category: Categorisation of survey trees in accordance with Section 4.5 and Table 1 of the Standard.

•**U (dark red):** Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer longer than 10 years

- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (eg where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).

- Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.

- Trees infected with pathogens of significance to the health and/or safety of other trees nearby or very low quality trees suppressing adjacent trees of better quality.

NOTE: Category U trees can have existing or potential conservation value that it might be desirable to preserve.

- **A (light green):** Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Mainly arboricultural qualities: Trees that are particularly good examples of their species, especially if rare or unusual, or those that are essential components of groups or of formal or semi-formal arboricultural features (eg the dominant and/or principal trees within an avenue). Indicated by 1 in brackets after the appropriate category classification.

Mainly landscape qualities: Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features. Indicated by 2 in brackets after the appropriate category classification.

Mainly cultural values, including conservation: Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg veteran trees or wood-pasture). Indicated by 3 in brackets after the appropriate category classification.
Trees with an estimated remaining life expectancy of at least 20 years.

- **B (mid blue):** Trees with an estimated remaining life expectancy of at least 20 years.

Mainly arboricultural qualities: Trees that might be included incategory A, but are downgraded because of impaired condition (eg presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years or trees lacking the special quality necessary to merit the category A designation. Indicated by 1 in brackets after the appropriate category classification.

Mainly landscape qualities: Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives, but situated so as to make little visual contribution to the wider locality. Indicated by 2 in brackets after the appropriate category classification.

Mainly cultural values, including conservation: Trees with material conservation or other cultural value. Indicated by 3 in brackets after the appropriate category classification.

- **C (grey**): Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm.

  Mainly arboricultural qualities: Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Indicated by 1 in brackets after the appropriate category classification.

  Mainly landscape qualities: Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value and/or trees offering low or only temporary/transient landscape benefits. Indicated by 2 in brackets after the appropriate category classification.

  Mainly cultural values, including conservation: Trees with no material conservation or other cultural value. Indicated by 3 in brackets after the appropriate category classification.

3. Information provided by client: Greenman Arboriculture has been provided with an overview of the proposed lighting scheme, a map showing the area covered by the TPO (Tree preservation order) and a heritage statement regarding the history of the church. The survey was completed using my chosen data collection system (OTISS).The trees positions were plotted using GPS.

3.1 The positions of the trees, hedges or groups are accurate up to <3m as GPS signals can be affected by the unique environmental factors of an individual site such as terrain or tree canopies. The exact location of trees should be confirmed by the developer or agents acting on their behalf. Especially where a retained tree, hedge or group may come into conflict with the location of a feature of the proposed development.

4. Location and description of the site: The site of the church stands on a small knoll alongside the old Uttoxeter road on what is now known as Church lane ST11 9AG

5. Description of the proposed development: The application is for the installation of an electrical power supply cable and 6 bollard mounted lights for the illumination of an access path.

6. Tree survey report and recommendations: The tree survey report and recommendations have been included as an attached file as they were compiled using a separate data collection system. Details will also be provided to the client so as to be able to access the report, recommendations and map online if required.

7. Tree constraints Plan: The RPA's are provided as a linear measurement in the survey as no barriers will be erected as excavation work is within the RPA.

7.1 Tree Protection Plan: The RPA's are defined in the survey report as a linear measurement as the work proposed will be within the prescribed RPA of the trees featured in the report.

7.2 The default position is that all structures should be located outside the RPA's. The RPA's should be considered as sacrosanct and once tree protection is in place prior to any demolition or construction, should not be entered, used for storage of materials or the washing out of mixers etc. The area should be considered as a construction exclusion zone (CEZ).If at any point access is required to the RPA this should be first discussed with the project arboriculturist and agreed with the LA tree officer and adequate ground protection put in place.

8. The Trees: A total of 9 individual trees have been identified as being implicated in the proposed design, 4 at category B and 5 at category C

8.1. Tree categories

St Margaret's Church

- U = None
- A = None
- B = 4
- C = 5

9. Arboricultural Impact Assessment: In general terms there is a potential for damage to retained trees during the process of any construction/demolition or conversion of existing buildings including the breaking out of hard surfaces, by direct mechanical damage, (including the raising or lowering of ground levels), the changing of drainage patterns, compaction of soils etc, and by indirect causes such as excessive dust during any demolition/ construction process. This survey is undertaken with regard to the routing of services only

9.1. If, on the preparation of detailed proposals, there is perceived to be a potential threat to any retained vegetation from dust etc, especially during demolition, a method statement will be prepared to safeguard that vegetation.

9.2. It is understood that there is no need to remove any trees to accommodate the proposed installation in its present form. The preferred method of installation would be by the use of a "Mole" or thrust boring this however may not be practical with regard to the position of existing trees and graves. As an alternative it is recommended to excavate carefully with hand tools only.

9.3. Special attention to excavation will be required to accommodate the proposed development in harmony with retained trees.

- Information relating to the accepted industry standard involving the routing and installation of services can be found in the National Joint Utilities Group Volume 4, "Guidelines for the Installation and Maintenance of Utility Apparatus in Proximity to Trees" (NJUG4). Contractors should be able to demonstrate knowledge of these guidelines.
- Information relating to industry accepted standard with regard to the environment in general can be found in the National Utilities Group Volume 5 "Guidelines on Environmental Good practice".

10. Arboricultural Method Statement: Prior to any works commencing including the erection of protective fencing on the site it is suggested that any tree works highlighted in the recommendations including the removal of category U / C / B trees should be undertaken only with prior agreement with the LA tree officer. Any prospective tree surgery should be undertaken by a reputable arborist who can show proof of experience, relevant National Proficiency Test Council (NPTC) certification and the necessary insurance cover. All works should be undertaken to the industry accepted standard BS 3998: 2010 Tree Work: Recommendations.

10.1 All statutory protection afforded to both flora and fauna by the relevant acts, The Wildlife and Countryside Act 1981 (as amended), The Town and Country Planning Act 1990, The Countryside and Rights of Way Act 2000, The hedgerow regulations 1997, relevant sections of the Highways Act 1980 and the Badger Act 1992 will be strictly adhered to. If further advice is required for example if bats are discovered work should stop and Natural England should be informed.

10.2 The preferred method of installation for power supply cables would be by the use of a "Mole" or using the thrust / trenchless boring technique as previously stated this may not be practical as there are existing grave stones on the proposed route whose foundation depth is unknown. Existing tree roots could also be damaged or deflect the route of the mole. It is proposed that the cable be installed on the side of the path furthest away from the existing trees. The excavation for this cable should be carefully dug by hand and be of the minimum practical dimensions for the installation of the cable. Any roots encountered should be carefully excavated around and wrapped in damp hessian cloth if exposed for any length of time. The time that roots are exposed should be kept to a minimum. No major structural roots are to be damaged if in the event any small roots need to be pruned they should be cut cleanly and not leave any "ragged ends" (BS3998 8.6). Back filling of trenches should use the existing excavated soil as oppose to imported soil. If these Recommendations are followed the installation should have no deleterious effect on any retained trees.

10.3 The LA tree officer will be invited to attend any site meetings pertaining to any implications to retained trees and will be advised of any such meetings in advance as far as is practical.

10.4 All tree works to be undertaken at the appropriate time and with the full knowledge and consent of the LA. All operations shall be carried in such a way as to create the minimal disturbance to retained trees. No trees shall be used as anchors in the event of any winching operations. Please see below for ground protection.

10.6 Within the fenced off area or within proximity of trees without barrier protection, the following will apply.

- No mechanical excavation.
- No excavation of any type without prior knowledge and consent of the project arboriculturist and LA tree officer.
- No raising or lowering of soil levels.
- No storage of plant or materials.
- No storage or handling of any chemicals, including fuel /oils, cement/ cement washings.

- No vehicular or pedestrian access, without prior discussion and agreement with the project arboriculturist and LA tree officer with regard to suitable ground protection.
- No fires

10.7 Protective fencing will not be practical in this instance as all excavation work will be within the prescribed RPA.

10.8 Ground protection where agreement has been reached with the LA tree officer that access is justified into or over an RPA this can be facilitated by an agreed set back of the tree protection fencing and the placement of adequate ground protection.

10.9 Avoiding damage to the crowns of retained trees Care should be taken when planning site operations adjacent to retained trees. Vehicles or plant carrying wide loads, jibs, booms, and counterweights should avoid contact that will result in damage to the crowns of retained trees this can be aided by the use of banksmen.

10.10 Installation of underground services within the Root Protection Area: If services have to be routed through an RPA then this must first be discussed with and agreed by the LA tree officer.

10.11 The use of trenchless technology would be the preferred option for the installation and routing of services using a thrust borer, this can be used successfully in the installation of all types of services. Attention is drawn to NJUG 4 Manual excavation using hand tools is sometimes acceptable and should be first discussed and agreed with the LA tree officer.

11. RECOMMENDATIONS

It is recommended, if the development is to proceed, that all protection methods and other works identified in this report be fully implemented. If adopted in full, it is considered that the welfare of any retained trees will not be compromised.

12. LIMITATIONS AND QUALIFICATIONS

Tree inspection reports are subject to the following limitations and qualifications:

The report is concerned with the above and below ground implications of the vegetation on the adjacent site. No below ground inspections have been considered necessary other than a visual inspection of the morphology and disposition of roots. This has taken into account the presence of structures and foundations between the retained trees and the proposed development.

The validity, accuracy and findings of this report are directly related to the accuracy of the information made available during the inspection process. There can be no responsibility on

the author for the recommendations within this report where essential data was not made available, or is inaccurate. No checking of third party data has been undertaken.

This report is valid for 12 months from the date of inspection. It will become invalid if any building works are carried out upon the property, tree work carried out, or soil levels on the property altered without prior agreement with the LA tree officer. If any such operations are undertaken, it is recommended that a new tree survey is carried out.

It will be appreciated, and deemed to be accepted by the client and their insurers, that the formulation for the recommendations are guided by the following:

1. The need to avoid reasonably foreseeable damage;
2. The arboricultural factors – tree safety, good arboricultural practice and aesthetics.

The client, and their insurers are deemed to have accepted the limitation placed on recommendations or sources quoted in the attached report. Where sources are limited by time constraints, or the client, this may lead to an incomplete quantification of the risk.

Dated: 18th February 2017

Signed: Peter Eastaugh

Peter Eastaugh Cert Arb (RFS), Tech Cert Arbor A
Greenman Arboricultural Tree Surveys and Consultancy

Inspection Date start: 17th February 2017

Client: Mr John Clarke / Revd Jonathan Roberts
Property/Location: St Margaret's Church, Church Lane, Draycott le Moor, ST11 9AG
Weather conditions and visibility for tree inspection and surveying purposes: Clear but overcast
Inspected by Peter Eastaugh of Greenman Arboricultural Tree Surveys and Consultancy from ground level only.