



**Outline Trees, Arboricultural Consultancy**  
**Report Reference: JH0121PADDOCK**  
**January 2021**



**British Standards 5837:2012 Tree Survey,  
Arboricultural Impact Assessment &  
Arboricultural Method Statement  
(including Tree Protection Plan)**

**at  
The Paddock, Chestnut Way, Repton DE65 6FQ  
for  
Stuart Goodman**

| QUALITY ASSURANCE               |                                                                                                             |  |                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|--|-------------------------------|
| <b>Client:</b>                  | Stuart Goodman, The Paddock, Chestnut Way, Repton DE65 6FQ                                                  |  |                               |
| <b>Project:</b>                 | The Paddock, Chestnut Way, Repton DE65 6FQ                                                                  |  |                               |
| <b>Project Ref:</b>             | JH0121PADDOCK                                                                                               |  |                               |
| <b>Report Content:</b>          | British Standards 5837:2012 Tree Survey, Arboricultural Impact Assessment & Arboricultural Method Statement |  |                               |
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# 1 Executive Summary

## 1.1 The Project, Purpose and Scope of this Report

The primary purpose of this report is to provide site-specific arboricultural detail, which demonstrates that the surveyed trees and their constraints and influences have been considered in the context of the proposed development. It also provides the necessary information, which will enable the determination, by the Local Planning Authority, of the arboricultural impact of a planning application associated with the creation of a second storey extension, which will increase the current height of the building, whilst utilising the existing ground floor footprint and foundations.

A current site plan in AutoCAD format has formed the basis for the Tree Survey Plan, whilst a proposed layout drawing in AutoCAD format, has been used to ascertain the impact of the proposals and subsequently produce the following documents:

- BS 5837:2012 Tree Survey Schedule (TSS) - Appendix A
- Current Tree Survey Plan (TSP) - Appendix B
- Proposed Layout & Tree Protection Plan (TPP) - Appendix C
- Site-Specific Arboricultural Method Statement (AMS) - Section 6 & Appendix J
- Auditable Site Monitoring Records – Appendix K

## 1.2 Findings and Recommendations

The tree survey recorded the details of 9 individual trees and a section of managed beech hedge. Full results of the tree survey are provided in the Tree Survey Schedule (Appendix A).

No trees, will be removed as part of the proposals.

Utilisation of the existing building's ground floor footprint and the ground protection afforded by the existing hard surfacing, which surrounds the northern aspect and lies within the projected RPAs of the cedar trees T2 & T3, will ensure that the proposed development can be carried out without any foreseeable detriment occurring to the trees and their RPAs. Consequently, the pruning of 3 overhanging, secondary branches of the 2 cedar trees, is the aspect considered to be the most important and given to consideration within this report. Section 5.5 & 5.6 discuss the RPAs and their anticipated development and morphology, in greater detail.

Section 6.2 and Appendix J identifies and provides details on the anticipated tree works, which are recommended, in order to facilitate the construction and also lessen the likelihood of direct damage occurring post completion and to lessen any perceived pruning pressures, which might exist.

The detailed steps are considered to have varying degrees of arboricultural importance and connectivity and have been set out in a logically, recommended sequence, which the contractors should follow.

Ordinarily, tree pruning works would often be carried out at the commencement of any development, but for this project, it is recommended that the pruning takes place a little later, following the erection of the scaffolding, which will provide the tree works contractors with good access and work positioning, allowing for the placement of the most suitable and desirable pruning cuts possible, which will provide for a great degree of accuracy whilst minimising any foreseeable detriment to the trees.

It is considered that the proposed tree pruning (sections 5.13 & 6.2), will not have a significant, adverse effect on the longevity, physiological condition or the perceived amenity value of the cedar trees and that provided the recommended construction methodology is adopted during the construction, there is no arboricultural reason as to why this development cannot be implemented and that the surveyed trees, will be largely unaffected by the proposals.

It is recommended that a Site Arboriculturist (SA) is appointed, prior to the commencement of any works on site and retained for the primary purpose of overseeing the proposed tree pruning works.

Key activities associated with the project have been assigned a 'Development Stage' (DS) number (see Section 6 & Appendix J). An auditable record of these key activities should be maintained and kept at the site. Appendix K has an appropriate template for this specific purpose. Tool box talks, briefing sessions are encouraged and should be delivered by the Site Manager and/or the Site Arboriculturalist as appropriate.

Reference plans and documents for guidance including the Tree Survey Schedule, Tree Survey Plan and the Tree Protection Plan, will be kept on site and made available for contractors, as necessary.

## 2 Limitations, Regulations & Location

### 2.1 Tree Survey & Report Limitations

Recommendations included within this report are the professional opinion of an experienced Arboriculturist<sup>1</sup> and are the view of the Author (see section 3.2). This is based on a review of the information provided by The Client, the brief and a survey of the site. This report pertains to these results only. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information.

Whilst not definitive, the findings and any associated recommendations detailed within this report are considered to be reasonable, practicable and in the interests of promoting sensible arboricultural management.

No liability can be accepted by the author in respect of the trees, unless the recommendations of this report are carried out under his supervision and within his timescale. Acceptance of this report represents an agreement to adopt the recommendations and guiding principles detailed within.

The findings and recommendations contained within this report are, assuming its recommendations are observed, valid for a period of twelve months from the date of survey. Trees are living organisms and their condition can change significantly over a relatively short period of time – good practice dictates they are inspected on a regular basis for reasons of safety.

Tree rooting characteristics and soils are both enormously variable as are their interactions. This makes attempts to quantify subsidence risk assessment impossible. No effort has been made to assess subsidence risk potential nor should any be construed.

The report relates only to the trees referred to in this report, which are recorded in the attached tree survey schedule (Appendix A) and shown on the annotated plans at Appendices B & C.

Where trees were extensively ivy clad, this was recorded in the survey schedule. It is not possible to ascertain the presence of cavities or other defects beneath the ivy and, therefore, ivy should be removed and a re-inspection carried out.

The stem diameters of those trees located outside of the site were estimated from the property boundary but are considered to be sufficiently accurate for this specific instance, particularly as no changes are proposed within their RPAs.

### 2.2 Regulatory and Policy Framework

Tree Preservation Orders (TPOs) and Conservation Areas place various statutory restrictions on the felling, pruning or damaging of trees, subject to various exemptions (Department for Communities and Local Government, 2014). See Section 4.1 for site-specific information.

Tree felling on non-residential land is also controlled by the need to obtain a Felling Licence from the Forestry Commission before felling more than 5m<sup>3</sup> of timber in any calendar quarter, subject to various exemptions and variations (Forestry Commission, 2007).

There is an overriding exemption for the above statutory controls for tree felling and pruning for works where it has been deemed necessary to implement development that has already received full planning permission.

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<sup>1</sup> As per the Terms and Definitions detailed in British Standards 5837:2012-Trees in relation to design, demolition and construction – Recommendations.

## 2.3 Site Location

The application site is The Paddock, Chestnut Way, Repton DE65 6FQ (approximate OS Grid reference SK 300 267), access to the site was made directly from the main highway.

The location of the site is shown in Figure 2.1 below, indicated by a red line.



Figure 2.1: Map view of the Site © Crown Copyright and Database rights 2021 Ordnance Survey

## 3 Survey Methodology

### 3.1 Tree Survey Methods

The site was visited on Thursday 21<sup>st</sup> January 2021, to carry out an assessment of the trees in accordance with BS 5837:2012 – Trees in relation to Design, Demolition and Construction - Recommendations.

Each of the surveyed trees and/or groups has been plotted and recorded as an individual tree or a tree group, in accordance with the criteria detailed in section 4.4.2.5 of BS 5837:2012.

Any survey work undertaken will have been subject to limitations (see section 2.1), including seasonal and phenological aspects.

Trees were assessed from ground level using the Visual Tree Assessment (VTA) method (Mattheck 2007). No climbed inspection, removal of ivy or detailed investigation of decay was made.

The weather at the time of the survey was still, clear and adequate for conducting the survey during which, the following information was collected for each tree/group:

- Sequential reference number;
- Species;
- Height;
- Stem diameter @ 1.5m height;
- Branch spread;
- Existing height above ground level of:
- First significant branch and direction of growth (*e.g.* 3 NW);
- Canopy spread;
- Life stage:
  - **Y** – Young,
  - **SM** – Semi Mature,
  - **EM** – Early Mature,
  - **M** – Mature,
  - **OM** – Over Mature;
- General observations, particularly of structural and/or physiological condition;
- Estimated remaining contribution;
- Retention category ‘U’ or ‘A’ to ‘C’ grading with the subcategory 1, 2 or 3 reflecting arboricultural, landscape or cultural values, respectively.

### 3.2 Survey Personnel

The author, Jason Humphreys FdSc (Arb) MArborA is a former Local Planning Authority Arboricultural Officer and experienced Arboriculturalist with over 19 years of experience in the Horticultural and Arboricultural Industry.

He is a professional member of the Arboricultural Association (MArborA), and holds a Foundation Degree in Science (Arboriculture), the Technician’s Certificate in Arboriculture and the LANTRA Professional Tree Inspection certificate.

## 4 Results

### 4.1 Statutory Tree Protection

No formal attempt was made to establish whether or not any of the surveyed trees were afforded any degree of Statutory Tree Protection *i.e. whether or not they were protected by a Tree Preservation Order (TPO) or located within a Conservation Area.*

It is however, understood from a check using South Derbyshire District Council's interactive facility <http://maps.south-derbys.gov.uk/iShareLIVE.web/atmyresponsivecouncil.aspx> (25/01/21) that the surveyed trees T2 Atlantic cedar, T3 Deodar cedar, T7 birch & T8 willow are protected by TPO Number 503.

In this instance, and upon consideration of the above points, it is the Author's understanding that the proposed tree pruning works detailed in section 6.2 of this report, which are considered necessary to directly implement the construction of the 2<sup>nd</sup> storey element, will be determined by the LPA, as part of the planning application process and that, if consent is granted, then subject to any conditions that might be made, the proposed tree works, can take place without further recourse to the LPA.

### 4.2 Tree Survey

The tree survey recorded the details of 9 trees and 1 section of managed beech hedge.

Full results of the tree survey are provided in the Tree Survey Schedule (Appendix A). The overall condition of the trees can, at best, be described as fair and any tree works detailed in the Tree Survey Schedule, at Appendix A, have been identified **solely** in the context of the sites current use and should be considered irrespective of any development proposals and should not be inferred as being necessary to implement any proposed development.

No trees, of high quality and value (Category 'A'), were recorded during the survey. Trees assigned to this category would include attractive trees with high visibility and no significant defects, which are able to make a substantial contribution for a minimum of 40 years.

Two trees of moderate quality and value category (Category 'B') trees, were identified during the survey. Trees assigned to this category include healthy attractive trees with remediable defects that are in a condition as to be able to make a significant contribution for a minimum of 20 years.

Seven trees, and 1 section of managed beech hedge of low quality and value category (Category 'C') trees, were identified during the survey. Trees in this category include unremarkable trees of limited merit that are easily replaced, small-growing, young species which have a relatively low potential amenity value, and low landscape benefits. Trees assigned to this category typically also include self-seeded trees of limited life span, small and young trees and trees of poor form and limited amenity value.

No trees were identified as being unsuitable for retention (Category 'U'). Trees assigned to this category are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years and/or are considered to be unsuitable for retention in the proximity of new development or areas of public open space.

## 5 Arboricultural Impact Assessment

### 5.1 Tree Survey Schedule & Management Recommendations

General tree works detailed and shown in bold text, in the Tree Schedule (Appendix A) have been identified **solely** in the context of the current layout and existing site use and should not be interpreted as being necessary to implement any proposed development.

No tree works have been identified as being necessary to implement the proposed project.

### 5.2 Trees Suitable for Retention

Where possible, it is generally considered desirable for Category 'A' and Category 'B' trees to be retained and incorporated into new developments and layouts. Category 'U' trees are not considered to be appropriate for retention.

All surveyed trees will be retained as part of the proposed project.

In assessing the Arboricultural Impact on the trees of the proposed development and which trees might be suitable for retention in the context of the proposed layout, the following factors have all been considered:

- Shading
- Future Pressure for Tree Removal and Pruning
- Seasonal Nuisance
- Infrastructure
- Direct Damage
- Root Protection Areas
- Future Management
- Anticipated Demolition, Excavation, Ground Works & Construction Activities

### 5.3 Shading

Shading can be represented using drawn segments, with radii equivalent to the current tree height, taken from the centres of those surveyed tree stems that are considered to be relevant, drawn from due north-west to due-east. These segments represent a basic illustration of the shade pattern through the main part of the day and are based on advisory comments detailed in section 5.22, Note 1 of BS 5837:2012.

Upon consideration of the above points, no further investigation, illustration or mitigation is considered necessary due to the favourable layout orientation *i.e. The Paddock is located to the south of the trees located next door at 49 Burton Road, with the result that it will not be subject to any notable degree of shade.*

The deciduous nature of the surveyed birch trees to the north west, also means that available winter light will pass freely through the crowns of those trees.

### 5.4 Direct Damage

Any proposed layout should consider the likelihood of direct damage occurring from incremental root, branch and stem growth.

Upon consideration of this aspect, it's recommended that 3 of the overhanging branches of the cedars T2 & T3, are pruned back to provide an appropriate clearance between the extending branch tips and the building.

This proposed level of pruning is not however, at a significantly greater level than that which already exists and in the case of cedar tree T3, the branches considered most likely to cause an actionable nuisance,

have been identified for similar tree pruning works in the Tree Survey Schedule (Appendix A), which identifies tree works in the context of the site's current use.

## **5.5 Root Protection Areas (RPAs)**

The RPAs shown in the Tree Survey Plan (Appendix B) have been drawn as polygons, which are representative of protective fencing, erected at their Protective Linear Radius (PLR). In this instance and upon consideration of the habitat and growing environment, the projected RPAs of trees T1, T2 & T3 shown in Appendix B, are not considered to be a true reflection of their anticipated root morphologies and distribution, as a lawned area to the North, is considered to provide a more favourable environment for this purpose.

This assessment is based on the presence of the lawned area, which dominates the southern aspect of number 49's garden, where the trees are located and also the extensive presence of hard surfacing to the South of the trees and within it, the notable lack of any disruption, unevenness or damage to the surfacing, which anecdotally from the Author's experience, is often found to be caused by tree roots below the surface.

The existing building footprint and associated depth of its foundations (>600mm), and the surrounding hard surfacing which will be retained and act as ground protection, in relation to these trees, makes the likelihood of significant root development within this area as being comparatively low, with the more favourable areas to the North. Consequently, the associated construction activities of those aspects within the projected RPAs, but outside of the building footprint, are not aspects that are considered to be detrimental to the surveyed trees.

## **5.6 Demolition, Excavation, Ground Works & Construction Activities**

The movement of plant, machinery and the anticipated activities associated with the project, will take place from within the Paddock's existing building footprint, use the existing hard surfacing and/or take place outside of the RPAs of the surveyed trees, which will limit the potential for any foreseeable and detrimental impact, occurring to the trees.

The erection of scaffolding, will facilitate the necessary demolition and construction works and once erected it will be used to provide access for the recommended tree pruning works to the cedar trees T2 & T3 (see sections 5.13 & 6.2).

## **5.7 Hard Surfacing Within the Root Protection Area**

The use and installation of a 'no-dig' type surface, within the RPAs of retained trees is not anticipated. Should a need transpire, then guidance on the installation of such a product should be sought from the Author.

## **5.8 Future Pressure for Tree Pruning**

Upon consideration of this aspect, it's likely that the some of the overhanging branches of the cedars (T2 & T3), may need to be maintained at a suitable distance. This proposed level of future maintenance is not however, at a significantly greater level than that which already exists. Following the completion of the recommended tree pruning works, it's anticipated that any future pressures will be kept to an absolute minimum.

## **5.9 Seasonal Nuisance**

Foliage, fruit and cone fall can be considered by some to be a nuisance and requests to Local Planning Authorities to carry out pruning works to negate these issues are often refused due in part to their brief, seasonal nature of the problem. A degree of needle and cone fall will be likely be evident due to the evergreen/coniferous nature of the cedars. It is however, considered to be acceptable to a reasonable

level, at no greater level greater level than that which already exists and that it will have a negligible impact on the proposals.

## **5.10 Infrastructure**

Upon consideration of the proposed layout, there is no evidence to suggest that there will be an impact on lighting, signage, CCTV sightlines or visibility splays from the retained trees.

## **5.12 Trees to be removed**

No trees will be lost as part of the proposals.

## **5.13 Trees to be pruned**

The erection of scaffolding, will facilitate the necessary demolition and construction works and once erected it will be used to provide access for the recommended tree pruning works to the cedar trees T2 & T3 (see section 6.2). The Site Arboriculturalist will be able to provide guidance on the positioning of the final pruning cuts to the trees.

The raised height of the erected scaffolding will provide the Site Arboriculturalist with a greater ability to provide more accurate guidance on the positioning of the final pruning cuts to the trees and provide the tree works contractors with excellent access and an elevated and stable work position, which will allow for the placing of the most suitable and desirable pruning cuts possible, which in turn will minimise any foreseeable detriment to the trees by ensuring that the pruning is carried out to BS 3998:2010 and that the diameters of the pruned branches are kept as small as possible.

It is considered that the proposed tree pruning (section 6.2), will not have a significant, adverse effect on the longevity, physiological condition or the perceived amenity value of the cedar trees and that the necessary and appropriate consideration, as per section 7 of BS 3998:2010, has been given to the proposed tree pruning works, their placement, timing and impact.

## **5.14 Landscaping**

No landscaping or tree planting has been proposed.

## **5.15 Tree loss evaluation**

There will a negligible loss of perceived amenity associated with the pruning works, which will not lessen the overall contribution that either of the trees make to the wider area or the street scene.

## **5.16 Issues to be addressed by an Arboricultural Method Statement**

The Arboricultural Method Statement (Section 6 and Appendix J) details a recommended sequence and construction methodology for the implementation of those aspects that have the potential to result in loss or damage to retained trees. By carefully following and adopting the detailed recommendations and guidance, foreseeable detriment to the retained trees can be minimised.

## **5.17 Tree Protection Plan**

The TPP (Appendix C), when read in conjunction with sections 6 and Appendix J of this report, will inform on and describe the recommended Tree Protection Measures (TPMs) recommended for this project in the context of the proposed layout.

Adopting the recommendations detailed in sections 5.13, 6.2 and Appendix J, will help to minimise the potential for any detrimental effect that the associated pruning works might have in respect of the cedar trees T2 & T3.

## 6 Site Specific Arboricultural Method Statement (AMS)

### 6.1 AMS Content

Appendix J identifies and provides details on those roles, works and activities that are anticipated as being key to successful tree retention. The detailed steps are considered to have a degree of arboricultural importance and connectivity and they have been set out in a logically, recommended sequence, which the contractors should follow.

Consequently, it is important that the client and the appointed Site Arboriculturalist (SA), effectively communicate with the appointed contractors, the recommendations detailed within this report; specifically, the extent of the pruning works and the importance of retaining the existing hard surfacing, within the RPAs, unaltered and in its current state.

Tool box talks, briefing sessions are encouraged and should be delivered by the Site Manager (SM) and/or the Site Arboriculturalist as appropriate. Operative handouts will be made available for reference *e.g. NJUG handout* (see Appendix K).

Other relevant plans and tables for reference including the Tree Survey Schedule (TSS), Tree Survey Plan (TSP), and the Tree Protection Plan (TPP) will be kept on site and made available for contractors, as necessary.

The following activities have been assigned a sequential 'Development Stage' (DS) number, which refers directly to the table at Appendix J. An auditable record should be maintained and kept at the site. Appendix K has an appropriate template for this specific purpose.

#### DS1 Appoint Site Arboriculturalist (SA)

The client will confirm the appointment of the SA, whose role it will be to supervise and provide guidance on, those aspects of the development, which have the potential to foreseeably cause detrimental damage to the retained trees *i.e. the pruning of the cedar trees T2 & T3*.

#### DS2 Pre-construction Site Meeting

To identify and discuss the constraints of the site and with the contractor, determine whether or not additional TPMs, not detailed in the TPP, will prove necessary.

To establish approximate construction timescales to identify key stages, where the presence of the SA will likely be required.

To provide the SM with any information, handouts or specific details to facilitate the delivery of tool box talks and education of ALL contractors and deliveries associated with the construction on how their activities might affect the trees adjacent to the site.

Operative handouts will be made available to the SM for distribution *e.g. NJUG handout*.

Plans and tables for reference including the TSS, TSP, TPP will be kept on site and made available for contractors, if necessary.

Provision will be made for welfare facilities, storage for materials, plant and spoil and space for mixing outside of the RPAs of retained trees and without placing significant constraints on the working space available for any proposed demolition, excavation, construction and/or associated activities.

### **DS3 Tree Pruning Works**

Pruning works to the lower secondary branches of cedar trees T2 & T3, which would ordinarily be carried out prior to the commencement of works on site, will be carried out following the erection of the construction scaffolding (See DS7). The SA will provide supervision and instruction on the extents detailed in section 6.2, if necessary.

### **DS4 Identification & Marking out of RPAs and Tree Protection Measures (TPMs).**

Additional TPMs beyond the retention of the GPMs are not anticipated. This will be discussed during the Pre-Construction site meeting.

### **DS5 Installation of Ground Protection Measures (GPM).**

The existing hard surfacing is considered to be fit for purpose and will be retained and remain unaltered to act as ground protection throughout the duration of the project and following completion.

### **DS6 Erection of Tree Protection Fencing (TPF).**

The use of protective fencing is not considered necessary or appropriate on this occasion.

### **DS7 Demolition & Construction**

Scaffolding within the RPAs should be erected using the existing ground levels and where support and/or load spreading pads are required at ground level, then scaffolding boards or similar, laid on top of the existing hard surfacing should be used.

Once erected, the scaffolding, which will facilitate the necessary demolition and construction works, will be used to provide access for the recommended tree pruning works to the cedar trees T2 & T3.

The raised height of the scaffolding will provide the tree works contractors with excellent access and an elevated work positioning, which will allow for the placing of the most suitable and desirable final pruning cuts possible, which in turn will minimise any foreseeable detriment to the trees by ensuring that the pruning is carried out to BS 3998:2010 and that the diameters of the pruned branches are kept as small as possible.

It's at this stage of the project, that the presence of an appointed Site Arboriculturalist will be required, who will be able to provide guidance on the final pruning cuts. The extent of the pruning is detailed in section 6.2.

Any variations to this anticipated construction methodology, will be discussed in detail by the SA and the SM, during the pre-works site meeting with any modifications made accordingly.

### **DS8 No-Dig Surfacing**

The installation of a 'no-dig' type surface, is not anticipated. Should it prove necessary, guidance on the installation of such a product should be sought from the SA.

### **DS9 Tree Planting**

There is no new tree planting proposed as part of the project.

### **DS10 Landscaping**

There is no landscaping proposed as part of the project.

## DS11 TPM Removal

There are no Tree Protection Measures, requiring removal as part of the project.

## DS12 Tree Maintenance

SA will survey the retained trees for any obvious signs of ill health, damage *e.g. broken branches, wilted foliage, stress* or other physiological aspects that the development might have caused.

## DS13 Completion

Notification to the LPA of completion.

## 6.2 Tree Works

Due regard has been given to the recommendations detailed in section 7.2.4 of BS 3998:2010 and consequently it is considered that the following, tree pruning works to the cedar trees T2 & T3 are appropriate:

T2 Atlantic cedar – Prune back the lowest secondary branch, extending South East, by approximately 4m in length. Maximum diameter of pruning, will not exceed 100mm. The final pruning cut will be made at a suitable distal pruning point/branch union in accordance with BS 3998:2010.

T3 Deodar – Prune back the 2 secondary branches, extending South at approximately 11m height, by up to 4m in length (higher branch of the 2) and 2m in length (lower branch of the 2). Maximum diameter of pruning, will not exceed 75mm. Final pruning cuts will be made at suitable distal pruning point/branch unions in accordance with BS 3998:2010.

Tree pruning will be carried out by an appointed Tree Works Contractor and carried out in accordance with and adhering to the recommendations detailed within BS3998:2010.

The Wildlife and Countryside Act 1981 as amended, the Countryside and Rights of Way Act 2000 and the Conservation (Natural Habitats) Regulations 1994 protect ALL wild birds, their nests (whether in use or being built) and eggs and other wild animals including bats and their roosts in or adjacent to trees.

In simple terms, you should make sure that there are no wild birds nesting in or bats roosting in or adjacent to the tree[s] that you are proposing to work on. It is a criminal offence to recklessly or intentionally destroy any bird, its nest or its eggs or any bat or its roost (even if the roost is not occupied at the time). Even if your trees are protected, obtaining consent from the LPA will not override your responsibilities under the above wildlife acts.

## 6.3 Contacts

Site Arboriculturalist – Jason Humphreys (Outline Trees) [jason@outlinetrees.co.uk](mailto:jason@outlinetrees.co.uk)

Site Manager – Details to be made available to SA upon appointment.

Project Manager (The client) – Stuart Goodman

## Appendix A Tree Survey Schedule



| Tree Ref. No. | Species                                                  | Height (m) | Stem Ø (mm) | Protective Linear Radius (m) | RPA m <sup>2</sup> | Branch Spread (m) |   |     |   | Height (m)         |        | Life Stage | General Observations and Preliminary Management Recommendations (In bold).                                                                                                                                                                                                                                                                                            | Estimated Remaining Contribution | Category |
|---------------|----------------------------------------------------------|------------|-------------|------------------------------|--------------------|-------------------|---|-----|---|--------------------|--------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------|
|               |                                                          |            |             |                              |                    | N                 | E | S   | W | Significant Branch | Canopy |            |                                                                                                                                                                                                                                                                                                                                                                       |                                  |          |
| T1            | Laburnum ( <i>Laburnum anagyroides</i> )                 | 9          | 390         | 4.7                          | 69                 | 3                 | 3 | 1.5 | 1 | 3 NE               | 3      | M          | Fair. Individual tree. Main stem divides at approximately 1.7m height where tight compression forks exist with evidence of included bark present. Asymmetric crown development, suppressed by adjacent cedar.<br><b>No works currently necessary.</b>                                                                                                                 | 10+                              | C3       |
| T2            | Atlantic Cedar ( <i>Cedrus libani atlantica</i> 'Glauc') | 14         | 875         | 10.5                         | 346                | 7                 | 6 | 7   | 7 | 4 NW               | 3      | M          | Fair. Group tree. Mature tree with evidence of past pruning. Evidence of past stem failure in centre of upper crown, where broken top remains in situ. Small broken branch resting in lower branches to the south, above beech hedge. Main stem divides at approximately 0.3m height, with tight compression fork observed.<br><b>Remove broken/hanging branches.</b> | 10+                              | C2       |
| T3            | Deodar ( <i>Cedrus deodora</i> )                         | 15         | 625         | 7.5                          | 177                | 6                 | 6 | 6   | 6 | 7 NW               | 2      | M          | Fair. Group tree. Mature tree with lower secondary branches extending south, in close proximity with fabric of building.<br><b>Prune back southern branches near roof apex by approximately 2m in length to provide adequate clearance.</b>                                                                                                                           | 20+                              | B2       |
| T4            | Cherry Laurel ( <i>Prunus laurocerasus</i> )             | 6          | 268         | 3.2                          | 32                 | 2                 | 2 | 2   | 2 | 0                  | 3      | M          | Fair. Group tree. <b>No works currently necessary.</b>                                                                                                                                                                                                                                                                                                                | 10+                              | C2       |

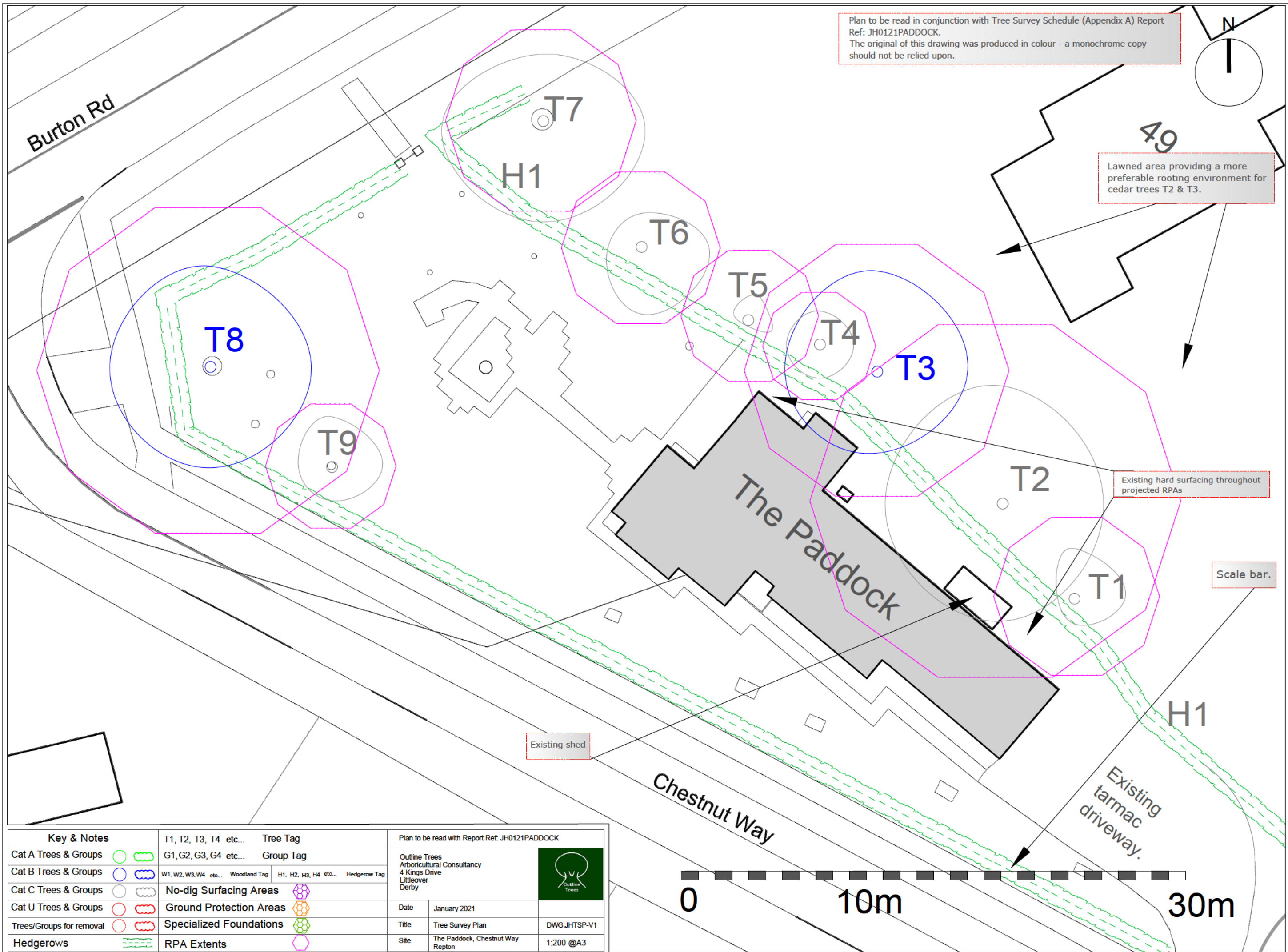


| Tree Ref. No. | Species                                      | Height (m) | Stem Ø (mm) | Protective Linear Radius (m) | RPA m <sup>2</sup> | Branch Spread (m) |     |     |    | Height (m)         |        | Life Stage | General Observations and Preliminary Management Recommendations (In bold).                                                                                                                                       | Estimated Remaining Contribution | Category |
|---------------|----------------------------------------------|------------|-------------|------------------------------|--------------------|-------------------|-----|-----|----|--------------------|--------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------|
|               |                                              |            |             |                              |                    | N                 | E   | S   | W  | Significant Branch | Canopy |            |                                                                                                                                                                                                                  |                                  |          |
| T5            | Hawthorn ( <i>Crataegus monogyna</i> )       | 6          | 325         | 3.9                          | 48                 | 1.5               | 1.5 | 0   | 1  | 1.2 NE             | 4      | M          | Fair. Individual tree. Suppressed crown development. Previously topped. Main stem divides at approximately 1.2m height; diameter estimated immediately below this point.<br><b>No works currently necessary.</b> | 10+                              | C3       |
| T6            | Silver Birch ( <i>Betula pendula</i> )       | 13         | 375         | 4.5                          | 64                 | 2                 | 4   | 4   | 2  | 6                  | 5      | M          | Fair. Group tree. Dense ivy cover obscuring assessment of main stem and branch unions. - <b>Sever ivy to facilitate its phased removal and allow future inspections.</b>                                         | 10+                              | C3       |
| T7            | Silver Birch ( <i>Betula pendula</i> )       | 16         | 450         | 5.4                          | 92                 | 4                 | 6   | 6   | 6  | 3 NE               | 5      | M          | Fair. Group tree. Dense ivy cover obscuring assessment of main stem and branch unions. - <b>Sever ivy to facilitate its phased removal and allow future inspections.</b>                                         | 10+                              | C3       |
| T8            | Weeping Willow ( <i>Salix X chrysocoma</i> ) | 14         | 810         | 9.7                          | 297                | 6                 | 6   | 6   | 6  | 5 NE               | 2      | M          | Fair. Individual tree. Previously pruned tree, displaying typical weeping form in lower branches. <b>Consider future reduction to previous pruning points in order to maintain as a pollard.</b>                 | 20+                              | B2       |
| T9            | Apple ( <i>Malus spp.</i> )                  | 6          | 305         | 3.7                          | 42                 | 3                 | 3   | 2   | 2  | 2.5 SE             | 2      | M          | Fair. Individual tree. <b>No works currently necessary.</b>                                                                                                                                                      | 10+                              | C3       |
| H1            | Beech ( <i>Fagus sylvatica</i> )             | 3          | 90          | 1.1                          | 4                  | 0.6               | 25  | 0.6 | 25 | 0                  | 0      | M          | Fair. Hedgerow. Section of managed beech hedge forming property boundary. <b>No works currently necessary.</b>                                                                                                   | 10+                              | C3       |



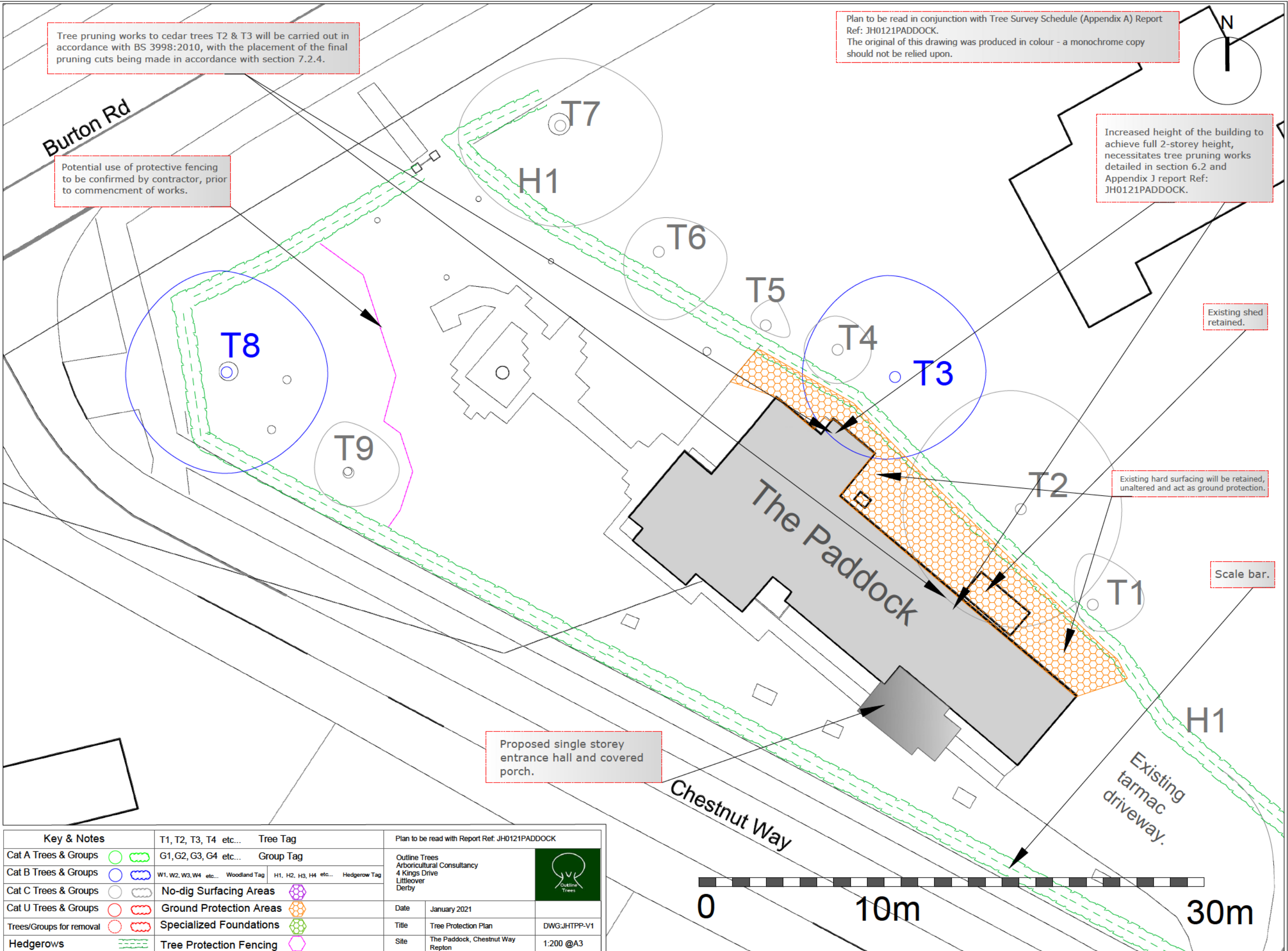
## Appendix B Current Layout & Tree Survey Plan





## Appendix C Proposed Layout & Tree Protection Plan





| Key & Notes              |  | T1, T2, T3, T4 etc...   | Tree Tag     | Plan to be read with Report Ref: JH0121PADDOCK                                                                                 |                                  |
|--------------------------|--|-------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Cat A Trees & Groups     |  | G1, G2, G3, G4 etc...   | Group Tag    | <div>Outline Trees</div> <div>Arboricultural Consultancy</div> <div>4 Kings Drive</div> <div>Littleover</div> <div>Derby</div> |                                  |
| Cat B Trees & Groups     |  | W1, W2, W3, W4 etc...   | Woodland Tag |                                                                                                                                |                                  |
| Cat C Trees & Groups     |  | H1, H2, H3, H4 etc...   | Hedgerow Tag |                                                                                                                                |                                  |
| Cat U Trees & Groups     |  | No-dig Surfacing Areas  |              | Date                                                                                                                           | January 2021                     |
| Trees/Groups for removal |  | Ground Protection Areas |              | Title                                                                                                                          | Tree Protection Plan             |
| Hedgerows                |  | Specialized Foundations |              | DWG:                                                                                                                           | JHTPP-V1                         |
|                          |  | Tree Protection Fencing |              | Site                                                                                                                           | The Paddock, Chestnut Way Repton |
|                          |  |                         |              | Scale                                                                                                                          | 1:200 @A3                        |

## Appendix D Protective Fencing Signage





**PROTECTIVE FENCING. THIS  
FENCING MUST BE  
MAINTAINED IN ACCORDANCE  
WITH THE APPROVED PLANS  
AND DRAWINGS FOR THIS  
DEVELOPMENT.**



**TREE PROTECTION AREA  
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)**

**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY  
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A  
TREE PRESERVATION ORDER.  
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY  
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE  
WITH THE WRITTEN PERMISSION OF THE LOCAL  
PLANNING AUTHORITY**



## Appendix E References

- British Standards Institute (BSi) BS 5837:2012, Trees in relation to design, demolition and construction – Recommendations.
- (BSi) BS 3998:2010, Tree Work - Recommendations.
- (BSi) BS 8545:2014, Trees: from nursery to independence in the landscape –Recommendations.
- (BSi) BS 3936 (1992) Nursery Stock, Pt 1 – Specification for trees and shrubs.
- Department for Communities and Local Government (2014) Tree Preservation Orders and Trees in Conservation Areas.
- Forestry Commission (2007) Tree Felling – Getting Permission.
- National House Building Corporation (NHBC) 2003. Standards, Chapter 4.2. Building near trees.
- Claus Mattheck (2007) Updated field guide for Visual Tree Assessment.
- Arboricultural Practice Note Number 12 (2007) Through the Trees to Development. Arboricultural Advisory and Information Service
- Arboricultural Guidance note 12 (2020) The Use of Cellular Confinement Systems Near Trees: A Guide To Good Practice
- Davis, C., Fay, N & Mynors, C. (2000). Veteran Trees: a guide to risk and responsibility.
- Helliwell, D.R. (1967). The Amenity Value of Trees and Woodlands. Journal of Arboricultural Association 1, 128–131.
- Watson G. & Green T. (2011) Fungi on Trees; An Arborist’s Field Guide. Arboricultural Association
- International Society of Arboriculture (ISA) (2001) – New Tree Planting (Leaflet)
- ISA (2001) – Proper Mulching Techniques (Leaflet)
- L. Chalker-Scott (2007) – J. Environ. Hort. 25(4) pp. 239-249
- R. J. Davies (1987) - Forestry Commission Bulletin 65; Weed Competition and Broadleaved Tree Establishment
- P. Gilbertson & A.D. Bradshaw (1985) – Tree survival in cities: the extent and nature of the problem. J. Arboric. 4(1):14-17
- Arboricultural Association (1991) - Leaflet Number 2; Guide to Tree Planting.
- Forestry Commission (2002) Information Note ODW 10:02 – Tree Planting



## Appendix F Life Stage & Condition Key

| Condition                                                                                                                                                                                                                            | Life Stage *                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Good</b>                                                                                                                                                                                                                          | <b>Newly Planted</b>                                                                                                                                                            |
| Those trees that are relatively free from defects and any visible signs of structural defects, which also exhibit normal signs of vitality and vigour when compared with trees of a similar species in a similar environment.        | Those trees that have been planted in the past 5 years.                                                                                                                         |
| <b>Fair</b>                                                                                                                                                                                                                          | <b>Young</b>                                                                                                                                                                    |
| Those trees that exhibit some minor/manageable defects or display evidence of minor remedial pruning, which also exhibit normal signs of vitality and vigour when compared with trees of a similar species in a similar environment. | Those trees that are considered to be in the first third of their life expectancy.                                                                                              |
| <b>Poor</b>                                                                                                                                                                                                                          | <b>Semi to Early Mature</b>                                                                                                                                                     |
| Those trees that exhibit a high level of defects and/or significant past pruning works, which also exhibit relatively low signs of vitality and vigour when compared with trees of a similar species in a similar environment.       | Those trees that have not yet reached maturity and can be considered to be in the second third of their life expectancy.                                                        |
| <b>In Decline</b>                                                                                                                                                                                                                    | <b>Mature</b>                                                                                                                                                                   |
| Those trees that are close to the end of the useful life expectancy and displaying associated symptoms of branch die back and low vigour.                                                                                            | Those trees that can be described as being in the final third of their life expectancy.                                                                                         |
|                                                                                                                                                                                                                                      | <b>Over Mature</b>                                                                                                                                                              |
|                                                                                                                                                                                                                                      | Those trees that can be described as having exceeded their life expectancy that have yet to replicate those features typical of Veteran trees.                                  |
|                                                                                                                                                                                                                                      | <b>Veteran</b>                                                                                                                                                                  |
|                                                                                                                                                                                                                                      | A tree that exhibits typical signs and characteristics of such as described in the introduction of Veteran Trees: A guide to risk and responsibility (Davis, Fay & Mynors 2000) |

\* Typical useful life expectancy of common trees. (Taken from Helliwell's Amenity Tree Valuation notes)

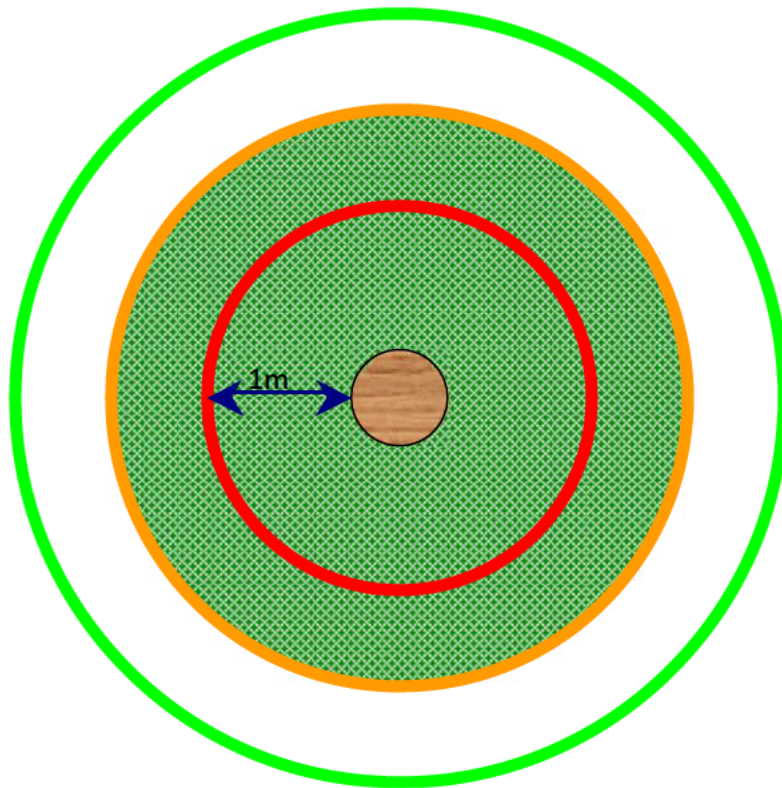
|         |                                                                                            |
|---------|--------------------------------------------------------------------------------------------|
| 300+    | - Yew                                                                                      |
| 200-300 | - Oak, Sweet Chestnut, Plane, Sycamore, Lime                                               |
| 150-200 | - Scots Pine, Hornbeam, Beech, Tulip tree, N Maple, Lebanon Cedar                          |
| 100-150 | - Ash, Spruce, Walnut, Red Oak, Horse Chestnut, Field Maple, Monkey Puzzle, Mulberry, Pear |
| 70-100  | - Rowan, Whitebeam, Apple, Wild Cherry, Catalpa, Robinia, Ailanthus                        |
| 50-70   | - Poplars, Willows, Cherries, Alders, Birches                                              |



## Appendix G NJUG Operatives Hand Out



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

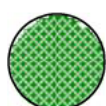


**TREE PROTECTION ZONE**

### 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.

## DAMAGE TO TREES

Tree roots keep a tree healthy and upright. Most roots are found in the top 600mm of soil and often grow out further than the tree's height. The majority of these roots are very fine; even close to a tree few will be thicker than a pencil. Most street tree roots grow under the footway but may also extend under the carriageway. If roots are damaged the tree may suffer irreversible harm and eventually die.

## PROTECTING ROOTS - DO'S and DON'TS

There are three designated zones around a tree each of which has its own criteria for working practices.

### THE PROHIBITED ZONE

**Don't** excavate within this zone.

**Don't** use any form of mechanical plant within this zone.

**Don't** store materials, plant or equipment within this zone.

**Don't** move plant or vehicles within this zone.

**Don't** lean materials against, or chain plant to, the trunk.

**Do** contact the local authority tree officer or owner of the tree if excavation within this zone is unavoidable.

**Do** protect any exposed roots uncovered within this zone with dry sacking.

**Do** backfill with a suitable inert granular and top soil material mix as soon as possible on completion of works.

**Do** notify the local authority tree officer or the tree's owner of any damage.

### THE PRECAUTIONARY ZONE

**Don't** excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques.

**Don't** cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

**Don't** repeatedly move / use heavy mechanical plant except on hard standing.

**Don't** store spoil or building material, including chemicals and fuels, within this zone.

**Do** prune roots which have to be removed using a sharp tool (*e.g. secateurs or handsaw*). Make a clean cut and leave as small a wound as possible.

**Do** backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non-highway sites backfill only with excavated soil.

**Do** protect any exposed roots with dry sacking ensuring this is removed before backfilling.

**Do** notify the local authority tree officer or the tree's owner of any damage.

### THE PERMITTED ZONE

**Don't** cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer.

**Do** use caution if it is absolutely necessary to operate mechanical plant within this zone.

**Do** prune roots which have to be removed using a sharp tool (*e.g. secateurs or handsaw*). Make a clean cut and leave as small a wound as possible.

**Do** protect any exposed roots with dry sacking ensuring this is removed before backfilling.

**Do** notify the local authority tree officer or the tree's owner of any damage.



## Appendix H BS5837:2012 Cascade Chart for Tree Quality Assessment



Table 1 Cascade chart for tree quality assessment

| Category and definition                                                                                                                                                   | Criteria (including subcategories where appropriate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                   |                                                                                                                                       | Identification on plan |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Trees unsuitable for retention (see Note)                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                        |
| <b>Category U</b><br>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years | <ul style="list-style-type: none"><li>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 (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li><li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li><li>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</li></ul> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p> |                                                                                                                                                                                                                                                                   |                                                                                                                                       | See Table 2            |
|                                                                                                                                                                           | 1 Mainly arboricultural qualities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2 Mainly landscape qualities                                                                                                                                                                                                                                      | 3 Mainly cultural values, including conservation                                                                                      |                        |
| Trees to be considered for retention                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                        |
| <b>Category A</b><br><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years                                                        | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features                                                                                                                                                            | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) | See Table 2            |
| <b>Category B</b><br><b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years                                                    | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. 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                                                                                                                                                                                                                                                                                                                                                                                                            | 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 | Trees with material conservation or other cultural value                                                                              | See Table 2            |
| <b>Category C</b><br><b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm       | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 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                                                              | Trees with no material conservation or other cultural value                                                                           | See Table 2            |



# Appendix I Glossary of Terms & Definitions

**Arboriculturist** - person who, through relevant education, training and experience, has gained recognized expertise in the care of trees.

**Facilitation Pruning** - tree pruning works, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is anticipated as being necessary to provide access for construction associated activities on site.

**Heartwood** - central core of mature and hardened timber.

**Root Protection Area (RPA)** - layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

**Cavity** - hole in a tree resulting from decay or damage.

**Canopy/Crown** - that part of a tree which is composed of the branches and foliage.

**Minor Deadwood** - deadwood which appears to have a stem diameter <30mm.

**Epicormic Shoot** - growth from dormant or adventitious buds on the stem or main branches.

**Included Bark** - bark tissue lodged in the union between a branch and the parent stem, in the crotch of two branches, or between the bases of co-dominant stems, indicating potential weak attachment.

**Wound** - injury to a tree caused in a biotic or abiotic manner.

**Stub** - broken or severed short remaining section of a branch extending beyond a crotch.

**Stem** - principal above-ground structural component of a tree that supports the branches;

- This either extends throughout most of the height of the tree (primary stem), or is one of a number of such components (secondary stems) which divide from each other either near the ground or at a higher level.
- Trees comprising two or more stems arising from, or immediately above, ground level are commonly referred to as 'twin-stemmed' or 'multi-stemmed'.
- 'Stem' is synonymous with 'trunk' for single-stemmed trees, particularly those of a large diameter.

**Crotch/Fork** - forked region formed by the junction of a branch and the stem, or by two branches.

**Crown Lifting** - removal of lower branches to achieve a stated vertical clearance above ground level or other surface.

**Branch/Crown Reduction** - operation that results in an overall reduction in the height and/or spread of the crown of a tree by means of a general shortening of twigs and/or branches, whilst retaining the main framework of the crown.

**Hazard Beam** – a type of structural defect present on a branch, which has internal, longitudinal cracks present (see image below).



© C. Mattheck (2007) Updated Field Guide for Visual Tree Assessment



## Appendix J    AMS Proposed Development Stages



## Arboricultural Method Statement (AMS) - Proposed Sequence of Works

| Development stage.                                                                      | Persons/Roles to be present.     | Nature of tasks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Relevant Documents/Plans.                                                                                              | Date and comments. |
|-----------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>DS1</b> - Appoint Site Arboriculturalist.                                            | -                                | <ul style="list-style-type: none"> <li>The client will appoint the SA, whose role it will be to supervise and provide guidance on those aspects of the development, which have the potential to cause detrimental damage to the retained trees, either directly and/or indirectly <i>i.e. the pruning of the secondary branches of the cedar trees T2 &amp; T3.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>TPP (Appendix C)</li> <li>TSP (Appendix A)</li> <li>TSS (Appendix B)</li> </ul> |                    |
| <b>DS2</b> - Pre-works site meeting.                                                    | SA, SM (Contractor), Client      | <ul style="list-style-type: none"> <li>To identify and discuss the constraints of the site to determine whether or not additional TPMs, not detailed in the TPP, will prove necessary.</li> <li>To establish approximate construction timescales to identify key stages, where the presence of the SA will likely be required.</li> <li>To provide the SM with any information, handouts or specific details to facilitate the delivery of tool box talks and education of ALL contractors and deliveries associated with the construction on how their activities might affect the trees adjacent to the site.</li> <li>Operative handouts will be made available to the SM for distribution <i>e.g. NJUG handout.</i></li> <li>Plans and tables for reference including the TSS, TSP, TPP will be kept on site and made available for contractors, if necessary.</li> <li>Provision will be made for welfare facilities, storage for materials, plant and spoil and space for mixing outside of the RPAs of retained trees and without placing significant constraints on the working space available for any proposed excavation, construction and/or associated activities.</li> </ul>                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"> <li>TPP</li> <li>TSS &amp; TSP</li> <li>Client Specified Drawing</li> </ul>         |                    |
| <b>DS3</b> - Pre-construction tree works.                                               | SA, TWC, SM.                     | <ul style="list-style-type: none"> <li>Pruning works to the cedar trees T2 &amp; T3, will be carried out following the erection of the scaffolding (see DS7 &amp; DS9).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>TPP</li> <li>BS 3998:2010</li> </ul>                                            |                    |
| <b>DS4</b> - Identification and marking out of RPAs and Tree Protection Measures (TPM). | SA, SM (Contractor), Client      | <ul style="list-style-type: none"> <li>The client and or the SA, will communicate to the appointed contractors the potential extent of the RPAs of the surveyed trees. The TSP and TPP should be used for this purpose.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>TPP</li> <li>TSS &amp; TSP</li> </ul>                                           |                    |
| <b>DS5</b> - Installation of Ground Protection Measures (GPM).                          | SM<br>SA                         | <ul style="list-style-type: none"> <li>The existing hard surfacing is considered to be fit for purpose and will be retained and remain unaltered to act as ground protection throughout the duration of the project and following its completion.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>TPP</li> <li>TSS &amp; TSP</li> </ul>                                           |                    |
| <b>DS6</b> - Erection of Tree Protection Fencing (TPF).                                 | n/a                              | <ul style="list-style-type: none"> <li>The use of protective fencing is not considered necessary or appropriate on this occasion. Discussions at the pre-works stage may influence this.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>TPP</li> <li>TSS &amp; TSP</li> </ul>                                           |                    |
| <b>DS7</b> – Demolition & Construction                                                  | SA, SM (Contractor), TWC, Client | <ul style="list-style-type: none"> <li>Scaffolding within the RPAs should be erected using the existing ground levels and where support and/or load spreading pads are required at ground level, then scaffolding boards or similar, laid on top of the existing hard surfacing should be used.</li> <li>Once erected, the scaffolding, which will facilitate the necessary demolition and construction works, will be used to provide access for the recommended tree pruning works to the cedar trees T2 &amp; T3 (see DS9 &amp; Section 6.2).</li> <li>The raised height of the scaffolding will provide the tree works contractors with good access and an elevated work positioning, which will allow for the placing of the most suitable and desirable pruning cuts possible, which in turn will minimise any foreseeable detriment to the trees by ensuring that the pruning is carried out to BS 3998:2010 and that the diameters of the pruned branches are kept as small as possible.</li> <li>It's at this stage of the project, that the presence of an appointed Site Arboriculturalist will be required, who will be able to provide guidance on the final pruning cuts. The maximum extent of the pruning is detailed in section 6.2.</li> <li>Any variations to this anticipated construction methodology, will be discussed in detail by the SA and the SM, during the pre-works site meeting with any modifications made accordingly.</li> </ul> | <ul style="list-style-type: none"> <li>TPP</li> <li>NJUG Publication</li> </ul>                                        |                    |
| <b>DS8</b> – No-dig surfacing                                                           | n/a                              | <ul style="list-style-type: none"> <li>Not applicable.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                        |                    |



## Arboricultural Method Statement (AMS) - Proposed Sequence of Works

|                                                |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                       |  |
|------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--|
| <b>DS9</b> – Construction (Tree Pruning Works) | n/a                        | <ul style="list-style-type: none"> <li>T2 Atlantic cedar – Prune back lowest secondary branch, extending South East by approximately 4m in length. Maximum diameter of pruning, will not exceed 100mm. Final pruning cut will made at suitable distal pruning point/branch union as per section 7.2.4 BS 3998:2010.</li> <li>T3 Deodar – Prune back 2 secondary branches, extending South at approximately 11m height, by up to 4m in length (higher branch of the 2) and 2m in length (lower branch of the 2). Maximum diameter of pruning, will not exceed 75mm. Final pruning cuts will made at suitable distal pruning point/branch unions as per section 7.2.4 BS 3998:2010.</li> </ul> |                                                       |  |
| <b>DS10</b> - Tree Planting                    | n/a                        | <ul style="list-style-type: none"> <li>Not applicable</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |  |
| <b>DS11</b> – Soft Landscaping                 | n/a                        | <ul style="list-style-type: none"> <li>Not applicable</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |  |
| <b>DS12</b> – TPM Removal                      | n/a                        | <ul style="list-style-type: none"> <li>There are no Tree Protection Measures, requiring removing as part of the project.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                       |  |
| <b>DS13</b> - Tree Maintenance                 | SA                         | <ul style="list-style-type: none"> <li>SA will survey the retained trees for any obvious signs of ill health, damage, stress or other physiological aspects that the development might have caused.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>TPP</li> </ul> |  |
| <b>DS14</b> - Completion                       | SA, SM<br>LPA Tree Officer | <ul style="list-style-type: none"> <li>Notification to LPA of completion.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                       |  |



## Roles, Responsibilities and Definitions

**Site Arboriculturalist (SA):** The appointed person will supervise and provide guidance on, those aspects of the project, which have the potential to cause detrimental damage to the retained trees. They will work closely with the Site Manager and together they will be responsible for maintaining an auditable record of key activities on the site, which could prove detrimental to retained trees, either directly or indirectly.

They will be present, or readily available for supervising key stages, which will include the setting out and installing/erection of specified TPMs and GPMs, identifying those trees requiring removal and facilitation pruning, excavation in proximity to trees, overseeing required changes to the TPMs and if necessary, the receipt of the new trees, their planting, securing and immediate irrigation.

They will be the first point of contact for the Site Manager, where advice, instruction, guidance or supervision is considered to be necessary.

**Site Manager (SM):** The Site Manager, will ensure that all contractors, site operatives, the deliveries and storage of materials, ground works, excavations, removal of arisings, use of cranes, plant and other machinery and indeed, any other activities associated with the development and its construction are carried out in accordance with the Tree Protection Plan, the Arboricultural Method Statement and specific instruction from the Site Arboriculturalist. They will be responsible for cascading information, instructions and the delivering of tool box talks to all contractors on site, where necessary.

**Tree Protection Plan (TPP):** A scale plan, which shows amongst other things; Root Protection Areas, Tree Protection Measures, Ground Protection Measures, the siting of service runs, areas requiring hand-dig, areas requiring no-dig surfacing, trees to be removed and the locations of new trees.

**Tree Planting Plan (TPLP):** A scale plan, which shows the locations, species and planting methodology of those new trees, which are to be planted as part of the project either as mitigation or otherwise.

**Tree Protection Measures (TPM):** Tree Protection Measures will include Tree Protection Fencing and Ground Protection Measures, erected or installed as per the Tree Protection Plan.

**Ground Protection Measures (GPM):** Ground protection will be adopted in the locations shown on the Tree Protection Plan and will be specified as per the anticipated incursions *i.e. they will be specified to reflect the anticipated nature and type of the activities and weight of the incursions.*

**Tree Protection Fencing (TPF):** Protective Fencing will be erected as per the specification and in the locations shown on the Tree Protection Plan.

**Root Protection Area (RPA):** Areas shown on the TPP, which once protected will be considered sacrosanct and incursions will be excluded within them, without prior agreement from the SA and or the SM.

**Tree Works Contractor (TWC):** The developer in conjunction with the SA, will appoint a Tree Works Contractor, who will be an Arboricultural Association approved contractor, for the purpose of carrying out the necessary tree works prior to the commencement of works. They will also be suitably experienced in the planting of new trees. It is recommended that the TWC is appointed to provide the 5-year maintenance and after care package for the new trees.

**Tree Survey Schedule (TSS):** BS 5837:2012 Tree Survey. (See Appendix A).

**Tree Survey Plan (TSP):** Existing scale plan showing trees on site (See Appendix B), to be read with TSS.



## Appendix K Arboricultural Supervision Record



## Development Stage (DS) Audit Record

*Record to be maintained throughout duration of project by Site Arboriculturalist, Site Manager or other appointed persons. See examples for completion.*

[illegible]