

**67 Wareham Grove  
Dodworth**

**Phase 2  
Pre-development Arboricultural Report  
Revision 1**

**Prepared at the request of  
Peter Thompson Architect**

**19 December 2024**

**By  
Ian Kennedy  
Wharnccliffe Trees and Woodland Consultancy**

All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, recording or otherwise, or stored in any retrieval system of any nature, without written permission. Its content and format are for the exclusive use of the addressee in respect of this site. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without written consent.

## Summary

I have been instructed by Peter Thompson, Architect, on behalf of the applicant at 67 Wareham Grove, Dodworth, to carry out a pre-development survey of trees growing in the park to the west of the property. These are trees that could be affected by a proposed extension to the property. The development includes demolition of the existing garage and construction of a side extension to the existing dwelling.

The approximate locations of 13 trees are recorded on Plan 1 that shows the existing site layout and the locations of the trees, their crown spreads and root protection areas (RPAs).

Table 1 records their species, dimensions, age, life expectancy, any defects and their amenity value. This information was collected, interpreted and recorded in accordance with BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The information is used to attribute retention categories to the trees; A, B, C and U. These retention categories are described in Appendix 2.

The trees included in this report are a group of relatively young trees growing on the edge of the neighbouring park. Individually the trees have little value but have slightly greater value as part of a cohesive group around the edges of the park. The trees have been included in the lowest retention category (C).

Only trees that could be impacted by the proposed development have been included in this report.

Plan 2 shows the trees in context of the proposed layout.

Section 4 of the report is the arboricultural impact assessment that describes the impact that the development will have on the trees.

There would be minor encroachment of the development into the RPA of one tree, but it is so small the tree would cope well with this and could be retained.

Some pruning would be necessary to the crowns of two trees to provide adequate clearance for the demolition of the garage and building of the two-storey extension. This would be minor pruning but would need to be repeated periodically to maintain adequate clearance. These trees are growing on Barnsley Council owned land but there would be access down the side of the applicant's property to complete that pruning.

# CONTENTS

---

<b>1</b>	<b>INTRODUCTION .....</b>	<b>6</b>
1.1	Instruction.....	6
1.2	Documents and Provided Information.....	6
1.3	Limitations .....	6
<b>2</b>	<b>SITE VISIT AND OBSERVATIONS .....</b>	<b>7</b>
2.1	Site visit .....	7
2.2	Brief Site description .....	7
2.3	Development Proposals.....	7
2.4	Locations of the Trees .....	7
2.5	Tree observations .....	8
<b>3</b>	<b>Interpretation of Information and References .....</b>	<b>9</b>
3.1	BS5837:2012 Tree Retention Categories.....	9
3.2	Below Ground Constraints; Root Protection Areas (RPAs) .....	9
3.3	Above Ground Constraints; Crown Spreads .....	10
3.4	Conception and Design .....	10
<b>4</b>	<b>ARBORICULTURAL IMPACT ASSESSMENT .....</b>	<b>11</b>
4.1	Arboricultural Impact Assessment .....	11
4.2	General considerations for tree protection .....	12
<b>5</b>	<b>REFERENCES, PLANNING POLICY AND GUIDANCE.....</b>	<b>13</b>
5.1	National policy.....	13
5.2	British Standard: Trees in relation to design, demolition and construction – Recommendations (BS 5837, 2012).....	14
5.3	Barnsley Metropolitan Borough Council .....	14
<b>6</b>	<b>CONCLUSIONS .....</b>	<b>15</b>
<b>7</b>	<b>LEGAL CONSIDERATIONS.....</b>	<b>16</b>
7.1	Protected trees.....	16
7.2	Wildlife conservation legislation .....	16

## TABLES

---

Table 1	The Schedule of Trees.....	8
---------	----------------------------	---

## PLANS

---

Plan 1	Tree constraints plan of the existing site layout.....	17
Plan 2	Tree constraints plan of the proposed site layout.....	18

## APPENDICES

---

Appendix 1	The Experience and Qualifications of Ian Kennedy .....	19
Appendix 2	Tree Retention Categories .....	21
Appendix 3	Explanatory notes for some of the terms used in this report.....	22

# 1 INTRODUCTION

## 1.1 Instruction

I have been instructed by Peter Thompson, Architect, on behalf of the applicant at 67 Wareham Grove, Dodworth, to carry out a pre-development survey of the trees growing in the park immediately to the west of the property. Demolition of the existing garage and construction of an extension to the existing dwelling is proposed.

The tree survey is intended to provide a structured, impartial assessment of the tree population that could be affected by a proposed development.

The survey is intended to be informative to all stages of the development process and was carried out in accordance with *BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations*.

## 1.2 Documents and Provided Information

I was provided with the following plans:

Location and block plans showing the existing and proposed layouts.

## 1.3 Limitations

This report is concerned only with assessing the condition of the trees, their importance in the local landscape and any cultural and conservation values.

It takes no account of the affects the trees may have on the soil, such as heave where trees are removed or shrinkage where trees are retained.

Trees are dynamic organisms influenced by weather, pests and diseases. Therefore, this report can only remain valid for a period of 24 months.

Any works around the trees such as trenching, pruning, storage of materials and trafficking that has not first been approved by a suitably qualified arboriculturalist will invalidate this report.

This report has been prepared for pre-development purposes. Whilst the condition of the trees has been assessed this is primarily to attribute a retention category. It is not a tree condition and safety report and may not include the same level of detail on tree health and structural condition.

No decay detection equipment was used to gather information on the condition of the trees.

All survey and inspection was completed at ground level.

## **2 SITE VISIT AND OBSERVATIONS**

### **2.1 Site visit**

I inspected the trees on 13 November 2024.

All dimensions were taken using recognised methodology and arboricultural measuring equipment, unless otherwise stated.

The principles of BS5837:2012 were applied to the assessment and evaluation of the trees.

The weather at the time of inspection was sunny and calm.

### **2.2 Brief Site description**

This is a semi-detached domestic dwelling with detached garage to the side of the dwelling. There is a driveway to the front of the garage.

The property is located at the southern end of Wareham Grove on the edge of a small park. The trees included in this report are growing in the park close to the property boundary. The trees form part of a larger group of trees growing around the edge of the park.

The centre of the property is located at Ordnance Survey Grid Reference SE 32135 05428.

### **2.3 Development Proposals**

The development proposes demolition of the detached garage and replacement with a two semi-side extension to the existing dwelling.

### **2.4 Locations of the Trees**

The positions of the trees were plotted by me using fixed known points. The positions of the trees are believed to be sufficiently accurate for the purposes of this report.

## 2.5 Tree observations

Table 1. The Tree Survey

Tree number	Species	Height (M)	Stem diameter (DBH in MM)	Branch spread (M)	Ht of canopy above the site (M)	Life stage	Health	General observations on the tree's condition	Estimated life in years	Amenity value	Habitat value	Category
T1	Lime	9.0	310	North – 5.2 South – 1.5 East – 4.0 West – 4.3	2.0 over garden	Young mature	Normal	The tree is slightly suppressed by the neighbouring trees but is in good health with no significant defects.	20+	Medium	Low	B 2
T2	Sycamore	18.0	540	North – 4.8 South – 2.0 East – 6.5 West – 6.5	6.0 over garden	Mature	Normal	A healthy tree with no significant defects. It is a prominent part of the local landscape.	20+	Medium	Low	B 1&2
T3	Sycamore	18.0	590	North – 2.0 South – 4.5 East – 6.0 West – 4.7	3.0 over garden	Mature	Normal	A healthy tree with no significant defects. It is a prominent part of the local landscape.	20+	Medium	Low	B 1&2

### 3 Interpretation of Information and References

My interpretation and appraisal of information gathered from the survey is based on experience of tree species, visual risk hazard assessment and the guidance set out in BS5837:2012 *Trees in Relation to Design, Demolition, Construction – Recommendations*.

#### 3.1 BS5837:2012 Tree Retention Categories

All trees have been assessed and assigned a retention category in accordance with Table 1 of the standard. A copy of Table 1 from BS5837: 2012 is included as Appendix 2.

This categorisation is intended to rank trees according to their importance in terms of quality, health, life expectancy, amenity and landscape value, together with wildlife and cultural importance. This ranking assists in determining the suitability and appropriateness of trees for retention in any development. Categories A to C are those considered for retention, 'A' being highest.

Category A and B trees tend to be considered more valuable for retention than category C trees.

Category 'U' trees are those not suitable for retention because of impaired condition.

Hedges and shrubs are not assigned retention categories but their heights and species are simply noted on the tree constraints plan.

#### 3.2 Below Ground Constraints; Root Protection Areas (RPAs)

The root protection area is the area of land considered necessary for trees should they be retained as part of any development. This is calculated using the stem diameter measured at 1.5 metres from ground level. This protection area is shown diagrammatically as a circle centred on the base of the tree where it is expected that rooting has not been impeded in any one direction and where disturbance has not taken place. Where rooting has been impeded or disturbance taken place then the shape and size of the root protection area is modified according to an assessment of where rooting is likely to take place.

Where trees are to be retained, it is optimal to locate structures and services outside the RPA. However, where incursion becomes necessary, technical solutions may be possible to limit damage, areas lost can be compensated elsewhere, or the soil environment can be improved. In these circumstances an arboricultural method statement will be necessary to ensure that works are undertaken sympathetically and do not damage the below ground parts of the trees.

### **3.3 Above Ground Constraints; Crown Spreads**

Ideally, working areas will be out with the crown spreads of trees to be retained.

Any permanent development proposed within the canopy spread of a tree should be assessed to determine whether the level of pruning necessary to accommodate the layout would be acceptable. However, the effects of shade and other perceived inconveniences of trees this close to property should also be considered, together with the future growth potential of the trees and the maintenance obligation this will bring.

Where temporary access by high sided vehicles and machinery for construction or erection of scaffolding is necessary within the crown spreads of trees to facilitate development an arboricultural method statement will be necessary to ensure pruning works are carried out sympathetically prior to demolition or construction works commencing.

### **3.4 Conception and Design**

The constraints imposed by trees should assist with site design and layout, together with the other competing needs of development.

The provisions of services and the access space required for construction itself should be considered.

## 4 ARBORICULTURAL IMPACT ASSESSMENT

This section of the report considers the impact that the proposed layout could have on the trees that are included in Table 1 and shown on Plan 1; *Tree Constraints Plan showing the existing layout*.

This section discusses the engineering solutions that may be available to retain trees where development is proposed within their root protection areas (RPAs) or the pruning options available where development might affect crown spreads.

Where there is no option but to remove a tree to accommodate the proposed layout this section will discuss the impact on amenity and ecology and any mitigation that could be offered such as opportunities for replacement planting.

### 4.1 Arboricultural Impact Assessment

#### Root Protection Areas (RPAs)

The trees are still quite young and will have grown and coexisted with the existing garage. This means that the edges of the RPAs are very likely to stop at the edge of the garage foundation. Because much of the foundation of the proposed extension would be within the old garage footprint this will significantly reduce the potential impact the development could have on many of the trees.

There will be very minor encroachment of the proposed extension into the RPA of Tree 8 but this encroachment is so minor it would be negligible.

#### The Crown Spreads

Trees 1, 2, 3 and 4 are too far from the proposed extension to be impacted.

The crowns of Trees 5, 6 and 10 are currently outside the footprint area but would need pruning to maintain adequate clearance in the future.

Trees 7 and 8 overhang the existing garage and would need to be pruned to provide adequate clearance for the demolition and building work. Some repeat pruning would be required in the future to maintain adequate clearance as the trees grow. There is access down the side of the proposed extension on the applicant's land to be able to complete this pruning.

The crowns of Trees 11 and 13 slightly overhang the existing drive and some minor pruning up to the boundary would be necessary to provide adequate clearance for the works.

The trees are growing on third party land.

I understand that under common law branches from a tree growing in an adjacent property that extend over a boundary, and roots that extend under it, can be pruned back to the boundary line without first gaining permission from the owner of the land where the tree is growing. However, the material belongs to the tree owner and the guidance about protected trees applies where trees are protected.

I also understand that people who carry out work to trees growing in neighbouring properties may be held liable for harm caused if they subsequently fail as a consequence of that work.

Owners of trees growing in adjacent properties have a duty, in so far as is possible, to prevent them causing harm.

The trees included in this report are growing very closely together and some thinning of the tree would be beneficial for their long term development. This might involve the removal of Trees 4, 5, 8, 9 and 10. This would alleviate the need for some of the repeat pruning, but this would need to be done with the agreement of the landowner. This would be the responsibility of the land owner.

## **4.2 General considerations for tree protection**

### **Levels**

Altering the ground level within the RPAs of the trees may have a detrimental impact on their health and longevity.

### **Ground surface materials**

Altering the ground cover, such as by using impervious or semi-pervious surface materials to cover areas that were previously vegetated soil, will alter the moisture content and recharge of the soil and its oxygen and carbon dioxide content. This could have a detrimental effect on the health of tree roots growing in it.

### **Site access**

Vehicles and plant operating or parking on unprotected soil within the RPA of a retained tree could compact or contaminate it and this could have a detrimental impact on its long-term condition and longevity.

### **Storing fuel, materials and equipment**

Storing fuel, equipment and materials close to trees increases the risk of damage to their trunks and branches, soil compaction and/or contamination with toxic substances.

### **Activity under tree canopies**

Activity under tree canopies, such as mixing cement, lighting bonfires or storing equipment, plant and materials, may damage branches or stems. It may also be detrimental to soil within its RPA that is utilised by its roots.

## 5 REFERENCES, PLANNING POLICY AND GUIDANCE

### 5.1 National policy

Section 197 in the Town and Country Planning Act 1990 makes it the duty of Local Planning Authorities (LPAs), ‘in the interests of amenity,’ to protect trees, when granting planning permission, either by the imposition of conditions or serving Tree Preservation Orders (TPOs).

The National Planning Policy Framework (NPPF) (2023) mentions trees and should be taken into account.

***136.** Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined<sup>53</sup>, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.*

***180.** Planning policies and decisions should contribute to and enhance the natural and local environment by:*

*(b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*

***186** When determining planning applications, local planning authorities should apply the following principles: a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>67</sup> and a suitable compensation strategy exists; and d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part*

*of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.*

#### Annex 2: Glossary

*Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.*

*Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS).*

*Irreplaceable habitat: Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.*

## **5.2 British Standard: Trees in relation to design, demolition and construction – Recommendations (BS 5837, 2012)**

The British Standard: *Trees in relation to design, demolition and construction – Recommendations* (BS 5837, 2012) contains guidance on how to assess trees in or close to proposed development and information to include in pre-development arboricultural reports submitted with planning applications. Appendices 2 and 3 contain relevant extracts from BS 5837 (2012).

## **5.3 Barnsley Metropolitan Borough Council**

Barnsley Local Plan. Adopted January 2019

17. Green Infrastructure and Green Space

## 6 CONCLUSIONS

There is a group of 13 trees growing close to the location of the proposed extension.

The trees are still young. Individually they are insignificant. They have more value as a cohesive group along with the other trees in the park. All the trees are included in the lowest retention category (C).

The root protection areas of all but one tree will be unaffected by the development. The one tree that is impacted will only be very slightly impacted.

The crowns of two trees will need to be pruned to accommodate the proposed extension.

## **7 LEGAL CONSIDERATIONS**

### **7.1 Protected trees**

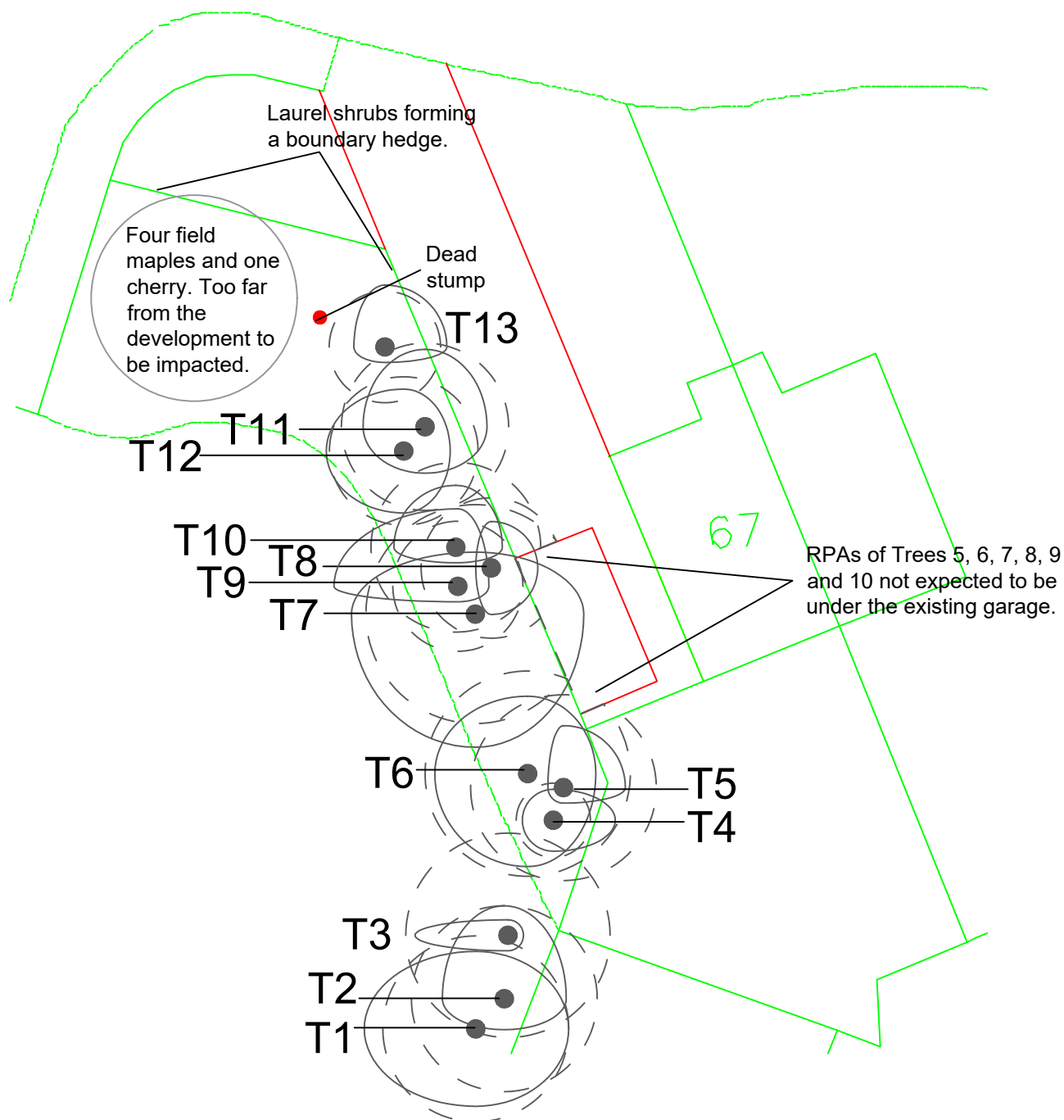
According to Barnsley Council's online records which were checked on 14 November 2024, none of the trees are protected by a Tree Preservation Order (TPO) and the site is not within a Conservation Area.

### **7.2 Wildlife conservation legislation**

Breeding birds are protected, together with bats and their roosts are, whether their roosts are in use or not.

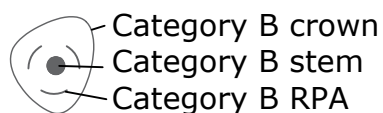
Consideration should be given to the presence of protected species prior to any proposed tree removal or maintenance. This will include breeding birds, principally between March and August, and bats at any time of year.

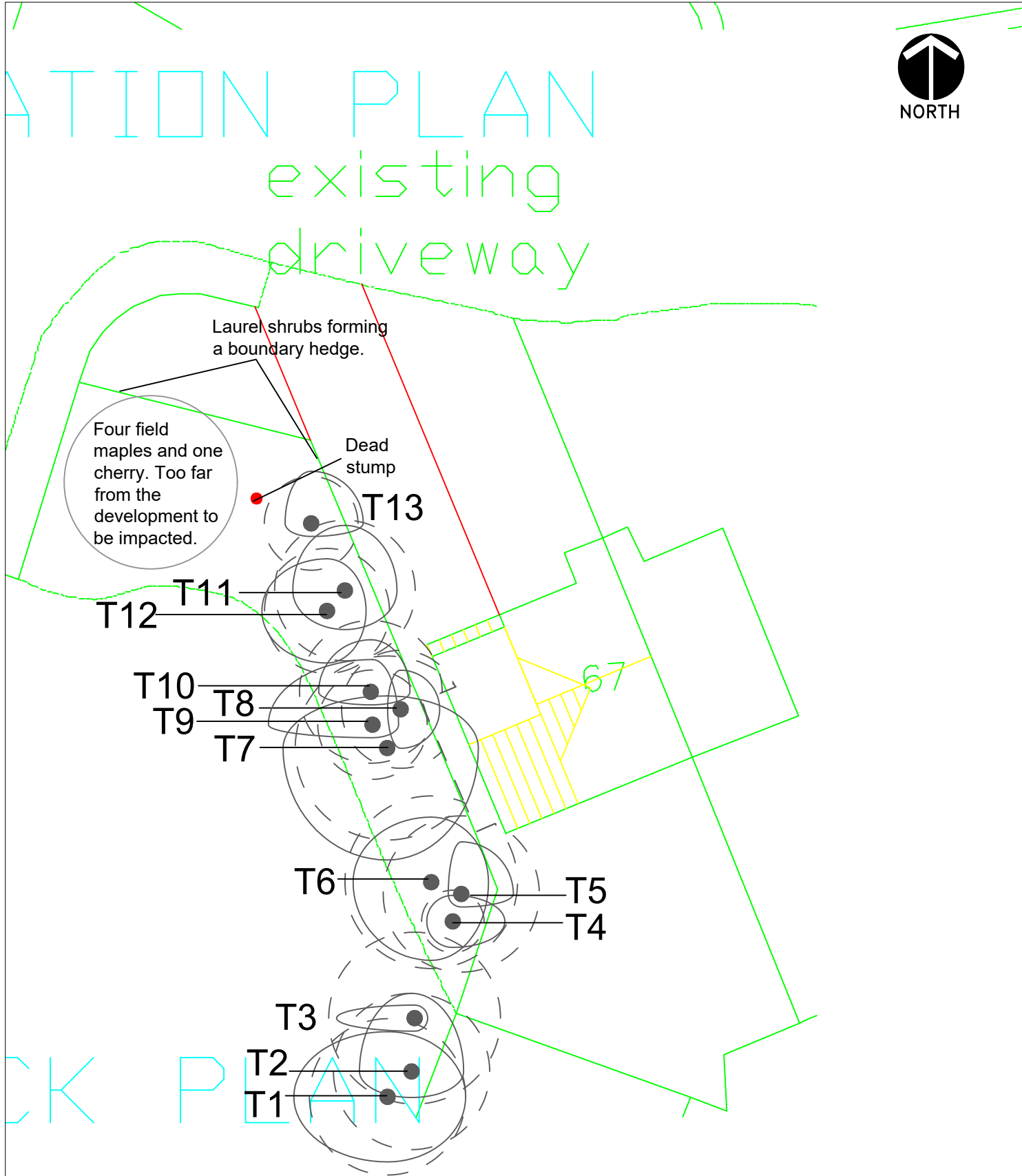
Tree surgeons should also be aware of their duties under legislation to protect wildlife and carry out their site assessment and work accordingly.



Plan 1 Tree Constraints Plan showing the existing layout

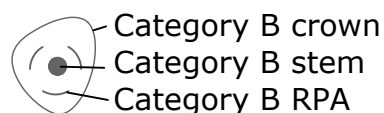
Scale 1:200 @ A4





Plan 2 Tree Constraints Plan showing the proposed layout

Scale 1:200 @ A4



## **Appendix 1**

---

### **The Experience and Qualifications of Ian Kennedy**

#### **1. Qualifications**

Ian graduated from the Scottish Agricultural College in August 1995 with a Higher National Diploma in Horticulture (HND) with Distinction.

In 1998 Ian graduated from the University of Aberdeen with a BSc (Hons) Upper second class in Forestry with Arboriculture and Amenity Forestry.

He passed the LANTRA Professional Tree Inspection examination in (2006).

In 2009 his application to become a professional member of the Arboricultural Association was assessed to fulfil all the necessary requirements and he became a professional member of the Association that year.

In 2011 he passed the final examination of the Institute of Chartered Foresters and became a member of that institute in January 2012.

#### **2. Practical experience**

Presently Ian is working in private practice as an independent arboricultural and woodland management consultant undertaking tree conditions surveys, pre-development tree surveys to the BS5837:2012 standard, mortgage reports and woodland management planning works. Clients range from home owners and farmers to architects, building companies, local authorities, schools and larger development companies.

Prior to private practice Ian held a number of positions in local government. Firstly he was the arboriculturalist within a planning office in Essex. Ian gained considerable experience regarding trees in relation to development, in particular BS 5837.

Development work formed the core of his duties and applications ranged from small back garden developments to major schemes such as the redevelopment of Ministry of Defence land for private residential development. Ian also undertook all functions associated with Tree Preservation Orders (TPOs), including the making of new TPOs, assessing suitability of applications to work on protected trees and trees in conservation areas.

Ian went on to manage a 500 hectare woodland estate for a local authority in South Yorkshire that included a mix of urban and rural woodlands. This included preparation and implementation of detailed management plans for multiple use woodlands. He undertook all aspects of silvicultural management from marking to contract tendering and monitoring. He also managed the access, conservation, landscape and archaeological requirements of the estate.

Ian was directly involved in the estate achieving Forest Stewardship Council certification in 2003 and personally ensured continued certification.

Ian has worked extensively with Forestry Commission to obtain the necessary licences for management works and ensured the estate benefited fully from the full range of grants available.

Latterly at the same authority Ian went on to manage the trees and woodlands unit, having overall responsibility for management of the authority's tree and woodland stock and associated staff, together with delivery of other tree related services such as those associated with the Town and Country Planning Acts.

### **3. Continuing professional development**

Ian regularly attends meetings, seminars and training events hosted by The Arboricultural Association, Institute of Chartered Foresters, Royal Forestry Society and Forestry Commission and benefits from the respective journals, briefings and newsletters available to members of the first three of the organisations listed.

### **4. Relevant experience**

Ian Kennedy has spent 24 years working with trees, including as the arboricultural advisor to planning officers for a Local Planning Authority and manager of a trees and woodlands unit for another local authority with overall responsibility for trees, including in relation to the Town and Country Planning Acts.

## Appendix 2

### Tree Retention Categories

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> 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> Trees of high quality 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> Trees of moderate quality 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> Trees of low quality 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 3

---

### Explanatory notes for some of the terms used in this report

- **Stem Diameter:** The diameter of the trunk at 1.5m above ground level and recorded in millimetres measured with a diameter tape.
- **Compass Bearing:** N = north; S = south; E = east; W = west;
- **Life Stage:** Assessed as either:
  - Semi-mature = a size which could be easily transplanted;
  - Juvenile mature = prior to seed bearing age and could be transplanted with care;
  - Young Mature = early maturity, not fully grown but of seed bearing age and may have achieved mature height;
  - Mature = fully grown, annual growth is much reduced;
  - Old Mature = old for the species, possibly starting to decline;
  - Veteran = Beyond maturity for the species. This can be characterised by larger than average stem diameters, scaffold branches or crown spreads. Often still growing with full crowns.
  - Ancient = Well beyond normal mature age. It will have special characteristics associated with its age, including biological, cultural. Growth rates will significantly reduced and the tree may be declining in size.
- **Estimated size: #**
- **Health:**
  - Normal Vitality = normal growth and twig extension;
  - Moderate Vitality = reduced twig extension but other than that few signs of ill-health;
  - Early Decline = reduced twig extension and some dead twigs in the outer canopy;
  - Mid-decline = small internodes, the canopy may be thinning and contain dead twigs and/or branches in the outer canopy, older branch wounds that haven't occluded may be decaying and forming cavities;
  - Severe Decline = sparse crown, numerous dead twigs and branches in the outer canopy, older branch wounds likely to be decaying and forming cavities;
  - Dead.
- **Structural Condition**
  - Acute stem union = a weak union between two or more stems at the main forking point caused by the formation of reaction wood. Mechanical pressure at the forking point increases as secondary thickening occurs increasing the risk of failure at that point.

- Acute branch union = the same principle as acute stem unions but between a stem and a branch or two branches rather than 2 main stems.
- **Estimated life**
  - The life expectance brackets of <10 years, 10+ years, 20+ years and 40+ years accord with the guidance in BS5837:2012 and should be considered as the useful life expectancy in the location the trees are growing in. For example, a tree with significant defects growing in a quiet area could be retained for longer than a tree growing next to a busy highway or a residential building.
- **Amenity**
  - High = Growing in a place that is very publicly visible such as a next to a busy road or places where people gather. The tree is also likely to be large or very large.
  - Medium = A smaller tree growing in a very publicly visible place or a large tree growing in a place with reduced public access.
  - Low = A small to medium sized tree growing in a quiet location where it is barely or not visible to anyone other than the landowner.

**Ian Kennedy  
Wharncliffe Trees and Woodland Consultancy  
16 Hartcliffe View  
Thurgoland  
Sheffield  
S35 7BD**

**0114 288 5501  
07891 488303**

**[info@wharncliffetwc.co.uk](mailto:info@wharncliffetwc.co.uk)**