Proposed five dwellings

Bank End Road

Worsbrough Bridge

Barnsley

Phase 2 Pre-development Arboricultural Report

Prepared at the request of Mr G Wilkinson

1 April 2020

By

Ian Kennedy

Wharncliffe Trees and Woodland Consultancy

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Summary

I have been instructed by Mr G Wilkinson to carry out a pre-development tree survey of the trees growing on a small triangular piece of land on the corner of Bank End Road and High Street, Worsbrough Bridge. Five dwellings and associated parking spaces for the properties are proposed at the eastern end of the site.

Very young broadleaved trees, mainly of goat willow and ash with some buddleia, are growing across the entire plot. Many are growing as coppice as they appear to have been cut at the base in the past, possible in an attempt to clear the land. None of the trees have any arboricultural merit and most have been recorded as one group. This is G1 in the report. Three larger trees are recorded individually because they are slightly larger and older and stand out from the others. These are recorded at Trees 1, 2 and 3.

Nevertheless, all trees are included in the lowest retention category (C).

Table 1 records information about the trees, including their species, dimensions, age, life expectancy, retention category and root protection area. This information was collected, interpreted and recorded in accordance with BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

Because there are so many trees across the site the entire site is occupied by crown spreads and the whole site can be regarded as a root protection area.

Plan 1 shows the existing layout and Plan 2 shows the proposed layout.

All of the trees in the eastern and central parts of the site would need to be removed to accommodate the proposals. This would not result in any loss of amenity to the area.

The trees at the western end of the site could be retained but I would question the merit of retaining these trees.

Contents

1.0 Introduction

1.1 Instruction

I have been instructed by Mr G Wilkinson to carry out a pre-development tree survey of the trees growing on a triangular piece of land on the corner of Bank End Road and High Street, Worsbrough Bridge.

The tree survey is intended to provide a structured, impartial assessment of the tree population within the proposed development area.

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 Information Provided

I was provided with the following:

A drawing showing the red line boundary of the site, the proposed layout and the elevations produced by Mr Wilkinson.

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.

No decay detection equipment was used to gather information about the trees.

All survey and inspection was completed at ground level.

Site Visit and Observations

2.1 Site Visit

The site visit took place on 27 March 2020. All dimensions were taken using recognised methodology and arboricultural measuring equipment, unless otherwise stated.

The weather at the time of inspection was dry and sunny with good visibility. Winds were light.

2.2 Brief Site Description

The site is a small triangular plot of land that comes to a point at the corner of Bank End Road and High Street at Ordinance Survey grid reference SE 3583 0429. Bank End Road is to the north of the site and High Street to the south.

The site is elevated above High Street by approximately 1m behind a retaining wall. The land is currently vacant and unmanaged. The trees are growing across the whole site and all appear to be growing as self seeded trees.

2.3 Development Proposals

The development proposes five dwellings; a short terrace of three and two semi-detached houses with associated car parking. The development is proposed at the wider end of the plot to the east.

2.4 Tree Observations

The trees and shrubs included in this report were inspected in detail and the information on their size, condition and retention categories is included in Table 1 below.

Table 1. The Tree Survey

Tree number	Species	Height (M)	Stem diameter (DBH in MM)	Branch spread (M)	Ht first branch above GL* (M)	Ht of canopy above GL (M)	Life stage	Vitality	General observations on the tree's condition	Estimated life in	Category
T1	Ash	9.0	250	North – 2.5 South – 2.5 East – 2.5 West – 2.5	2.0	2.0	Juvenile mature	Normal	A young and healthy but insignificant tree growing on the edge of the site by the retaining wall.	20+	C (1)
T2	Sycamore	8.0	<200	North – 2.0 South – 2.0 East – 2.0 West – 2.0	1.0	1.0	Juvenile mature	Normal	A young and healthy tree on the edge of the site with four stems. It is an unimportant tree.	20+	C (1)
T3	Silver birch	11.0	250	North – 2.5 South – 2.5 East – 2.5 West – 2.5	2.5	2.5	Young mature	Normal	The oldest and tallest tree on the site. There is a pruning wound at the base where a stem has been removed in the past. There is some limited decay.	10+	C (1)
G1	Goat willow, ash, buddleia	<5.0	<100	Across the entire site	GL	GL	Juvenile mature	Normal	The trees are growing across the entire site. They are likely to be self-seeded following abandonment of the site.	10+	C (1)

									Most are goat willows and buddleia with some ash growing throughout. Some are growing as multi-stemmed trees from stools where the stems have been cut at the base in the past.		

- Estimated * GL - Ground Level

3.0 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*. My qualifications and experience in arboriculture are included in appendix 1.

3.1 BS5837:2012 Tree Retention Categories

All trees have been assessed and assigned a category in accordance with Table 1 of the standard. A copy of Table 1 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 'U' trees are those not suitable for retention because of impaired condition.

Generally, category A and B trees should be given more consideration in layouts than category C trees as these are considered more valuable because of their condition, landscape value, future life expectancy or, on occasions because of their more favourable habitat value.

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. See Plan 1. 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 and construction will be out with the crown spreads of trees to be retained. However, where 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 construction works commencing.

Any permanent development within the canopy spread of a tree will also require a method statement. 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.

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. Generally, the trees in the higher categories (A and B) should be given greater consideration in any layout than the lowest retention category (C).

As well as the footprint of buildings, the provisions of services, infrastructure layout and the access space required for construction itself should be considered.

4.0 Arboricultural Impact Assessment

All of the trees across the eastern and central parts of the site would need to be removed to accommodate the layout. This would be the case for any layout proposed at the site because the trees occupy the entire site. However, the trees are of so little merit that this would not have any detrimental impact on amenity of the area.

The trees in the western part of the site, including Trees 1 and 2, could be retained within the proposed site layout. However, I would question the merit of retaining these trees. Depending on the intensions for the land to the west of the proposed development, there could be an opportunity to plant one or two new trees that would go on to provide much more meaningful long term value.

5.0 Conclusions

The entire site is occupied by young self-seeded goat willow and ash trees, together with buddleia shrubs.

All of the trees are very young and have very little value. All trees are included in the lowest retention category (C).

The proposed development would require removal of all the trees in the central and eastern parts of the site. This would have a negligible impact on the amenity of the area.

The trees at the western end of the site could be retained if so desired.

6.0 Legal Considerations

Protected trees

No checks have been made with the Local Planning Authority for Tree Preservation Orders, other planning conditions or inclusion of the site in a Conservation Area. However, if any of the trees subject to this report are protected it will be necessary to apply to the local planning authority (LPA) for permission before any work, other than certain exempted operations, can be carried out.

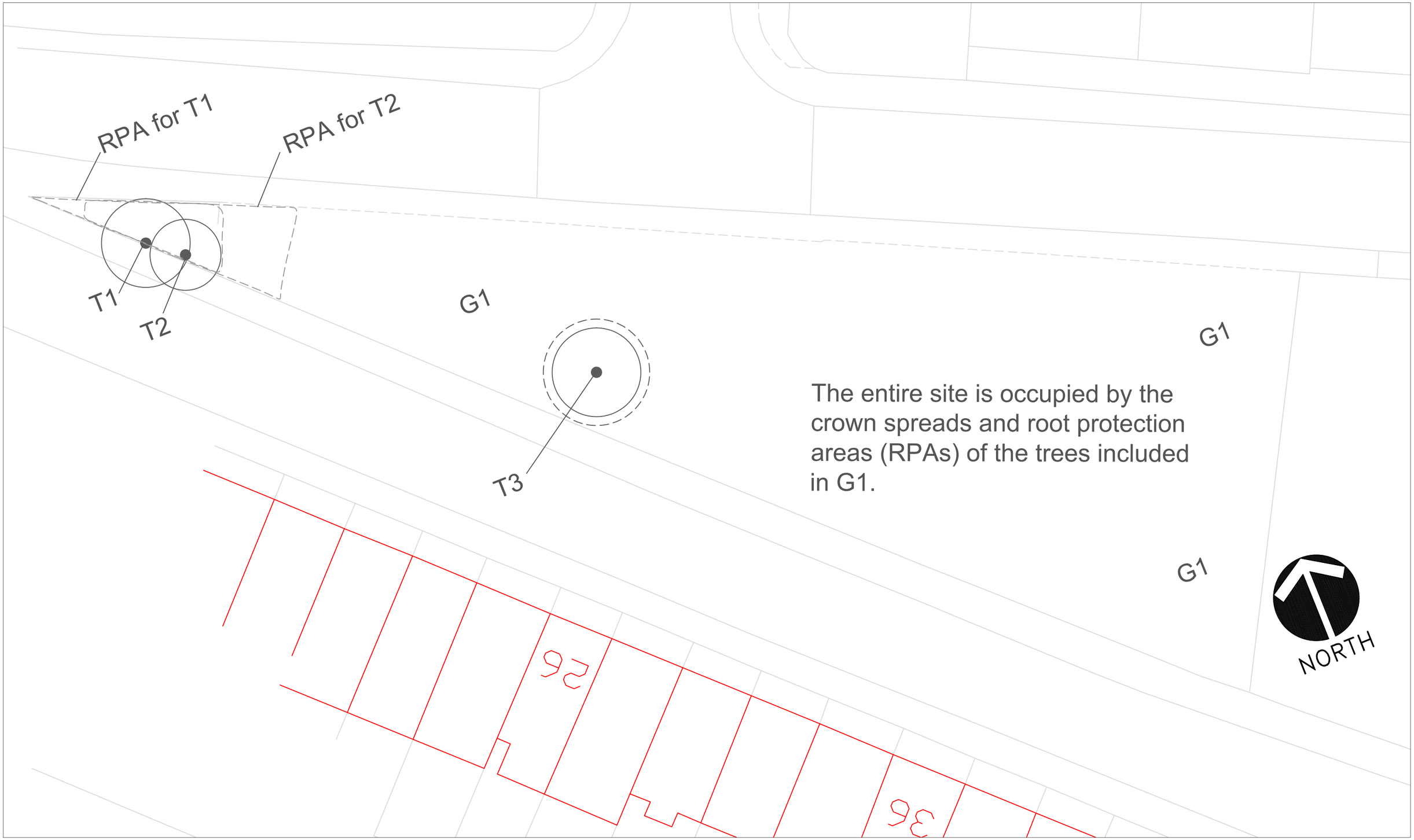
Wildlife conservation legislation

Breeding birds are protected, together with bats and their roosts, 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.

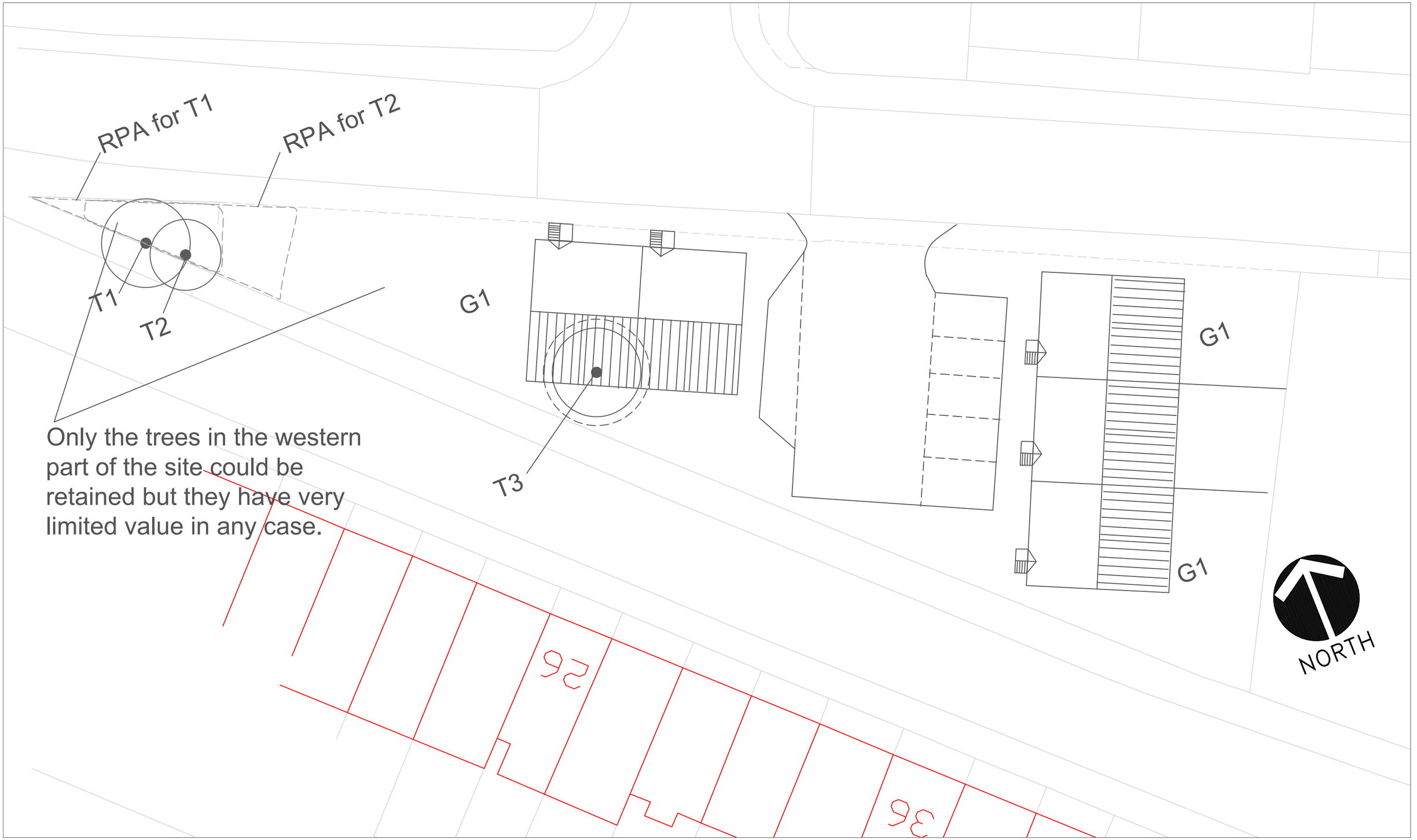
There is a very high chance that birds are breeding in the shrubbery at the moment. Breeding activity could go on into July.



Plan 1 Tree Constraints Plan showing the existing layout

Scale 1:200 @ A3

Category C crown
Category C stem
Category C RPA



Plan 2 Tree Constraints Plan showing the proposed layout

Scale 1:200 @ A3

Category C crown
Category C stem
Category C RPA

Appendix 1. Qualifications and Experience 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 become 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 managed 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 multiply 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 18 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)				
Category U 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	• 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) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **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
Category 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
Category C **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

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Appendix 3. Explanatory notes for terms used in this report

- **Compass Bearing:** N = north; S = south; E = east; W = west;
- **Age Class:** Assessed as either:
    - Young = a size which could be easily transplanted;
    - Semi-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;
- **Trunk Diameter:** These figures relate to the diameter of the trunk at a given distance above ground level and are recorded in centimetres measured with a diameter tape.
- **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.

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

0114 288 5501
07891 488303

info@wharncliffetwc.co.uk