

Ashfield Land Management and Gazeley GLP Northampton s.à.r.l

Annex M – Veteran Tree Report

Rail Central

855950





8 February 2018

i

RSK GENERAL NOTES

Project No.:	855950			
Title:	Veterar	n Tree Report		
Client:	Ashfield	d Land Management Limi	ted and Gazeley GLP No	orthampton s.à.r.l
Date:	Februa	ry 2018		
Office:	Covent	ry		
Status:	Final			
Author		Dan MacIntyre	Technical reviewer	Roberta Epps
Signature		4	Signature	RobertaSpo
Date:		8 February 2018	Date:	8 February 2018
Project mana	ger	Rob Fear	Quality reviewer	Roberta Epps
Signature		Reav.	Signature	Relates

RSK Environment (RSK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and RSK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Date:

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by RSK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of RSK and the party for whom it was prepared.

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Environment.

8 February 2018

Date:



i

CONTENTS

1	INT	RODUC	TION	1
	1.1	Gener	al	1
	1.2	Site C	ontext	1
		1.2.1	Main SRFI Site	1
		1.2.2	Junction 15a Site	1
	1.3	Constr	aints	1
		1.3.1	General	1
2	ME	THODS		3
	2.1	Gener	al	3
	2.2	Definit	ions	3
		2.2.1	Ancient Tree	
		2.2.2	Veteran Tree	3
		2.2.3	Notable Tree	4
		2.2.4	Heritage Tree	
		2.2.5	Champion Tree	
		2.2.6	Girth in relation to classification	4
3	RES	SULTS.		5
	3.1	Main S	SRFI Site	5
	3.2	Junctio	on 15a Site	6
4	COI	NCLUS	ONS	7
	4.1	Gener	al	7
5	MIT	IGATIO	N	8
	5.1	Gener	al	8
		5.1.1	Tree Resurrection	
		5.1.2	Limb/feature re-attachment	8
		5.1.3	Deadwood habitat piles	
		5.1.4	Propagation from existing trees on site.	
6	TΔF	RI F 1 · 1	IREE DATA	9



1 INTRODUCTION

1.1 General

This report presents an overview of anticipated removals of Ancient, Notable and Veteran trees at two areas - the Main Strategic Rail Freight Interchange (SRFI) Site and the land surrounding proposed road changes at Junction 15a of the M1.

1.2 Site Context

1.2.1 Main SRFI Site

This site occupies gently undulating land south of Milton Malsor in Northamptonshire. Like the surrounding area it has an intensively farmed landscape with most fields under arable or improved grass in roughly equal proportions. Boundaries are mostly marked by species-poor hawthorn hedges many of which have large ditches or small streams. The village of Milton Malsor lies to the north and there are houses, commercial premises and light industrial premises along Towcester Road which bisects the site from north to south. Railways largely bound the site to the east and south, and the A43 dual-carriageway main road does so to the east.

1.2.2 Junction 15a Site

This site comprises the areas of land adjacent to the A43, south of the motorway and to the west of the Grand Union Canal as well as the area to the east of the A5123 which lies to the north of the motorway. It covers approximately 22 hectares which includes highways, agricultural land, and the Grand Union Canal. The village of Rothersthorpe, lies approximately 1 km to the south west and Swan Valley Industrial Estate lies just to the north-west of the survey area.

1.3 Constraints

1.3.1 General

This report is principally concerned with trees and their historical or cultural classification (notable, veteran, ancient) and although obvious structural defects and tree characteristics may have been noted, this particular survey was not undertaken with health and safety in mind, and so should not be viewed as an assessment of tree risk on the site.



Trees have been categorised by analysis of tree survey data¹ (including comments and measurements) collected by Midland tree Surgeons in April 2016 (For Main site) and RSK in July 2017 as part of the BS5837 report for the Junction 15a area (856728_Rail Central Jct 15A_ Stage 12 AIA Report Rev1). The analysis presented in Table M1 – Tree Data followed the methodology set out in Section 2. The data were not necessarily collected with veteran trees in mind; but while a few (probably borderline) trees may perhaps have been omitted from one of the special categories (locally notable, notable, veteran or ancient), the data were generally fit for purpose.

¹ Carried out by Midland Tree Surgeons Ltd. in April 2016 for the Main Site and RSK for the Junction 15a Site in July 2017



2 METHODS

2.1 General

The third party tree data provided information on tree status; and guidance from Lonsdale, $(2013)^2$ was followed to help categorise them. Measurements of stem diameter, height and description of tree features were focused on, rather than prescriptive work recommendations for hazard management.

2.2 Definitions

2.2.1 Ancient Tree

ATF (2008)³ defines an ancient tree as one "that has passed beyond maturity and is old, or aged, in comparison with other trees of the same species". Similarly, according to current guidance for use in the Ancient Tree Hunt (Owen & Alderman, 2008)⁴ an ancient tree is one that has all or most of the following characteristics:

- biological, aesthetic or cultural interest, because of its great age,
- a growth stage that is described as ancient or post-mature,
- a chronological age that is old relative to others of the same species,
- a low shape as the crown has retrenched,
- a wide trunk compared with others of the same species,
- hollowing of the trunk.

If a tree has the physical characteristics of an ancient tree but is not ancient in years, compared with others of the same species, it is classed as veteran but not ancient. The term veteran is used to describe all trees that have markedly ancient characteristics, irrespective of chronological age. The term ancient is applied specifically to trees that are ancient in years.

2.2.2 Veteran Tree

Unlike an ancient tree, a veteran tree can be any age, but shows ancient characteristics such as those above. These may not just be due to age, but could result from natural damage, management, or the tree's environment. Ancient trees are all veterans, but not all veterans are ancient.

² Lonsdale, D (2013) 'Ancient and other veteran trees; further guidance on management' Ancient Tree Forum

³ Ancient Tree Forum (2008) 'The Ancient Tree Guide No. 4'

⁴ Owen K & Alderman D (2008) 'Ancient Tree Hunt – the Minimum Girth of Ancient Trees: A Guide for Verifiers. The Woodland Trust, Tree Register & Ancient Tree Forum.



2.2.3 Notable Tree

The term notable tree usually refers to a tree which is significant locally, because it is special or particularly large compared with the trees around it.

2.2.4 Heritage Tree

A heritage tree is one that is part of our history and culture, and can be connected with specific historic events or people. Other heritage trees may simply have particular appeal because of their appearance, landscape character or architectural setting, and have therefore become well-known landmarks in their local communities.

2.2.5 Champion Tree

A champion tree is one which is the tallest, or has the widest girth of its kind in a specific area.

2.2.6 Girth in relation to classification

The chart below is provided in the ATF guidance using girth measurement as part of veteran tree classification and has been used in this report to categorise trees.

Chart M1



Fig 1.3: Chart of girth in relation to age and developmental classification of trees*



3 RESULTS

3.1 Main SRFI Site

The Main SRFI site covers a large agricultural area with many trees growing in the fields and their boundaries. Data collected from a previous tree survey has been used with the focus on the individual trees and their dimensions and comments to assess suitability of inclusion into the various categories, as defined in *Section 2 – Methods* rather than a specific veteran tree survey. The supplied data give a useful estimate of the extent of important trees on the site.

A total of 130 trees were recorded on the site and of these 63 (38 Veteran, 22 locally notable, 1 notable and 2 ancient trees) were identified from individual tree data. These are also shown in *Table M1 – Tree Data Tables* and Chart M2, below, shows the distribution of tree categories on site.

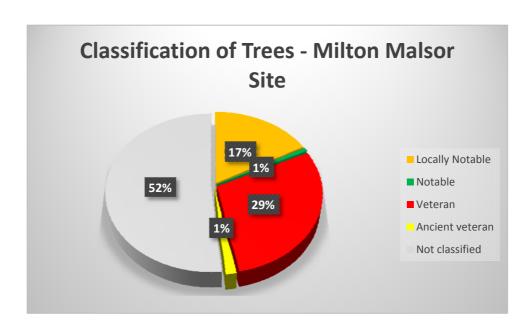


Chart M2 - Classification of Trees Based on Girth and Veteran Features

Of those 63 trees, 44 will need to be removed to facilitate development (26 veteran, 17 Locally notable and 1 Notable tree). This is in addition to many other trees, tree groups and hedgerows that need to be removed to facilitate the current design layout.

Impacts on the remaining trees will be assessed in a separate arboricultural impact assessment report (prepared by a separate consultancy) but this may not address specific impacts on veteran, notable or ancient trees on the site. These trees are much



more sensitive to changes in the local environment and so impacts are likely to be far reaching.

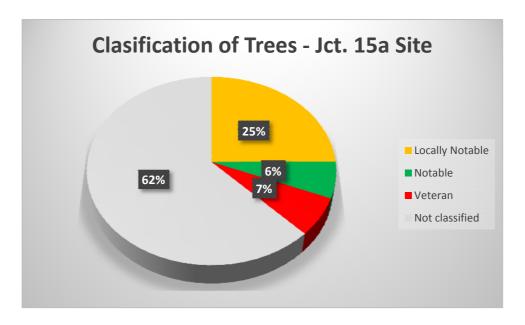
3.2 Junction 15a Site

Data collected from a previous tree survey has been used with the focus on the individual trees and their dimensions and comments to assess suitability of inclusion into the various categories, as defined in *Section 2 – Methods* rather than a specific veteran tree survey. The supplied data give a useful estimate of the extent of important trees on the site.

Of the 32 individual trees or tree groups on the site, 12 were identified as being of a size or having features that would justify their inclusion into one of the ancient or veteran categories. Two trees were classed as veteran, two as notable and eight as locally notable. Of these trees only one locally notable tree (T8) will need to be removed to facilitate the development. These are shown in $Table\ M1 - Tree\ Data\ Tables$.

Given the proximity of works to tree T9 it is likely that some impacts to its rooting area will occur as a result of changes in localised hydrology. This could decrease the trees' potential longevity through waterlogging and so root asphyxiation.

Chart M3 - Classification of Trees Based on Girth and Veteran Features





4 CONCLUSIONS

4.1 General

Precise classifications of veteran and notable trees are, to some extent, subjective and therefore trees should be considered individually on their own merit and value, classification aside. However as classification was the brief, the method used follows our interpretation of the current literature on the topic and results are as follows.

Trees classified as veteran or ancient are of exceptionally great value ecologically, historically and culturally and are irreplaceable in the landscape. The vast numbers of niche species that are associated with ancient and veteran trees effectively turn these features into standing ecosystems in their own right and so not only is there a loss in landscape and historical value but also a loss of valuable, and sometimes rare, species. Therefore their retention and protection is paramount.

Although trees classified as notable may not currently display many veteran features, they are still of great value in the landscape as fine examples of the species with high landscape importance. They are also the next generation of veteran and ancient trees and are arguably as hard to mitigate for as 'bona fide' veteran trees if they were to be lost, due to the time needed to produce these features and grow to this size.

Trees classified as locally notable may not be as large for the species as the notable category but were within the parameters in *Chart 1*, that make them of great interest locally and the same consideration applies in terms of their value as succession trees and important landscape features.

The current design layout at the Main SRFI Site results in the loss of a large proportion of trees that fall into the special classifications of veteran, ancient, or notable and this will be of detriment to the landscape as well as the local wildlife. When any development occurs on green space there will always be a need to accommodate some tree losses, but a design layout that aims to work with some of the more key landscape and cultural features will lessen the impacts somewhat. This, in conjunction with some of the measures described in *Section 5, Mitigation* along with a suitable landscape scheme will reduce the impact from loss of notable or veteran trees.



5 MITIGATION

5.1 General

It is not possible to 'replace' a veteran/notable tree within any realistic timescale, but there are some measures that are recognised as beneficial that would be appropriate, (in addition to ample and well thought-out tree planting). These are described below.

5.1.1 Tree Resurrection

Large diameter stems should be utilised in as large a single length as possible/appropriate and installed resting on the ground at the base of an existing tree and attached at the top with non-invasive methods. The location and method should be coordinated by an ecologist and an arboriculturist in order to choose the best combination of providing habitat for a variety of species with connectivity to nearby features, together with safe positioning and attachment in an appropriate location for health and safety reasons. This should be the first consideration for large stems.

Good illustrations of this technique are given in Lonsdale (2013).

)

5.1.2 Limb/feature re-attachment

Deadwood and newly cut limbs can be affixed to living tree branches to provide habitat for saproxylic invertebrates, woodpeckers and bats. This again should be undertaken with ecologist/arboriculturist advice. Good illustrations of this technique are given in Lonsdale (2013).

5.1.3 Deadwood habitat piles

Any stems and branch wood that cannot be utilised as above in *Sections 5.1.1* and *5.1.2* should be retained in appropriate areas as close their origin in as large sections that are possible and compatible with other aspects of land use.

This again provides value habitat for an array of common and rare species.

5.1.4 Propagation from existing trees on site.

Localised genetic diversity in trees could be maintained to a degree if seeds are collected and grown. This will not go any way near to replacing the loss of ecological, environmental, visual and historical benefits the trees provide but will go some way to ensure the local gene make up of trees is preserved. Seed collections should be carried out in the seasons leading up to removal, ideally 2-3 seasons prior to ensure a viable crop is collected. Conditions for growing will need to be carefully monitored and care for the young trees will need to continue for up to the first 15 years to ensure it can survive in its final planting space.



APPENDIX A: TREE DATA

Main Strategic Rail Freight Interchange	9
Junction 15a Site, Northampton	25

							Freight interchange
BS5837	Common name	DBH	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to
Plan Ref.		(mm)					development
No. (1)							
73	English oak	1,270	3990	17	Large dominant specimen of significant age located on the road side within hedgerow. Canopy principally extends over arable field, although also has influence above public highway. Overall, a good example of the species, although retaining significant deadwood throughout.	Locally notable	
74	English oak	680	2137	9	A prominent hedgerow specimen growing within a raised bank descending to drainage ditch. Tree is showing significant foliage decline with only approximately 50% of live foliage remaining. Large sections of dieback and deadwood throughout.	Locally notable	Remove
75	English oak	1,380	4336	15	Large prominent specimen of significant age supporting an expansive canopy that is heavily retrenched. Large branch dieback is being replaced by vigorous internal regrowth of good vigour. Structurally, the lower stem is entirely hollow as viewed from an opening at 1m. Trunk is estimated at 20% of sound structural timber remaining. Oak is renowned for its longevity and ability to sustain such internal cavities. However, for this tree to be retained, it requires a significant amount of remedial work, specifically the removal of deadwood.		Remove
77	Common ash	900	2828	14	A compromised and heavily degraded central stem supports a canopy of modest to good vigour, which is slowly collapsing. Tree has a short life expectancy, which will be pre-empted by catastrophic branch failure in the short term.	Locally notable	Remove
81	Common ash	1,200	3770	15	Originally a coppiced hedgerow specimen having grown above the height of hedge management. Tree now consists of a very large main stem to 4m festooned in ivy. However, small branch division at this height indicates historic catastrophic failure. Although festooned in ivy, it is evident that the lower stem is heavily decayed and sustaining prominent cavities.	Veteran	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
83	Common ash	1,000	3142	16	A very large and prominent hedgerow tree supporting a collapsing canopy borne from a compromised and degrading stem. Evidence of recent canopy collapse and prominent <i>Inonotus</i> principal decay fungal brackets throughout. Rooting architecture to the north including one large buttress stem is heavily degraded.	Veteran	Remove
84	Common ash	870	2734	13	Prominent ash being compromised substructure with decay and structural weaknesses. Historic failed branch retained within the canopy, with further failed branches strewn beneath at ground level. Evidence of regrowth from 3m also based upon points of branch collapse and decay. Overall, a compromised specimen that will collapse in the short term.	Veteran	Remove
85	Common ash	1,310	4116	14	A prominent hedgerow specimen of significant age supporting a degrading and collapsing canopy borne from a hollow central stem. Large cavity at ground level recesses into a central void with the loss of 50% of structural timber.	Veteran	Remove
86	Common ash	1270	3990	12	Remnants of a poor hedgerow specimen having been cut as a high coppice of 1m and been allowed to mature. Poor stem union supporting an expansive canopy of dense vigour, the majority of which are stress shoots. Elongated side branches support considerable weight and co- exist with branch cavities and structural defects, increasing the risk of fracture in the short term.		Remove
87	Common ash	900	2828	10	A degraded stem that has suffered from catastrophic failure at 6m and now supports a compact and regenerated canopy of modest vigour. The central stem still retains a large central fracture from 5m recessing and descending to a height of 2m and terminating in an opening, giving visual access. The central stem is hollow with the loss of structural timber in the region of 40%.		Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
89	Crack willow	900	2828	12	A compromised stream side willow, being twin stemmed from close to ground level with one of the principal stems having failed at the point of division and is now lying alongside the stream. Tree is festooned in ivy to 9m, limiting visual inspection and measurement of principal stems.	Locally notable	Remove
90	Sycamore	920	2891	15	A prominent boundary specimen of good form and modest vigour growing to have influence upon neighbouring horse paddock. Tree is growing well in location, although some internal dead branches are evident.	Locally notable	
96	Crack willow	900	2828	9	A multi-stemmed willow growing from bank of stream that has structurally failed at ground level with three stems falling and lying on ground. These stems have retained physiological attachment and are now regrowing. One stem remains vertical, although it is showing significant canopy dieback and is also at risk of failure. The lower stem is heavily decayed with large cavities.	Veteran	
98	Norway maple	760	2388	14	Prominent hedgerow specimen, being multi-stemmed from 3m and producing an expansive canopy of failing health. Foliage is now only produced to the east with approximately 70% of the canopy standing dead. Tree will soon succumb to early mortality.	Veteran	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
100	English oak	1,500	4713	16	A very prominent and expansive specimen growing within arable field, having historically lost a large proportion of its canopy and substructure. A very large tear out wound at 5m recesses down the single trunk to 2m above ground level. Approximately one third of the canopy has been lost, though this fracture has not compromised the main trunk. In addition, a limb dividing above this fracture has an increased risk of failure, though has partially support below by a limb of considerable size. This supporting limb also contains a delaminated fracture of 2m extending out from the point of division. Significant deadwood is retained within the canopy, as is commonplace for a tree of such size and age.	Veteran	
102	Common ash	630	1979	10	A prominent hedgerow specimen producing a large and expansive canopy that is based upon large structural defects and a hollow trunk at ground level. <i>Inonotus</i> fungal infection located within the main fork at 2.5m and within the southern stem over the field.	Veteran	Remove
103	Common ash	770	2419	15	A prominent specimen located within raised bank descending to stream, having grown to become dominant within its position. Canopy foliage is somewhat reduced in vigour when compared to a healthy specimen. The southernmost prominent stem has six bird excavations within it, indicating that it is decaying and hollow, and therefore at risk of failure due to the amount of weight it supports.	Veteran	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
105	English oak	1,230	3865	17	A large and dominant specimen growing within a field set back from the stream by approximately 15m. Arable farming has navigated around the tree, but has extended to within 4m of the trunk. The tree has grown well with the ground cultivated beneath it. Although a prominent specimen, the tree contains a number of structural defects and evident decay, with one being a prominent tear out wound within the main fork at 6m that has further been excavated by birds. The lower trunk contains two unidentified degraded fungal bodies. However, the presence of fungal bodies has not reduced the category value of the tree.	Veteran	
107	Common ash	780	2451	16	A compromised specimen consisting of a large bell-bottomed trunk that is indicates an internal structural anomaly, possibly decay. However, no invasive inspection was undertaken as part of this survey. Prominent epicormic growth has become established around the base of the tree, measuring up to 100mm in diameter. Canopy also shows significant stress and decline. All the indicators lead to a conclusion that the tree is significantly declining and is possibly structurally compromised, that will lead to branch collapse and possibly and stemfailure.	Veteran	
111	English oak	1,090	3425	17	A very prominent specimen adjacent to main farm track, being a very good example of the species. There is a sunken wet drainage ditch to the east running alongside track, with a high probability that this will have acted as a root barrier to impede root growth in this direction. Overall, an expansive canopy of good form and vigour containing evident deadwood throughout, as is common for the age and species of tree. Prolific ivy to 7m has limited visual inspection of the principal unions.	Locally notable	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
112	English oak	900	2828	9	An old specimen in extensive decline growing within hedgerow and supporting approximately 20% live growth. Majority of canopy has collapsed and large area of cambium dieback within main trunk. The tree is in decline. However, the species is renowned for retaining minimal live growth for many years. Tree could be retained and allowed to slowly decline if necessary.	Veteran	Remove
115	Common ash	750	2357	13	Prominent hedgerow specimen, being multi-stemmed from 4m. All branches radiate around the central stem, which is significantly decayed and hollow with a high risk of failure at 8m. Should failure occur, the tree would lose its entire central section. If retained then a canopy reduction is required.	Veteran	
117	English oak	940	2953	16	A good specimen with a broad canopy and of good form. Historical branch failure at 4m with fractured limb being retained, having folded back on itself and now resting against the trunk. Point of fracture is 1m from the union, therefore this stem is still structurally secure. The failed limb has a prominent cavity and is possibly offering good habitat potential. If tree is to be retained as a signature specimen, its aesthetic value would be improved by the removal of peripheral deadwood and the thinning out of epicormic growth from between principal unions.	Veteran	Remove
118	English oak	950	2985	17	A good prominent specimen within the hedgerow, having grown free from significant defect to produce a canopy of good vigour and appearance. Minor low torn branch at 2m with fracture recessing into the trunk, although it has case hardened and is acceptable into themid-term.	Locally notable	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
119	English oak	900	2828	9	Growing within an arable field with ploughing and ground cultivation occurring 4m from trunk. Tree has withstood ground pressures for many years. Stem and canopy have a weight bias due south. Relatively balanced canopy of good vigour. Multitude of epicormic growth has become established up to a height of 4m, together with some large diameter deadwood, as is common for the age and species of tree. Overall, a good tree.	Locally notable	Remove
121	English oak	980	3079	16	A prominent hedgerow specimen surrounded by hawthorn that has limited accurate measurement of the trunk. Tree has a very good substructure of a single stem supporting a balanced canopy. However, crown is showing apical decline with upper foliage reduced by 40%. This is in contrast with the remaining canopy, which retains full vigour. Tree is possibly in decline, although it may recover.		Remove
123	English oak	1,080	3393	16	A good hedgerow specimen having become dominant within location and producing a balanced canopy of good vigour. Evidence of crown raising to clear arable fields with minor pruning wounds in stem. Significant deadwood throughout, as is common for the age and species oftree. If tree is to be retained as a signature specimen, remove deadwood from the canopy.	Locally notable	Remove
124	English oak	1,000	3142	13	A modest to good hedgerow specimen having grown to become dominant within its location. However, canopy vigour appears relatively stunted with poor annual increment for the last few years. No other structural defects or decay were found during theinspection.	Locally notable	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
125	English oak	720	2262	12	A modest specimen with a canopy showing significant decline and large diameter deadwood and apical dieback. Canopy is unbalanced with large weighted branches extending south. Hawthorn around base of tree has limited access and accurate measurement. Although foliage is reduced to 60% and large diameter dieback is present, oak is renowned for its longevity in such a form.	Veteran	Remove
126	English oak	810	2545	11	Prominent hedgerow specimen with hawthorn beneath having limited access and accurate measurement of the trunk. Canopy shows significant decline and dieback in isolated stems, with two of the principal leaders having been lost. Lateral upswept growth has now replaced internal growth with the canopy starting to rebalance, providing a modest appearance. Although the canopy retains some significant dieback and structural defects, oak is renowned for its longevity in such a form.	Veteran	Remove
127	English oak	920	2891	14	A dominant hedgerow tree with hawthorn around trunk limiting access and accurate measurement. Canopy has a prominent weight bias due south, possibly the result of branches failing to the north. Three prominent stubs remain. The trunk retains integrity with few cavities and little decay. However, the canopy retains significant deadwood with isolated dieback and one large delaminated partially failed branch due south.	Veteran	Remove
128	English oak	1,040	3268	14	Tree of good form growing within hedgerow that has become dominant within its location. Canopy is relatively balanced and of good vigour, although significant deadwood exists within the crown, as is common for the age and species of tree. Overall, tree is free from significant defect.	Locally notable	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
131	English oak	1,030	3236	15	A dominant, open grown specimen within arable field, having grown well within its location. Ploughing and farming operations within 3m of trunkhave not affected canopy vigour. Significant internal deadwood, as is common for the age and species of tree, is currently acceptable within its location.	Locally notable	Remove
132	English oak	1,120	3519	17	A large, dominant hedgerow specimen, being a good example of the species and free from significant defect. Multitude of deadwood within the canopy is common for the age and species of tree.	Locally notable	Remove
134	English oak	1,130	3550	17	A large dominant hedgerow specimen having grown well in its location to produce an expansive canopy of good form and vigour. Large retrenched branches throughout the canopy, as is common for the age and species and are currently acceptable within its arable location.	Veteran	Remove
135	English oak	1,000	3142	12	Hawthorn and elm hedge around base of tree has limited access for accurate stem measurement. Overall, a modest, but compromised specimen having historically suffered from large branch failure at the first principal union at 2m. This has left a large case hardened tear out wound within the trunk measuring 1.5m. The remaining stem and substructure has a lean and weight bias due east and supports a canopy of good vigour and modest form.	Veteran	Remove
136	Common ash	650	2042	11	Growing within hawthorn hedge that has limited access and accurate measurement, tree is twin stemmed from 2.5m with a large open fracture descending to ground level. This fracture has opened by 10cm at the widest point with both stems clefting away. This fracture will lead to the catastrophic failure of the tree in the shortterm.	Veteran	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
141	English oak	1,200	3770	7	Principally, a heavily degraded trunk that has failed at 3m, the remaining hollow trunk supports regrowth of approximately 100mm in diameter. Longevity of this decaying trunk is unknown.	Veteran	Remove
148	English oak	900	2828	14	A good example of the species, being open grown within arable field with ploughing and ground works to within 3m of trunk. Tree has grown accustomed to cultivation works within its root protection area. Overall, balanced canopy of good vigour containing a moderate burden of deadwood, as is common for a tree of this age and species.	Locally notable	Remove
149	English oak	1,110	3488	16	A good example of the species being dominant in its location and growing on the edge of a small pond area. Canopy is balanced and supports good foliage vigour, although a multitude of deadwood is present throughout the canopy, as is common for this age of species.	Locally notable	Remove
176	Common ash	1,200	3770	20	Tree of considerable size. Heavily festooned in ivy to 10m limiting visual inspection of the trunk and principal unions. However, significant indications of historic branch failure seen throughout the canopy. Along with points of fracture and defects, the canopy also contains a significant amount of dysfunction and dead branches, which are an unacceptable hazard over the road.	Veteran	
188	Common ash	560	1760	11	A heavily decayed and degrading main stem. Excavated bird habitat indicating hollow structural timber. Catastrophic failure has occurred at 9m, which now only supports minimal regrowth. The majority of foliage is being produced from a secondary stem dividing at ground level. Overall, a compromised tree at risk of further collapse, although currently supporting good ecological habitat.	Veteran	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
189	Common ash	920	2891	16	Tree showing significant decline and dysfunction within the upper canopy, which is based upon large diameter principal stems. These stems are showing points of decay, hollowed out bird excavations and general dysfunction.	Locally notable	Remove
192	Common ash	650	2042	11	A compromised tree of coppice origin, presumably part of historic hedgerow, although has since regrown with one principal stem. This stem is significantly decayed at 2m and supports the remaining unbalanced and weighted canopy above.		Remove
193	Common ash	980	3079	20	A tree of significant age and size consisting of three large stems dividing at ground level, possibly of coppice origin within hedgerow. All three stems are now co-dominant and support an expansive canopy of good vigour. However, some epicormic stress growth from principal stems is being produced.		Remove
194	English oak	1,160	3645	17	A very large and prominent oak located in an overgrown area within an arable field. This small section of the field has not been cultivated, with a number of oaks being allowed to grow free from farming constraints. Overall, this tree is a good example of the species, but has not received remedial work for many decades. A number of old tear out wounds are present, although they have not compromised thesubstructure.	Veteran	Remove
195	English oak	990	3111	14	A good example of the species growing within an area of ground left for trees within an arable field. Tree has a relatively balanced canopy of good form and vigour, free from significant defect. Tree currently requires no work on health and safety grounds. However, it could become a signature specimen if desired within any future landscape design.	· ·	Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
197	English oak	1,560	4902	16	A tree of significant age and dominance having grown free from competition within arable field. Large substructure supports multiple co- dominant limbs of 900mm in diameter. A significant elongated bark wound extends from ground level to approximately 3m, having removed approximately 10% ofthe cambium and measuring approximately 20cm in width. This wound has case hardened and supports a significant build up of reaction wood either side, with the tree having compensated for this anomaly. Overall, the canopy is of good form, but supports a significant amount of deadwood, which is common for the age of species.	Veteran	Remove
198	English oak	1,050	3299	14	A good open grown field specimen within arable field. Ploughing and drilling operations limited to extent of outer canopy, therefore tree has been allowed to grow free from agricultural conflict. Overall, a good example of the species producing a large, although contorted main stem with character. Significant deadwood throughout the canopy, being a common occurrence for age of species.	Locally notable	Remove
200	English oak	950	2985	12	A good open grown specimen within arable field with crop production extending to canopy dripline. Tree of good form, however one large limb at 6m has failed and is being held by branches below. Fractured limb has retained partial cohesion, therefore branch still retains live foliage. This delaminated fracture is good ecological habitat and may remain for many decades.	Locally notable	
202	English oak	890	2796	8	A partially failed stem having suffered from catastrophic failure of the trunk resulting in 50% of the lower stem clefting. The remaining 50% supports minimal, but good regrowth, although it is a candidate for further failure.	Veteran	

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
203	Horse chestnut	860	2702	14	Canopy in significant decline, having lost approximately 50% of its live foliage. Lower stem is heavily infected by bleeding bark canker. Possible evidence of honey fungus secondary infection within the crevice of necrotic timber, although cannot be definitely determined. One principal stem has failed at 5m.	Veteran	
204	English oak	980	3079	13	A heavily compromised tree with a large hollow trunk from 2m up to a height of 5m, having lost approximately 70% of its internal structure. Large openings also further compromise tree's structural support. Historically, large stem failure occurred at 5m to the north, removing a significant portion of the canopy.	Veteran	
206	Sweet chestnut	2,010	6315	11	A tree of significant age and dominance set back from the roadside, but of significant visual and historical importance. Tree showing significant canopy decline around periphery with a number of principal stems dying back and/or partially fracturing. The tree's current form is a low, but very expansive canopy supporting significant branch end weight, which are at risk of failure. For this tree to be retained in perpetuity, the end weight requires reducing to alleviate pressure upon the union. Evidence of multiple branch failure throughout canopy.	Ancient Veteran	
207	Common lime	1,000	3142	17	Set back from public highway, although of significant visual importance in its location. Tree has grown well within its position. Prolific epicormic growth from ground level has limited visual inspection and access to accurately measure. Dense epicormic growth along the main stem has also impeded visual inspection of the principal unions. Overall, tree of dense foliage production with some minor deadwood within canopy. Overall a modest tree.	Locally notable	

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

							rreignt interchange
BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
208	Common lime	1,270	3990	22	A good example of the species, being of significant size and age and having grown well within location. Canopy is relatively balanced and of good form borne from a single principal stem. Low canopy descends to ground level.	Locally notable	
209	English oak	1,620	5090	20	Tree of significant age and dominance, having grown well within location. Arable farming activities have not occurred beneath the tree. Canopy has suffered from two principal break outs of elongated stems at 4m and 6m, with points of fracture having case hardened and not causing further structural conflict with this tree's substructure. Overall, tree of great magnitude and importance growing close to the village. Currently, low target frequency beneath the tree, therefore prominent deadwood is acceptable and currently provides some ecological habitat benefit. Tree is worthy of becoming a signature specimen.	Veteran	
213	English oak	790	2482	11	Canopy showing significant decline within half the canopy, predominantly caused by one principal stem in significant decline. The second stem dividing from 4m supports vigorous foliage to the north. This clear contrast in canopy results in a tree of mediocre vigour with a high probability of further decline with age.		
214	English oak	1,270	3990	16	A tree of modest form and good appearance having historically suffered from structural failure within one of four principal stems at 7m. This fractured stem has started to produce regrowth of 4m in length and 100mm in diameter, which is beginning to fill the void caused by the fracture. The remaining canopy is of good form with the majority of substructure being to the south. Overall, a good tree recovering from large branch failure.		Remove

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No. (1)	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal due to development
215	Sweet chestnut	2,170	6818	17	Tree of significant age and dominance having suffered from large branch failure within the lower trunk at 2m. This fracture has left a large opening within the trunk and removed the majority of the canopy to the south. Failed limb remains lying on ground. Remaining canopy is therefore weighted to the north and extends for a considerable distance supporting a large amount of end weight and leverage. Although the principal unions appear of good form, this significant end weight may result in catastrophic failure of further important branches, which would greatly compromise the tree.		
216	English oak	1,470	4619	15	A good example of the species producing a balanced canopy of good vigour, however minor branch retrenchment to the north in a small localised area. Overall, a prominent specimen of significant age and dominance within location.	Notable	Remove
218	English oak	960	3016	15	A prominent hedgerow tree with good canopy form, however lower trunk has sustained a large bark injury resulting in an area of necrosis removing approximately 40% of the cambium. This large area of bark dysfunction approximately 2m in height has case hardened and is currently acceptable in location.	Veteran	Remove
224	English oak	580	1822	9	A good open grown specimen within arable field producing a balanced canopy of good form and vigour. Prominent bark wound at ground level measuring 35cm in width, having become case hardened with reaction wood starting to build up around the wound. This wound is currently acceptable and will not compromise the tree in the long term. Overall, a good example of thespecies.	Veteran	

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016) (1) Plan reference corresonds to Midland Tree Surgeons data.

BS5837 Plan Ref. No.	Common name	DBH (mm)	Girth (mm)	Height (m)	General Observations	ATF Classification	Removal or impacts due to development
ТЗ	Common ash	850	2671	22	Ivy/vegetation restricts full assessment. Twin stemmed from base. Large and impressive tree which dominates group.	Locally notable	
T6	Crab apple	380	1194	6	Hedge and ditch restrict measurements and close inspection but crown and foliage appear in good condition.	Locally notable	
Т8	Common ash	980	3079	10	Multi stemmed from base, numerous wounds on stem. Minor deadwood.	Locally notable	Remove
Т9	Common ash	1400	4399	21	Large broad prominent specimen of great age. Long pendulous limbs almost reach ground level. Some small rot holes and minor deadwood but largely in good condition.	Notable	Impact, localised changes in soil water levels likely
T21	Goat willow	690	2168	13	Partially decayed main stem with decay likely extending down into trunk. Well sheltered from prevailing winds by surrounding ash group.	Veteran	
T24	Common ash	880	2765	22	Large dominant tree on woodland edge, Some rot holes not but largely in good condition.	locally notable	
T25	Common ash	780	2451	22	Twin stemmed from around 1.7m, one stem cankered and leaning to north. Owl/bird box fixed to this stem. Good component of woodland which it grows on edge of.	Locally notable	
T27	White willow	850	2671	14	Old willow which has lost north half of crown in past, Excellent habitat. Grows on corner of larger woodland feature which lies to the south.	Veteran	Impact - localised changes in soil water levels likely

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016)
(1) Plan reference corresonds to Midland Tree Surgeons data.

T28	Common ash	840	2639	22	Well formed and dominant field boundary ash. Prominent feature with no significant defects noted.	locally notable	
T30	White willow	850	2671	16	Woodland edge tree, twin stemmed. Relatively obscured from wider public view, part of a larger cohesive woodland group	locally notable	
T31	White willow	990	3111	10	As T30	locally notable	
G22	Ash, willow, sycamore, hawthorn	800 (Average diameter of group trees)			Mature woodland predominantly comprised of ash and willow canopy layer. Positive landscape feature with many mature individuals within this dense group of varying condition. Including trees with veteran features.	Notable - veteran	

^{*} All data extrapolated from Midland Tree Surgeon Ltd Tree Data (April 2016)
(1) Plan reference corresonds to Midland Tree Surgeons data.

APPENDIX B: FIGURES

Figure M1.1 – Ancient, Notable and Veteran Trees

Figure M1.2 – Ancient, Notable and Veteran Trees

