Unit 1 Foundry Yard, New Row
Boroughbridge YO51 9AX
T 01423 322 371
E info@barnesassociates.co.uk
W barnesassociates.co.uk
Company Number 10438116
Registered in England and Wales

Arboricultural Survey Data

Site: Darton Business Park, Barnsley, S75 5QX

On Behalf of: PB Architects

Date of Survey: 03/09/2024

Date: 06/09/2024

Reference: BA24208

DOCUMENT CONTROL

Surveyed by*	Matt Metcalfe			**Report date**	05/09/2024
Prepared by*	Matt Metcalfe				
Reviewed by*	Trevor Grigg				
Revision	A	**Date**	06/09/2024	**Notes:**	
	* Refer to qualifications and experience appendix				

The following survey has been prepared from a visual assessment taken from ground level without any detailed investigation. Observations are based upon the body language of the trees and any visual indicators present at the time of inspection. This survey should be regarded as a preliminary overview; ongoing inspections will be required as specified individually. In most situations, the health, condition and safety of trees should be checked on a cyclic basis, alternating between early and late seasons to ensure a full picture of tree health is established. Inspections should only be carried out by a suitably qualified arborist.

Similarly, numerous potential defects may not be detectable dependent upon the timing of inspection; in particular, wood decay fungi may only produce external fructifications annually (rather than perennially), or may not provide external symptoms until an advanced state is achieved.

Reasonable risk management generally aims to provide a tree that can be regarded stable in normal/foreseeable, regularly experienced storm events i.e. force 10 storms. The level of risk offered by the tree will be significantly greater as the wind speed that the tree is exposed to increases beyond this level. Additionally, the threat from aerial parts, i.e., included unions, may remain even following works, although failures of such parts are likely to be limited to small diameter branches and to periods of extreme weather.

As an arborist, I am a tree specialist and use my knowledge, education, training and experience to examine trees, recommend measures to enhance their beauty and health, and attempt to reduce the risk of living near trees. As a client, you may choose to accept or disregard these recommendations or seek additional advice.

As an arborist I cannot detect every condition that could possibly lead to a tree or limb failure. Trees are living organisms that may fail in many ways, some of which we do not fully understand.

Conditions are often hidden within the tree and below the ground. As arborists, we cannot guarantee that a tree will be healthy or safe under all circumstances or for a specified period of time. Sometimes trees may appear "healthy," but may be structurally unsound. Likewise, remedial treatment, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the Arboricultural perspective, such as property boundaries and ownership, disputes between neighbours, planning issues, sight lines, landlord-tenant matters etc. Arborists cannot take such issues into account unless complete and accurate information is given to them. Likewise, as an arborist I cannot accept any responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measure.

Furthermore, certain trees are borderline cases as to whether they should remain or be removed. If conditions change a tree may need further monitoring in the future to determine its health and structure. Trees can be managed, but they cannot be controlled, and to live near a tree is to accept some degree of risk.

Mathematical abbreviations: > Greater than, < Less than.

Est: This includes any attributes that have been estimated.

Measurements/estimates: Measurements are taken with a tape, clinometer or laser. If dimensions are estimated, this will be indicated within the **Est** column.

Tree number: Numbered Tag attached to each stem, usually on the inside face of the stem at roughly 2.5 metres. Where the number is prefixed by a T, G, H, A, ST, S or W this denotes that the tag refers to a Tree, Group, Hedge, Area, Stump, Shrub or Woodland.

Name: Tree species are detailed by their common name- Latin can be provided upon request.

Age: I record the age as an estimate of the tree's likely span for guidance only, i.e.:

Y	**Young**	Recently established/planted tree.	**M**	**Mature**	The middle one-third of its likely expected lifespan
SM	**Semi Mature**	Fully established and growing with high vigour	**OM**	**Over Mature**	The later one-third of its likely expected life span with sign of canopy retrenchment.
EM	**Early Mature**	The first third of its likely expected lifespan	**V**	**Veteran**	An aged example of the species, typically with defects & conservation value
			A	**Ancient**	Beyond its expected Life span possible of historical interest or in a state of decline

Height: I estimate height to the nearest metre to the mean height.

Crown Height: I estimate height to the nearest half metre to the mean underside of the canopy.

FSB: The height and direction of the First Significant Branch.

Diameter: These figures relate to a measurement of the stem at 1.5m above ground level recorded in millimetres, measured with a rounded-down diameter tape.

Canopy (N S E W): I estimate the distance of the canopy radius to the nearest metre to provide a mean distance of separation between the stem and the outer canopy.

Condition: Is a personal assessment of the tree's growth rate in the current season, in comparison to other trees within the locality, region and an indicator of the tree likely response to site change.

Good	A tree of normal vitality	**Fair**	A tree of lower vitality	**Poor**	A tree of low vitality	**Dead**	A dead or very low vitality tree

Life Expectancy: Is a personal assessment of the trees likely expected remaining safe life span in years, assuming the current site management continues, or the tree is protected from significant environmental change. Trees can enter into serious decline with site changes and likewise, the expected safe life can be significantly improved following changes/improvements to site management and following remedial works.

Category: Assess in line with Table 1 BS5837 – copied below.

Symbol Guide:

BS5837	**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****.*			Red on Plan
Trees to be considered for retention	**1 Mainly arboricultural qualities**	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
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)	Green on Plan
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	Blue on Plan
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	Grey on Plan

NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.

Comments / Observations: General comments referring to tree health, structure and condition.

Management Options: Comments detailing remedial works required to improve immediate safety or improve the management of the tree.

Tree Risk Assessment: At Barnes Associates Ltd, we are experienced in the management of the risks associated with trees and have undertaken training in all of the principal methodologies in commercial use today, including Matheny and Clarke, Quantified Tree Risk Assessment (QTRA), THREATS (Tree Hazard: Risk Evaluation and Treatment System), Tree Risk Assessment Qualification (TRAQ) and VALID Tree Risk-Benefit Management & Assessment.

Having experience in several methods, it was perhaps inevitable that we developed our own system to reflect both the benefits of the other systems and changes in current legislation and court decisions, following continual study and application of tree risk management in the real world across the wide range of environments where trees can be found and in which we find ourselves.

We typically apply our BARMY (Barnes Associates Risk Method (of) Yorkshire) - we are proudly based in Yorkshire and could not resist the inclusion of the 'Y'. We openly admit this is a method based upon the THREATS, methodology. The complete details of THREATS (Tree Hazard: Risk Evaluation and Treatment System) can be found at **https://www.flac.uk.com/wp-content/uploads/2010/07/THREATS-GN-June-2010.pdf**
Firstly, we must thank Julian Forbes-Laird (JFL), for his work and philanthropic approach to developing and gifting this risk assessment methodology to the arboricultural and forestry world, which has been and continues to be used widely.
However, following extended use and seeing several cases go through the legal system, one small element of the THREATS system became increasingly problematic for us; namely, the THREATS system included a 'None Apparent' failure score with a 0 (zero) and a Failure Score that attributed a 0 (zero) to sites with a Target Score of None. This results in a compounding multiplication risk assessment product of 0 (zero) score, as shown in the table below. Following long-term use, this felt increasingly uncomfortable and undefendable as it is difficult for us to conclude that any tree or site offers 'No Risk', unless access is strictly controlled or restricted.

Table 1 – Shows all possible outcomes using THREATS

	Impact Score	1	1	1	1	1	1	4	4	4	4	4	4	6	6	6	6	6	6	10	10	10	10	10	10
		Small <10cm	Small <10cm	Small <10cm	Small <10cm	Small <10cm	Small <10cm	Medium 10-35cm	Medium 10-35cm	Medium 10-35cm	Medium 10-35cm	Medium 10-35cm	Medium 10-35cm	Large 35-75cm	Large 35-75cm	Large 35-75cm	Large 35-75cm	Large 35-75cm	Large 35-75cm	Very Large >75cm	Very Large >75cm	Very Large >75cm	Very Large >75cm	Very Large >75cm	Very Large >75cm
	Target Score	0	7	15	20	25	40	0	7	15	20	25	40	0	7	15	20	25	40	0	7	15	20	25	40
Failure Score		None	Very Low	Low	Medium	High	Very High	None	Very Low	Low	Medium	High	Very High	None	Very Low	Low	Medium	High	Very High	None	Very Low	Low	Medium	High	Very High
0	None Apparent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.8	Potentially with time	0	5.6	12	16	20	32	0	22.4	48	64	80	128	0	33.6	72	96	120	192	0	56	120	160	200	320
2	Likely Foreseeable	0	14	30	40	50	80	0	56	120	160	200	320	0	84	180	240	300	480	0	140	300	400	500	800
8	Probable Soon	0	56	120	160	200	320	0	224	480	640	800	1280	0	336	720	960	1200	1920	0	560	1200	1600	2000	3200
50	Imminent Immediate	0	350	750	1000	1250	2000	0	1400	3000	4000	5000	8000	0	2100	4500	6000	7500	12000	0	3500	7500	10000	12500	20000

We could not knowingly conclude that a site or tree offered no risk, and this led to the development of BARMY to help better reflect our instincts in relation to the small but still present risk offered by trees on sites even when access is very limited. Essentially, we have copied THREATS and to JFL we are eternally thankful for opening the door. However, to better reflect the site we manage and the sites we visit, we have substituted both the descriptors for the 'Target Score' from 'None' to 'Minimal' and the Failure Score from 'None Apparent' to 'Unlikely'. In undertaking these changes, we have adjusted the scores associated with these descriptions as described below and shown in the table below. We have elevated the score from 0 to 0.4 for 'Minimal. This is simply half of THREATS 'Potentially with time' score. Additionally, we have raised the score for None from 0 to 1.5 for 'Minimal'. The results of these small changes are shown in the table below.

Table 2 – Shows all possible outcomes using BARMY

	Impact Score	1	1	1	1	1	1	4	4	4	4	4	4	6	6	6	6	6	6	10	10	10	10	10	10
		Small <10cm	Small <10cm	Small <10cm	Small <10cm	Small <10cm	Small <10cm	Medium 10-35	Medium 10-35	Medium 10-35	Medium 10-35	Medium 10-35	Medium 10-35	Large 35-75	Large 35-75	Large 35-75	Large 35-75	Large 35-75	Large 35-75	Very Large	Very Large	Very Large	Very Large	Very Large	Very Large
	Target Score	1.5	7	15	20	25	40	1.5	7	15	20	25	40	1.5	7	15	20	25	40	1.5	7	15	20	25	40
Failure Score		Minimal	Very Low	Low	Medium	High	Very High	Minimal	Very Low	Low	Medium	High	Very High	Minimal	Very Low	Low	Medium	High	Very High	Minimal	Very Low	Low	Medium	High	Very High
0.4	Unlikely	0.6	2.8	6	8	10	16	2.4	11.2	24	32	40	64	3.6	16.8	36	48	60	96	6	28	60	80	100	160
0.8	Potentially	1.2	5.6	12	16	20	32	4.8	22.4	48	64	80	128	7.2	33.6	72	96	120	192	12	56	120	160	200	320
2`	Likely	3	14	30	40	50	80	12	56	120	160	200	320	18	84	180	240	300	480	30	140	300	400	500	800
8	Probable	12	56	120	160	200	320	48	224	480	640	800	1280	72	336	720	960	1200	1920	120	560	1200	1600	2000	3200
50	Imminent	75	350	750	1000	1250	2000	300	1400	3000	4000	5000	8000	450	2100	4500	6000	7500	12000	750	3500	7500	10000	12500	20000

As can be seen from the table above, no tree now offers a Zero risk, which we would suggest better reflect the sites which we find ourselves assessing for clients. The only significant differences are that Large and Very Large trees with an Imminent failure score now are recorded as offering a Moderate Risk, which after much consideration, sits a little more comfortably with both our teams and clients.
So, whenever we are assessing trees, the BARMY method will be used and has been designed to offer all those who have responsibility for evaluating and managing trees a means of assessing them for risk in a consistent fashion.

BARMY also assists the user in determining the appropriate response to the level of identified risk, and this includes both works and intermediate control measures. The method multiplies three values together to give a threat category which guides the inspector on an appropriate response to the risk posed.

Failure Score: Identified defects in relation to species/clone history, established failure criteria & time of year are considered.

Target Score: Impact radius of identified defect against potential targets (objects or persons liable to be affected by tree defect), forward visibility available to drivers (Poor Forward Visibility / Good Forward Visibility) & whether vehicles are likely to be stationary, e.g., at junctions are all considered. If targets are liable to include unsupervised children &/or the elderly or infirm the score is increased by one category.

Impact Score: Height of fall/momentum & whether e.g., lower branches would impede the agent's descent are considered.

Table 3 – Example of the BARMY calculation method and products

Failure Score	
Likelihood of failure	Score
Imminent	50
Probable/Soon	8
Likely, foreseeable	2
Potentially with time	0.8
Unlikely	0.40

X

Target Score	
Value	Score
Very High	40
High	25
Medium	20
Low	15
Very Low	7
None	1.5

X

Impact Score	
Value	Score
Very Large	10
Large	6
Medium	4
Small	1

=

BARMY - Risk Category		
Score Range	Threat Category	Priority, Recommended action & Completion deadline
4000+	7 – Extreme	Critical - Work to be carried out as soon as practically possible. i.e. <7 days or control access
2001 - 3999	6 – Severe	Urgent – Work to be carried out as soon i.e within 1 month or control access
1000 - 2000	5 – Significant	High – Work to be carried out in the near future i.e. within 3 months or restrict access
330 - 999	4 – Moderate	Moderate - Work to be carried out in the current season i.e. within 6 months or limit access
160 - 329	3 – Slight	Low – Work to be carried out before the next inspection i.e. within 18 months
50 - 159	2 – Minimal	Minor - Works to be carried out If these meet management objectives and if budgets allow
0 - 49	1 – Insignificant	Minor - Works to be carried out If these meet management objectives and if budgets allow

Unless stated otherwise, the risk assessment assumes the risk is offered over the next year.

Rootplate: Is a representation of the area under a tree that is subject to high loading and is important for tree stability. It is calculated by 4 x Diameter of the Trees stem, as detailed by C. Mattheck in 'The Body Language of Trees'.

Minimum RPA (m) – Root Protection Area: Minimum distance in metres of the position of protective fencing in line with section 4.6 of BS5837:2012. In order to avoid damage to the roots or rooting environment of retained trees, an area equivalent to a circle with a radius 12 times the stem diameter.

Tree Protection Zone (TPZ) (m) – This is an additional distance offset of 2m beyond the RPA, to provide space for growth and to act as a buffer to the RPA fence; essentially, this provides construction access, such as a zone for scaffolding.

Root Protection Area (Radius) (m) – RPA given in metres from the centre of the stem.

Root Protection Area (Area) (m^2) – The ideal total area for the RPA given in metres squared.

Buffer Zone – The magenta RPA line offers the minimum root protection area in line with BS5837, the buffer zone offers a 2m zone outside the RPA which should be considered in the project planning phase to include further protection/exclusion to protect potential tree roots and allow future growth'. It also provides access/scaffolding space outside the minimum RPA

Preliminary Arboricultural Assessment - This should not be referred to as a specification of Arboricultural Works

Tree Survey Data BS5837

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T1	Sycamore	M	16	1.5	8	9	8	8	Good	20 or more	B2	350 350 350 400 400	5	Growing as part of a group. Growing on a bank. Located above car park and water. Up to 50% of the dripline is hard-surfaced. Multiple obstacles made inspection very limited or not possible. Multiple stemmed close to ground level. Minor quantities of deadwood can be seen within the canopy. A balanced crown shape. Canopy develops into the parking area. Typical foliage suggests good vitality. Typical foliage density. Good potential and reasonably located.	No works identified	Insignificant	3.32	9.95	311.07
Est Pos,Est DBH,Est Spread	T2	Common Alder	E M	10	2.5	2	2.5	3.5	2	Dead	1 or less	U	250	1	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence car park and water. Multiple obstacles made inspection very limited or not possible. Single stem with a moderate lean. The tree is dead.	Remove the tree.	Moderate	1	3	28.28

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T3	Common Ash	M	16	5	3.5	6	4	3.5	Fair	10 or less	C2	150 250 400	3	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence and water. Up to 40% of the dripline is hard-surfaced. Multiple obstacles made inspection very limited or not possible. Triforked close to ground level. Minor dieback visible. Ash Dieback Class 1 100-75%-Class 2 75-50% canopy remaining. Limited visual inspection of canopy. Unbalanced crown shape. Crown distorted due to group pressure. The canopy has sparse leaf cover.	Increase inspection regime to annual in mid summer.	Minimal	1.98	5.94	110.86

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T4	Common Ash	M	16	5	5	9	11	2	Fair	10 or less	C2	500	1	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence and water. Up to 40% of the dripline is hard-surfaced. Multiple obstacles made inspection very limited or not possible. Triforked close to ground level. Minor dieback visible. Ash Dieback Class 1 100-75%- Class 2 75-50% canopy remaining. Limited visual inspection of canopy. Unbalanced crown shape. High-end loading can be seen on branches. Crown distorted due to group pressure. The canopy has sparse leaf cover.	Increase inspection regime to annual in mid summer. Reduce southern extended limb by 3m.	Minimal	2	6	113.11
Est Pos,Est Group Numbers,Est DBH	G5	Sycamore, Common Ash	E M	12	1.5	4	4	4	4	Good	20 or more	B2	300	1	Growing as part of a group. Growing on a bank. Located adjacent to a security fence, car park and water. Multiple obstacles made inspection very limited or not possible. Ash Dieback Class 1 100-75% canopy remaining. A typical group for the area. Limited signs of management.	Crown lift to 5.2m to enable vehicle access.	Minimal	1.2	3.6	40.72

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T6	Pedunculate Oak	EM	14	1.5	9	9	5	5	Good	20 or more	B2	400	1	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence, car park and water. Multiple obstacles made inspection very limited or not possible. Single stem. Minor quantities of deadwood can be seen within the canopy. Unbalanced crown shape. Crown distorted due to available light. Canopy develops into the parking area. A typical example with reasonable potential.	Remove deadwood to improve safety. Crown lift to 5.2m to enable vehicle access. Remove competing Hawthorn trees from within canopy.	Minimal	1.6	4.8	72.39
Est Pos,Est Spread,Est DBH,Est Group Numbers	G7	Common Alder, Common Hawthorn	EM	14	2	3	3	3	3	Fair	10 or more	C2	250	1	Growing as part of a group. Growing on a bank. Located adjacent to a security fence, car park and water. Multiple obstacles made inspection very limited or not possible. Multiple stemmed close to ground level. Canopy develops into the parking area. A typical group for the area.	Crown lift to 5.2m to enable vehicle access.	Insignificant	1	3	28.28

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T8	Sycamore	E M	16	2	1	5	6	6	Good	20 or more	B2	400	1	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence and water. Multiple obstacles made inspection very limited or not possible. Single stem. Unbalanced crown shape. Crown distorted due to group pressure. Crown distorted due to available light. The tree has a poor form.	Crown lift to 5.2m to enable vehicle access.	Minimal	1.6	4.8	72.39
Est Pos,Est DBH,Est Spread	T9	Sycamore	E M	16	2	1	4	3	6	Good	20 or more	B2	450	1	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence and water. Multiple obstacles made inspection very limited or not possible. Single stem. Unbalanced crown shape. Crown distorted due to group pressure. Crown distorted due to available light. The tree has a poor form.	Treat Ivy to prevent further growth. Crown lift to 5.2m to enable vehicle access.	Minimal	1.8	5.4	91.62

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T10	Sycamore	E M	16	2	5	6	3	6	Good	20 or more	B2	450	1	Growing as part of a group. Growing on a bank. Located adjacent to a metal fence and water. Multiple obstacles made inspection very limited or not possible. Single stem. Unbalanced crown shape. Crown distorted due to group pressure. Crown distorted due to available light. The tree has a poor form.	Treat Ivy to prevent further growth. Crown lift to 5.2m to enable vehicle access.	Minimal	1.8	5.4	91.62
Est Pos,Est DBH,Est Spread	T11	Goat Willow	E M	10	1.8	2	3	5	4	Fair	10 or more	C2	250	1	Located on neighbouring land. Growing as part of a group. Located adjacent to a security fence. Multiple obstacles made inspection very limited or not possible. Single stem. Unbalanced crown shape. Crown distorted due to available light. A poor example of the species with limited potential.	No works identified	Insignificant	1	3	28.28
Est Pos	T12	Common Ash	S M	8	2	1.5	1.5	1.5	1.5	Poor	10 or less	U	100	1	Single stem. A poor example, poorly located with limited potential. A poorly developing tree. Unlikely to survive. Limited safe life. Growing through fence	Remove the tree.	Minimal	0.4	1.2	4.52

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est DBH	T13	Sycamore	E M	14	1	4	2	3	5	Good	20 or more	B2	350	1	Growing as part of a group. Located adjacent to a metal fence. Multiple obstacles made inspection very limited or not possible. Single stem. Unbalanced crown shape. Crown distorted due to group pressure. Canopy develops into the parking area.	Crown lift to 5.2m to enable vehicle access.	Minimal	1.4	4.2	55.42
Est DBH	T14	Sycamore	E M	14	1	2	2	5	5.5	Good	20 or more	B2	350	1	Growing as part of a group. Located adjacent to a metal fence. Multiple obstacles made inspection very limited or not possible. Single stem. Unbalanced crown shape. Crown distorted due to group pressure. Canopy develops into the parking area.	Crown lift to 5.2m to enable vehicle access.	Minimal	1.4	4.2	55.42
Est DBH	T15	Sycamore	E M	14	1	1	3	5	4	Good	20 or more	B2	300 300 100	3	Growing as part of a group. Located adjacent to a metal fence. Multiple obstacles made inspection very limited or not possible. Multiple stemmed close to ground level. Unbalanced crown shape. Crown distorted due to group pressure. Canopy develops into the parking area.	Crown lift to 5.2m to enable vehicle access.	Minimal	1.74	5.23	85.94

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Comments	Recommendations	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	G16	Sycamore, Common Hawthorn, Common Ash, Goat Willow, Elder	E M	12	0	3	3	3	3	Fair	10 or more	C2	200	1	Located on neighbouring land. Growing on a bank. Growing adjacent to railway. Ash Dieback Class 1 100-75% canopy remaining. A typical group for the area. A poorly developing dense group.	No works required.	Insignificant	0.8	2.4	18.1
Est Pos,Est DBH	G17	Sycamore, Common Hawthorn, Elder	S M	5	0	0.5	0.5	0.5	0.5	Fair	10 or more	C3	75	1	Sporadic self seeded and suppressed trees overhanging carpark. Limited value	Crown lift to 5.2m to enable vehicle access.	Minimal	0.3	0.9	2.55

Arboricultural Impact Assessment Data BS5837

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Tree Works to enable the scheme	Arboricultural Impavct and Protection Measures.	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T1	Sycamore	M	16	1.5	8	9	8	8	Good	20 or more	B2	350 350 350 400 400	5	Crown Lift to 5m above the highway to facilitate heavy goods vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 41%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Insignificant	3.32	9.95	311.07
Est Pos,Est DBH,Est	T2	Common Alder	E M	10	2.5	2	2.5	3.5	2	Dead	1 or less	U	250	1	Remove due to safety	Loss of a poor tree.	Moderate	1	3	28.28
Est Pos,Est DBH,Est Spread	T3	Common Ash	M	16	5	3.5	6	4	3.5	Fair	10 or less	C2	150 250 400	3	Crown Lift to 5m above the highway to facilitate heavy goods vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 29%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Minimal	1.98	5.94	110.86
Est Pos,Est DBH,Est Spread	T4	Common Ash	M	16	5	5	9	11	2	Fair	10 or less	C2	500	1	Crown Lift to 5m above the highway to facilitate heavy goods vehicle clearance in line with BS3998:2010 limiting wound size to 50mm Lateral reduction away from structure to facilitate 2.5m clearance.	RPA Infingement of surfacing estimated at 32%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Minimal	2	6	113.11

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Tree Works to enable the scheme	Arboricultural Impavct and Protection Measures.	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est Group	G5	Sycamore, Common Ash	E M	12	1.5	4	4	4	4	Good	20 or more	B2	300	1	Pruning as required to install security fence.	Infringement from fence. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Minimal	1.2	3.6	40.72
Est Pos,Est DBH,Est Spread	T6	Pedunculate Oak	E M	14	1.5	9	9	5	5	Good	20 or more	B2	400	1	Crown Lift to 5m above the highway to facilitate heavy goods vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 26%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone..	Minimal	1.6	4.8	72.39
Est Pos,Est Spread,Est	G7	Common Alder, Common Hawthorn	E M	14	2	3	3	3	3	Fair	10 or more	C2	250	1	Pruning as required to install security fence.	Infringement from fence. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Insignificant	1	3	28.28
Est Pos,Est DBH,Est	T8	Sycamore	E M	16	2	1	5	6	6	Good	20 or more	B2	400	1	None	Infringement from fence. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone	Minimal	1.6	4.8	72.39
Est Pos,Est DBH,Est	T9	Sycamore	E M	16	2	1	4	3	6	Good	20 or more	B2	450	1	None	Infringement from fence. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone	Minimal	1.8	5.4	91.62

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Tree Works to enable the scheme	Arboricultural Impavct and Protection Measures.	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est Pos,Est DBH,Est Spread	T10	Sycamore	E M	16	2	5	6	3	6	Good	20 or more	B2	450	1	None	Infringement from fence. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone	Minimal	1.8	5.4	91.62
Est Pos,Est DBH,Est Spread	T11	Goat Willow	E M	10	1.8	2	3	5	4	Fair	10 or more	C2	250	1	Crown Lift to 5m above the highway to facilitate vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 22%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone..	Insignificant	1	3	28.28
Est Pos	T12	Common Ash	S M	8	2	1.5	1.5	1.5	1.5	Poor	10 or less	U	100	1	Remove due to safety	Loss of a poor tree.	Minimal	0.4	1.2	4.52
Est DBH	T13	Sycamore	E M	14	1	4	2	3	5	Good	20 or more	B2	350	1	Crown Lift to 5m above the highway to facilitate vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 33%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone..	Minimal	1.4	4.2	55.42

Est	Tag No.	Name	Age	Height (m)	Height (m)	North (m)	South (m)	East (m)	West (m)	Condition	Life Exp (Yrs)	BS5837 Category	Diameter (mm)	Stem No.	Tree Works to enable the scheme	Arboricultural Impavct and Protection Measures.	Risk	Rootplate (m)	Root Protection Radius (m)	Root Protection Area (m^2)
Est DBH	T14	Sycamore	E M	14	1	2	2	5	5.5	Good	20 or more	B2	350	1	Crown Lift to 5m above the highway to facilitate vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 36%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone..	Minimal	1.4	4.2	55.42
Est DBH	T15	Sycamore	E M	14	1	1	3	5	4	Good	20 or more	B2	300 300 100	3	Crown Lift to 5m above the highway to facilitate vehicle clearance in line with BS3998:2010 limiting wound size to 50mm	RPA Infingement of surfacing estimated at 37%. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone..	Minimal	1.74	5.23	85.94
Est Pos,Est DBH,Est Spread	G16	Sycamore, Common Hawthorn, Common Ash, Goat Willow, Elder	E M	12	0	3	3	3	3	Fair	10 or more	C2	200	1	Pruning as required to install security fence.	Infringement from fence. Tree Precautionary Zone Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Insignificant	0.8	2.4	18.1
Est Pos,Est DBH	G17	Sycamore, Common Hawthorn, Elder	S M	5	0	0.5	0.5	0.5	0.5	Fair	10 or more	C3	75	1	None	Existing fence to be used as Tree Protection Fencing Construction Exclusion Zone.	Minimal	0.3	0.9	2.55

BARNES associates ltd
SURVEY MANAGE IMPROVE

Tree Diagnostics®

Unit 1 Foundry Yard, New Row
Boroughbridge YO51 9AX
T 01423 322 371
E info@barnesassociates.co.uk
W barnesassociates.co.uk
Company Number 10438116
Registered in England and Wales

TREE SURVEYS

Health & Safety Surveys
Risk Assessments
Homebuyer (Mortgage and Insurance)
Veteran & Venerable Trees
Legal & Law (TPO & Valuations)

ADVANCED ASSESSMENTS

Decay & Defect Scans
Tree Stability Checks
Tree & Plant Health Care
Root Detection & Mapping
Aerial Inspections

PLANNING & DEVELOPMENT

BS5837 Tree Surveys
Impact Assessments
Method Statements
Planning Conditions
CAD Plans (2D & 3D)

LANDSCAPE ARCHITECTURE

Commercial Landscape Design
LVIA (Landscape Visual Impact Assessments)
Landscape Management
Garden Design
Green Infrastructure

AA Registered CONSULTANT trees.org.uk
Arboricultural ASSOCIATION Fellow Member
ISA QUALIFICATIONS TREE RISK ASSESSMENT
VALID Tree Risk-Benefit Validator
Chartered Institute of Horticulture
QTRA Licensed User
BALI REGISTERED
Landscape Institute Registered Practice