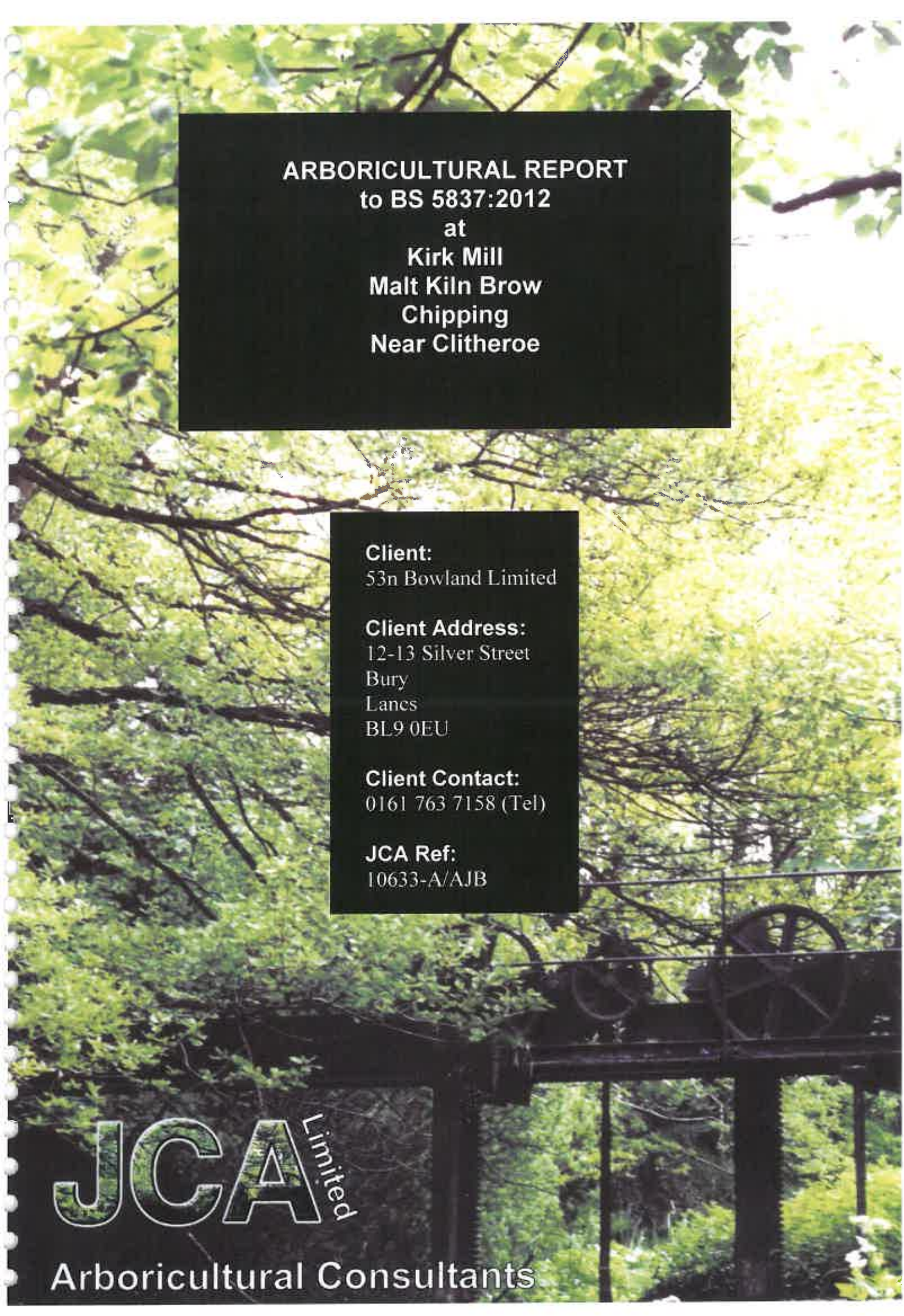

ARBORICULTURAL REPORT
to BS 5837:2012
at
Kirk Mill
Malt Kiln Brow
Chipping
Near Clitheroe

Client:
53n Bowland Limited

Client Address:
12-13 Silver Street
Bury
Lancs
BL9 0EU

Client Contact:
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JCA Ref:
10633-A/AJB

JCA Limited

Arboricultural Consultants

1. Introduction

1.1 Purpose of the Report

1.1.1 A report is required at **Kirk Mill, Malt Kiln Brow, Chipping**, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Terms of Reference

1.2.1 I am instructed by **Crowther Turnbull Booth**, to visit the site and prepare my findings in a report.

1.2.2 For this purpose I have been supplied with a topographical survey, Drawing No. **12624-108-2_2DT Rev-A**.

1.3 Scope of the Report

1.3.1 This report is compiled in accordance with *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.*

1.3.2 Preliminary recommendations are given with a view to the long-term management of a sustainable tree cover.

1.3.3 All trees within the site boundary with a stem diameter above 75mm are included.

1.3.4 Where applicable trees outside the site boundary, but close enough to be affected by the proposed development, are included.

1.3.5 The specific design of any proposed development is not generally taken into account at this stage.

1.4 Survey Details

1.4.1 The surveying of **T1** to **G72** within this report took place during the month of May 2012. The surveying of **T73** to **T89** within this report took place during the month of July 2013.

1.4.2 Both surveys were conducted by Andrew Bussey.

1.4.3 Inspection was made at ground level. Further investigation, such as climbed inspections or decay detection surveys, may be recommended where appropriate.

1.4.4 Measurements were obtained using clinometers, specialist tapes and electronic distometers. Where this was not possible measurements were estimated.

2. Site Description

2.1 Land Use

2.1.1 The site is currently occupied by arable land, residential housing and Kirk Mill which is currently disused.

2.2 Topography

2.2.1 The site covers a large area and has many undulations in ground level.

2.3 Treescape

2.3.1 The trees on this site have a significant impact on the local treescape and contribute well to their surroundings and local features, such as open arable land, waterside areas, industrial and rural plantations and private gardens.

2.4 Visual Amenity Value

2.4.1 The trees on site collectively provide an excellent visual amenity to the surrounding area

2.5 Age Class Mix

2.5.1 The trees surveyed ranged in age from young to over-mature.

2.6 Species Diversity

2.6.1 Species surveyed include Sycamore, Ash, Lombardy Poplar, Hawthorn, Cherry, Alder, Field Maple, Beech, Holly, Silver Birch, Elm, Hazel, Rowan, Goat Willow, Norway Maple, Norway Spruce, Yew, Horse Chestnut, Oak, Scots Pine, Apple, Lime, Aspen, Copper Beech and Elder.

3. Status of the Trees

3.1 A check was made on 27th April 2012 with: ***Ribble Valley Borough Council.***

3.2 However, we are still awaiting the results of this investigation at this time. We will therefore continue to pursue this matter and will inform you of the results as soon as we receive these.

3.3 In the meantime, we advise against undertaking any works until the protective status of the trees has been confirmed.

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**, a full explanation of the tables can be found at **Appendix 2.** Please refer also to the Tree Constraints Plan at **Appendix 6** for tree locations.

5. Discussion

5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of 89 items of vegetation (64 individual trees and 25 groups of trees). Of these, 8 trees and 5 groups were identified as retention category 'A', 24 trees and 8 groups were identified as retention category 'B', 25 trees and 10 groups were identified as retention category 'C' and 7 trees and 2 groups were identified as retention category 'U'. Please refer to **Appendix 2** for retention category and definition criteria.

5.1.2 **T1, T15, T23, G35, T50, T51, G66, T87** and **T88** were identified as retention category 'U'. These trees require removal for arboricultural reasons regardless of any on site development, detailed below:

- **T1** and **T23** are considered to be unsafe and should be removed as soon as it is reasonably practicable; their removal is of **high priority**.
- **T15, G35, T50, T51, G66, T87** and **T88** have been recommended for removal to prevent them from becoming dangerous trees or in order to benefit adjacent trees; their removal is of a **lower priority**.

5.1.3 Tree pruning works are recommended for reasons of public safety or to ensure the long-term health of the trees, as detailed at **Appendix 1**. The recommended work should be carried out as a matter of **low to moderate priority.**

5.1.4 Where a full detailed inspection of trees was inhibited by restricted access or by the presence of Ivey or understorey vegetation, as detailed at **Appendix 1**, it is advised that these trees be re-inspected for any possible defects when the Ivy or understorey vegetation has been removed or when access has been made available.

5.1.5 Many trees were noted to have structural or physiological defects, as detailed at Appendix 1. Although these trees were considered to be in an acceptable condition at the time of the inspection, the defects observed may lead to their early demise or render them unsafe in the future. As such, it is recommended that these trees be monitored (re-inspected) on an annual basis to assess if their condition is still acceptable.

5.1.6 Those trees which overhang the public footpaths or public highways, detailed at **Appendix 1**, shall require future maintenance in order to maintain clearance heights for vehicular or pedestrian traffic. These heights should be 5.6m above a road and 2.5m above a footpath.

5.2 Potential Arboricultural Implications & Design Advice

5.2.1 The details of the proposed development are not known at present. However, the following comments can be made about the site in terms of its tree cover in relation to a potential development.

5.2.2 During development the part of the tree most commonly under threat, and most commonly ignored, is the rooting system. When trees are damaged, particularly the roots, their long-term health and stability can be affected. Most development activity can have an impact on the future condition and safety of a tree, and therefore careful planning and management of tree protection should ensure a continued sustainable tree cover with minimal stress to existing trees.

5.2.3 There are a number of high quality trees within this site. They will enhance any proposed development and care should be taken at the design stage to ensure that these trees are retained.

5.2.4 In order to ensure that the retained trees on site are properly protected during the development phase, the tree rooting zones are to be considered. For the purpose of development the rooting zone of the tree is known as the Root Protection Area or RPA. The RPA of each tree or group is marked on the Tree Constraints Plan at **Appendix 6** and represents the rooting zone which, where possible, should remain undisturbed. The protection of retained trees can therefore be achieved by creating a **Construction Exclusion Zone (CEZ)** based on the RPAs.

5.2.5 Damage caused by any construction activity such as demolition, soil stripping, and provision of services needs to be considered at the design stage. Care should be taken to avoid damage to tree roots when existing structures such as tarmac surfaces are removed within a RPA.

5.2.6 The laying of access roads, driveways, parking areas or any other hard surfaces planned in proximity to retained trees needs to be considered. There are many solutions available to construct hard surfaces over RPAs without causing damage to trees.

5.2.7 Boundary walls or other light structures can be constructed without damage to roots through the use of piled foundations rather than the more traditional strip foundations.

5.2.8 The location of drainage and utilities within the RPA can be achieved if need be, using special techniques and supervision.

5.2.9 The position of the site compound is a major consideration. It is recommended that this, which typically includes the site office, facilities, toilets, storage of materials and parking, is located away from trees and outside the RPA.

5.2.10 Consideration must be given to movement of both vehicle and pedestrian traffic. If possible traffic should be diverted away from the RPAs. If this is not possible a range of temporary surfaces are available to distribute the weight of traffic and allow the roots to receive moisture and air.

5.2.11 Generally, the alteration of ground levels within the RPA is not acceptable, however, should ground levels need to be lowered in areas adjacent to trees or within the minimum distance recommended, appropriate measures should be taken to minimise the detrimental effects on the trees and their root systems. With regards to raising levels, it is necessary to maintain adequate supplies of moisture and oxygen through the soil to the tree roots. Therefore, no material should be placed within the RPA without arboricultural advice.

5.2.12 The shade that will be cast by the retained trees must also be considered. Where buildings are to be positioned within the shade cast area of trees, these should be designed in order to maximise light levels. If required, JCA can provide a shade cast prediction plan.

5.2.13 Many development sites contain areas of nature conservation interest. Trees and hedgerows, in particular, provide an important habitat for birds, bats, invertebrates and fungi and appropriate attention needs to be paid to preserving habitats throughout the development process. JCA can provide ecological and bat surveys where required.

5.2.14 Where a landscape planting scheme is proposed, consideration must be made at the planning stage as to where this is to be implemented on site. Such locations should be protected in order to prevent soil compaction and/or contamination and should therefore form part of the Construction Exclusion Zone. JCA can provide Tree Planting Schemes where required.

6. Conclusions

6.1 The trees surveyed were generally found to be in good or fair condition.

6.2 **T1, T15, T23, G35, T50, T51, G66, T87** and **T88** have been recommended for removal for arboricultural reasons. These are discussed in **Section 5** and detailed at **Appendix 1**.

6.3 Some works were recommended for reasons of public safety and to ensure the long term health of the trees. These are summarised in **Section 5** and detailed at **Appendix 1**.

6.4 Many trees were noted to have structural or physiological defects and should be monitored on an annual basis to assess if their condition is still acceptable.

6.5 All development work carried out in close proximity to trees should be done so in a manner sympathetic to their needs. Otherwise the condition of the trees may deteriorate in the months and years following the development, leading to a loss of amenity and potentially hazardous trees.

6.6 Care should be taken at the design stage to ensure that the retained trees are protected. The protection of retained trees can be achieved by the creation of a Construction Exclusion Zone based on the Root Protection Area of a tree. The Root Protection Area of each tree or group is marked on the Tree Constraints Plan at **Appendix 6**.

6.7 The proposed development should be accompanied by an Arboricultural Method Statement (AMS) detailing the specific protection measures necessary for each tree. This should specify fencing standards and positions (the creation of the Construction Exclusion Zone), acceptable construction techniques and necessary tree works.

6.8 Upon instruction JCA Limited are able to provide a comprehensive Arboricultural Method Statement in order to ensure the continued health of trees throughout the proposed development. We are also able to provide tree planting schemes and organise tree works.

Appendices

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 1	Over mature Ash *Fraxinus excelsior*	17	3	3 S	84 #	11 # 11 # 11 # 11 #	Multi-stemmed at 5m with a balanced crown which overhangs the car park. Occasional pruning wounds. Massive hollow with severe decay noted.	Remove.	FAIR	POOR	MOD	<10	U
G 2	Semi-mature to early-mature Mixed *Mixed*	11	0 +	\ n/a	To 43	See plan	Group of trees of reasonable form. Species include Hawthorn, Field Maple, Elder, Elm and Ash. Decay cavities, deadwood and bark scars noted.	Monitor annually.	GOOD	GOOD	MOD	20-40	B
T 3	Early-mature Sycamore *Acer pseudoplatanus*	16	5	5 S	53	4 4 4.5 4.5	Twin-stemmed at 1m with a balanced crown. Occasional pruning wounds. Bark scar with decay noted at 1.5m.	Monitor annually.	GOOD	FAIR	MOD	20-40	C
T 4	Early-mature Ash *Fraxinus excelsior*	15	6	4 S	44	5.5 5 4 6.2	Single stemmed and leaning with a balanced crown. Occasional pruning wounds yet no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
G 5	Young to mature Mixed *Mixed*	To 18	0 +	\ n/a	To 80	See plan	Group of trees on and beyond the boundary line of good value - defects were noted though. Species include Hawthorn, Ash, Goat Willow, Beech, Sycamore, Holly and Oak. Not fully inspected due to vegetation.	No action required.	GOOD	GOOD	MOD	40+	A
T 6	Young Ash *Fraxinus excelsior*	11	3	3 S	13	2.5 2 1 2.5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
G 7	Semi-mature Mixed *Mixed*	To 11	0 +	\ n/a	To 20	See plan	Three trees of reasonable form with no major visible defects. Species include Ash, Hawthorn and Holly.	No action required.	GOOD	GOOD	LOW	20-40	C
T 8	Mature Ash *Fraxinus excelsior*	13	3	3 N	65 #	6 5.2 4.5 6.2	Multi-stemmed at 4m with a balanced crown. Occasional pruning wounds due to crown lifting. Decay cavities and deadwood noted.	Monitor annually.	GOOD	FAIR	MOD	20-40	B
T 9	Early-mature Lombardy Poplar *Populus nigra 'Italica'*	14	8	8 N	26	4 4 3 1.8	Single stemmed and vertical with an unbalanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 10	Mature Sycamore *Acer pseudoplatanus*	14	1	1 S	90 # at base	6.5 6.5 6 6.5	Twin-stemmed at 0.5m with a balanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects.	No action required.	GOOD	GOOD	MOD	20-40	B

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 11	Mature Lombardy Poplar *Populus nigra 'Italica'*	19	4	4 N	49	5 / 5 5 / 5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
T 12	Mature Alder *Alnus sp.*	12	3	3 E	35 #	4 / 4.2 5.1 / 3	Twin-stemmed at 3m with a balanced crown which overhangs the road. Occasional pruning wounds yet no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
G 13	Early-mature to mature Lombardy Poplar *Populus nigra 'Italica'*	To 19	2 +	\ n/a	To 65	See plan	Row of trees which are all single stemmed and vertical with balanced crowns. Occasional pruning wounds yet no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
G 14	Semi-mature Ash *Fraxinus excelsior*	To 12	0 +	\ n/a	To 18	See plan	Group of trees of poor form yet no major visible defects. The crowns overhang the road.	No action required.	GOOD	GOOD	LOW	20-40	C
T 15	Semi-mature Sycamore *Acer pseudoplatanus*	13	4	4 E	25 #	4.5 / 4 5 / 4	Single stemmed and vertical with a balanced crown which overhangs the road. Poor form as it is suppressed by **T16**. Limited inspection due to vegetation.	Remove.	GOOD	POOR	LOW	<10	U
T 16	Semi-mature to mature Ash *Fraxinus excelsior*	16	4	4 S	72 #	6 / 6 7 / 7.5	Single stemmed and vertical with a balanced crown which overhangs the road. Occasional pruning wounds yet no major visible defects. Ivy prevented detailed inspection.	Remove Ivy and inspect stem for defects.	GOOD	GOOD	MOD	20-40	B
T 17	Over mature Ash *Fraxinus excelsior*	20	5	5 E	95 #	9 / 9 9 / 9	Single stemmed and vertical with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Deadwood noted. Limited inspection due to vegetation.	Deadwood.	GOOD	GOOD	MOD	40+	A
T 18	Over mature Ash *Fraxinus excelsior*	21 #	5 #	\ n/a	100 #	12 # / 12 # 12 # / 12 #	Estimated to be multi-stemmed at 4m with a balanced crown. No evidence of significant pruning. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	B
T 19	Mature Ash *Fraxinus excelsior*	13	0.5	0.5 E	44	5 / 5 6 / 4	Single stemmed and leaning with a balanced crown. Occasional pruning wounds due to crown lifting yet no major visible defects.	No action required.	GOOD	GOOD	MOD	20-40	B
T 20	Mature Sycamore *Acer pseudoplatanus*	16	3	1.5 E	49	6 / 6 6 / 6	Single stemmed and vertical with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	B

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G 21	Young Mixed *Mixed*	To 10 #	0 +	\ n/a	To 12	See plan	Dense plantation containing Silver Birch, Ash, Goat Willow, Rowan, Cherry, Oak, Hazel and Alder.	No action required.	GOOD	GOOD	MOD	40+	B
G 22	Young to mature Mixed *Mixed*	To 18	0 +	\ n/a	To 70 #	See plan	Dense woodland group with crowns which overhang the road in places. Species include Ash, Sycamore, Goat Willow, Hawthorn, Elm, Norway Maple and Alder. Deadwood, dead stems, decay cavities and bark scars noted.	Deadwood and monitor annually.	GOOD	GOOD	HIGH	40+	A
T 23	Mature Alder *Alnus sp.*	16	11	\ n/a	55 #	5 # 5 # 5 # 5 #	Single stemmed and leaning with an unbalanced crown which overhangs the footpath. Severe decay noted to hollow stem.	Remove.	POOR	POOR	LOW	<10	U
T 24	Young Silver Birch *Betula pendula*	4.5	6.5	\ n/a	7	2 1 2 2	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 25	Young Silver Birch *Betula pendula*	9	0.5	\ n/a	8	2.5 2.5 2.5 2.5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 26	Semi-mature Norway Spruce *Picea abies*	13	1	1 E	25 #	2.8 1.5 3 2.5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 27	Semi-mature Norway Spruce *Picea abies*	13	1	1 E	18 #	2.5 1.5 3 1	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 28	Early-mature Norway Spruce *Picea abies*	16	2	2 E	35 #	3.2 3.2 3.2 3.2	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	20-40	C
T 29	Early-mature Ash *Fraxinus excelsior*	15	3	3 E	34	5 5 5 5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 30	Early-mature Goat Willow *Salix caprea*	14	0	\ n/a	28 #	3 3 3 2.5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 31	Early-mature Yew *Taxus baccata*	13	0	\ n/a	35 #	3.5 3.5 3.5 3.5	Multi-stemmed at 1m with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
T 32	Semi-mature Goat Willow *Salix caprea*	12	4	4 E	18	2.8 3 3 3	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 33	Semi-mature Yew *Taxus baccata*	7	1.5	1.5 N	17	3 3 3 1.3	Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 34	Early-mature Yew *Taxus baccata*	13	2	2 W	51 at base	3.5 4 4.8 4	Multi-stemmed at 1m with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	40+	B
G 35	Over mature Horse Chestnut *Aesculus hippocastanum*	To 18	0 +	\ n/a	To 100	See plan	Three trees each with moderate to severe Bleeding Canker of Horse Chestnut. Large bark scars and crown dieback noted on all specimens.	Remove.	POOR	POOR	MOD	<10	U
T 36	Early-mature Norway Spruce *Picea abies*	18	4	4 S	39	2.5 3 3.4 5.5	Single stemmed and leaning with an unbalanced crown. No evidence of significant pruning and no major visible defects. Ivy prevented detailed inspection	Remove ivy and inspect stem for defects.	GOOD	GOOD	LOW	20-40	B
T 37	Mature Sycamore *Acer pseudoplatanus*	16	4	3 S	50 # at base	7 7 6 4	Multi-stemmed at ground level with an unbalanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
G 38	Mature Mixed *Mixed*	To 20	0 +	\ n/a	To 90	See plan	Group of trees situated in a private garden. Limited inspection due to access. Species include Scots Pine, Beech, Yew, Cherry and Apple. No major visible defects observed.	No action required.	GOOD	GOOD	MOD	40+	A
T 39	Over mature Beech *Fagus sylvatica*	23	0	\ n/a	90 #	12 # 12 # 12 # 12 #	Estimated to be single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	40+	A
T 40	Early-mature Alder *Alnus sp.*	13	1.5	1.5 W	45 # at base	3 5 1 4.5	Multi-stemmed at ground level with an unbalanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 41	Mature Ash *Fraxinus excelsior*	17	1	1 S	54	6 6 6 7	Multi-stemmed at 4m with a balanced crown. No evidence of significant pruning and no major visible defects. Deadwood noted.	Deadwood.	GOOD	GOOD	LOW	40+	B
T 42	Over mature Ash *Fraxinus excelsior*	24	1	1 S	65 #	9 # 9 # 9 # 9 #	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Ivy and access prevented detailed inspection.	Remove Ivy and inspect stem for defects.	GOOD	GOOD	MOD	20-40	B
G 43	Young to over mature Mixed *Mixed*	To 20	0 +	\ n/a	To 65	See plan	Group of trees of reasonable form. Species include Sycamore, Ash and Hawthorn. Limited inspection due to access and vegetation yet no major visible defects observed.	No action required.	GOOD	GOOD	MOD	40+	B
T 44	Semi-mature Oak *Quercus robur*	7	3	\ n/a	18	3 3 3 3	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	40+	C
T 45	Mature Sycamore *Acer pseudoplatanus*	18	3	\ n/a	To 72	7 7 7 7	Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	A
T 46	Mature Lime *Tilia sp.*	18	1	\ n/a	82 #	8 8 8 8	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	A
T 47	Mature Sycamore *Acer pseudoplatanus*	17	2	\ n/a	65 #	7 # 7 # 7 # 7 #	Twin-stemmed at 2m with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	MOD	40+	B
T 48	Early-mature Ash *Fraxinus excelsior*	17	3	3 W	50 #	7 # 7 # 7 # 7 #	Twin-stemmed at 2m with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Deadwood noted.	Deadwood.	GOOD	GOOD	MOD	20-40	B
T 49	Semi-mature Ash *Fraxinus excelsior*	13	4	4 E	To 20	3 0 6 4	Single stemmed and leaning with an unbalanced crown which overhangs the road. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 50	Early-mature *N A*	7	/	\ n/a	40 #	/	Dead stem.	Remove.	DEAD	DEAD	DEAD	<10	U

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 51	Semi-mature Ash *Fraxinus excelsior*	10	1	1 E	21	3.5 4.1 3 3	Single stemmed and leaning with a balanced crown. No evidence of significant pruning. No evidence of significant pruning. Tree is growing out of retaining wall.	Remove.	FAIR	FAIR	LOW	<10	U
T 52	Early-mature Oak *Quercus robur*	13	1	1 E	43	5 6 6 5	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	40+	C
G 53	Semi-mature Ash & Elm *Fraxinus excelsior & Ulmus sp.*	To 10	0 +	\ n/a	To 16	See plan	Self seeded trees of poor form yet no major visible defects.	No action required.	GOOD	POOR	LOW	10-20	C
G 54	Semi-mature to mature Alder *Alnus sp.*	To 18	0 +	\ n/a	To 55	See plan	Very attractive group of waterside trees with no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	40+	A
G 55	Young Mixed *Mixed*	To 12	0 +	\ n/a	To 13	See plan	Single stemmed trees of low value yet with no major visible defects. Species include Sycamore, Goat Willow, Ash and Silver Birch.	No action required.	GOOD	GOOD	LOW	20-40	C
G 56	Semi-mature to early-mature Hawthorn *Crataegus monogyna*	To 8	0 +	\ n/a	To 30	See plan	Group of overgrown hedgerow trees with no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
G 57	Semi-mature Alder *Alnus sp.*	To 11	0 +	\ n/a	To 20	See plan	Waterside trees of reasonable form. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 58	Early-mature Alder *Alnus sp.*	13	0	\ n/a	30 #	4 4.5 1 2	Single stemmed and leaning with an unbalanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	LOW	20-40	C
T 59	Mature Ash *Fraxinus excelsior*	14	0	\ n/a	45 #	4.5 6 3 4.5	Multi-stemmed at 3m with a balanced crown. No evidence of significant pruning and no major visible defects. Deadwood and decay cavities noted. Limited inspection due to access.	Monitor annually.	GOOD	GOOD	LOW	20-40	C
G 60	Young to mature Mixed *Mixed*	To 18	0 +	\ n/a	To 70 #	See plan	Dense woodland group with crowns which overhang the road in places. Species include Ash, Sycamore, Goat Willow, Hawthorn, Elm, Norway Maple and Alder. Deadwood, dead stems, decay cavities and bark scars noted. Limited inspection due access.	Deadwood and monitor annually.	GOOD	GOOD	HIGH	40+	A

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
G 61	Young to semi-mature Cherry & Aspen *Prunus sp & Populus tremula*	To 13	0 +	\ n/a	To 24	See plan	Planted trees of reasonable form with no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	C
T 62	Mature Sycamore *Acer pseudoplatanus*	15	2	\ n/a	52	6.3 6.3 6.3 6.3	Single stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects.	No action required.	GOOD	GOOD	LOW	20-40	B
G 63	Young to early-mature Mixed *Mixed*	To 14	0 +	\ n/a	To 50	See plan	Group of mixed planted trees of good quality and with good screening potential. Species include Cherry, Hawthorn, Ash, Rowan, Sycamore, Oak and Silver Birch. Limited inspection due to vegetation.	No action required.	GOOD	GOOD	MOD	20-40	B
G 64	Young to semi-mature Mixed *Mixed*	To 13	0 +	\ n/a	To 30	See plan	Riverside trees of low value yet with no major visible defects. Species include Alder, Elm, Goat Willow and Elder.	No action required.	GOOD	GOOD	LOW	20-40	C
G 65	Young to mature Mixed *Mixed*	To 17	0 +	\ n/a	To 45	See plan	Group of attractive riverside trees of good value with crowns which overhang the road. Species include Sycamore, Copper Beech, Elm and Willow. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
G 66	Young to early-mature Mixed *Mixed*	To 15	0 +	\ n/a	To 30	See plan	Group of riverside trees growing against and from the retaining wall. Species include Alder, Cherry, Sycamore and Elm. Phytophthora noted within the group.	Remove.	FAIR	POOR	LOW	<10	U
T 67	Mature Alder *Alnus sp.*	17	4	4 W	62 #	5 # 6 # 6 # 6 #	Waterside tree which is single stemmed and vertical with a balanced crown which overhangs the road. No evidence of significant pruning and no major visible defects. Limited inspection due to waterside location.	No action required.	GOOD	GOOD	MOD	20-40	B
T 68	Mature Sycamore *Acer pseudoplatanus*	17	0	\ n/a	To 50 #	5 8 4 5	Waterside tree which is twin-stemmed at ground level with a balanced crown which overhangs the road. No evidence of significant pruning. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
T 69	Early-mature Alder *Alnus sp.*	15	3	3 n/a	To 40 #	6 6 4 3	Waterside tree which is multi-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
G 70	Young to semi-mature Mixed *Mixed*	To 12	0 +	\ n/a	To 20	See plan	Single stemmed trees of low value. Species include Alder, Sycamore, Elm and Ash.	No action required.	GOOD	GOOD	LOW	20-40	C

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 71	Mature Ash *Fraxinus excelsior*	14	4	\ n/a	48 #	6 # 6 # 6 # 6 #	Twin-stemmed at 2m with a balanced crown which overhangs the road. Multiple pruning wounds due to crown lifting yet no major visible defects. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
G 72	Young to mature Mixed *Mixed*	To 17	0+	\ n/a	To 70 #	See plan	Waterside trees forming woodland group. Species include Ash, Sycamore and Hawthorn. Limited inspection due to access.	No action required.	GOOD	GOOD	MOD	20-40	B
T 73	Early-mature Sycamore *Acer pseudoplatanus*	6	0	0 n/a	29 #	3.5 # 4 # 3.5 # 3 #	Growing on the top of waterside retaining wall. Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	MOD	20-40	C
T 74	Semi-mature Crack Willow *Salix fragilis*	6	0	0 n/a	34#	3 3.2 5 # 4 #	Growing on the top of waterside retaining wall. Twin-stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Minor deadwood. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	MOD	20-40	C
T 75	Semi-mature Common Ash *Fraxinus excelsior*	7	3	3 n/a	17	3 # 3 # 3 # 3 #	Growing on the top of waterside retaining wall. Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	LOW	10-20	C
T 76	Early-mature Hawthorn *Crataegus monogyna*	4.8	0.5	0.5 n/a	35 #	4.3 3 # 4.2 3.3	Growing on the top of waterside retaining wall. Multiple stemmed at ground level with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to riverside location.	No action required.	GOOD	GOOD	LOW	20-40	C
T 77	Over-mature Common Alder *Alnus Glutinosa*	5.8	2	2 n/a	62	5# 4.3 4.3 4.3	Multiple stemmed at 3 metres with a balanced crown. No evidence of significant pruning. Significant decay cavities to lower stem. The main stem has snapped out at 3m and has large decay cavity at this point. The defects noted present a good ecological value.	Monitor annually.	GOOD	POOR	LOW	20-40	B
T 78	Over-mature Common Alder *Alnus Glutinosa*	13	2	2 n/a	76	6 6 6 5.1	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Slight dieback to upper crown. Slight decay noted to buttress to south. 2 decay cavities noted at 3.5m.	Deadwood. Monitor annually.	FAIR	FAIR	LOW	20-40	B
T 79	Early-mature Common Alder *Alnus Glutinosa*	4.8	1.5	1.5 n/a	36	3# 2.6 3# 3#'	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Large vertical decayed hollow to main stem from base to 2.5 metres. The defect noted presents a good ecological value.	Monitor annually.	GOOD	POOR	LOW	20-40	C
G 80	Semi-mature to mature Hawthorn and Alder *Crataegus monogyna and Alnus sp.*	To 6.5	0	0 n/a	To	See plan	Overgrown hedgerow with intermittent individual trees of good form and good ecological value. No major visible defects. Limited inspection due to barbed wire fence and vegetation.	No action required.	GOOD	GOOD	LOW	10-20	B

Tree Ref	Age Species *Latin Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations	Physiological Condition	Structual Condition	Amenity Value	Life Expectancy (yrs)	Retention Category
T 81	Over-mature Common Alder *Alnus Glutinosa*	6	2	0.5 N	55#	4.8 4.8 5# 4.8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Decay at base leads to hollow stem. Severe decay leads to an additional hollow stem at 2.8m. The defects noted present a good ecological value. Limited inspection due to barbed wire fence.	Monitor annually.	GOOD	GOOD	LOW	10-20	C
T 82	Over-mature Common Alder *Alnus Glutinosa*	9	2.8	1 NE	68#	5.5# 5.6 6# 6#	Twin-stemmed at 5m with a balanced crown. No evidence of significant pruning. Two decay cavities noted at 1.8m. Limited inspection due to barbed wire fence.	Monitor annually.	GOOD	GOOD	LOW	20-40	A
T 83	Mature Common Alder *Alnus Glutinosa*	8.5	2.2	1 S	49#	6# 6.4 6# 6.9	Single-stemmed with a slight lean and a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to barbed wire fence.	No action required.	GOOD	GOOD	LOW	40+	B
T 84	Over-mature Common Alder *Alnus Glutinosa*	15	3	1.5 S	100#	6# 7.1 9# 6.8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Limited inspection due to barbed wire fence and vegetation.	No action required	GOOD	GOOD	LOW	40+	A
T 85	Over-mature Sycamore *Acer pseudoplatanus*	19	2	2 n/a	115#	11# 7.5# 9# 8	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning and no major visible defects. Minor deadwood. Limited inspection due to barbed wire fence.	Deadwood.	GOOD	GOOD	MOD	40+	A
G 86	Semi-mature Elder, Hawthorn *Sambucus nigra, Crataegus monogyna*	To 4	1	1 n/a	To 13	See plan	2 trees of low value, no major visible defects.	No action required.	GOOD	GOOD	LOW	10-20	C
T 87	Over-mature Common Alder *Alnus Glutinosa*	15	2	2 n/a	78	8# 4 3.5 10	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. Internal decay leads to hollowed stem from 3 metres to 6 metres. The tree appears to be close to collapse, however, this tree has a good ecological value and also has bat roost potential.	Dismantle prior to the tree collapsing on the adjacent T85 which is regarded as a high retention category specimen.	POOR	POOR	MOD	<10	U
T 88	Over-mature Common Ash *Fraxinus excelsior*	21	1	1 n/a	90#	11# 6# 6 10.5	Multi-stemmed at 6m with a balanced crown. No evidence of significant pruning. Many decay cavities present throughout the crown. Vast internal decay to base leads to large hollow within base of main stem. The decay appears to have destroyed over 70% of the live wood, as such; this tree is likely to be structurally unsound and is likely to collapse. Please note that this tree has a good ecological value and also has bat roost potential.	Dismantle prior to the tree collapsing on the adjacent T89 which is regarded as a high retention category specimen.	GOOD	GOOD	MOD	<10	U
T 89	Over-mature Sycamore *Acer pseudoplatanus*	19	2.5	2 N	105#	11# 12# 9# 8.5	This tree appears to be situated on adjacent land. Twin-stemmed at 5m with a balanced crown. No evidence of significant pruning. No major visible defects. Minor deadwood.	No action required.	GOOD	GOOD	MOD	40+	A

Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements

A2.1.1 *HEIGHT* of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

A2.1.2 *CROWN HEIGHT* is an indication of the average height at which the crown begins. Also recorded is the height of the first significant branch and the direction of growth.

A2.1.3 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed below a height of 1.5 metres, the diameter is measured at the narrowest point below the fork.

A2.1.4 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

A2.2 Evaluations

A2.2.1 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

A2.2.2 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

A2.2.3 *STRUCTURAL CONDITION* is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

A2.2.4 *LIFE EXPECTANCY* is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

A2.3 Retention Categories

A2.3.1 ***A (marked green on the plan) = trees of high quality; retention most desirable.***

These trees are of high quality and value with a good life expectancy. They may be further sub-divided as follows:

A1) Particularly good examples; perhaps rare or unusual species, or forming an essential part of arboricultural features e.g. avenues.

A2) Groups of trees having a significant landscape impact or with excellent screening properties, or those softening the effect of existing structures.

A3) Those having significant conservation or historical value e.g. veteran trees.

A2.3.2 ***B (marked in blue on the plan) = trees of moderate quality; retention desirable.***

These trees are of moderate quality and value with a significant life expectancy. They may be further sub-divided as follows:

B1) Trees that might be included in the high category but because of their numbers or slightly impaired condition, are downgraded in favour of the better individuals.

B2) Groups of trees forming distinct landscape features, thereby attracting a higher collective rating than they might as individuals.

B3) Trees with clearly identifiable conservation or other cultural benefits.

A2.3.3 ***C (marked in grey on the plan) = trees of low quality but which could be retained.***

These trees are of low quality and value, and are in adequate condition to remain until new planting could be established. They may be further sub-divided as follows:

C1) Trees not qualifying in higher categories.

C2) Groups of trees which do not form a distinct landscape feature.

C3) Trees with very limited conservation or other cultural benefits.

A2.3.4 ***U (marked in red on the plan) = unsuitable for retention: trees for removal.***

These trees are in such a condition that any existing value would be lost within 10 years. This may be due to any of the following:

1) Failure is likely due to serious, irredeemable, structural defects.
2) The trees are considered to be hazardous.
3). Diseases are present which may affect the health of adjacent trees.
4) They are in serious, overall decline or are already dead.
5) They are of low quality and suppressing adjacent trees of better quality.
6) Removal of other category U trees will render them exposed and unstable.

These trees should be removed or treated in such a way as to make them safe where they have high ecological value, such as in a woodland setting.

Appendix 3: General Guidelines

A3.1 All work must be to BS 3998: 2010 - '*Recommendations for tree work*'.

A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.

A3.3 This report is based upon a visual inspection. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.

A3.5 No liability can be accepted by JCA Limited in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.

A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly. In this instance it is recommended that these inspections are made every year.

Appendix 4: Glossary of Terms & Abbreviations

Arboriculture	The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber.
Canker	Disease damaged area of a tree, usually caused by fungus or bacteria.
Co-dominant Stem	A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.
Crown Lift	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles, etc.
Crown reduce	The reduction of a tree's height or spread while preserving its natural shape.
Crown thin	The removal of some of the density of a tree's crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.
Deadwood	Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.
Dieback	Where branches are beginning to show signs of death usually at the tips in the crown.
Epicormic shoots	Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.
Formative pruning	The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown.
Included bark	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
Pollarding	A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.
Remedial pruning	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.
RPA	Root Protection Area – The theoretical rooting area of a tree as defined in BS5837: 2005 *Trees in relation to construction.*
Topping	Topping is a form of pruning that removes terminal growth leaving a 'stub' cut end. Topping causes serious health problems to a tree.

Appendix 5: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor. Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. He has since developed JCA's portfolio of services and its extensive client base. Jonathan is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Coordinator

Toby Thwaites *BSc (Hons), HND (Arboriculture).* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby was promoted to Technical Coordinator and now oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Consulting Staff: Arboriculture

Andrew Bagshaw *FdSc (Arboriculture).* Andrew joined JCA in 2005 having gained several years experience in tree surgery and landscaping. He is trained in aerial rescue and is JCA's principal first aid person. Andrew has obtained a foundation degree in Arboriculture at the University of Lancashire, is QTRA qualified and is a JCA team leader who manages an office of Consulting Arboriculturists.

Adam Winson *Chartered Arboriculturist, MSc, BSc (Hons), ND, MICFor, AIEEM.* Adam has extensive experience in arboriculture, having worked with trees for over 15 years. In 2010 Adam obtained an MSc in Arboriculture and Urban Forestry (with distinction), also gaining the top student award. Adam has had articles published in industry magazines including original research in a peer reviewed UK Forestry Commission publication in 2012.

Robert Godwin *BA (Hons), MSc (Arboriculture and Urban Forestry), MArborA.* Robert is a Professional Member of the Arboricultural Association and a Professional Associate of the Institute of Chartered Foresters. He has a degree in Landscape Planning & Management and has several years experience as a Consulting Arboriculturist. Robert has recently obtained an MSc in Arboriculture and Urban Forestry.

Victoria Black *FdSc (Arboriculture).* Victoria has been with JCA since 2002 building her knowledge of the Arboricultural business. She has recently obtained her foundation degree in Arboriculture at the University of Lancashire.

Andrew Bussey Andrew joined JCA having spent 12 years doing tree surgery for various private companies and a Local Authority. He has various NPTC qualifications, is QTRA qualified and is currently studying for his Arboricultural Technicians Certificate.

Toby Parsons *Cert. Arb. (RFS), Tech. Cert. (Arbor.A).* Toby joined JCA after spending 6 years working as a senior climber for various Arboricultural contractors in the East Midlands and the South-West. He has gained the Level 2 Certificate in Arboriculture (RFS), an Arboricultural Technicians Certificate and is QTRA qualified.

Phil Humeniuk *FdSc (Arboriculture), MicFor.* Phil has recently joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. He obtained his foundation degree in Arboriculture at the University of Central Lancashire.

Consulting Staff: Ecology

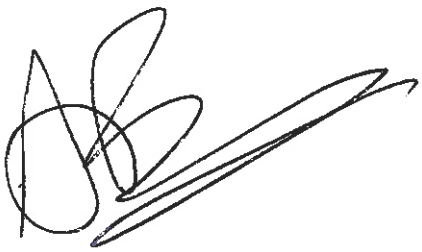
Christopher Shaw *BSc (Hons).* Chris is our in-house Ecologist, and joined JCA in 2010 after achieving a First Class degree in Biology at the University of Leeds. Prior to joining JCA, Chris has volunteered with a number of organisations including the Yorkshire Wildlife Trust, BTCV and a local Ecological Consultancy. He is currently undertaking a 'Certificate in Ecological Consultancy Course' with Acorn Ecology. Chris is actively involved in building JCA's portfolio of ecological services.

Administrative Staff

Sue Guest Administrative Team Leader.
Sally Whitwam Administrative Assistant.
Simeon Haigh *BSc (Hons).* IT Officer.
Catherine Cocking Accounts Manager.
Yasmin Hussain Administrative Assistant.
Liz Bone Trainee Administrative Assistant

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed



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Andrew Bussey.

23rd May 2012

For and on behalf of ***JCA Ltd***

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