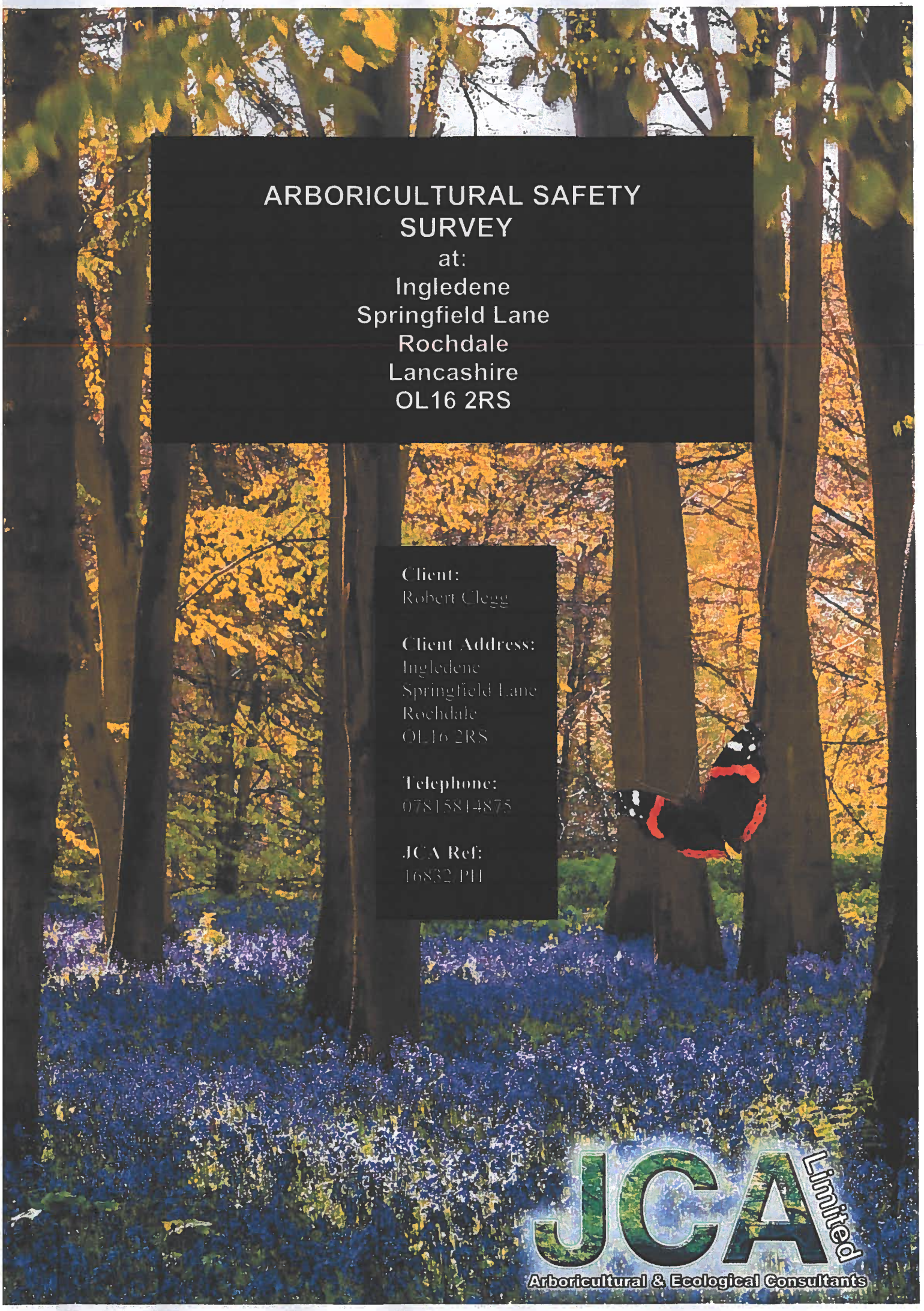

ARBORICULTURAL SAFETY SURVEY

at:

Ingledene
Springfield Lane
Rochdale
Lancashire
OL16 2RS

Client:
Robert Clegg

Client Address:
Ingledene
Springfield Lane
Rochdale
OL16 2RS

Telephone:
07815814875

JCA Ref:
16832 PH

JCA Limited
Arboricultural & Ecological Consultants

Executive Summary

The site is an area of garden space in the ownership of the detached property *Ingle Dene.*

The northern portion of the area surveyed is afforded protection with a Tree Preservation Order. (See **Appendix 5**, site plan)

In total, **37** trees/groups were inspected to assess and if necessary, reduce their potential risk of harm.

Of these **2** trees were found to pose an unacceptable risk and have been recommended for removal and a further **18** items require management to reduce their risks.

Some trees recommended for pruning are within the area of trees afforded protection under the Tree preservation order. Before any work is organised, an application form must be submitted to the Local Authority.

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1. Introduction

1.1 Purpose of the Report

1.1.1 This report details the findings of an arboricultural condition survey and risk assessment of the trees at land owned by the property owner:

Ingledene, Springfield Lane, Rochdale, Lancashire, OL16 2RS

1.1.2 This report details the relevant arboricultural information which is required to inform the owners of the condition of their trees and provides specific management actions that, once undertaken, demonstrate that a duty of care has been taken with regards to tree management.

1.2 Terms of Reference

1.2.1 For this purpose, I have drawn a plan of the site showing the trees in relation to their surroundings. The tree locations are indicative however and this plan should not be scaled from.

1.3 Scope of the Report

1.3.1 This report, and any recommendations made are compiled in accordance with current industry standards and best arboricultural practices.

1.3.2 The trees have been inspected to assess and, if necessary, reduce their potential risk of harm.

1.3.3 Where applicable smaller trees and significant shrub masses have been included.

1.4 Survey Details

1.4.1 The survey was carried out during the month of February 2021 by

Phil Humeniuk *FdSc (Arboriculture), LANTRA Accredited PTI.*

1.4.2 Inspection was made from ground level to assess the trees condition and their potential to cause harm. Where necessary, management recommendations have been made. This may include tree removals, pruning operations, future monitoring or the need for further detailed inspections, such as climbed inspections or decay detection tests.

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

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2. Explanation of Tree Descriptions

2.1 Measurements

2.1.1 *HEIGHT* of the tree is measured from the stem base to the top of the canopy.

2.1.2 *CROWN HEIGHT* is an indication of the height at which the main crown begins above ground level.

2.1.3 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level, just above the root buttress.

2.1.4 *CROWN SPREAD* is a measurement of the overall width of the crown, at its widest point.

2.2 Evaluations

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

2.2.2 *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.

2.2.3 *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.

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

2.2.5 *TARGET VALUE* is classed as high, moderate or low. This is an indication of the likelihood of persons or objects, the latter having variable significance, being within falling distance of a tree or its branches.

2.2.6 *PRIORITY.* A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

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2.2.7 *RE-INSPECTION TIMING* is classed as; 6 months (0.5), 1 year (1), 2 years (2), or within 5 years (5). This is an indication of the timescale in which a tree should be re-inspected; a specific time of year for the inspection may also be detailed in the recommendations.

2.3 Safety Categories

2.3.1 *SAFETY CATEGORY* values for the trees are as follows:

2.3.2 ***A (marked in green on the plan) = posing no immediate risk: no action required.***
These trees are considered to be in an acceptable condition at present and require no action at this time. However, these trees may require future management in order to ensure that they remain safe.

2.3.3 ***B (marked in light blue on the plan) = posing a potential risk: action required.***
These trees pose a potential risk and therefore require active management. This may include remedial pruning (crown cleaning) or target management.

Such trees may also require a further, more detailed, investigation (such as a climbing inspection or a decay detection analysis) or may require future monitoring (re-surveying and re-assessing) at a timescale specified within this report.

2.3.4 ***R (marked in red on the plan) = trees to be removed.***
These trees require removal usually because they are dead, dying or dangerous and are therefore potentially hazardous. Such trees shall usually require removal as a matter of high priority.

Trees may also require removal in order to prevent damage occurring to existing structures or buildings (where trees are growing within close proximity or are in actual contact) or in order to benefit adjacent trees (where trees are growing in direct competition, the poorer of the two trees may be removed). Such work is usually of a lower priority.

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3. Status of the Trees

3.1 A check was made on 29th January 2021 with ***Rochdale Borough Council.***

3.2 We are informed that there is a Tree Preservation Order (TPO) in force on this site.

3.3 Before any work is organised, an application form must be submitted to the Local Authority, outlining all the proposed works along with a suitable justification. A waiting period of eight weeks is then required, after which time the council will either give consent to the works, refuse the works or grant a conditional consent.

3.4 ***No work must be done to any trees until permission has been granted.***

4. Tree Descriptions

4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1.** Please refer to the site plan at **Appendix 5** for tree locations and **Section 2** for a full explanation of the tables.

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5. Recommendations

5.1 In total **37** items were surveyed (**31** individual trees and **6** groups of trees). The surveyed vegetation was generally found to be in a fair condition.

5.2 Following is an overview of our observations and recommendations; please refer to **Appendix 1** for specific details on the condition of individual trees:

5.3 **One** tree (**T6**) and *one* tree from **G7** have been recommended for removal as detailed at **Appendix 1.**

5.3.1 The removal of **T6** should be undertaken as a matter of **high priority**.

5.3.2 The removal of the *one* tree from **G7** is of a **low priority**.

5.4 **Eighteen** items (**T1, T2, T3, T4, T5, T8, T9, T10, T11, T12, T20, T21, T22, T23, T24, T25, T26** and **G37**) require pruning to reduce their risks, as detailed at **Appendix 1**.

5.4.1 The recommended works to **T1, T2, T3, T10, T20, T23, T24** and **T25** should be undertaken as a matter of **high priority**.

5.4.2 The recommended works to **T9, T11, T21, T22, T26** and **G37** should be undertaken as a matter of **moderate priority**.

5.4.3 The recommended works to **T4, T5, T8** and **T12** are of a **lower priority**.

5.5 Where trees are situated close to services, road signs, street-lights, or where they overhang roads, paths or boundaries, they will require monitoring and occasional maintenance (as detailed at **Appendix 1**). This should maintain visibility and safe public access. Such work is ongoing and should be conducted on a regular basis.

5.6 **Two** items (**G17** and **G32**) require a re-inspecting in 3 years when they are in full leaf (as detailed at **Appendix 1**).

5.7 A full detailed inspection of *several tree stems* was inhibited by the presence of ivy (as detailed at **Appendix 1**). These trees should be re-inspected for defects once the ivy has been removed.

5.8 If the above recommendations are undertaken, the trees surveyed can be considered, to be adequate in terms of public health and safety. We recommend that the trees are re-surveyed as per the recommended schedule, in order to ensure the long term health and safety of the trees.

5.9 We would be happy to assist should you have any queries regarding the points raised in **Section 5**.

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Appendices

Appendix 1: Tree Descriptions and Recommendations

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Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 1	Mature Hybrid Poplar *Populus x canadensis*	12	1	83	2	Previously heavily pollarded; single stemmed with limited regrowth. Epicormic shoots from ground level to 6m overhanging the boundary. Decay observed at the base and into stem. Limited long term future.	FAIR	FAIR	10-20	HIGH	Reduce to leave a 2.5m stem for regrowth. Remove new growths every 3 years	HIGH	B	5
T 2	Mature Hybrid Poplar *Populus x canadensis*	10	1	75	2	Previously heavily pollarded; single stemmed with the top 3m exposed and dead. Epicormic shoots from 3 to 4m overhanging the boundary. Decay with peeling bark observed from the base up to 3m. Limited long term future.	POOR	POOR	<10	HIGH	Reduce to leave a 1m stem for regrowth. Remove new growths every 3 years	HIGH	B	5
T 3	Mature Hybrid Poplar *Populus x canadensis*	12	1	75	2	Previously heavily pollarded; single stemmed with limited regrowth. Epicormic shoots from ground level to 3m. Decay observed at the base and into stem. Limited long term future.	POOR	POOR	<10	HIGH	Reduce to leave a 1m stem for regrowth. Remove new growths every 3 years	HIGH	B	5
T 4	Mature Hybrid Poplar *Populus x canadensis*	13	3	71	5	Previously heavily pollarded with good vitality.	GOOD	GOOD	20-40	HIGH	Reduce to leave a 3m stem for regrowth. Remove new growths every 3 years	LOW	B	5
T 5	Semi mature Wild Cherry *Prunus avium*	8	1	34	7	Regrowth from a 1m stump. Two sweeping limbs extend to the east. Damage to upper side of each limb yet with a reasonable formation of wound wood.	GOOD	FAIR	20-40	LOW	Remove both damaged limbs back to the stem	LOW	B	5
T 6	Semi mature Crack Willow *Salix fragilis*	7	1	15 20	5	Twin-stemmed from ground level; decay in both stems with growths extending west overhanging the boundary. Two young cherries growing at the base (retain).	POOR	POOR	<10	MOD	Fell to ground level and treat stump to prevent regrowth	HIGH	R	N/A
G 7	Early mature Wild Cherry *Prunus avium*	9	4	29 20	5	Two in group; asymmetric merging canopies overhang the lawn. Northernmost specimen has two twisting stems, decay from base up to 2m. Limited long term future.	FAIR	FAIR	20+	LOW	Fell to ground level northern specimen (See plan)	LOW	B	5
T 8	Semi mature Goat Willow *Salix caprea*	5.5	1	17	5	Twin-stemmed from ground level with a poor form.	GOOD	POOR	20+	LOW	Coppice at ground level	LOW	B	5
T 9	Mature Hybrid Poplar *Populus x canadensis*	13	1	70	5.5	Previously heavily pollarded; single stemmed then twin-stemmed at 7.5m. Epicormic shoots from ground level to 9m. Deadwood observed at previous pollard points. Wound at ground level to 2m reveals the onset of internal decay. Limited long term future.	GOOD	FAIR	20+	HIGH	Reduce to leave a 2m stem for regrowth. Remove new growths every 3 years	MOD	B	5

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 10	Mature Hybrid Poplar *Populus x canadensis*	11	2	85	3.5	Previously heavily pollarded; single stemmed then twin-stemmed at 6m. Deadwood and minimal regrowth observed at pollard points. Decay in stem observed from ground level to 1m. Limited long term future.	FAIR	POOR	10-20	HIGH	Reduce to leave a 1m stem for regrowth. Remove new growths every 3 years	HIGH	B	5
T 11	Mature Hybrid Poplar *Populus x canadensis*	11	1	80	3	Previously heavily pollarded; epicormic shoots from 1 to 10m. A young poplar grows at base with its canopy overhanging the boundary	GOOD	GOOD	20-40	HIGH	Reduce to leave a 1.5m stem for regrowth. Remove new growths every 3 years	MOD	B	5
T 12	Early mature Silver Birch *Betula pendula*	14	3	42	8	Single stemmed with an asymmetric canopy overhanging the boundary and adjacent building.	GOOD	GOOD	40+	MOD	Remove the two lowest branches overhanging the boundary	LOW	B	5
T 13	Semi mature Snow Gum *Eucalyptus pauciflola niphophila*	11	9	20	4	Single stemmed with a high crown. No significant defects.	GOOD	GOOD	40+	LOW	No action required	N/A	A	5
T 14	Semi mature Blue Cider Gum *Eucalyptus gunnii*	14	9	30	6	Single stemmed with a high crown. No significant defects.	GOOD	GOOD	40+	LOW	No action required	N/A	A	5
T 15	Early mature Wild Cherry *Prunus avium*	11	2	41	7	Multi-stemmed with an asymmetric canopy optimised south-east. Multiple pruning wounds due to crown lifting (action not carried out by land owner).	GOOD	GOOD	20-40	LOW	No action required	N/A	A	5
T 16	Early mature Scots Pine *Pinus sylvestris*	13	4	38	7	Single stemmed with an asymmetric canopy overhanging the boundary. No major visible defects.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
G 17	Semi mature European Larch *Larix decidua*	to 9	2	20 28	See plan	Two in group; both single stemmed with suppressed, heavily one sided canopies. In an acceptable condition.	GOOD	FAIR	20-40	MOD	Re-inspect in 3 years	N/A	B	3
T 18	Early mature Sycamore *Acer pseudoplatanus*	14	3	44	7.5	Single stemmed with a slightly suppressed, asymmetric canopy. Occasional pruning wounds due to crown lifting, minor deadwood observed.	FAIR	GOOD	20-40	LOW	No action required	N/A	A	5
T 19	Mature Sycamore *Acer pseudoplatanus*	16	4	72	11	Inspection hindered due to Ivy on stem; single stemmed with an asymmetric canopy overhanging the footpath and road.	GOOD	GOOD	40+	HIGH	No action required	N/A	A	5

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 20	Early mature Sycamore *Acer pseudoplatanus*	13	4	49	12	Multi-stemmed from 3m with an asymmetric canopy with moderate sized deadwood throughout, overhangs the footpath.	FAIR	GOOD	40+	HIGH	Crown clean & reinspect in 3 years	HIGH	B	3
T 21	Mature Hybrid Poplar *Populus x canadensis*	18	7	69	11	Single stemmed then multi-stemmed at 10m with a high sprawling canopy.	GOOD	GOOD	20-40	MOD	Reduce to leave a 3m stem for regrowth. Remove new growths every 3 years	MOD	B	5
T 22	Early mature Hybrid Poplar *Populus x canadensis*	18	7	67	11	Single stemmed with a high, asymmetric crown. No significant defects.	GOOD	GOOD	20-40	MOD	Reduce to leave a 3m stem for regrowth. Remove new growths every 3 years	MOD	B	5
T 23	Semi mature Hybrid Poplar *Populus x canadensis*	9	7	22	1	Single stemmed with a sparse and suppressed, high canopy. Limited long term future.	POOR	FAIR	<10	MOD	Reduce to leave a 0.5m stem for regrowth. Remove new growths every 3 years	HIGH	B	5
T 24	Early mature Sycamore *Acer pseudoplatanus*	14	6	61	8	Twin-stemmed from 3m with a one-sided crown overhanging the footpath and road. Deadwood throughout with reduced vitality.	FAIR	GOOD	20-40	HIGH	Crown clean & reinspect in 3 years	HIGH	B	3
T 25	Early mature Sycamore *Acer pseudoplatanus*	13	5	51	11	Single stemmed with a slightly suppressed, asymmetric canopy overhanging the footpath and road. Minor deadwood and dead ivy observed.	FAIR	GOOD	20-40	HIGH	Crown clean & reinspect in 3 years	HIGH	B	3
T 26	Mature Hybrid Poplar *Populus x canadensis*	19	5	73	15	Single stemmed with a wide canopy overhanging the footpath and Springfield Lane. Moderate sized deadwood and hung up, broken branches observed.	GOOD	GOOD	20-40	MOD	Reduce to leave a 3m stem for regrowth. Remove new growths every 3 years	MOD	B	5
G 27	Semi mature Lawson Cypress *Chamaecyparis lawsoniana*	to 11	0	Avg. 20	See plan	Four in group with canopies merging and forming one crown. No major visible defects.	GOOD	GOOD	40+	LOW	No action required	N/A	A	5
T 28	Semi mature Snow Gum *Eucalyptus paucifolia niphophila*	11	6	26	5	Single stemmed with a high crown. Bark splits due to rapid expansion growth. No significant defects.	GOOD	GOOD	40+	LOW	No action required	N/A	A	5

Tree Ref.	Age Species *Latin Name*	Height (m)	Crown Height (m)	Diameter (cm)	Crown Spread (m)	Observations	Physiological Condition	Structural Condition	Life Expectancy (yrs)	Target Value	Recommendations	Priority	Safety Category	Re-Inspection Timing (yrs)
T 29	Semi mature Downy Birch *Betula pubescens*	10	5	# 30	7	Ivy to 8m limited inspection. Single stemmed with a balanced canopy. No significant defects.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
G 30	Semi mature Norway Spruce *Picea abies*	to 13	5	Avg. 20 to 35	See plan	Ivy to stems limited inspection; four in group. All single stemmed with slight crown asymmetry due to competition. Canopies overhang Springfield Lane.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
T 31	Semi mature Scots Pine *Pinus sylvestris*	12	3	25 31	6	Twin-stemmed from ground level with a balanced canopy overhanging Springfield Lane.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
G 32	Semi mature Norway Spruce *Picea abies*	to 12	3	Avg. 15 3 at 50	See plan	Linear planting providing screening; Ivy hindered a full inspection. Seven in group with the largest having been previously topped at 10m with good regrowth. Radial surface roots observed in lawn.	GOOD	GOOD	40+	MOD	Re-inspect in 3 years	HIGH	B	3
T 33	Early mature Black Pine *Pinus nigra nigra*	11	5	55	8	Previously topped at 10m. Twin-stemmed from 3m with a tight union yet balanced canopy. Occasional pruning wounds due to crown lifting, stubs noted.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
T 34	Early mature Beech *Fagus sylvatica*	11	5	56	8	Holly at base hindered a full inspection. Single stemmed then twin-stemmed at 6m; previously topped at 10m and canopy reduced. Reasonable vitality noted.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
T 35	Early mature Beech *Fagus sylvatica*	11	1	67	11	Single stemmed then twin-stemmed at 3m with a tight union; previously topped at 10m and canopy reduced. Reasonable vitality noted.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5
T 36	Early mature Beech *Fagus sylvatica*	11	4	40	7	Single stemmed then twin-stemmed at 2.5m with a high canopy overhanging Springfield Lane. Occasional pruning wounds due to crown lifting. Reasonable vitality noted.	GOOD	GOOD	40+	MOD	No action required	N/A	A	5

Appendix 2: Explanation of Terms & Recommended Clearances

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	The removal of all dead, dying and diseased branches from a tree.
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.
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.

Recommended Clearances

JCA recommend the following distances are maintained:

Height for pedestrian access:	No less than 2.5m
Height for vehicular access:	No less then 4m for a minor road
	No less than 6m for major roads or where buses will pass.
Distance from overhead cables:	No less than 2m
Distance from building or other structure:	No less than 2m
Distance from lamppost or sign	Sufficient to not impede visibility for 2 years.

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Appendix 3: 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. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Director

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

Consulting Staff: Arboriculture

Andrew Bussey. Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

Phil Humeniuk *FdSc (Arboriculture).* Phil joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. He also has several years' experience working as a consultant both for JCA and for another consultancy. Phil obtained his foundation degree in Arboriculture at the University of Central Lancashire and has various NPTC's and is LANTRA certified in Professional Tree Inspection.

Emily Wilde *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

Mick Eltringham *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

Charles Cocking *FdSc (Arboriculture), MArborA.* Charles joined JCA in January 2014 as an Apprentice having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York.

Robert Hickey *FdSc (Arboriculture), TechArborA.* Robert joined JCA in January 2019 having obtained his foundation degree in Arboriculture at the University of Central Lancashire. He has various NPTC's qualifications and has previously worked for several Arboricultural contractors.

Dan Kemp *FdSc (Arboriculture).* Dan joined JCA with nearly 30 years' experience in arboriculture. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

Ryan Bateman BSc (Hons), *FdSc (Arboriculture), TechArborA.* Ryan joined JCA in 2020 after working as a Lecturer on the Foundation Degree in Arboriculture at Askham Bryan College in York. Ryan has both practical skills, NPTC qualifications and theoretical knowledge and owned his own contracting business prior to, and whilst working as a lecturer.

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Consulting Staff: Ecology

Amanda Beck, Ecological Officer *Cert/He in Field Ecology, Diploma Field and Conservation Ecology, CIEEM member.* Amanda joined JCA's ecology department in 2018, previously working as a freelance Ecological Consultant in North Wales and as a trainee Ecologist in South Wales. She has a background surveying for botanical, amphibians, birds, terrestrial and marine mammals along with small mammal trapping and invertebrate research work on SSSI sites. She has practical experience in habitat management and creation while working as a volunteer for North Wales Wildlife Trust and currently volunteers with Yorkshire Wildlife Trust. She is a member of the Butterfly Conservation Trust, Bat Conservation Trust, Clwyd Bat Group and the British Hedgehog Preservation Society. Amanda is DBS checked and holds a Natural England level 1 bat licence.

Joe Earnshaw, Graduate Ecologist *BSc (Hons), MSc Biodiversity and Conservation, Qualifying CIEEM Member.* Joe joined the ecology department of JCA in 2018 after taking part in JCA's student training programme. He initially obtained a bachelor degree in Animal Management from Askham Bryan College, York. He has since furthered his education and brings to the company an MSc in Biodiversity and Conservation from the University of Leeds. Joe has expertise in aquatic invasive species identification and control.

Administrative Staff

Sue Guest Administrative Team Leader.
Catherine Cocking Accounts Manager.
Kelly Saunders Accounts Assistant.
Simeon Haigh *BSc (Hons).* IT Director.
Lorraine Spink Administrative Assistant.
Lisa Hampson Marketing Manager.

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