Arboricultural Safety Report

Report No:	**250801**
Client:	**Waddingham Parish Council**
Site Address:	**Areas A, B, C and G identified on plan supplied by the Parish Council.**
Survey Date:	**1 August 2025**

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Table of Contents

Introduction 3
Survey Details 3
Purpose of the Report 3
Survey Method 3

Site Overview 5

Tree Status 6

Discussion 7

Appendix 1: Survey Schedule and recommendations 8-16

Appendix 2: Glossary of Terms 17
Tabular Headings 17-18
General Terms 19-22

Appendix 3: Guidelines & Limitations 23

Appendix 4: Site Plan 24

Introduction

Survey Details

I have been instructed by Charlotte Wright to visit the sites in Waddingham and prepare my findings in a report.

The subject of the survey was to carry out a survey of all trees on sites managed by Waddingham Parish Council. A plan of the site has been provided.

This report has been commissioned to assess the condition of the trees on site and the risks they pose, as well as to make recommendations to mitigate risks of a significant level.

The survey was conducted on the 1st of August 2025 by Steve Vessey on behalf of Lincolnshire Tree Services. The previous survey was carried out by Lincolnshire Tree Services in September 2021.

Our reference number for this report is 250801.

Purpose of the Report

This report details the findings of an expert arboricultural safety survey and risk assessment of the trees on the site specified.

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.

This report is compiled in accordance with the current British Standard BS 3998: 2010 – 'Recommendations for tree work'.

Survey Method

Inspection was made visually from ground level in order to assess the tree's condition and potential to cause harm. Measurements were obtained using GPS, Nikon Forest Pro Clinometer & girthing tape. Where this was not possible measurements were estimated. Significant and suspected decay points were investigated using a sounding hammer, torch and probe.

Where necessary, management recommendations have been made. This may include tree removal, pruning, future monitoring or the need for a further detailed inspection, such as climbed inspections or decay detection surveys. Only trees requiring works, further investigation, or close monitoring have been recorded.

During the survey, a Samsung Galaxy tablet which has OTISS tree survey software installed was used to capture all of the information including photographs if required. The device accuracy is stated as ≤2m. Whilst not as accurate as a topographical survey, this method is considered to provide a fair representation of the positions of the trees surveyed. Tree positions should, however, be considered indicative only.

Site Overview

The boundaries of the sites are outlined by a red line as indicated within the site plan attached.

The sites are all public green open space close to a stream.

From the information passed to us and from our observations during the survey, persons or property that could be reasonably contemplated to be at significant risk due to the trees on the site include;

- Persons visiting or working at the sites
- Users of the public highway
- Building, property and infrastructure at the sites
- People and property at neighbouring properties
- Users of the public footpaths within and beside the sites

Tree Status

No Tree Preservation Order or Conservation Area conditions have been brought to our attention by the site owner/manager.

Prior to any works being carried out conditions **must** be checked for and the relevant permissions sought from the appropriate local authority.

Discussion

1. During the survey the details of individual trees and groups of trees were recorded. The tree population has undergone some historical maintenance however a number require works to mitigate notable risks due to their condition and location.

2. Further information on these can be found within the detailed schedule and recommendations.

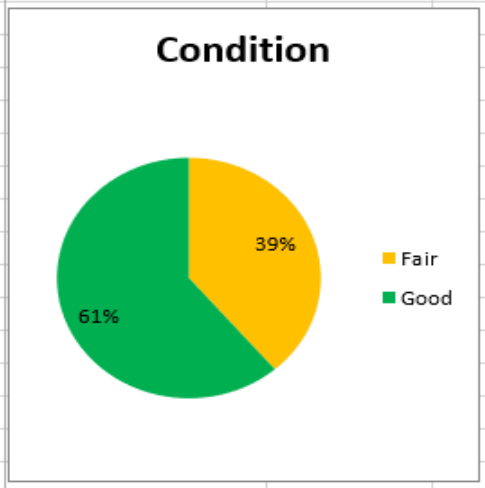
Appendix 1: Survey Schedule

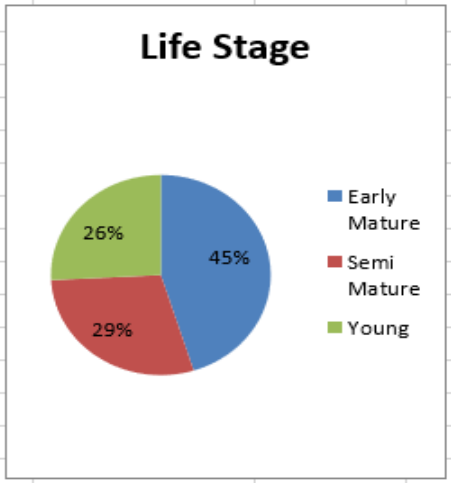
Condition	No. trees
Fair	12
Good	19
Total	31

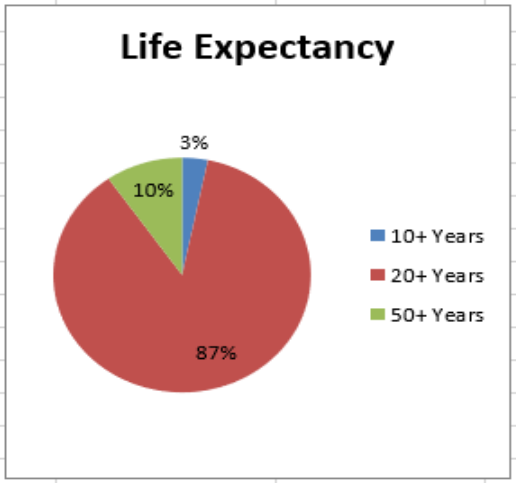
Life Stage	No. trees
Early Mature	14
Semi Mature	9
Young	8

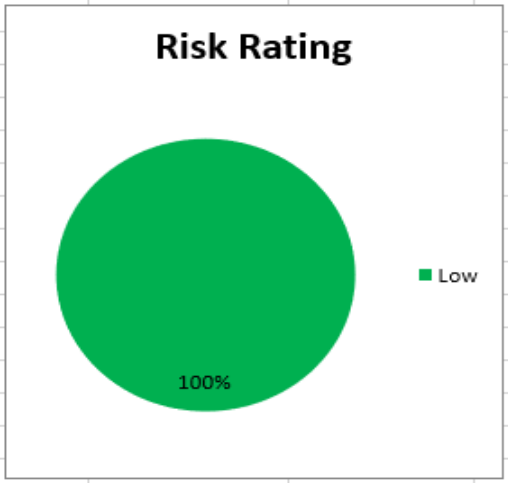
Life Expectancy	No. trees
10+ Years	1
20+ Years	27
50+ Years	3

Risk Rating	No. trees
Low	31
Total	31

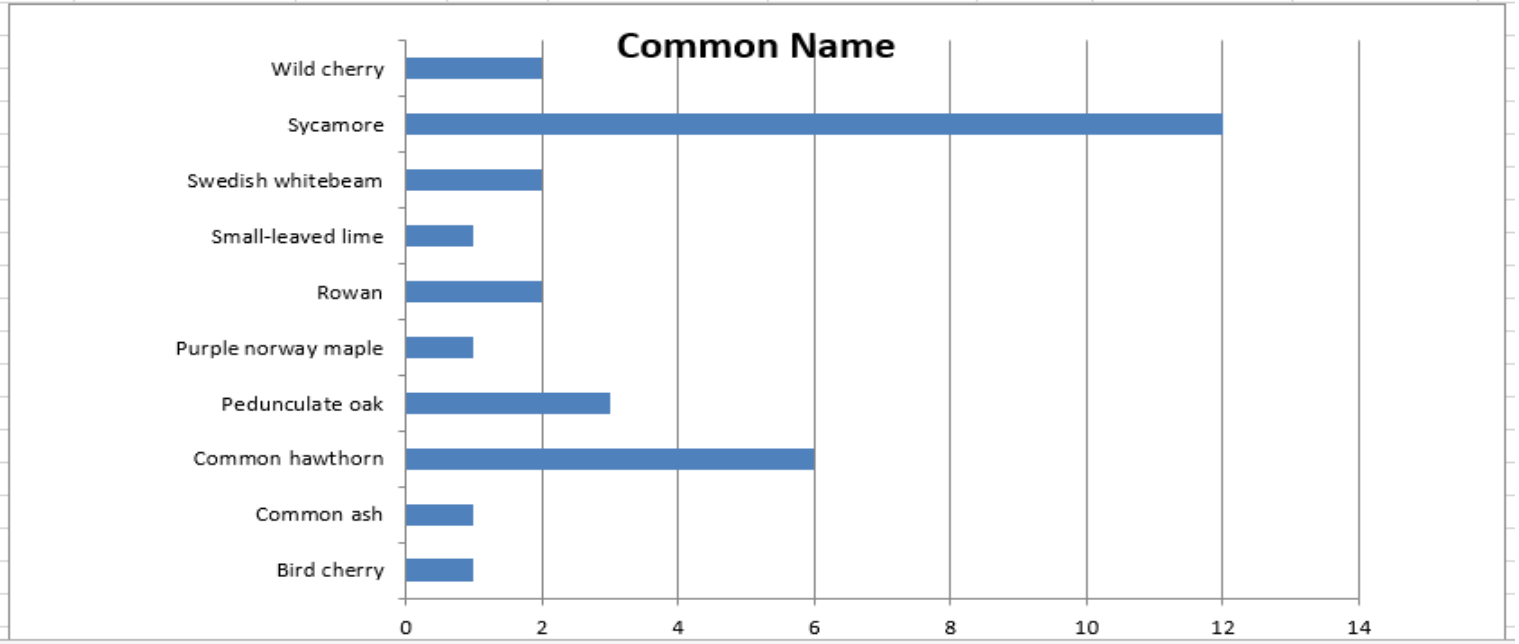








Common Name	No. trees
Bird cherry	1
Common ash	1
Common hawthorn	6
Pedunculate oak	3
Purple norway maple	1
Rowan	2
Small-leaved lime	1
Swedish whitebeam	2
Sycamore	12
Wild cherry	2
Total	31



Tree Survey Report

Condition	No. trees
Fair	12
Good	19
Total	31

Ref.	Species	Description	Measurements	Survey Notes	Structure	Risk Rating	Physiological Condition	Structural Condition	Ash Dieback Level	Inspect Period	Recommendations	Grid ref	what3words
T001	Sycamore x10 *(Acer pseudoplatanus)*	Owned by local council. Trees on open ground. Target # - building Target # - footpath. Target # - boundary fence. - Within drip line. - Occupancy - Frequent(3). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 15 Crown Radius (m): 4 Trees: 10 Life Stage: Early Mature Life Exp.: 20+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Medium. Crown Density: Normal. Interior Branches: Normal. Ivy over all of the trees prevents a full inspection from taking place.	Group	Low	Fair	Fair		3 Years	Sever ivy to allow a further investigation to take place. Timescale: 01-Feb-2026 (6 Months)	SK 98627 96162	///inhaled.reduction.belonging
T002	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree near a stream. Target # - open ground. - Within 1x tree height. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 6N, 4.3E, 5S, 6.6W Life Stage: Young Life Exp.: 50+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Medium. Crown Density: Normal. Interior Branches: Normal. Co/dominant at 1.3m with x2 main scaffold branches north and south. Laterals over-extend to the southwest, adding weight and stress to the union. This lateral also supresses a tree to the southwest. Laterals hang within 1m of the ground	Tree	Low	Good	Fair		3 Years	Reduce the lateral spread to the southwest yellow arrow by 1.6m to reduce leverage and stress on the union red arrow. Lift to give 2m of clearance for grounds maintenance. Timescale: 01-Aug-2026 (1 Year)	SK 98593 96153	///bogus.norms.indicates
T003	Bird cherry *(Prunus padus)* Small-leaved lime *(Tilia cordata)* Wild cherry *(Prunus avium)* Rowan x2 *(Sorbus aucuparia)* Swedish whitebeam x2 *(Sorbus intermedia)*	Owned by local council. Parkland trees near a stream. Target # - open ground. - Within drip line. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 5 Trees: 7 Life Stage: Young Life Exp.: 20+ Years	Vigour: Good to Fair Foliage: Good to Fair * Load Factors Wind Exposure: Partial. Crown Size: Small. Crown Size: Medium. Crown Density: Normal. Interior Branches: Normal. Low laterals hang within 1.6m of the ground, causing issues for ground maintenance. Rowan are in slow and steady decline, possibly due to strimmer damage? With the tree to the west, particularly in poor health.	Group	Low	Good	Fair		3 Years	Mitigation Actions 1: Lift to give 2m of clearance for ground maintenance. Fell the rowan to the west of the group to ground level. Timescale: 01-Aug-2026 (1 Year) Mitigation Actions 2: Replace the felled tree with a similar species of at least 15litre containerised stock protected from mowers and supported by a single stake and rubber tie. Timescale: 01-Aug-2027 (2 Years)	SK 98566 96159	///ticking.assess.other

T004	Common ash *(Fraxinus excelsior)*	Owned by local council. Parkland tree near a stream. Target # - open ground. - Within drip line. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 17 Crown Radius (m): 10N, 7.7E, 8S, 8.5W Life Stage: Semi Mature Life Exp.: 10+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Large. Crown Density: Normal. Interior Branches: Normal. Ivy over the lower stem, preventing a full inspection from taking place. Co/dominant at 1m with x2 main scaffold branches northeast and southwest.	Tree	Low	Good	Good	Infection Level 1: 0% to 25%	3 Years	Mitigation Actions 1: Sever ivy to allow a further investigation to take place. Timescale: 01-Feb-2026 (6 Months) Long term Recommendations: Monitor for change Timescale: 01-Aug-2028 (3 Years)	SK 98561 96160	///verse.lengthen.skies
T005	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree. Target # - road. Target # - overhead wires. Target # - open ground. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 8.1N, 8.6E, 9.3S, 9W Life Stage: Early Mature Life Exp.: 50+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Large. Crown Density: Normal. Interior Branches: Normal. Heavy branched from 1.1m, creating a wide spreading crown. Low laterals hang within 1.3m of the ground, causing issues for ground maintenance. BT lines pass through the mid crown to the east. Lateral growth to the north hangs within 3m of the road surface. Deadwood to circa 2cm diameter throughout the mid to upper crown.	Tree	Low	Good	Good		3 Years	Cut to give 30cm of clearance around the lines removing branches less than 2cm diameter. Reduce the lateral spread to the north over the road back to the verge - prune to keep flowing lines with no internodal cuts. Lift to give 2m of clearance for grounds maintenance. Remove deadwood throughout at the same time. Timescale: 01-Aug-2026 (1 Year)	SK 98499 96185	///discount.normal.thuddin g
T006	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree. Target # - road. Target # - overhead wires. Target # - open ground. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 17 Crown Radius (m): 10.2N, 10.3E, 11.2S, 10.7W Life Stage: Early Mature Life Exp.: 50+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Large. Crown Density: Normal. Interior Branches: Normal. Tree within a metal guard, preventing access. Ivy over the tree to mid crown prevents a full inspection from taking place. Low laterals all round hang within 1.6m of the ground.	Tree	Low	Good	Good		3 Years	Mitigation Actions 1: Sever ivy to allow a further investigation to take place. Or accept risk and retain for wildlife habitat. Timescale: 01-Feb-2026 (6 Months) Long term Recommendations: Monitor for change. Timescale: 01-Aug-2028 (3 Years)	SK 98436 96201	///polar.spooked.agreed

T007	Wild cherry *(Prunus avium)*	Owned by local council. Tree on open ground. Target # - building Target # - road. - Within 1x tree height. - Occupancy - Frequent(3). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 9 Crown Radius (m): 5.3N, 6.4E, 7S, 6W Life Stage: Early Mature Life Exp.: 20+ Years	Vigour: Fair Foliage: Fair * Load Factors Wind Exposure: Partial. Crown Size: Medium. Crown Density: Normal. Interior Branches: Normal. Grafted root stock. Main crown union at 1.2m with x4 main scaffold branches. Lateral growth to the east extends to the BT pole and footpath. Foliage has been affected by a leaf minor of some description, causing the tree appear in poor health. Lateral growth all round hangs within 1.5m of the ground, causing issues for ground maintenance.	Tree	Low	Fair	Good		3 Years	Mitigation Actions 1: Crown lift to 2m for ground maintenance. Reduce lateral spread to the east by 1m to clear the footpath and BT pole. Timescale: 01-Aug-2026 (1 Year) Long term Recommendations: Monitor new growth in spring/summer 2026. Timescale: 01-Aug-2026 (1 Year)	SK 98431 96248	///beaks.field.dweller
T008	Purple Norway maple *(Acer platanoides 'Crimson King')*	Owned by local council. Tree on open ground. Target # - building Target # - road. - Within 1x tree height. - Occupancy - Frequent(3). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 4.2N, 4.5E, 4.5S, 5.3W Life Stage: Early Mature Life Exp.: 20+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Medium. Crown Density: Normal. Interior Branches: Normal. Low lateral growth to the west extends toward a building. Laterals all around hang within 1.3m of the ground, causing issues for ground maintenance.	Tree	Low	Good	Good		3 Years	Lift to give 2m of clearance for grounds maintenance. Timescale: 01-Aug-2026 (1 Year)	SK 98433 96253	///army.trickling.novelist
T009	Common hawthorn x6 *(Crataegus monogyna)* Sycamore x2 *(Acer pseudoplatanus)*	Owned by local council. Tree on open ground near a stream. Target # - footpath. Target # - road. Target # - open ground. Target # - boundary fence/wall. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 10.5 Crown Radius (m): 5 Trees: 8 Life Stage: Semi Mature Life Exp.: 20+ Years	Vigour: Good Foliage: Good * Load Factors Wind Exposure: Partial. Crown Size: Medium. Crown Density: Normal. Interior Branches: Normal. Ivy over the lower stems prevents a full inspection from taking place. Low lateral growth, particularly to the north, hangs within 1m of the ground, causing issues for ground maintenance.	Group	Low	Good	Good		3 Years	Sever ivy to allow further investigation to take place. Or accept risk and retain for wildlife habitat. Lift to give 2m of clearance for grounds maintenance. Timescale: 01-Aug-2026 (1 Year)	SK 98423 96259	///fish.slide.submitted

Tree Survey Recommendations

Timescale	No. Recommendations
6 Months	3
1 Year	7
2 Years	1
3 Years	2
Total	13

Ref.	Species	Description	Measurements	Recommendation	Work Timescale	Photo	Photo
T001	Sycamore x10 *(Acer pseudoplatanus)*	Owned by local council. Trees on open ground. Target # - building Target # - footpath. Target # - boundary fence. - Within drip line. - Occupancy - Frequent(3). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 15 Crown Radius (m): 4 Trees: 10 Life Stage: Early Mature Life Exp.: 20+ Years	Sever ivy to allow a further investigation to take place.	01-Feb-2026 (6 Months)		
T004	Common ash *(Fraxinus excelsior)*	Owned by local council. Parkland tree near a stream. Target # - open ground. - Within drip line. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 17 Crown Radius (m): 10N, 7.7E, 8S, 8.5W Life Stage: Semi Mature Life Exp.: 10+ Years	Sever ivy to allow a further investigation to take place.	01-Feb-2026 (6 Months)		

T006	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree. Target # - road. Target # - overhead wires. Target # - open ground. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 17 Crown Radius (m): 10.2N, 10.3E, 11.2S, 10.7W Life Stage: Early Mature Life Exp.: 50+ Years	Sever ivy to allow a further investigation to take place. Or accept risk and retain for wildlife habitat.	01-Feb-2026 (6 Months)		
T002	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree near a stream. Target # - open ground. - Within 1x tree height. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 6N, 4.3E, 5S, 6.6W Life Stage: Young Life Exp.: 50+ Years	Reduce the lateral spread to the southwest yellow arrow by 1.6m to reduce leverage and stress on the union red arrow. Lift to give 2m of clearance for grounds maintenance.	01-Aug-2026 (1 Year)		
T003	Bird cherry *(Prunus padus)* Small-leaved lime *(Tilia cordata)* Wild cherry *(Prunus avium)* Rowan x2 *(Sorbus aucuparia)* Swedish whitebeam x2 *(Sorbus intermedia)*	Owned by local council. Parkland trees near a stream. Target # - open ground. - Within drip line. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 5 Trees: 7 Life Stage: Young Life Exp.: 20+ Years	Lift to give 2m of clearance for ground maintenance. Fell the rowan to the west of the group to ground level.	01-Aug-2026 (1 Year)	 Rowan to the west of the group	

T005	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree. Target # - road. Target # - overhead wires. Target # - open ground. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 8.1N, 8.6E, 9.3S, 9W Life Stage: Early Mature Life Exp.: 50+ Years	Cut to give 30cm of clearance around the lines removing branches less than 2cm diameter. Reduce the lateral spread to the north over the road back to the verge - prune to keep flowing lines with no internodal cuts. Lift to give 2m of clearance for grounds maintenance. Remove deadwood throughout at the same time.	01-Aug-2026 (1 Year)	 Lift for grounds maintenance	
T007	Wild cherry *(Prunus avium)*		Height (m): 9 Crown Radius (m): 5.3N, 6.4E, 7S, 6W Life Stage: Early Mature Life Exp.: 20+ Years	Crown lift to 2m for ground maintenance. Reduce lateral spread to the east by 1m to clear the footpath and BT pole.	01-Aug-2026 (1 Year)		
T007	Wild cherry *(Prunus avium)*		Height (m): 9 Crown Radius (m): 5.3N, 6.4E, 7S, 6W Life Stage: Early Mature Life Exp.: 20+ Years	Monitor new growth in spring/summer 2026.	01-Aug-2026 (1 Year)		

T008	Purple norway maple *(Acer platanoides 'Crimson King')*	Owned by local council. Tree on open ground. Target # - building Target # - road. - Within 1x tree height. - Occupancy - Frequent(3). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 4.2N, 4.5E, 4.5S, 5.3W Life Stage: Early Mature Life Exp.: 20+ Years	Lift to give 2m of clearance for grounds maintenance.	01-Aug-2026 (1 Year)		
T009	Common hawthorn x6 *(Crataegus monogyna)* Sycamore x2 *(Acer pseudoplatanus)*	Owned by local council. Tree on open ground near a stream. Target # - footpath. Target # - road. Target # - open ground. Target # - boundary fence/wall. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 10.5 Crown Radius (m): 5 Trees: 8 Life Stage: Semi Mature Life Exp.: 20+ Years	Sever ivy to allow further investigation to take place. Or accept risk and retain for wildlife habitat. Lift to give 2m of clearance for grounds maintenance.	01-Aug-2026 (1 Year)	No Photo available	
T003	Bird cherry *(Prunus padus)* Small-leaved lime *(Tilia cordata)* Wild cherry *(Prunus avium)* Rowan x2 *(Sorbus aucuparia)* Swedish whitebeam x2 *(Sorbus intermedia)*	Owned by local council. Parkland trees near a stream. Target # - open ground. - Within drip line. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 14 Crown Radius (m): 5 Trees: 7 Life Stage: Young Life Exp.: 20+ Years	Replace the felled tree with a similar species of at least 15litre containerised stock protected from mowers and supported by a single stake and rubber tie.	01-Aug-2027 (2 Years)	 Rowan to the west of the group	

T004	Common ash *(Fraxinus excelsior)*	Owned by local council. Parkland tree near a stream. Target # - open ground. - Within drip line. - Occupancy - Rare(1). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 17 Crown Radius (m): 10N, 7.7E, 8S, 8.5W Life Stage: Semi Mature Life Exp.: 10+ Years	Monitor for change	01-Aug-2028 (3 Years)		
T006	Pedunculate oak *(Quercus robur)*	Owned by local council. Parkland tree. Target # - road. Target # - overhead wires. Target # - open ground. - Within 1x tree height. - Occupancy - Occasionally(2). - Not practical to move the target. - Not practical to restrict access to the target zone.	Height (m): 17 Crown Radius (m): 10.2N, 10.3E, 11.2S, 10.7W Life Stage: Early Mature Life Exp.: 50+ Years	Monitor for change.	01-Aug-2028 (3 Years)		

Appendix 2: Glossary of Terms

Tabular Heading

Survey & Site	Each inspection is carried out within a Survey. The Survey dictates the site for this tree.
Location	The location – stored as longitude/latitude in the GIS database. Also displayed as national grid references.
Reference	A reference name or number. e.g. T01, G14.
Other Reference	A TPO number, other reference(s), or tag number.
Species *	The Common Species and botanical name are presented as a single list. If the Tree Structure is a Group, Hedge, Shrubs or Woodland, then these are recorded as multiple species.
Variety	A variety or cultivar (text).
Description	A detailed description of the tree. For example: its general structure, its location, potential targets at risk, etc. This information tends to be unchanging between inspections.
Tree Structure	One of: Tree, Multi-stemmed tree, Group, Hedge, Stump, etc. This field determines whether the icon is a point or a polygon.
Age Class	One of: Newly Planted, Young, Semi mature, Early Mature, Mature, Over Mature, Veteran.
Life Expectancy	Estimate life expectancy or "remaining contribution" in years, e.g. 10+, 20+, etc.
Number of Stems	Number of stems in a multi-stemmed tree. If the Structure is a Group, Hedge, Shrubs or Woodland, then the Number of Trees for each species are automatically added up and the total stored in the this field for the group.
Inspection Cycle	How long before this tree should be inspected again, e.g. 1 Year, 2 Years, 5 Years, etc.
Condition	A summary of the overall condition: good, fair, poor, dead
Height	A measurement or estimate of the height in metres.
DBH	A measurement or estimate of the DBH in centi-metres. DBH means the diameter at breast height 1.5m.
Crown Radius	A measurement or estimate of the average crown radius in metres.
Survey Notes	Detailed notes of what was seen during this inspection.
Risk Assessment	*Matrix 1.* Likelihood matrix. **Likelihood of Failure** / **Likelihood of Impacting Target**: Very low, Low, Medium, High Imminent: Unlikely, Somewhat likely, Likely, Very likely Probable: Unlikely, Unlikely, Somewhat likely, Likely Possible: Unlikely, Unlikely, Unlikely, Somewhat likely Improbable: Unlikely, Unlikely, Unlikely, Unlikely *Matrix2.* Risk rating matrix. **Likelihood of Failure & Impact** / **Consequences of Failure**: Negligible, Minor, Significant, Severe Very likely: Low, Moderate, High, Extreme Likely: Low, Moderate, High, High Somewhat likely: Low, Low, Moderate, Moderate Unlikely: Low, Low, Low, Low This is based on TRAQ the rating quantified by The International Society of Arboriculture and is based on the following principles.
Recommendation 1 Timescale 1	A set of recommendations for maintenance work or further inspections required. A timescale for these recommendations, e.g. No Action, Urgent, 6 Months, 1 Year, 2 Years, etc.

Recommendation 2 Timescale 2	Another set of recommendations for maintenance work or further inspections required. *As above…*
Recommendation 3 Timescale 3	Long term set of recommendations for maintenance work or further inspections required. *As above…*

- **Photos –** If required pictures are taken to show the defect and remedial action required.

The above priorities recognise the practicalities of organising remedial works, e.g., an element of risk exists if any tree has a defect and it is located near a person's property, but the Law states that landowners should do what is "reasonably practical" to reduce that risk.

General Terms

Access facilitation pruning. One off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site

Adaptive growth. In tree biomechanics, the process whereby the rate of wood formation in the cambial zone, as well as wood quality, responds to gravity and other forces acting on the cambium. This helps to maintain a uniform distribution of mechanical stress

Adaptive roots. The adaptive growth of existing roots; or the production of new roots in response to damage, decay or altered mechanical loading

Adventitious shoots. Shoots that develop other than from apical, axillary or dormant buds; see also 'epicormic'

Anchorage. The system whereby a tree is fixed within the soil, involving cohesion between roots and soil and the development of a branched system of roots which withstands wind and gravitational forces transmitted from the aerial parts of the tree

Arboricultural Method Statement. Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained

Arboriculturist. Person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to **construction Architecture.** In a tree, a term describing the pattern of branching of the crown or root system

Axil. The place where a bud is borne between a leaf and its parent shoot

Bacteria. Microscopic single-celled organisms, many species of which break down dead organic matter, and some of which cause diseases in other organisms

Bark. A term usually applied to all the tissues of a woody plant lying outside the vascular cambium, thus including the phloem, cortex and periderm; occasionally applied only to the periderm or the phellem

Basidiomycotina (Basidiomycetes). One of the major taxonomic groups of fungi; their spores are borne on microscopic peg-like strucres (basidia), which in many types are in turn borne on or within conspicuous fruit bodies, such as brackets or toadstools. Most of the principal decay fungi in standing trees are basidiomycetes

Bolling. A term sometimes used to describe pollard heads

Bottle-butt. A broadening of the stem base and buttresses of a tree, in excess of normal and sometimes denoting a growth response to weakening in that region, especially due to decay involving selective delignification

Bracing. The use of rods or cables to restrain the movement between parts of a tree

Branch:
· **Primary.** A first order branch arising from a stem
· **Lateral.** A second order branch, subordinate to a primary branch or stem and bearing sub-lateral branches
· **Sub-lateral.** A third order branch, subordinate to a lateral or primary branch, or stem and usually bearing only twigs

Branch bark ridge. The raised arc of bark tissues that forms within the acute angle between a branch and its parent stem

Branch collar. A visible swelling formed at the base of a branch whose diameter growth has been disproportionately slow compared to that of the parent stem; a term sometimes applied also to the pattern of growth of the cells of the parent stem around the branch base

Brown-rot. A type of wood decay in which cellulose is degraded, while lignin is only modified

Compartmentalisation. The confinement of disease, decay or other dysfunction within an anatomically discrete region of plant tissue, due to passive and/or active defences operating at the boundaries of the affected region

Competent person. A person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.

Compression fork. An acute angled fork that is mechanically optimised for the growth pressure that two or more adjacent stems exert on each other

Compression strength. The ability of a material or structure to resist failure when subjected to compressive loading; measurable in trees with special drilling devices

Compressive loading. Mechanical loading which exerts a positive pressure; the opposite to tensile loading

Condition. An indication of the physiological condition of the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree

Construction. Site based operations with the potential to affect existing trees

Construction exclusion zone. Area based on the Root Protection Area from which access is prohibited for the duration of the project

Crown/Canopy. The main foliage bearing section of the tree

Crown lifting. The removal of limbs and small branches to a specified height above ground level

Crown thinning. The removal of a proportion of secondary branch growth throughout the crown to produce an even density of foliage around a well-balanced branch structure

Crown reduction/shaping. A specified reduction in crown size whilst preserving, as far as possible, the natural tree shape

Crown reduction/thinning. Reduction of the canopy volume by thinning to remove dominant branches whilst preserving, as far as possible the natural tree shape

Deadwood. Dead branch wood

Defect. In relation to tree hazards, any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment

Delamination. The separation of wood layers along their length, visible as longitudinal splitting

Dieback. The death of parts of a woody plant, starting at shoot-tips or root-tips

Disease. A malfunction in or destruction of tissues within a living organism, usually excluding mechanical damage; in trees, usually caused by pathogenic micro-organisms

Distal. In the direction away from the main body of a tree or subject organism (cf. proximal)

Dominance. In trees, the tendency for a leading shoot to grow faster or more vigorously than the lateral shoots; also the tendency of a tree to maintain a taller crown than its neighbours

Dormant bud. An axial bud which does not develop into a shoot until after the formation of two or more annual wood increments; many such buds persist through the life of a tree and develop only if stimulated to do so

Buckling. An irreversible deformation of a structure subjected to a bending load

Buttress zone. The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of the junctions

Cambium. Layer of dividing cells producing xylem (woody) tissue internally and phloem (bark) tissue externally

Canker. A persistent lesion formed by the death of bark and cambium due to colonisation by fungi or bacteria

Canopy species. Tree species that mature to form a closed woodland canopy

Cleaning out. The removal of dead, crossing, weak, and damaged branches, where this will not damage or spoil the overall appearance of the tree

Epicormic shoot. A shoot having developed from a dormant or adventitious bud and not having developed from a first year shoot

Excrescence. Any abnormal outgrowth on the surface of tree or other organism

Excurrent. In trees, a system of branching in which there is a well-defined central main stem, bearing branches which are limited in their length, diameter and secondary branching (cf. decurrent)

Fastigiate. Having upright, often clustered branches

Felling licence. In the UK, a permit to fell trees in excess of a stipulated number of stems or volume of timber

Field layer. Herbs, ferns, grasses and sedges

Flush-cut. A pruning cut which removes part of the branch bark ridge and or branch-collar

Girdling root. A root which circles and constricts the stem or roots possibly causing death of phloem and/or cambial tissue

Ground layer. Mosses, ivy, lichens and fungi

Guying. A form of artificial support with cables for trees with a temporarily inadequate anchorage

Habit. The overall growth characteristics, shape of the tree and branch structure

Hazard beam. An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting

Heartwood/false-heartwood. The dead central wood that has become dysfunctional as part of the aging processes and being distinct from the sapwood

Heave. A term mainly applicable to a shrinkable clay soil which expands due to re-wetting after the felling of a tree which was previously extracting moisture from the deeper layers; also the lifting of pavements and other structures by root diameter expansion; also the lifting of one side of a wind-rocked root-plate

High canopy tree species. Tree species having potential to contribute to the closed canopy of a mature woodland or forest

Incipient failure. In wood tissues, a mechanical failure which results only in deformation or cracking, and not in the fall or detachment of the affected part

Included bark (ingrown bark). Bark of adjacent parts of a tree (usually forks, acutely joined branches or basal flutes) which is in face-to-face contact

Dysfunction. In woody tissues, the loss of physiological function, especially water conduction, in sapwood

DBH (Diameter at Breast Height). Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point. Where measurement at a height of 1.5 metres is not possible, another height may be specified

Deadwood. Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard

Engineer-designed hard surfacing. Hard surfacing constructed within the 'Root protection area' of a tree, which will be designed by a structural or geotechnical; engineer in collaboration with an arboriculturist as set out in clause 7.4 of British Standard BS5837:2012. The purpose being to minimise the effects of the construction on the health of the tree.

Occlusion. The process whereby a wound is progressively closed by the formation of new wood and bark around it

Pathogen. A micro-organism which causes disease in another organism

Photosynthesis. The process whereby plants use light energy to split hydrogen from water molecules, and combine it with carbon dioxide to form the molecular building blocks for synthesizing carbohydrates and other biochemical products

Phototropic upstarts. This is a term used by Claus Mattheck to describe a lateral branch within the lower crown which extends out and upwards of the main canopy. These excessively long branches can act as a lever causing branches to tear out and possibly shorten the tree's life.

Phytotoxic. Toxic to plants

Pollarding. The removal of the tree canopy, back to the stem or primary branches, usually to a point just outside that of the previous cutting. Pollarding may involve the removal of the entire canopy in one operation, or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species

Primary branch. A major branch, generally having a basal diameter greater than 0.25 x stem diameter

Primary root zone. The soil volume most likely to contain roots that are critical to the health and stability of the tree and normally defined by reference BS5837 (2012) Trees in Relation to design, demolition and construction

Probability. A statistical measure of the likelihood that a particular event might occur

Proximal. In the direction towards from the main body of a tree or other living organism (cf. distal)

Pruning. The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs

Radial. In the plane or direction of the radius of a circular object such as a tree stem

Rams-horn. In connection with wounds on trees, a roll of occluding tissues which has a spiral structure as seen in cross-section

Rays. Strips of radially elongated parenchyma cells within wood and bark. The functions of rays include food storage, radial translocation and contributing to the strength of wood

Increment borer. A hollow auger, which can be used for the extraction of wood cores for counting or measuring wood increments or for inspecting the condition of the wood

Infection. The establishment of a parasitic micro-organism in the tissues of a tree or other organism

Lever arm. A mechanical term denoting the length of the lever represented by a structure that is free to move at one end, such as a tree or an individual branch

Lignin. The hard, cement-like constituent of wood cells; deposition of lignin within the matrix of cellulose microfibrils in the cell wall is termed Lignification

Lions tailing. A term applied to a branch of a tree that has few if any side-branches except at its end, and is thus liable to snap due to endloading

Loading. A mechanical term describing the force acting on a structure from a particular source; e.g. the weight of the structure itself or wind pressure

Longitudinal. Along the length (of a stem, root or branch)

Lopping. A term often used to describe the removal of large branches from a tree, but also used to describe other forms of cutting

Microdrill. An electronic rotating steel probe, which when inserted into woody tissue provides a measure of tissue density

Minor deadwood. Deadwood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree

Mulch. Material laid down over the rooting area of a tree or other plant to help conserve moisture; a mulch may consist of organic matter or a sheet of plastic or other artificial material

Mycelium. The body of a fungus, consisting of branched filaments(hyphae)

Occluding tissues. A general term for the roll of wood, cambium and bark that forms around a wound on a woody plant (cf. woundwood)

Reactive Growth/Reaction Wood. Production of woody tissue in response to altered mechanical loading; often in response to internal defect or decay and associated strength loss (cf. adaptive growth)

Removal of deadwood. Unless otherwise specified, this refers to the removal of all accessible dead, dying and diseased branchwood and broken snags

Removal of major deadwood. The removal of, dead, dying and diseased branchwood above a specified size

Respacing. Selective removal of trees from a group or woodland to provide space and resources for the development of retained trees

Residual wall. The wall of non-decayed wood remaining following decay of internal stem, branch or root tissues

Rib. A ridge of wood that has usually developed because of locally increased mechanical loading. Often associated with internal cracking in the wood of the stem, branch or root.

Ring-barking (girdling)**.** The removal of a ring of bark and phloem around the circumference of a stem or branch, normally resulting in an inability to transport photosynthetic assimilates below the area of damage. Almost inevitably results in the eventual death of the affected stem or branch above the damage

Ripewood. The older central wood of those tree species in which sapwood gradually ages without being converted to heartwood

Root-collar. The transitional area between the stem/s and roots

Root-collar examination. Excavation of surfacing and soils around the root-collar to assess the structural integrity of roots and/or stem

Root protection area (RPA). Layout design tool indicating a national minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability and where the protection of the roots and soil structure is treated as a priority

Root zone. Area of soils containing absorptive roots of the tree/s described. The **Primary** root zone is that which we consider of primary importance to the physiological well-being of the tree

Sapwood. Living xylem tissues

Secondary branch. A branch, generally having a basal diameter of less than 0.25 x stem diameter

Selective delignification. A kind of wood decay (white-rot) in which lignin is degraded faster than cellulose

Service. Any above- or below-ground structure or apparatus required for utility provision e.g. drainage, gas supplies, ground source heat pumps, CCTV and satellite communications

Shedding. In woody plants, the normal abscission, rotting off or sloughing of leaves, floral parts, twigs, fine roots and bark scales

Silviculture. The practice of controlling the establishment, growth, composition, health, and quality of forests to meet diverse needs and values

Silvicultural thinning. Removal of selected trees to favour the development of retained specimens to achieve a management objective

Simultaneous white-rot. A kind of wood decay in which lignin and cellulose are degraded at about the same rate

Snag. In woody plants, a portion of a cut or broken stem, branch or root which extends beyond any growing-point or dormant bud; a snag usually tends to die back to the nearest growing point

Soft-rot. A kind of wood decay in which a fungus degrades cellulose within the cell walls, without any general degradation of the wall as a whole

Tree Risk Assessment. An assessment and description of the risks and where appropriate the values associated with a tree or trees. The primary risk being considered is that from falling trees. Other risks, such as damage to infrastructure, interruption of service and building subsidence may also be considered

· Walkover – A general view of the tree population considered in the context of the adjacent land-use to identify trees that present significantly elevated risks

· Drive-by - A general view of the tree population from a moving vehicle and considered in the context of the adjacent land-use to identify trees that present significantly elevated risks

· Individual – the assessment of risks from a single tree considered in the context of the adjacent land-use to identify trees that present significantly elevated risks

Vascular wilt. A type of plant disease in which water-conducting cells become dysfunctional

Vessels. Water-conducting cells in plants, usually wide and long for hydraulic efficiency; generally not present in coniferous trees

Veteran tree. Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. These characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem

Spores. Propagules of fungi and many other life-forms; most spores are microscopic and dispersed in air or water

Shrub species. Woody perennial species forming the lowest level of woody plants in a woodland and not normally considered to be trees

Sporophore. The spore bearing structure of fungi

Sprouts. Adventitious shoot growth erupting from beneath the bark

Stem/s. Principle above-ground structural component(s) of a tree that supports its branches

Stress. In plant physiology, a condition under which one or more physiological functions are not operating within their optimum range, for example due to lack of water, inadequate nutrition or extremes of temperature

Stress. In mechanics, the application of a force to an object

Stringy white-rot. The kind of wood decay produced by selective delignification

Storm. A layer of tissue which supports the fruit bodies of some types of fungi, mainly ascomycetes

Structural roots. Roots, generally having a diameter greater than ten millimetres, and contributing significantly to the structural support and stability of the tree

Structure. Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork

Subsidence. In relation to soil or structures resting in or on soil, a sinking due to shrinkage when certain types of clay soil dry out, sometimes due to extraction of moisture by tree roots

Subsidence. In relation to branches of trees, a term that can be used to describe a progressive downward bending due to increasing weight

Taper. In stems and branches, the degree of change in girth along a given length

Target canker. A kind of perennial canker, containing concentric rings of dead occluding tissues

Targets. In tree risk assessment (with slight misuse of normal meaning) persons or property or other things of value which might be harmed by mechanical failure of the tree or by objects falling from it

Topping. In arboriculture, the removal of the crown of a tree, or of a major proportion of it

Torsional stress. Mechanical stress applied by a twisting force

Tree Protection Plan. Scale drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures

Vigour. The expression of carbohydrate expenditure to growth (in trees)

Volunteer trees. Trees arising from natural colonisation rather than having been planted

White-rot. A range of kinds of wood decay in which lignin, usually together with cellulose and other wood constituents, is degraded

Wind exposure. The degree to which a tree or other object is exposed to wind, both in terms of duration and velocity

Wind pressure. The force exerted by a wind on a particular object

Windthrow. The blowing over of a tree at its roots

Wound dressing. A general term for sealants and other materials used to cover wounds in the hope of protecting them against desiccation and infection; only of proven value against fresh wound parasites

Woundwood. Wood with atypical anatomical features, formed in the vicinity of a wound

Appendix 3: Guidelines & Limitations

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

Staff carrying out the work must be qualified, experienced contractors, and should be covered by adequate public liability insurance.

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.

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.

No liability can be accepted by the consultant in respect of the trees unless the recommendations of this report are carried out as outlined and within the stated timescales.

It is advisable to have trees inspected by an arboricultural consultant regularly. In this instance it is recommended that these inspections are made as per the recommended re-inspection timings in this report. Furthermore it is recommended that trees be re-inspected following certain events. These include; severe weather events, significant changes to site usage, changes that affect wind loading on the trees (e.g. Removal of neighbouring trees, erection/demolition of buildings).

Appendix 4: Site Plan

Lincolnshire Tree Services Ltd
Waddingham Parish Council

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