

Nettleden With Potton End Parish Council

Village Hall

The Green

Potton End

Berkhamsted

Hertfordshire

HP4 2QG



Ref # 211005

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1. Client instruction

I have been instructed by Nettledon With Potton End Parish Council (referred to as the 'client' from here on) to carry out a tree condition report on the trees within the boundaries of several sites located within the parish, as defined in document supplied by Andrew Farrow.

The scope of the report is as follows: -

- Complete an on-site survey assessing all trees within the specified sites around the parish.
- Record only those trees which require remedial works.
- Provide recommendations for remedial work to trees posing an unacceptable risk of causing harm or damage through structural failure and provide a suggested timescale for those works.

1.1. Background data and client information provided

There is no background information, this is a baseline tree inspection for health and safety purposes. Reference to individual trees should be made using the numbering system in this survey. I have not received or been made aware of a tree policy for this site.

1.2. Scope of survey and report

The scope of this report is as follows: -

- An assessment of risk based on targets and target occupation within falling distance of trees.
- Provide a schedule of only those trees inspected and requiring remedial action, a report 'by defect'.
- A schedule of any subsequent inspections based on locations and targets.

1.3. Technical References

This arboricultural report is based on the following primary technical references:

- British Standards Institution (2010) BS:3998 Recommendations for tree work.
- Lonsdale, D. 1999 Principles of Tree Hazard Assessment and Management.
- Mattheck, C and Breloer, H. The Body Language of Trees.
- Strouts, R.G. and Winter, T.G 1994. Diagnosis of Ill-Health in Trees.
- Weber, K. and Mattheck, C. The Manual of Wood Decay in Trees.
- The National Tree Safety Group. 2011. Common Sense Risk Management of Trees.

2. Limitations of report

The following limitations apply to the survey and report.

2.1. Survey

The inspection was carried out from ground level using a Visual Tree Assessment (VTA – Matheck et al) method.

All visual observations and recommendations relate to the condition of the trees on the day of the survey.

Unusual weather conditions, changes in soil, soil level and changes to surroundings may result in a dramatic change in the trees health and a new survey would be appropriate in this event.

2.2. Trees as dynamic organisms and risk

Trees are dynamic structures that are constantly in motion through growth, decline and seasonal impacts.

Trees provide an inherent level of risk as they grow, become damaged and decline. No tree can be deemed as 100% safe or free from risk of failure.

Regular inspections can help identify potential problems before they become acute.

2.3. Duty of care and recommendations

'Under both the civil law and criminal law, an owner of land on which a tree stands has responsibilities for the health and safety of those on or near the land and has potential liabilities arising from the falling of a tree or branch' (NTSG, 2011).

Recommendations for remedial action have been proposed and are provided with the outputs from this survey.

Recommendations have been made to manage the risk from trees and defects, for sound arboricultural management of tree stock and where further investigation or assessment of tree condition is required to make a reasoned and proactive judgement.

Recommended timescales for completion of recommended works have been provided to allow the tree owner to manage their budget according to potential risk of failure or damage.

A recommendation is provided in respect of frequency and timing of future inspections.

2.4. Site factors and changes

Various site factors influence and change the trees condition over time. Changes in site usage and occupancy, ground conditions and construction/demolition etc as well as significant weather events have the potential to change the condition and level of risk of individual trees. Significant changes to site factors may require a new assessment of tree condition.

3. Site assessment

3.1. Site visit conditions

I carried out an unaccompanied site survey on Tuesday 19th October, the weather was generally overcast and windy with some mild drizzle early in the day. All observations were taken from ground level using the VTA (Visual Tree Assessment) method of K Mattheck et al.

3.2. Site description

The sites varied from open parkland to small woodland. Some sites, notably The Conservation area and The Old Green have a lot of understory, shrubs and bramble making access to some trees impossible. The Frithsden Green site has a number of low voltage powerlines running across it, all the trees on this site have branches within the Exclusion Zone. The Distribution Network Operator (DNO) should be consulted before any work is planned on these trees.

I did not examine the soil or take samples for analysis.

3.3. Survey methodology

During the on-site survey all trees within the 8 specified sites around the parish were assessed from ground level, 41 individual trees and 2 groups of trees have been identified as requiring remedial work.

The following survey tools and aids have been used during the inspection:-

Sounding mallet, clinometer and probe.

This inspection considers the following:-

- A distance visual assessment of the tree considering the overall shape, form, foliage colour appropriate for the time of year and any other elements that do not appear normal for that species.
- Exposure to weather. This can be due to it being a solitary tree or the surrounding tree cover could have been removed exposing it to 'new wind forces' acting on the canopy.
- Prevailing ground conditions. For example: soil erosion, ponding, soil characteristics and their subsequent impact on the tree, presence / lack of vegetation.
- Any information as to the tree's history or history of the surrounding trees / landscape. For example: previously failed limbs, surrounding tree removal / failure, excavations, fruiting bodies seen.
- Knowledge of previous documented information of issues with a particular species. For example: tight union failure on Beech, poor compartmentalisation of Willow.
- The health and visual defects of the tree. For example: cavities, the trees 'body language', dieback, foliage irregularities, fungal brackets, and deadwood.

From the data captured through inspection, an assessment is made of the likelihood of any part or parts of each tree likely to fail in relation to the target/occupancy value within the tree's failure area.

Recommendations are then made to mitigate the likely failures and recommendations consider the balance of the likelihood of failure, the potential impacts of failure and the likely cost implications for undertaking remedial works.

Recommendations may include the following (not exhaustive) options:-

- Recommendations for further and more detailed assessment.
- Remedial pruning / limb removal.
- Whole tree removal.
- Removal of significant deadwood.
- Root investigation, de-compaction or soil improvement.
- Or no work may be needed.

3.4. Identification of trees on site

Trees have been provided with a unique reference number which can be found in the schedule of trees provided in the Appendix

Trees have also been plotted on the accompanying tree location plan.

4. Site data

4.1. General tree stock information

The tree stock appears to be in relatively good condition village wide with a good variety of species and age range.

T14 falls outside of the boundary of the Sports Field but has been included due to the very large dead limb that overhangs the Sports Field.

4.2. Recommended remedial actions

Tree Survey Recommendations

Client: Nettleden With Potton End Parish Council

Site: All sites

Timescale	No. Recommendations
6 Months	12
1 Year	30
2 Years	2
No Action	1

Total 45

Ref	Species	Description	Measurements	Recommendation	Work Timescale
T001	Common Hawthorn (<i>Crataegus monogyna</i>)	Owned by the estate. Parkland tree. Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 2 DBH (cm): 98 Stems: 5 Life Stage: Mature	Sever & strip ivy	19-Apr-2022 (6 Months)
T006	Horse Chestnut (<i>Aesculus hippocastanum</i>)	Owned by the estate. Parkland tree. - Occupancy - Occasionally(2).	Height (m): 12 Crown Radius (m): 6 DBH (cm): 63 Life Stage: Mature	Remove deadwood - greater than 25 mm Monitor condition closely	19-Apr-2022 (6 Months)
T015	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree Target # - Fence - Occupancy - Occasionally(2)..	Height (m): 19 Crown Radius (m): 7 DBH (cm): 73 Stems: 2 Life Stage: Over Mature	Fell tree.	19-Apr-2022 (6 Months)
T016	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree Target # - Fence - Occupancy - Occasionally(2)..	Height (m): 19 Crown Radius (m): 4 DBH (cm): 32 Stems: 2 Life Stage: Over Mature	Fell tree.	19-Apr-2022 (6 Months)

Ref	Species	Description	Measurements	Recommendation	Work Timescale
T017	Wild Cherry (<i>Prunus avium</i>)	Owned by the estate. Parkland tree. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 14 Crown Radius (m): 5 DBH (cm): 38 Life Stage: Mature	Sectional fell/dismantle tree	19-Apr-2022 (6 Months)
T018	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree. Target # - Fence	Height (m): 8 Crown Radius (m): 1 DBH (cm): 30 Life Stage: Dead	Fell tree.	19-Apr-2022 (6 Months)
T020	Box Elder Maple (<i>Acer negundo</i>)	Owned by the estate Parkland tree. Target # - building Target # - car park Target # - dwelling Target # - footpath Target # - road - Occupancy - Frequent(3).	Height (m): 10 Crown Radius (m): 6 DBH (cm): 76 Life Stage: Mature	Remove deadwood - greater than 25 mm	19-Apr-2022 (6 Months)
T021	False Acacia (<i>Robinia pseudoacacia</i>)	Owned by the estate. Tree in hedge. Target # - dwelling Target # - Fence - Occupancy - Frequent(3).	Height (m): 7 Crown Radius (m): 3 DBH (cm): 25 Life Stage: Early Mature	Fell tree.	19-Apr-2022 (6 Months)
T035	Sycamore (<i>Acer pseudoplatanus</i>)	Owned by the estate. Target # - dwelling Target # - footpath Target # - Fence - Occupancy - Occasionally(2).	Height (m): 20 Crown Radius (m): 8 DBH (cm): 120 Stems: 2 Life Stage: Mature	Fell tree.	19-Apr-2022 (6 Months)
T037	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road - Occupancy - Occasionally(2).	Height (m): 9 Crown Radius (m): 6 DBH (cm): 72 Life Stage: Dead	Fell tree.	19-Apr-2022 (6 Months)
T038	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road - Occupancy - Occasionally(2).	Height (m): 9 Crown Radius (m): 6 DBH (cm): 66 Life Stage: Dead	Fell tree.	19-Apr-2022 (6 Months)

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Ref	Species	Description	Measurements	Recommendation	Work Timescale
T039	Wild Cherry (<i>Prunus avium</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road Target # - building - Occupancy - Occasionally(2).	Height (m): 8 Crown Radius (m): 6 DBH (cm): 47 Life Stage: Mature	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance.	19-Apr-2022 (6 Months)
G01	Prunus x10 (<i>Prunus sp.</i>)	Owned by the estate? Owned by neighbour? Tree in hedge. Target # - building Target # - road Target # - overhead wires - Occupancy - Frequent(3).	Height (m): 15 Crown Radius (m): 4 DBH (cm): 25 Trees: 10 Life Stage: Mature	Sever & strip ivy Clear around base & reinspect	19-Oct-2022 (1 Year)
G02	Pedunculate Oak x3 (<i>Quercus robur</i>)	Owned by the estate. Parkland tree. Target # - building Target # - Fence - Occupancy - Occasionally(2).	Height (m): 17 Crown Radius (m): 10 DBH (cm): 100 Trees: 3 Life Stage: Mature	Prune to clear farm buildings/trailers/sheds by 2m Remove deadwood - greater than 25 mm Sever ivy at base.	19-Oct-2022 (1 Year)
T002	European Lime (<i>Tilia x europaea</i>)	Owned by the estate. Parkland tree. Target # - road Target # - seating - Occupancy - Frequent(3).	Height (m): 19 Crown Radius (m): 5 DBH (cm): 80 Life Stage: Mature	Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)
T003	False Acacia (<i>Robinia pseudoacacia</i>)	Owned by the estate. Parkland tree. Target # - road Target # - seating - Occupancy - Occasionally(2).	Height (m): 11 Crown Radius (m): 5 DBH (cm): 74 Life Stage: Mature	Remove deadwood - greater than 25 mm Sever & strip ivy	19-Oct-2022 (1 Year)
T004	Pedunculate Oak (<i>Quercus robur</i>)	Owned by the estate. Parkland tree. Target # - road Target # - seating - Occupancy - Frequent(3).	Height (m): 22 Crown Radius (m): 9 DBH (cm): 79 Life Stage: Mature	Remove deadwood - greater than 25 mm Remove remaining limb at 10m on Eastern side that has previously failed	19-Oct-2022 (1 Year)
T005	Common Beech (<i>Fagus sylvatica</i>)	Owned by the estate. Parkland tree. Target # - road - Occupancy - Occasionally(2).	Height (m): 16 Crown Radius (m): 9 DBH (cm): 72 Life Stage: Mature	Remove hanging branch at 4m on southern side Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Recommendation	Work Timescale
T007	Sycamore (<i>Acer pseudoplatanus</i>)	Owned by the estate. Tree in hedge. Target # - building Target # - dwelling Target # - road - Occupancy - Frequent(3).	Height (m): 20 Crown Radius (m): 4 DBH (cm): 61 Stems: 2 Life Stage: Mature	Sectional fell/dismantle tree	19-Oct-2022 (1 Year)
T008	Norway Maple (<i>Acer platanoides</i>)	Parkland tree. Target # - overhead wires - Occupancy - Occasionally(2).	Height (m): 12 Crown Radius (m): 4 DBH (cm): 43 Life Stage: Mature	Prune to clear lines by 1m	19-Oct-2022 (1 Year)
T009	Common Ash (<i>Fraxinus excelsior</i>)	Owned by the estate. Parkland tree. Target # - substation Target # - road Target # - road sign - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 5 DBH (cm): 71 Stems: 2 Life Stage: Mature	Remove deadwood - greater than 25 mm Sever ivy at base.	19-Oct-2022 (1 Year)
T010	Common Hawthorn (<i>Crataegus monogyna</i>)	Owned by the estate. Parkland tree. Target # - road - Occupancy - Frequent(3).	Height (m): 6 Crown Radius (m): 5 DBH (cm): 80 Stems: 4 Life Stage: Mature	Sever ivy at base.	19-Oct-2022 (1 Year)
T011	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - overhead wires - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 4 DBH (cm): 37 Life Stage: Mature	Prune to clear lines by 1m	19-Oct-2022 (1 Year)
T012	Not identified (<i>Not identified</i>)	Owned by the estate. Parkland tree. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 12 Crown Radius (m): 8 DBH (cm): 53 Life Stage: Over Mature	Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)
T013	Pedunculate Oak (<i>Quercus robur</i>)	Owned by the estate? Owned by neighbour? Tree in fence line. Tree in hedge. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 18 Crown Radius (m): 11 DBH (cm): 100 Life Stage: Over Mature	Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Recommendation	Work Timescale
T014	Pedunculate Oak (<i>Quercus robur</i>)	Owned by neighbour. Tree in fence line. Tree in hedge. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 18 Crown Radius (m): 11 DBH (cm): 100 Life Stage: Over Mature	Contact owner Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)
T019	Turkey Oak (<i>Quercus cerris</i>)	Owned by the estate. Parkland tree. Target # - footpath Target # - overhead wires Target # - playground Target # - road - Occupancy - Frequent(3).	Height (m): 18 Crown Radius (m): 9 DBH (cm): 78 Life Stage: Mature	Prune to clear play Structure by 2m Prune to clear lines by 1m Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)
T022	Sweet Chestnut (<i>Castanea sativa</i>)	Owned by the estate. Parkland tree. Roadside tree. Target # - dwelling Target # - road - Occupancy - Frequent(3).	Height (m): 17 Crown Radius (m): 12 DBH (cm): 84 Life Stage: Mature	Crown lift to 5.2 m for highway clearance. Remove deadwood - greater than 25 m Remove rope	19-Oct-2022 (1 Year)
T023	Sweet Chestnut (<i>Castanea sativa</i>)	Owned by the estate. Parkland tree. Roadside tree. Target # - sign Target # - road - Occupancy - Frequent(3).	Height (m): 10 Crown Radius (m): 12 DBH (cm): 84 Life Stage: Mature	Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T024	Purple Cherry Plum (<i>Prunus cerasifera</i> 'Pissardi')	Owned by the estate. Tree in hedge. Target # - overhead wires Target # - playground Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 7 DBH (cm): 41 Life Stage: Mature	Crown lift to 5.2 m for highway clearance. Prune to clear lines & pole by 1m Remove deadwood - greater than 25 mm	19-Oct-2022 (1 Year)
T025	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 6 Crown Radius (m): 3 DBH (cm): 40 Life Stage: Mature	Sever & strip ivy Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Recommendation	Work Timescale
T026	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 3 DBH (cm): 40 Life Stage: Mature	Sever & strip ivy Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T027	Purple Cherry Plum (<i>Prunus cerasifera</i> 'Pissardi')	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 3 DBH (cm): 435 Life Stage: Mature	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T028	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 11 Crown Radius (m): 5 DBH (cm): 39 Life Stage: Mature	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T029	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 3 DBH (cm): 42 Life Stage: Mature	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T030	Purple Cherry Plum (<i>Prunus cerasifera</i> 'Pissardi')	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 6 Crown Radius (m): 5 DBH (cm): 40 Life Stage: Mature	Prune to clear lamp by 1m Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T031	Not identified (<i>Not identified</i>)	Owned by the estate. Target # - building Target # - Fence - Occupancy - Occasionally(2).	Height (m): 10 Crown Radius (m): 4 DBH (cm): 20 Stems: 2 Life Stage: Mature	Clear around base to allow for inspection	19-Oct-2022 (1 Year)
T032	Horse Chestnut (<i>Aesculus hippocastanum</i>)	Owned by the estate. Parkland tree. Target # - dwelling Target # - footpath Target # - Fence - Occupancy - Occasionally(2).	Height (m): 13 Crown Radius (m): 8 DBH (cm): 108 Stems: 3 Life Stage: Mature	Monitor condition	19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Recommendation	Work Timescale
T033	Sycamore (<i>Acer pseudoplatanus</i>)	Owned by the estate. Parkland tree. Target # - footpath - Occupancy - Occasionally(2).	Height (m): 16 Crown Radius (m): 9 DBH (cm): 77 Stems: 4 Life Stage: Mature	Monitor condition	19-Oct-2022 (1 Year)
T034	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - footpath - Occupancy - Occasionally(2).	Height (m): 15 Crown Radius (m): 4 DBH (cm): 99 Stems: 2 Life Stage: Over Mature	Fell tree.	19-Oct-2022 (1 Year)
T040	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road Target # - building - Occupancy - Occasionally(2).	Height (m): 18 Crown Radius (m): 4 DBH (cm): 41 Life Stage: Mature	Prune to clear lines by 1m	19-Oct-2022 (1 Year)
T041	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road Target # - building - Occupancy - Occasionally(2).	Height (m): 17 Crown Radius (m): 4 DBH (cm): 46 Life Stage: Mature	Prune to clear lines by 1m Remove deadwood - greater than 25 mm Remove hanging branch Crown lift to 5.2 m for highway clearance.	19-Oct-2022 (1 Year)
T020	Box Elder Maple (<i>Acer negundo</i>)	Owned by the estate Parkland tree. Target # - building Target # - car park Target # - dwelling Target # - footpath Target # - road - Occupancy - Frequent(3).	Height (m): 10 Crown Radius (m): 6 DBH (cm): 76 Life Stage: Mature	Fell tree.	19-Oct-2023 (2 Years)
T036	Pedunculate Oak (<i>Quercus robur</i>)	Owned by the estate. Tree in hedge. Target # - road - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 10 DBH (cm): 120 Stems: 2 Life Stage: Mature	Sever ivy at base and reinspect	19-Oct-2023 (2 Years)

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4.3. Recommendations for resurvey

Given the location of the trees and the frequency of use of the adjacent roads, footpaths, play areas and carparks, it is recommended that the trees on site should be surveyed with a frequency of 12 – 18 months, ideally in a leaf on, leaf off cycle.

4.4. Recommendations for completion of remedial action

- No direct contact has been made with the local authority to check for Conservation Areas or Tree Preservation orders. Before any work commences checks should be made with the local authority to make sure there is no statutory protection on these trees.
- All tree works should be carried out in accordance with BS:3998 2010 Recommendations for Tree Work. Tree work can be a hazardous profession, so it is imperative that all operatives have the relevant training and experience and that the company be able to supply records of said training, insurances, method statements, risk assessments, health and safety and environmental policies.
- All biosecurity measures should be in place during any works.
- All tree work operations are covered by the Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000. This provides statutory protection to birds, bats and other animals that inhabit trees. All tree work operations are covered by these regulations and advice from an ecologist should be sought before undertaking any works that could constitute an offense.

5. Glossary

Adaptive Growth - In tree biomechanics, the process whereby wood formation is influenced both in quantity and quality by the action of gravitational forces and mechanical stresses on the cambial zone.

Adventitious bud/root/shoot - bud/root/shoot that forms other than through primary development.

Aerobic Conditions - In which oxygen is freely available, or to biomechanical processes that depend on the presence of oxygen.

Anaerobic - A condition marked by the absence of oxygen; Generally, such areas are unsuitable for normal life and growth of plant tissues. These sites tend to be populated by bacteria capable of surviving low oxygen conditions often associated with Slime Flux.

Arboriculture - The culture and management of trees as groups and individuals primarily for amenity and other non-forestry purposes.

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.

Arborist - A person possessing the technical competence through experience and related training to provide management of trees or other woody plants in a landscape setting. Generally involved with the development or management of trees for visual amenity or land management rather than the growth of trees for product or profit.

Arisings - any parts of a tree, including stem, roots, branches (brushwood), bark, other woody material and foliage, derived from the tree during tree work operations.

Barrier Zone - A layer within an annual increment of wood which contains abnormal xylem cells, laid down by the cambium in response to wounding or another trauma.

Body Language in Trees - The outward display of growth responses and or deformation in response to mechanical stress.

Bole or Trunk - The main stem of a tree below its first major branch. **Bracket** - A type of fruiting body produced by various fungal species, plate like to hoof like in shape and often a one-sided attachment to the wood or bark.

Branch Bark Ridge - A ridged area located at the union of a branch to a trunk or stem.

Branch Collar - Trunk tissue that forms around the base of a branch between the main stem and the branch, or between a main branch and a lateral branch. As a branch decreases in vigour or begins to die, the collar usually becomes more pronounced and completely encircles the branch.

Brown Rot - Form of decay where cellulose is degraded, while lignin is only modified.

Buttress Root - Roots that emerge from the base of the tree stem, normally large and well developed that rapidly reduce in diameter to create the Root Plate this offers structural support for the tree. Buttress roots divide rapidly forming the connection between the stem and the transport roots.

Cabling Bracing - Installing cables within the crown of a tree to prevent collapse.

Callus - Undifferentiated cells often formed at the edges of recent injuries. This tissue quickly becomes differentiated, forming cells of the type characteristic of that position on the tree (e.g., forming wood, bark, roots, etc.) see wound response tissue.

Cambium - A thin layer of actively growing and dividing cells, located between the xylem (sapwood) and bark of a plant, the part responsible for radial growth of a tree stem or branch.

Canopy - The topmost layer of twigs and foliage in a woodland, tree or group of trees.

Canker - A localized area of dead bark and cambium on a stem or branch, caused by fungal or bacterial organisms, characterized by wound wood development on the periphery. This may be annual or perennial.

Cavity - An open and exposed area of wood, where the bark is missing, and internal wood has been decayed and dissolved.

Chlorotic also Chlorosis - A condition of the plant marked by yellowing of normally green foliage, often indicating nutrient deficiency or plant dysfunction.

Clinometer - Device that measures vertical angles and provides direct height measurements of objects by triangulation.

Co-dominant Stems/Trunk - Are forked branches or trunks of nearly the same size in diameter and lacking a normal branch union.

Compacted Soils - Soils in which the airspace (oxygen space) has been reduced or eliminated, reducing water infiltration and percolation, reducing root presence and inhibiting new root development.

Compartmentalization - The physiological process that creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms.

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

Compression Failure - Localized buckling of fibres and other longitudinal elements produced by compression of wood along the grain; compression failures sometimes develop in standing trees.

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

Compression Wood - Abnormal wood formed on the lower side of branches and curved stems, with physical properties different from normal wood.

Conservation Area - In Great Britain, designated areas of architectural or historical interest, in which there are special procedures for planning applications. Additionally, tree works cannot generally be undertaken without prior notification (Currently 6 weeks) to the relevant local planning authority. See also Tree Preservation Orders.

Construction exclusion zone - Area based on the root protection area (3.7) from which access is prohibited for the duration of a project.

Core Sample - A sample of wood extracted from a trunk or branch, using an increment borer tool. The resulting core can be analysed for characteristics of growth, wood strength, structure, decay, and for species identification.

Coppicing - Cutting trees close to ground level with the intention of encouraging regrowth of multiple shoots.

Crotch - The union of two or more branches; the auxiliary zone between branches.

Crown - The upper canopy of a tree, including upper trunk, scaffold branches, secondary branches, stems and leaves.

Crown Lifting / Raising, 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 Reduction - Operation that results in an overall reduction in the height and/or spread of the crown of a tree by means of a general shortening of twigs and/or branches, whilst retaining the main framework of the crown.

Crown Thinning – The removal of a proportion of small, live branches from throughout the crown to achieve an even density of foliage around a well-spaced and balanced branch structure, usually 5- 25%, allowing more light through its canopy and reducing wind resistance.

Distribution Network Operator – Run the distribution of electricity from the national grid to homes and businesses. Responsible for the network of towers, transformers, poles, cables and meters that deliver power to homes and businesses.

Deadwood (noun) - Deadwood is often present within the crown or on the stems of trees. It may be an indication of ill health; however, it may also indicate natural growth processes. If a target is present beneath the tree, deadwood may fall and cause injury or damage and should be removed, otherwise deadwood can remain intact for conservation purposes (insects, fungi, birds etc.).

Deadwood (verb) - The removal of dead branches from a tree's canopy, usually of a specified size (in diameter).

Decay - Progressive deterioration of organic tissues, usually caused by fungal or bacterial organisms, resulting in loss of cell structure, strength, and function. In wood, the loss of structural strength.

Decay Detection - The assessment of decay within a tree has been traditionally difficult, but recent advances have made it possible to achieve accurate representations of the internal section of a tree in both 2D and 3D, removing doubt over the condition of the tree and allowing accurate management decisions.

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.

Defoliation - The loss of plant foliage.

Dieback - Progressive death of buds, twigs and branch tissues, on individual limbs resulting in Deadwood, or throughout the canopy, extreme cases can result in Stag Heading.

Dripline - A projected line on the ground that corresponds to the spread of branches in the canopy, the farthest spread of branches.

Epicormic Shoots - Fast growing, weakly attached shoots/branches that often grow as a response to stress factors upon a tree or branch removal.

Exclusion Zone – Minimum safe distance that must be kept from powerlines to reduce the risk of electric shock. People, plant and equipment must stay out of the exclusion zone while an overhead powerline is live or energised.

Failure - In connection with tree hazards, a partial or total fracture within the wood tissue or loss of cohesion between roots and soil. (In total failure affected parts will snap or tear away completely, Partial failure there is a crack or deformation, which results in an altered distribution of mechanical stress.

Feeder Roots - Fine Fibrous water and nutrient absorbing roots located in the outer root system.

Flush-Cut - In trees and shrubs, a pruning cut close to the parent stem, which removes the branch bark ridge.

Foliage - The live leaves or needles of the tree; the plant part primarily responsible for photosynthesis.

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.

Gall - An abnormal, disorganized growth of plant tissues, caused by parasitic or infectious organisms such as insects, fungi, bacteria, or viruses.

General Prune – Remove all deadwood, crossing, diseased, reverted and weak branches. Remove basal and epicormic growth up to 5m on stem. Prune to clear phone lines by 1m. Prune to clear streetlight and allow beam to shine along path/road in both directions. Prune to clear building by 2 meters. Crown lift to 2.4 metres for pedestrians and 5.2 metres for vehicular access.

Girdling - In woody plants, any form of damage that destroys the bark and / or the Cambium all the way around the stem, branch or root, normally resulting in death of the damaged section.

Girdling Root - In woody plants, a root that grows across the buttress, or across other roots, eventually causing constriction of the radial growth.

Growth Increment - The incremental growth added as new annual ring develops each season over existing wood. This is seen as (growth) rings in cross-sections of wood.

Hazard Beam - An upwardly curved branch in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).

Heartwood - Inner non-functioning tissues that provide structural support to trunk.

Heave - In relation to shrinkable clay soils, expansion due to rewetting of a volume of soil previously subjected to the removal of water by plant / trees following felling or root severance. Also, in relation to root growth, the lifting of pavements and other structures by radial expansion. Also, in relation to tree stability, the lifting of one side of a wind rocked root plate.

Herbicide - A chemical compound that causes the death of a plant.

Included Bark - Bark tissue lodged in the union between a branch and the parent stem, in the crotch of two branches, or between the bases of co-dominant stems, indicating potential weak attachment.

Increment Borer - A tool that cuts and extracts a narrow cylinder of wood from a tree for analysis of the wood tissue and growth increments.

Knuckle - Swelling that forms at a pollard point, especially after repeated cutting.

Lapsed coppice/lapsed pollard - Tree that has been coppiced/pollarded but has not been maintained by cycles of cutting.

Leader - The primary terminal shoot or trunk of a tree.

Limb - A large lateral branch growing from the main trunk or from another larger branch.

Lion Tailing - Often the result of poor pruning practices; the main leader or branches are largely devoid of side branches; growth is restricted to the end of branches and is likely to suffer damage through end loading.

Monitoring - Due to the relative life span of trees in relation to our own, long-term monitoring provides a valuable insight to the health of trees, identifying decline and or stabilisation and or improvement.

Mulch - A material laid over the root system of a tree to help conserve moisture within the soil. Additionally, it may help control the development of weeds close to the tree.

Mycelium - A mass of growing filaments (hyphae) formed by fungi.

Mycorrhizae - The symbiotic relationship between roots and certain beneficial fungi. Mycorrhizae are the combined root / fungal growth.

Occluding Tissue - The general term of wood, cambium and bark that develop around the site of a wound on a woody plant.

Pathogen - A microorganism that causes diseases within another organism.

Phloem - The principle conductive tissue that the products of Photosynthesis are transported around the plant.

Photosynthesis - The process where light energy is used to create energy (Carbohydrate) for use within the plant.

Pollard - Tree that has formed a crown consisting of numerous branches arising from the same height on a main stem or principal branches.

Pollard Head - The swollen section of branch / stem that forms behind the pollarding cut.

Pollarding - Cutting a tree to encourage formation of numerous branches arising from the same height on a main stem or principal branches. This process is initially carried out on trees that have not yet reached maturity. The form of the tree can then be maintained by cycles of cutting. This is not the same as topping. The pollard heads collectively, and the framework of a pollarded tree, are both known as the bolling. Repeated management is required cyclically to maintain the feature.

Prune or Pruning - Selective removal of woody plant parts of any size, using saws, Loppers, Secateurs, or other pruning tools.

Reaction Wood - Wood with distinctive anatomical characteristics, formed in parts of leaning or crooked stems and in branches to provide additional strength / support. In hardwoods, tension wood usually forms. In conifers, compression wood is usually found.

Reaction Zone - A zone normally darker than surrounding wood that denoted the boundary often a defensive one between functional sapwood and dysfunctional or decaying wood.

Re-grading - The raising or lowering of a soil profile from its original grade.

Remedial Pruning - The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown.

Resistograph - Invasive decay detection technique whereby the resistance offered by the timber to a spinning probe is measured and plotted.

Retrenchment pruning - Form of crown reduction, intended to encourage development of the lower crown, which emulates the natural process whereby the crown of an ageing tree retains its overall biomechanical integrity by becoming smaller through the progressive shedding of small branches.

Rib - In tree body language, a long narrow, axial protuberance which often overlies a crack.

Ripewood - Older central wood of those tree species in which sapwood gradually ages without being converted to heartwood. Ripewood is usually not durable since it lacks both pre-formed defensive substances and an ability to react to wounding. It is not sharply delineated from the sapwood because the cells die gradually over many years.

Ring Barking - Artificial Girdling of the stem, to result in the death of a tree. May be used in habitat creation where the retention of dead standing trees is required.

Rod Bracing/Bolting - Traditionally, this has relied upon the installation of steel rods or bolts through the stems or limbs, to reduce twisting or splitting of the wood. The installation of such features does require legal interpretation.

Root Barriers - Both Buildings and services can benefit from the installation of root barriers to protect a soil volume from the ingress of roots.

Root Collar - The basal area of the tree; transition zone from trunk to root. Also, sometimes called trunk flare.

Root Plate - The primary support area for the tree; an area of the root system close to the base that structurally anchors the tree to the soil.

Root Protection area (RPA) - Layout design tool indicating the 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 Rot - Either a general term for decay within the wood of the lower stem / buttress roots, or a disease in which the fine roots are killed.

Root System - The portion of the tree containing the root organs, including buttress roots, transport roots, and fine absorbing roots; all underground parts of the tree.

Root Zone - The area and volume of soil around the tree in which roots are expected. May extend to three or more times the branch spread of the tree, or several times the height of the tree.

Sail Area - That area of the tree subjected to wind load.

Sapwood - Xylem wood tissue, usually light in colour, representing the outer growth rings of the wood. Usually living, reactive wood tissue, in a healthy tree. See heartwood.

Scaffold Limbs / Scaffold Branches - The branches that form the main network framework of the crown of a tree.

Senescent - A decline in growth and vigour due to age or stress factors.

Shrub - A woody plant that branches at or close to the ground level and so does not have a single stem.

Slime Flux - Relating to a toxic condition from the spreading of bacteria or their products from a source of infection; characterized by malodorous gases, or salt deposits upon the bark. If these products enter the sap stream, localised vessel necrosis can result, usually associated with anaerobic conditions.

Soft Rot - A kind of wood decay, where fungi degrade cellulose within the cell wall, without causing overall degradation.

Soil Compaction - The compression of soil, causing a reduction of pore space and an increase in the density of the soil. Air is squeezed out and nutrients become locked. Tree roots cannot grow in compacted soil.

Sonic Decay Detection - Non-invasive method whereby sound waves are passed through the tree and the speed is measured. Slow speeds indicate decay and a tomography picture representing the inner stem is produced.

Stag Heading - In a tree, a state of dieback where dead branches protrude beyond the current living crown.

Stem - Principal above-ground structural component of a tree that supports the branches. This either extends throughout most of the height of the tree (primary stem) or is one of several such components (secondary stems) which divide from each other either near the ground or at a higher level. Trees comprising two or more stems arising from, or immediately above, ground level are commonly referred to as "twin-stemmed" or "multi-stemmed". "Stem" is synonymous with "trunk" for single-stemmed trees, particularly those of a large diameter.

Stress - In plant physiology, conditions where one or more physiological functions are not working within normal parameters.

Stub - Broken or severed short remaining section of a branch extending beyond a crotch. Also known as a "snag" or "noggin".

Stump Grinding - The removal of a tree stump using a specialist grinding machine.

Subsidence - In relation to vegetation, the removal of water by plant growth resulting in localised shrinkage in the soil volume.

Sucker - Same as sprout.

Suppressed - Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.

Systemic - Affecting the whole plant or organism. A systemic compound is carried throughout the entire plant to all parts through the vascular system.

Target - Any person or object within reach of a falling tree or part of a tree that may be injured or damaged.

Target Pruning - The pruning of a branch where the wound affects only branch material, often result in a target shaped wound.

Tension Wood - Reaction wood typically formed on the upper side of limbs or curved stems; characterized by lack of cell wall lignification (higher ratios of cellulose to lignin).

Tight Union / Tight Crotch Also, Narrow Crotch - A crotch with a narrow angle between branches, often having included bark.

Tomography (PiCUS) - The comparison of sound or stress waves through the tree allows the creation of a 2D or 3D representation of the internal structure of a stem or branch section and highlights areas of damage. Virtually non-injurious.

Topography - The configuration of surface features, including the vertical and horizontal relationships of the ground and other features.

Topping - Cutting large limbs back severely, without regard to form or habit of the tree. Cuts are usually made between lateral branch nodes. This practice is extremely injurious to trees and promotes decay and structural weakness within the crown.

Tree - A woody plant that typically has a single stem, at maturity has a height of at least 4 meters and a stem diameter at breast height of at least 75mm.

Tree Preservation Order - In Great Britain, an order made by the local planning authority, where consent must be gained before undertaking all but exempt works to a tree.

Tree protection plan - scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.

Trunk Flare - The basal area of the trunk that flares or widens and merges with the main roots. See root collar.

Veteranization - Controlled infliction of damage on a tree to achieve a specific habitat objective. This is undertaken to promote or emulate the development of some of the features of a veteran tree, especially the wildlife habitats and shelters that are provided by decaying wood and cavities. When undertaken, it is usually on young or early mature trees.

Veteran Tree - Tree that, by recognized 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.

Vigour - Active, healthy growth of plants: ability to respond to stress factors.

Visual Tree Assessment (VTA) - An assessment of the mechanical condition of trees based upon their 'body language'. Trees are dynamic and respond to faults / decay / environmental factors in various ways, these responses can be indicative of structural integrity.

Water pocket - Natural depression or crotch in a tree that holds water.

Wetwood - An infection caused by bacteria living inside the plant tissues. The bacteria ferment the plant fluids, resulting in death of nearby cells, and often causing exudations of fluid from the bark, often referred to as a Slime Flux.

White Rot - A kind of wood decay where fungi attack the lignin within the wood matrix.

Wind Loading - Forces placed upon tree canopy, branches, trunk and roots of a tree under windy conditions.

Wind Throw - The failure of a tree due to wind loading.

Witches Broom - A deformed or unusual growth of twigs from adventitious buds, caused by insects, disease, or dieback of twigs and buds.

Wood Secondary Xylem - The main structural support and water conducting tissue of trees and shrubs.

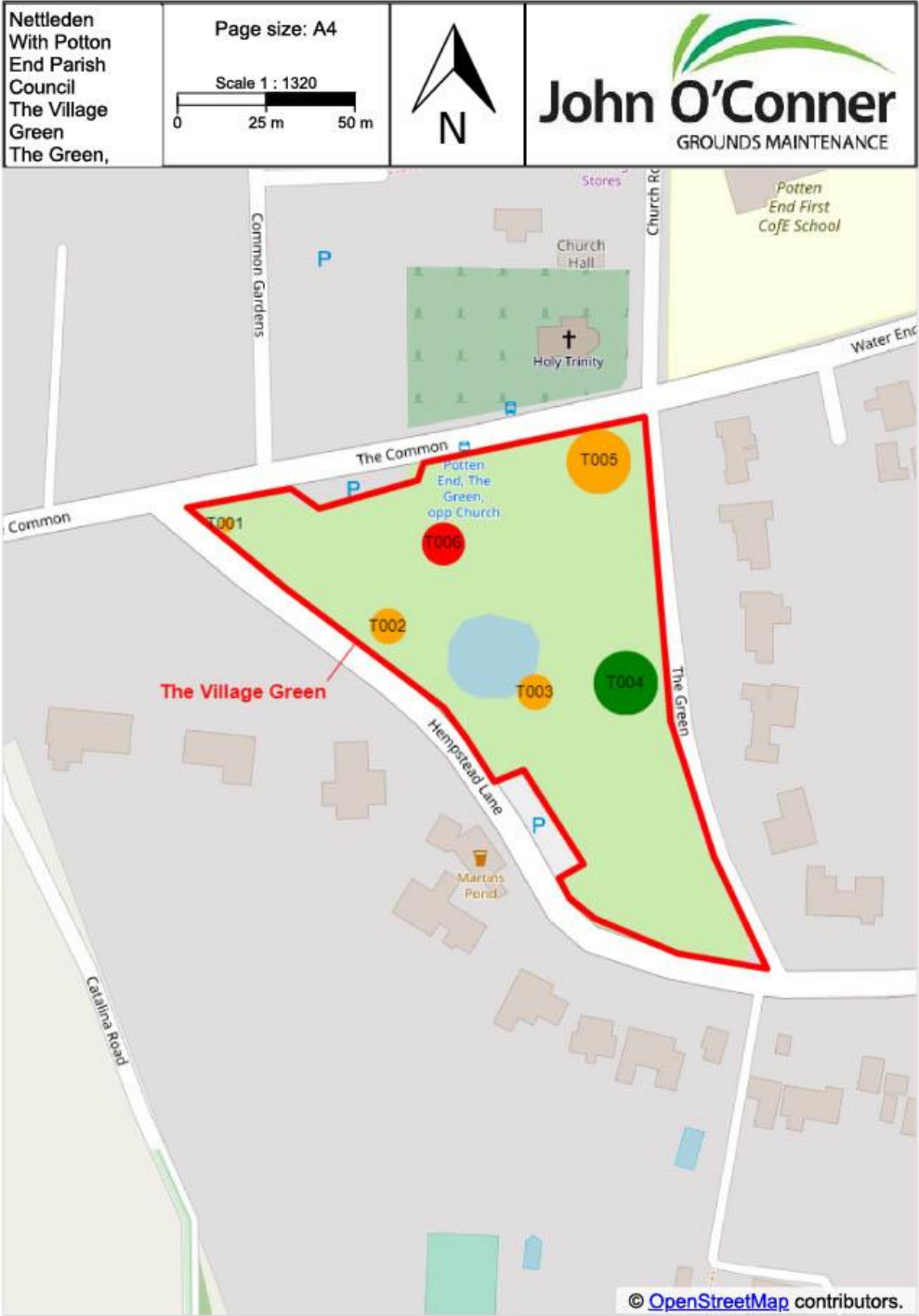
Wound Response Tissue Also Occluding Tissue - Wound Wood or Callus. Differentiated wood tissue that grows around the margins of a wound or injury.

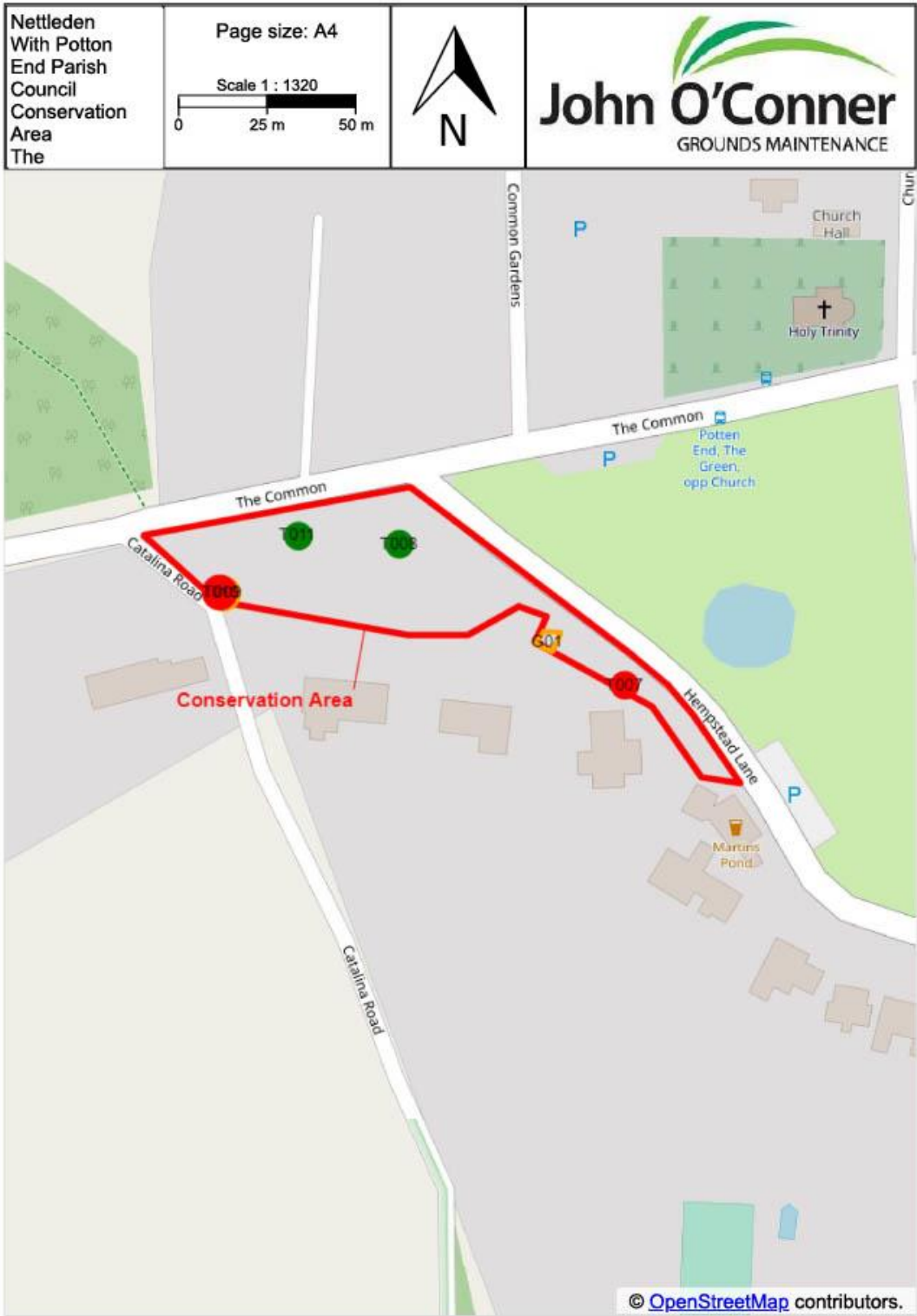
Work area - Area designated for the safe execution of the specified work.

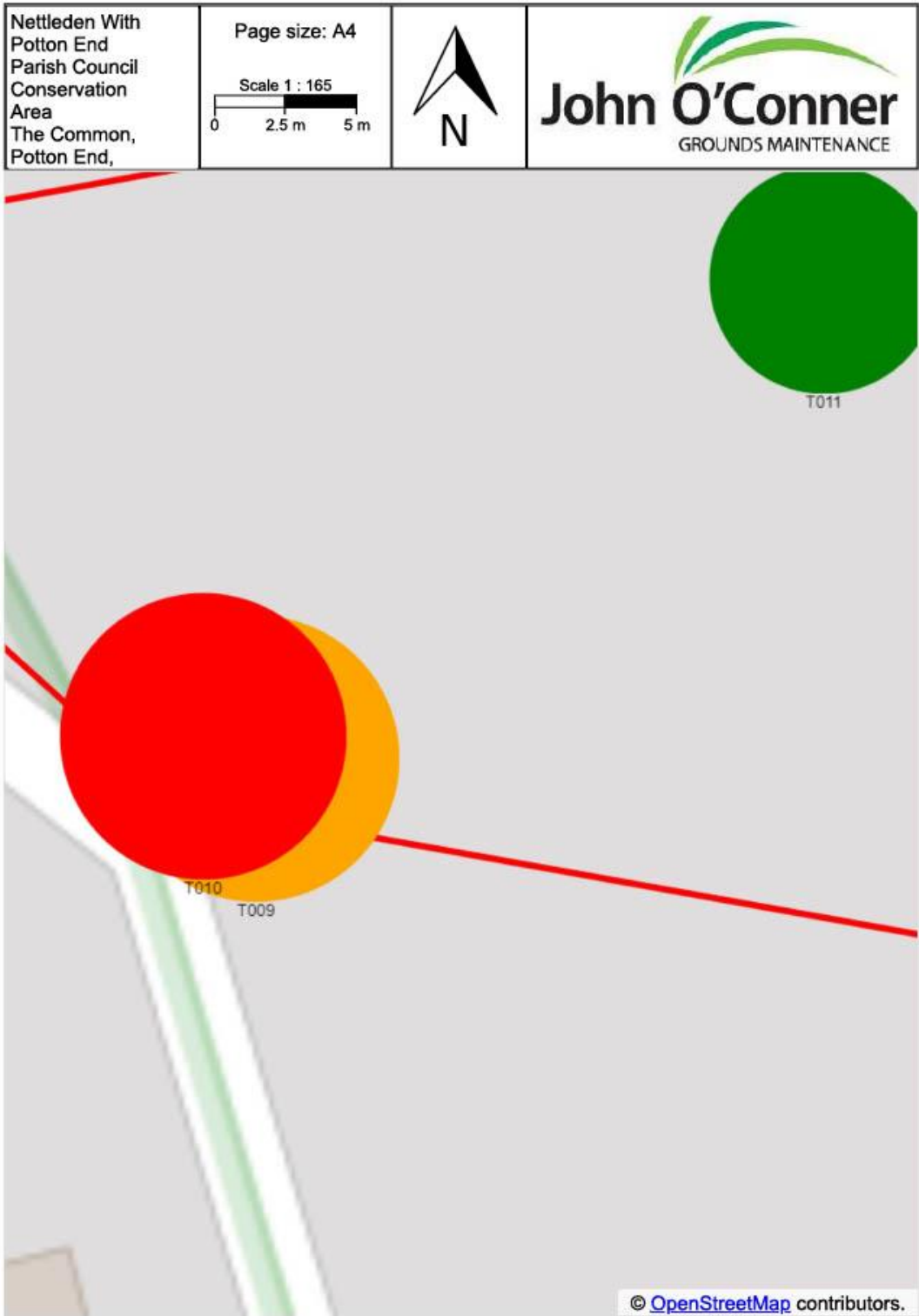
Wound Wood - Wood with atypical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound.

Xylem - Plant tissues with special function of translocation of water and dissolved nutrients.

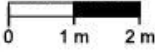


6. Appendices
6.1. Appendix A Tree location plan

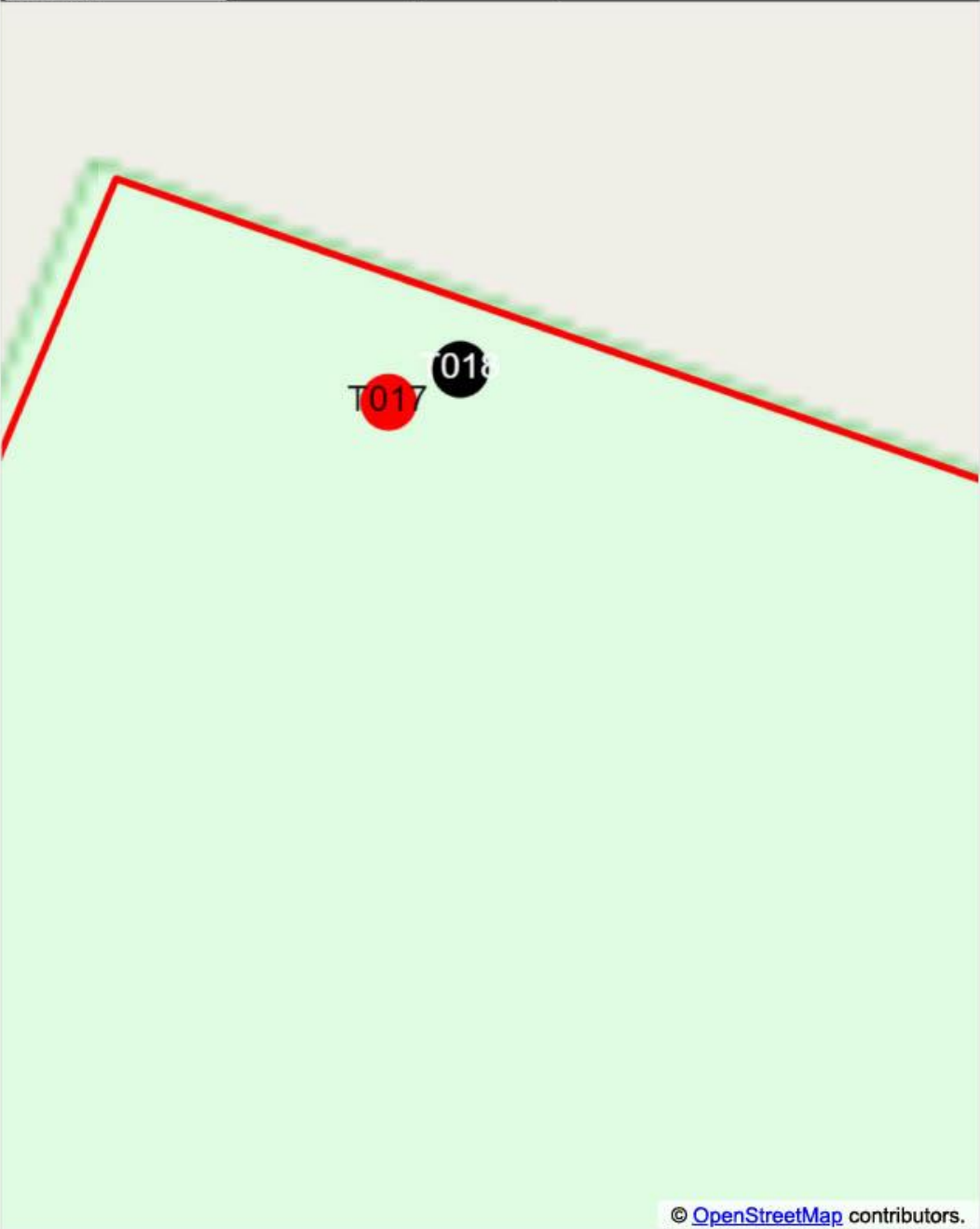


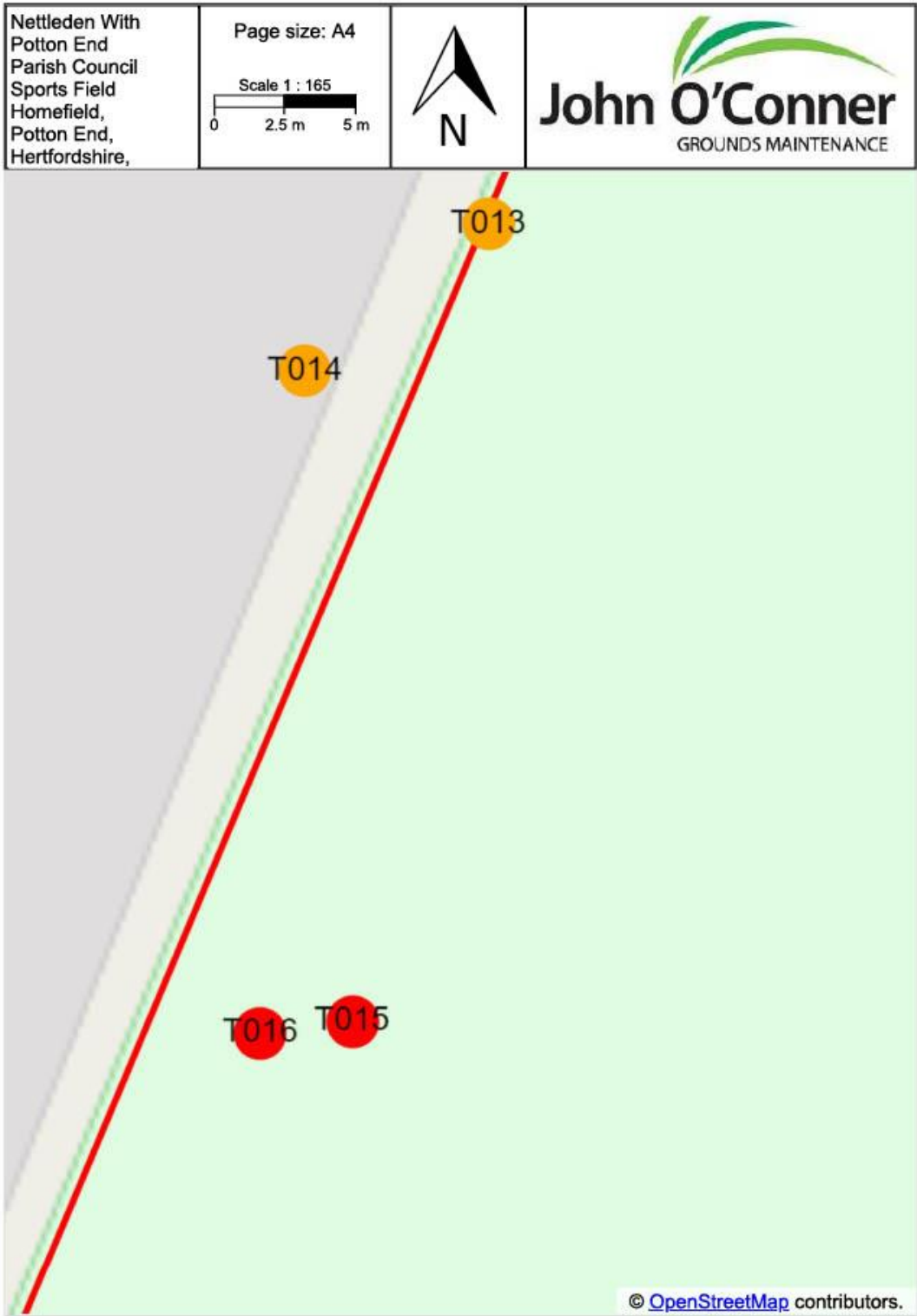


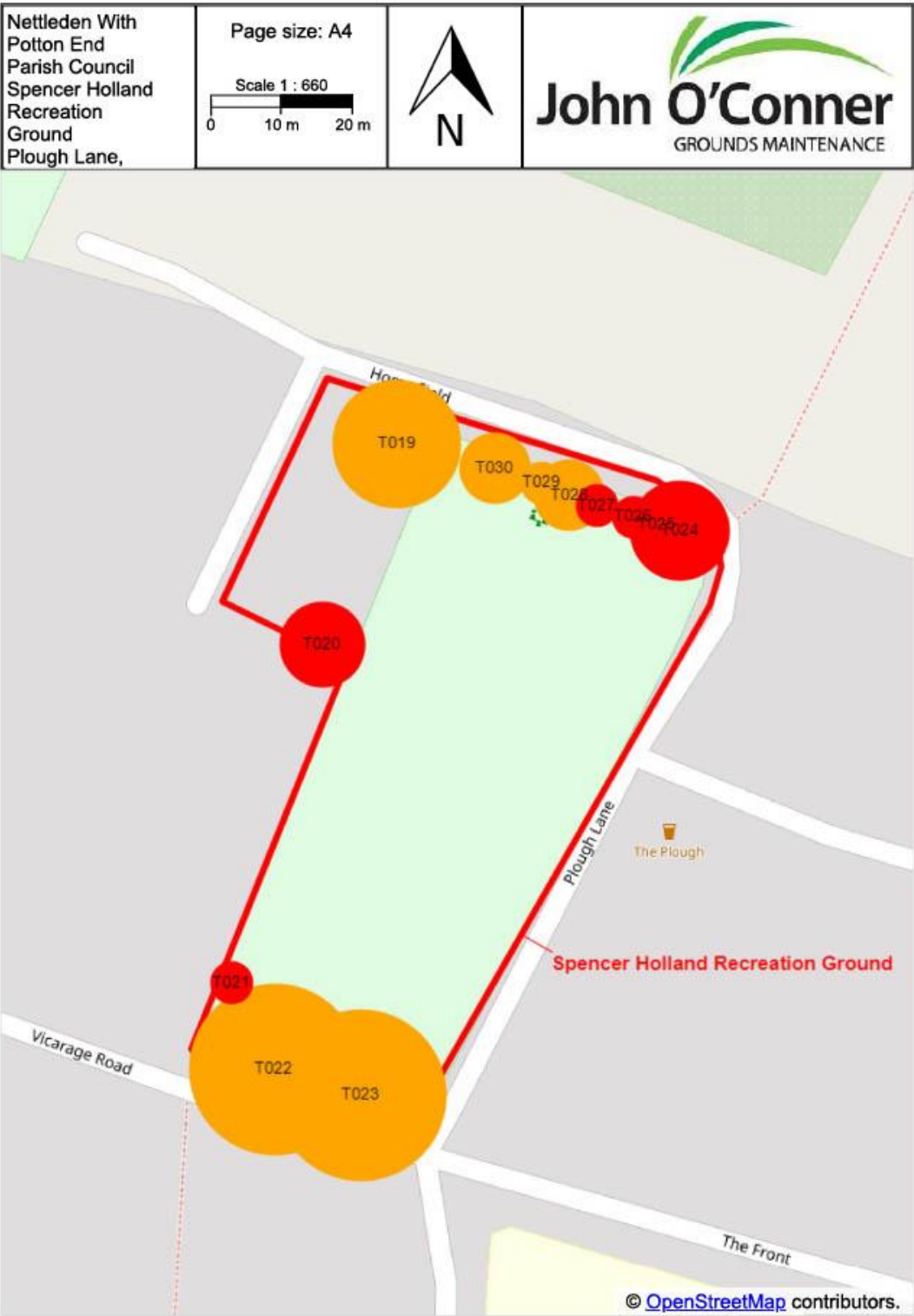


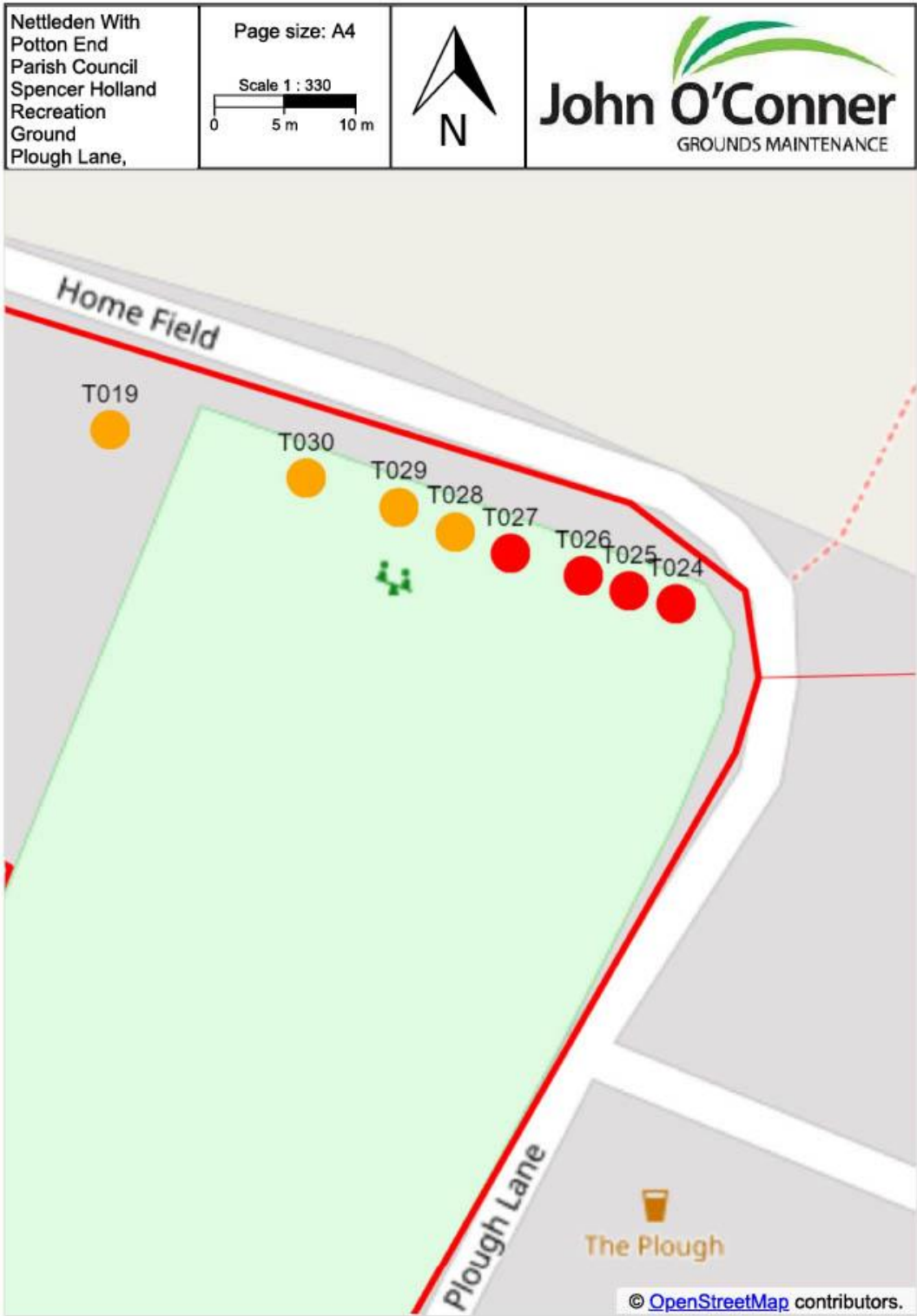


Nettleden With Potton End Parish Council Sports Field Homefield, Potton End, Hertfordshire, HP4 2QX	Page size: A4 Scale 1 : 82 		 John O'Conner GROUNDS MAINTENANCE
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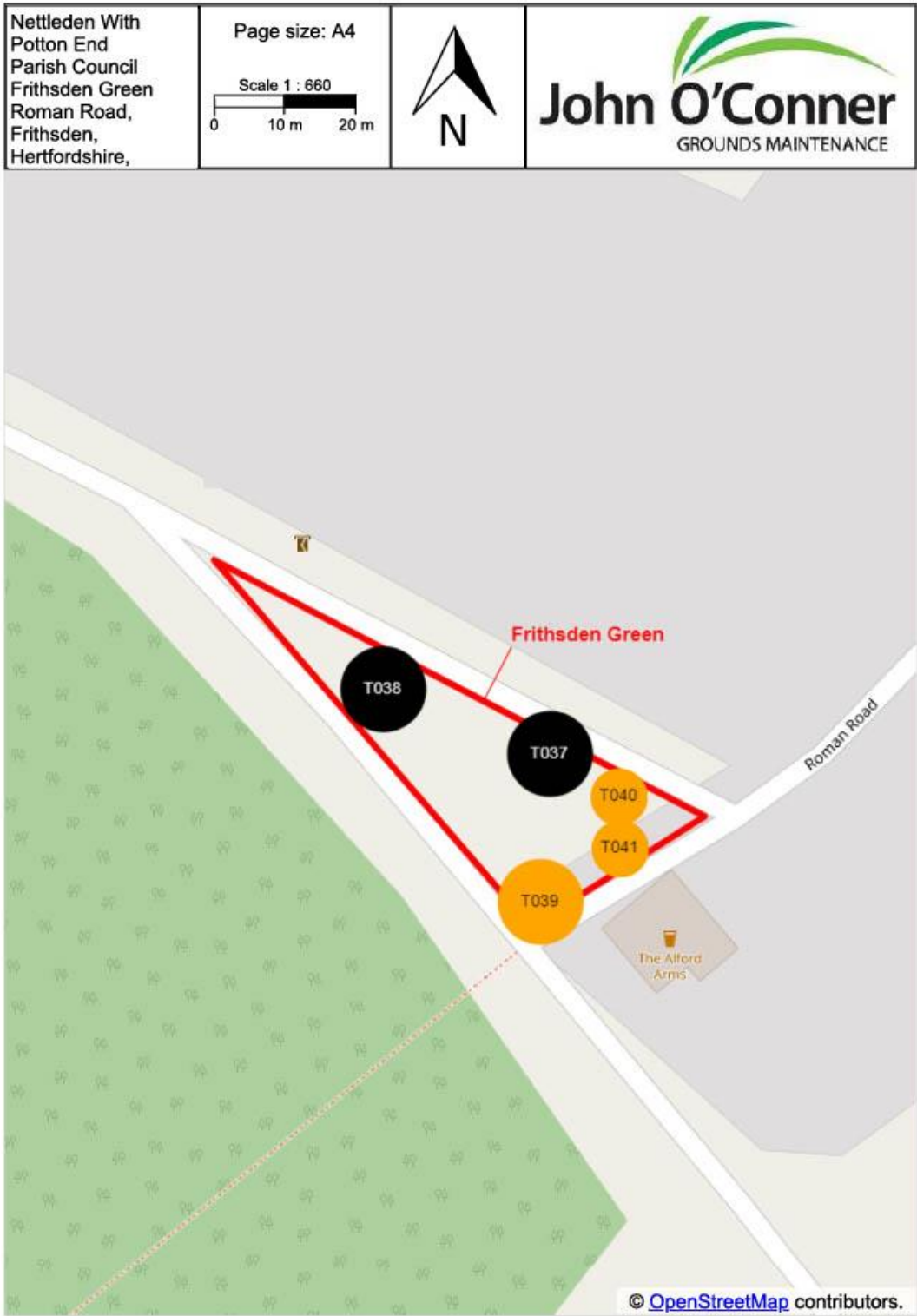












6.2. Appendix B tree survey schedule of trees

Tree Survey Report

Client: Nettleden With Potton End Parish Council
Site: All sites

Condition	No. trees
Dead	3
Fair	35
Good	3
Poor	13
Total	54

Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
G01	Prunus x10 (<i>Prunus sp.</i>)	Owned by the estate? Owned by neighbour? Tree in hedge. Target # - building Target # - road Target # - overhead wires - Occupancy - Frequent(3).	Height (m): 15 Crown Radius (m): 4 DBH (cm): 25 Trees: 10 Life Stage: Mature	Vigour - Fair Structure - Fair Prolific ivy on branches. Prolific ivy on trunk. Access to base restricted, ivy, bramble & other ground flora Dimension estimated due to inaccessibility Unable to inspect closely due to inaccessibility Dimensions averaged across group Ownership unclear	Fair	1 Year	Sever & strip ivy Clear around base & reinspect Timescale: 19-Oct-2022 (1 Year)
G02	Pedunculate Oak x3 (<i>Quercus robur</i>)	Owned by the estate. Parkland tree. Target # - building Target # - Fence - Occupancy - Occasionally(2).	Height (m): 17 Crown Radius (m): 10 DBH (cm): 100 Trees: 3 Life Stage: Mature	Vigour - Good Structure - Fair Dead branch(es). Major Crossing branches Fused branches Prolific ivy on trunk. Access to base restricted Long low limbs overhanging neighbouring farm	Fair	1 Year	Prune to clear farm buildings/trailers/sheds by 2m Remove deadwood - greater than 25 mm Sever ivy at base. Timescale: 19-Oct-2022 (1 Year)

Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T001	Common Hawthorn (<i>Crataegus monogyna</i>)	Owned by the estate. Parkland tree. Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 2 DBH (cm): 98 Stems: 5 Life Stage: Mature	Vigor: Fair Structure - Poor Codominant branches. Prolific ivy on branches. Crossing branches Codominant stems. Prolific ivy on trunk. Access restricted Unable to inspect closely due to inaccessibility caused by ivy	Fair	1 Year	Sever & strip ivy Timescale: 19-Apr-2022 (6 Months)
T002	European Lime (<i>Tilia x europaea</i>)	Owned by the estate. Parkland tree. Target # - road Target # - seating - Occupancy - Frequent(3).	Height (m): 19 Crown Radius (m): 5 DBH (cm): 80 Life Stage: Mature	Vigour - Good Structure - Fair Codominant branches. Dead branch(es). Major	Fair	1 Year	Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)
T003	False Acacia (<i>Robinia pseudoacacia</i>)	Owned by the estate. Parkland tree. Target # - road Target # - seating - Occupancy - Occasionally(2).	Height (m): 11 Crown Radius (m): 5 DBH (cm): 74 Life Stage: Mature	Vigour - Poor Structure - Fair Dead branch(es). Major Prolific ivy on trunk. Access to base restricted Unable to inspect closely due to inaccessibility	Fair	1 Year	Remove deadwood - greater than 25 mm Sever & strip ivy Timescale: 19-Oct-2022 (1 Year)
T004	Pedunculate Oak (<i>Quercus robur</i>)	Owned by the estate. Parkland tree. Target # - road Target # - seating - Occupancy - Frequent(3).	Height (m): 22 Crown Radius (m): 9 DBH (cm): 79 Life Stage: Mature	Vigour - Good Structure - Good Dead branch(es). Major Hanging/failed branch(es). Branch split in half&failed historically at 10m on Eastern side	Good	1 Year	Remove deadwood - greater than 25 mm Remove remaining limb at 10m on Eastern side that has previously failed Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T005	Common Beech (<i>Fagus sylvatica</i>)	Owned by the estate. Parkland tree. Target # - road - Occupancy - Occasionally(2).	Height (m): 16 Crown Radius (m): 9 DBH (cm): 72 Life Stage: Mature	Vigour - Good Structure - Fair Dead branch(es). Major Hanging/failed branch(es). At Codominant branches Multiple large pruning wounds in close proximity at 1.5m on main stem.	Fair	1 Year	Remove hanging branch at 4m on southern side Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)
T006	Horse Chestnut (<i>Aesculus hippocastanum</i>)	Owned by the estate. Parkland tree. - Occupancy - Occasionally(2).	Height (m): 12 Crown Radius (m): 6 DBH (cm): 63 Life Stage: Mature	Vigour - Poor Structure - Fair Foliage - Infected, leaf miner Codominant branches. Dead/Missing bark on branch(es). Dead branch(es). Major Dead/Missing bark on trunk. Bark Exudations. Suspected Pseudomonas	Poor	1 Year	Remove deadwood - greater than 25 mm Monitor condition closely Timescale: 19-Apr-2022 (6 Months)
T007	Sycamore (<i>Acer pseudoplatanus</i>)	Owned by the estate. Tree in hedge. Target # - building Target # - dwelling Target # - road - Occupancy - Frequent(3).	Height (m): 20 Crown Radius (m): 4 DBH (cm): 61 Stems: 2 Life Stage: Mature	Vigour - Good Structure - Poor Codominant stems. Included union from base to 2m	Poor	1 Year	Sectional fell/dismantle tree Timescale: 19-Oct-2022 (1 Year)
T008	Norway Maple (<i>Acer platanoides</i>)	Parkland tree. Target # - overhead wires - Occupancy - Occasionally(2).	Height (m): 12 Crown Radius (m): 4 DBH (cm): 43 Life Stage: Mature	Vigour - Good Structure - Good Dead branch(es). Minor Encroaching on overhead head cable (BT) Exposed roots.	Good	1 Year	Prune to clear lines by 1m Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T009	Common Ash (<i>Fraxinus excelsior</i>)	Owned by the estate. Parkland tree. Target # - substation Target # - road Target # - road sign - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 5 DBH (cm): 71 Stems: 2 Life Stage: Mature	Vigour - Good Structure - Fair Dead branch(es). Major Prolific ivy on trunk. Access to base restricted	Fair	1 Year	Remove deadwood - greater than 25 mm Sever ivy at base. Timescale: 19-Oct-2022 (1 Year)
T010	Common Hawthorn (<i>Crataegus monogyna</i>)	Owned by the estate. Parkland tree. Target # - road - Occupancy - Frequent(3).	Height (m): 6 Crown Radius (m): 5 DBH (cm): 80 Stems: 4 Life Stage: Mature	Vigour - Poor Structure - Poor Unbalanced crown. Codominant branches. Damaged branch(es). Dead branch(es). Major Prolific ivy on branches. Crossing branches Codominant stems. Leaning trunk. Prolific ivy on trunk. Access to base restricted Dimension estimated due to inaccessibility Unable to inspect closely due to inaccessibility	Poor	1 Year	Sever ivy at base. Timescale: 19-Oct-2022 (1 Year)
T011	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - overhead wires - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 4 DBH (cm): 37 Life Stage: Mature	Vigour - Good Structure - Good Dead branch(es). Minor	Good	1 Year	Prune to clear lines by 1m Timescale: 19-Oct-2022 (1 Year)
T012	Not identified (<i>Not identified</i>)	Owned by the estate. Parkland tree. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 12 Crown Radius (m): 8 DBH (cm): 53 Life Stage: Over Mature	Vigour - Fair Structure - Fair Dead branch(es). Major Cavities in trunk, Minor Bark exudate Sounding Mallet/probe suspect intact	Fair	1 Year	Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T013	Pedunculate Oak (<i>Quercus robur</i>)	Owned by the estate? Owned by neighbour? Tree in fence line. Tree in hedge. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 18 Crown Radius (m): 11 DBH (cm): 100 Life Stage: Over Mature	Vigour - Fair Structure - Fair Dead branch(es). Major Growing in fenceline ownership unclear	Fair	1 Year	Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)
T014	Pedunculate Oak (<i>Quercus robur</i>)	Owned by neighbour. Tree in fence line. Tree in hedge. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 18 Crown Radius (m): 11 DBH (cm): 100 Life Stage: Over Mature	Vigour - Fair Structure - Fair Dead branch(es). Major over sports field	Fair	1 Year	Contact owner Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)
T015	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree Target # - Fence - Occupancy - Occasionally(2)..	Height (m): 19 Crown Radius (m): 7 DBH (cm): 73 Stems: 2 Life Stage: Over Mature	Dead/dying Exposed roots. Rotten roots Fungal bodies on roots, old unidentifiable Sounding Mallet/probe significant hollowing	Poor	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)
T016	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree Target # - Fence - Occupancy - Occasionally(2)..	Height (m): 19 Crown Radius (m): 4 DBH (cm): 32 Stems: 2 Life Stage: Over Mature	Dead/dying Exposed roots. Sounding Mallet/probe significant hollowing	Poor	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)
T017	Wild Cherry (<i>Prunus avium</i>)	Owned by the estate. Parkland tree. Target # - Fence - Occupancy - Occasionally(2).	Height (m): 14 Crown Radius (m): 5 DBH (cm): 38 Life Stage: Mature	Fair Structure - Poor Unbalanced crown. Cavities in trunk. Leaning trunk. Access to base restricted Sounding Mallet/probe significant hollowing	Poor	1 Year	Sectional fell/dismantle tree Timescale: 19-Apr-2022 (6 Months)
T018	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree. Target # - Fence	Height (m): 8 Crown Radius (m): 1 DBH (cm): 30 Life Stage: Dead	Dead	Dead	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T019	Turkey Oak (<i>Quercus cerris</i>)	Owned by the estate. Parkland tree. Target # - footpath Target # - overhead wires Target # - playground Target # - road - Occupancy - Frequent(3).	Height (m): 18 Crown Radius (m): 9 DBH (cm): 78 Life Stage: Mature	Vigour - Good Structure - Fair Dead branch(es). Major	Fair	1 Year	Prune to clear play Structure by 2m Prune to clear lines by 1m Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)
T020	Box Elder Maple (<i>Acer negundo</i>)	Owned by the estate? Parkland tree. Target # - building Target # - car park Target # - dwelling Target # - footpath Target # - road - Occupancy - Frequent(3).	Height (m): 10 Crown Radius (m): 6 DBH (cm): 76 Life Stage: Mature	Vigour - Poor Structure - Poor Topped, poor previous pruning Damaged branch(es). Dead branch(es). Major Fungal bodies on branch(es). Significant large pruning wounds Dead/Missing bark on trunk. Sounding Mallet/probe suspect intact Ownership unclear	Poor	1 Year	Recommendations 1: Remove deadwood - greater than 25 mm Timescale: 19-Apr-2022 (6 Months) Recommendations 2: Fell tree. Timescale: 19-Oct-2023 (2 Years)
T021	False Acacia (<i>Robinia pseudoacacia</i>)	Owned by the estate. Tree in hedge. Target # - dwelling Target # - Fence - Occupancy - Frequent(3).	Height (m): 7 Crown Radius (m): 3 DBH (cm): 25 Life Stage: Early Mature	Vigour - Fair Structure - Poor Codominant stems, split apart Access to base restricted Dimension estimated due to inaccessibility	Poor	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)
T022	Sweet Chestnut (<i>Castanea sativa</i>)	Owned by the estate. Parkland tree. Roadside tree. Target # - dwelling Target # - road - Occupancy - Frequent(3).	Height (m): 17 Crown Radius (m): 12 DBH (cm): 84 Life Stage: Mature	Vigour - Good Structure - Fair Damaged branch(es). Fork snapped on road side at 5m suspect vehicle impact Dead branch(es). Major Rope tied around branch at 5m on northern side, restricting secondary thickening	Fair	1 Year	Crown lift to 5.2 m for highway clearance. Remove deadwood - greater than 25 m Remove rope Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T023	Sweet Chestnut (<i>Castanea sativa</i>)	Owned by the estate. Parkland tree. Roadside tree. Target # - sign Target # - road - Occupancy - Frequent(3).	Height (m): 10 Crown Radius (m): 12 DBH (cm): 84 Life Stage: Mature	Vigour - Good Structure - Fair Damaged branch(es). Fork snapped on road side at 5m suspect vehicle impact Dead branch(es). Minor 2 large pruning wounds at 1.5m on Eastern side of stem, potential for coalescence of wounds in future	Fair	1 Year	Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)
T024	Purple Cherry Plum (<i>Prunus cerasifera 'Pissardi'</i>)	Owned by the estate. Tree in hedge. Target # - overhead wires Target # - playground Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 7 DBH (cm): 41 Life Stage: Mature	Vigour - Fair Structure - Poor Unbalanced crown. Codominant branches. Cracked/split branch(es). Damaged branch(es). Dead branch(es). Major Crossing branches Fused branches Unexplainable cable tied in crown	Poor	1 Year	Crown lift to 5.2 m for highway clearance. Prune to clear lines & pole by 1m Remove deadwood - greater than 25 mm Timescale: 19-Oct-2022 (1 Year)
T025	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 6 Crown Radius (m): 3 DBH (cm): 40 Life Stage: Mature	Vigour - Fair Structure - Poor Unbalanced crown. Prolific ivy on branches. Leaning trunk Prolific ivy on trunk. Access to base restricted Unable to inspect closely due to inaccessibility	Poor	1 Year	Sever & strip ivy Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T026	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 3 DBH (cm): 40 Life Stage: Mature	Vigour - Fair Structure - Poor Unbalanced crown. Prolific ivy on branches. Leaning trunk. Prolific ivy on trunk. Access to base restricted Unable to inspect closely due to inaccessibility	Poor	1 Year	Sever & strip ivy Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)
T027	Purple Cherry Plum (<i>Prunus cerasifera</i> 'Pissardi')	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 8 Crown Radius (m): 3 DBH (cm): 435 Life Stage: Mature	Vigour - Fair Structure - Poor Unbalanced crown. Access to base restricted Unable to inspect closely due to inaccessibility	Poor	1 Year	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)
T028	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 11 Crown Radius (m): 5 DBH (cm): 39 Life Stage: Mature	Vigour - Fair Structure - Fair Unbalanced crown. leaning trunk. Access to base restricted Unable to inspect closely due to inaccessibility	Fair	1 Year	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)
T029	Wild Cherry (<i>Prunus avium</i>)	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 3 DBH (cm): 42 Life Stage: Mature	Vigour - Fair Structure - Fair Unbalanced crown. Damaged limb over road Access to base restricted Unable to inspect closely due to inaccessibility	Fair	1 Year	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T030	Purple Cherry Plum (<i>Prunus cerasifera</i> 'Pissardi')	Owned by estate Tree in hedge. Target # - overhead wires Target # - road - Occupancy - Frequent(3).	Height (m): 6 Crown Radius (m): 5 DBH (cm): 40 Life Stage: Mature	Vigour - Fair Structure - Poor Unbalanced crown. leaning trunk. Ivy on trunk. Access to base restricted Unable to inspect closely due to inaccessibility	Fair	1 Year	Prune to clear lamp by 1m Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)
T031	Not identified (<i>Not identified</i>)	Owned by the estate. Target # - building Target # - Fence - Occupancy - Occasionally(2).	Height (m): 10 Crown Radius (m): 4 DBH (cm): 20 Stems: 2 Life Stage: Mature	Vigour - Good Structure - Poor Codominant stems. Leaning trunk. Access to base restricted Dimension estimated due to inaccessibility Unable to inspect closely due to inaccessibility Dimensions averaged across stems	Fair	1 Year	Clear around base to allow for inspection Timescale: 19-Oct-2022 (1 Year)
T032	Horse Chestnut (<i>Aesculus hippocastanum</i>)	Owned by the estate. Parkland tree. Target # - dwelling Target # - footpath Target # - Fence - Occupancy - Occasionally(2).	Height (m): 13 Crown Radius (m): 8 DBH (cm): 108 Stems: 3 Life Stage: Mature	Vigour - Fair Structure - Poor Unbalanced crown. Foliage - Infected, leaf miner Codominant branches. Dead branch(es). Minor Codominant stems. Dead/Missing bark on trunk. Exudation, pseudonamous	Fair	1 Year	Monitor condition Timescale: 19-Oct-2022 (1 Year)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T033	Sycamore (<i>Acer pseudoplatanus</i>)	Owned by the estate. Parkland tree. Target # - footpath - Occupancy - Occasionally(2).	Height (m): 16 Crown Radius (m): 9 DBH (cm): 77 Stems: 4 Life Stage: Mature	Vigour - Good Structure - Poor Foliage - Infected, Tar spot Codominant branches. Dead branch(es). Minor Crossing branches Fused branches, natural bracing Codominant stems. Included unions	Fair	1 Year	Monitor condition Timescale: 19-Oct-2022 (1 Year)
T034	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - footpath - Occupancy - Occasionally(2).	Height (m): 15 Crown Radius (m): 4 DBH (cm): 99 Stems: 2 Life Stage: Over Mature	Vigour - Fair Structure - Poor Unbalanced crown. Dead branch(es). Minor Cavities in trunk. Leaning trunk. Exposed roots. Access to base restricted Sounding Mallet/probe significant hollowing	Poor	1 Year	Fell tree. Timescale: 19-Oct-2022 (1 Year)
T035	Sycamore (<i>Acer pseudoplatanus</i>)	Owned by the estate. Target # - dwelling Target # - footpath Target # - Fence - Occupancy - Occasionally(2).	Height (m): 20 Crown Radius (m): 8 DBH (cm): 120 Stems: 2 Life Stage: Mature	Vigour - Fair Structure - Fair Codominant branches. Codominant stems. Dead/Missing bark on trunk. Fungal bodies on trunk. Kretzschmaria deusta Prolific ivy on trunk. Access to base restricted Unable to inspect closely due to inaccessibility	Fair	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T036	Pedunculate Oak (<i>Quercus robur</i>)	Owned by the estate. Tree in hedge. Target # - road - Occupancy - Frequent(3).	Height (m): 14 Crown Radius (m): 10 DBH (cm): 120 Stems: 2 Life Stage: Mature	Vigour - Good Structure - Fair Unbalanced crown. Dead branch(es). Major Prolific ivy on branches. Prolific ivy on trunk. Tree with proximity zone of high voltage power lines Access to base restricted Unable to inspect closely due to inaccessibility Dimension estimated due to inaccessibility	Fair	1 Year	Sever ivy at base and reinspect Timescale: 19-Oct-2023 (2 Years)
T037	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road - Occupancy - Occasionally(2).	Height (m): 9 Crown Radius (m): 6 DBH (cm): 72 Life Stage: Dead	Dead/dying Tree within proximity zone of low voltage power cables pole 316	Dead	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)
T038	Prunus (<i>Prunus sp.</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road - Occupancy - Occasionally(2).	Height (m): 9 Crown Radius (m): 10 DBH (cm): 66 Life Stage: Dead	Dead/dying Tree within proximity zone of low voltage power cables from pole 316, branches growing through cables	Dead	1 Year	Fell tree. Timescale: 19-Apr-2022 (6 Months)
T039	Wild Cherry (<i>Prunus avium</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road Target # - building - Occupancy - Occasionally(2).	Height (m): 8 Crown Radius (m): 8 DBH (cm): 47 Life Stage: Mature	Vigour - Fair Structure - Fair Dead branch(es). Minor Tree within proximity zone of low voltage power cables from pole 316, branches growing through cables	Fair	1 Year	Prune to clear lines by 1m Crown lift to 5.2 m for highway clearance. Timescale: 19-Apr-2022 (6 Months)

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Ref	Species	Description	Measurements	Survey Notes	Condition	Inspect Period	Recommendations
T040	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road Target # - building - Occupancy - Occasionally(2).	Height (m): 18 Crown Radius (m): 8 DBH (cm): 41 Life Stage: Mature	Vigour - Fair Structure - Fair Dead branch(es). Minor Tree within proximity zone of low voltage power cables from pole 316 & 850260 branches growing through cables	Fair	1 Year	Prune to clear lines by 1m Timescale: 19-Oct-2022 (1 Year)
T041	Silver Birch (<i>Betula pendula</i>)	Owned by the estate. Parkland tree. Target # - overhead wires Target # - road Target # - building - Occupancy - Occasionally(2).	Height (m): 17 Crown Radius (m): 8 DBH (cm): 46 Life Stage: Mature	Vigour - Fair Structure - Fair Hanging/failed branch(es) at 5m on Eastern side Dead branch(es). Minor Tree within proximity zone of low voltage power cables from pole 50260 -	Fair	1 Year	Prune to clear lines by 1m Remove deadwood - greater than 25 mm Remove hanging branch Crown lift to 5.2 m for highway clearance. Timescale: 19-Oct-2022 (1 Year)

6.3. Appendix C surveyor qualifications and experience

I have worked in Arboriculture for over 17 years, most of which has been spent as a lead climber and small business owner. I have worked as a part time trainer at college, teaching practical climbing and felling skills.

NPTC CS units CS30, CS31, CS32, CS36, CS38, CS39

NPTC UA Units UA1

NPTC/City and Guilds Level 3 Certificate in the Thorough Examination of Arboricultural Equipment

City and Guilds 01 Signing, Lighting and Guarding

Emergency First Aid at Work +F

IPAF 1b and 3b

National Certificate in Arboriculture

Royal Forestry Society Certificate in Arboriculture

Arboriculture Association Technicians Certificate in Arboriculture

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