



LAKELAND
TREE CONSULTANCY
ARBORICULTURAL PLANNING SPECIALISTS

Tree Risk Assessment Survey

10 Longridge Road
Hurst Green
BB7 9QP

January 2021

Project details

Job no.	LTC065
Site	10 Longridge Road, Hurst Green, BB7 9QP
Clients	Mr & Mrs Smith
Arboriculturist	Jennie Keighley PhD MSc MArborA
Date	29 January 2021

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1. Summary

- Mr Smith instructed Lakeland Tree Consultancy to carry out a risk assessment of trees at the above site in order to identify any significant tree defects requiring attention and to fulfil his Duty of Care as a landowner. Arboriculturist Jennie Keighley PhD MSc MA ArborA visited the site on 26 January 2021 and carried out a visual inspection of the trees. A tree risk assessment was then undertaken, based on the observations made during the inspection. Details of the inspection and risk assessment are shown in the appended Tree Risk Assessment Survey Schedule and the trees' locations are shown on the appended Tree Survey Plan.
- One individual ash tree (T3) was identified as posing a moderate risk due to the potential of a branch to fall onto Longridge Road as the tree gradually dies back from terminal infection with the fungal pathogen 'ash dieback disease'. The moderate risk was calculated as being 'unacceptable', so either removal of the branch in question or removal of the whole tree is recommended.
- One beech tree from group G1 was identified as posing a moderate risk due to a dead branch overhanging Longridge Road, although the moderate risk calculated as being just into the 'tolerable' range, meaning it is not necessary to action any remedial tree works unless the client particularly wishes to do so.
- Risk of harm posed by the other trees surveyed is currently calculated to be low, meaning no further tree works are recommended at present, and a 24-month re-inspection period is projected to be suitable.

2. Background

Duty of Care

2.1 Every landowner has a legal 'Duty of Care' to take reasonable care to avoid acts or omissions, which could reasonably be foreseen to be likely to cause harm to persons or property. With regard to trees, this means that landowners must carry out regular tree inspections to ensure that persons or property are not at risk from trees in their care. Landowners failing to meet their Duty of Care may be found negligent under Common Law if injury or harm ensues.

How tree risk is assessed

2.2 Tree risk assessment is a process of determining whether the risk of harm posed by a tree outweighs the benefits it provides. Trees are incredibly valuable organisms, providing essential ecosystem services in life, such as sequestering carbon and reducing flood risk, and also in death, providing habitat for other organisms and slowly releasing nutrients back into the environment as they decay. Trees are at their most valuable when they are allowed to carry out their natural life cycle without disturbance, so it goes without saying that they should only be felled or operated upon where there is valid need to do so.

Three things must be considered when calculating the risk of harm posed by a tree: -

- 1) **Target** (i.e. persons or property onto which the tree is likely to fail)
- 2) **Severity of injury** (i.e. the size of the tree part likely to fail)
- 3) **Probability of failure**

The tree inspector will assess the duration and frequency of occupancy and the value of targets (if property) in relation to the size of the tree part most likely to fail and the probability that it will do so within the next year in order to determine the overall risk of harm (Figure 1). As trees generally fail in adverse weather conditions, particularly high winds, the presence of the target is assessed as it would be in poor weather. For example, a family is unlikely to be picnicking under the tree in a storm, which is when the tree would most likely fail, so it would not be realistic to calculate the risk of harm based on this scenario.

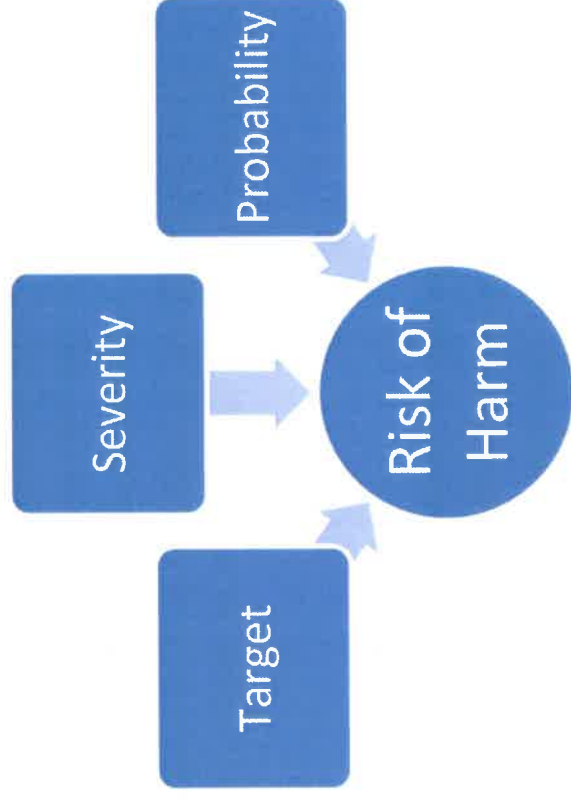


Figure 1: Risk of harm is determined by assessing the frequency and value of a target, the potential severity of the injury (i.e. the diameter of the defective tree part) and the probability of it failing within the next year

For each individual tree or collective group of trees (used for larger numbers of trees with similar characteristics), the risk of harm is determined to be either low, moderate or high. The risk of harm is then considered in relation to the Health and Safety Executive's Tolerability of Risk (ToR) Framework, whereby risk is categorised as being either 'unacceptable', 'tolerable' or 'broadly acceptable' (National Tree Safety Group, 2011). The ToR will then dictate whether action is needed, by means of remedial tree works, to bring the risk of harm into the tolerable or broadly acceptable range (Table 1).

Table 1: Risk of harm in relation to Tolerability of Risk (ToR) and recommended course of action

Risk of Harm	ToR	Action
High	Unacceptable	Remedial tree works
Moderate	Unacceptable	Remedial tree works
	Tolerable	No action needed
Low	Broadly acceptable	No action needed

Where risk of harm is calculated to be low, the value of the tree will be considered to outweigh the risk of harm, the risk will hence be considered broadly acceptable and non-actionable, meaning that no tree works are required to reduce the level of risk. This may include trees over target areas that are very low usage or parts of a tree that are so small that, when they do fail, are highly unlikely to cause any significant damage.

Where risk of harm is considered to be high, the tree is considered to pose an unacceptable risk and it will be recommended that tree works are actioned in order to reduce the level of risk to an acceptable level. This could involve the pruning of a dangerous branch or removing the entire tree, but should only ever include the minimum of work required in order to make the tree safe. High risk of harm only usually occurs in high-use target areas, such as busy roads, school playgrounds or car parks, where the tree has a severe defect with a high probability of failure.

Where risk of harm is shown as moderate, the risk may be tolerable or unacceptable, depending on the defect, the target, the value of the tree and the landowner's personal threshold for risk. Trees posing tolerable moderate risk of harm may not be prioritised when actioning tree works and rather be re-inspected at suitably regular intervals until a point where the risk of harm becomes unacceptable and, therefore, actionable. Trees posing an unacceptable moderate risk of harm should be actioned, but only once high risk trees have been dealt with.

Tree inspection and limitations

2.3 To inform the tree risk assessment, trees within the client's ownership with potential to pose risk of harm to persons or property are systematically examined for defects by a qualified arboriculturist. The report author, arboriculturist Dr Jennie Keighley, holds the following relevant qualifications: -

- Lantra Professional Tree Inspection
- PhD Fungal Ecology
- MSc Forest Ecosystem Management
- Professional Member of the Arboricultural Association
- Associate Member of the Institute of Chartered Foresters

During the inspection, the well-established principles of Visual Tree Assessment (VTA), as devised by Mattheck (1994) are observed. The data collected during the inspection, alongside the results of the tree risk assessment are included in the appended Tree Risk Assessment Survey Schedule and locations of surveyed trees are shown on the appended Google Earth-based Tree Survey Plan. Note that tree inspections are subject to the following limitations: -

- The tree inspection is carried out from ground level only, with use of binoculars to inspect potential defects from a distance where necessary. Where defects are present that cannot be adequately assessed from ground level, an aerial inspection, to be carried out by a competent climbing arborist, will be recommended

- Survey techniques employed are non-invasive. Where internal defects cannot be adequately assessed and the tree is of sufficient value to warrant, examination with invasive decay detection equipment will be recommended
- Trees are only ever inspected from vantage points within the client's ownership boundary or from areas of public open space. Private, third party land is never accessed without prior consent from the landowner
- Defects high in a tree's crown or masked by ivy, moss or other vegetation cover may not be reasonably detectable by means of this ground-based, non-invasive tree inspection
- It is important to carry out regular inspections of tree populations at varying times of year, so that branching architecture can be adequately inspected during winter months, condition of foliage can be assessed during summer months and the presence of fruiting bodies of decay-causing fungi can be monitored during autumn months
- This tree risk assessment should be considered to be valid for 12 months from the date of site visit. However, it is recommended that re-inspection is carried out immediately following any extreme weather events, especially gale force winds, development works in close proximity to the trees or changes in ground conditions
- The tree inspector is qualified only to comment on the condition of trees. Assessment of the structural integrity of supporting or adjacent built or geological structures should be assessed by a structural engineer or other relevant, suitably-qualified professional
- Not all tree failures are predictable. Internal defects leading to failures such as branch tear outs or weather conditions beyond the normal range to which the tree has adapted can cause unforeseeable failures. The purpose of this tree inspection is to identify, through visual inspection, trees or parts of trees at reasonably foreseeable risk of failure.

3. Legal Constraints

Tree Preservation Orders, Conservation Areas and Felling Licences

3.1 Trees may be subject to legal protection, by means of being covered by a Tree Preservation Order (TPO) or by being located within a Conservation Area. It is an offence to cut down, uproot, top, lop, cause wilful damage or destruction of protected trees without the appropriate consent from the Local Authority. Fines for carrying out unauthorised works to protected trees can be considerable. Subject to certain exemptions, a felling license must be obtained from the Forestry Commission for felling of trees that will equate to more than five cubic metres of timber in a calendar quarter. It is the landowner's responsibility to ensure that appropriate consent, with relation to TPOs, Conservation Areas and Felling Licences, is granted prior to carrying out any tree work recommendations in this report. The Local Authority should be approached directly in order to find out whether any of the trees inspected are legally protected.

Ecological constraints

3.2 Birds, bats and certain other species are protected by the Wildlife and Countryside Act 1981. It is an offence to disturb wild birds within the nesting season (from March to August inclusive) and bats at any time of year, and this must be taken into account whilst carrying out tree works. The advice of a suitably qualified and licensed ecologist must be sought if the presence of birds, bats or other protected species is identified before or during tree works.

Tree works guidelines

3.3 Tree works should be carried out by a suitably qualified, competent and insured arborist, and should conform to the British Standard guidance, BS3998 (2010) *Tree Works - Recommendations*.

4. Tree Risk Assessment for 10 Longridge Road, Hurst Green

Mr Smith instructed Lakeland Tree Consultancy to carry out a risk assessment of trees along a banking within his ownership at the above site in order to identify any significant tree defects requiring attention and to fulfil his Duty of Care as a landowner. Arboriculturist Jennie Keighley PhD MSc MArborA visited the site on 26 January 2021 and carried out a visual inspection of the trees. A tree risk assessment was then undertaken, based on the observations made during the inspection. Details of the inspection and risk assessment are shown in the appended Tree Risk Assessment Survey Schedule and the trees' locations are shown on the appended Tree Survey Plan.

One individual ash tree (T3) was identified as posing a moderate risk due to the potential of a branch to fail onto Longridge Road as the tree gradually dies back from terminal infection with the fungal pathogen 'ash dieback disease'. The moderate risk was calculated as being 'unacceptable', so either removal of the branch in question or removal of the whole tree is recommended. However, it is unclear whether this tree is under the ownership of the client or the next door neighbour due to the lack of boundary demarcation.

One beech tree from group G1 was identified as posing a moderate risk due to a dead branch overhanging Longridge Road, although the moderate risk calculated as being just into the 'tolerable' range, meaning it is not necessary to action any remedial tree works unless the client particularly wishes to do so.

As Mr Smith reports that the site is both within the Hurst Green Conservation Area and some or all of the trees surveyed are the subject of TPO protection, approval for tree works, with the exclusion of deadwood removal, must be sought from the Local Authority, Ribbles Valley Borough Council, prior to any works being carried out.

Risk of harm posed by the other trees surveyed is currently calculated to be low and, therefore, broadly acceptable, meaning no further tree works are recommended at present. A 24-month re-inspection period is projected to be suitable for the low risk trees, unless any significant weather or other events occur in the meantime that have potential to affect the risk rating of the trees.

References

British Standards Institute (2010) *BS3998 tree work - recommendations*.

Mattheck, C and Breloer, H (1994) *The body language of trees*. Stationery Office, London.

National Tree Safety Group (2011) *Common sense risk management of trees*. Forestry Commission, Edinburgh.

Tree Risk Assessment Survey Schedule

Site	10 Longridge Road, Hurst Green, BB7 9QP	Surveyor	Jennie Keighley PhD MSc MA BScA	Survey Date	26 January 2021
Clients	Mr & Mrs Smith	Conditions	Overcast, very light rain	Job no.	LTC065

ID no.	Species	Age		Height (m)	Crown spread (øm)	Structural condition		Potential targets	Size of tree part most likely to fail	Probability of failure in coming year	Overall risk of harm	Description	
		Stem diameter (mm)				Physiological condition	Recommendations						
T1	Beech	Mature		25	12	Good	Good	Longridge Road (B6243); pedestrians on pavement	Minor deadwood	Unlikely	Low	<ul style="list-style-type: none"> Two primary 300mm diameter branches failed on northern side, leaving stubs of torn tissue 1-2.5m in length Client reports that failed branches had been hyper-extended into open area over brook Ingress of fungal decay into wounds likely over coming years It is noted that the tree does not have any major branches overhanging the road, so potential for failing parts to hit a significant target is very low 	
			700										<ul style="list-style-type: none"> No action currently needed Monitor for progression of fungal decay into main stem, which may eventually compromise structural integrity in years to come
T2	Ash	Young		18	4	Poor	Poor	Longridge Road (B6243); pedestrians on pavement	Minor deadwood	Possible	Low	<ul style="list-style-type: none"> Crown exhibiting signs of advanced infection with ash dieback disease (<i>Hymenoscyphus fraxineus</i>) Terminal decline underway, which will involve gradual failure of branches as tree dies back 	
			130										<ul style="list-style-type: none"> No action currently needed Tree is young and set back slightly from road, meaning branches are all of small size and unlikely to strike or damage a target



Tree Risk Assessment Survey Schedule

Site		10 Longridge Road, Hurst Green, BB7 9QP		Surveyor		Jennie Keighley PhD MSc MA ArborA		Survey Date		26 January 2021		
Clients		Mr & Mrs Smith		Conditions		Overcast, very light rain		Job no.		LTC065		
ID no.	Species	Age	Height (m)	Crown spread (øm)	Structural condition		Potential targets	Size of tree part most likely to fail	Probability of failure in coming year	Overall risk of harm	Description	
					Stem diameter (mm)	Physiological condition					Recommendations	
T3	Ash	Mature	25	16	Poor	Poor	Longridge Road (B6243); pedestrians on pavement	Moderate deadwood	Possible	Moderate	<ul style="list-style-type: none"> No boundary demarcation at eastern edge of site, so ownership of tree is unclear Crown exhibiting signs of advanced infection with ash dieback disease (<i>Hymenoscyphus fraxineus</i>) Terminal decline underway, which will involve gradual failure of branches as tree dies back Tree set back slightly from road, but one major branch has reasonable potential to strike road Moderate risk of harm, which is calculated to be unacceptable, so remedial tree works are recommended Prune to remove branch with reasonable potential to strike road; or Remove whole tree due to imminent death 	
T4	Sycamore	Mature	18	10	Moderate	Moderate/ Good	Neighbour's garden (foundations for a building in place)	Base (full stem failure)	Unlikely	Low	<ul style="list-style-type: none"> Major basal cavity with advanced tissue decay, leaving tree sat stilted on its buttresses Tree has laid down thick adaptive growth on downhill side of base to reinforce the defect Likely to eventually fail uphill from base, towards garden of neighbouring property Currently no significant targets in this area, but foundations for a new building are in place No action currently needed due to lack of significant target, but removal may be desirable in future if a building or parking area is constructed within falling distance of tree 	

Tree Risk Assessment Survey Schedule

Site	10 Longridge Road, Hurst Green, BB7 9QP	Surveyor	Jennie Keighley PhD MSc MA ArborA	Survey Date	26 January 2021
Clients	Mr & Mrs Smith	Conditions	Overcast, very light rain	Job no.	LTC065

ID no.	Species	Age		Height (m)	Crown spread (cm)	Structural condition		Potential targets	Size of tree part most likely to fail	Probability of failure in coming year	Overall risk of harm	Description	
		Stem diameter (mm)	Mature			Physiological condition	Recommendations						
T5	Ash	Mature	22	12	Moderate	Neighbours' gardens	Minor deadwood	Unlikely	Low	<ul style="list-style-type: none"> • Crown exhibiting signs of early infection with ash dieback disease (<i>Hymenoscyphus fraxineus</i>) • Tree still in relatively good condition, but terminal decline is likely to progress rapidly, which will involve gradual failure of branches as tree dies back 	<ul style="list-style-type: none"> • No action currently needed • Due to tree's location, falling branches are highly unlikely to reach any significant target 		
		700	Moderate/Good										
G1	6no. beech	Young to early-mature	≤ 30	≈ 14	Good	Dwelling; Longridge Road (B6243); parked cars; pedestrians on pavement; outbuildings; private outdoor amenity space	130mm diameter dead branch over road on fourth tree from west	Possible	Moderate	<ul style="list-style-type: none"> • Linear group growing along roadside • Five early-mature trees and one young tree • Fourth tree from west has a 150mm diameter and 5m long dead branch overhanging road • Westernmost tree has a slightly over-extended primary branch overhanging parking area and dwelling, but this is naturally braced by a neighbouring branch near stem union, so failure is currently unlikely 	<ul style="list-style-type: none"> • Moderate risk of harm posed by dead branch over road is calculated to be tolerable • Remedial tree works are, therefore, not necessarily required, but client may wish to action removal of dead branch if they so desire • No other action currently needed 		
		≈ 500	Good										

Tree Risk Assessment Survey Schedule

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Clients	Mr & Mrs Smith	Conditions	Overcast, very light rain	Job no.	LTC065

ID no.	Species	Age		Height (m)	Crown spread (Øm)	Structural condition		Potential targets	Size of tree part most likely to fail	Probability of failure in coming year	Overall risk of harm	Description	
		Stem diameter (mm)				Physiological condition	Recommendations						
G2	7no. sycamore	Semi-mature to mature		≤ 25	≈ 10	Moderate-Good		Neighbours' gardens	Minor deadwood	Unlikely	LOW	<ul style="list-style-type: none"> Group of trees towards bottom of slope to brook No boundary demarcation at eastern edge of site, so not all trees may be under client's ownership All but one tree have heavy ivy cover, most of which has been severed at base and died back, but stem cover has potential to mask defects One smaller tree with live ivy cover is evidently almost dead Largest central tree has a moderate degree of basal decay Some disturbance of root systems evident in upper trees due to earthworks at neighbouring property 	<ul style="list-style-type: none"> No action currently needed Minor deadwood is the only tree part likely to fail within the coming year, but is highly unlikely to reach any significant target Future failures are all likely to be downhill, towards the brook, meaning risk of harm is always likely to be negligible
						Moribund-Good							

Tree Risk Assessment Survey Schedule

Site	10 Longridge Road, Hurst Green, BB7 9QP	Surveyor	Jennie Keighley PhD MSc MA(OrdA)	Survey Date	26 January 2021
Clients	Mr & Mrs Smith	Conditions	Overcast, very light rain	Job no.	LTC065

ID no.	Species	Age		Crown spread (cm)	Height (m)	Structural condition		Potential targets	Size of tree part most likely to fail	Probability of failure in coming year	Overall risk of harm	Description	
		Stem diameter (mm)				Physiological condition	Recommendations						
G3	2no. beech	Early-mature	≤ 28	≈ 10	Good	Good	Dwelling; Longridge Road (B6243); parked cars; pedestrians on pavement; outbuildings; private outdoor amenity space	Rootplate (full stem failure)	Unlikely	LOW	<ul style="list-style-type: none"> Closely spaced pair of trees with buttresses in contact with each other Growing on a prominent outcrop above dwelling, which sits at a much lower level, directly below Neighbouring trees removed in past, leaving these trees slightly exposed One tree dominant with an even crown and subordinate tree has crown biased north Dominant tree has a high clear stem of ≈15m No evidence to suggest trees are compromised in any way at present, but it is noted that, were the trees to be windblown by an unprecedented weather event, the effect on the dwelling could be catastrophic 	<ul style="list-style-type: none"> No action currently needed 	

Tree Survey Plan

- High risk of harm
- Moderate risk of harm
- Low risk of harm

Identification numbers:

T = individual tree
G = group of trees
H = hedge
W = woodland

Please note that tree locations shown are approximate

Google Earth satellite image dated 26 June 2018

Site:

10 Longridge Road
Hurst Green
BB7 9QP

Clients:

Mr & Mrs Smith

Date: January 2021

Scale: Not to scale

Drawing: LTC065-TSP

Drawn by: JK

