



## Tree Risk Assessment

Millbrook Cemetery

Millbrook Recreation Ground

Reference: EV-3836-TRA

Site Visit Date: 24.06.2021

Report Date: 30.06.2021

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## 1 INSTRUCTIONS

- 1.1 Millbrook Parish Council instructed Evolve Tree Consultancy to provide a Tree Risk Assessment.

## 2 INTRODUCTION

- 2.1 The report comprises two sites. The boundaries of the survey area are identified on the Tree Risk Plan in Appendix E.

## 3 METHODOLOGY

- 3.1 My inspection and report are prepared in a way consistent with national advice on managing the risks posed by trees<sup>1</sup>.
- 3.2 I use proprietary systems called Quantified Tree Risk Assessment (QTRA) and VALID Tree Risk Assessment (VALID) to inform my judgement about risks.
- 3.3 My survey was a visual one made from ground level. Trees were inspected using the Visual Tree Assessment method as described by Mattheck and Breloer<sup>2</sup>. VTA is a method for tree inspection and hazard recognition which gives information about the body language and the mechanics of trees. It advises on failure criteria and instructs on the correct use of invasive testing techniques.
- 3.4 No climbing or invasive tests form part of this inspection, but they will be recommended, if required.
- 3.5 I did not have access to trees outside the boundaries or on other private properties. Any observations of these trees are confined to what is visible from within the property.
- 3.6 We have been supplied with a copy of the previous tree risk assessment (2017) and for the ease of reference I have used the same plan and report reference numbers.

## 4 SUPPORTING DOCUMENTATION

- 4.1 Relevant documents provided to me include:
- 2017 Tree Risk Assessment Report by Plandscape.

This report should be read alongside Evolve drawing:

- Tree Risk Plan: EV-3836-TRP.

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<sup>1</sup> National Tree Safety Group (NTSG). 2011. Common sense risk management of trees.

<sup>2</sup> Mattheck and Breloer. 1994. The body language of trees Research for Amenity Trees No. 4. DoE.

## 5 STATUTORY PROTECTION & OTHER CONTROLS

- 5.1 I have used information supplied by the Cornwall Council Interactive map. If any tree is identified for removal, confirmation should be sought from the local planning authority (LPA) in writing about the protected status.
- 5.2 Tree Preservation Order: The recreation ground is not subject to a Tree Preservation Order/s (TPOs). The cemetery is subject to a TPO that was made in 2008 to protect the mature yew trees and western red cedars.
- 5.3 Conservation Area: Neither site is within a designated Conservation Area.
- 5.4 Information regarding legal constraints is presented as Appendix A.

## 6 THE SITE

- 6.1 The Site: The site boundaries are within the red lines in image 1.



Image 1. Location Plan Google Map Data 2019.

## 7 THE TREES

- 7.1 **Cemetery:** Notable trees include a group of mature western red cedar, a group of mature Irish yews, several mature Monterey cypress, a group of mature Leyland cypress trees, a horse chestnut and ash.
- 7.2 None pose an unacceptable risk to people or property.
- T9 - A single early mature horse chestnut tree.
- 7.3 It is in the south-east corner. It stands approximately 8 metres tall with a radial spread of approximately 5 metres. Its crown overhangs a bench that is situated on its west side.
- 7.4 Its stem forks at approximately 1.5 metres high. At 4 metres high the south-west stem divides into 3 – this is the point at which the stem had previously been topped. The north-west stem has developed a split below the fork that significantly increases the probability of failure. The risk to people is broadly

acceptable because occupancy levels are relatively low and the part of the tree that would strike the bench is small.

- 7.5 Works to mitigate the small risk are readily achieved by topping the affected stem again at 4 metres high, but this is a prudent management measure rather than necessary for reasons of risk.

G1 – A group of semi-mature ash trees.

- 7.6 These show the early signs of ash dieback. The risk is currently broadly acceptable; however, they will require management as the disease symptoms worsen because the overhanging dead branches will pose a small risk to road users.

- 7.7 In my view it would be prudent to manage the trees prior to the disease worsening, because as it does the woods structural properties tends to degrade.

G2 – A group of mature western red cedars.

- 7.8 All have been topped in the past and are therefore smaller than they might have been if left to mature naturally.

- 7.9 The easterly tree has a moderate structural defect at a bark include stem union. This has been adequately mitigated through past crown management.

G3 – A group of Irish yew trees.

- 7.10 The central tree has two partially broken branches which are falling from the otherwise compact crown. These are small branches, and the risk is broadly acceptable.

- 7.11 Removal the two branches would create a tidy appearance.

T1 – A mature Monterey cypress tree.

- 7.12 There are two small broken branches hanging low over the graveyard. The risk is broadly acceptable, but removal would improve pedestrian access.

- 7.13 There are two small dead trees that are a broadly acceptable risk. Their positions are shown on the plan.

- 7.14 **Recreation Ground:** There are many trees across the park. People are generally dispersed at low densities within the survey area and will tend not to loiter for long periods along the several formal and informal paths. Consequently, occupancy rates are generally low which has a significant influence on the risk from trees.

- 7.15 The roadside and children's play area sensitive locations and the trees that about these have the potential to pose a much greater risk.

- 7.16 Generally, the trees pose a broadly acceptable risk.

G4 – Various species including cherry, alder, willow and poplar.

- 7.17 Ages range from young to semi-mature. The canopy of these trees hangs at between 3.5 to 4 metres above the road. Use of this road by high sided vehicles is likely to be infrequent but would require a clear height of 5.2 metres above the carriageway.
- 7.18 The risk posed by the trees to vehicles is low, but it would be prudent management to maintain the appropriate clearances above the carriageway.

T9 and T9.1 – Semi-mature ash trees.

- 7.19 Both show early signs of Ash Dieback disease. Development of the disease is likely to cause the death of large branches overhanging the road and play area.
- 7.20 The risk is currently acceptable, but this will worsen over time. They will require management as the disease symptoms develop because the overhanging dead branches will pose a risk to road and park users. Management is much more straightforward whilst the trees are in reasonable condition.

G5 - Group of semi-mature alder trees.

- 7.21 The southernmost tree is dying, and its adjacent companion is losing its vitality. They pose a very low risk due to their small size and the low occupancy rates next to them.

G1.1 - Semi-mature poplar.

- 7.22 It stands approximately 11 metres tall with a radial spread of approximately 6 metres. The main stem bifurcates close to the ground. The larger of the two stems has an historical open wound with heartwood decay at 3 metres high, which developed after the failure of a subservient stem a decade or more ago. A crack has developed below the wound, which is evidence of a deteriorating structural condition, increasing the likelihood of failure during strong winds. It stands 10 metres to the east of the kingfisher information board.
- 7.22.1 The risk is very low because of the low occupancy rates. I recommend felling for management reasons and although the risks are low, so too is the cost/inconvenience of mitigation.
- 7.23 One small dead tree is situated adjacent to a mown path in group G2. Its location is shown on the plan. It can be retained in the interests of natural habitat at a low risk to people.

## 8 RISK ASSESSMENT

- 8.1 A hazard is something that can cause harm, in this case a tree. Risk can be expressed as a combination of an event's consequences and the likelihood of it occurring. In this case, a potential consequence is death, serious injury or

damage to property. The important part of the assessment is the likelihood of either occurring.

- 8.2 When assessing a tree, owners and managers need to judge whether the measures they adopt will fulfil society's reasonable expectations. "Reasonableness" is a key legal concept when considering the risks of trees and a tree owners' obligations. Deciding what is reasonable is influenced by the trees' place within the wider management context and how that context influences local decisions. The Health and Safety Executive presented this expectation in its risk philosophy, outlined in Appendix B.
- 8.3 Where the risk falls within the 'tolerable' region, risk reduction measures may be recommended to ensure that they remain as low as reasonably practicable (ALARP). The benefits of risk reduction will be measured against the sacrifice (cost, amenity value etc).
- 8.4 The risks are generally broadly acceptable. The low hanging branches overhanging the road from group G4 do pose a low risk, that would be prudent to mitigate through pruning.

## 9 MANAGEMENT RECOMMENDATIONS

- 9.1 Table 1 summarises the recommended works. High priority works are highlighted red, non-urgent works orange.

<b>Recommended Tree Work</b>			
<b>Cemetery</b>			
T9	Horse Chestnut	Remove 3 branches from north-west stem at a height of 4 m.	To be carried out as convenient when tree surgeons are next working within cemetery
G1	Ash	Coppice	Suggested within next 12-18 months before condition deteriorates
G3	Irish Yew	Remove untidy limbs x 2	Low priority for aesthetic reasons
T1	Monterey cypress	Remove two low broken limbs	To be carried out as convenient when tree surgeons are next working within cemetery
<b>Recreation Ground</b>			
G4	Mixed species	Crown lift to 5.2m above carriageway	Within next 12 months

G1.1	Poplar	Fell	To be carried out as convenient when tree surgeons are next working within cemetery
T9, 9.1	Ash	Fell	To be carried out as convenient when tree surgeons are next working within cemetery

Table 1. Recommended Tree Works.

## 10 CONCLUSION

- 10.1 The risks posed by trees at the cemetery and recreation ground are broadly acceptable.
- 10.2 I have recommended certain non-urgent works in Table 1.
- 10.3 There are ash trees present at both sites. It is very likely that their condition will deteriorate due to ash dieback. In remote locations where people infrequently pass by or loiter, the risks are likely to remain low. The trees that are situated close roads and places of higher occupancy may need to be managed.
- 10.4 I recommend that the trees be formally inspected again in approximately 24 months' time.
- 10.5 The condition of trees will change over time, particularly after severe weather events, ground works etc. Between formal inspections, ground staff should carry out informal inspections as they go about their everyday duties and report and obvious defects or problems as they become apparent. Informal inspections require no specialist knowledge, merely an attention to problems that would be obvious to the layman.
- 10.6 Should you have any queries I am happy to provide further advice and opinion.



Simon Proctor BSc Hons, Dip Arb (RFS), M Arbor A, MICFor  
Evolve Tree Consultancy

I am a Chartered Arboriculturist and a professional member of the Arboricultural Association. I hold the Royal Forestry Society's Professional Diploma in Arboriculture. I have been working as a full-time, professional arboriculturist since 1998 and have experience in both the public and private sector.



*The authority of this report ceases when any site conditions change or pruning or other works unspecified in the report are carried out to, or affecting, the subject tree(s). The statements made in this report do not consider the effects of extremes of climate, vandalism, or accident, whether physical, chemical or fire. Evolve Tree Consultancy cannot accept any liability about these factors, nowhere prescribed work is not carried out in a correct and professional manner in accordance with current good practice.*

*The recommendations within this report remain valid for the period stated for re-inspection or twelve months from the date of survey.*

*The limit of Evolve Tree Consultancy's indemnity over any matter arising out of this report extends only to the instructing client; Evolve Tree Consultancy cannot be held liable for any third-party claim that arises following or out of this report. This report remains the intellectual property of Evolve Tree Consultancy.*

## APPENDIX A Legal Constraints

### Trees outside the site/property

Landowners and managers have a duty of care not to damage trees on the neighbouring land. The common causes of damage (root damage, compaction, physical damage, and inexpert pruning) must be avoided through good planning and site management.

However, branches and roots from trees on adjacent properties that extend over boundaries can be pruned back to the boundary line without the permission of the owners. However, the branch material belongs to the tree owner and should be returned where appropriate.

### Statutory wildlife obligations

The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000 provides statutory protection to birds, bats and other species that inhabit trees. All wild birds are protected by law under the Wildlife & Countryside Act 1981, and it is an offence to disturb injure or kill a nesting bird intentionally or to take damage or destroy an occupied nest or egg. If nesting birds are discovered works on the trees should be deferred until the nests are abandoned. Care should be taken during any felling operation, or surgery works to trees to avoid damage or disturbance to birds during the nesting season.

### Tree Preservation Orders

Advice can be found at:

<http://planningguidance.communities.gov.uk/blog/guidance/tree-preservation-orders/tree-preservation-orders-general/>

### Conservation Areas

Advice can be found at:

<http://planningguidance.communities.gov.uk/blog/guidance/tree-preservation-orders/protecting-trees-in-conservation-areas/>

### **Important: Exceptions for tree work relating to planning permission and permitted development from the Planning Practice Guidance 15 April 2015 paragraph 36-083-20150415.**

Under the heading "Is there an exception for tree work relating to planning permission and permitted development?", of the PPG states:

"The authority's consent is not required for carrying out work on trees subject to an Order so far as such work is necessary to implement a full planning permission. For example, the Order is overridden if a tree must be removed to make way for a new building for which planning permission has been granted.

Conditions or information attached to the permission may clarify what work is exempt.

However, the authority's consent is required for works on trees subject to an Order if:

- development under a planning permission has not been commenced within the relevant time limit (i.e. the permission has 'expired');
- only outline planning permission has been granted; and
- it is not necessary to carry out works on protected trees in order to implement a full planning permission."

## Felling licence

In any calendar quarter\*, you may fell up to 5 cubic metres on your property without a licence if no more than two cubic metres are sold. Contact your local Forestry Commission office if you are not certain whether these exemptions apply.

\*1 Jan to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October 31 December

Exemptions: Certain types of felling do not need permission from the Forestry Commission. The Forestry Act 1967, as amended, and related regulations give these exceptions in full. The main categories are listed below:

Lopping and topping (which usually includes tree surgery, pruning and pollarding).

Felling included in an approved dedication plan.

Felling fruit trees, or trees growing in a garden, orchard, churchyard or designated public open space (e.g. under the Commons Act 1899).

Felling trees which, when measured at the height of 1.3 metres from the ground:

have a diameter of 8 centimetres or less; or if thinnings have a diameter of 10 centimetres or less; or

if coppice (i.e. managed by cutting to promote multi-stemmed growth arising at or near ground level) or underwood, have a diameter of 15 centimetres or less.

Felling trees immediately required for carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) or for work carried out by certain providers of gas, electricity and water services and which is essential for the provision of these services.

Felling necessary for the prevention of danger or the prevention or abatement of a nuisance (e.g. which may involve the threat of danger to a third party). This exemption will only apply if there is a real rather than a perceived danger. We may be able to give you advice that would minimise the danger without felling the trees. We strongly recommend that you contact us if you are considering felling a tree or trees in these circumstances. You may be prosecuted for illegal felling if it is shown that the tree did not present a real or immediate danger.

Felling necessary to prevent the spread of a quarantine pest or disease and done in accordance with a notice served by a Forestry Commission Plant Health Officer (under the Plant Health (Forestry) (Great Britain) Order 1993, as amended).

The felling is done in compliance with any obligation imposed by or under an Act of Parliament.

More advice can be found at

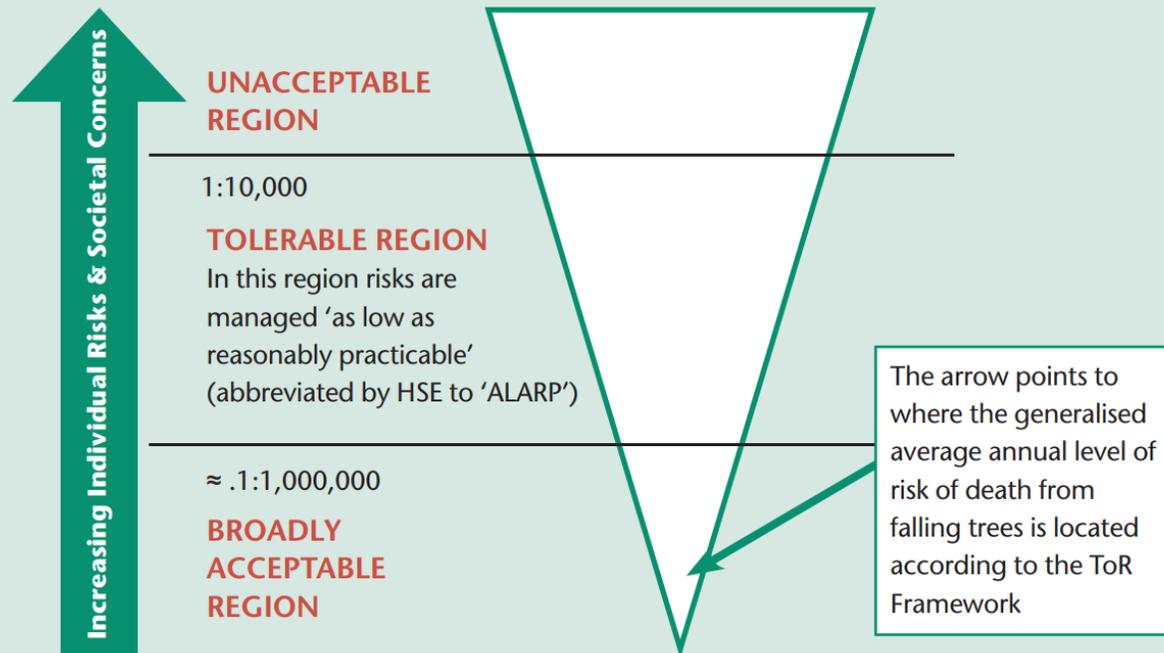
[http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/\\$FILE/treefellingaugust.pdf](http://www.forestry.gov.uk/pdf/treefellingaugust.pdf/$FILE/treefellingaugust.pdf)

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## APPENDIX B Tolerability of risk Framework Diagram

### Figure 2. Tolerability of Risk Framework<sup>1</sup> (ToR)

Visual presentation of the level of general annual risks of death from falling trees – note the 'tolerable region' is where risks are managed as low as reasonably practicable ('ALARP')



<sup>1</sup> The diagram is based on *Reducing risks, protecting people* (HSE 2001) Figure 1: 'HSE framework for the tolerability of risk'.

## APPENDIX C QTRA Non-Technical Summary

### What is Quantified Tree Risk Assessment?

Tree safety management is a matter of limiting the risk harm from tree failure while maintaining the benefits conferred by trees. Although it may seem counter-intuitive, the condition of trees should not be the first consideration. Instead, tree managers should first take account of the usage of the land on which the trees stand, which in turn will inform the process of assessing the trees.

The Quantified Tree Risk Assessment (QTRA) system applies established and accepted risk management principles to tree safety management. Firstly, the targets (people and property) upon which trees could fail are assessed and quantified, thus enabling tree managers to determine whether to assess trees and to what degree of rigour a survey or inspection of the trees is required. Where necessary, the tree is then considered in terms of both size (potential impact) and probability of tree branch failure. Values derived from the assessment of these three components (target, size and probability of failure) are combined to calculate the probability of significant harm occurring.

The system moves the management of tree safety away from labelling trees as either 'safe' or 'unsafe' and requiring definitive statements of tree safety from either tree surveyors or tree managers. Instead, QTRA quantifies the risk of harm from tree failure in a way that enables tree managers to balance safety with tree value and operate to predetermined risk thresholds.

### QTRA Advisory Risk Thresholds

Threshold	Description	Action
<1/1000	Unacceptable Risks will not ordinarily be tolerated	Risk reduction works will be recommended
1/1000-1/10,000	Unacceptable (where imposed on others) Risks will not ordinarily be tolerated.	Control the risk Review the risk
	Tolerable (by agreement) Risks may be tolerated if those exposed to the risk accept it, or the tree has exceptional value	Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value Review the risk
1/10,000- 1/1,000,000	Tolerable (where imposed on others) Risks are tolerable if as low as reasonably practicable (ALARP)	Assess costs and benefits of risk control. Control the risk only where a significant benefit might be achieved at reasonable cost • Review the risk
>1/1,000,000	Broadly Acceptable Risk is already ALARP	No action currently required Review the risk

"An elegantly simple solution to a complex problem  
- all in the palm of your hand!"



### VALID - In a Nutshell



VALID is the world's first complete tree risk-benefit management system. It comes with a super smart tree risk assessment App, which we train 'Validators' to use.

To partner the App, we've got a range of free, common sense tree risk-benefit management strategies to help meet the needs of any duty holder.

### Tree Risk Assessment - App

VALID has been stress-tested to breaking point



When they carry out a 'Detailed' assessment, trained Validators use our **Tree Risk App** to enter the Likelihood of Occupation, Consequences, and Likelihood of Failure categories. The App then works out the level of risk.

The engine of the App has been built with a Professor in Natural Hazards & Risk Science. The Professor's an internationally distinguished expert in this field, and he's test driven the model to breaking point;

*"We have stress tested VALID and didn't find any gross, critical sensitivities. In short, the mathematical basis of your approach is sufficiently robust and dependable for any practical purpose."*

Professor Willy Aspinall  
Bristol University

### Tree Risk Management - Strategy

Duty of care  
Reasonable  
Proportionate  
Reasonably practicable

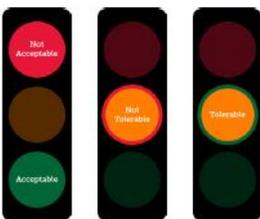


Whether you're a government agency, landowner, or homeowner, if you own trees you have a duty of care to manage the risk from them. That duty of care says, be reasonable, proportionate, and reasonably practicable when managing the risk. What this means is, there's a balance that needs to be struck between the many benefits trees provide, the overall risk from them, and the costs of managing the risk.

VALID has a range of easy to understand, common sense **Tree Risk-Benefit Management Strategies**. These are free and released under a creative commons license. They explain how you can go about meeting your duty of care whilst being reasonable, proportionate, and reasonably practicable. Validators can customise the strategies for duty holders.

### Tree Risk - Tolerance

Risk ratings are as easy to understand as traffic lights



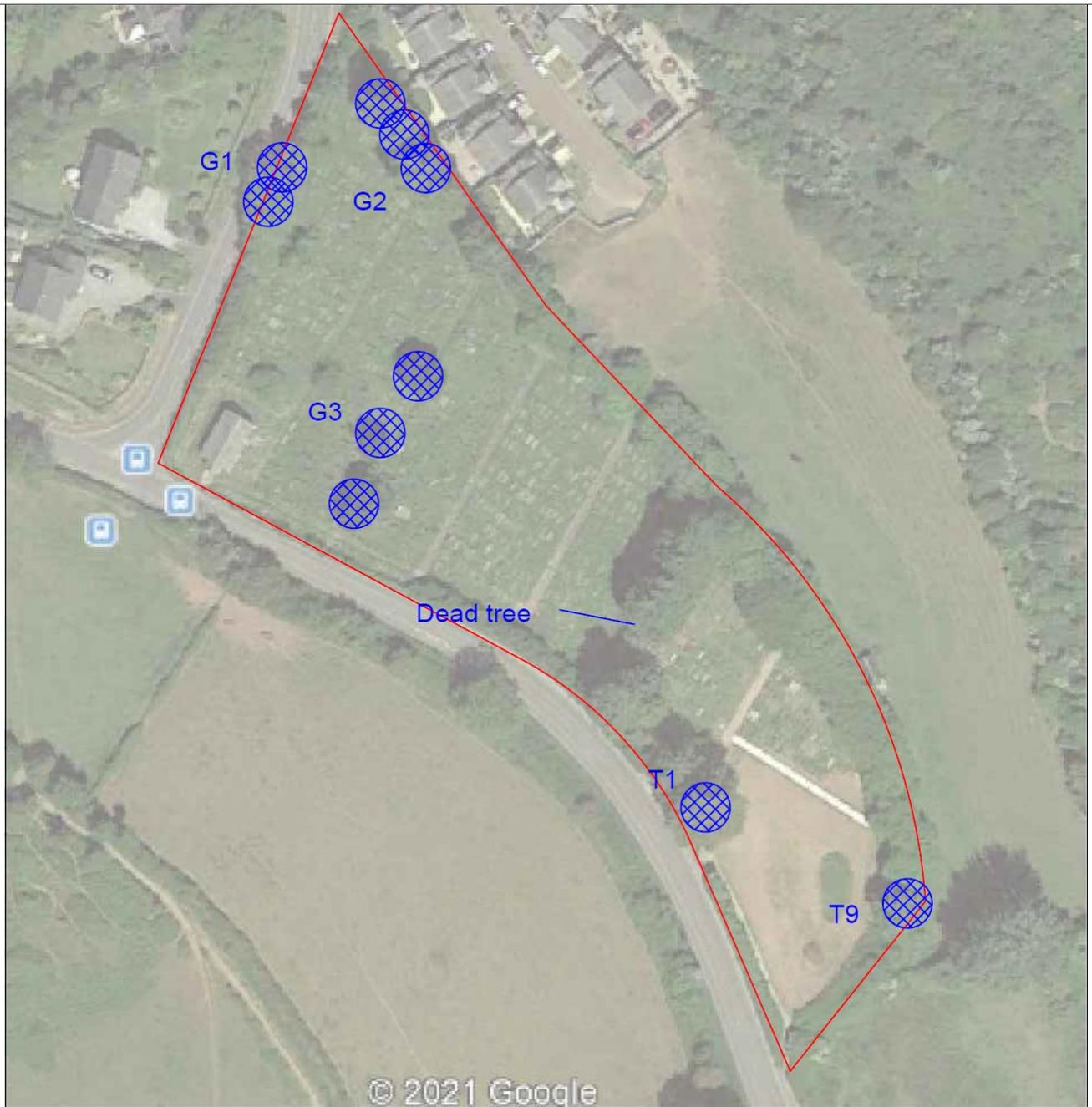
Yes, it really is that simple. There's no confusion about what vague words or complicated numbers mean. We have four easy to understand traffic light colour-coded risk ratings based on the Tolerability of Risk Framework (ToR). ToR is an internationally recognised approach to making risk management decisions where risks are imposed and have benefits.

- Red** Not Acceptable risks need to be reduced with a high priority.
- Amber** Not Tolerable risks need to be reduced, but have a lower priority than Not Acceptable risks.  
Tolerable risks do not need to be reduced, but may require an increased frequency of assessment than Acceptable risks.
- Green** Acceptable risks will not be reduced.

VALID is a non-profit organisation dedicated to providing training and giving guidance about the risk from tree failure.

APPENDIX E Tree Risk Plan

Cemetery



# Recreation Ground

