

Arboricultural Report

First View, Lamorna Cove, TR19
6QX

Oliver Russell BSc, Tech Arbor.A.

Wildwood Trees

Arboricultural Consultants

Trelavour
Bonallack Lane
Gweek
Cornwall
TR12 6UJ

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1.0 Instructions

- 1.1 I have been instructed by dRAW Architects Ltd to carry out a tree survey, to BS 5837:2012, of significant trees and shrubs at the First View site in Lamorna, Cornwall, with reference to a proposed new development on the site.
- 1.2 This report:
- a) Surveys the trees on site, according to BS 5837:2012 'Trees in relation to design, demolition and construction –Recommendations'
 - b) categorises trees in order of retention, (to BS 5837:2012 'Trees in relation to design, demolition and construction –Recommendations')
 - c) makes recommendations for the immediate and future management of the trees to be safely retained, based on my experience as an arboriculturist
 - d) provides specification for tree protection during the construction process.
- 1.3 I confirm I hold a BSc degree and hold the Technician's Certificate in Arboriculture (Arboricultural Association). I also have thirty years' experience of working in the industry.

2.0 Report Limitations

- 2.1 The inspection and survey were carried out using Visual Tree Assessment (VTA) methodology (Mattheck & Breloer, 1994), from the ground, with the aid of a sounding mallet and binoculars. Should more detailed inspection of a tree be required this will be highlighted in the report.
- 2.2 Trees are living organisms whose health and condition can change rapidly. The health and condition of a tree should be checked on a regular basis, preferably at least once a year. The findings of this survey are only valid for one year from the date of the survey. This period of validity may reduce in the case of any change in conditions to or in proximity to the tree, or after any significant climatic event.
- 2.3 The survey is primarily concerned with the condition of the existing trees. Any discussion of soil characteristics is only presented where this may have direct effect on tree or root growth. This report does not seek to address the specific area of subsidence risk.
- 2.4 Whilst the health and safety of each tree is considered in this survey, the report is primarily concerned with the potential for development of the site, in relation to the trees growing there. It is not intended as an assessment of any risk posed by the trees at the location.
- 2.5 Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that Wildwood Trees undertook the work. Nothing in this report constitutes legal opinion. If legal opinion is required the advice of a qualified legal professional should be secured.
- 2.6 The limit of Wildwood Trees indemnity over any matter arising out of this report extends only to the instructing client, namely dRAW Architects. Wildwood Trees cannot be held responsible for any third-party claim that arises following or out of this report

3.0 Introduction

- 3.1 The area intended for development, consists of a small, level area, currently occupied by a disused garage and a derelict shed. From this area the ground falls steeply down to the north-east, to the stream in the valley bottom. The rest of the site is one side of the steep valley, covered with low growing, wind sculpted trees. The site is approximately 200m from the sea at Lamorna Cove.
- 3.2 The whole site is covered by the Lamorna and Trelveloe (Cornwall) TPO - P/14/10 TPO 1 Ref; W7 (1966). Consent, from the LPA, must be gained before any tree works are carried out at the site. (Note; Full planning permission does override a TPO).

4.0 Soils

- 4.1 Note: Soils have not been excavated, nor have any samples been taken or analysed. The following comments are based on a desk study and basic observations on site.

The soils underlying the site are designated as freely draining, acid loamy soils over rock, on the NSRI 'Soilscapes' soil dataset. Habitats include acid upland pastures, gorse, bracken and oak woodlands, heath and moor. Soil fertility is generally low and land cover is mainly grassland and rough grazing.

5.0 Appraisal of principle trees

- 5.1 The steep site at First View, above Lamorna Cove, has extensive tree cover of both Ash and Sycamore species. The trees are generally stunted in size, due to the prevailing, salt-laden south-westerly winds coming in from the sea. The average tree size does get slightly larger as the site gains a bit more shelter to the north-west.
- 5.2 Ash Dieback fungal infection (*Hymenoscyphus fraxineus*), was observed in almost all the ash stock on the site and in the wider Lamorna valley. Significant trees with the infection include; (T1) –off-site, (T3) and (T5). The risk from this fungal infection is that ash branches, as they die, become brittle and can then fall with little warning. The brittleness of the branches also means it is dangerous to climb fully infected trees, to carry out any tree surgery operations. MEWPS ('Cherry pickers') then have to be used. Ash trees in the wider site, infected by Ash Dieback, and where there is very little or no risk to any site users or neighbours, public, etc can be left to slowly collapse into the woodland.
- 5.3 The sycamore on growing on site are in good overall condition (given the constraints of an exposed site) and are recommended for retention to retain as much tree cover and shelter for the proposed building.
- 5.4 Given the steepness and rockiness of most of the site around the existing level (development) area, it was assessed that little or no root growth would occur 'up-slope' and into this area. Consequently, the RPA's of the trees in that vicinity have been adjusted to reflect this.
- 5.5 Attached is a Tree Constraints Plan, showing the location of the principal trees on the site, with retention category colour coding and Root Protection Areas (RPA)

plotted as radiuses given in the schedule in the Appendix. Also attached is a Tree Protection Plan, showing the location of the protective fences to be erected, around the retained trees.

Also attached is the schedule, which presents the following information:

- Tree number as shown on plan
- T= tree, G= Group, H= Hedge, W= Woodland
- Tree species (common name in brackets)
- Height in metres
- Crown spreads, N, E, S, W (in metres)
- Stem diameter at 1.5m height (in millimetres)
- Height to lowest branch (Crown clearance) in metres
- Age class (see key)
- Root Protection Area, given as radius of circle (in metres) (as calculated in section 4.6 of BS5837:2012)
- Physiological condition (see key)
- Structural condition
- Preliminary management recommendations, including further investigation
- Estimated remaining contribution in years (see key)
- Retention category grading (see key)

6.0 Arboricultural Impact Assessment

- 6.1 The proposals are for a single dwelling located on the site of the existing garage and shed. The overall Arboricultural Impact should be relatively low, with the majority of the site being left untouched.
- 6.2 Ash tree (T5) is recommended for felling, on health and safety grounds, due to the Ash dieback infection it has. Sycamore (T4) is likely to be damaged by the proposed construction and if left may also come under pressure to be removed, as it matures, given its location, close to the new dwelling. Again, it is recommended for removal.
- 6.3 Ash tree (T1) appears to be off-site, but is also noted to have Ash Dieback infection. The current risk from the tree is judged to be low, but it may be prudent to inform the owners of the likely decline in condition of the tree and therefore the increased risk to road users in the area.
- 6.4 Any service runs, sewer/drainage pipes, etc should approach the proposed building from the road, and so not impact on the retained trees on site.
- 6.5 Minor crown raising tree surgery is recommended to the lower branches of (T2) and (T3) to allow construction of the proposed building to take place and to avoid damage to the trees and reduce interference with the installed building in the future. The minimum size and number of branches should be removed to achieve this. All work should be carried out by a suitably qualified arborist and all work done to BS3998:2010 specification
- 6.6 Hedge (H1) of *Euonymus japonica*, will require some minor reduction on its southern end to allow access and construction work to proceed.
- 6.7 Shading should not be a major problem with the proposed location of the building, as the main trees are located to the north, south-east or north-west of the plot.

- 6.8 Additional tree planting is not envisioned, given the size and number of trees already existing on the site. The ash trees could be replaced as gaps appear in the canopy. Wind and salt tolerant species should be used e.g., Sycamore, Whitebeam, Holm oak, etc.

7.0 Tree Protection; Method Statement

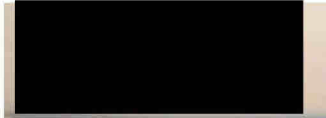
- 7.1 BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations' requires that all retained trees should be protected by the establishment of protection zones marked by the erection of protective fencing and or ground protection at given distances: within which no development or construction activity should take place. All tree work should be completed and protection fences erected before any construction or ground work operations take place. The fences should remain in places until which time all development is completed.
- 7.2 The specification for fences, suggested in BS5837:2012, is a scaffold framework of vertical and horizontal tubes, well braced to resist impacts, with the vertical tubes spaced at a maximum interval of 3m. Onto this, weld mesh panels should be securely fixed with wire or scaffold clamps. All weather notices should be fixed to the barrier saying 'Construction exclusion zone –keep out'. (For diagram of fence see Figure 1).
- The area within these barriers should remain sacrosanct at all times. No development should take place, no materials stored, fires lit, soil levels altered or any other activity that may compromise the health of the retained trees and their root systems, carried out.
- 7.3 Protective fencing should be erected to enclose all the RPAs of the retained trees, as indicated on the Tree Protection Plan and at the distances marked in the survey.
- 7.4 No materials that are likely to have an adverse effect on the tree health, such as diesel, bitumen, cement or cement washings will be stored or discharged within 10 metres of the trunk of a tree that is to be retained. Storage of all materials, cement, diesel etc should occur to the south of the site, away from any retained trees. Allowance should also be made for the slope of the ground, so that damaging materials such as cement washings or diesel oil cannot run towards trees or into the adjacent stream.
- 7.5 No fires are to be lit within 20 metres of the trunk of any tree that is to be retained. Also notice boards, services, cables etc should not be attached/nailed to any part of a tree
- 7.6 Any excavations allowed within the root protection area should be carried out carefully by hand, avoiding damage to protective bark on larger roots. Exposed roots should either be protected or pruned back, as detailed in BS5837: 2012 and with reference to NJUG: volume 4.
- 7.7 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 (CROW2000), provides statutory protection to birds, bats and other species that may inhabit trees. All tree work operations are covered by these provisions and advice from an ecologist or suitably trained Arboriculturist must be obtained, before undertaking any works that might constitute an offence.

8.0 Work details

8.1 Recommendations for tree work should be carried out exactly as described in the schedule.

8.2 All tree works should be carried out to BS3998; 2010 'Recommendations for tree work'.

This survey is for the sole use of the above-named client and refers only to those trees identified within; use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.



Oliver Russell BSc Tech ArborA
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Fig 1: Existing garage and shed at Lamorna, with Sycamore (T2) on the left and sycamore (T4) behind.



Fig 2: Sycamore (T4) with existing garage to the left.



Fig 3; General view of the ash and sycamores of group (G1)



Fig 4; Base of Sycamore (T3), showing the steepness of most of the site



Fig 5: Ash pollard (T6) with extensive Ash Dieback infection

9. BS5837 Survey Schedule.

Tree ID	Common name (Latin name)	Maturity	Height (m)	Nos of Stems	Stem dia (mm)	Crown Spread - NESW (m)	Ht. Crown clr (m)	Physiological Condition	Structural Condition	Est. Rem. Yrs	Category grade
T1	Common Ash (Fraxinus excelsior)	SM	20	1	450 (est)	5:5:5:5	5	Fair	Signs of ADB. North stem has daldinea fungus. In decline. Off site.	<10	C
T2	Sycamore (Acer pseudoplatanus)	SM	15	4	440	4:4:4:4	3	Good	On edge of quarry? Gorge? Minor deadwood. Crown raise over site if retained. Off-site?	40+	B
T3	Common Ash (Fraxinus excelsior)	SM	20	1	600	7:6:6:4	5	Fair	Signs of ADB. Inspection when if leaf to confirm extent. Probable fell	<10	C
H1	Euronymous japonica	SM		1	150	1:1:1:1		Good	Trimmed to roadside, outgrown to east. Off site	20+	C
T4	Sycamore (Acer pseudoplatanus)	Y	15	1	300	3:1:1:3	8	Good	Asymmetric crown to North West. Tall and drawn form	40+	B

Tree ID	Common name (Latin name)	Maturity	Height (m)	Nos of Stems	Stem dia (mm)	Crown Spread - NESW (m)	Ht. Crown clr (m)	Physiological Condition	Structural Condition	Est. Rem. Yrs	Category grade
T5	Common Ash (Fraxinus excelsior)	SM	16	1	475	10:4:1:1	6	Poor	ADB. Asymmetric crown to North. 15degree lean to North. Probable fell due to ADB.	<10	C
T6	Common Ash (Fraxinus excelsior)	SM	5	1	350	1:1:1:1	1	Poor	Extensive ADB. Fell or retain as standing habitat? No risk.	<10	C
T7	Sycamore (Acer pseudoplatanus)	SM	15	1	350	4:3:2:2	5	Good	Heavy ivy growth	40+	B
T8	Common Ash (Fraxinus excelsior)	M	15	1	450	4:5:6:3	5	Poor	Extensive ADB. Heavy ivy growth on main stems.	<10	C
G1	Ash, Sycamore, Elder	SM	14	1	300	4:3:2:2	3	Fair	Extensive ADB in ash stock. Wind sculpted crowns. Leave ash to collapse where no risk.	40+	B

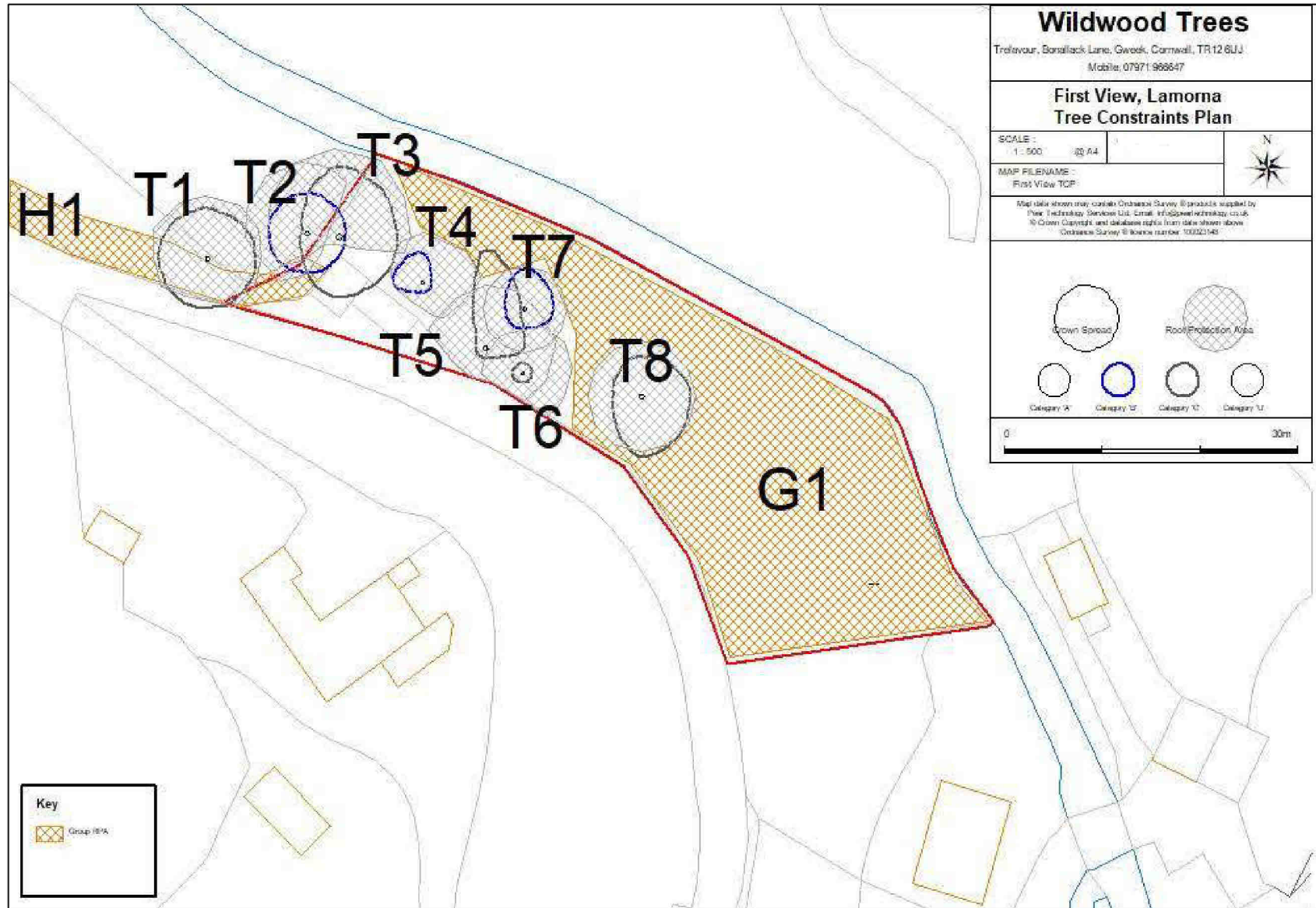


Fig 6: Tree Constraints Plan

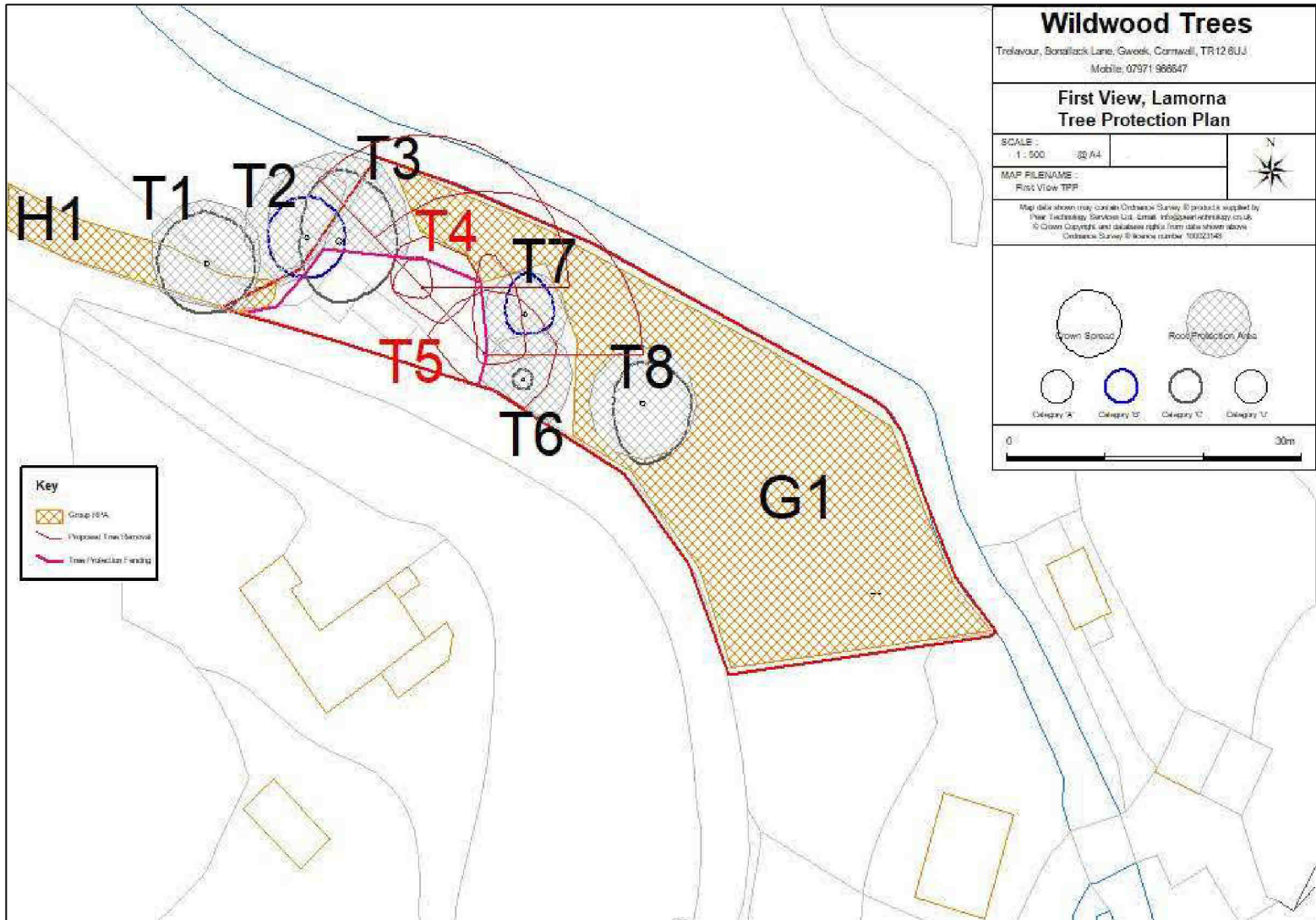


Fig 7: Tree Protection Plan

Figure 2 Default specification for protective barrier

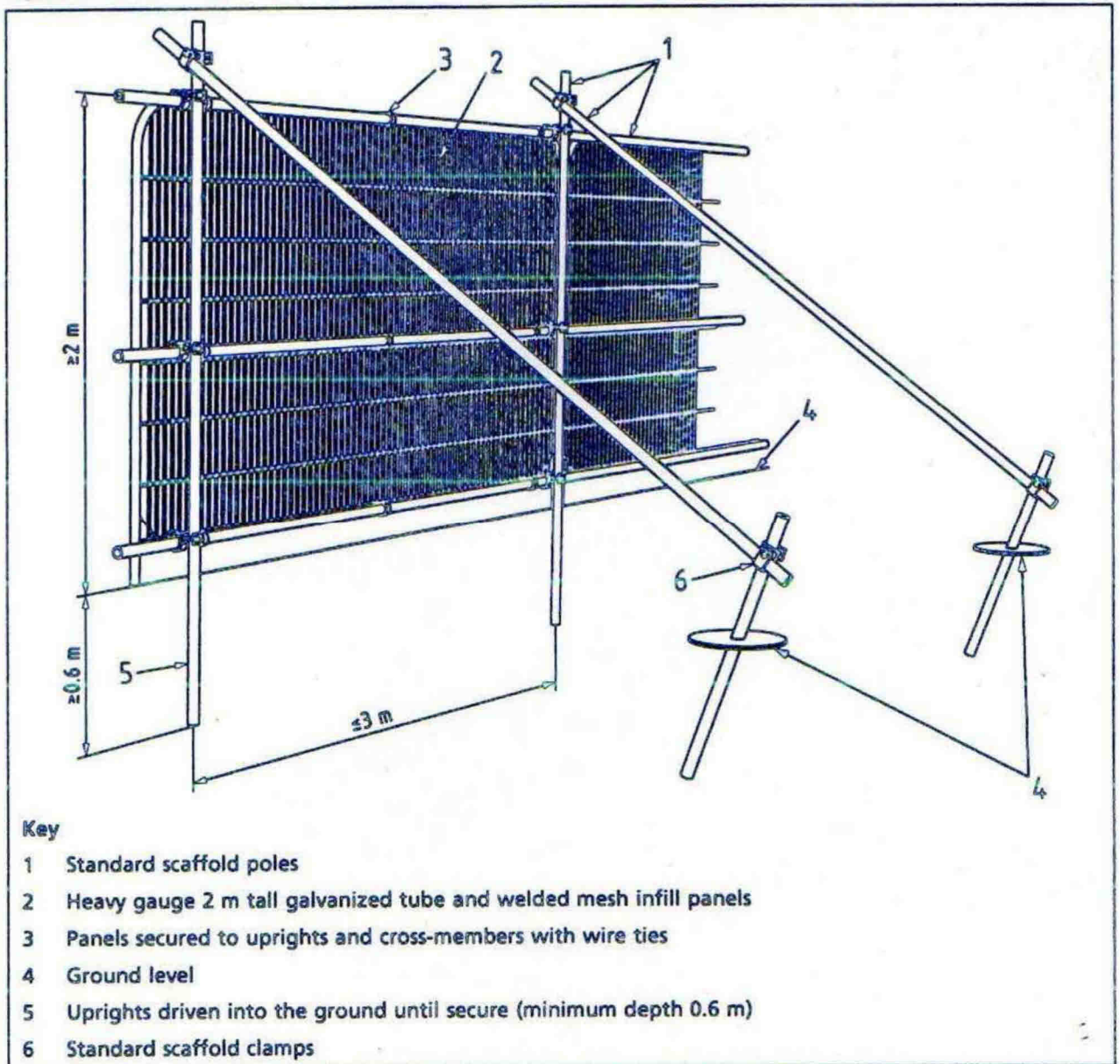


Fig 8. Default specification for protective fencing

Appendix

Keys

Age Class

NP –Newly planted

Y –Young - in its first third of life expectancy

SM –Semi-mature - in its second third of life expectancy

M –Mature - in its last third of life expectancy

OM –Over mature decline - at the end of its life expectancy (often showing signs of decline)

V –Veteran - showing signs of veteranisation

Condition

Good - Healthy and safe condition

Fair - Fair shape and form. Healthy and safety may be partly compromised. May require remedial works

Poor - Health and Safety compromised

Estimated remaining contribution

In years: < 10
 10+
 20+
 40+

Retention category

A –Trees of high quality with an estimated remaining life expectancy of at least 40 years
(marked on map in light green)

B –Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
(marked on map in mid blue)

C –Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm (Marked on map in grey)

U –Trees in such a condition that they cannot be retained as living trees in the context of the current land use for longer than 10 years, or young trees with a stem diameter below 150mm
(Marked on map in dark red)

1 –Mainly arboricultural qualities

2 –Mainly landscape qualities

3 -- Mainly cultural values, including conservation, habitat and wildlife value