Arboricultural Report

Land at Penventon Nursery, Lanner, Cornwall

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Wildwood Trees
50 Trevethan Road
Falmouth
Cornwall
[redacted]

Prepared for: Mr R. Murrell, Warrior Warehouse, Camborne

Date: September 2020

Arboricultural report

1.0 Instructions

1.1 I have been instructed by Trewin Architects to carry out a tree inspection, to BS 5837:2012, of all significant trees and shrubs at the above location, with reference to a proposed new development at 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 arboriculturalist
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 over twenty five years experience of working in the industry.

2.0 Report Limitations

2.1 The inspection and survey was 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 The limit of Wildwood Trees indemnity over any matter arising out of this report extends only to the instructing client, namely Mr R. Murrell. Wildwood Trees cannot be held responsible for any third party claim that arises following or out of this report.

3.0 Introduction

3.1 I visited the site on 13th August 2020. The weather was sunny and the visibility was good.

3.2 The land intended for development is a disused nursery, attached to the garden centre on the main road. It is a level area of, mainly compacted sand, with some concrete hard standing and an existing building close to the northern boundary plus some polytunnels to the north of the site. It is connected to the garden centre car park by a tarmac lane, bordered on both sides by hedgebanks. There are existing houses to the north-west of the site, with agricultural fields in the other tree directions. The trees on site are located on the four boundaries of the developement plot.

3.3 There are no known designations, (e.g. Tree Preservation Orders), on the trees on or near this site.

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, slightly acid loamy soils over rock on the NSRI 'Soilscapes' soil dataset. Habitats include steep acid upland pastures, dry heath and moor; gorse, bracken and oak woodlands. Soil fertility is generally low and land cover is mainly grassland and rough grazing.

5.0 Appraisal of principle trees

5.1 The trees on this site are all located on the sites boundaries, as shelter belts or grown out, mature hedgerow trees and native shrubs

5.2 On the north-east, south-east and north-western boundaries are dense shelter belts of Leyland cypress, in places 12m high. Whilst providing evergreen screening and shelter from the wind, to the site, they are starting to dominate the location and, in the case of the north-east section (Group G4), occupy a substantial area of land, now having a basal branch spread of up to 12m. The north-western section has been heavily pollarded, (to approximately 4m height), leading to the wide, 'open' hedge now seen. Sections of the group have also died, probably due to the excessive pruning and these are recommended for removal and replanting. The remaining trees in this section could be trimmed up and managed as a hedge, if retained.

5.3 The trees on the south-west boundary are a mix of native, broadleaves, with some sycamore and some Leyland cypress trees. The sycamore, oak, hazel and holly are generally in good condition and should be retained. The Leyland cypresses are tending to grow out, east, over the site and are recommended for removal. This will allow the remaining broadleaves to attain a fuller crown. To the southern end of this boundary the bank, on which the trees are growing, has been partly dug out in the past, for the construction of the polytunnels. This does not seem to have significantly affected their vitality, there being little evidence of any root severance having taken place. It is likely that the root growth of these trees is more elliptical,

along the axis of the hedge bank and probably with a greater area spreading into the open, undisturbed fields to the west of the bank (this has been indicated on the Tree Constraints Plan – see appendix)

5.4 In the southern corner of the site is a large, mature Monterey cypress (T4). This is located up on the boundary bank, (the levels difference being approximately 4m), and away from the construction area. It is in overall good condition and should be retained. Again the bank has been dug away quite extensively in the past, with little historical root severance observed. As above the majority of the root growth area is probably to the west and south into the open fields beyond.

5.5 Attached is a Tree Constraints Plan, showing the location of the principle 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.

I have also attached a 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 current proposals (see Site Layout 7129-01-005) allow for the retention of most of the trees on this site, as they are located on the boundaries of the site area. The new business units have been located away from the Root Protection Areas (RPA) of the retained trees. (See Section 5.0 for information on RPA appraisal on this site).

6.2 The future management of retained Leyland cypress shelter belts could be addressed. Group (G1) is recommended for trimming up of the south side, (only to green wood), to form a better hedge and also to remove the dead trees and replant, either with new Leyland cypress or evergreen shrubs (to retain the year round cover) or a new native hedge. Group (G4) is recommended for topping to a similar height and to trim up the western front to control the outward spread onto site.

6.3 The Leyland cypresses in Group (G2), e.g. (T1) are recommended for removal, due to poor form (shape), growing into the site, plus the fact that they are shading/suppressing growth of more 'valuable' native, broadleaves and that they will become a maintenance burden in the future.

6.4 The planting of new broadleaved trees has been specified as part of the landscape plans for this site and this will contribute to the overall 'amenity' of the immediate area.

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.

8.0 <u>Work details</u>

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
Wildwood Trees

Fig 1: Leyland cypress of group (G4)

Fig 2; General site area, with polytunnels and Leyland cypresses (G4) behind and (G3) to the right

Fig 3; Leyland cypress (T1) – recommended for removal

Fig 4; Level site with Monterey cypress (T4) to the right and leyland cypress group (G3) on the left

BS5837 Survey SheetS : (see Appendix for key to schedule)

Tree ID	Common name (Latin name)	Height (m)	Number of Stems	Stem dia (mm)	Crown spread NESW	Maturity	Ht. Crown Clear (m)	Physiological Condition	Condition comments	Cat. grade	Est. Rem Yrs
T1	Leylandii (X Cupressocyparis leylandii)	16	1	350	4:7:4:4	SM	3	Good	Asymmetric crown to east	C	40+
T2	Sessile Oak (Quercus petraea)	13	1	500	6:5:1:6	SM	5	Good	Minor unbalanced crown due to suppression from T3. On hedge bank. Integrated crown with T3	B	40+
T3	Sessile Oak (Quercus petraea)	13	1	625	5:5:5:5	SM	6	Good	Exposed roots on hedge. Heavy ivy growth. On hedge bank. Integrated crown with T2	B	40+
T4	Monterey cypress (Cupressus macrocarpa)	19	5	1220	9:9:9:9	M	8	Good	Significant, historical pruning wounds around base. Collapsed branch to South <300mm	B	40+
T5	Sycamore (Acer pseudoplatanus)	13	1	500	5:5:6:5	SM	6	Good	On boundary	C	40+
T6	Sycamore (Acer pseudoplatanus)	12.5	4	700	7:7:7:7	SM	1	Good	Heavy ivy growth. On boundary.	B	40+
T7	Sycamore (Acer pseudoplatanus)	12	2	450	5:5:5:5	SM	6	Good	Heavy ivy growth. On boundary	B	40+

Tree ID	Common name (Latin name)	Height (m)	Number of Stems	Stem dia (mm)	Crown spread NESW	Maturity	Ht. Crown Clear (m)	Physiological Condition	Condition comments	Cat. grade	Est. Rem Yrs
G2	Sycamore, Leyland cypress, Holly, Hazel.	12	1	200	2:4:2:2	SM	1	Good	Ivy on main stem. Remove Leyland cypress?	B	40+
G3	Leylandii (X Cupressocyparis leylandii)	13.5	1	350	5:2:5:2	SM	4	Good	Topped in past. Thinning in lower crown. On wide bank above site area	C	40+
G4	Leylandii (X Cupressocyparis leylandii)	13	1	450	2:5:2:5	SM	0	Good	Multi stemmed, with wide basal span. Trim or remove	C	40+
G5	Monterey Pine, Hybrid poplar, Norway Spruce	17	1	500	5:5:5:5	SM	5	Good	Ivy on main stems. Off site?	B	40+
G1	Leylandii (X Cupressocyparis leylandii)	4	1	300	3:2:4:2	SM	1	Fair	Poor form and vitality due to excessive topping in the past.	C	20+

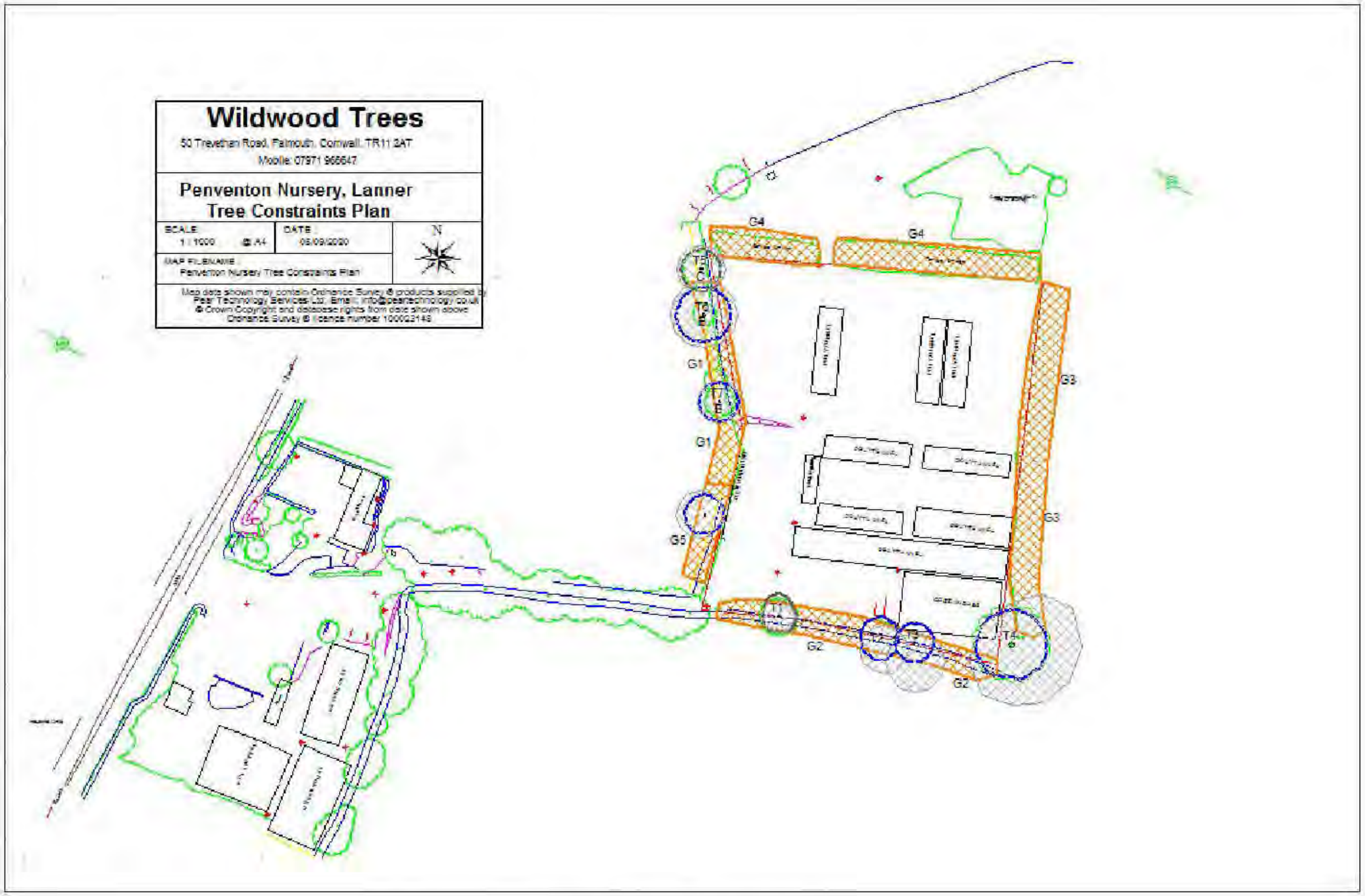


Fig 5: Tree Constraints Plan

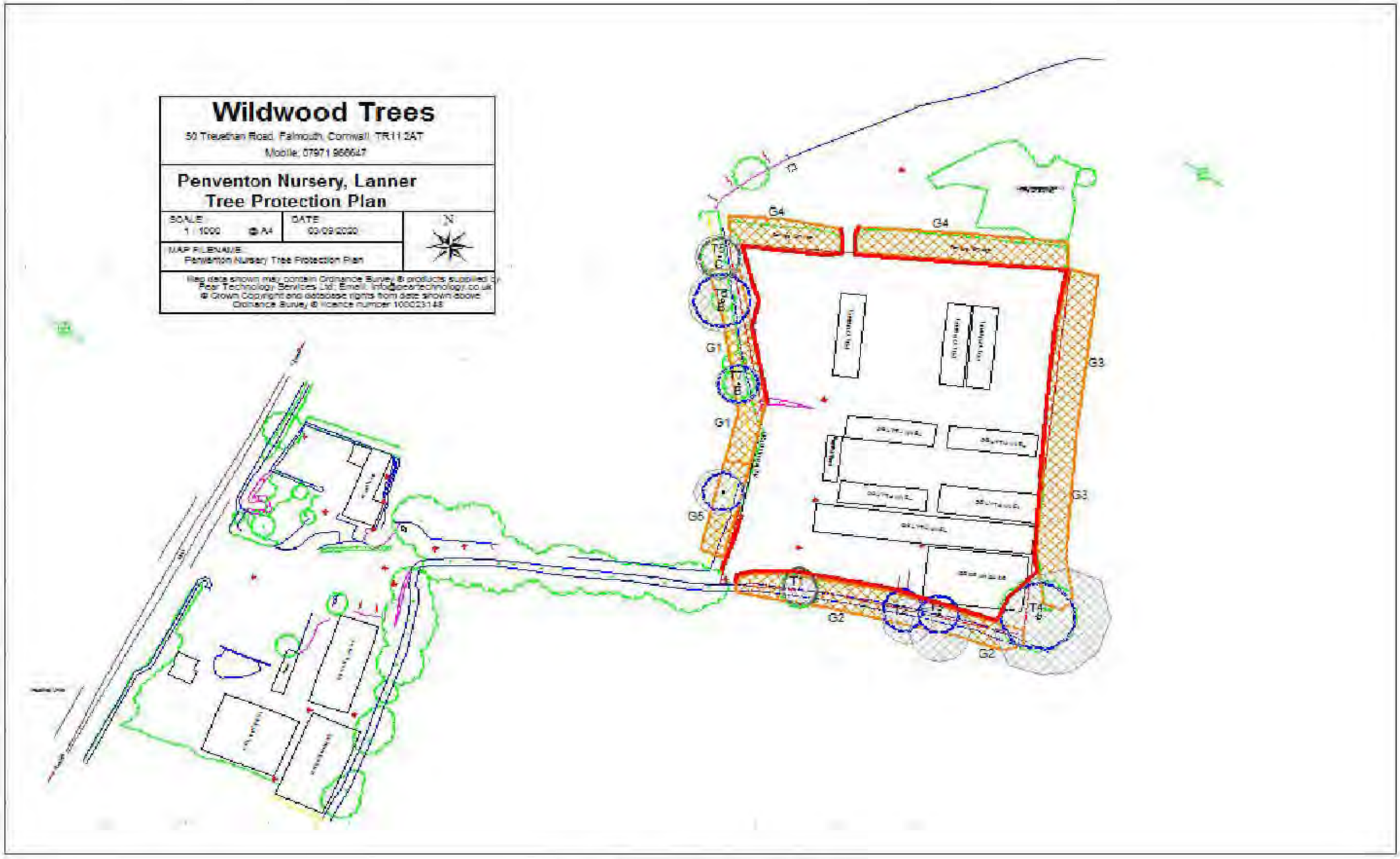
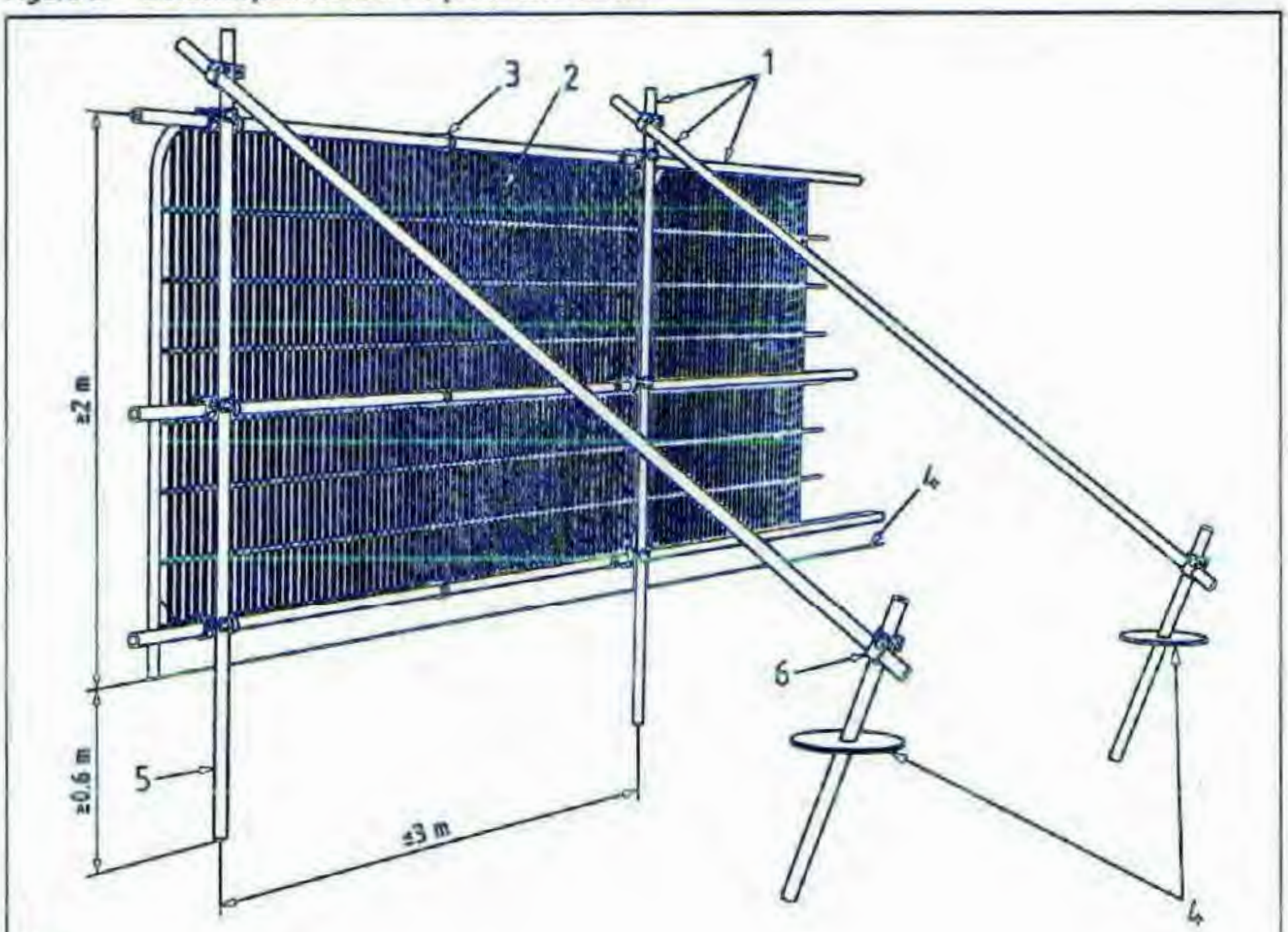


Fig 6: Tree Protection Plan

Figure 2 Default specification for protective barrier



Key

1 Standard scaffold poles

2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels

3 Panels secured to uprights and cross-members with wire ties

4 Ground level

5 Uprights driven into the ground until secure (minimum depth 0.6 m)

6 Standard scaffold clamps

Figure1: 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	- 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