



41 Bristol Road, Frenchay, Bristol

Arboricultural Report containing:

- **Arboricultural constraints**
- **Arboricultural impact assessment (AIA)**
- **Tree protection**
- **Arboricultural method statement**



On behalf of
David Cahill Design Consultants Ltd

Prepared by:
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1.0 Instructions/Scope

Silverback Arboricultural Consultancy have been instructed to compile an arboricultural report containing tree survey, tree constraints plan, arboricultural impact assessment, tree protection plan and arboricultural method statement regarding trees growing within the grounds of 41, Bristol Road, Frenchay, Bristol BS16 1LQ. This report is intended to accompany a planning application relating to the construction of two new residential dwellings on the site. This document has been produced to demonstrate that the implications of the proposed development, to the existing trees, has been fully considered during the detailed design process.

1.1 Recommendations for the safeguarding of trees in close proximity to development are set out in, BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. We have therefore carried out the assessment of the trees in accordance with that document.

1.2 Specifically, this report and the accompanying information are supplied to:

- Identify the constraints that trees on and adjacent to the site present to the development of the site, to inform the site design process.
- Present information regarding the above ground constraints (crown spreads) and below ground constraints (Root Protection Areas – RPAs), in a Tree Schedule and on a Tree Constraints Plan
- Assess the impact of the proposed development on the trees on or adjacent to the site, and the impact that retained trees will have on the site post development.
- Identify trees to be removed, trees to be retained and specify measures necessary to protect retained trees during the construction phases of the development.
- Recommend necessary remedial tree works to be undertaken to trees that will be retained prior to commencement of the construction phases of the development.
- Present information regarding the location of protective barriers or fencing and ground protection on a Tree Protection Plan
- Identify special engineering, excavation or protection measures intended to minimise the impact on retained trees where the site design layout requires a breach of the Root Protection area, (RPA)



- Provide an Arboricultural Method Statement for the recommended works detailing measures which should be implemented to protect retained trees during the construction phases of the development.

1.3 This report was compiled by Chris Wright *M.Arbor.A.* a professional member of the Arboricultural Association and Certified Lantra Professional Tree Inspector with over 30 years' experience in the industry.

1.4 The report is based on a ground level assessment of the trees. Except where stated, all dimensions are estimated. We were not presented with any information on the soil type and no soil samples have been taken. An arboricultural consultant surveyed the site on Thursday 7th December 2023. The weather was bright with good visibility.

1.5 Documents Provided

- Topographic survey dwg N^o 989/5936/1
- Proposed site layout dwg N^o 3682/11

2.0 Survey Methodology

The survey includes tree and shrubs with a stem diameter over 75mm at 1.5m height, located within the area shown on the plan included in this report.

2.1 All inspections were made from ground level with the use of binoculars, sounding hammer and metal probe where necessary, using the Visual Tree Assessment method (Mattheck & Breloer 1995). The presence and condition of bark and stem wounds, cavities, decay, fungal fruiting bodies and any structural defects that could affect the structural integrity of the trees have been noted.

2.2 Tree numbers have been noted on the plan. The following details were recorded for each tree and are included in the tree schedule sheets accompanying this report:

Number: an identity number for each tree, prefixed with a 'T' which cross references locations shown on the plan with the tree survey sheets. Where several trees, normally of the same species, are located close together and are similar in character and requirements, they have been treated as a Group under a single Number, prefixed with a 'G'

Species: common name and botanical name in *italics*

Tree Height: approximate height in metres

Stem Diameter: diameter measured in millimetres, taken at 1.5m above ground. Where the tree is multi-stemmed the diameter is calculated in accordance with BS5837:2012

(# estimated dimensions for off-site or inaccessible trees)

Crown spread: approximate spread in metres taken at the four main compass points N, S, E, W

Crown clearance: approximate height from ground to lowest part of canopy

Age class: Young, Semi-Mature, Early Mature, Mature, Over-Mature, Veteran

Structural condition: Good, Fair, Poor

Physiological condition: Good, Fair, Poor, Dead

Observations : observations noted during tree inspections

Preliminary recommendations: recommended action to ensure the health and safety of the tree.

Remaining contribution (years): <10, 10+, 20+, 40+

BS Cat- category grading in accordance with BS 5837:2012

A - trees of high quality with an estimated remaining life expectancy of at least 40 years.

B - trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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

U - trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

BS Sub Cat - sub-category grading in accordance with BS 5837:2012

1- Mainly arboricultural qualities

2- Mainly landscape qualities

3- Mainly cultural values including conservation

RPA – Root Protection Area - measured in metres from the centre of the tree stem.

2.3 Presentation of the Data Collected

- Data collected regarding individual trees and groups of trees are presented in the Tree Schedule table in appendix 1 in accordance with BS5837:2012 Trees in Relation to Construction – Recommendations.
- The data significant to the proposed site layout is also presented on the Tree Constraints Plan (Drawing Number 231214-BR-TCP-DB (appendix 2) and Arboricultural Impact Assessment Plan (Drawing Number 240202-BR-AIA-DB&AM (appendix 3).

- All other relevant data are presented within the main body of this report.
- Trees have been allocated an individual tree number. This tree number is used to identify individual trees and/or groups of trees throughout this report, within the Tree Schedule and on all plans presented in the appendices of this report.

3.0 Report Limitations

Trees are living, dynamic organisms that can be affected by external conditions. It is therefore not possible to state with any certainty that a tree is safe.

- 3.1 No internal decay devices, or other invasive tools to assess tree condition, were used. No soil excavation or root inspection was undertaken.
- 3.2 This report has not considered the effect that trees or vegetation may have on the structural integrity of adjacent buildings or structures.
- 3.3 The survey contained within this report is not a tree safety inspection. It has been carried out to inform the planning process. Where clear and obvious hazards have been observed, these have been addressed in the recommendations contained within the tree schedule sheets (appendix 1). A full assessment of the levels of risk posed by trees would be informed by considering site use together with hazards present within the aerial parts of a tree(s). Changes in site use are likely to occur during, and result from, the proposed development. In the light of these changes, regular tree risk assessments are advised.
- 3.4 Tree condition can change rapidly, the recommendations contained within this report are based on the condition of the tree at the time they were inspected. Any amendments to the design or position of the proposed development will invalidate this report
- 3.5 While this appraisal is not a tree risk assessment it nonetheless considers observed structural defects of the inspected trees to inform conclusions regarding their retentive worth.

4.0 Legal duty

It is the responsibility of the tree owner to ensure that their tree(s) is in a safe and stable condition, including the effects of root activity, through duty of care in the *Occupiers Liability Act (1957 & 1984)*.

- 4.1 The Wildlife and Countryside Act, 1981 makes it an offence to disturb a nesting bird or recklessly endanger a bat or its roost. Professional advice should be sought, where relevant, before undertaking any recommended works.
- 4.2 We were informed that the site is within a Conservation Area. Written consent will be required for South Gloucestershire Council prior to the commencement of any works to the trees.
- 4.3 Under the Conservation Area regulations 2012 the removal of deadwood within living trees is exempt from the requirement to obtain prior written consent from the local planning authority (LPA). Five days' notice must be submitted to the LPA, in writing, prior to the removal of any dead trees or works to dangerous trees, except where the works must be done without delay to ensure public safety.

5.0 Tree and Site Assessment (to be read in conjunction with the survey schedule sheets)

The proposed development is for the construction of two new residential dwellings and associated works on the site. The area proposed for development currently comprises a partially walled section of the grounds containing several trees and greenhouse.

- 5.1 There is an existing stone wall extending along the northern boundary of the site which is to be retained. To the east of the site is the main garden of the existing property, to the south is a neighbouring residential dwelling with Old Gloucester Road extending along the western boundary.
- 5.2 The trees within the main garden area of the property will be excluded from the proposed development area with protective fencing during the works. All of the trees within the development area are growing along the boundaries of the site.
- 5.3 Thirty-two trees and two groups of trees were surveyed. Of the trees surveyed five trees were categorized **A**, ten trees were categorized **B**, one tree was categorized **U**, the remaining trees were categorized **C**. The trees were assessed and categorized in accordance with the Cascading Chart of Tree Quality Assessment contained within BS5837:2012.

6.0 Arboricultural Constraints

Trees have a widely spreading, shallow root system. In most cases, the majority of tree roots are situated within the top 600 mm of soil although some roots may extend down to 2m. Small feeder roots can also be expected to extend beyond the outer edge of the canopy. Roots can therefore be easily damaged by construction activity.

6.1 Constraints on the design of the development are presented in the Tree Schedule Sheets (appendix 1) Tree Constraints Plan (appendix 2) and the Arboricultural Impact Assessment Plan (appendix 3). These constraints are also considered in the main body of the report below and recommended remedial works and mitigating measures.

6.2 The Tree Constraints Plan (TCP), (appendix 2), shows the Root Protection Areas (RPAs) for the individual trees identified in the tree schedule tables. This represents the minimum area in m² which ideally, should be left undisturbed around each tree were it to be retained. Underground structures, services and other topographical feature, such as different ground levels, can influence root spread and potentially restrict extension growth.

6.3 The TCP also shows a representation of the crown spread of each tree measured in four cardinal directions. The RPA has been calculated in accordance with Section 4.6 of BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.

6.4 Trees Identified for Retention and Removal.

It is proposed to remove T14, T16, T18, T19 and T20 (cat C) to facilitate the proposed development. The remaining trees will be retained and protected throughout the proposed development.

6.4.1 Mitigation

It is proposed to mitigate for the loss of these trees by the implementation of a landscaping scheme including replacement trees and shrubs to enhance that landscape and visual amenity of the site. The details and specification for the proposed landscaping will be agreed with the Local Planning Authority.

6.4.2 Trees Outside Site Boundary

There are no trees outside of the site boundary which are impacted by the proposed development.

7.0 Arboricultural Impact Assessment

7.1 The positions of the proposed dwellings are outside the calculated Root Protection Area of all trees proposed for retention. Any excavation or soil compaction in this area could potentially lead to root severance or damage. This could subsequently lead to a reduction in the trees ability to take up water and nutrients, which may lead to a deterioration in the tree's health.

The existing stone boundary wall will be retained and additional protective fencing, in accordance with BS5837:2012, will be erected to prevent any un-authorised access into the Root Protection Areas (RPA) during the development works.

7.2 A section of the proposed boundary wall extends through the calculated Root Protection Area of T13 and T15. Any excavation or soil compaction in this area could potentially lead to root severance or damage.

To minimize any potential impact on the rooting area of the trees this section of wall will be constructed using mini piles and ground beams to bridge any roots in accordance with BS5837:2012

7.3 Working area will be required within the calculated Root Protection Area of T03 to facilitate the construction of the proposed development. Any soil compaction in this area could potentially lead to root severance or damage.

Where working area is required within the Root Protection Area of T13, T15 and T17, temporary ground protection will be installed in accordance with BS5837:2012 Section 6.2.3.3.

7.4 Any encroachment into the Root Protection Area (RPA) of retained trees could lead to ground compaction resulting in root damage.

Protective fencing, in accordance with BS5837:2012 will be erected to prevent any un-authorised access into the Root Protection Area (RPA) during the development works.



- 7.5 Storage and mixing of construction materials could lead to soil compaction of ground contamination through spillage.
All storage and mixing of materials will be undertaken outside the Root Protection Area (RPA) of the retained trees. If considered necessary, due to ground levels, a suitable waterproof ground covering with bunds at the edges to prevent leakage will be laid over the storage, mixing area.
- 7.6 Overhanging and low branches could potentially be damaged during the erection of scaffolding or during the delivery of materials to site.
The protective fencing will enclose the branch spreads of the retained trees preventing any potential damage to the tree canopies.
- 7.7 Drainage and service routes in association with the proposed development, have been planned outside the calculated Root Protection Area of any trees proposed for retained.
Should this change, installation of drainage or services runs will be in accordance with Section 7.7 (Underground and above-ground utility apparatus) of BS5837:2012.
- 7.8 **Shading:** - Potential shading of buildings by retained trees can lead to pressure for the pruning or removal of the trees. *BS5837: 2012 par 5.3* states that proposed buildings should be designed to take account existing trees, their ultimate size and density of foliage, and the effect that these will have on the availability of light.
There are no shading issues associated with the proposed development.
- 7.9 **Future growth:** - Future extension growth of branches can result in the continuous whipping of branches against the fabric of a building or damage to the roof tiles. Structures should therefore be located with due consideration for a tree's ultimate growth.
It considered that the layout has considered any potential future growth, siting the proposed dwelling is at a sufficient distance from the retained trees for there to be no issues.



8.0 Tree Protection

The trees to be retained on site during and after development as listed in Section 6.4 will require both above and below ground protection. Above ground protection may involve remedial tree surgery works. These works, where applicable, are presented in the Tree Schedule Sheets (appendix 1) and are discussed in Section 8.1 below.

- 8.0.1 Below ground protection measures, based on the root protection areas (RPA), indicated in the Tree Constraints Plan (appendix 2), will involve the erection of tree protection fencing as discussed in Section 8.2. Where the proposed site layout encroaches into the RPAs of retained trees, measures are recommended to minimise the potential damage to the roots and the root environment of the trees in question. The tree protection fencing is illustrated in Tree Protection Plan (Drawing Number 240205-BR-TPP-DB&AM) (appendix 4)
- 8.0.2 The potential position of tree roots as indicated in the Arboricultural Impact Assessment Plan (appendix 3) and Tree Protection Plan (appendix 4) are only guidelines based on calculations shown in BS5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

8.1 Recommended Remedial Tree Surgery Works

No remedial tree works are considered necessary to facilitate the proposed development.

8.2 Tree Protection Fencing

The Tree Protection Plan (appendix 4) indicates the location of the proposed tree protection fencing where appropriate. The fencing will create a Construction Exclusions Zone (CEZ) around the retained trees.

- 8.2.1 The Construction Exclusion Zones will be erected in accordance with the recommendations in Section 6.2 of BS5837:2012. The specification for the fencing is presented in Figure 3 from BS5837:2012 (appendix 5).
- 8.2.2 It is *essential* that tree protection fencing is erected before any site preparation or construction work be commenced. Once erected the protective fencing will be retained and maintained in position for the duration of the development.



8.2.3 Should any construction activity require the repositioning of the tree protection fencing, advice will be sought from Silverback Arboricultural Consultancy and approval requested from the Local Authority Tree Officer before any of the fencing is altered.

8.3 Damage Limitation-Special Measures

Areas are identified on the Tree Protection Plan (appendix 4) where special measures will be required to minimise the impact of the proposed site layout on the retained trees where the construction works breach the RPAs.

8.3.1 To minimize any impact on the rooting area of the trees the section of new boundary wall, where it encroaches into the Root Protection Area (RPA) of T13 and T15, will be constructed using mini piles and ground beams in accordance with BS5837:2012.

8.3.2 Where working area is required within the Root Protection Area of T02, temporary ground protection will be installed in accordance with BS5837:2012 Section 6.2.3.3.

8.3.3 In the event of any unforeseen circumstances the project arboriculturalist will be informed immediately and will advise on suitable precautionary measures.

8.4 Underground Drainage and Service Installation

Drainage and service routes in association with the proposed development have been planned outside of any Root Protection Area of retained trees. Should this change installation of drainage or services routes will be in accordance with Section 7.7 (Underground and above-ground utility apparatus) of BS5837:2012.

9.0 Arboricultural Method Statement

This section sets out the basis of the methodology for all works in relation to the proposed development in proximity to trees located within the site boundary.

9.0.1 Copies of the Arboricultural Method Statement document will be available for inspection on site and will form the basis of the management of all works relating to the trees on the site for the Site Agent/Manager following commencement of the project.



9.1 Programme of Works

- Arboricultural works
- Erection of protective fencing
- Construction of new dwellings
- Removal of protective fencing adjacent to T13 and T15.
- Installation of temporary ground protection
- Construction of boundary wall within the identified Root Protection Areas

9.2 Arboricultural Works

The work recommendations presented in the Tree Schedule (appendix 1) and the recommendations discussed in Section 9.2.1 set out the proposed works to trees within the development site. These works will be carried out before commencement of other site operations including the erection of protective barriers.

- 9.2.1 T14, T16, T18, T19 and T20 (cat C) will be removed to facilitate the proposed development. The proposed tree works will be undertaken by a professional arborist in accordance with the recommendations contained in BS3998:2010. Tree work-recommendations.

9.3 Tree Protection Fencing

BS5837: 2012 recommends the erection of protective fencing around retained trees before development commences. The position of the fencing is calculated using the tree's diameter (DBH) measured at 1.5m up the stem. The area within the fencing is called the Root Protection Area (RPA).

- 9.3.1 The protective fencing will be erected at the recommended distance contained with BS5837:2012, as indicated on the Tree Protection Plan (TPP) (appendix 4). This will create a Construction Exclusion Zone (CEZ). Following completion of the construction stage the fencing will be removed to allow the construction of the boundary wall within the RPA of retained trees.



- 9.3.2 The protective fencing will be constructed in accordance with BS5837:2012 ‘Trees in relation to design, demolition and construction – Recommendations’. This will consist of weld mesh panels positioned in rubber feet braced with stabilizer struts secured with ground pins, in accordance with Figure 3 of BS5837:2012 ‘Trees in relation to design, demolition and construction – Recommendations’ (appendix 5).
- 9.3.3 Once erected the protective fencing will be retained and maintained in position for the duration of the construction works. If it is necessary to move the protective fencing, other than stated in this report, advice will be sought from Silverback Arboricultural Consultancy and approval requested from the South Gloucestershire Council Tree Officer before any of the fencing is altered.
- 9.3.4 Weatherproof signage will be attached to the fencing indicating its function as illustrated (appendix 6).
- 9.3.5 In the CEZ (construction exclusion zone):
- There must be no alteration of ground levels, including soil stripping other than those detailed within this report.
 - Any installation of drainage or services will be in accordance with Section 7.7 (Underground and above-ground utility apparatus) of BS5837:2012.
 - Oil, bitumen, cement or other harmful materials will not be stored, mixed or discharged within 10m of any retained trees.
 - Fires will not be lit beneath or within 10m upwind of tree canopies.

9.4 Installation of temporary ground protection.

Prior to the commencement of any construction works on site, temporary ground protection will be installed, as indicated on the TPP (appendix 4), in accordance with BS5837:2012 Section 6.2.3.3. This will be retained and maintained in position for the duration of the development.

- 9.4.1 The temporary ground protection will consist of a geo textile membrane placed over the existing ground. This will be topped by 100mm woodchip overlaid with a single thickness of scaffold boards.



9.5 Construction of boundary wall within RPA of retained trees.

To minimize any impact on the rooting area of the trees the wall, where it encroaches into the Root Protection Area (RPA) of T13 and T15, will be constructed using mini piles and ground beams in accordance with BS5837:2012.

- 9.5.1 The position of the mini piles will initially be bored with a hand-held auger to reduce any potential root damage. If large roots are encountered the position of the pile will be altered to avoid contact with the root.
- 9.5.2 The smallest practical pile diameter will be inserted using a mini-rig. The rig will be positioned on the ground protection specified in paragraph 9.4 of this report at all times. Ground beams will then be constructed along the piles avoiding any direct compaction of the existing ground.

9.6 Supervision and Monitoring

The project arboricultural consultant will be employed to oversee operations relating to works close to or within Root Protection Areas of retained trees and to issue a site inspection report of practical completion for the following operations:

- The erection of protective barriers around the retained trees in accordance with TPP (appendix 4)
- Removal of protective fencing, installation of temporary ground protection
- Construction of boundary wall within the identified Root Protection Areas

- 9.6.1 A record of site visits completed by the project arboriculturalist will be maintained for inspection on site and copies are forwarded to the Local Planning Authority Tree Officer.
- 9.6.2 This development will be overseen Silverback Arboricultural Consultancy. If there are any alterations to the proposed working methodology necessary, works will be stopped until the arboricultural consultant has been notified and agreement reached with the Local Planning Authority Tree Officer.



10.0 Contact Details

10.1 Arboricultural Consultant

Chris Wright

Silverback Arboricultural Consultancy

E-mail: chris@silverbackarb.co.uk

10.2 Local Authority Tree Officer

Lea Bending

Arboricultural Officer

South Gloucestershire Council

E-mail: lea.bending@southglos.gov.uk

11.0 References

Mattheck, C. and Breloer, H. (1995). The Body Language of Trees: A handbook for failure analysis. Research for Amenity Trees **4**. HMSO, London.

British Standard 5837:2012 - Trees in relation to design, demolition and construction – Recommendations. British Standards Institution, London

British Standard 3998:2010 - Tree Work Recommendations. British Standards Institution, London

12.0 Appendices

- Tree schedule sheets
- Tree constraints plan
- Arboricultural impact assessment (AIA)
- Tree protection plan
- BS5837:2012 Trees in relation to construction: Recommendations Protective Fencing Detail
- Protective fencing sign

Chris Wright. MArborA.

Principal Consultant

Silverback Arboricultural Consultancy

7th February 2024

Arboricultural Survey 41 Bristol Road, Frenchay

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T01	Scots Pine	<i>Pinus sylvestris</i>	14	1	450	6	4	3	1	4	Mature	Fair	Good	No significant defects visible at time of inspection Major deadwood in canopy	No action required at the time of inspection.	20-40 Years	B2	Radius: 5.4m. Area: 92 sq m.
T02	Strawberry Tree	<i>Arbutus unedo</i>	7	4	420	5	5	5	5	0	Mature	Good	Good	No significant defects visible at time of inspection Multi- stemmed from base	No action required at the time of inspection.	20-40 Years	B2	Radius: 5.0m. Area: 79 sq m.
T03	Purple Cherry Plum	<i>Prunus cerasifera</i> 'Pissardi'	4	1	140	1	1	3	2	2	Early Mature	Fair	Good	No significant defects visible at time of inspection Suppressed by neighbouring trees	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.7m. Area: 9 sq m.
T04	Cotoneaster	<i>Cotoneaster sp.</i>	4	2	110	2	1	3	2	2	Early Mature	Fair	Good	No significant defects visible at time of inspection Twin stemmed from base	No action required at the time of inspection.	20+ Years	C2	Radius: 1.4m. Area: 6 sq m.
T05	Purple Cherry Plum	<i>Prunus cerasifera</i> 'Pissardi'	5	1	150	3	1	2	2	2	Mature	Fair	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.8m. Area: 10 sq m.
T06	European Lime	<i>Tilia x europaea</i>	16	1	810	8	8	8	8	2	Mature	Good	Good	Growing adjacent to stone boundary wall Overburdening around base to 1m Twin stemmed from 2m Electric cables through canopy No significant defects visible at time of inspection	No action required at the time of inspection.	40+ Years	A1,2	Radius: 9.7m. Area: 296 sq m.
G07	Thuja	<i>Thuja sp.</i>	6	1	260	2	2	2	2	1	Early Mature	Good	Good	Linear group of Thuja screen No significant defects visible at time of inspection	No action required at the time of inspection.	40+ Years	B2	Radius: 3.1m. Area: 30 sq m.

Arboricultural Survey 41 Bristol Road, Frenchay

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T08	Douglas Fir	<i>Pseudotsuga menziesii</i>	18	1	700	7	5	4	4	3	Mature	Fair	Good	No significant defects visible at time of inspection Altered exposure due to removal of adjacent trees	No action required at the time of inspection.	40+ Years	B2	Radius: 8.4m. Area: 222 sq m.
T09	Douglas Fir	<i>Pseudotsuga menziesii</i>	15	1	700	8	7	7	5	3	Mature	Good	Good	No significant defects visible at time of inspection Altered exposure due to removal of adjacent trees Major deadwood in canopy	No action required at the time of inspection.	40+ Years	A1,2	Radius: 8.4m. Area: 222 sq m.
T10	Douglas Fir	<i>Pseudotsuga menziesii</i>	6	2	130	2	2	2	2	0	Semi Mature	Fair	Good	Twin stemmed from base	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.5m. Area: 7 sq m.
T11	English Yew	<i>Taxus baccata</i>	8	3	490	5	5	5	3	0	Early Mature	Fair	Good	No significant defects visible at time of inspection Multi- stemmed from base Overburdening around base	No action required at the time of inspection.	40+ Years	B2	Radius: 5.9m. Area: 109 sq m.
T12	English Yew	<i>Taxus baccata</i>	8	3	410	3	3	4	4	1	Early Mature	Fair	Good	No significant defects visible at time of inspection Multi- stemmed from base Overburdening around base	No action required at the time of inspection.	20-40 Years	C2	Radius: 5.0m. Area: 79 sq m.
T13	Thuja	<i>Thuja sp.</i>	12	1	580	5	4	4	4	1	Early Mature	Good	Good	No significant defects visible at time of inspection	No action required at the time of inspection.	40+ Years	A1,2	Radius: 7.0m. Area: 154 sq m.
T14	Silver Birch	<i>Betula pendula</i>	11	1	260	4	1	4	2	2	Mature	Fair	Good	No significant defects visible at time of inspection Suppressed by neighbouring trees Previously crown reduced	No action required at the time of inspection.	20-40 Years	B2	Radius: 3.1m. Area: 30 sq m.

Arboricultural Survey 41 Bristol Road, Frenchay

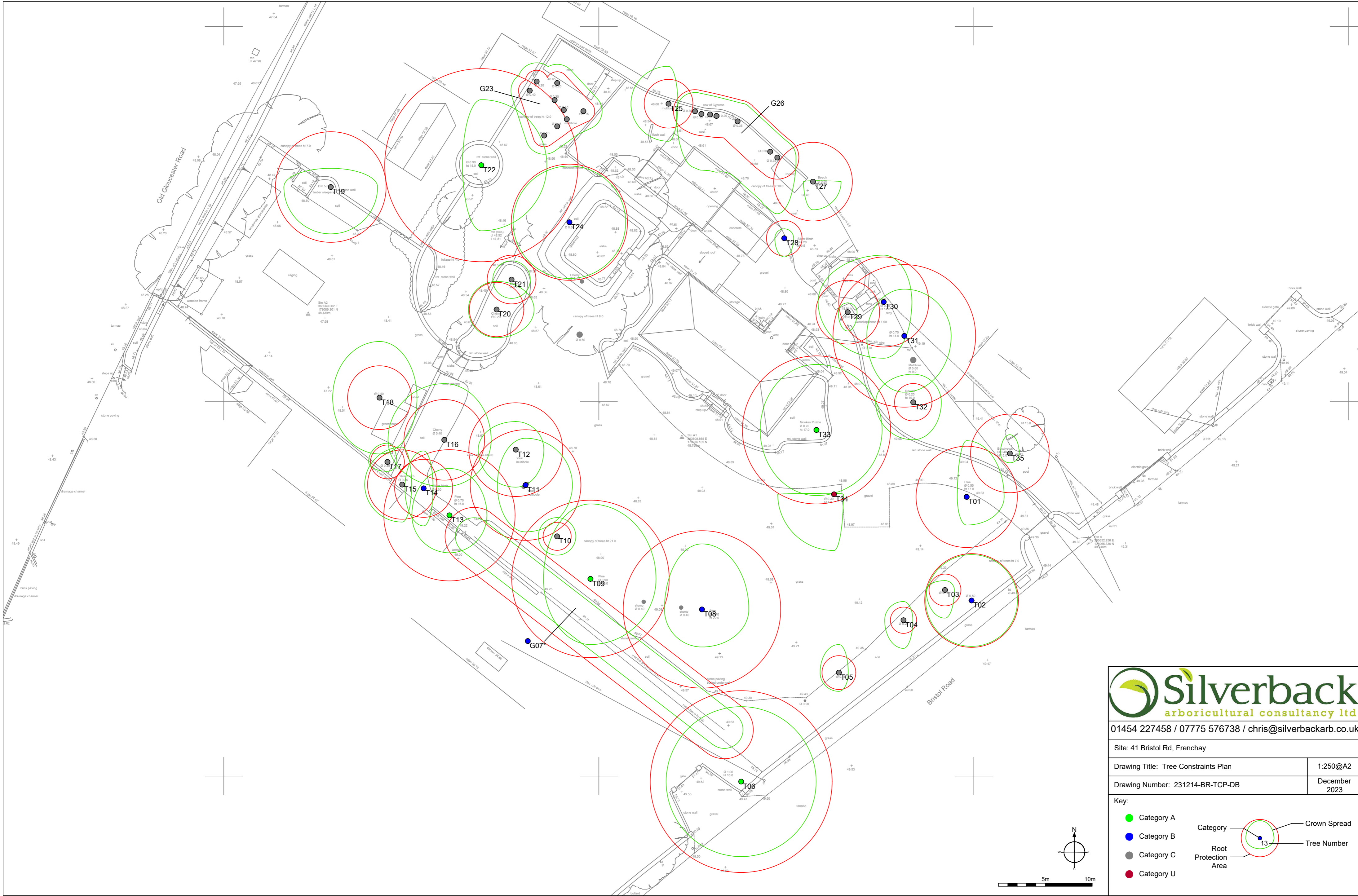
Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T15	Silver Birch	<i>Betula pendula</i>	11	1	310	4	1	4	4	2	Mature	Fair	Good	No significant defects visible at time of inspection Suppressed by neighbouring trees Fractured limbs - storm damage Previously crown reduced	No action required at the time of inspection.	20-40 Years	C2	Radius: 3.7m. Area: 43 sq m.
T16	Wild Cherry	<i>Prunus avium</i>	7	1	360	6	5	5	6	2	Mature	Fair	Fair	Overburdening around base Previously crown reduced Suppressed by neighbouring trees Signs of bacterial canker infestation	No action required at the time of inspection.	20-40 Years	C2	Radius: 4.3m. Area: 58 sq m.
T17	Silver Birch	<i>Betula pendula</i>	11	1	150	2	1	1	2	4	Early Mature	Fair	Fair	Suppressed by neighbouring trees Previously crown reduced	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.8m. Area: 10 sq m.
T18	Common Walnut	<i>Juglans regia</i>	9	2	280	6	4	6	5	1	Mature	Fair	Fair	Twin stemmed from base Included bark at stem union Major limb previously removed, calloused wound	No action required at the time of inspection.	20-40 Years	C2	Radius: 3.4m. Area: 36 sq m.
T19	Cherry Plum	<i>Prunus cerasifera</i>	7	1	490	2	5	5	5	2	Mature	Fair	Fair	Overburdening around base Previously crown reduced	No action required at the time of inspection.	20+ Years	C2	Radius: 5.9m. Area: 109 sq m.
T20	Wild Cherry	<i>Prunus avium</i>	4	1	240	3	4	3	3	2	Mature	Fair	Fair	Previously crown reduced	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.9m. Area: 26 sq m.
T21	Wild Cherry	<i>Prunus avium</i>	4	1	220	2	2	2	2	2	Mature	Fair	Fair	Previously crown reduced Ivy growing up main stem Heavy lean north	No action required at the time of inspection.	10+ Years	C2	Radius: 2.6m. Area: 21 sq m.

Arboricultural Survey 41 Bristol Road, Frenchay

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T22	Tulip Tree	<i>Liriodendron tulipifera</i>	18	1	860	7	7	7	2	3	Mature	Fair	Good	Twin stemmed from 3m Included bark at stem union Reduced on west side	No action required at the time of inspection.	20-40 Years	A1,2	Radius: 10.3m. Area: 333 sq m.
G23	Mixed Species	<i>Mixed Species</i>	8	1	100	2	2	2	2	0	Early Mature	Good	Good	Mixed species group of Silver Birch, Bay, Cherry plum No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 1.2m. Area: 5 sq m.
T24	Persian Ironwood	<i>Parrotia persica</i>	6	1	520	6	6	6	6	0	Mature	Fair	Good	No significant defects visible at time of inspection Multi- stemmed from base Previously crown reduced	No action required at the time of inspection.	40+ Years	B2	Radius: 6.2m. Area: 121 sq m.
T25	Hazel	<i>Corylus avellana</i>	8	3	210	4	1	4	4	2	Mature	Fair	Good	Multi- stemmed from base Suppressed by neighbouring trees Included bark at stem union	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.6m. Area: 21 sq m.
G26	Leyland Cypress	<i>Cupressocyparis leylandii X</i>	10	1	190	2	2	6	2	2	Early Mature	Fair	Good	Linear group forming screen No significant defects visible at time of inspection	No action required at the time of inspection.	20-40 Years	C2	Radius: 2.3m. Area: 17 sq m.
T27	Common Beech	<i>Fagus sylvatica</i>	11	1	350	0	3	3	1	0	Early Mature	Poor	Fair	Previously crown reduced Suppressed by neighbouring trees Squirrel damage to branches	No action required at the time of inspection.	10+ Years	C2	Radius: 4.2m. Area: 55 sq m.
T28	Silver Birch	<i>Betula pendula</i>	10	1	160	1	1	2	1	3	Early Mature	Fair	Good	No significant defects visible at time of inspection Exposed roots	No action required at the time of inspection.	40+ Years	B2	Radius: 1.9m. Area: 11 sq m.
T29	Leyland Cypress	<i>Cupressocyparis leylandii X</i>	12	2	280	1	1	2	1	2	Early Mature	Fair	Good	Twin stemmed from base Suppressed by neighbouring trees	No action required at the time of inspection.	20+ Years	C2	Radius: 3.4m. Area: 36 sq m.

Arboricultural Survey 41 Bristol Road, Frenchay

Tree Number	Common name	Botanical name	Height (m)	Number of stems	Calculated stem diameter (mm)	Crown Spread (m)				Crown Clearance (m)	Life Stage	Structural Condition	Physiological Condition	Observations	Preliminary Recommendations	Remaining contribution (yrs)	BS Category	Root Protection Area Radius (m) Area m2
						N	E	S	W									
T30	Common Beech	<i>Fagus sylvatica</i>	14	1	400	5	3	6	7	2	Early Mature	Fair	Good	No significant defects visible at time of inspection Suppressed by neighbouring trees	No action required at the time of inspection.	40+ Years	B2	Radius: 4.8m. Area: 72 sq m.
T31	Silver Birch	<i>Betula pendula</i>	14	1	630	5	5	6	4	3	Mature	Fair	Good	Overburdening around base Electric cables through canopy Fractured limbs - storm damage	No action required at the time of inspection.	20-40 Years	B2	Radius: 7.6m. Area: 181 sq m.
T32	Robinia	<i>Robinia sp.</i>	10	1	170	3	3	4	4	2	Early Mature	Fair	Fair	Fractured limbs - storm damage Decay in main stem at 2m south side	No action required at the time of inspection.	10+ Years	C2	Radius: 2.0m. Area: 13 sq m.
T33	Monkey Puzzle	<i>Araucaria araucana</i>	14	1	660	7	7	7	6	6	Mature	Good	Good	No significant defects visible at time of inspection Major deadwood in canopy	No action required at the time of inspection.	40+ Years	A1,2	Radius: 7.9m. Area: 196 sq m.
T34	Apple	<i>Malus sp.</i>	5	1	280	0	1	6	6	1	Over Mature	Poor	Poor	Tree appears to be in terminal decline Decay in main stem Dieback in the canopy chlorotic, sparse foliage Major deadwood in canopy	No action required at the time of inspection.	<10 years	U	No RPA due to Retention Category of U.
T35	Eucalyptus	<i>Eucalyptus sp.</i>	11	2	350	2	1	1	1	2	Early Mature	Poor	Fair	Heavy lean north Twin stemmed from 0.5m Included bark at stem union	No action required at the time of inspection.	10+ Years	C2	Radius: 4.2m. Area: 55 sq m.



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Site: 41 Bristol Rd, Frenchay

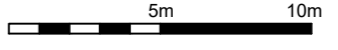
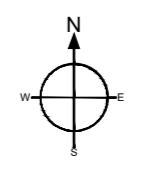
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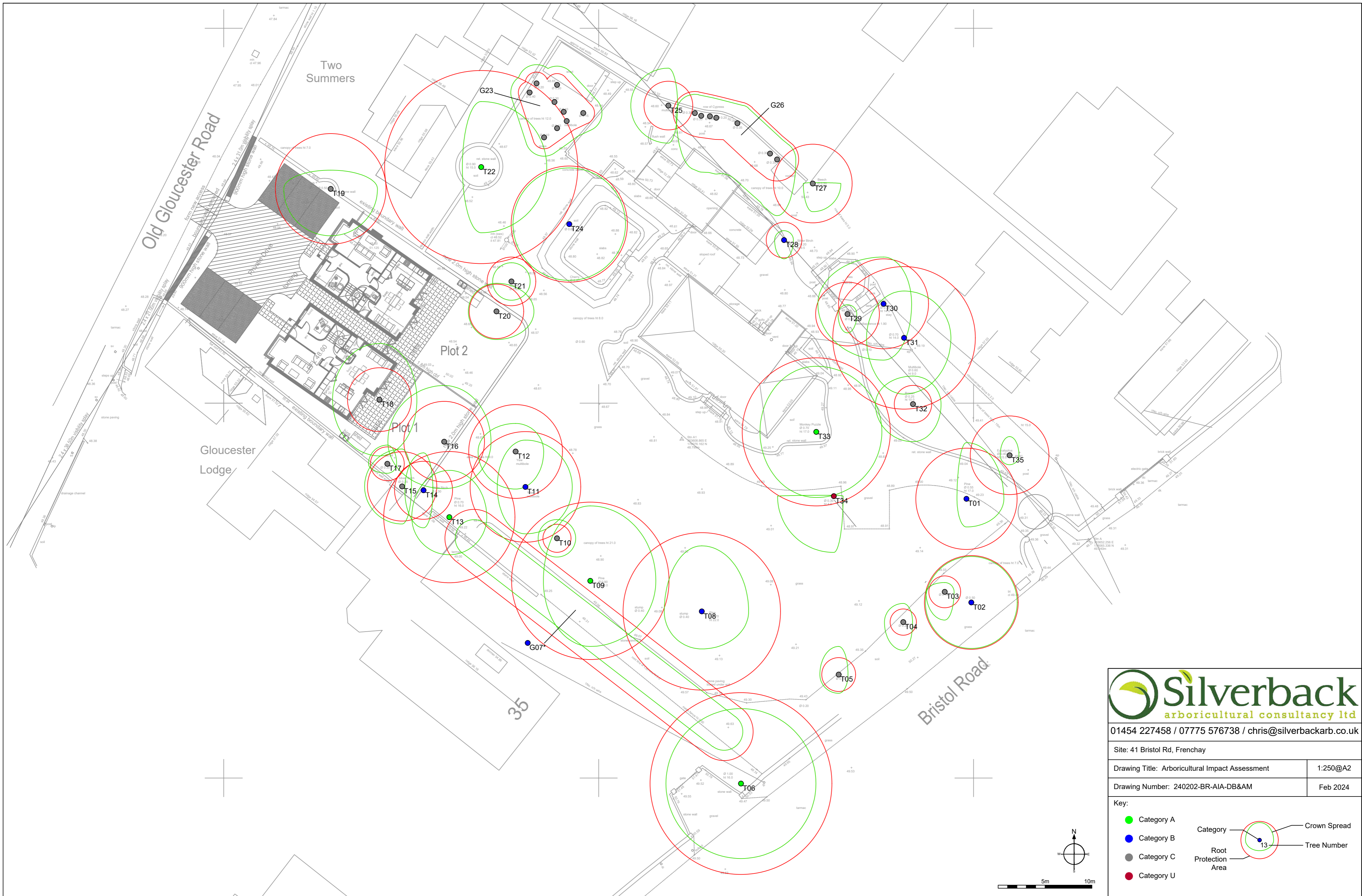
Drawing Number: 231214-BR-TCP-DB December 2023

Key:

- Category A
- Category B
- Category C
- Category U

○ Crown Spread
○ Tree Number
 Root Protection Area

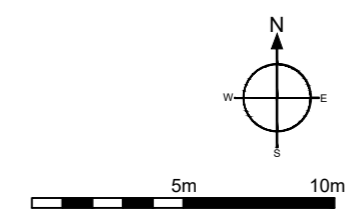


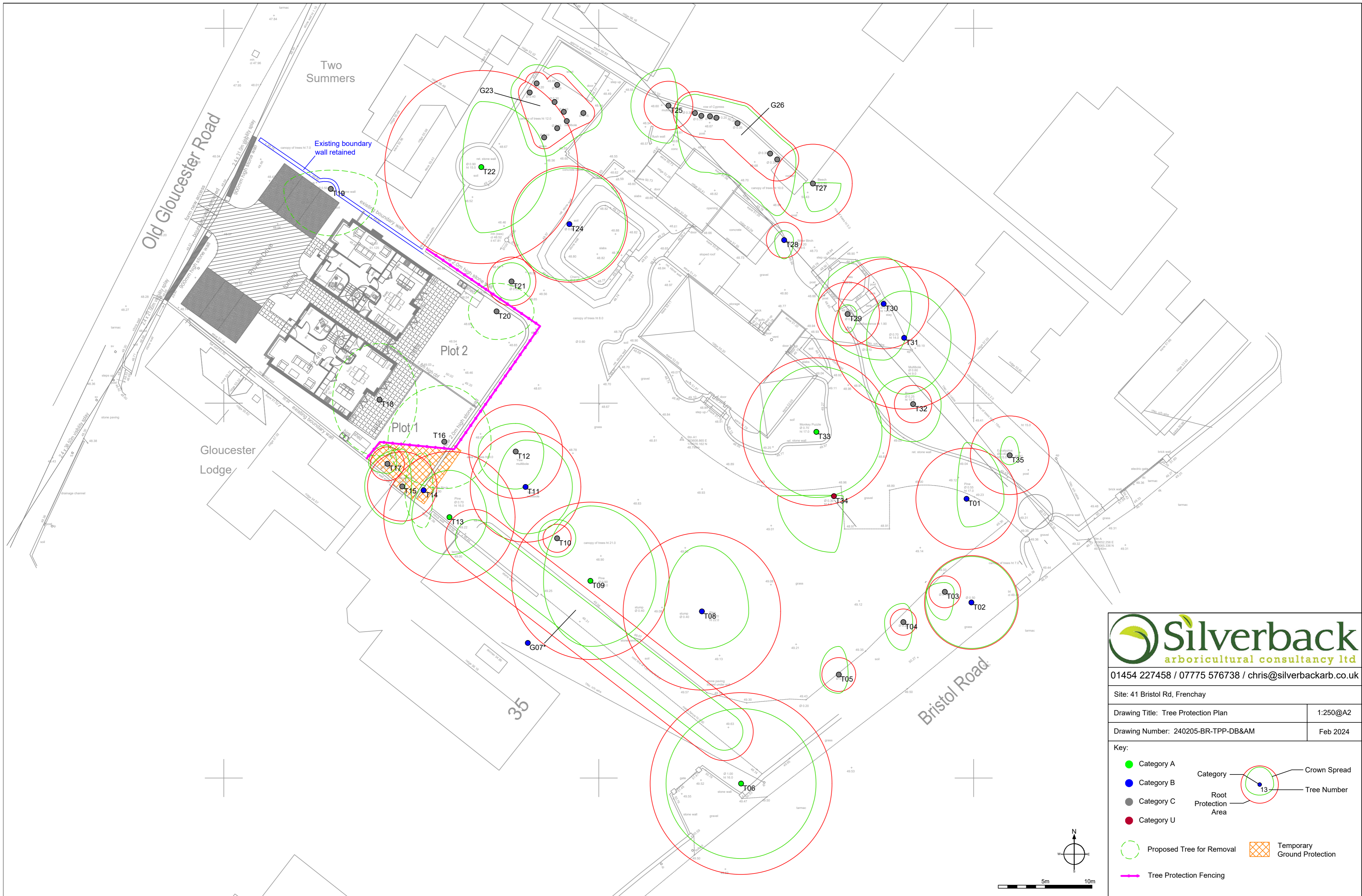


Key:

- Category A
- Category B
- Category C
- Category U

 Crown Spread
 Root Protection Area
● Tree Number





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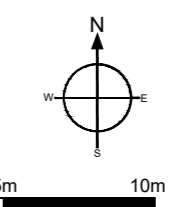
Site: 41 Bristol Rd, Frenchay

Drawing Title: Tree Protection Plan	1:250@A2
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Drawing Number: 240205-BR-TPP-DB&AM	Feb 2024
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Key:

- Category A
- Category B
- Category C
- Category U
- Proposed Tree for Removal
- Tree Protection Fencing
- Crown Spread
- Root Protection Area
- Tree Number
- Temporary Ground Protection



BS 5837:2012 – TREES IN RELATION TO DESIGN, DEMOLITION AND CONSTRUCTION – RECOMMENDATIONS

EXAMPLES OF ABOVE-GROUND STABILIZING SYSTEMS

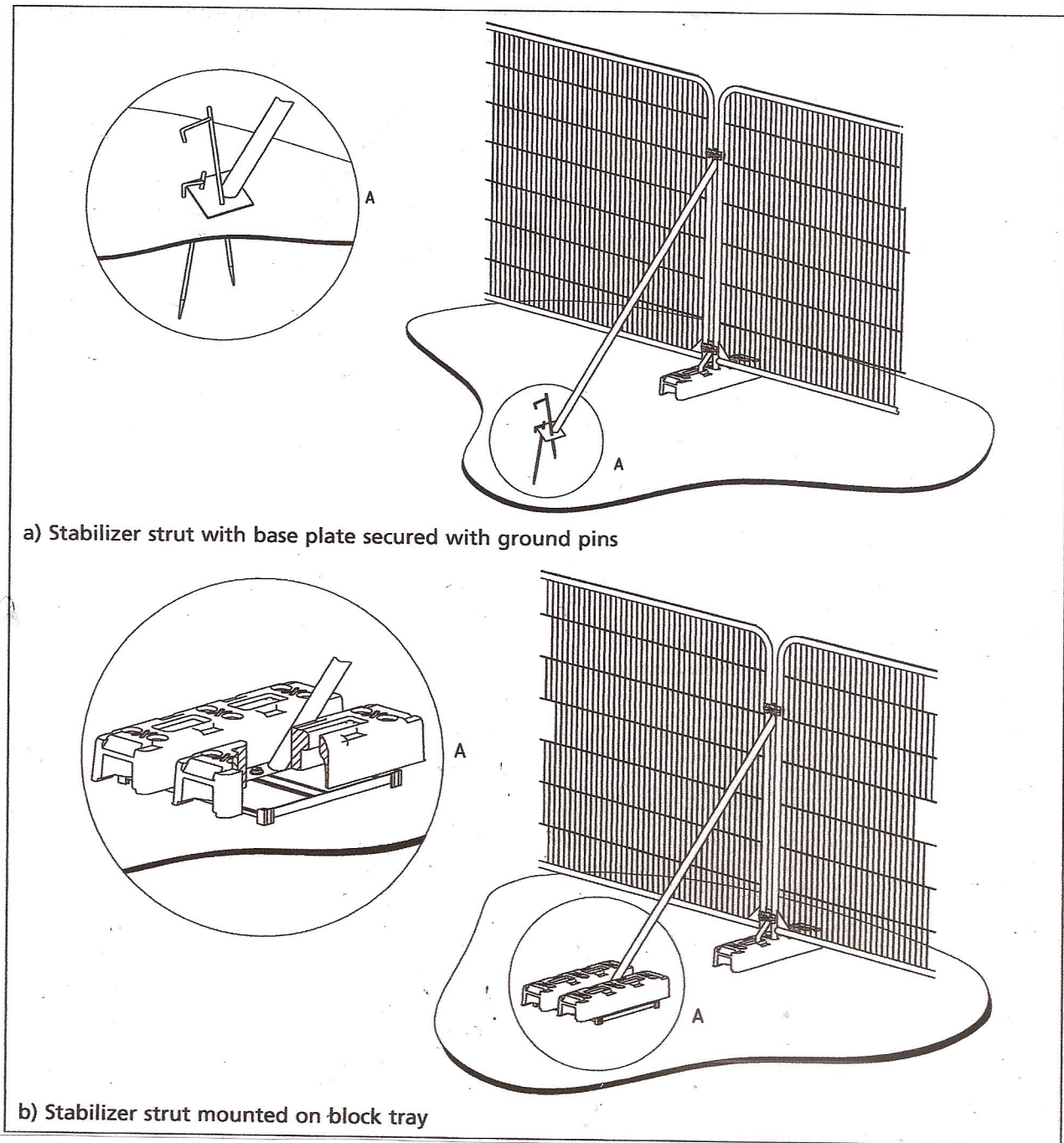


Figure 3 Examples of above-ground stabilizing systems



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**



**TREE PROTECTION AREA
KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY**