

Arboricultural Impact Assessment and Tree Protection Plan

for trees at

Woodrising in Bleadon



On behalf of

Dowlas Property Group Ltd

2 Stafford Place
Weston-super-Mare
North Somerset
BS23 2QZ

Inspected and prepared by

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8th February 2023

SUMMARY

This arboricultural impact assessment report supports a full planning application, submitted by Dowlas Property Group Ltd, to re-construct a fire damaged property at Woodrising on Hillside Road in Bleadon.

Arboricultural advice was taken early in the planning process and as a result no trees will need to be removed to enable the necessary construction works.

During construction, temporary fencing will be used to protect retained trees situated near works areas. For effective tree protection, fencing must be installed before any heavy plant machinery is used on the site and must remain in place until the construction works have been completed.

The proposal includes the removal of a large area of concrete surfacing from an area near retained trees. The removal of the concrete surface will result in a much greater permeable rooting environment for the retained trees. The concrete surface will be removed under arboricultural supervision and in accordance with the accompanying arboricultural method statement.

Supervision by a suitably qualified arboriculturist will be required in the event of any unforeseen construction activity within the root protection area of retained trees at or near the development site. It is advised to inform the project arboriculturist and the local authority's arboricultural officer of necessary works near trees as soon as they become apparent.

There will be a pre-commencement meeting between the site manager and the project arboriculturist where the site manager will be made aware of the tree protection measures that will be required during construction.

This report details how trees are to be protected during construction works. The site manager must be provided with a copy of this report as well as the accompanying arboricultural method statement and it will be their responsibility to impart the information herein to all construction staff.

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Arboricultural Method Statement (provided separately)

1 INTRODUCTION

1.1 Background

Dowlas Property Group Ltd proposes a new development on land at Woodrising on Hillside Road in Bleadon near Weston-super-Mare (BS24 0AA). This land is hereafter referred to as the 'site'. This would involve reconstructing the existing fire-damaged property to create a 4 bed dwelling; these proposals are hereafter referred to as the 'proposed development'.

The following documents have been reviewed to inform this report:

- Topographical Survey - Clifton Surveys Ltd - Drawing # 989/5442/1
- Proposed Site Layout & Constraints Plan - Wotton Donoghue - Drawing # 1124_110

An initial tree constraints plan was produced in November 2022 and this has informed the design of the proposed site layout.

A check of the North Somerset Council online mapping system confirms that none of the trees at the property are protected by a tree preservation order (TPO), and that the site is not situated within a Conservation Area.

1.2 The assignment

Instructed by Dowlas Property Group Ltd, Bosky Trees conducted a site visit, surveyed the trees that might be affected by the proposed development and specified suitable tree protection measures in the event of a successful planning application. The information compiled in this report is in accordance with the British Standard *BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations*¹.

This report includes the following to accompany a planning application for the proposed development:

- A tree survey plan based on the topographical survey provided, with any additional tree(s) indicatively plotted
- An arboricultural impact assessment of the proposed development, identifying trees that will be lost, as well as trees that can be retained and protected during development works
- A tree protection plan, including information on the location of tree protection fencing and ground protection measures
- Recommendations for remedial works for retained trees to be undertaken before site clearance and construction
- Method statements for works near trees

¹ British Standards Institution (2012). *BS5837 Trees in relation to design, demolition and construction – Recommendations*. BSI: London.

1.3 Limitations

The assessment and works recommendations relate to conditions found at the time of inspection. Any significant alteration to the site that may affect present trees, or have implications for planning (including level changes, hydrological changes, storms, extreme climatic events or site works) will necessitate re-assessment of the trees.

Note that this survey 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 works recommendations. A full assessment of the risks posed by trees would be informed by consideration of site use together with hazards present within a tree. Changes in site use are likely to occur during, and result from, the proposed development. Given these factors, regular tree risk assessments are advised.

This report does not consider tree-related building subsidence. If shrinkable clay soils are present on site, then guidance given in the National House Building Council (NHBC) Standards, chapter 4.2² should be used to avert the risk of future subsidence of new buildings.

No detailed assessment of the potential conflict between future site use and the shade cast by trees has been undertaken within this report.

2 TREE SURVEY INFORMATION

2.1 Details of the site visit

I visited the site and carried out tree survey on 31st October 2022. The survey was not constrained by weather conditions and considered all trees on and around the site.

The proposed development site is currently a vacant fire damaged property. The whole site slopes from the highpoint on the northern boundary to the lowest point to the south. Mature Monterey cypress trees are situated just beyond the north-eastern boundary and further deciduous woodland trees are located along the remaining eastern boundary.

2.2 Data collection

Trees, tree groups and hedgerows were allocated a unique identifying number, used throughout this report. ID numbers are listed in the tree schedule and are used on the tree plans.

Trees were inspected at ground level using the visual tree assessment method.³ As described in table 1 of BS5837,⁴ each tree was placed into one of four retention categories: A, B, C or U. Stem diameter

² National House Building Council (2008). *NHBC Standards Chapter 4.2 - Building near trees*. NHBC: Milton Keynes.

³ Mattheck, C. and Breloer, H. (1995). *The body language of trees: a handbook for failure analysis*. Research for Amenity Trees 4. HMSO: London.

⁴ British Standards Institution (2012). *BS5837 Trees in relation to design, demolition and construction – Recommendations*. BSI: London.

was used to calculate the root protection area (RPA)⁵ required by each tree during construction. Information on each tree, tree group and hedgerow is given in Appendix 1.

A total of 23 individual trees, two groups of trees and two hedges were surveyed (see table 1).

Table 1: Summary of the retentive worth of trees, groups and hedges included in the survey.

BS5837 Category	Quality	Number of trees	Number of groups	Number of hedges
A	High	-	-	-
B	Moderate	9	1	-
C	Low	14	1	2
U	Very poor	-	-	-
	Total	23	2	2

2.3 The tree plans

The tree constraints plan (TCP-1) shows the root protection areas required by each tree on the existing site layout. The tree protection plan (TPP-1) shows where fencing and other protection measures are required to safeguard trees during construction. These plans are provided at the rear of the report.

3 ARBORICULTURAL IMPACT ASSESSMENT AND PROPOSED MITIGATION

3.1 Trees for removal

In this instance, no trees will need to be removed to construct the proposed development.

3.2 Removal of hard surfacing

An area of existing concrete surfacing is located close to neighbouring trees on the eastern boundary. Given the proximity of the trees, there is a chance that some roots may be beneath the concrete. However, the removal of the concrete surface will result in a much greater permeable rooting environment for the retained trees. In order to remove chances of root damage, the hard surfacing must be removed under arboricultural supervision and in accordance with the accompanying arboricultural method statement. Once the hard surfacing has been removed, ground protection must be laid across the exposed area until completion of construction works, a specification for ground protection is included in the accompanying arboricultural method statement.

Raised planters and a small concrete pad for a new heat pump will be installed in the same area but they will utilise the existing hard surfacing and soil levels so they will not require any further excavations. A large proportion of the area will be returned to a grass so the works will result in a much greater rooting environment for the neighbouring trees.

⁵ The root protection area (RPA) is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is treated as a priority.

3.3 New service runs

Typical 'open trench' installation of underground services near trees is likely to sever roots; this will harm the tree's physiological condition, provide an opportunity for fungal infection, and could leave them prone to windthrow. Therefore, new underground services will be located and designed to avoid retained trees' root protection areas.

If any additional underground services are required it will be necessary for suitable members of the project team, including an arboricultural consultant, to design their routes. An appropriate specification and method statement are required for their installation and guidance provided in Volume 4 of the National Joint Utilities Guidelines (NJUG4)⁶ must be followed.

3.4 Level changes and retaining walls

Level changes or slopes must comply with the constraints attached to the construction exclusion zones. This means that any soil grading must take place outside of the fenced areas identified on the tree protection plan.

3.5 Tree protection fencing

Temporary fencing and/or barriers must be used during construction to protect retained trees situated near works areas. The locations of such fencing/barriers is indicated on tree protection plan at the rear of the report (TPP-1). For effective tree protection, protective fencing must be installed before any heavy plant machinery is used on the site and must remain in place until completion of construction works (unless under arboricultural supervision). The fenced off areas will be designated as 'construction exclusion zones'.

A specification for suitable tree protection fencing is provided in the accompanying arboricultural method statement.

4 RECOMMENDATIONS

4.1 Tree work

All tree works necessary for the proposed development are listed in the schedule in Appendix 1.

All permitted and approved tree work must be undertaken in accordance with BS3998:2010 *Recommendations for tree work*,⁷ ideally at the beginning of the construction phase before protective fencing is erected. Only qualified and insured tree surgeons should be employed.

4.2 Legal restrictions to tree works

At present none of the trees at the site are protected. If this report is submitted to support a full planning application, and that application is subsequently approved, any tree works listed in the report may be carried out prior to the commencement of construction without the requirement for further permission from the planning authority. But if any arboricultural works are intended before planning permission has been approved then, before works start, the local planning authority should

⁶ National Joint Utilities Group (2007). *Guidelines for the planning, installation, and maintenance of utility apparatus in the proximity to trees*. Volume 4 (NJUG4). National Joint Utilities Group: Eastleigh.

⁷ British Standards Institution (2010). *BS3998 Recommendations for tree work*. BSI: London.

be contacted again to confirm if any of the trees have subsequently become protected since the previous check. Also, if trees are owned by a third-party, permission for any arboricultural management must be agreed with the owner in advance of the works. Please contact Bosky Trees if you would like these matters explained in more detail.

Works may be constrained between March and August because it is illegal to disturb an active bird's nest. Bat roosts are also protected, so tree works might be delayed if roosting bats are encountered. A tree surgeon or ecologist will advise on this matter.

4.3 Works that must follow an arboricultural method statement

An arboricultural method statement for work near trees has been produced and this is provided as a separate stand-alone document. There will be minimal impacts on the adjacent trees if this arboricultural method statement is followed. The following method statements are provided:

- General specification for effective tree protection.
- Specification for tree protection fencing and ground protection.
- Method statement for removing existing hard surfaces near trees.

4.4 Agenda for arboricultural supervision

There will be a pre-commencement site meeting between the project arboriculturist and the construction site manager. During this 'toolbox talk' the arboriculturist will explain how trees could potentially be damaged by construction works and discuss how such damage can be avoided, and the agreed methodology for the works will be fully explained. The toolbox talk will also provide an opportunity for the contractor to raise and issues with working methods or features that they think could potentially impact the retained trees. At this point the location and suitability of the tree protection fencing will be checked by the project arboriculturist. A record of this meeting will be produced by the arboriculturist and this will be supplied to the North Somerset Council tree officer.

The removal of the surfacing from areas near the trees on the eastern boundary will need to be carried out under arboricultural supervision. The supervising arboriculturist will make a record of this supervision and make this available for the North Somerset Council tree officer.

Table 2: Agenda for arboricultural supervision.

Item no.	Phase	Works description
1	Pre-commencement	Tree protection put in place.
2	Pre-commencement	Toolbox talk from project arboriculturist.
3	Pre-commencement	Certificate of tree protection fencing compliance submitted.
4	Construction	The removal of the existing hard surfacing from areas near trees on the eastern boundary.

Supervision by a suitably qualified arboriculturist will also be required if any unforeseen construction activity is to take place within the root protection area of any trees retained on or near the site. The project arboriculturist and the local authority's arboricultural officer should be informed of necessary works near trees as soon as they become apparent.

Appendix 1: Tree Schedule

Site: Woodrising, Bleadon

Surveyor: Nick Baxter

Date of Survey: 31st October 2022



Tree Number	Tree Species	Height (m)	Number of Stems	Stem Ø (cm)	N - Radius (m)	S - Radius (m)	E - Radius (m)	W - Radius (m)	1st Branch (m)	Age Class	Overall Health	ULE (Years)	Tree Structural Condition & Site Notes	Recommended Management	Category
T1	Bay tree	3	1	12	1	1	1	1	0.5	EM	G	20+	This bay has been regularly trimmed into a neat shape.	No action required at present.	C1
T2	Monterey cypress	17	1	65	5	5	5	5	8	M	G	40+	Past crown lift. Arboreal ivy. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T3	Monterey cypress	18	1	59	5	5	5	3	8	M	G	40+	Past crown lift. Arboreal ivy. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T4	Monterey cypress	16	1	70	7	3	5	5	3	M	G	40+	A tall tree in the neighbouring property. No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	B2
T5	Monterey cypress	16	1	70	3	3	5	5	2	M	G	40+	No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	B2
T6	Monterey cypress	16	1	60	4	2	7	5	5	M	G	40+	No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T7	Leyland cypress	10	1	25	1	3	1	3	2	EM	G	40+	Suppressed crown. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	C2
T8	Leyland cypress	10	1	20	3	1	3	3	3	EM	G	40+	This was probably once planted as a hedgerow tree but never managed. Concrete base to the west. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	C2
T9	Leyland cypress	10	1	20	1	2	3	3	3	EM	G	40+	This was probably once planted as a hedgerow tree but never managed. Concrete base to the west. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	C2
T10	Leyland cypress	10	1	20	1	1	3	3	2	EM	G	40+	This was probably once planted as a hedgerow tree but never managed. Concrete base to the west. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	C2

A key explaining each category is provided at the rear of the schedule

Tree Number	Tree Species	Height (m)	Number of Stems	Stem Ø (cm)	N - Radius (m)	S - Radius (m)	E - Radius (m)	W - Radius (m)	1st Branch (m)	Age Class	Overall Health	ULE (Years)	Tree Structural Condition & Site Notes	Recommended Management	Category
T11	Leyland cypress	10	1	20	1	3	3	3	2	EM	G	40+	This was probably once planted as a hedgerow tree but never managed. Concrete base to the west. Located east of the boundary, surveyed from Woodrising.	Crown lift by removing branches below 4.5m that overhang the site.	C2
T12	Silver birch	9	1	20	3	2	2	3	4	M	G	40+	Past crown lift over the site. No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	No action required at present.	C2
T13	Hybrid black poplar	20	1	77	9	4	11	4.5	3	FM	G	40+	Crown extends east. Past height reduction but it has since re-grown. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T14	Beech	8	1	28	2	2	3	4	1	EM	G	20+	Suppressed crown. Located east of the boundary, surveyed from Woodrising.	No action required at present.	C2
T15	Black pine	17	1	68	3	4	4	4	8	M	G	40+	High crown. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T16	Ash	12	1	30	4	4	5	5.5	3	EM	G	20+	No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	No action required at present.	C2
T17	Apple	3	1	24	4	3	3	3	2	M	G	40+	No obvious significant defects. Retaining wall to south.	No action required at present.	C1
T18	Monterey cypress	17	1	88	7	5	7	7	6	M	G	40+	No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T19	Monterey cypress	17	1	75	5	5	5	5	6	M	G	40+	No obvious significant defects. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2
T20	Magnolia	3	1	11	2	3	2	2	1	EM	G	20+	No obvious significant defects.	No action required at present.	C1
T21	Cherry	5	1	31	4.5	4	3	2	2	M	G	20+	Past crown lift and small reduction over the path.	No action required at present.	C1
T22	Silver birch	9	1	25	3	3	3	3	5	EM	G	40+	No obvious significant defects. Located west of the boundary, surveyed from Woodrising.	No action required at present.	C1
T23	Holly	5	1	17	2	2	2	2	2	EM	F	20+	Sparse crown. Located south-west of the boundary, surveyed from Woodrising.	No action required at present.	C1

A key explaining each category is provided at the rear of the schedule

Appendix 1: Group Schedule

Site: Woodrising, Bleadon

Surveyor: Nick Baxter

Date of Survey: 31st October 2022



Group Number	Tree Species	Number in Group	Height (m)	Number of stems	Stem Ø (cm)	N - Radius (m)	S - Radius (m)	E - Radius (m)	W - Radius (m)	1st Branch	Age Class	Overall Health	ULE (Years)	Tree Structural Condition & Site Notes	Recommended Management	Category
G1	Leyland cypress	5	10	1	18	2	2	2	2	3	EM	G	20+	These trees were probably once planted as a hedge but never managed. Located east of the boundary, surveyed from Woodrising.	No action required at present.	C2
G2	Ash, birch, pine and cypress	25	15	1	30	4	4	4	4	4	M	G	40+	A small copse located in the neighbouring property. Located east of the boundary, surveyed from Woodrising.	No action required at present.	B2

A key explaining each category is provided at the rear of the schedule

Appendix 1: Hedge Schedule

Site: Woodrising, Bleadon

Surveyor: Nick Baxter

Date of Survey: 31st October 2022



Hedge Number	Tree Species	Height (m)	No. of Stems	Stem \varnothing (cm)	Width (m)	Length (m)	Age Class	Overall Health	UJE (Years)	Condition & Notes	Recommended Management	Category
H1	Privet, forsythia and Escallonia	2	MS	9	1	25	M	G	20+	A property boundary hedge which seems to be regularly trimmed.	No action required at present.	C2
H2	Dogwood and field maple	2	MS	9	1	15	M	G	20+	A property boundary hedge which seems to be regularly trimmed.	No action required at present.	C2

A key explaining each category can be found at the rear of the schedule.

Tree Schedule - KEY

Tree/Group/Hedge Number

Tree, tree-groups or hedges have been allocated a number for the purpose of this survey. Numbers within the Tree Schedule relate to those marked on the Tree Removal Plan and Tree Protection Plan drawings.

Trees protected by a tree preservation order (TPO) are highlighted by grey colouration in the tree schedule.

Species

Common names are listed.

Number in Group

Number of trees within a group. A group of trees may comprise of more than one species.

Height (m)

All heights are estimated in metres.

Number of Stems

The number of stems is either 1, 2, 3, 4, 5 or MS (multi-stemmed). This feature influences how the area of the recommended root protection area is calculated.

Stem or Combined Diameter (cm)

Single stem diameters are measured at 1.5m with a diameter tape. The combined stem diameters for trees with up to five stems and trees with more than five stems (MS) trees are calculated in accordance with the guidance.

Crown Spread Radius (m)

The crown radius from tree trunk to crown limit identified at the four cardinal points (N, S, E and W) in order to allow presentation of the above ground constraints on the Tree Protection Plan.

Measurements are approximate and recorded to the nearest half metre.

1st Branch (m)

This is a record of the height of the lowest branch. This is useful when planning access routes or considering if pruning will be required to site new features under a tree crown.

Age Class

(Y) Young, (SM) Semi-Mature, (EM) Early-Mature, (M) Mature, (FM) Fully-Mature or (V) Veteran.

Overall Health

An overall assessment of the physiological condition of the tree recorded as (G) Good, (F) Fair, (P) Poor, (D) Dead.

ULE (Years)

Useful Life Expectancy. Anticipated future contribution to amenity, in years.

Tree Structural Condition & Site Notes

Observations on the form of the tree, condition and structural integrity.

Site notes are detailed when relevant to the growth conditions or rooting constraints.

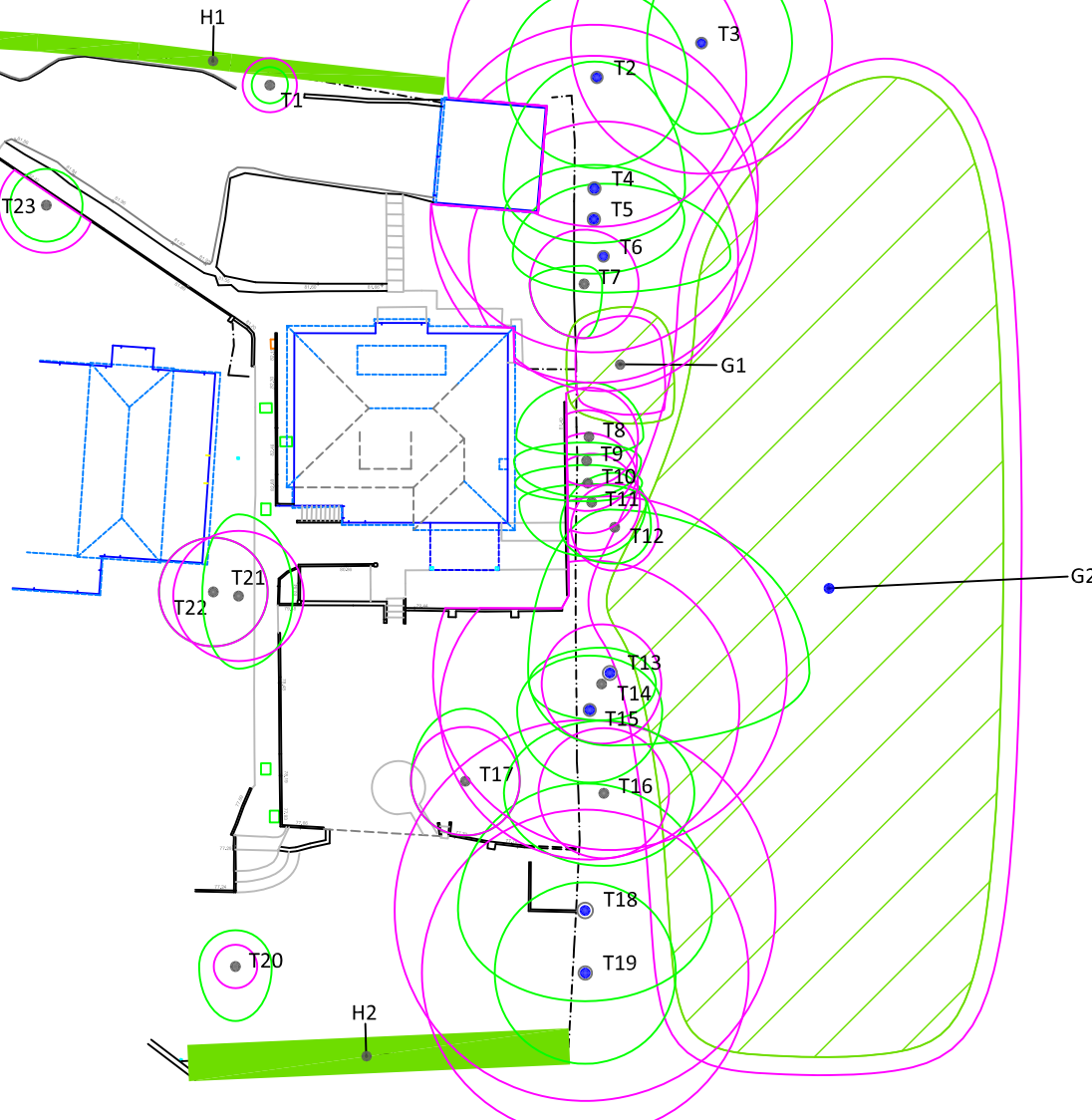
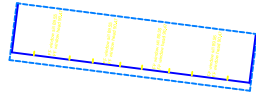
Management Recommendations

Recommended tree surgery works to be carried out prior to construction. Terminology used is based on guidance detailed in BS3998:2010 – Recommendations for tree work¹.

Category

Tree category as defined within BS5837:2012. Categories A (high quality), B (moderate quality) and C (low quality) are trees that should be considered for retention. Category U trees are unsuitable for retention.

¹ British Standards Institution (2010). BS3998 - Recommendations for Tree Work. BSI, London.

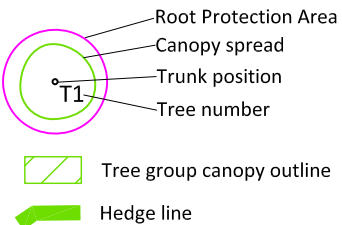


BS5837:2012 - Tree Category

- Category A Trees**
High quality and value
At least 40 years life-expectancy
- Category B Trees**
Moderate quality and value
At least 20 years life-expectancy
- Category C Trees**
Moderate quality and value
At least 10 years life-expectancy
- Category U Trees**
Poor quality and value
Less than 10 years life expectancy

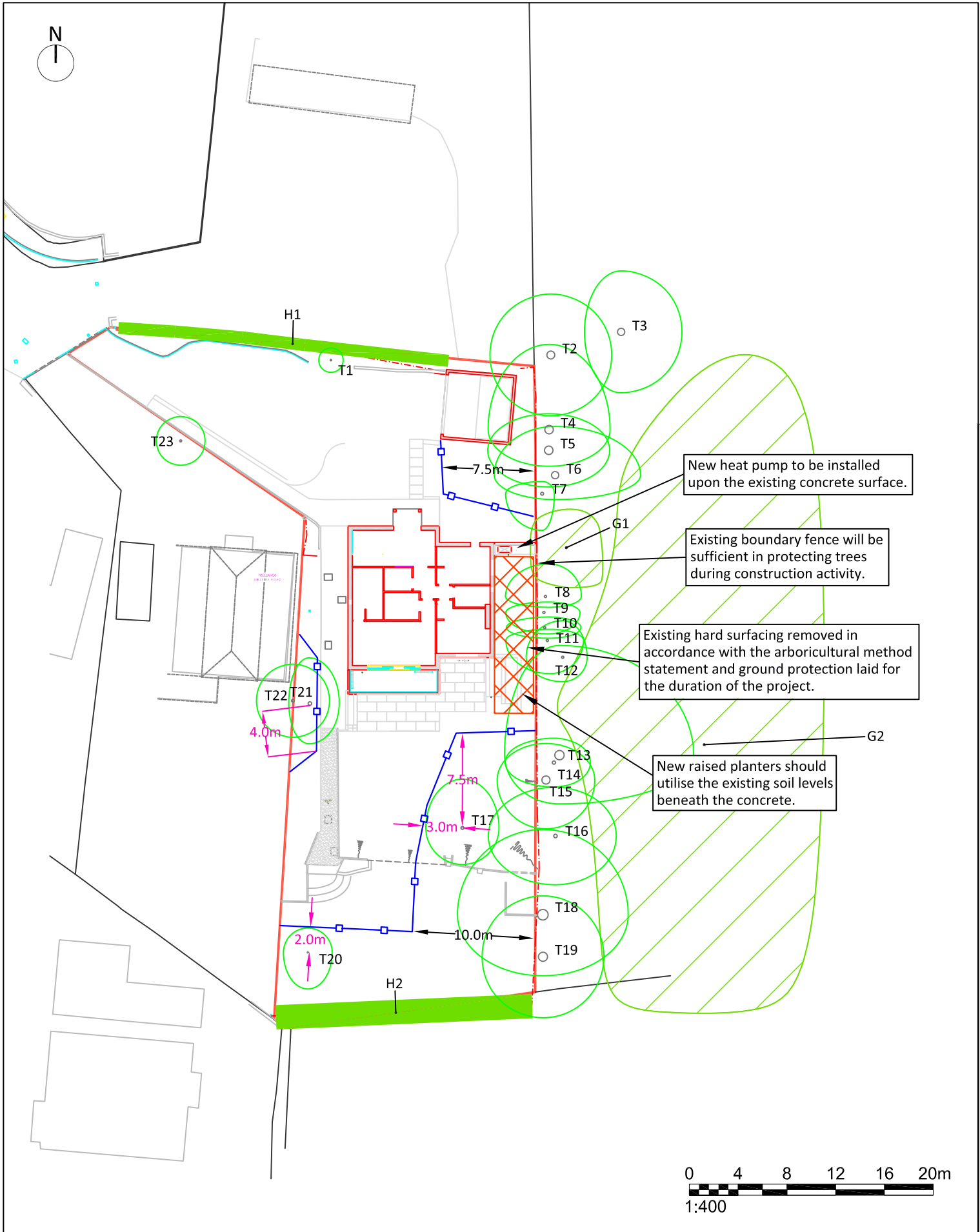


Key



Rook Lane House
Christchurch Street West
Frome BA11 1EB
info@boskytrees.co.uk
Tel: 01373 832778

Project Name: Woodrising Bleadon		Client: Dowlas Property Group Ltd
Drawing Title: Tree Constraints Plan		Date: 8-2-2023
Drawing Number: TCP-1	Revision	Scale: 1:400 @ A4



Key

- Tree protection fence
- Canopy spread
- Trunk position
- Tree number
- Tree group
- Hedge line
- Area where the arboricultural method statement is to be followed
- Measurement from trunk to fence (0.8m)

BC SKY TREES

Rook Lane House
Christchurch Street West
Frome BA11 1EB

info@boskytrees.co.uk
Tel: 01373 832778

Project Name: Woodrising Bleadon	
Drawing Title: Tree Protection Plan	
Drawing Number: TPP-1	Revision

Client: Dowlas Property Group Ltd	
Date: 8-2-2023	
Scale: 1:400 @ A4	