



## **Arbor-Eco Consultancy**

### **ARBORICULTURAL IMPACT ASSESSMENT**

At

**IVY ROOST,  
EAST BOLDRE, MAIN ROAD,  
NEW FOREST, HAMPSHIRE**

For

**PAD STUDIO**

This report was compiled by  
Marco Bartolini *TechArborA, (TE02501) GradCIEEM, FdScWM, Dip Mgmt*



**Arboricultural**  
**ASSOCIATION**  
Technician Member

*This report is the responsibility of Arbor-Eco Consultancy.  
It should be noted that whilst every effort is made to meet the client's brief,  
no site investigation can ensure complete assessment  
or prediction of the natural environment.*

Report Number: MB200903-01

September 2020

## **GLOBAL PANDEMIC**

COVID-19 Government Rules on social distancing, cleanliness, lockdown measures and such like has meant that the handling of personal equipment belonging to others is no longer permitted. Touching door handles for example comes with risk. Inviting others into private property is no longer acceptable.

The headings for reports under 'normal' circumstances would be deemed necessary for the competition and acknowledgement that a report was concise. This may no longer be possible. Providing welfare facilities by the client in their own property is not deemed safe at the time of the pandemic and writing of this report.

The rules and regulations will add pressure to the industry and this should be taken into account by the Local Authority reading this report.

For the latest guidance please see the NHS or Government websites.

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## 1. INTRODUCTION

### 1.1 PROJECT BACKGROUND

PAD Studio commissioned Arbor-Eco Consultancy to compile an Arboricultural Impact Assessment following the undertaking of an Arboricultural Survey of trees located within land (as directed by the Client) situated at Ivy Roost, Main Road, East Boldre, in the county of Hampshire. The site is within the administrative boundary of New forest District Council and the New Forest National Parks Authority.

This report details the impact that the proposed development will have upon the site's existing tree stock and sets out recommendations for the subsequent mitigation or avoidance of impact. The study has been completed in accordance with guidance contained within British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

### 1.2 SITE DESCRIPTION

The proposed development site is located within the rear aspect garden of the property called Ivy Roost. The area was shown as a section of land of the whole site and is referred to within this document as the study area.

The northern boundary of the study area is delineated by a chain-link fence from a further residential property off Main road called The White Cottage. The eastern boundary of the study area abuts two residential properties off Main Road called Sunnydale and Maple Cottage. The western and southern boundaries are demarcated by a further section of rear and side aspect garden of the property, Ivy Roost.

The topography of the ground was generally flat with a small vegetable allotment to the south. The site is centred at Ordnance Survey Grid Reference SZ 36856 98917.

The location of the trees surveyed can be found on Drawing Number MB190625-01-01 within Section 5.

### 1.3 DEVELOPMENT PROPOSALS

It is understood that the study area surveyed will be the subject of a planning application to include the construction of a Studio to enable the family to work at home in a comfortable environment. In addition, associated hard and soft landscaping of this area will also be undertaken.

It is noteworthy to mention that the current owner of Ivy Roost is a Landscape Architect and as such the garden, whilst it may lose some vegetation to facilitate the proposal, it will be re-landscaped.

### 1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the client in addition to information collected by Arbor-Eco Consultancy. The documents and drawings considered are detailed within Table 1.1.

Author	Document	Drawing Number	Date
PAD Studio	Topographical Survey Drawing	-	-
PAD Studio	Existing Plans	23-003	Aug 2020
PAD Studio	Proposed   Site Plan	23-010	Jan 2021
PAD Studio	Proposed Elevations	23-015	Jan 2021

**Table 1.1: Documentation Provided**



## 2. STATUTORY PROTECTION

### 2.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

Examination of the New Forest District Council (2020), interactive mapping (<https://gismaps.newforestnpa.gov.uk/webmap/Map.aspx?MapName=TPO&initialDialog=layersDialog>) accessed on 8<sup>th</sup> January 2021, indicated that, at the time of the survey, there are no trees that are subject to a Tree Preservation Order on or adjacent to the site.

Further examination of the New Forest District Council (2020), interactive mapping (<https://gismaps.newforestnpa.gov.uk/webmap/Map.aspx?MapName=TPO&initialDialog=layersDialog>) accessed on 8<sup>th</sup> January 2021, indicated that, at the time of the survey, that the site is situated within a Conservation Area.

The existence of the Conservation Area confers a degree of statutory legal protection upon the trees, with a stem diameter of greater than 75mm (at 1.5m above ground level), growing within it. In particular it should be noted that prior to undertaking any works to trees within a Conservation Area it is necessary to submit a Section 211 notice to the Local Planning Authority giving six weeks' notice of the proposed works. In practice the submission of a planning application containing fully specified details of proposed tree works will usually meet this requirement.

An authority may treat a planning application for development in a Conservation Area that includes specified tree work as a Section 211 notice if the applicant has clearly stated that it should be considered as such. However, if work is proposed to trees other than those immediately affected by a proposed development then a separate Section 211 notice should be submitted. Where an authority has granted full planning permission for development in a conservation area, only tree works necessary to implement the development may be carried out. The authority may use conditions or informatives attached to the permission to clarify this requirement.

### 2.2 PROTECTED SPECIES

#### Birds

The Conservation of Habitats and Species Regulations 2017 (as amended) places a duty on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds. Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Several bird species are Species of Principal Importance for Nature Conservation in England, making them capable of being material considerations in the planning process.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (generally March to September). If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

#### Bats

Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017, as amended (Habitats Regulations 2010, as amended). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or

migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong. As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.



### 3. ARBORICULTURAL IMPACT ASSESSMENT

#### 3.1 INTRODUCTION

All trees within and closely surrounding the study area have been surveyed and each has been identified with a unique number. The location of the trees can be found on Drawing Number MB200903-01-01 in Section 5.

A schedule of the trees surveyed can be found within Appendix 1.

#### 3.2 DEVELOPMENT DESIGN AND LONG-TERM IMPACTS

##### 3.2.1 Potential Impact on the Amenity Value of Trees

###### Impacts

###### *Tree Removal*

The proposed development will require the removal of trees to permit its successful implementation.

Tree removal is required to achieve various aspects of the proposed development as discussed below:

- **Construction of Proposed New Studio:** Construction of the proposed new studio will directly require the removal of four trees, one of which is dead. It will be necessary to remove these trees to permit access, scaffold installation space and to allow for the safe construction of the studio with sufficient working space.

Three category C trees and one dead tree will be required to be removed to facilitate this element of the development.

- **Installation of Underground Services**

The Proposed Utilities Corridor should take a line from an existing spur and remain outside of the RPA of the retained trees. Until such time as the methodology for the installation of services is developed there is an assumption that no further trees will be required to be removed.

Overall (until further notice from the Utilities Engineering Manager) the proposed development will require the removal of four trees. All of the trees and groups to be removed are listed within Table 3.1 and shown on the Tree Protection Plan, Drawing Number MB200903-01-02 in Section 5.

The report is submitted as a Section 211 Notice for works to trees growing within a Conservation Area.

###### *Proposed Tree Works*

To permit space for the construction of the studio and to provide working space for the hard and soft landscaping improvements it will be necessary to carry the removal of four trees.

The proposed tree removal works are detailed in Table 3.1.

Tree No	Species	BS5837 Cat	Reason Works Required
2	Apple	Dead	Dangerous
3	Apple	C	To facilitate installation of Studio
4	Apple	C	To facilitate installation of Studio
5	Apple	C	To facilitate installation of Studio

**Table 3.1: Tree Works Required**

Further tree works in the form of facilitation pruning will be required to H1, G1 and T6 in order to permit sufficient space to erect the scaffold and construct the building as shown on Tree Protection Plan, drawing Number MB200903-01-02, Section 5. So long as the height of the scaffold and depth of the walkways do not impede on any vegetation then the works to the trees will be insignificant and considered cyclical garden maintenance.

#### Mitigation/Avoidance

Investigation is underway to relocate the Apple trees that are required to be removed in order to facilitate the development proposal.

Should the translocation of trees not be a viable option then as mitigation for the loss of trees, and to deliver general landscape enhancements, it is proposed to undertake replacement tree planting post development.

The replacement tree planting proposals are yet to be finalised but could be located within the site to provide suitable additional screening where appropriate.

Subject to appropriate species selection it is considered that any landscape planting should, over time, mitigate the loss associated with the proposed tree removal.

New tree planting should be carried out in accordance with British Standard 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

### **3.2.2 Proximity of Trees to Proposed Structure**

#### Impacts

##### *Branch Spread*

It is evident that an existing tree management regime exists, in the form of pruning and pollarding, and it is noted that any future conflict that may arise from the proposed development can be appropriately managed through continued management works to the tree's canopy and pruning of hedgerows. So long as such works are completed in accordance with best practice guidance, they will not cause significant harm to the health or amenity value of the tree.

##### *Shading*

The studio may experience some shading during the day as the sun tracks across the horizon. However, the orientation of the buildings and aspects of the windows should make this insignificant. In addition, the Studio will be utilised as a working room and not living space. Therefore, it can be assumed that no apparent shading within the proposed new Studio is likely to occur due to existing or proposed trees.

##### *Leaf Litter, Fruits, Pollen, Sap etc.*

Whilst the majority of the retained trees are species associated with significant fruit fall or sap exudate problems the inconvenience experienced can be overcome by implementing good housekeeping.

#### Mitigation/Avoidance

Trees across this site will be the subject of cyclical pruning as the trees continue to grow. Further works will be required in the future to prevent conflict occurring. However, such works will not be significant as to impact the long-term visual quality of the tree.

With respect to leaf litter it is noted that the sweeping up of leaves and cleaning of gutters, which may become blocked by falling leaves, is considered to be routine seasonal household maintenance and, as such, no notable conflict with the proposed development is considered to occur. Nonetheless it may prove



appropriate in certain areas to use gutter guards, or otherwise enclosed gutters, to minimise the potential for leaf fall to cause blockage and an ongoing nuisance.

### 3.3 POTENTIAL IMPACTS FROM CONSTRUCTION PROCESSES OF THE PROPOSED DEVELOPMENT

#### 3.3.1 Potential Root and Canopy Protection

To prevent harm occurring to retained trees during development it is recommended that construction works are excluded from the Root Protection Areas (RPA) of retained trees. Additionally, works should not be undertaken beneath the canopy spread of retained trees where this can be avoided.

The RPA represents the minimum area around trees that must be left undisturbed to ensure their survival. The roots typically occupy the top 600 mm of soil and the fine roots which absorb water, oxygen and nutrients are situated in the top 100 mm of soil. Any incursion into the rooting zone of a tree can cause a notable impact upon a tree's health.

Where existing buildings and areas of hard surfacing exists within the RPA of retained trees it is very likely that the rooting will have occurred asymmetrically due to the hard structures and the morphology of the roots is such that they are likely to have formed a fan shape with many roots running parallel to the man-made structures rather than being offset so far in to the site. The current RPA is shown in accordance with the guidance within BS5837:2012 which is effectively a presumed calculation of the extent of a tree's root system that is required to ensure the continued vigour of a tree. For the benefit of this report it is assumed that conflict with the roots of retained trees will be insignificant and that the roots shown within the site will be protected.

Construction work carried out within the RPAs of the retained trees will cause the greatest damage. **It is acknowledged that the tree roots already exist within compacted and disturbed ground.** However, soil that has been compacted will not provide suitable conditions for the survival and growth of vegetation, whether existing or new, and is a common cause of post-construction tree loss on development sites. Compacted soil will adversely affect drainage, gas exchange, nutrient uptake and organic content, and will seriously impede or restrict root growth. The risk of soil compaction is greatest in soils with a significant clay content and in wet conditions. It can result from temporary or short-term loadings, such as the passage of a single vehicle, or from longer-term construction activities, including materials storage.

Section 7.4.2, Para 7.4.2.3 of BS5837 permits the construction of new hard surfacing within the unmade ground of the RPA of a retained tree of no greater than 20 %. Section 7.5.3 permits the bearing (on existing ground level) of a raft not to exceed 20 % of the overall RPA of the tree.

The RPA and canopy spread of each tree to be retained is shown on Drawing Number MB200903-01-02, Section 5. Additionally, details of the crown spread measurements are contained within Appendix 1 and a schedule of RPAs for trees on the site is located at Appendix 2.

#### Impacts

The proposed development of the study area has been designed so that no major works are required within the RPAs of the retained trees.

The construction works to install the Studio will be carried out by hand as the access to the site would not permit large machinery to pass through the narrow opening. It is therefore assumed that all work will be done using existing pedestrian access routes around the property to the study area.

Overall, it is considered that the potential for harm to occur to the root systems of retained trees can be adequately controlled through the adoption of appropriate working practices and erection of protective barriers to exclude access from vulnerable sections of trees RPAs.

### Mitigation/Avoidance

#### *Construction Exclusion Zones*

To minimise the potential for harm to occur to the root systems and canopies of retained trees during development it will be necessary to implement construction exclusion zones throughout the site. These are areas surrounding the trees' RPAs and canopies in which no construction works, or related activities, will be undertaken. These zones will be demarcated by the erection of tree protection barriers prior to any works (with the exception of tree works) being carried out.

It is recommended that the exclusion zones are afforded protection at all times through the use of tree protection barriers, or stem boxes, and ground protection (specified in accordance with BS5837:2012). In addition, hoarding placed around the Main Contractors site compound, will provide the necessary tree protection to trees in favour of tree protection barriers as specified within BS5837:2012. Stem boxes should be installed around trees adjacent to access routes to protect the trees where existing hard surfacing exists within the RPAs. It must be noted that any hoarding, stem boxes and tree protection barrier uprights driven into the ground must adopt the procedures as specified within Section 3.3.9.

Where hard surfacing already exists on site, consideration should be given so that these areas will be retained and utilised as ground protection within the RPAs of retained trees until the replacement of hard landscaping is implemented into the landscaping phase of the development. The retention of the hard surfacing is deemed suitable ground protection and therefore the conflict with retained tree's roots is eliminated.

Where the replacement of hard surfacing is being considered then retaining the sub-base hard-core layer will reduce the risk of root damage.

The foundation design will be for a lightweight building and effectively non-intrusive (potentially no ground preparation required) The foundation design could be that similar to that shown on the Swift Plinth or Jackpad website. These portable foundation pads reduce pin-point loading and can be positioned away from structural roots if necessary. Nonetheless, no matter which foundation design is selected there will be no impact to the retained trees.

Drawing Number MB200903-01-02, in Section 5, provides a Tree Protection Plan indicating the potential location of areas of tree protection barriers and ground protection.

Any works within the RPA of a retained tree should be carried out under the supervision of the retained Arboricultural Consultant. All tree protection measures should be confirmed for their position and suitability prior to any construction works being carried out. (See Section 3.3.13 for contact details).

### **3.3.2 Site Construction Access**

#### Impacts

Construction access to the site will need to make use of the existing access routes in to the site off Main Road. Due to the narrow access available to the site it is envisaged that much of the material to construct the Studio will be managed by hand.

#### Mitigation/Avoidance

All trees surrounding the potential access routes should be adequately fenced and ground protection installed (where required) to ensure that no damage to these specimens occurs during construction.

Allowances for the narrow access should be considered to avoid contractors' vehicles from blocking the Main Road, minor trunk road.

### 3.3.3 Contractors Parking

#### Impacts

The location of contractor parking is yet to be determined but it is understood that it may occur in off-site locations and well away from the RPAs of retained trees.

#### Mitigation/Avoidance

No contractor parking is to occur on the verges of the highway. All local authority regulations will be adhered to. The Contracts Manager and Client will be responsible for the parking of contractor's vehicles.

### 3.3.4 Site Cabins and Welfare Facilities

#### Impacts

Due to the size of the project and the fact that the Studio will be hand built, it is hoped that no facilities will be required. However, because of COVID-19 Regulations and government advice, there will be no admission into the property for safety reasons. Therefore, if welfare facilities are required then it will occur in locations well away from the RPAs of retained trees.

#### Mitigation/Avoidance

Installation of protective barriers and ground protection to ensure that trees are protected from physical damage resulting from works to establish a Site Cabins and Welfare Facilities if necessary.

Due to local restrictions, COVID-19 will require suitable handwash facilities are made available. Contractors will adhere to the latest government rules and wear a face mask at all times within the grounds of the private property unless agreed with the client.

### 3.3.5 Delivery and Storage of Materials

#### Impacts

The proposed locations for site deliveries and materials storage during the development is yet to be determined.

#### Mitigation/Avoidance

Ensure no storage occurs upon un-surfaced ground within the defined RPAs of the retained trees via the installation of protective barriers and ground protection.

### 3.3.6 Demolition of Existing Structures

#### Impacts

None proposed.

#### Mitigation/Avoidance

None required.

### 3.3.7 Construction of Buildings

#### Impacts

The proposed construction of the studio has been considered in proximity to retained trees;

Should access be required within the RPAs of the retained trees then the following approach should be adopted;

1. Apply the following ground protection within the RPA of the tree prior to the realignment of the tree protection barriers if required;



- a. For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane.
  - b. For pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.
  - c. For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.
2. Construct the scaffold vertical tubes upon wooden blocks (to distribute the point load) with suspended walkways ensuring a layer of impermeable membrane is placed beneath the scaffold to catch any falling debris such as curing cement as this can be phytotoxic to the roots of vegetation. All pedestrian access will use the suspended scaffold walkways as defined by the tree protection barriers as shown on Tree Protection Plan Drawing Number MB190625-01-02, Section 5.
  3. Fit scaffold boards to provide a walkway of 1.5 m width.
  4. Any vegetation obstructing access or deemed to be within eye-strike shall only be removed with the authority of the retained Project Arboriculturalist or Arboricultural Officer for the Local Authority (See Section 3.3.13 for more details).

To restock materials around the scaffold towers, further ground protection may be required and therefore the Contracts Manager will be responsible for the installation and supervision of this works. Once this has been carried out the Project Arboricultural Consultant will be contacted to confirm the suitability and location.

The locations of the tree protection barriers and ground protection is shown on Tree Protection Plan Drawing Number MB200903-01-02, Section 5.

#### Mitigation/Avoidance

To minimise the risk of damage occurring to the tree's crowns during the erection of scaffolding and construction it may be necessary to undertake some access facilitation pruning works, as detailed in Section 3.2.1.

The potential for direct damage to the stems of the trees will be controlled by the installation of protective barriers as shown on Tree Protection Plan Drawing Number MB200903-01-02, Section 5.

### **3.3.8 Construction of New Hard Surfacing**

#### Impacts

None considered.

#### Mitigation/Avoidance

None required.

### **3.3.9 Boundary and Ancillary Structures**

#### Impacts

The exact details of any new proposed boundary structures are not known at this time.

#### Mitigation/Avoidance

The location of any concrete foundations and supporting posts needs to be carefully considered to ensure no damage to the adjacent trees occurs. For example, due to the highly alkaline leachate produced during the curing process of wet concrete, the concrete should not be poured within the RPA of a retained tree unless an impermeable liner has been installed.

Foundations for any proposed retaining wall within an RPA should not be of traditional trench style but consideration made for an above ground bridged-lintel to allow for future growth both above and below ground.

Additionally, any new fence posts should not be constructed within 1.0 m of the stem of any retained tree. Consideration for the use of half-panels to relocate fence posts away from retained trees by measuring site boundaries beforehand is recommended. This will reduce the amount of excavation for post foundations required within the RPAs of the retained trees. Any excavation for fence posts in RPAs will need to occur by hand and under arboricultural supervision to ensure no root damage occurs (See Section 3.3.13 for contact details).

No machinery should be used for the installation of fence posts and ground protection may be a consideration in some circumstances. See Section 3.3.7 for ground protection options.

#### **3.3.10 Site Gradients**

##### Impacts

None considered.

##### Mitigation/Avoidance

None required.

#### **3.3.11 Service Requirements**

##### Impacts

As the site is developed, there are existing service connections throughout and as such it is considered that various opportunities to create new service connections without harming trees exist.

##### Mitigation/Avoidance

The methodology for the installation, maintenance or removal of any services within an RPA will be in accordance with NJUG Volume 4 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees'. This will include hand dug 'broken' trenches to ensure that maximum protection is given to tree roots.

It is advised that the installation of any new services and drainage occur outside the RPAs of the retained trees. It is also advised that CCTV and lighting columns should not be situated in locations which will place future pressure on trees for crown pruning due to visibility/shadowing.

All areas of construction activity within the RPA of a retained tree should be supervised by the retained arboriculturist (See Section 3.3.13 for contact details).

#### **3.3.12 Preconstruction Recommendations**

Auditable systems of site monitoring should be made available to the Local Planning Authority/Arboricultural Officer and included within the program of development construction as recommended within BS5837:2012. This should include a schedule of events whereby periods of supervision or input from the Project Arboriculturist is required (See Section 3.3.13 for contact details).

A pre-commencement site meeting involving all interested parties should be convened to confirm;

- Tree Protection Measures;
- Underground Services Installation Methodology;
- Ground Protection Measures;
- Audit and Supervision Periods.

### 3.3.13 Contact Details

Name: Marco Bartolini

Position: Arboricultural Consultant

Mobile: [REDACTED]

Email: [REDACTED]

Local Authority: New Forest National Parks Authority

Phone: 01590 646615

Email: [dev.control@newforestnpa.gov.uk](mailto:dev.control@newforestnpa.gov.uk)



#### 4. ARBORICULTURAL METHOD STATEMENT

An Arboricultural Method Statement will not be required for the site as all aspects of the proposed construction will not require works to be undertaken within the RPAs of retained trees.

##### **Planning Context; National Planning Policy Framework**

It is important to note that trees are a material consideration in the UK planning system and existing trees are an important factor requiring forethought when assessing the development potential of a site, whether they are within the working area or within such proximity to it that they may be affected by construction operations.

##### **Environmental Benefits of Trees**

It is worthwhile noting that the trees can intercept many of the hostile elements humans and animals need shelter from. Trees provide shading and offer significant humidity regulation and a cooling effect felt at ground level. All trees will consume a considerable amount of ground water that will regulate the local hydrology and may assist with the removal of local flooding issues. A mature tree will consume tens of thousands of litres of water during a year. A group of trees can provide an element of acoustic dampening effect at ground level and growing next to a road many tree species have been linked with the sequestration of impurities from the atmosphere. Finally, the trees will provide some shelter from prevailing winds and inclement weather. Therefore, it can be seen that the trees will benefit, rather than hinder, the landscape in which they are growing.

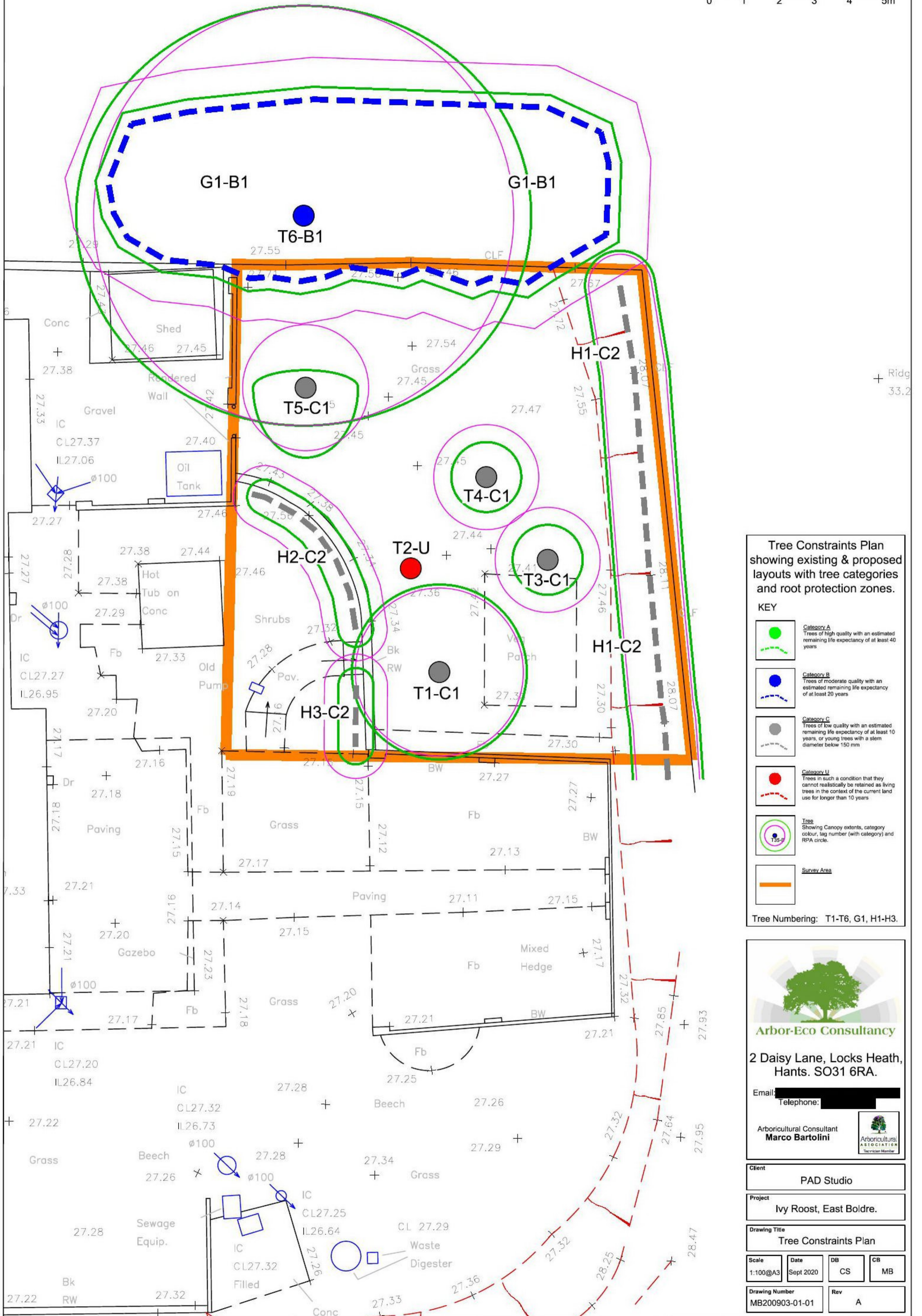
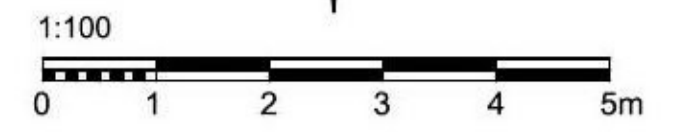
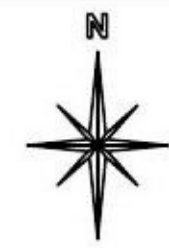
**5. DRAWINGS**

1. Drawing MB200903-01-01 Tree Constraints Plan
2. Drawing MB200903-01-02 Tree Protection Plan

Drawing MB200903-01-01 Tree Constraints Plan


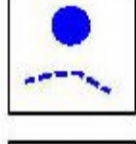
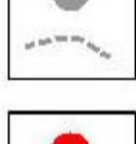
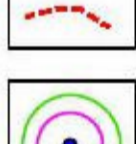

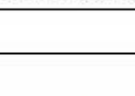


**Notes**  
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.  
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.  
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.  
 All rights reserved.




**Tree Constraints Plan**  
 showing existing & proposed layouts with tree categories and root protection zones.

**KEY**


-  **Category A**  
Trees of high quality with an estimated remaining life expectancy of at least 40 years
-  **Category B**  
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
-  **Category C**  
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
-  **Category 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
-  **Tree**  
Showing Canopy extents, category colour, tag number (with category) and RPA circle.
-  **Survey Area**

Tree Numbering: T1-T6, G1, H1-H3.



**Arbor-Eco Consultancy**  
 2 Daisy Lane, Locks Heath,  
 Hants. SO31 6RA.  
 Email: [REDACTED]  
 Telephone: [REDACTED]

Arboricultural Consultant  
**Marco Bartolini**



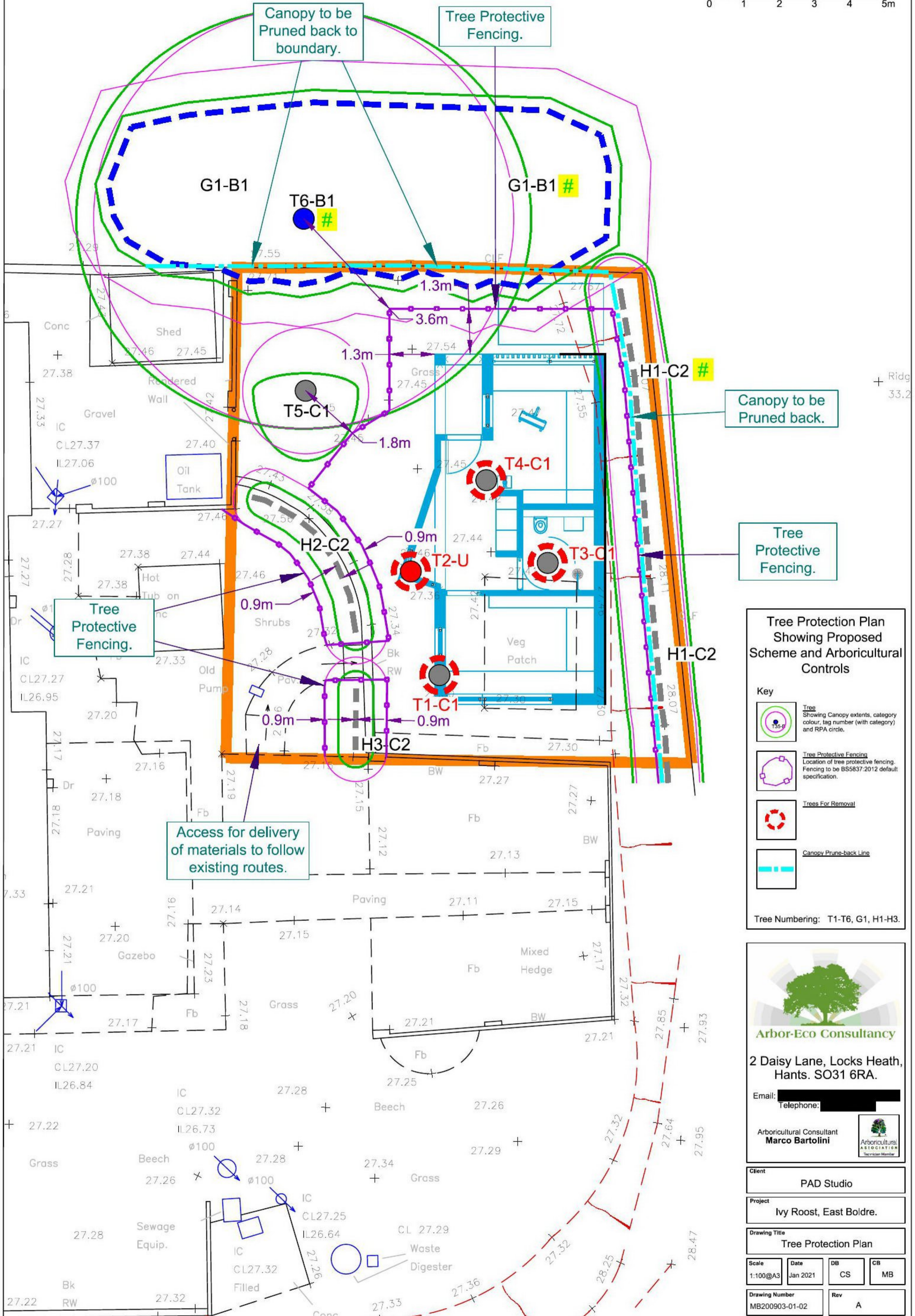
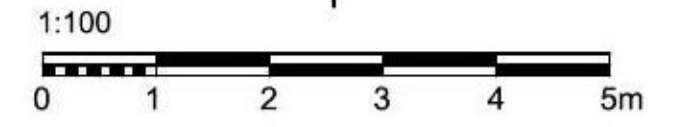
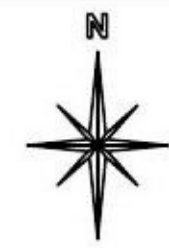
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Ivy Roost, East Boldre.			
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Tree Constraints Plan			
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1:100@A3	Sept 2020	CS	MB
Drawing Number		Rev	
MB200903-01-01		A	



Drawing MB200903-01-02 Tree Protection Plan



**Notes**  
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.  
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.  
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.  
 All rights reserved.



Canopy to be Pruned back.

Tree Protective Fencing.

Tree Protective Fencing.

Access for delivery of materials to follow existing routes.

**Tree Protection Plan Showing Proposed Scheme and Arboricultural Controls**

**Key**

- Tree Showing Canopy extents, category colour, tag number (with category) and RPA circle.
- Tree Protective Fencing Location of tree protective fencing. Fencing to be BS5837:2012 default specification.
- Trees For Removal
- Canopy Prune-back Line

Tree Numbering: T1-T6, G1, H1-H3.

**Arbor-Eco Consultancy**  
 2 Daisy Lane, Locks Heath, Hants. SO31 6RA.  
 Email: [Redacted]  
 Telephone: [Redacted]

Arboricultural Consultant  
**Marco Bartolini**  
 Arboricultural Association Technician Member

Client			
PAD Studio			
Project			
Ivy Roost, East Boldre.			
Drawing Title			
Tree Protection Plan			
Scale	Date	DB	CB
1:100@A3	Jan 2021	CS	MB
Drawing Number		Rev	
MB200903-01-02		A	



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**APPENDICES**

- APPENDIX 1: Table A1.1 – Tree Survey Schedule
- APPENDIX 2: Table A2.1 – Root Protection Areas of Category A, B and C Trees
- APPENDIX 3: Headings for Tree Protection Signs and Example Sign
- APPENDIX 4: Tree Protection Barriers (Default and Variant)

**APPENDIX 1**

**Table A1.1 – Tree Survey Schedule**

Tree No.	Species	No. Stems	Diam (mm)	H't (m)	Ht 1 <sup>st</sup> Branch (m)	Branch Spread (m)				Crown Clearance (m)				Age	Phys Cond	Struc Cond	Est. Remain Contrib (Years)	Cat	Comments	Preliminary Management Recommendations
						N	E	S	W	N	E	S	W							
1	Cut-leaved Silver Birch	1	180	8.0	2.0 S	2.5	2.5	2.5	2.5	3.0	2.0	2.0	2.0	EM	F	F	10+	C1	<ul style="list-style-type: none"> <li>Apical dieback evident – possible drought related.</li> <li>Minor deadwood throughout crown.</li> </ul>	Formative pruning to improve aesthetics.
2	Apple	1	-	-	-	-	-	-	-	-	-	-	-	-	D	D	-	-	<ul style="list-style-type: none"> <li>Dead tree.</li> </ul>	Advise removal.
3	Apple	1	120	3.0	1.0 W	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	M	F	F	10+	C1	<ul style="list-style-type: none"> <li>Tree leans to north.</li> <li>Pruned for crop.</li> </ul>	-
4	Apple	1	120	3.0	1.0 E	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	M	F	F	10+	C1	<ul style="list-style-type: none"> <li>Tree leans to north.</li> <li>Pruned for crop.</li> </ul>	-
5	Apple	2	130	4.0	1.0 N	0.5	1.5	2.0	1.5	2.0	2.0	2.0	2.0	M	F	F	10+	C1	<ul style="list-style-type: none"> <li>Bifurcated at 1.0 m above ground level.</li> <li>Pruned for crop.</li> </ul>	-
6	Oak	1	500 Over ivy	12.0	2.0 E	6.0	6.5	6.0	6.5	3.0	1.0	3.0	5.0	EM	F	G	20+	B1	<ul style="list-style-type: none"> <li>Off-site tree.</li> <li>Restricted access prevents detailed assessment.</li> <li>Poor past management.</li> <li>Pruned to boundary to 4.0 m above ground level.</li> <li>Ivy on stem.</li> </ul>	-
G1	Oak Cherry Laurel Rhododendron Privet	1	100	6.0	0.0 E	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	Y EM M	F	F	20+	B2	<ul style="list-style-type: none"> <li>Off-site group.</li> <li>Pruned back to boundary.</li> <li>Restricted access prevents detailed assessment.</li> </ul>	-
H1	Privet	1	50	4.0	0.0 S	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	Y EM M	F	F	10+	C2	<ul style="list-style-type: none"> <li>Managed boundary hedgerow.</li> </ul>	-
H2	Beech	1	50	2.0	0.0 N	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	EM	G	G	10+	C2	<ul style="list-style-type: none"> <li>Managed garden hedgerow.</li> </ul>	-
H3	Beech	1	50	2.0	0.0 N	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	EM	G	G	10+	C2	<ul style="list-style-type: none"> <li>Managed garden hedgerow.</li> </ul>	-

**Key**

Age Class

Y: Young = tree within first third of average life expectancy  
 EM: Early mature = tree within second third of average life expectancy  
 M: Mature = tree within final third of average life expectancy  
 OM: Over mature = tree beyond average life expectancy  
 V: Veteran = showing signs of retrenchment and other criteria  
 D: Dead

Physiological Condition

G: Good = no health problems  
 F: Fair = symptoms of ill health that may be remedied  
 P: Poor = poor health  
 D: Dead

Structural Condition

G: Good = no structural defects  
 F: Fair = remedial structural defects  
 P: Poor = significant structural defects  
 D: Dead

000: Estimated measurement due to access restrictions

RPA: Root Protection Area

Major deadwood: branches in excess of 50 mm diameter  
 Minor deadwood: branches/twigs less than 50 mm diameter

Table A1:1 Tree Survey Schedule

APPENDIX 2

Table A2.1 – Root Protection Areas of Category A, B and C Trees



Tree No.	Species	Diameter (mm)	Approximate Root Protection Radius (m)	Root Protection Area (m <sup>2</sup> )
1	Cut-leaved Silver Birch	180	2.4	18
3	Apple	120	1.5	7
4	Apple	120	1.5	7
5	Apple	130	1.8	10
6	Oak	500	6.0	113
G1	Mixed Species	100	1.2*	5*
H1	Privet	50	0.9*	3*
H2	Beech	50	0.9*	3*
H3	Beech	50	0.9*	3*

**Key:**  
000: estimated dimensions due to access restrictions  
 \*: from centre of group or hedgerow

**Table A2-1: RPA and Approximate Root Protection Radius of Trees Surveyed**

**APPENDIX 3**

**Headings for Protective Barrier Notices and Example Sign**

### **Root Protection Area (RPA) Model Notice**

DON'T excavate within this area

DON'T use any form of mechanical plant with this area

DON'T store materials, plant or equipment within this area

DON'T move plant or vehicles within this area

DO contact the Local Authority Arboricultural Officer or owner of the tree if excavation within this area is unavoidable

DO protect any exposed roots uncovered within this area with dry sacking

DO backfill with a suitable inert granular and top soil material mix as soon as possible on completion of work

ANY WORK in this area requires permission from the Local Authority Arboricultural Officer





**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**



**APPENDIX 4**

**Details of Protective Barrier (Default and Variant)**



Figure 2 Default specification for protective barrier

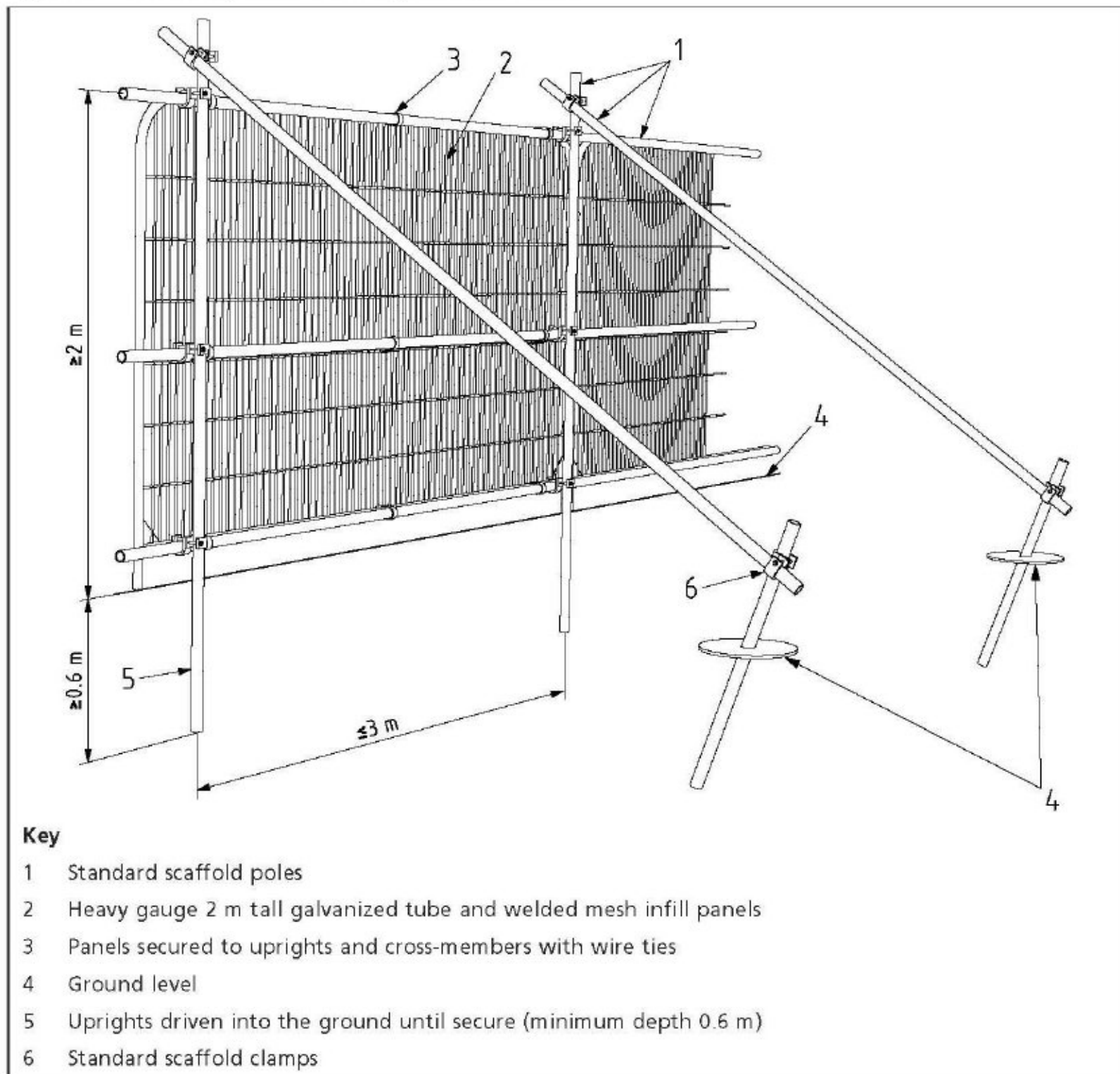


Figure 3 Examples of above-ground stabilizing systems

