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Client	Site	Instructions	Tree Preservation
David Lloyd Jones Rhode Hill Lodge Rhode Lane Uplyme DT7 3TY	Rhode Hill Lodge Rhode Lane Uplyme DT7 3TY	Tree Constraints Plan, Tree Protection Plan and Arboricultural Method Statement to BS5837: 2012 on trees affected by proposed development.	Tree preservation has not been checked.
Report details	AIA-RHO-21	Report Date 4 March 2021	Report Author: Keith McBride Checked by: Stewart Killick

1 INTRODUCTION

- 1.1 Dart Tree Consultancy has been instructed by **Mr David Lloyd Jones** to inspect trees located at **Rhode Hill Lodge** within BS5837:2012- Trees in relation to design, demolition and construction - Recommendations. To produce a constraints plan, identifying Root Protection Areas (RPA) demonstrating the below ground constraints and Sunlight Shading areas demonstrating the above ground constraints (where appropriate), as shown on the attached plan **TCP-RHO-18**.
- 1.2 The trees inspected include individual trees species Lime and Acer.

2 REPORT LIMITATIONS

- 2.1 This is a preliminary report and the inspection has been carried out with the aid of binoculars from ground level using visual observation methods.
- 2.2 The location of the trees can be found on the supplied plan **TCP-RHO-18**.
- 2.3 Third Party Liability
The limit of Dart Tree Consultancy's indemnity over any matter arising out of this report extends only to the instructing client, namely **Mr David Lloyd Jones**. Dart Tree Consultancy can not be held liable for any third party claim that arises following or out of this report. This report remains the intellectual property of Dart Tree Consultancy.
- 2.4 Trees are dynamic organisms and their condition can change rapidly. The health, safety and condition of trees should always be checked on an annual, cyclic basis, preferably at least once a year or after severe weather conditions or changes to conditions close to the tree.
- 2.5 This report does not seek to address the specific area of subsidence risk; queries over subsidence should be resolved through the commissioning of a separate, specific and specialist report.
- 2.6 The conclusions and recommendations in this report are only valid for a period of one year from the report date. We reserve the right to reduce or remove its validity in the case of any changes in conditions to, or in proximity to the tree.

3 CONCLUSION of Observations

- 3.1 This report has included a total of 2 individual trees on site. The individual trees have been labelled T1 and T2. The position of the trees can be found on Drawing TCP-RHO-18. Trees T1 and T2 have been plotted using a laser hand held measure by Dart Tree Consultancy. The location of these trees are to be considered as approximate.
- 3.2 **Tree Preservation: T1 Lime is protected by TPO. T2 Acer does not benefit from protection by TPO. Per client. A TPO check has not been carried out. Prior to any tree works a check should be made to establish whether consent is required from the Local Planning authority.**
- 3.3 The Root Protection Area (RPA) for the trees is calculated and shown on the plan as a circle, with its radius centred on the stem. The constraints plan attached shows the RPA required during the development and construction process. The RPA is to be considered sacrosanct and no construction, storage of materials or any works should be undertaken in the area without the approval of a suitably qualified Arboriculturist and the Local Planning Authority(LPA).
- 3.4 **Category A** trees are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal / semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue); or with a particular visual importance as arboricultural and/or landscape feature; or trees of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).
- 3.5 **Category B** are trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention beyond 40 years; or trees lacking the special quality necessary to merit the category A designation; or trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality; or trees with material conservation or other cultural value.
- 3.6 **Category C** are unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories; or trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits; or trees with no material conservation or other cultural value.
- 3.7 **Category U** are trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning); or trees that are dead or are showing signs of significant, immediate, and irreversible overall decline or trees infected with pathogens of significance to the health and/or safety of other trees nearby; or very low quality trees suppressing adjacent trees of better quality.

3 CONCLUSIONS

- 3.8 T1 a large mature Lime tree, category A, is a good specimen and steps should be taken to protect it during any development.
- 3.9 T2 a mature multi stemmed Acer, category B, has negligible public amenity as public view points are limited to a glimpses from a private lane approximately 25 meters to the south. This tree is worthy of protection through development.
- 3.10 The client has expressed a wish to retain all trees on site, living in a semi wooded area and being the owner of the larger open park area to the south of the private lane with mature individual specimens.
- 3.11 Shading of site by trees has been shown only for T1, as T2 will cast shade to the north and will not affect the proposed development.



Photograph 1: Showing T1 and adjacent bank to west of tree.



Photograph 2: Showing T2 and adjacent bank towards lodge.



Photograph 3: Showing bank area west of T1 a portion of which is proposed to be cut into.

4 Notes to Arboricultural Impact Assessment, Plan AIA-RHO-18

- 4.1 The proposal is for an extension to the existing property with a widening of the driveway towards T1. The proposal requires the removal a small portion of theoretical root protection area from T1 mature lime tree, amounting to a 3% loss.
- 4.2 The theoretical RPA of T1 is 650m². British Standard 5837 recommends *New permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA*. Accounting for the private lane to the south of T1 as existing surfaced this reduces the RPA to 500m².
- 4.3 The proposed development block covers 22m² (including allowances for roots severed radially away from the tree, as shown on plan AIA-RHO-21).
- 4.4 The loss of 3% RPA from bank excavations to install a new retaining walls is not expected to affect the trees health.
- 4.5 Shading: An indication of potential direct obstruction of sunlight is shown on plan AIA-RHO-21, The trees will not cast shade on to the proposed development.
- 4.6 Both trees have crowns well away from the proposed development. Future growth of trees will not affect the development and is not expected to lead to future pressure for pruning the trees.

5 **Tree protection Plan (TPP) METHOD STATEMENT Order of works**

- 5.1 No tree surgery is required prior to construction.
- 5.2 Construction Exclusion Zone (CEZ) fence to be erected (**RED** line) and temporary Ground Protection (**PURPLE** hatch) installed before plant, machinery and any construction activity commences on site. Per Fig.3 for temporary Ground Protection and drawing TPP-RHO-21.
- 5.3 **Excavate foundations for retaining walls** per TPP METHOD STATEMENT for excavation and construction of garage block.
- 5.4 Once all plant and machinery are off site, temporary ground protection and CEZ fencing and GP is to be removed.

6 **TPP METHOD STATEMENT for excavation of retaining walls**

- 6.1 Excavate bank for construction of retaining with machinery staying out of protected areas and only entering onto footprint of proposed development.
- 6.2 Any roots uncovered during excavation are to be severed with a sharp tool, such as bypass secateurs or saw, as soon as possible, leaving the smallest wound possible, covering the wound with topsoil immediately to prevent desiccation.
- 6.3 The walls of the newly exposed bank are to be lined with heavy duty polythene or other impervious membrane before block work or other wall foundations installed. The reason for this is two fold: 1) Leachate from curing concrete can be toxic to roots and 2) The membrane will present a barrier to root growth preventing or stalling root ingress into the new structure.
- 6.4 The foundations and retaining wall of the new structure is to be constructed from inside the footprint of the proposed structure. To achieve this special techniques may be required, one such solution may be to use proprietary insulated concrete forms (e.g. Nudura ICF), subject to engineering specification.

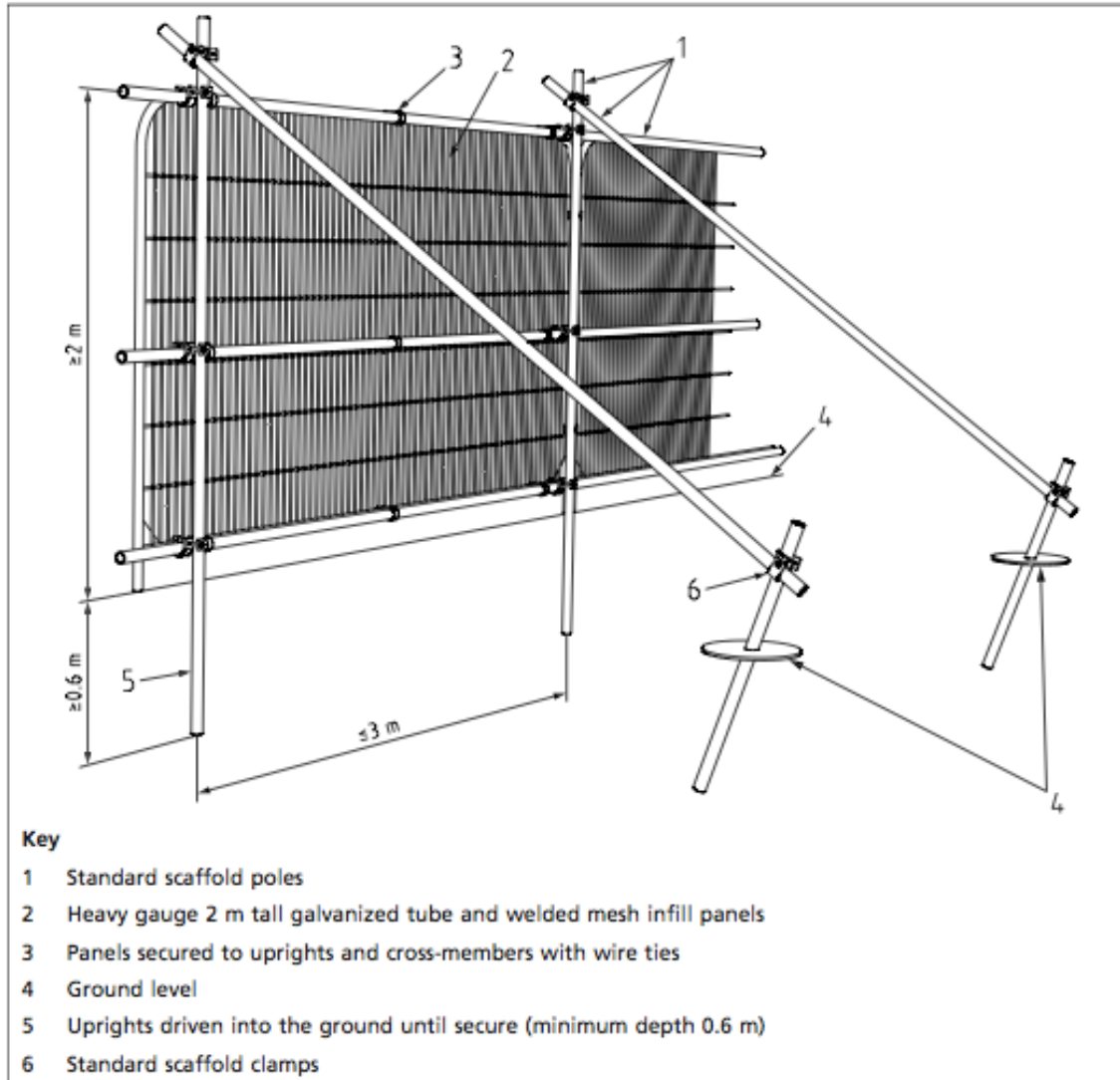
Arboricultural Site Monitoring Visits

These visits ensure protection of the tree through construction, with certificates at each visit, enabling the Local Planning Authority to discharge planning conditions.

Fig 1. Monitoring Visit Schedule

Visit	When	Why	By who
Install CEZ	Upon installation of Construction Exclusion Zone fence and temporary ground protection. Before plant and machinery arrive on site, before any construction activity takes place.	To ensure tree protection measures are adequate and correctly installed.	Competent person must agree plan and RPA measurements to fence and ground position locations.
Roots uncovered	If roots greater than 25mm diameter or in clumps are uncovered during excavation.	To ensure any structural roots of adjacent retained trees are noted if severed, with impact upon retained trees safety.	Contact Project Arboriculturalist Keith McBride 07852 318606. Take photos of roots and cover with damp hessian to prevent desiccation.
Changes to CEZ fence or GP	Should for whatever reason the Construction Exclusion Zone fence need to be repositioned, or the temporary ground protection need to be adjusted.	To ensure tree protection measures are still adequate, correctly installed and new positioning will not harm trees on site.	Project Arboriculturalist
Remove CEZ	After construction completed, when plant and machinery have been removed.	To ensure trees have been correctly protected during construction and no remedial tree works are required.	Competent person. Any concerns to be discussed with Project Arboriculturalist.

Figure 2 Default specification for protective barrier



Construction Exclusion Zone specification. The protective fencing position as shown on drawing **TPP-RHO-21** (Red line) should be placed as shown located on the drawing.

All-weather notices should be attached to the barrier with words such as:
“CONSTRUCTION EXCLUSION ZONE – NO ACCESS”

Fence to be pinned in place so it is not easily moved.

Fig.3 TPP METHOD STATEMENT for temporary Ground Protection (GP)

Set out temporary ground protection for whole area shown on plan TPP-RHO-21.

New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. The ground protection might comprise one of the following:

- 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.

Example of ground protection 'C' for **wheeled or tracked construction traffic**.



Fig 4	Check list to Tree Protection Plan	
1	Site construction access:	From public highway, via existing driveway.
2	The intensity and nature of the construction activity:	Creation of extension to dwelling with removal of bank within RPA.
3	Contractors' car parking:	Existing driveway or on private tarmac lane. NOT on grassed area south of lane as this area contains tree roots from T1 and the other mature trees in the vicinity. Unless written permission is agreed with the Planning Authority.
4	Phasing of construction works:	See Tree protection Plan METHOD STATEMENT Order of works
5	The space needed for foundation excavations and construction works:	Temporary ground protection to provide RPA protection whilst giving space for contractors.
6	The availability of special construction techniques:	Build retaining wall from within footprint of extension.
7	The location and space needed for all temporary and permanent apparatus and service runs, including foul and surface water drains, land drains, soakaways, gas, oil, water, electricity, telephone, television or other communication cables:	All service runs to be located outside of protected areas. Service runs may travel from footprint of extension due west, then may travel within footprint of existing driveway as necessary.
8	All changes in ground level, including the location of retaining walls, steps and making adequate allowance for foundations of such walls and backfillings:	Ground levels within protected areas to be lowered within proposed development.

Fig 4 Check list to Tree Protection Plan		
9	Working space for cranes, plant, scaffolding and access during works:	If cranes or machinery used during construction, care should be taken not to damage adjacent trees. Vehicles to stay away from construction exclusion zones.
10	Space for site huts, temporary toilet facilities (including their drainage) and other temporary structures:	Outside of protected areas. NOT on grassed area south of lane as this area contains tree roots from T1 and the other mature trees in the vicinity. Unless written permission is agreed with the Planning Authority.
11	The type and extent of landscape works which will be needed within the protected areas, and the effects these will have on the root system.	Landscape works (if any) are to be all outside of protected areas, or undertaken by hand after all other construction has been completed on site.
12	Space for storing (whether temporary or long-term) materials, spoil and fuel and the mixing of cement and concrete:	Space for storage or mixing of materials should be located away from the trees and outside of protected areas.
13	The effects of slope on the movement of potentially harmful liquid spillages towards or into protected areas:	Care should be taken with the movement of potentially harmful liquids. Avoid areas to within 10m metres of trees, any spills may drain towards protected trees and can permanently damage them.

Tree No.	Species	Life stage	DBH	RPA (radius m)	N	E	S	W	Height (#m)	1st branch (m)	Physiological	Structural	Condition notes	Remaining contribution	Category
T1	Tilia spp.	Mature	1200	14.40	5	7	5	7	21	3NESW	Good	Fair	Bifurcates at 4m, then both limbs fork again into multiple stems. Good extension growth. Some die back to south. Restricted rooting to south due to tarmac road 2m south of trunk. 1m bank to road. To West 13m of rooting until 1m bank drop to existing drive.	40+	A1
T2	Acer spp.	Mature	666	7.99	4	7	7	8	1	5S	Good	Fair	3 main limbs from base. Tight unions. SW union poor attachment.	20+	B1







KEY for Data Sheets

Tree no.	Corresponds to tree on drawn plan or tree tag number.
Species	Botanical and Common name for tree.
Life stage	Young: Newly planted or grown tree. Semi-Mature: first third of life expectancy. Early-mature: second third of life expectancy. Mature: final third of life expectancy. Over Mature: tree in decline. Veteran: tree with major physiological decline, surviving beyond the typical age range for the species.
DBH	Stem diameter measured at 1.5m above ground level.
RPA (radius)	Root protection area of tree based on DBH, given as the radius of a circle centred on the basal stem of the tree in metres.
N, E, S, W	The distance the trees branches reach from the base of the tree out in the four cardinal directions; North, East, South, West. Known as crown spread. Measured in metres to the nearest half metre. Approximate measurements taken where actual measurement not possible or where crown spread not significant to site / proposal.
Height	Approximate height measured with a clinometer or estimated to the nearest metre.
1st Branch	Existing height above ground level of first significant branch and direction of growth or canopy, to inform ground clearance, crown/stem ratio and shading.
Structural	Good - no significant defects. Fair - minor defects, not significant to structural integrity of the tree. Poor - significant defects present
Physiological	Good - tree has good vitality. Fair - some signs for concern, such as minor die back in crown. Poor - low vitality such as shorter than expected extension growth, smaller than expected leaves.
Condition notes	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations.
Remaining contribution	Estimated remaining contribution, in years (<10, 10+, 20+, 40+)
Category	Category U or A to C grading, to be recorded on the tree survey plan.

TREE CONSTRAINTS PLAN

Drawing No.: TCP-RHO-18
 Drawing by: DTC KM
 Drawing date: 23 Mar 2018
 Site:
 Rhode Hill Lodge
 Rhode Hill
 Uplyme
 DT7 3TY

LEGEND

-  Category A crown spread
-  Category B crown spread
-  Category C crown spread
-  Category U crown spread
- T1** Tree Label
-  Tree Stem
-  Root Protection Area (RPA)



The original of this drawing was produced in colour - a monochrome copy should not be relied upon



SCALE 1:150 @ A3










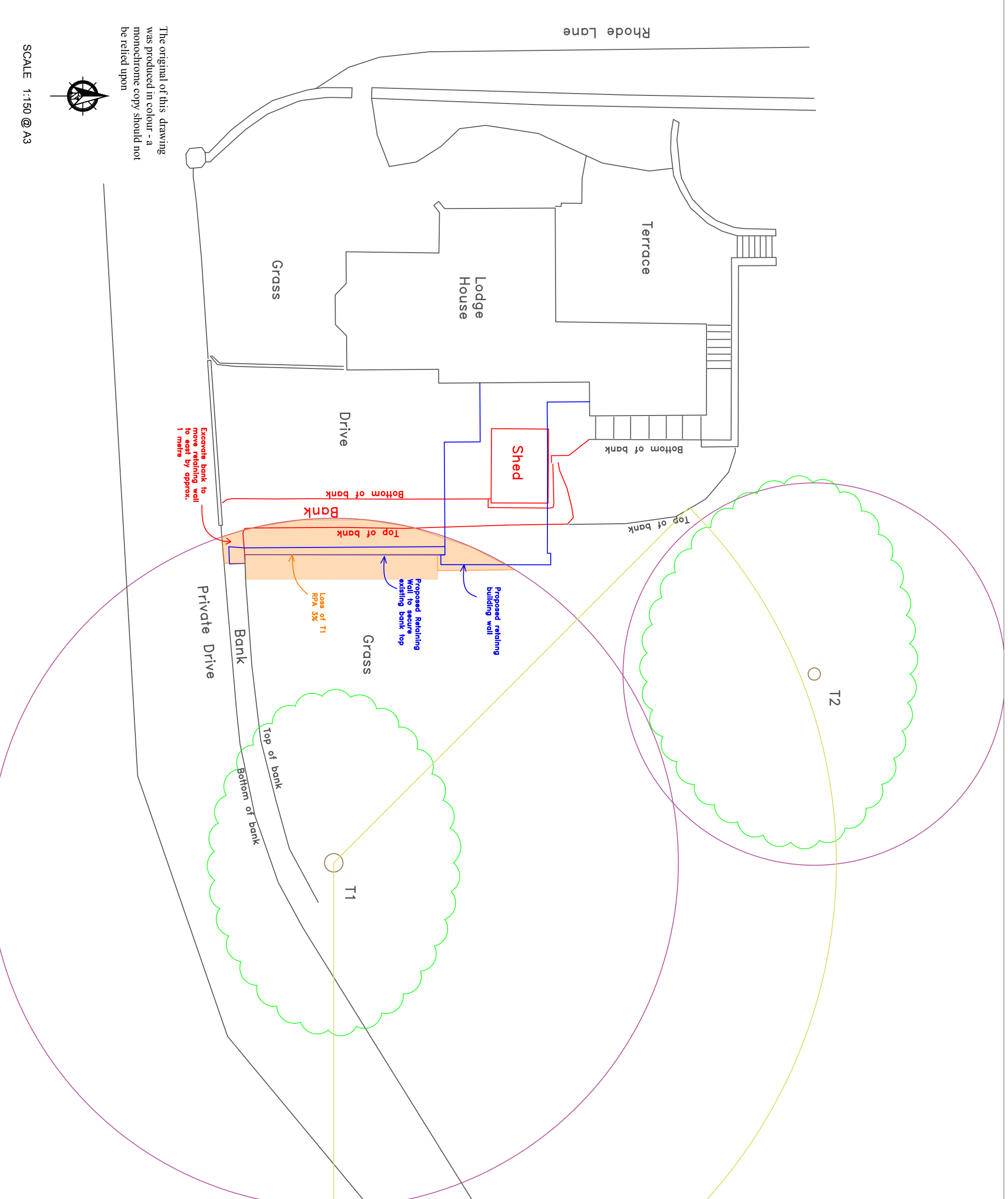
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ARBORICULTURAL IMPACT

ASSESSMENT

Drawing No.: AIA-RHO-21
 Drawing by: DTC KM
 Drawing date: 26 March 2021
 Site:
 Rhode Hill Lodge
 Rhode Hill
 Uplyme
 DT7 3TY

- LEGEND**
-  Tree to be retained
 -  T1 Tree Label
 -  Tree Stem
 -  Root Protection Area (RPA)
 -  Proposed demolition
 -  Proposed development
 -  Indication of potential direct obstruction of sunlight



The original of this drawing was produced in colour - a monochrome copy should not be relied upon











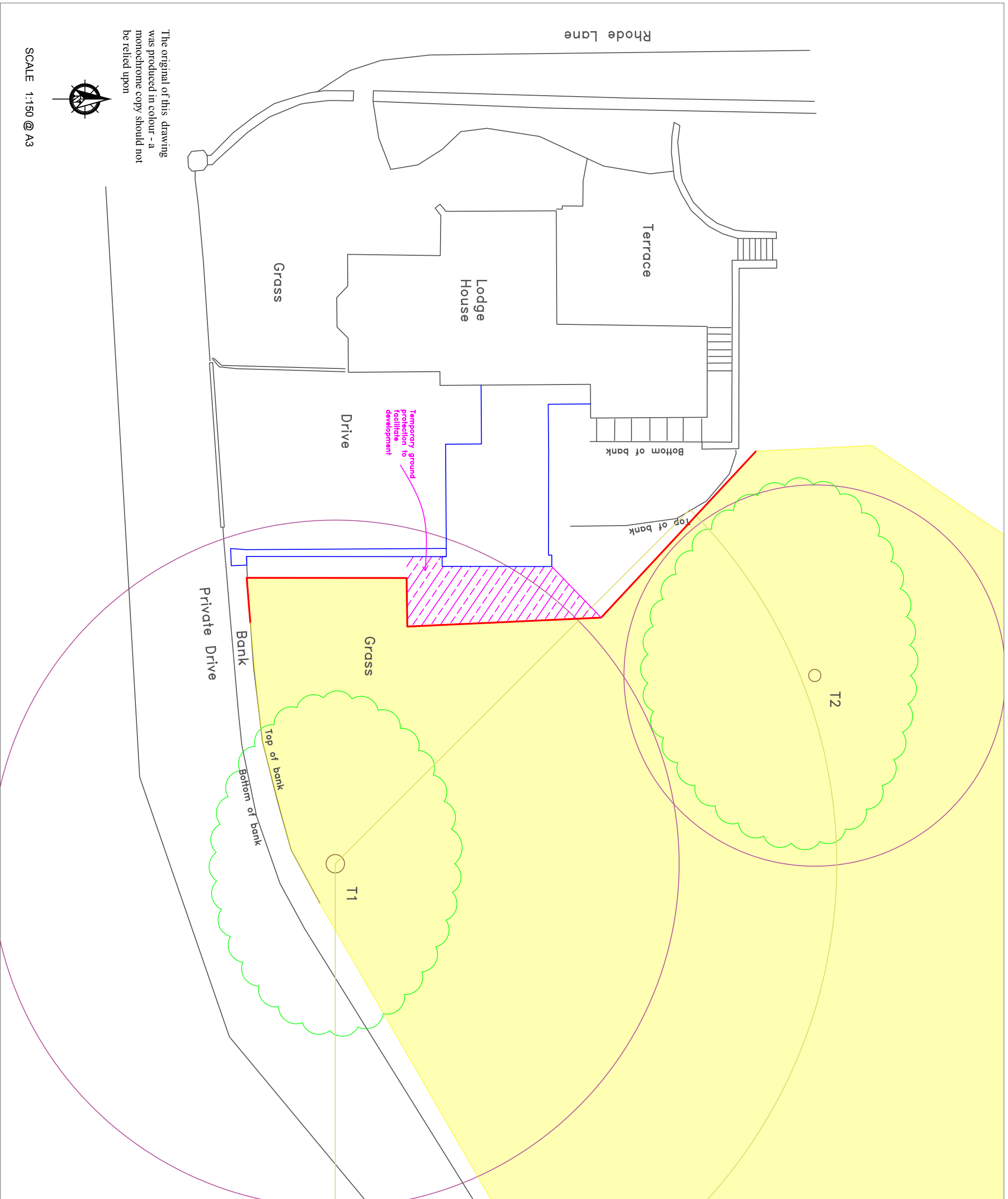
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TREE PROTECTION PLAN
 Drawing No.: TPP-RHO-21
 Drawing by: DTC KM
 Drawing date: 26 Mar 2021
 Site:
 Rhode Hill Lodge
 Rhode Hill
 Uplyme
 DT7 3TY

- LEGEND**
-  Tree to be retained
 -  Tree Label
 -  Tree Stem
 -  Root Protection Area (RPA)
 -  Proposed development
 -  Construction Exclusion Zone (CEZ) fence position
 -  Construction Exclusion Zone (CEZ)
 -  Temporary ground protection area



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SCALE 1:150 @ A3



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