

Development tree report for Mr & Mrs Grimwood

Site Address:

1 Lancaster Avenue,
Guildford,
Surrey,
GU1 3JR

This report is an arboricultural assessment to cover the requirements under B.S.5837:2012 - Trees in relation to design, demolition, and construction.

Prepared By



M
S (Tree) W
Consultancy
Ltd

Prepared by Steve Wood (O.N.D. Arboriculture M.Arbor.A.) for and behalf of SMW (Tree) Consultancy Ltd on 21st November 2023

Summary

A summary of the contents of this report:

- The proposed conservatory development will not require the removal of trees, but some small shrubs may need to be removed. The only possible tree impact is to T1, which has a theoretical impact of 10.65%. However, due to the patio's age and construction (approximately 300mm base), root activity in this zone will be reduced, especially when there is an open grassed area to the east of the tree, where the tree is more likely to find moisture and have less restricted gaseous exchange.
- An AirSpade investigation revealed a root structure at 300mm below the patio level, measuring 55mm in diameter. The foundation line must be excavated by hand and under arboricultural supervision. If roots under 25mm are found, pruning may be done by an arborist, while larger roots must be retained and protected in accordance with this report.
- To protect the trees, light tree protection will be required, consisting of extruded plastic barrier fencing and metal soil pins. Tree protection fencing will consist of standard tree protection fencing (L.T.P.) constructed from extruded plastic fencing, pinned at least every meter using steel pins with sharp edges covered over with plastic caps. No materials must be stored within the area section off by the barriers. Ground protection will utilize the established patio, which is consistent all over the rear garden.

Consultancy
Ltd

FINAL REPORT

Table of Contents

Summary	2
Introduction	5
Copyright and non-disclosure notice	5
Purpose of this arboricultural method statement	5
Relevant references	5
Site overview and description:	6
Survey extent and site description:	6
Site description.....	6
Survey extent	6
Tree protection status.....	7
Tree survey:	8
Scope and limitations of the survey.....	8
General exclusions	8
Survey method:	9
B.S. categories:	9
<i>Category A:</i>	9
<i>Category B:</i>	9
<i>Category C:</i>	9
<i>Category U:</i>	9
Assessed trees:	10
Development proposal:	10
Issues and specifications:	11
Pre-commencement.....	11
Arboricultural implications assessment (AIA):	11
Recommended tree work and management:	12
Tree protection measures:	12
Root protection area (RPA):	12
Protective barriers and root protection areas (RPAs).....	13
Ground protection measures:.....	14
Fires:	14

Guidance for working within RPAs:	14
Removal of existing surfacing and replacement new surfacing:.....	14
Installation of new surfacing:.....	14
Installation of new structure:.....	14
Site storage, cement mixing and washing points:.....	14
Services:.....	15
Tree protection during demolition:	15
Specialist engineered foundations within RPAs:	15
Bridged foundation	15
Access road:	17
Schedule of tree works:	17
Scheduling of works that may affect protected trees:	17
Developer's responsibilities, initial site visit and subsequent procedures for reporting:	17
Tree protection awareness	18
Supervision visits:	19
Removal of protective fencing:	19
Conclusion:	19
Tree survey data	21
Root protection calculations	22
Site photographs	23
Tree Survey Plan – plan reference: SMW/1 Lancaster Ave/TSP/001	24
Tree Protection Plan – Plan Reference: SMW/1 Lancaster Ave/TPP/002	25

FINAL REPORT

Accompanying documents and appendices for this report are as follows:

This report must be read along with the accompanying tree survey plan and tree protection plan,

Tree survey plan [TSP]: SMW/1 Lancaster Ave/TSP/001

Tree protection plan [TPP]: SMW/1 Lancaster Ave/TPP/002

This report also must be read with the following appendices. If you are a customer of SMW (Tree) Consultancy Ltd or a tree officer and have received this report without these additional documents, please contact SMW (Tree) Consultancy Ltd and we will be happy to supply them to you.

APPENDIX 1 - GUIDANCE FOR TREE PROTECTIVE BARRIERS

APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs)

APPENDIX 3 - SPECIAL SURFACE CONSTRUCTIONS UNDER TREE'S RPAS

APPENDIX 4 - KEY

APPENDIX 5 - CASCADE CHART FOR TREE QUALITY ASSESSMENT

APPENDIX 6 - REFERENCES

Introduction

Copyright and non-disclosure notice

The content and layout of reports are subject to the copyright and owned by SMW (Tree) Consultancy Ltd. Save to the extent that copyright has been legally assigned to us by another party or is used by SMW (Tree) Consultancy Ltd under license. Any report may not be copied or used without prior written agreement for any purpose other than those indicated.

Purpose of this arboricultural method statement

This document draws together all the information relevant to tree protection and management on the site. A copy must be given to the site manager before development commences. It must be available on site throughout the development process as a quick reference for the site manager.

This report can be used as submission under TPO legislation for works to a TPO'd tree as an informative document to the tree officer on the intentions of the project and that the client has taken reasonable steps to ensure the protection of the trees within proximity to the permitted development project.

Relevant references

This arboricultural method statement assumes that the minimum general standards for development issues are those set out in British Standards Institution. B.S.5837: 2012: Trees in relation to design, demolition, and construction.

Recommendations and National Joint Utilities Group (1995) Publication Number 10:

Guidelines for the planning, installation, and maintenance of utility services in proximity to trees.

It is based on a ground level tree assessment and examination of external features only – described as the ‘Visual Tree Assessment’ method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).

Site overview and description:

Site address:	1 Lancaster Avenue, Guildford, Surrey, GU1 3JR	Description of development environment:	Detached property of brick construction.
Local authority:	Guildford Borough Council	Council planning reference:	Permitted development application

Survey extent and site description:

Site description

A double storey detached p[roperty of brick construction the property is accessed via a pedestrian gate to the frontage of the property, or via a garage and rear garden gate.

Survey extent

Our survey covered the indicated area in the below satellite mapping image:



Soil type:

An online soil analysis search was conducted, and the findings are that the soil is composed of shallow lime-rich soils over chalk or limestone. This information was sourced from: <http://www.landis.org.uk/soilscapes/>. This should not be used as a definitive determination and other sources should be used I.E. Geological Survey Maps or a full soil analysis, where reactive soils are a high probability.

Tree protection status

On the 21/11/2023, we assessed the local authority's website for information on tree preservation orders and conservation areas. We found that:

The site is covered by TPO: 1991 No.2

No conservation areas were found on the site.

The below screenshot taken from the local authority's website TPO map illustrates our findings and is the basis of the above assessment.

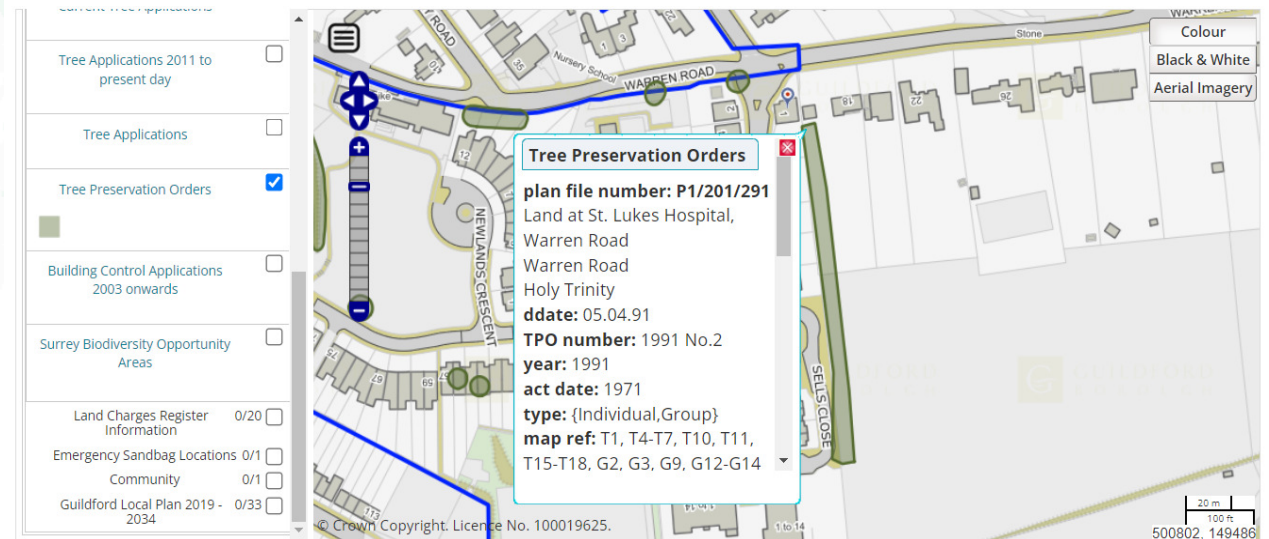
The site may be covered by other tree restrictive orders (such as AONB or green belt), and confirmation in writing should be sought from your local authority of all tree restrictions before proceeding with any works.

About My Area

Search for another property

My Guildford My Maps

Current address: 1 Lancaster Avenue, Guildford, GU1 3JR



Tree Applications 2011 to present day

Tree Applications

Tree Preservation Orders

Building Control Applications 2003 onwards

Surrey Biodiversity Opportunity Areas

Land Charges Register Information 0/20

Emergency Sandbag Locations 0/1

Community 0/1

Guildford Local Plan 2019 - 2034 0/33

Tree Preservation Orders

plan file number: P1/201/291

Land at St. Lukes Hospital,
Warren Road
Warren Road
Holy Trinity

ddate: 05.04.91

TPO number: 1991 No.2

year: 1991

act date: 1971

type: {Individual,Group}

map ref: T1, T4-T7, T10, T11,
T15-T18, G2, G3, G9, G12-G14

Colour
Black & White
Aerial Imagery

© Crown Copyright. Licence No. 100019625. 500802, 149486

FINAL REPORT

Tree survey:

Scope and limitations of the survey

- The survey and this report are concerned with the arboricultural aspects in relation to the proposed permitted development project and should not be interpreted as a health and safety report.
- This survey is restricted to trees within the site, or those outside the site, that may be affected by the proposals. No other trees were inspected.
- It is based on a ground level tree assessment and examination of external features only unless otherwise stated – described as the ‘Visual Tree Assessment’ method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).
- This survey and report are valid for one year from the date stated on the covering page to enable planning submission. If this date has past, then a new survey must be commissioned to ascertain the current conditions on site and their impact on the proposals. Once planning permission has been granted, this report is valid in accordance with the timescales permitted under planning permission guidance.
- Only trees of significant stature were surveyed. In general, trees with a stem diameter at breast height [DBH] of less than 75mm have been excluded unless they have merit that warrants comment.
- No plant tissue samples were taken, and no internal investigation of the trees was carried out.
- The risk of tree-related subsidence to structures has not been assessed.
- We have no knowledge of existing or proposed underground services, unless specifically mentioned within this report.
- The positions of trees have been plotted by GPS using a SXBlue II + GPS which delivers sub-60 cm (2dRMS, 95% confidence) positioning.
- The report is based on present ground levels. During the construction phase, if level alterations are required, then we must be informed of this to allow us to assess whether this will have any effect on the trees’ rooting area.
- This site assessment is based upon the trees on site, or within potential influencing distance at the time of the survey. If there are changes to the site post site survey, then this report will become invalid and a new survey, subsequent drawings and report will be required.

General exclusions

Unless specifically mentioned, the report will only be concerned with above ground inspections. No below ground inspections will be carried out without prior confirmation from the client that such work should be undertaken. This report should not be interpreted as a health and safety assessment, this is a different aspect of inspection requiring a more in-depth inspection regime. This can be undertaken if requested.

The validity, accuracy and findings of this report will be directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. SMW (Tree) Consultancy Ltd will not be responsible for the recommendations made in this report where essential data is not made available or is inaccurate.

This report will remain valid for one year from the date stated on the covering page to enable planning submission but will become invalid if any building works are carried out upon the property, soil levels altered in any way close to the property, or tree work undertaken before permission from your local authority has been given. If alterations to the property or soil levels are carried out, or tree work undertaken, it is strongly recommended that a new tree inspection be carried out.

Survey method:

1. The survey was conducted from ground level with the aid of binoculars (when required).
2. In some cases, groups of trees are discussed collectively where individual identification has been deemed unnecessary.
3. The trees' stem diameter for single trees was measured at 1.5m, for trees with up to 5 stems, all were measured, and the mean diameter determined; over 5 stems the mean diameter was used.
4. The circle representing the RPA can be adjusted to provide a more accurate representation of the likely root development area when taking into consideration any physical obstructions (roads etc.), topography and drainage, and soil type.
5. The height of each tree was estimated visually or, where possible, by using a Clinometer.
6. The crown radii were laser measured (where possible) and are given for each main compass point: north, east, south, and west.
7. The lowest branch was also recorded, and its compass direction noted.
8. The dimensions of trees within groups are given as an average figure unless otherwise stated.
9. Where access to trees was obstructed or obscured measurements/dimensions have been estimated, this will be documented in the tree survey data section of this report.

B.S. categories:

Each tree has been assessed in terms of its arboricultural, landscape and conservation values in accordance with BS 5837:2012 and placed within one of the four following categories:

Category A:

Trees of high quality and value: in such a condition to make a substantial contribution to the site's aesthetics (a minimum of 40 years is suggested). Rare or unusual trees and exceptionally good examples of the species.

Category B:

Trees of moderate quality and value: those in such a condition as to make a significant contribution, but may have slight defects or imperfections, poor quality past surgery techniques which could lead to future complications. (A minimum of 20 years is suggested).

Category C:

Trees of low quality and value which might remain for a minimum of 10 years, individually or collectively do not offer enhancement to the site's aesthetic value, or young trees with stems of less than 150mm diameter.

Category U:

Trees in such a condition having serious defects, immanent loss due to potential collapse, fungal activity which could significantly reduce its life expectancy, or of very low quality.

Whilst the assessment of a tree's condition is a subjective process, Table 1 of BS 5837:2012 (see APPENDIX 5 - CASCADE CHART FOR TREE QUALITY ASSESSMENT document), this gives clear guidance on the appropriate criteria for categorising trees and the factors that would assist the Arboriculturist in determining the suitability of a tree for retention.

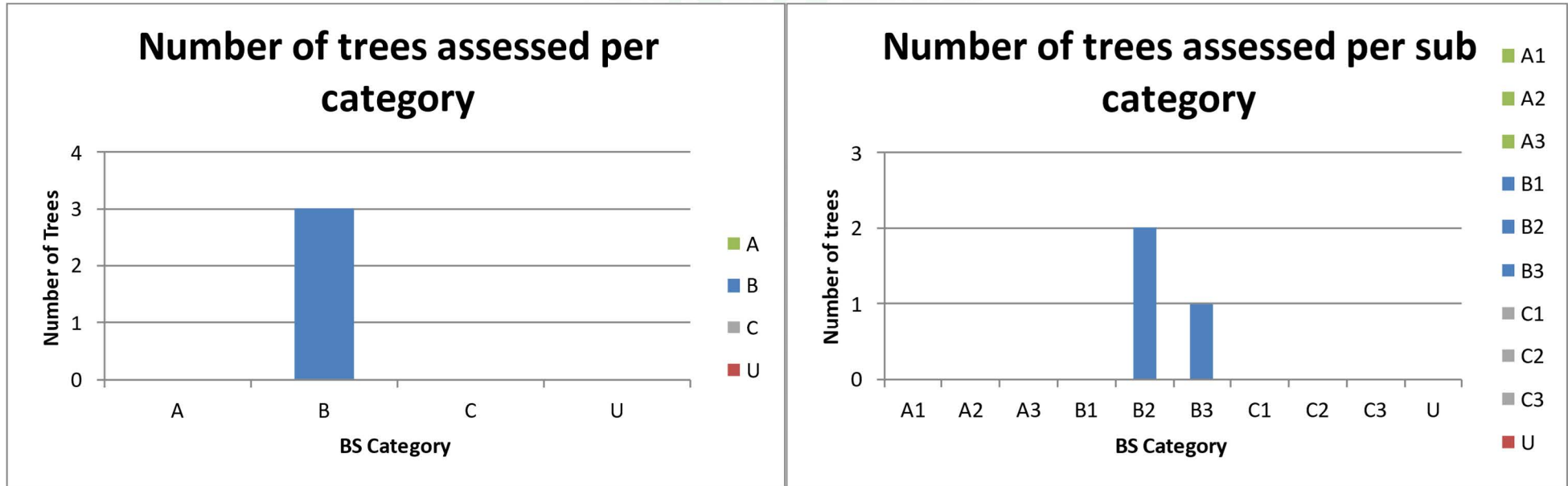
Assessed trees:

A total of 3 trees have been included in the report as being considered to within potential influencing distance to the proposed alterations. There are other trees which we consider outside of any possible influence towards the proposed permitted development project.

3 category B trees were identified, none have high individual merit, but may benefit the general landscape.

No Category A, C or U trees were assessed on site.

BAR CHART SHOWING NUMBER OF TREES SURVEYED WITHIN EACH BRITISH STANDARD ASSIGNED CATEGORY.



Development proposal:

The proposal is to construct a conservatory measuring 3.4m wide and extend from the property by 3m.

Please see the architectural drawings for more details on the proposed alterations.

At this stage no information has been provided as to the positioning of any new services required for the proposals, it is presumed these will be positioned clear of any tree root protection areas. SMW (Tree) Consultancy Ltd must be consulted when the positions of these have been finalised and a method statement produced if the services are required to enter the surveyed trees' RPA.

The shading factor has been taken into consideration as to the affect this will have on the development proposal and clearly indicated on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002.

There will be slight early morning shading from the surveyed trees on the proposed conservatory but this unlikely to cause pressure to prune as the impact is minimal.

Issues and specifications:

Pre-commencement

Site meeting: A pre-commencement meeting should be held on site before any of the demolition or construction work starts. This must be attended by the site manager/agent, the arboricultural consultant **All tree protection measures detailed in this document must be fully discussed so that all aspects of their implementation and sequencing are understood by all the parties.**

Arboricultural implications assessment (AIA):

The primary criterion, in arboricultural terms, is the retention of as many appropriate trees as is practicable. Quite apart from the requirement to retain some of the existing character, the presence of trees is generally accepted as being beneficial to the environment. The following is an assessment of the effects of the proposed development on existing trees and the future landscape. Full details of recommended works are provided within the tree survey data schedule. There are some areas where there will be some slight detrimental impact on the retained trees, this has been taken into consideration and the following mitigation solutions made.

Where temporary access is necessary within the RPA ground protection has been shown on the Tree Protection Plan as a shaded area. This will be covered with anti-compaction surface as detailed in the **GROUND PROTECTION MEASURES SECTION OF THIS REPORT** and in APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) document.

The storage of materials clear of any trees RPAs is of high importance, a suggested location for this facility has been shown on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002.

A topographical survey has not been provided.

Our visual assessment is that the site has a level aspect with no level alterations required to achieve the proposed development.

The only possible tree impact is to T1, to which the proposed conservatory has a theoretical impact of 10.65%. However due to the established nature of the patio in both its age (circa 20 years) and its construction (approx. 300mm base), root activity in this zone will be reduced, especially when there is open grassed area to the east of the tree, where the tree is more likely to find moisture and have less restricted gaseous exchange.

An AirSpade investigation was implemented approx. 0.5m from the proposed foundations of the conservatory and approx. 1m from T1. This revealed a root structure at approx. 300mm below the level of the patio. At this point, the root towards the proposed conservatory foundation measures 55mm in diameter. We believe that at the point of the foundation, this root will be of a size which will either: a) be able to be professionally pruned by an arborist (below 25mm), or b) will be able to be bridged using a specialist foundation. An example of which can be found in the [Specialist engineered foundations within RPAs section](#) of this report.

The below pictures are photographic evidence taken at the time of the AirSpade investigation of the root mentioned above.



T2 and T3's RPAs are located outside of the proposed conservatory's foundation and thus are not impacted.

Recommended tree work and management:

Some minor trees below 75mm in stem diameter and shrubs were on the site but not assessed. These may need to be removed, none of which should have any detrimental effect on the general landscape.

All other trees are to be retained and do not require any remedial works to facilitate the permitted development proposal.

Tree protection measures:

Root protection area (RPA):

B.S. 5837:2012 provides guidance within section 4.6 for the calculation of root protection areas [RPAs] of those trees to be retained. The RPA is the recommended area in square metres that should be left undisturbed around each tree to ensure that excessive damage to its roots or rooting environment is avoided.

In the case of open grown trees with an even, radial root distribution it would be normal for the boundaries of the RPA to be equidistant from the trunk of the tree. However, B.S. 5837:2012 acknowledges that the disposition of tree roots can be significantly affected by several factors and that the actual position of the RPA will be influenced by specific tree and site factors. These factors are to be assessed by the Arboriculturist and appropriate adjustments to the sighting of the RPA made.

B.S. 5837:2012 requires that the RPA of all retained trees are protected from the effects of development by the installation of protective barriers.

It should be noted however, that the position of these barriers may also be influenced by the presence of any tree canopies that extend beyond the RPA and that could be damaged by construction works or where it is desirable to protect areas for future tree planting. Until this is completed no machinery should be allowed into this area.

The protective barriers demarcate the 'Construction Exclusion Zone' [CEZ] and must be installed prior to the commencement of any construction works, including clearance or demolition. All weather notices must be erected on the barriers. These can be found within the attached appendices titled as "Tree protection signs for fencing." Protective barriers must be in accordance with Figure 2 of B.S. 5837:2012. Under no circumstances should any work be conducted within this area without prior approval of the Arboricultural Consultant or Local Authority Tree Officer.

All tree protection measures must be retained in the position indicated on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002, unless their position is superseded by agreement at the pre-start meeting with the Arboricultural consultant and the constructor.

The position of protective barriers and the boundary of the CEZ are shown as a solid blue line in [TPP]: SMW/1 Lancaster Ave/TPP/002.

Due to the proximity to some of the trees to the construction area and desire to retain them, the protective barriers have not been shown not as per the standards guidelines; due to the established nature of the patio and the boundary fence bifurcating the tree from the conservatory construction area. Only light tree protection, in the form of extruded plastic barrier fencing and metal soil pins, will be required for this project. This will be placed over the vegetation/shrub beds area to an area 5.5m from the existing property's south-east corner.

When demolition is required to permit the development to be conducted, under no circumstances will this be carried out prior to erection or within any protective barriers, by machinery unless fully supervised and with prior approval.

When the use of machinery is unavoidable then this must be on an anti-compact surface adequate to support the weight, such as steel, rubber, or wooden sheeting pinned into the ground and fixed together, or Aluminium tracking.

Protective barriers and root protection areas (RPAs)

Illustrative guidance for four methods of protective barriers based on advice in BS 5837 2012 is included in APPENDIX 1 - GUIDANCE FOR TREE PROTECTIVE BARRIERS document. The location of the barriers, type and RPA is illustrated on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002 as set out on the plan key, as a blue line. The precise location of the barriers must be agreed with the council on site before any development activity starts. Measurements for the protective fencing can be found by using a scale rule on the TPP at the appropriate drawing scale. Prior to erecting the fencing, the measurements must be confirmed with the arboricultural supervisor. They are further identified in text as P.B. Protective Barriers.

For this project: Tree protection fencing will consist of standard tree protection fencing (L.T.P.) constructed from extruded plastic fencing (often orange in colour), which will be pinned at least every metre using steel pins (rebar is often used) with the sharp edges covered over with plastic caps. The fencing must not be moved under any circumstances without prior approval from the Arboricultural consultant and the Tree officer. No materials must be stored within the

area section off by the barriers. The boundary fence will act as tree protection fencing measures along with the extruded plastic barrier fencing. This has been shown as a thin blue line on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002.

Ground protection measures:

The ground protection measures have been illustrated on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002 as set out on the plan key, as an orange shaded area.

For this project: Ground protection will utilise the established and substantial patio which is consistent all over the rear garden (with planted areas).

Fires:

The burning of materials is prohibited, and no fires shall take place on site, with no exceptions.

Guidance for working within RPAs:

Removal of existing surfacing and replacement new surfacing:

Trees which have existing surfacing and structures to be removed and replaced within their RPA's and may be adversely affected by this activity. Any work within a tree's root protection area must be done with care as set out in APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs). Any adverse impact must be minimised by following the general guidance set out in APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs). Any works must be carried out without the use of machinery and by hand tools unless under Arboricultural supervision and on anti-compaction surfaces.

Installation of new surfacing:

It is proposed that the existing patio will be re-laid once the conservatory has been constructed.

Installation of new structure:

The building of any new structures (such as retaining walls) required close to the RPAs may adversely impact the trees. Any adverse impact must be minimised by following the general guidance set out in APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) document.

SMW (Tree) Consultancy Ltd are not aware of any changes to any retaining sleepers or retaining walls, if these are proposed then SMW (Tree) Consultancy Ltd must be made aware of these, so that a method statement can be produced for their construction.

Site storage, cement mixing and washing points:

All site storage areas, cement mixing and washing points for equipment and vehicles must be outside RPAs unless otherwise agreed with the council. Where there is a risk of polluted water run-off into RPAs, heavy-duty plastic sheeting and sandbags must be used to contain spillages and prevent contamination. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there are multiple tanks, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges, and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land, or underground strata. Associated pipework shall be located

above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund. A suitable location for this facility has been shown on the plans Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002.

Services:

There is a drainage cover to the east of the proposed conservatory. We have no knowledge of any other existing or proposed services for the site. If services need to be installed within RPAs, great care must be taken to minimise any disturbance. Trenchless installation should be the preferred option but if that is not feasible, any excavation must be conducted by hand according to the guidelines in APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) document. If services do need to be installed within RPAs, written approval must be obtained from the council before any works are conducted. Where there is a requirement to have pedestrian access through trees RPA's it would be advisable to place a temporary anti compaction surface such as a 100mm layer of wood chip (or similar) over this route.

Tree protection during demolition:

No site work of any nature will be conducted until the protective fencing has been constructed and approved by the Tree Officer. Where this must be conducted within the RPA this should be conducted by hand tools of if not practical under full Arboricultural supervision and machinery on anti-compaction surfaces.

Specialist engineered foundations within RPAs:

The foundation line of the proposed conservatory must be excavated by hand and under arboricultural supervision.

If roots under 25mm are found, these may be pruned by a suitably qualified arboriculturist, providing they do not form a cluster.

If roots larger than 25mm are found, these must be retained.

We propose that the following techniques are used to construct the foundation around these root structures.

Bridged foundation

Roots must be wrapped in damp hessian and encased in a split plastic pipe 30mm larger than the root and taped up to prevent concrete contact.

When pouring the concrete care must be taken to prevent concrete contact on the roots. The finished surface of the concrete will be no less than 150mm lower than the lowest root found, and the block structure is constructed around these roots, giving a clearance of 150mm, with a lintel covering the upper surface.

The construction of this MUST be carried out in accordance with APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) and will be supervised by an Arboricultural Consultant to advise on if roots are found.

As this foundation design is outside the guidance of this report it is essential that this is conducted by a competent structural engineer who is versed in this field and consultation will be made with the Arboricultural consultant if any issues are raised. Once this has been finalised this can then be submitted with this report or later to seek planning approval.

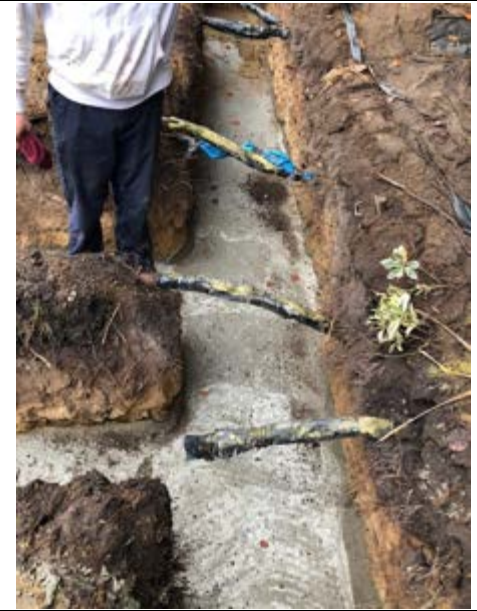
Below are a selection of photographs showing this process on a previous project:



Large roots discovered.



Roots wrapped in hessian and non permeable membrane.



Concrete poured up to 150mm from roots.



Block work built up around roots giving sufficient clearance.



Concrete lintel placed over root with necessary clearance.

Access road:

No alterations are proposed to the present entrance drive, of which we are aware. If this changes then the appointed arboricultural supervisor must be informed so the proposals can be evaluated and submitted to the Tree Officer for consideration and hopeful approval.

Schedule of tree works:

A schedule of recommended tree works is in the tree survey data schedule. All trees are shown on the plan with a reference letter T for trees, proceeded by a number. All work should be conducted to the recognised standard B.S.3998:2010 as a minimum.

Scheduling of works that may affect protected trees:

In general terms, no construction, excavation, or other site operations will commence until tree protection measures are in place and have been agreed in writing as acceptable by the Local Authorities Tree Officer.

Confirmation should be sought from the relevant Local Authority if there are any restrictive orders affecting the trees on the site, and if so, the appropriate consent gained, to which this report can be used for the application.

Developer's responsibilities, initial site visit and subsequent procedures for reporting:

It is the developer's responsibility to ensure that the details of this arboricultural method statement are known and understood by all site personnel. A copy must always be kept on site and the site manager must brief all personnel who could have an impact on trees on the specific tree protection requirements. This must be a part of the site induction procedures and written into appropriate site management documents. The developer must instruct an arboricultural consultant to comply with the supervision requirements set out in this document before any work begins on site. More specifically, the following guidance must be observed: -

Tree protection awareness

The constructor must display tree protection signs on all protective barriers for the whole construction period. The signs to be used are contained within the appendix's documentation called "tree protection signs for fencing."

The site manager shall be responsible for checking that the tree protection fencing and ground protection has not been moved, is not loose, dilapidated or disintegrated, as part of their daily site opening checks. All site workers shall be informed of the tree protection fencing and ground protection procedures, construction, and locations. They must be made aware that they must not move, adjust, or remove the tree protection/ground protection without consulting SMW (Tree) Consultancy Ltd. Reasonable explanation as to why the tree protection must be moved must be given, and the tree protection's revised position must be documented on a drawing produced by SMW (Tree) Consultancy Ltd and submitted to the local authority for their approval. All tree protection must be maintained daily ensuring that all bolts, connectors, poles, fencing panels, wooden boards, sand, woodchip, Terram membranes and TrakMats (where applicable) remain in the correct positions and are maintained. No materials shall be stored within, or on, any tree protection fencing or ground protection. No shall any washing/mixing or fires be located within 1.5m of any tree protection measures.

The below table shall be signed by all persons that enter the site to confirm they understand the tree protection awareness statement and that they shall conform to the expected standards required of all site personnel and their responsibility to ensure the protection of all trees and shrubs on the site. It is the site manager's responsibility to ensure that all persons entering the site sign the below table and understand the responsibilities entrusted upon them.

Name	Company	Date	Signature

Supervision visits:

To ensure that the tree protection is installed correctly, and ensure that it is maintained, photographs shall be taken of the tree protection set up, as well as periodic photographs of the construction to show that the tree protection measures have been retained and all aspects of the construction has been undertaken with the trees in mind.

An arboricultural consultant must be in attendance when the excavations commence for the proposed conservatory's foundations and whilst the foundations are being constructed.

Removal of protective fencing:

When **ALL** the construction processes are completed which includes any drainage and landscaping works, the fencing can be removed, and this should be conducted without any machinery entering the previously protected areas and with consideration for the tree's protection. This should ideally be conducted under Arboricultural supervision.

Conclusion:

1. The proposal is to construct a conservatory measuring 3.4m wide and extend from the property by 3m.
2. Please see the architectural drawings for more details on the proposed alterations.
3. To allow this development to proceed, no trees will need to be removed, however some small shrubs may need to be removed.
4. The only possible tree impact is to T1, to which the proposed conservatory has a theoretical impact of 10.65%. However due to the established nature of the patio in both its age (circa 20 years) and its construction (approx. 300mm base), root activity in this zone will be reduced, especially when there is open grassed area to the east of the tree, where the tree is more likely to find moisture and have less restricted gaseous exchange.
5. An AirSpade investigation was implemented approx. 0.5m from the proposed foundations of the conservatory and approx. 1m from T1. This revealed a root structure at approx. 300mm below the level of the patio. At this point, the root towards the proposed conservatory foundation measures 55mm in diameter. We believe that at the point of the foundation, this root will be of a size which will either: a) be able to be professionally pruned by an arborist (below 25mm), or b) will be able to be bridged using a specialist foundation. An example of which can be found in the [Specialist engineered foundations within RPAs section](#) of this report.
6. The foundation line of the proposed conservatory must be excavated by hand and under arboricultural supervision.
7. If roots under 25mm are found, these may be pruned by a suitably qualified arboriculturist, providing they do not form a cluster.
8. If roots larger than 25mm are found, these must be retained.
9. We propose that the following techniques are used to construct the foundation around these root structures.
10. Roots must be wrapped in damp hessian and encased in a split plastic pipe 30mm larger than the root and taped up to prevent concrete contact.

11. When pouring the concrete care must be taken to prevent concrete contact on the roots. The finished surface of the concrete will be no less than 150mm lower than the lowest root found, and the block structure is constructed around these roots, giving a clearance of 150mm, with a lintel covering the upper surface.
The construction of this MUST be carried out in accordance with APPENDIX 2 - SITE GUIDANCE FOR WORKING IN ROOT PROTECTION AREAS (RPAs) and will be supervised by an Arboricultural Consultant to advise on if roots are found.
12. Due to the proximity to some of the trees to the construction area and desire to retain them, the protective barriers have not been shown not as per the standards guidelines; due to the established nature of the patio and the boundary fence bifurcating the tree from the conservatory construction area. Only light tree protection, in the form of extruded plastic barrier fencing and metal soil pins, will be required for this project. This will be placed over the vegetation/shrub beds area to an area 5.5m from the existing property's south-east corner.
13. Tree protection fencing will consist of standard tree protection fencing (L.T.P.) constructed from extruded plastic fencing (often orange in colour), which will be pinned at least every metre using steel pins (rebar is often used) with the sharp edges covered over with plastic caps. The fencing must not be moved under any circumstances without prior approval from the Arboricultural consultant and the Tree officer. No materials must be stored within the area section off by the barriers. The boundary fence will act as tree protection fencing measures along with the extruded plastic barrier fencing. This has been shown as a thin blue line on the Tree Protection Plan [TPP]: SMW/1 Lancaster Ave/TPP/002.
14. Ground protection will utilise the established and substantial patio which is consistent all over the rear garden (with planted areas).

Consultancy
Ltd

FINAL REPORT

Tree survey data

Tree ID	In Conservation Area/TPO	Species & Maturity	Likely Bat Habitat	Measurements estimated	Height (m)	Height and direction of first significant branch (m)	Number of Stems	Stem 1 (mm) or average diameter for trees with more than 5 stems	Crown Spread (m)				Crown height (average)	Crown, Stem, Basal Area	B.S. Category	Life Expectancy	Physical Condition	Build Stage	Recommended action	Date	Comment
									N	E	S	W									
T1	Yes	Species: Common Horse Chestnut Latin: Aesculus hippocastanum Maturity: Mature	Unknown	Yes	10.4	2n	1	450	4	6	5	2	4	Crown-Fair, Stem-Fair, Basal Area-Fair	B3	10 to 20 yrs.	Fair	Pre-construction	Recommended action: No action	17.11.23	Located in the neighbouring property to the east, 1.66m from the south-east corner of the client's property and on the boundary fence line. Tree is twin stemmed at 2m into a heavily reduced crown with less than 1m of regrowth. Tree has early stages of Pseudomonas infection. Foundation line of the conservatory will be approximately 1.8m from the tree.
T2	Yes	Species: Common Holly Latin: Ilex aquifolium Maturity: Mature	Unknown	Yes	7	1.5e	1	250	3	3	2	3	3	Crown-Good, Stem-Fair, Basal Area-Fair	B2	10 to 20 yrs.	Fair	Pre-construction	Recommended action: No action	17.11.23	Tree located in neighbouring property to the east rear garden and 0.5m from the boundary fence line. Tree is located 5m along the fence line from the south-east corner of the property and from this point 4.3m from T1.
T3	Yes	Species: European Larch Latin: Larix decidua Maturity: Early Mature	Unknown	Yes	8.5	4.5w	1	350	4	3	6	5	4	Crown-Fair, Stem-Fair, Basal Area-Fair	B2	20 to 40 yrs.	Fair	Pre-construction	Recommended action: No action	17.11.23	Tree is in the rear garden of the neighboring property to the east and is 1.6m to the south of T2.

Root protection calculations

Tree number	No. of stems	Stem 1 (or mean diameter for >5 stems)	RPA for 1 stem (m2)	Radius (m)
T1	1	450	92	5.40
T2	1	250	28	3.00
T3	1	350	55	4.20

S (Tree) W
Consultancy
Ltd

FINAL REPORT

Site photographs



Surveyed trees located in neighboring property to the east.



Drainage cover located close to existing property and surrounded by raised vegetation bed.



Area of proposed conservatory.



T1 Tree identifier
B3 British standard Tree category
 Category 'B' Tree Canopy shown
 N E S W



SMW (Surrey & Merton) Tree Consultants
 SMW (Tree) Consultancy Ltd
 T: 01252 58146 M: 07411 113191
 E: info@smwtree.com
 1 Orchard Close, Rushmore, Guildford, Surrey, GU1 7NS

Project
Proposed conservatory at 1 Lancaster Avenue

Client
Mr & Mrs Grimwood
 1 Lancaster Avenue,
 Guildford,
 Surrey,
 GU1 3JR

Drawing
Tree Protection Plan (TPP)

Scale
1:200@A3

Drawn by
SMW

Date
21/11/2023

Drawing No.
SMW/1 Lancaster Ave/TPP/002

This drawing and design is copyright and must not be reproduced in part or in whole without prior written consent. Contractors must verify all dimensions on site before commencing work or preparing site drawings.

1

Existing patio

T1
B3

T2
B2

T3
B2

Existing vegetation

SCALE BAR 1:100





Proposed conservatory

T1 Tree identifier

B3 British standard Tree category

Category 'B' Tree Canopy shown N E S W

Root Protection area (RPA)

Daylight shadow

Protective Barrier P.B.
Light tree protection L.T.P.
Tree protection will utilise existing fence line for tree protection measures with secondary extruded plastic barrier fencing pinned into the ground using steel pins along the vegetation/strub bed.

Ground protection will utilise existing substantially constructed patio.



Tree Wood - Tree Consultancy
SMW (Tree) Consultancy Ltd
11-13 The Old Rectory
11-13 The Old Rectory
3 Orchard Close, Backwater,
Cambridge, Surrey, GU27 9EY

Proposed conservatory at
1 Lancaster Avenue

Client
Mr & Mrs Grimwood
1 Lancaster Avenue,
Guildford,
Surrey,
GU1 3JR

Tree Protection Plan (TPP)

Scale

1:200@A3

Drawn by

SMW

Date

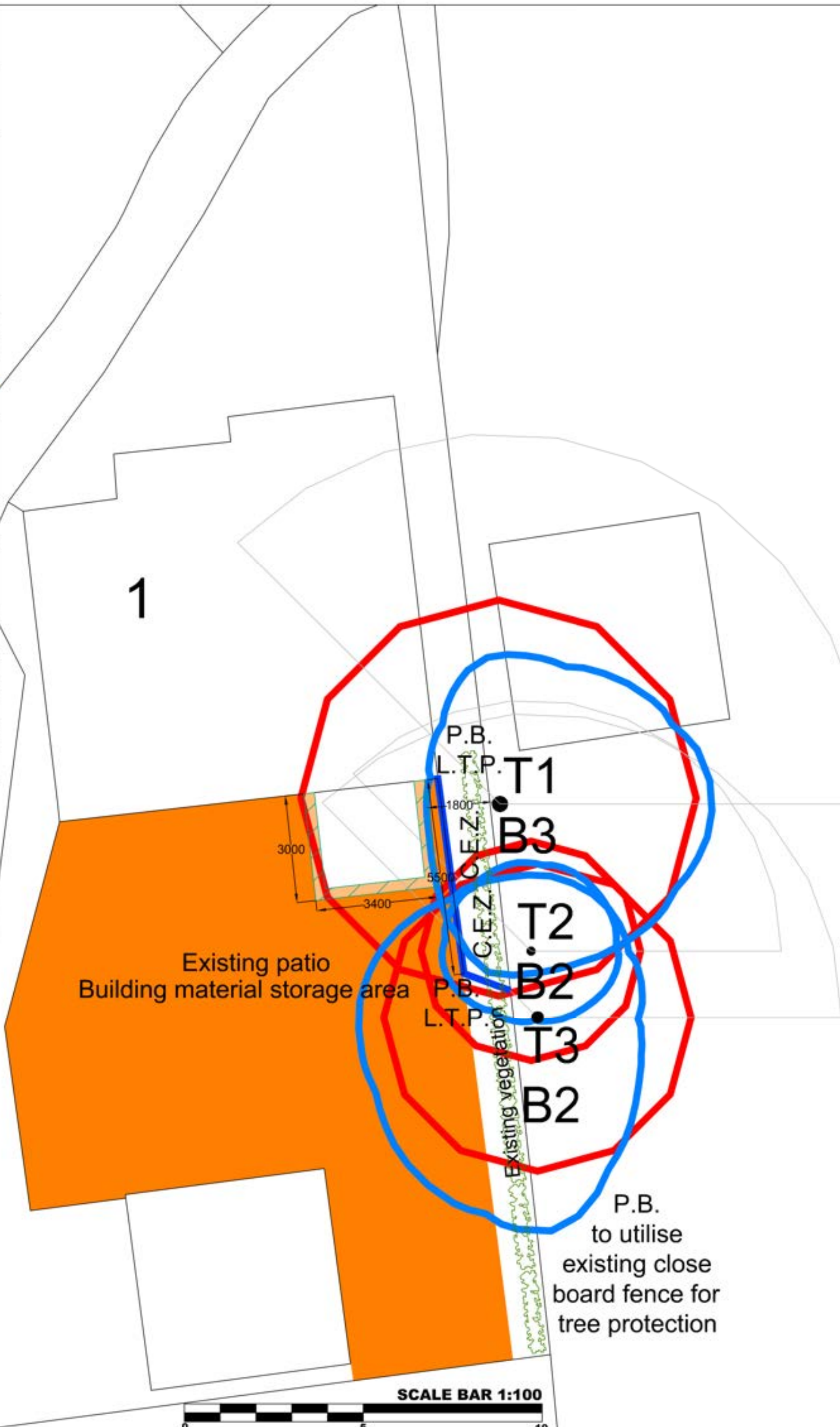
21/11/2023

Drawing No.

SMW/1 Lancaster Ave/TPP/002

This drawing and design is copyright and must not be reproduced in part or in whole without prior written consent. Contractors must verify all dimensions on site before commencing work or preparing site drawings.

1



Existing patio
Building material storage area

P.B.

L.T.P.

T1

B3

C.E.Z.

C.E.Z.

T2

B2

T3

B2

P.B.

L.T.P.

Existing vegetation

Existing vegetation

P.B.
to utilise
existing close
board fence for
tree protection

SCALE BAR 1:100

