

Arboricultural Report

Client: Ingrid Kitzing

Site: 31 Lambolle Road, London NW3 4HS

*Survey undertaken: Trees in relation to design, demolition and construction –
Recommendations.*

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4th November 2022

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1. Background:

This report is to be read in conjunction to the tree survey attached, which has been undertaken to identify any trees within or affected by the proposed development at the site address that should be removed or retained and therefore protected during the proposed development. This report will outline tree categorization methodology with reference to BS 5837:2012. The proposed site is within a conservation area. The local authority is the London Borough of Camden.

2. Clients Brief:

- To undertake a tree survey within the rear gardens of affected properties. To scale plan supplied by Shackadelic Ltd.
- To provide an Arboricultural report identifying the trees to be retained, removed or worked on within the proposed development and outline and evaluate the constraints posed by the trees retained on site via:
- Root Protection Area (RPA) – Layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of a tree, shown in plan form.
- Construction Exclusion Zone – Area based on the RPA, identified by an arboriculturalist, to be protected during development, including demolition and construction work, by the use of barriers and or ground protection, fit for purpose to ensure the successful long term retention of a tree.
- Tree Protection Plan (TPP) – Scale drawing prepared by an arboriculturalist showing the finalized layout proposals, tree retention and tree landscape protection measures detailed within the arboricultural method statement (AMS), shown in plan form.
- Arboricultural Implications Assessment – Study undertaken by an arboriculturalist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.
- Arboricultural method statement (AMS) – Methodology for the implementation of any aspect of development that has the potential to result in loss or damage to a tree. N.B. The AMS is likely to include details of an on site tree protection monitoring regime, construction traffic management plan in relation to trees and a tree pruning schedule.

3. Scope:

The survey has been conducted in accordance with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations.

4. Site Observations:

31 Lambolle Road is an end of terrace property with a small front garden and driveway offset from the house with space for one vehicle. The front garden is terraced on levels from lower ground floor to ground level. A tulip tree grows on the upper level. Access to the rear garden is through the house. The relatively large rear garden is southwest facing. It consists of lawn with mature planting beds on the left and right hand boundary. Some fruit trees and ornamental trees grow near the house. There are some mature trees in the neighbouring garden of number 29. On the rear boundary there is a small shed and two semi mature trees one of which has been pruned recently. The east boundary of the rear garden is comprised of the rear elevations of properties on Lambolle Place, The west boundary is a timber fence with ivy growing throughout. The rear boundary is double tier brick wall. The soil profile is London clay. The weather at the time of survey was clear with no wind.

5. The Proposed Development:

The proposed project is an installation of a garden room at the rear end of garden in the southwest corner of site. The garden room would enhance the end of the garden in terms of interior useable space for children and adults alongside designated external storage areas in between the proposed building and existing boundary walls and fence. The garden room has been granted planning for the proposed height of 3m. Please refer to the architect's plans and drawings for detailed dimensions and descriptions.

Below: Table 1 – Cascade chart for tree quality assessment

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those 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	<ul style="list-style-type: none">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)Trees that are dead or are showing signs of significant, immediate, and irreversible overall declineTrees 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 <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	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 for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	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	Trees with material conservation or other cultural value	See Table 2
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	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	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	Trees with no material conservation or other cultural value	See Table 2

6. (i) Construction Exclusion zones (CEZ's): *_Guidance only*

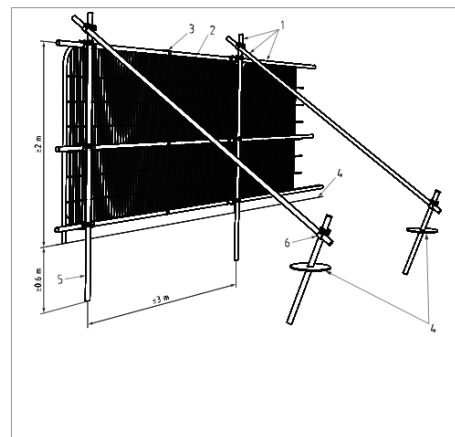
Barriers and/or ground protection should protect trees that are being retained on site before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers may be erected to create a construction exclusion zone. However in the case of this site the garden boundary fences will act as construction exclusion fences confining all construction activity to no.31.

Barriers will not be applicable in excluding construction activity taking place around the retained trees due to their position in neighbouring gardens.

The mixing and storage of materials is prohibited within the construction exclusion zones, contractors and machinery are also prohibited within CEZ's to mitigate soil compaction. This should be communicated via the project manger at commencement of each stage of the development.

Fig.1 BS 5837:2012:

Example of typical tree protection fencing used to demarcate the calculated construction exclusion zone.



(ii) Recommendations to mitigate or eliminate damage to tree roots within RPA's -

To mitigate severance of roots for foundation construction specialist methods should be used: Screw piles, with site investigation used to determine their optimal location whilst avoiding damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement, to a minimum depth of 1.8m.

Beams, laid at or above ground level, and cantilevered as necessary to avoid tree roots identified by site investigation. Designs for foundations that would minimize adverse impact on trees should include particular attention to existing levels, proposed finished levels and cross-sectional details. In order to arrive at a suitable solution, site-specific and specialist advice regarding foundation design should be sought from the project architect, developer and an engineer.

(iii) Appropriate measures to eliminate or mitigate severance of roots for construction of a utility service:

Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the routing and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts. Inspection chambers should be sited outside the RPA.

Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routing should be drawn up in conjunction with myself. Trenchless insertion methods should be used with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected, excavation using hand-held tools might be acceptable for shallow service runs where applicable.

7. Arboricultural Implications Assessment:

The proposed installation of the garden room has the potential to impact the neighbouring Lombardy Poplar and the Bay tree that grows in no.31 due to the proximity of these trees to the proposed building. The remainder of the trees surveyed in this report would not be affected by construction activities. There are no street trees in the vicinity of the project and the off street parking space will provide adequate space for unloading and loading operations away from the front garden tulip tree.

Construction proposed in the rear garden consists of a small-scale garden room with limited access considerations. No construction vehicles or heavy plant machinery will be permitted on site due to the limitations of the site access being through the property. Soil compaction is not a constraint with regards to the rooting areas of retained trees in the neighbouring gardens or the rear garden of no.31

T1 Lombardy Poplar grows on the rear boundary of number 29, 1m away from the proposed garden room installation. It has a significant stem diameter and the roots will grow throughout the gardens in the vicinity. The tree canopy has been reduced in the past to contain the height in relation to its urban surroundings. Due to the proximity of T1 to the proposed build there must be no excavation for foundations to ensure the roots of this tree are not removed or severed. Instead the foundations should consist of screw piles, which mitigate the need for stripping of soil for pouring of concrete.

T2 Bay grows on the rear boundary line of no.31. The RPA has been calculated at 3m which

would extend into the area for development therefore the roots of this tree would also be affected by stripping of soil and the use of screw piles would mitigate the detrimental impacts on the physiological health of the tree from the proposed build.

8. Site Observations

Photo 1: Illustrates area where the garden room is proposed. Southwest corner of garden, underneath T1. Existing shed to be removed. T2 visible in left of photo. Current space is not landscaped and ready for construction. Garden room visible in neighbouring property under T1.



Photo 2: Illustrates T2 Bay tree which has recently been reduced in height to improve light into the south facing garden. There is also an elder that grows behind the Bay tree suppressed and leaning on the boundary wall. Both trees hold a BS cat C due to the structural condition surveyed.



Photo 3: View from the rear garden of no.31 facing rear elevation, which would be the route taken by contractors to import materials to build the garden room through the house. Fruit trees can be seen on the right of picture and two magnolias grow closer to the house adjacent to the patio area.



Photo 4: Left, T9 semi mature Tulip tree growing in front garden of no.31. Providing a high landscape contribution to Lambolle Road. It would be unaffected by the proposed installation in the rear garden.



Photo 5: Right, Depicts the passage down to the lower ground floor where contractors would enter site. No heavy machinery would be used on the project due to the site access restrictions.

9. Arboricultural Method Statement:

To ensure the health and existing vitality of the trees that grow in and around the proposed site, the AMS should be used in conjunction with the tree protection plan attached to this report. (*TPP 31 Lambolle Road*) See below for trees that require protection prior to demolition and construction.

T1 – Lombardy Poplar: RPA impacted by installation of proposed garden room. No mixing of materials permitted in the RPA of T1 or T2. The use of screw piles is advised to form foundations for the garden room. Timber frame will be supported and fastened to multiple screw piles to ensure rigidity and a level to build up from. Allow 100mm gap from floor base of garden room to soil level for airflow, surface root growth and movement as well as avoiding compaction of soil.

T2 – Bay: RPA impacted by installation of proposed garden room. As for T1.

T3 – T9 Various tree species: RPA's are **not** impacted by installation of proposed garden room. No pruning works required to facilitate the project.

(i) Pruning:

The canopies of T1 and T2 do not overhang the area proposed for development therefore no pruning of trees surveyed are required.

(ii) Installation of services and utility runs:

At this stage it is not clear where the service runs and inspection chambers will be installed. The tree protection plan sets out a proposed service run which would minimize the impact of the rooting areas of the tree in the rear. All services running through the RPA of trees surveyed must be installed by hand dig only with arboricultural supervision.

(iii) Construction exclusion zones:

The boundary fence lines will act as construction exclusion zones and it would not be necessary to install tree protection fencing set out in section 7(i).

(iv) Site access:

The site access denotes the scale of machinery permitted onto site. All materials and machinery have to be brought through the property therefore no heavy plant would be used on this project.

(v) CTMP – construction traffic management plan with regards to deliveries.

It is not necessary to suspend parking bays outside the front of the property due to the off street parking bay adjacent to the site access. There are no other restrictions or constraints with regards to traffic management on this project.

10. Conclusion

The proposed garden room in the rear garden of 31 Lambolle Road is a small-scale project enhancing the end of the rear garden to useable interior space. There are no major constraints on this project because it is a no excavation site. The project has full planning to go above 2.5m so contractors do not have to dig down to achieve ceiling heights within permitted development regulations. Instead screw piles will be used to support the floor base which are relatively non invasive with regards to the rooting activity of nearby trees. I do not foresee the project causing a detrimental effect on the physiological or structural health of any of the trees surveyed in this report.

Construction activity would be restricted to hand only with no heavy plant permitted on site due its situation with limited access. The boundary line fence and walls will act as a construction exclusion zone, confining all construction activity to the rear garden of no.31.

Storage and mixing of materials should take place within the designated area highlighted in the tree protection plan (TPP 31 Lambolle Road) to minimise work carried out underneath T1 & T2.

For installation of service runs below ground level, excavation should be hand dig only.
There are no street trees or council owned trees in the vicinity of the property.

The Tree Protection Plan demonstrates measures to protect trees on site and provided this report is communicated to the contractor prior to the project commencing I do not foresee the proposed garden room build causing adverse effects on the trees surveyed within this report. I would oversee the project prior to works commencing, during and after the proposed development for continuity should the client gain planning.

*This report is to be submitted in conjunction with **Tree Survey** – FP/TS/284, **Site Plans** – TMS 31 Lambolle Road, TCP 31 Lambolle Road, and TPP 31 Lambolle Road.*

11. References:

- BS 5837:2012 – Trees in relation to design, demolition and construction – Recommendations
- Original scale site survey supplied by Shackadelic Ltd.

12. Plans:

(i) Tree Survey

*Attached as a separate pdf documents: Reference - **FP/TS/284***

(ii) Survey Map - *attached as a separate pdf document identifying tree numbers and BS Tree Categories: Reference – **TMS** 31 Lambolle Road.*

(iii) Tree Constraints Plan:

*Attached as a separate pdf drawing: Reference **TCP** 31 Lambolle Road*

(iv) Tree Protection Plan:

*Attached as a separate pdf drawing: Reference **TPP** 31 Lambolle Road*

Tree Survey

Client: Ingrid Kitzing
 Site: 31 Lambolle Road London NW3 4HS
 Date of Survey: 31/10/2022
 Job reference: FP/TS/284

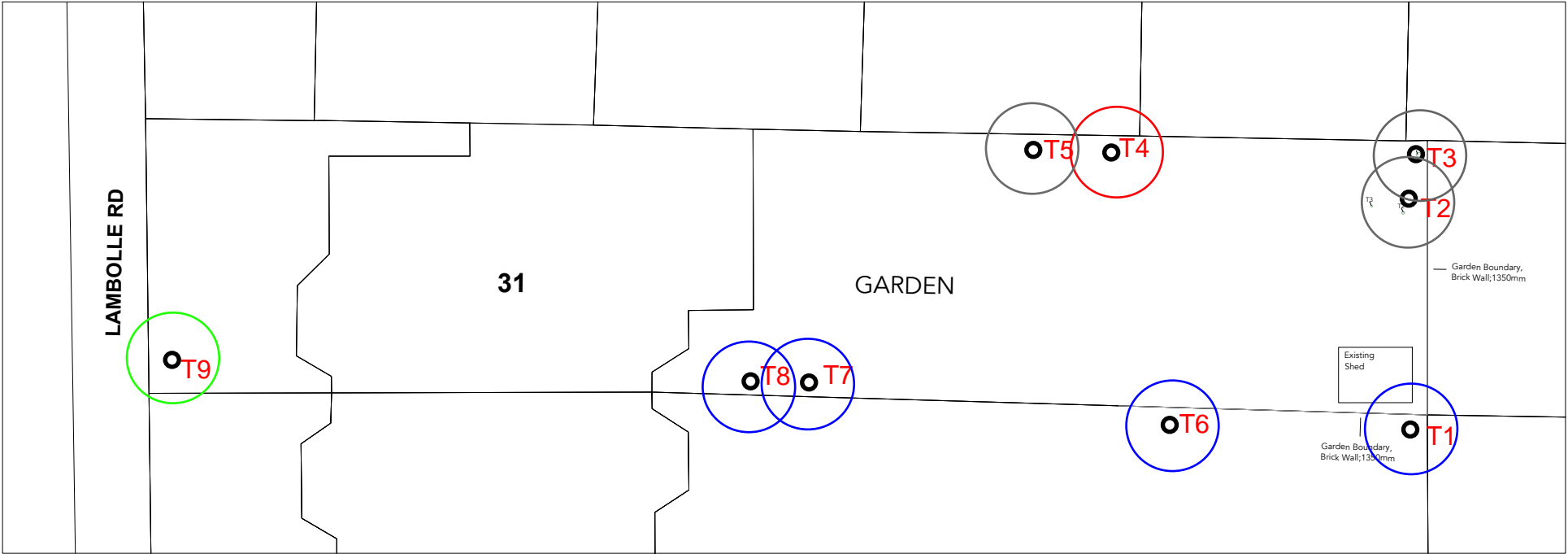
Parsons Tree Care Ltd
 frankparsons@me.com
 07791 652 889

Tree ID	Species	Height	Branch spread	DBH	Crown clearance	Age class	Physiological condition	Structural condition	Landscape Contribution	Estimated contribution	BS Cat'	Protection Radius
T1	Populus nigra 'Italica' (Lombardy Poplar)	15.00m	N 3m E 3m S 4m W 3m	1113.64mm	4m	Mature	Fair. No significant defects.	Fair. Previously reduced.	High	20+	B	13.36m
T2	Laurus nobilis (Bay laurel)	6.00m	N 2m E 2m S 3m W 1m	248.18mm	2m	Semi-mature	Wounding around stem base.	Fair. Previously reduced.	Medium	10+	C	2.98m
T3	Sambucus nigra (Elder)	4.00m	N 3m E 1m S 1m W 1m	190.91mm	3m	Mature	Fair. Suppressed by T2.	Fair. Dominant stem growing into boundary wall	Low	10+	C	2.29m
T4	Prunus domestica (Plum)	3.50m	N 2m E 2m S 1m W 1m	127.27mm	1.5m	Semi-mature	Poor. Poor past pruning history resulting in unbalanced growth	Poor. Excessive movement in root plate	Low	<10	U	1.53m
T5	Malus domestica (Orchard apple)	6.00m	N 3m E 3m S 2m W 1m	127.27mm	1.5m	Semi-mature	Fair. Leans south	Fair. No significant defects.	Low	10+	C	1.53m
T6	Sorbus aucuparia (Rowan)	7.00m	N 4m E 3m S 4m W 3m	206.82mm	1.5m	Mature	Good.	Fair. No significant defects.	Medium	20+	B	2.48m
T7	Magnolia sp. (Magnolia)	4.50m	N 2m E 3m S 2m W 1m	111.36mm	1m	Semi-mature	Good.	Fair. No significant defects.	Low	20+	B	1.34m
T8	Magnolia grandiflora (Southern Evergreen Magnolia)	6.00m	N 3m E 3m S 3m W 1m	111.36mm	1m	Semi-mature	Fair. Vines throughout canopy	Fair. Root girdling Multi stemmed tree.	Low	20+	B	1.34m

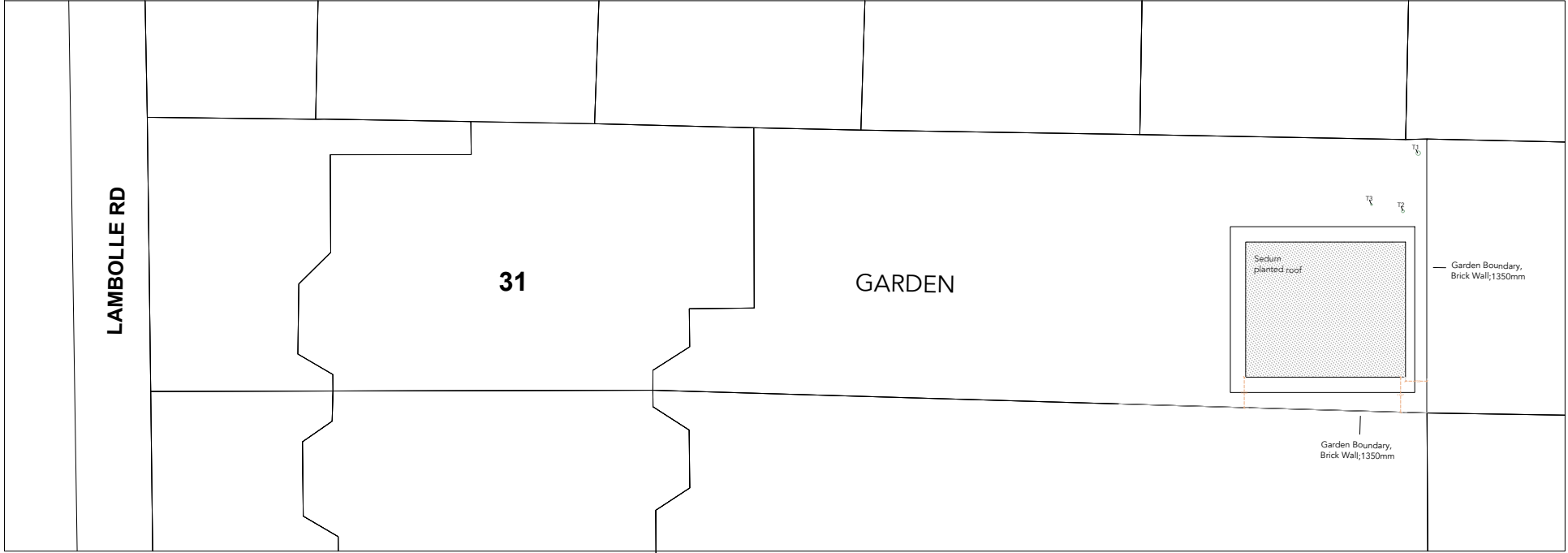
Tree ID	Species	Height	Branch spread	DBH	Crown clearance	Age class	Physiological condition	Structural condition	Landscape Contribution	Estimated contribution	BS Cat'	Protection Radius
T9	Liriodendron tulipifera (Tulip tree)	8.50m	N 4m E 3m S 3m W 3m	270.45mm	1.75m	Semi-mature	Good.	Fair. 4m away from front elevation of house.	High	40+	A	3.25m

Notes

- Height describes the approximate height of the tree in meters from ground level.
- The Branch Spread refers to the crown radius in meters from the stem centre and is shown on each of the four compass points (i.e. N, E, S, W).
- DBH is the diameter of the stem measured in millimeters at 1.5m from ground level or just above ground level for multi stemmed trees. The diameter may be estimated (e), where access is restricted. An average is taken for tree groups.
- Crown Clearance is the height in meters of crown clearance above adjacent ground level.
- Physiological condition – Good (normal growth), Fair (below normal), Poor (sparse/weak), Dead (dead or dying tree). Individual observations are included in this section.
- Structural Condition - Good (no or only minor defects), Fair (remediable defects), Poor – (major defects present or suspected), No significant defects – (defects of no concern present), Dangerous – (dead, diseased or dangerous). Individual observations are included in this section.
- Landscape Contribution - High (prominent landscape feature), Medium (visible in landscape), Low (secluded/among other trees).
- Estimated contribution is the tree's estimated remaining effective contribution in years.
- BS Cat refers to British Standard 5837:2012 Table 1 category and refers to tree/group quality and value; 'A' - High, 'B' - Moderate, 'C' - Low, 'U' - Remove or very poor quality.
- Protection Radius is a radial distance measured from the trunk centre and is used to calculate the BS RPA.



Existing Garden Plan



Proposed Garden Plan

DATE
08.04.2022

PROJECT
Proposal for Garden Studio

ADDRESS
31 Lambolle Rd,
NW3 4HS,
Camden

DRAWING TITLE
Existing and proposed Garden Plan

DRAWING NUMBER
002

REVISION NUMBER
-

REVISION DATE
-

NOTES
- These drawings are for planning purposes only
- Units of Scale: mm

REVISION
04/11/22
Key:
Survey Map -TMS 31 Lambolle Rd
Scale 1:200 @ A3
BS Category
U - Red
A - Green
B - Blue
C - Grey

1m2m5m

N

Drawings at 1:200 on A3

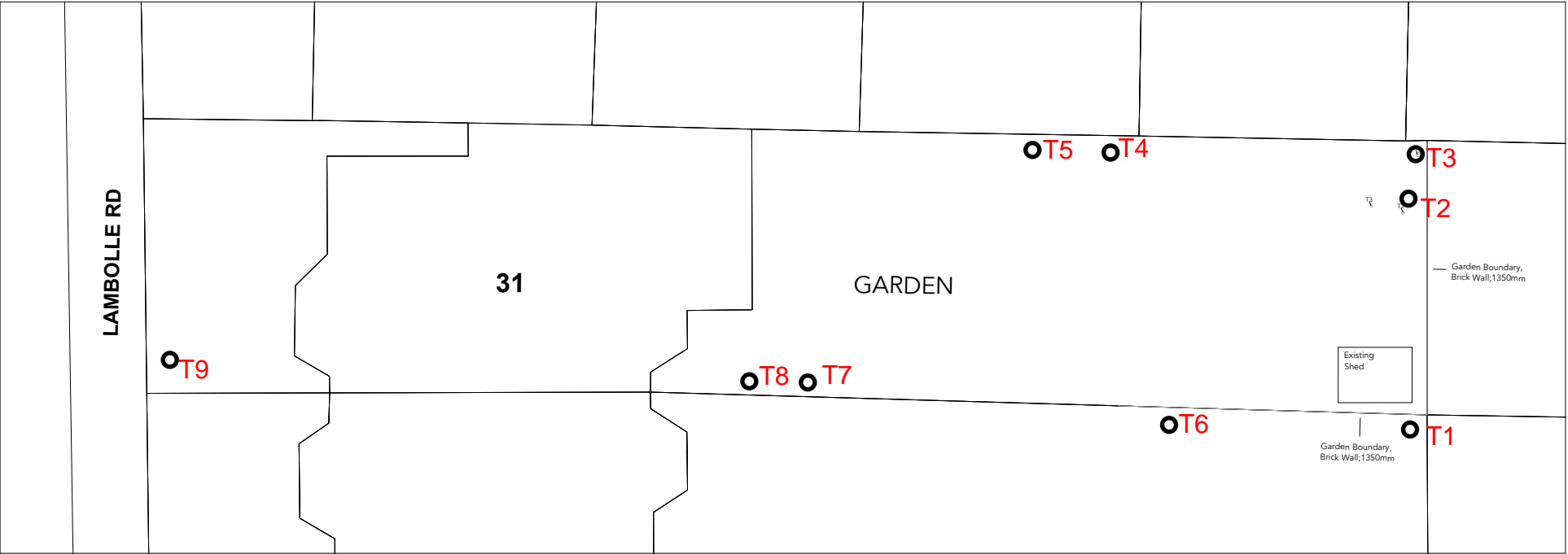
Shackadelic

Shackadelic Ltd.

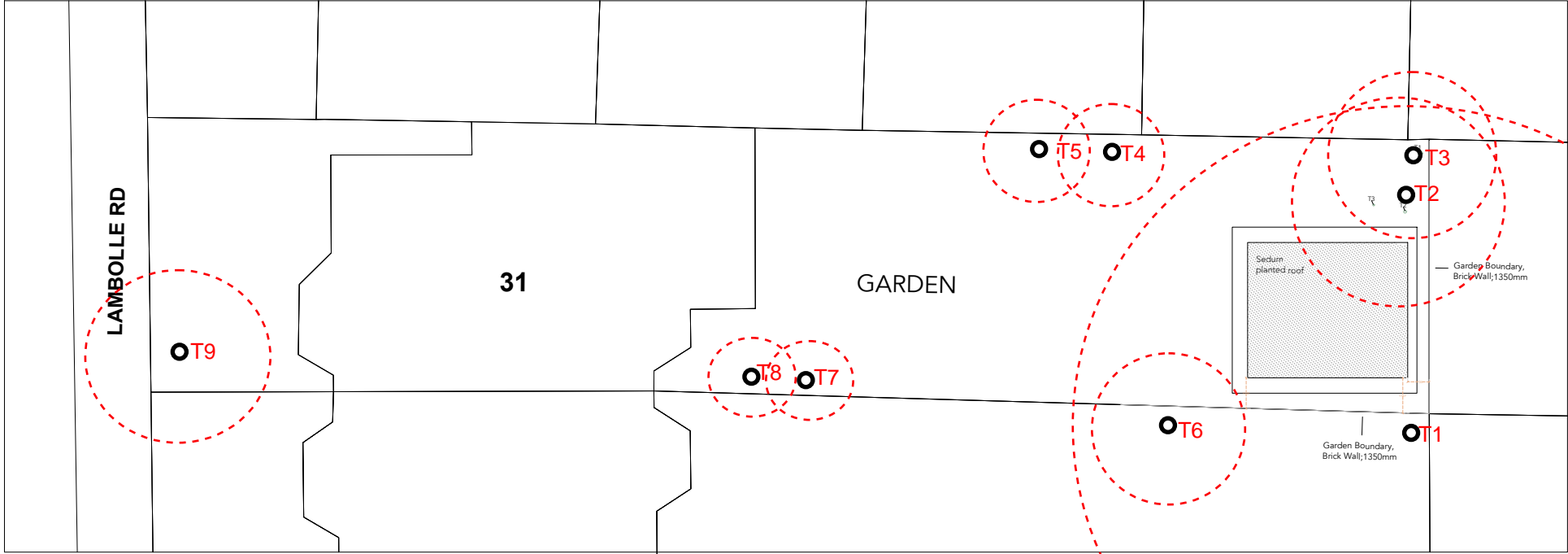
Unit 6, 27A Spring Grove Road,
Hounslow,
TW3 4BE

www.shackadelic.co.uk

tel: 0208 814 0999

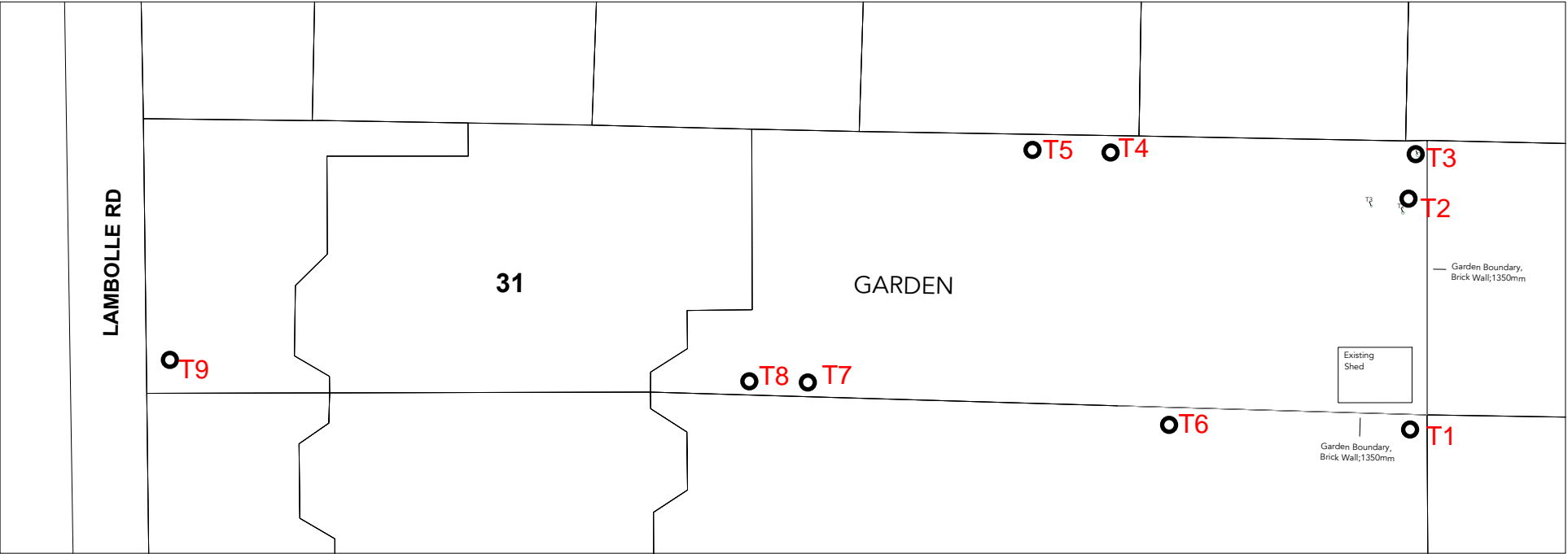


Existing Garden Plan

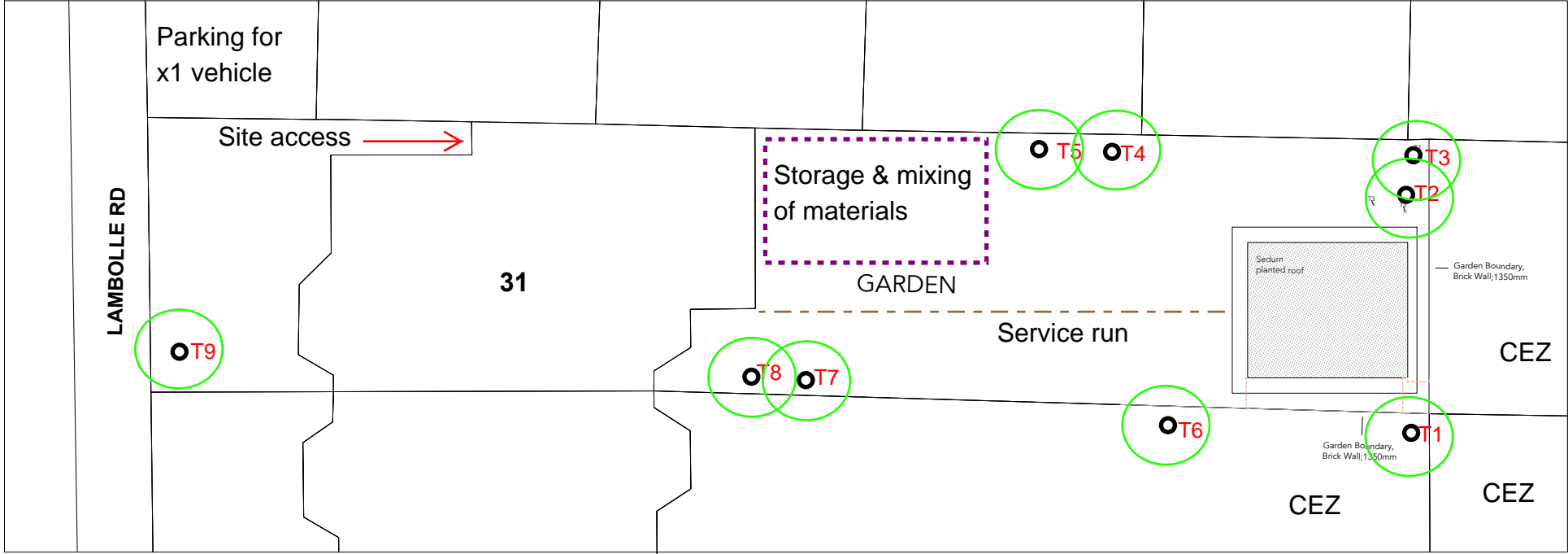


Proposed Garden Plan

DATE 08.04.2022	
PROJECT Proposal for Garden Studio	
ADDRESS 31 Lambolle Rd, NW3 4HS, Camden	
DRAWING TITLE Existing and proposed Garden Plan	
DRAWING NUMBER 002	
REVISION NUMBER -	REVISION DATE -
<p>NOTES</p> <ul style="list-style-type: none"> - These drawings are for planning purposes only - Units of Scale: mm <p>Revision 04/11/22 Tree Constraints Plan</p> <p>Key: Survey map TCP 31 Lambolle Rd Scale - 1:200 @ A3 RPA (Root protection area) - Red circle dashed line</p> <div style="text-align: right;"> </div> <p>Drawings at 1:200 on A3</p>	
<p>Shackadelic</p>	
<p>Shackadelic Ltd.</p> <p>Unit 6, 27A Spring Grove Road, Hounslow, TW3 4BE</p> <p>www.shackadelic.co.uk</p> <p>tel: 0208 814 0999</p>	



Existing Garden Plan



Proposed Garden Plan

DATE

08.04.2022

PROJECT

Proposal for Garden Studio

ADDRESS

31 Lambolle Rd,
NW3 4HS,
Camden

DRAWING TITLE

Existing and proposed Garden Plan

DRAWING NUMBER

002

REVISION NUMBER

-

REVISION DATE

-

NOTES

- These drawings are for planning purposes only
- Units of Scale: mm

REVISION

04/11/22

Scale 1:200 @ A3

Tree Protection Plan:

TPP 31 Lambolle Rd

KEY:

Trees to be retained - Green

Trees to be removed - Red

Route for services -

Brown dashed line

Storage and mixing of materials -

Area within purple dashed line

1m2m5m

N

Drawings at 1:200 on A3

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