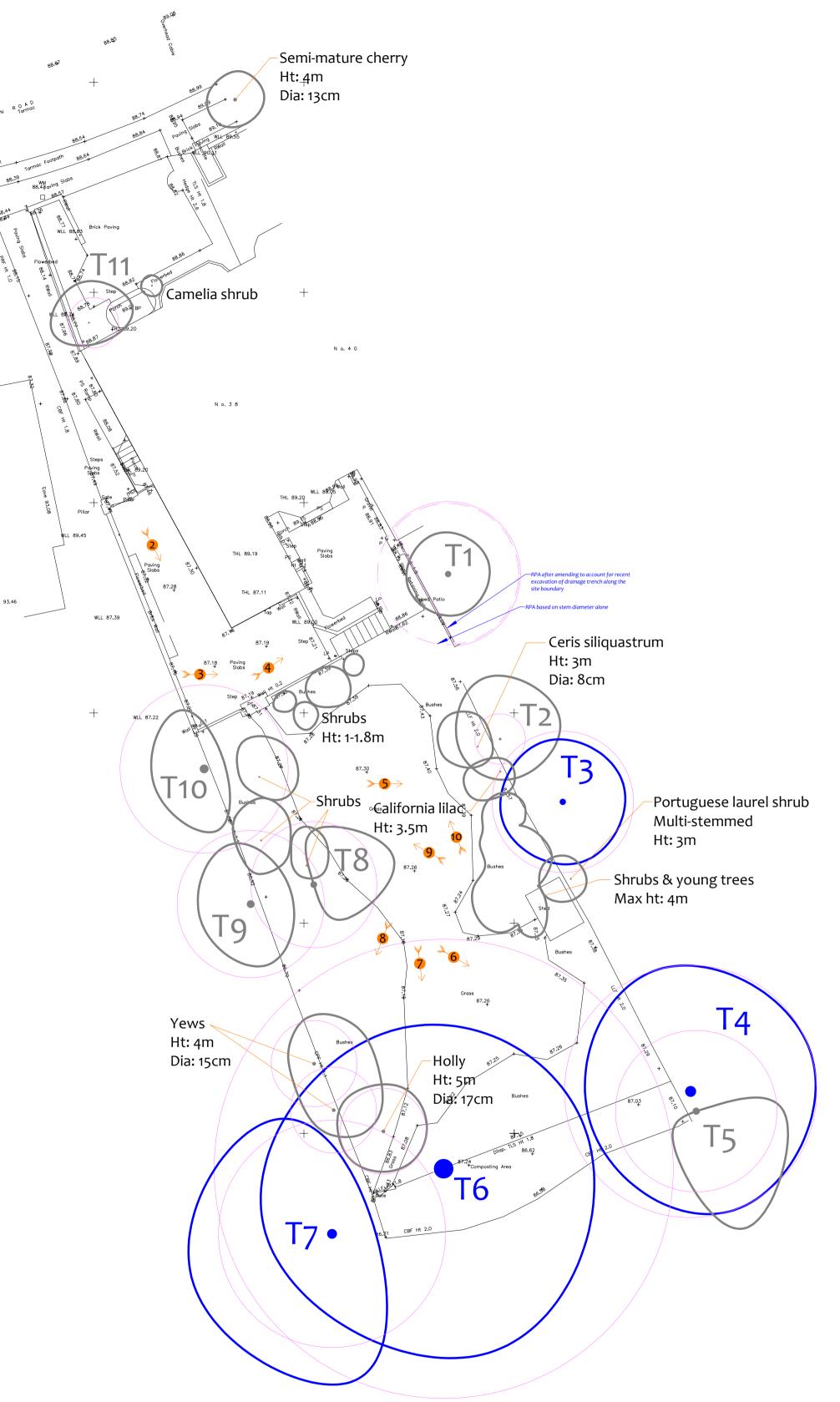
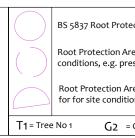
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Drawing No:	(() 10766	/ TCP Rev: 1	<u>*</u>	Tree R	etention Categories		Trees of high quality with an estimated life expectancy of 40+ years.		
Title:	CCL 10766 Tree Constrai (Existing Lay 38 Pattison Road	ints Plan		$\odot$	etention Categories ems & canopies shown Category A tree Category B tree	<ul><li>○</li><li>○</li></ul>	Trees of high quality with an estimated life expectancy of 40+ years. Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable. Trees of moderate quality with a life expectancy of 20+ years. Usually maturing trees, or younger trees with good form. Retention of these trees is desirable though less than Category A trees		
Site: Scale: 1:150	38 Pattison Road London, NW2 2HJ	5	CROWN Arboricultural Consultants 01422 316660	$\odot$	Category C tree Category U tree	• •	Unremarkable trees of low quality and merit. Individual specimens are not considered to be a material planning consideration. Trees unsuitable for retention due to their very poor condition.		









# Tree Constraints Plan (Existing Layout)

				Tree Ref.     Species     Height (       T1     Chusan Palm     7       T2     Judas Tree     6       T2     Dabiaia     7.5	Listadat (ma)	nootiii	lonnacu		
				Tree Ket.	species	Height (m)	Radius (m)	m²	Square (m)
				T1	Chusan Palm	7	3.4	35	6.0
				T2	Judas Tree	6	2.2	15	3.8
otection Area (radius = 12xstem diameter) Area needing amendment due to site presence of exising road or building. A Area having been amended to account ditions = Group No 2 H3 = Hedge No 3			MN = Measured North:	Т3	Robinia	7.5	3.4	35	6.0
	- 7			T4	Sycamore	18	6.0	113	10.6
Area needing amendment due to site		Photo 1	Canopy spreads are sometimes	T5	Sycamore	14	3.8	46	6.8
	/		measured to an approximate N defined by site features.	T6	Horse Chestnut	19	10.9	375	19.4
Area needing amendment due to site resence of exising road or building. Area having been amended to account tions			Often more accurate, especially	T7	Sycamore	16	5.4	92	9.6
Area needing amendment due to site presence of exising road or building. n Area having been amended to account litions			where rows of trees are not	T8	Apple	5	3.0	28	5.3
litions			aligned N-S or E-W.	Т9	Yew	4.5	3.5	38	6.2
Area needing amendment due to site presence of exising road or building. Area having been amended to account ditions				T10	Yew	6	4.0	50	7.1
= Group No 2 H3 = Hedge No 3	mendment due to site sing road or building. en amended to account			T11	Japanese Maple	3.5	1.2	5	2.1

## Excerpts from the Arboricultural Impact Assessment

#### Overview It is proposed to construct a new swimming pool and pool house to the rear of the property as indicated on the plans in Appendix 6. The existing layout is indicated in black, and the footprint of the proposed layout is indicated in green The table below summarises the potential impact on trees due to various activities.

Activity	Trees Potentially Affected
Tree Removal: Retention Category A	None
Tree Removal: Retention Category B	None
Tree Removal: Retention Category C	The 4m tall shrubs and young trees
Tree Removal: Retention Category U	None
Tree Pruning	T3, T4, T6 and the Portuguese laurel shrub
RPA: Swimming Pool and Pool House Foundations	T3, T4 and T6
RPA: Timber Decking Foundations	T3, T4 and T6
RPA: New Hard Surface	None
RPA: Replace Existing Hard Surface	None
RPA: Underground Services	Unknown – To be confirmed
RPA: Change of Ground Levels	None
RPA: Soil Compaction	Trees adjacent the construction area (preventable by installing tree protection measures)

Other potentially damaging activities often associated with construction sites include demolition or the careless use of plant machinery, hazardous materials, or fires. All of the above potential impacts are considered in detail throughout this section. The accompanying Arboricultural Method Statement (duplicated in Appendix 6) specifies the measures proposed to minimise all possible potential risks of damage to the retained tree

#### Tree Removal

All trees to be removed are indicated on the Tree Removal Plan and are listed below:

- Retention Category A: Our survey did not identify any Retention Category A trees. • Retention Category B: It is proposed to retain all Retention Category B trees.
- Retention Category C: It is proposed to remove the Retention Category C 4m tall shrubs and young trees. This vegetation grows within the footprint of the proposal and so their retention is not possible.
- These are relatively small shrubs/trees (maximum height 4m). They are located within a rear garden and are not visible from public vantage points. Consequently, they are considered to have a low amenity value. Their removal shall not have a significant impact on the visual amenity of the locality, and they are not considered to be a material planning consideration. • Retention Category U: Our survey did not identify any Retention Category U trees.
- Details specific to each tree can also be found in the Tree Data Schedule.

#### **Mitigation Planting**

The trees/shrubs to be removed are of such low amenity value that no mitigation planting is considered necessary.

#### **Impact on Tree Canopies**

It is proposed to remove the lower branches of T3, T4 and T6 to a height of 4m where they overhang the proposed new pool house. The existing canopy heights of these trees are 2.5m, 3.5m and 2m above ground level respectively, and only the canopy edges overhang the proposed structure. Consequently, the required pruning shall be minimal. This shall provide a clearance distance of 1m from the proposed structure and ensure adequate clearance height so as to prevent accidental breakage. The pruning works should be undertaken sympathetically (working to BS 3998: 2010 guidelines).

It is also proposed to trim the overhanging foliage of the Portuguese laurel shrub, back to the boundary. This shall require the removal of relatively small branches which should be pruned back to a secondary growth point. Such minimal pruning of a Retention Category C tree is not considered to be a material planning consideration

#### All other tree canopies shall be unaffected by the proposals.

**Impact on Tree Roots** 

#### Swimming Pool and Pool House Foundations:

The foundations for the new swimming pool and pool house will extend into to the outer portions of the theoretical Root Protection Areas of T3, T4 and T6. However, only circa 2%, 1% and 5% of the Root Protection Areas shall be affected respectively (see the Impact Assessment Plan), so the potential impact is considered to be negligible.

However, in order to minimise root severance, it is proposed to excavate the foundations within the Root Protection Area of T3, T4 and T6 using hand tools only to a depth of 0.6m. Deeper excavation may be undertaken using a mechanical excavator so long as it operates from a suitable load spreading surface or from outside all Root Protection Areas. Excavation for the foundations shall not extend more than 200mm beyond the build line in the direction of the trees. This will keep the extent of excavation towards the trees down to the minimum amount possible. Any roots growing close to the edge of the excavation should be kept intact or pruned by the project arborist. These measures shall ensure that the impact of such a small incursion will be minimal.

#### Timber Decking Foundations:

Timber decking is proposed around the proposed pool house, which encroaches into the Root Protection Areas of T3, T4 and T6. In order to ensure minimal impact on tree roots, the following mitigation is proposed:

- All post holes shall be excavated by hand and kept as narrow as possible (maximum diameter • Exploratory post holes shall be dug before committing to post positions. If any roots in excess of 25mm are encountered shall remain intact and the post hole shall be relocated slightly. The post system shall permit such flexibility.
- Any roots in excess of 10mm which are severed shall be neatly pruned back with secateurs. New Surfaces:

#### No new surfaces are proposed within the Root Protection Areas of any trees. Underground Services:

No underground services should be installed through any Root Protection Area without consulting the

#### project arborist and if necessary, gaining approval from the local authority. Changes in Ground Levels:

No changes to ground levels are proposed over Root Protection Areas.

#### **Demolition Activities**

The tree protection measures specified within the accompanying Arboricultural Method Statement should be installed prior to the commencement of all demolition activities (including soil stripping) to prevent any detrimental impact on tree health. Where this is not practicable, demolition of structures within Construction Exclusion Zones shall be undertaken very early on in the demolition phase and the protective barriers installed immediately thereafter.

#### **Hazardous Materials**

All hazardous materials (including cement and petrochemical products) will need to be controlled according to COSHH regulations in order to ensure there is no detrimental impact on tree health. Provision shall need to be made to ensure that cement and cement run-off are contained outside of all

#### Root Protection Areas. **Cabins and Site Facilities**

Consideration should be given to the location of any site welfare facilities in terms of potential impact on trees. Where it is proposed to install cabins or site facilities in Root Protection Areas, the project

#### arborist should be consulted, and approval obtained from the local authority. **Boundary Treatments**

We are not aware of any changes are proposed to the existing boundary features that might impact on

#### Impact of Retained Trees on the Development

It is considered that adequate space has been allowed between the trees to be retained and the proposed pool house. Consequently, the proposal shall not result in an increased pressure to remove

#### or prune any of the retained trees.

The pool house is not considered to be a living space, so the shade cast by the trees is not considered to be relevant from a planning perspective. The foundations and any new surfaces should be designed to accommodate all potential impacts due

#### to future tree rooting activity. These include potential vegetation related subsidence, vegetation related heave, and lifting of surfaces / light structures due to direct root pressure.

Summary

#### Only low quality, small trees/shrubs are to be removed to enable the build. One Portuguese laurel shrub requires minimal pruning back to the site boundary.

No significant surfacing is proposed in RPAs.

Foundations for the swimming pool, pool house and timber decking are proposed within the Root Protection Area of T3, T4 and T6. However, the small extent of RPA affected coupled with the sympathetic foundation design shall ensure no detrimental impact on trees.

### So long as suitable protection measures are implemented during demolition and construction stages, I

see no arboricultural reasons why the proposal should not proceed. Suitable protection measures are specified in the accompanying Arboricultural Method Statement ref CCL/10766b The Method Statement is thorough and enforceable so may be conditioned upon the

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#### granting of planning consent.

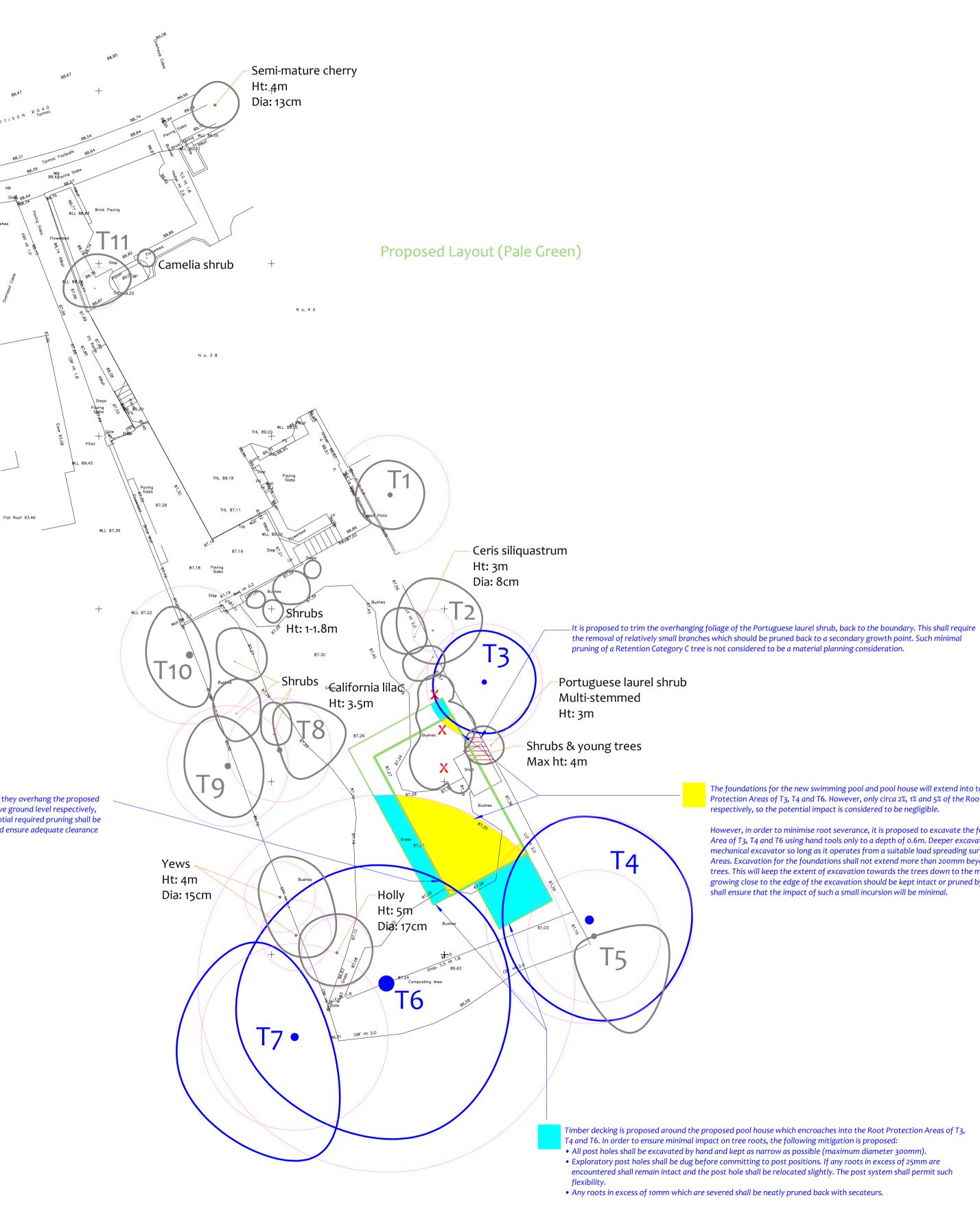
Tree Retention Categories Trees of high quality with an estimated life expectancy of 40+ years. / IAP Rev: 1 Drawing No: CCL 10766b Usually large trees with significant presence or smaller trees with excellent form. Retention of these trees is highly desirable. • Stems & canopies shown Impact Assessment Plan Title: Category A tree ees of moderate quality with a life expectancy of 20+ years. (Existing Layout with Proposals Overlaid)  $\bigcirc$ Usually maturing trees, or younger trees with good form. Retention  $\bigcirc$ Category B tree of these trees is desirable though less than Category A trees 38 Pattison Road Site: London, NW<sub>2</sub> 2HJ Unremarkable trees of low quality and merit. Individual specimens CROWN  $( \cdot )$ Category C tree are not considered to be a material planning consideration. boricultural Consultants Category U tree Trees unsuitable for retention due to their very poor condition. Paper Size: A1 Scale: 1:150

It is proposed to remove the lower branches of T3, T4 and T6 to a height of 4m where they overhang the proposed new pool house. The existing canopy height of these trees are 2.5m, 3.5m and 2m above ground level respectively, and only the canopy edges overhang the proposed structure. Consequently, the potential required pruning shall be minimal. This shall provide a clearance distance of 1m from the proposed structure and ensure adequate clearance height so as to prevent accidental breakage.

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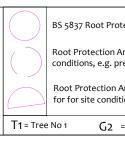
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# Impact Assessment Plan

(Existing Layout with Proposals Overlaid)





#### Impact Assessment Plan (Existing Layout with Proposals Overlaid)

The foundations for the new swimming pool and pool house will extend into to the outer portions of the theoretical Root Protection Areas of T3, T4 and T6. However, only circa 2%, 1% and 5% of the Root Protection Areas shall be affected

However, in order to minimise root severance, it is proposed to excavate the foundations within the Root Protection Area of T3, T4 and T6 using hand tools only to a depth of 0.6m. Deeper excavation may be undertaken using a mechanical excavator so long as it operates from a suitable load spreading surface or from outside all Root Protection Areas. Excavation for the foundations shall not extend more than 200mm beyond the build line in the direction of the trees. This will keep the extent of excavation towards the trees down to the minimum amount possible. Any roots growing close to the edge of the excavation should be kept intact or pruned by the project arborist. These measures

				Tree Ref.	Species	Hoight (m)	ROOT Pr	adius (m)         m²         Square (m)           3.4         35         6.0           2.2         15         3.8           3.4         35         6.0           6.0         113         10.6           3.8         46         6.8           10.9         375         19.4           5.4         92         9.6           3.0         28         5.3	
				Tree Ker.	species	Height (m)	Radius (m)	m²	Square (m)
				T1	Chusan Palm	7	3.4	35	6.0
				T2	Judas Tree	6	2.2	15	3.8
rea having been amended to account ons			MN = Measured North:	Т3	Robinia	7.5	3.4	35	6.0
· · · · · · · · · · · · · · · · · · ·				T4	Sycamore	18	6.0	113	10.6
Area needing amendment due to site		Tree to be removed to measured to	Canopy spreads are sometimes	T5	Sycamore	14	3.8	46	6.8
presence of exising road or building.	N		measured to an approximate N	T6	Horse Chestnut	19	10.9	375	19.4
	X	facilitate the proposal	defined by site features. Often more accurate, especially	T7	Sycamore	16	5.4	92	9.6
Area having been amended to account	V	Tree to be removed	where rows of trees are not	T8	Apple	5	3.0	28	5.3
litions		due to its low quality	aligned N-S or E-W.	Т9	Yew	4.5	3.5	38	6.2
		Proposed pruning		T10	Yew	6	4.0	50	7.1
= Group No 2 H3 = Hedge No 3	$\smile$	Proposed pruring		T11	Japanese Maple	3.5	1.2	5	2.1



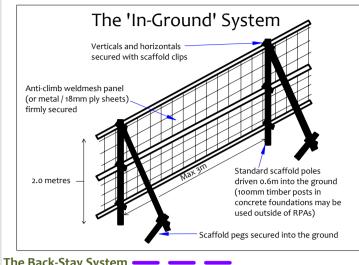
## **Arboricultural Method Statement**

Author: Joe Taylor FdSc (Arboriculture), M. Arbor A Site: 38 Pattison Road, NW2 2HJ Date: 11/06/2021 Revision: 1 CCL ref No: 10766b Client: Dust Architecture

**Tree Protection Barriers** 

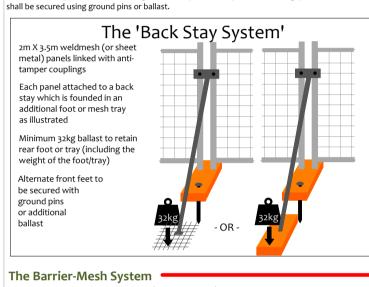
The purpose of tree protection barriers is to keep construction activity away from Restricted Activity Zones or Construction Exclusion Zones. They should be appropriate to the nature and proximity of activity within the site. The barriers should be erected prior to the commencement of all activity authorised personnel. including demolition, soil stripping and delivery of materials and demolition (except where existing structures require demolition to enable the barriers to be installed). Barrier systems are specified below and should be installed according to the legend on the Tree Protection Plan.

The In-Ground System This system may be installed where indicated by a solid purple line on the Tree Protection Plan. It should be robust enough to withstand occasional knocks by plant machinery and, once installe shall remain in place throughout the entire construction phase. Vertical scaffold poles are driven into the ground, onto which are affixed horizontal scaffold poles and diagonal bracing struts. Weldmesh panels (or similar – e.g. Heras type fencing panels, or 18mm+ Within Restricted Activity Zones, soils containing roots may be subject to compaction due to general clips. The system is illustrated in the diagram to the right and is based on BS 5837 guidelines.



The Back-Stay System — 🛛 🗸 This system may be installed where indicated by a solid or dashed purple line on the Tree Protection Plan. It is more practical over existing hard surfaces or where the fencing needs to be moved to enable permitted activities within a Restricted Activity Zone. This system should be able to withstand occasional knocks by machinery and should not be relocated except with the consent of the site

manager and the approval of the local authority. Within this system, weldmesh fencing panels (minimum height 2m) are affixed into rubber or concrete feet and clipped together with anti-tamper couplers. Two couplers should be used, spaced at least 1m apart. Alternate panels should be attached to a diagonal back stay connected to an additional foot or baseplate secured with ground pins or additional ballast. Where ground pins are not used, the total weight of the foot/plate plus ballast should total not less than 32kg. Where it is not possible to install diagonal struts (such as very close to a hedge) then the front feet



Where indicated by a thick red line (solid or dashed) on the Tree Protection Plan, it shall be acceptable to install a less robust system than those specified above. This is because of the nature of

construction activity or its distance from tree protection areas. The purpose of such a system shall be to demarcate the protection zone. It is not intended that such fencing will withstand knocks by instruction machinery In this system, high visibility plastic safety fencing, 1m high, minimum grade 140g/m2, is secured onto

alternate wooden posts and fencing pins. Wooden posts to be located at 5m intervals, minimum

**Restrictions in Specific Zones** 

#### **Restricted Activity Zone A**

dimensions 75mm.

Within this zone trees roots are likely to be present where access will be required to facilitate outside the Construction construction. The following restrictions shall apply:

- No vehicles or plant machinery shall park or operate unless a suitable load spreading is to be mixed at considerable surface is in place. The load spreading surface shall be installed and/or maintained as distances from trees and water specified under the heading Ground Protection Measures. This shall remain in place run-off cannot enter Root throughout the entire demolition and construction phase or until any new Protection Areas, then no permanent hard surfacing is installed. Any pedestrian activity other than very further special measures are occasional shall also require a suitable load spreading surface. • Removal of existing structures such as, walls, steps and hard surfaces (where shall be made to ensure that applicable) shall be undertaken using hand tools or a mechanical excavator operating the mixing area is contained so from outside the Restricted Activity Zone and carefully marshalled by the project that no water run-off enters arborist
- No excavation shall occur beneath any existing hard surfacing and its sub-base or cleaned within this area. beneath the foundations of any structure such as wall, steps or patio. beneath the foundations of any structure such as wall, steps or patio.
   No further excavation shall occur in this zone without consulting the project arborist and obtaining approval from the local authority.
   All other chemicals hazardous to tree health, including petrol and diesel, shall be stored in suitable containers as specified by current COSHH Regulations, and kept away from Root Protection Areas.
- and obtaining approval from the local authority. Existing ground levels shall be retained undisturbed or raised by no more than ssential cement products) shall be forbidden. 50mm. Ground levels may only be raised using granular topsoil (not rich in clay) or where new surfacing is proposed. No new permanent or temporary structures shall be erected other than those shown
   Underground Services
- on the planning application documents unless approved by the local authority. No underground services (including soak-aways) shall be located in any part of the Construction with the project arborist and a methodology agreed and approved by the local Statement and approved by the local authority. • If roots are encountered in excess of 25mm diameter, they shall be retained Site Hoarding
- wherever possible and protected with damp sacking during times that they are If site hoarding shall be installed over the Root Protection Area of any tree, the following restrictions unearthed. Any roots in excess of 10mm that need to be severed shall be pruned with shall apply: Storage of materials and spoil shall be avoided unless it has been agreed with the
   Ground levels shall be maintained as existing.
   Both block that the ground evels shall be maintained as existing.
- project arborist that the ground protection measures are adequate to ensure no soil compaction or contamination occurs. All hazardous materials (including non-essential cement products) shall be forbidden. • No fires shall be permitted.

#### **Restricted Activity Zone B**

- to utilise the Hand-Dig Method. The following restrictions shall apply: • Hand tools shall be used during the excavation to a depth of 600mm. Below this Siting of Cabins • The excavation shall not extend more than 200mm beyond the footprint of the Cabins shall be located outside of Construction Exclusion Zones and Restricted Activity Zones unless depth a carefully marshalled mechanical excavator may be used.
  - proposed building walls in the direction of the trees. excavation, they shall be retained wherever possible and protected with damp • All services to and from site cabins shall be installed above ground through any Root Protection sacking during times that they are unearthed. Any roots that need to be severed shall be pruned with secateurs.

#### **Restricted Activity Zone C**

In this zone foundations for the new timber decking are to be installed. The following restrictions shall apply: Post holes shall be narrow as possible and shall not exceed 300mm x 300mm.

- Excavation for the post holes shall be undertaken using hand tools only. Roots in excess of 25mm are to be retained and the post hole relocated
- A flexible system which permits the relocation of the posts will therefore be necessary. • All exposed roots over 25mm diameter shall be sleeved to prevent contact with fence posts and cement products.

### **General Restrictions - Throughout the Site**

Preparatory Works

No demolition, removal of surfaces, or soil stripping shall commence until the protective fencing and ground protection measures are installed to the satisfaction of the local authority. Fires

No fires shall be permitted within any Construction Exclusion Zone or Restricted Activity Zone. No need to remain in-situ and be strengthened and stabilised to bear the weight of scaffold poles. fires shall be permitted in the vicinity of any exposed tree roots.

**Canopy Protection** 

- In order to protect tree canopies the following restrictions shall apply throughout the site: No machinery in excess of 2m shall pass beneath the canopy of any tree without being carefully marshalled in order to ensure that no branches are damaged.
- If materials require installation or delivery beneath tree canopies, this shall be done without the use of overhead cranes. • If materials are to be installed or delivered close to tree canopies (but not beneath them) and a crane is required, they shall be carefully marshalled in order to ensure that branches are not accidentally damaged.

#### Storage of Spoil and Materials

Storage of materials and spoil shall be avoided in any Construction Exclusion Zones and Restricted Activity Zones unless it has been agreed with the project arborist that the ground protection measures are adequate to ensure no soil compaction or contamination occurs. All hazardous materials (including non-essential cement products) shall be forbidden.

Notices

Removal of Tree Protection Barriers

Removal of protective fencing or ground protection measures shall be done after all major construction work is complete and their removal has been approved by the appointed arborist.

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#### **Ground Protection Measures**

plywood boards) are secured to this scaffold framework using sturdy clips e.g. standard scaffold construction activity (including pedestrian activity and use of plant machinery). In order to minimise compaction, it is proposed to ensure that a suitable load-spreading surface is in place at all times. Any existing hard surfacing may be retained where engineers consider it adequate to spread the load of construction traffic. Otherwise it shall be reinforced or replaced with adequate ground protection

measures. Unless specified otherwise, ground protection shall consist of 24mm OSB boards laid at double thickness and screwed together to prevent slippage. The ground shall first be made even by raking, or by adding a few centimetres of sand or woodchip. Where only pedestrian traffic will occur boards or planks may be supported by a scaffold framework. The scaffold may be founded on poles driven into the ground and/or onto blocks (to raise the scaffold) with additional couplings to make the framework secure.

Where engineers consider OSB boards to be inadequate (e.g. for large plant machinery where the tracks may chew up the timber) sturdier ground protection measures will be installed such as road plates, or 100mm of 7-40mm angular gravel installed in 3D cellular confinement system (e.g. CellwebTM).

If a piling mat is required, engineer's specifications should be referred to. The ground protection measures shall be installed and approved before commencement of

demolition and construction activity and before the arrival of plant machinery or materials. They shall remain in place until all heavy construction activity is complete or until they are due to be replaced with a new hard surface.

#### **Construction Exclusion Zones**

- Within Construction Exclusion Zones the following restrictions shall apply: • Tree Protection Barriers shall be erected and maintained throughout the entire
  - project as indicated on the Tree Protection Plan and under the header -Tree Protection Barriers These shall remain in place at all times except when authorised landscaping works
  - are being undertaken. At such times, adequate ground protection measures shall be stalled, and excavation shall be limited to that required for new planting. Furthermore, the project arborist shall be consulted prior to any works being
  - undertaken in these zones.
  - No construction activity or excavation shall occur unless agreed otherwise by the project arborist and local authority. • No vehicles or plant machinery shall be driven or parked.
  - No tree works, other than those specified on this document shall be undertaken. No alterations of ground levels or conditions shall occur.
  - No chemicals or cement washings permitted. No temporary structures shall be installed
  - No spoil shall be stored. • No fires shall be permitted
- All hazardous materials (including non-essential cement products) shall be forbidden • Removal of hard surfaces, structures or turf shall be done using hand operated tools only and supervised by the project arborist.

#### Tree Works Specification

The following table specifies the tree works which will be required prior to the commencement of

instruction activit	y.	
Tree Reference	Action Required	Notes
The 4m tall shrubs and young trees	Remove.	Stumps of trees within the RPAs of retained trees shall be removed with a stump grinder NOT a mechanical excavator.
The Portuguese laurel shrub	Prune canopy back to the boundary.	Branches to be pruned back to a secondary branch junction or the branch collar wherever possible.
T3, T4 and T6	Crown lift to 4m on the side overhanging the proposal.	Branches to be pruned back to a secondary branch junction or the branch collar wherever possible.

## General Restrictions - Throughout the Site Continued

# Sturdy plasic sheetin e.g 1200 guage DPM

the Root Protection Area of any trees (see diagram for example). Mixers and barrows shall be

• Underground services shall not be installed in this area without prior consultation | Exclusion Zones or Restricted Activity Zones unless done so in a manner detailed in a specific Method

- No post hole shall be excavated within 1.5m of any tree stem. • Post holes shall be excavated using hand tools or by a post-hole auger attached to plant machinery sited outside of Root Protection Areas.
- Roots in excess of 25mm shall be retained wherever possible. • Roots in excess of 10mm shall be pruned with sharp secateurs. Pruning shall be minimal and only undertaken where absolutely necessary to facilitate the site
- hoarding. It shall be undertaken by a reputable tree surgeon working to BS 3998 (2010). In this zone foundations are to be installed. In order to minimise the impact on roots it is proposed Site hoarding may be installed in place of the specified tree protection measures subject to the approval of the local authority with regard to its location and specification.

- agreed otherwise by the project arborist. Where this is being considered, the project arborist shall be • If roots in excess of 25mm diameter are encountered close to the edge of the
  - Areas. No excavation shall occur within Root Protection Areas to enable cabins to be installed. • The cabins shall be founded on a suitable load spreading surface.

## Lighting, Bollards, CCTV and associated Cables

- If any of the above are to be installed close to tree canopies or within Root Protection Areas of retained trees; installation methods shall be detailed in a specific Method Statement and approved by the local authority. Consideration should be given to the following: • Pruning of branches to enable sufficient clearance for light and views. Branches should be
- removed to the branch collar as per British Standard 3998 (2010). • Post holes must be excavated by hand or using an appropriate sized auger. No other form of mechanical excavation may be used. • Wherever possible, cables should be routed in a direction directly away from the tree stem
- rather than tangentially across the rooting zone. The location of all such cables shall be determined after consultation with the project arborist and approval by the local authority.

#### Use of Heavy Plant All machinery operatives are to be made aware of any Construction Exclusion Zones and Restricted Activity Zones that apply to this site. All machinery operatives are to respect these zones and ensure that no damage occurs to trees due to the careless use of machinery. Mechanical excavators should have tracks rather than wheels to help spread their load. They should be carefully marshalled when working close to tree canopies

#### Scaffolding

No fires shall be permitted beneath any tree canopy or within 5m of any tree stem, branch or foliage. If scaffolding is required in areas containing ground protection measures, the protective boards shall Prior to the installation of any scaffolding within 0.5m of any tree branches, the project arborist shall be consulted to specify any pruning works that may be required.



## **Timing of Operations**

Activity within the site shall be phased according to the following chronology								
Order	Phase	Activity						
1st.		Planning conditions relating to trees to be identified and discussed with the Project arborist and site manager.						
2nd.		All specified tree removal and pruning to be undertaken (see Header - Tree Works Schedule).						
3rd.	Pre- Construction	Install the tree protection barriers (fencing and ground protection boards - see Headers -Tree Protection Barriers and Ground Protection Measures).						
4th.	Phase	Pre-Commencement site meeting: Tree protection barriers inspected. Additional protection measures to be agreed. Variances to be agreed. Location of underground services to be agreed. Extents of excavation to be agreed. Scaffold restrictions to be agreed. Scope of future inspections / monitoring to be agreed.						
5th.		Arboricultural Method Statement to be revised and approved inecessary.						
		Protection measures confirmed acceptable by the local authority						
6th.	Demolition and	Demolish existing structures and remove existing surfaces where applicable.						
7th.	Construction Phase	Install new pool house and decking taking into account restricted activities as specified in this Arboricultural Method Statement.						
8th.		Site meeting with project arborist. Landscaping restrictions to be agreed. Condition of retained trees to be assessed and mitigation agreed. Ground conditions to be assessed and ground remediation to be agreed.						
9th.	Post-	Remove protective barriers (fencing and ground protection measures as applicable).						
10th.	Construction Phase	Undertake restricted landscaping operations within Root Protection Areas, including (where applicable) boundary treatments, pedestrian surfaces, decking and any proposed tree planting.						

#### Personnel and Accountability

his table should be comple	eted at the Pre-Start Meeting or earlier		
Position	Name	Contact Phone & email	Roles
Project Manager	Insert Details	Insert Details	Liaising with site manager & project arborist regarding any potential issues relating to trees. Scheduling of meeting, excavations and inspections. Overseeing this monitoring schedule. Instructing the project arborist and arranging access. Liaising with local authority regarding discharge of planning conditions and variances to the Arboricultural Method Statement.
Site Manager	Insert Details	Insert Details	Day to day monitoring of tree protection measures. Fortnightly supply of site photographs showing all tree protection measures. Induction of all contractors. Reporting to the Appointed Arborist of any incidents or potential variations to the agreed tree protection measures.
Project Arborist	Crown Tree Consultancy	08000 14 13 30 0203 797 7449 Info@crowntrees.co.uk	Liaising with LPA Tree Officer over all arboricultural matters. Initial inspection and signing off of tree protection barriers including ground protection measures. Monthly site visits and inspections. Oversight of excavation for basement down to 1.2m in Restricted Zones. Reporting to the local authority following site inspections and any variation or incidents.
Local Authority	London Borough <sub>S</sub> of Barnet	Planning and Building Control 0208 359 4730	Receipt of reports from the appointed arborist. Liaising with the appointed arborist to agree suitability of tree protection measures and any variations. Enforcement. Advice and assistance with the discharge of planning conditions relating to trees.
Additional Contact	Insert Details	Insert Details	Insert Details
Additional Contact	Insert Details	Insert Details	Insert Details

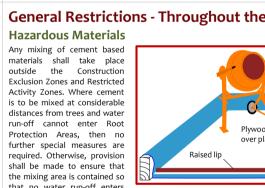
#### Site Monitoring Schedule

Inspection	Site Attendees	Comments
Pre- Start Desk-top To occur prior to any works taking place on the site.	N/A.	Project Manager and Site manager to study this Method Statement & contact the Project Arborist to agree all protection measures.
Pre-Start Meeting After tree works completed & tree protection barriers / ground protection measures installed. Prior to any other activity, inc. demolition & soil stripping.	Site manager, project arborist. Tree Officer invited.	Tree protection fencing locations & specification checked. Ground protection measures checked. Contractors to be inducted to all relevant aspects of the Arboricultural Method Statement. Responsibilities checked and acknowledged. Adherence to the Arboricultural Method Statement to be discussed and agreed. Report on findings to be sent to the local authority tree officer (see accompanying reporting template)
Monthly Inspection and Reporting To occur once per calendar month throughout the entirety of the project until the local authority agree that tree protection measures may be removed	Site manager and project arborist.*	Tree protection fencing locations & specification checked. Ground protection measures checked. Past month, present and future month – activities and adherence to Arboricultural Method Statement discussed and checked. Report on findings to be sent to the local authority tree officer within 5 working days.
Post-Construction Meeting Post external construction activity but prior to removal of fencing & landscaping operations.	Site manager, project arborist. Tree Officer invited.	Retained trees inspected. Ground conditions assessed and mitigation measures agreed where appropriate. Further landscaping operations and restrictions to be agreed.

#### **Site Overview**

\* Where agreed with the L.A. it may be acceptable to supply photographs of the fencing to avoid the necessity for a site visit.







Tree Protection Plan

BS 5837 Root Protection Area (radius = 12xstem diameter

Root Protection Area needing amendment due to site conditions, e.g. presence of exising road or building. Root Protection Area having been amended to account for for site conditions

 $G_2$  = Group No 2  $H_3$  = Hedge No 3 **T1** = Tree No 1

**Restricted Activity Zone A** 

Restricted Activity Zone A

N o. 3 6

Dorma 95.77

Flat Roof 93.46

Construction Exclusion Zone

**Tree Data Schedule** 

Reference G = Group H = Hedge	Age & Species	Height (m)	<b>Crown Ht</b> (m)	Diameter (cm)	Spread N	/ E	Scaled Tree Diagram (m)	Notes		Recommen (Independe development	nt of any	Vigour Physiological Condition	Amenity Value Expectance	
Reg		Hei	Crov	Diam	w s					Priority	Inspect	Condition Structural Condition	Expectanc	Reten
T1	Semi-Mature Chusan Palm Trachycarpus	7	3	28	2 2 2	2	[ <sup>1</sup> 5 - - -	Position: Form: History: <b>Defects:</b> Other:	Situated on third party land. Single stemmed and vertical with a compact crown. No evidence of significant pruning. <b>No significant defects</b> . Drainage trench dug approximately three months ago where shown on	No action i		Moderate Good Fair	Low 20-4	40
	fortunei.						[ <u>)</u> [!5		T.C.P.	n/a	3			
T2	Semi-Mature Judas Tree Cercis siliquastrum.	6	2.5	18	3 2 2	3		Position: Form: History: <b>Defects:</b>	Situated on third party land. Multi-stemmed at 3m with a compact crown. No evidence of significant pruning. No significant defects.	No action i		High Good Good	Low 40·	+ C
	Semi-Mature						[ 15			n/a	3			
T3	Robinia Robinia pseudoacacia.	7.5	2.5	28	3 3 3	3	-	Position: Form: History: <b>Defects:</b> Other:	Situated on third party land. Single stemmed with a slight lean and a balanced crown. No evidence of significant pruning. <b>No significant defects.</b> Limited inspection, dimensions estimated.	No action 1		Moderate Good Good	Moderate 40	
	Early-Mature						[) [15			n/a	3			_
Т4	Sycamore Acer pseudoplatanus.	18	3.5	50	6 5 6	6	and Barry There a start a stattart a start a stattattattattattattattattattattattattat	Position: Form: History: <b>Defects:</b>	Situated on third party land. Twin-stemmed at 4m with a balanced crown. No evidence of significant pruning. No significant defects.	No action required.		Moderate Good Fair	Moderate 40	
	· · ·									n/a	3	Fdli		
Т5	Semi-Mature Sycamore	14	4	32	0 1.5 6	4		Position: Form: History: <b>Defects:</b>	Situated on third party land. Twin-stemmed at 2m with an unbalanced crown (suppressed). No evidence of significant pruning. No significant defects.	No action i	equired.	Moderate Good	Low 10-2	-
	Acer pseudoplatanus.						, <b>1</b>		n/a	3	Fair		C	
Т6	Mature Horse Chestnut Aesculus hippocastanum.	19	2	91	7 9 9	7		Position: Form: History: <b>Defects:</b>	Situated within the rear garden adjacent rear boundary. Twin-stemmed at 4m with a slightly unbalanced crown. Lopped and topped in distant past. Large pruning wounds at 4m and 5m with cavities developing.	Moni Moderate	tor.	Moderate Good Fair	High 10-2	20 B
T7	Semi-Mature Sycamore Acer pseudoplatanus.	16	4	45	6 7 7	2	125 	Position: Form: History: <b>Defects:</b> Other:	Situated on third party land. Single stemmed and vertical with an unbalanced crown. No evidence of significant pruning. <b>No significant defects</b> . Limited inspection, dimensions estimated.	No action r	required.	High Good Good	Moderate 20-4	
	Semi-Mature						[25					Mederate	Loui	
Т8	Apple Malus sp.	5	2	зо @ Base	2.5 0 2	4	-	Position: Form: History: <b>Defects:</b>	orm: Twin-stemmed at in with an unbalanced crown. istory: No evidence of significant pruning.		equired.	Moderate Good Good	Low 40·	+
							[ <u>)</u> [25			n/a	3	0000		
Т9	Semi-Mature Yew	4.5	1.5	35 @ Base		2	-	Position: Form: History:	Situated on third party land. Multi-stemmed at 0.5m with a balanced crown. Crown lifted on east side.	No action r	equired.	Moderate Good	Low 40	+
	Taxus baccata.				3		, 🐢			n/a	3	Good		(
T10	Semi-Mature <b>Yew</b>	6	1.5	40@	3	1	[ <sup>1</sup> 5]	Position: Form:	Situated on third party land. Multi-stemmed at 2m with a sparse crown.	No action i		Moderate Good	Low 40·	
	Taxus baccata.			Base	3			History: Defects:	Heavily reduced on east side. No significant defects.			Good	70	C
							<u></u>			n/a	3	0000		-
T11	Semi-Mature Japanese Maple	3.5	1.5	10	2	2	-	Position: Form: History: <b>Defects:</b>	Situated within the front garden. Twin-stemmed at 1.5m with a compact crown. No evidence of significant pruning. No significant defects.	No action 1	equired.	High Good	Low 20-4	40

