

DUCKWORTHS
ARBORICULTURE

ARBORICULTURAL SURVEY

LAND TO THE REAR OF 51-65 WENSLEY ROAD
COLEY PARK
READING
BERKSHIRE
RG1 6DQ

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Ref: SCD 05516 / 2021 R1

REPORT BY: SARAH DUCKWORTH

DipArb(RFS), TechCert(ArborA), M. Arbor.A, BA (Hons)
LANTRA Professional Tree Inspector

www.duckworthsarboriculture.co.uk

E: trees@duckworthsarboriculture.co.uk

T: 01672 519 811 M: 07810 440546



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2 INTRODUCTION

2.1 AUTHORSHIP

- 2.1.1 This Arboricultural report to consider the proposed redevelopment of land to the rear of 51-65 Wensley Road, Coley Park, Reading has been prepared by Sarah Duckworth, Arboricultural Consultant.
- 2.1.2 I have been instructed to survey the trees growing on and adjacent to the site so that the constraints posed by the trees to the redevelopment of the site to provide new parking facilities can be ascertained.
- 2.1.3 The Arboricultural Impact Assessment looks at any short or longer-term impact the proposed new garage and associated parking spaces might have on the surrounding trees and makes recommendations for amendments or mitigation where appropriate.
- 2.1.4 The site-specific Arboricultural Method Statement and Tree Protection Plan within this report details the steps which will be taken in order to ensure significant trees adjacent to the property can be successfully protected and retained during and on completion of the building works.

2.2 SCOPE

- 2.2.1 The British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' is designed to assist those concerned with trees in relation to construction to form balanced judgments. This report does not therefore seek to put arguments for or against development but provides a means of protecting the trees which will may be affected during development.
- 2.2.2 The tree protection plan which accompanies this report is illustrative and should only be used for dealing with tree issues only. The precise location of all tree protective measurements should be confirmed with a pre-commencement site meeting before any demolition or construction activity takes place.
- 2.2.3 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

2.3 DOCUMENTS

- 2.3.1 The position of trees on the tree plan has been taken from a site plan ref: HTA-A_DR_003 provided by the client and is considered to be a fair representation of their locations within the site and in relation to the new garages.

DISCLAIMER: This is an independently produced Arboricultural Report. I have no connection with any of the parties involved in this site or application that could influence or bias the opinions expressed in this report.

2.4 CONTACTS

Arboricultural Consultant

Sarah Duckworth

Glebelands Cottage East
Mildenhall
Marlborough
Wiltshire
SN8 2LR

E: trees@duckworthsarboriculture.co.uk
T: 01672 519811 M: 07810 440546

Agent

Ruth Heyes

HTA Design LLP
Spike Island Artspace
133 Cumberland Road,
Bristol,
BS1 6UX

T: 020 7482 8150

Local Planning Authority

Reading Borough Council
Natural Environment Officer: Sarah Hanson

E: planning.naturalenvironment@reading.gov.uk

3 SURVEY

3.1 APPRAISAL

- 3.1.1 The trees were surveyed on Monday 1st February 2021 from within the build site and from ground level only. The weather conditions were dry and clear. Visibility was good.
- 3.1.2 Heights were visually estimated. Soil samples were not taken.
- 3.1.3 Trees are dynamic living organisms subject to change, whose health and condition can be subject to significant change influenced by internal and external factors. The assessment of trees in this report are based on the condition assessed at the time of inspection and are valid for 18 months.
- 3.1.4 If the condition of the trees evidently changes or the trees are subject to extreme weather conditions before this date; further inspection may be required. No tree is ever absolutely safe due to the unpredictable laws and forces of nature.
- 3.1.5 The tree survey identified 5 individual trees and 2 groups of trees growing on or adjacent to the site which were relevant to this planning application.
- 3.1.6 The trees on site were assessed for their quality and benefits within the context of the proposed development and categorised in accordance with the recommendations in the BS:5837:2012 – 'Trees in Relation to Design, Demolition and Construction'.

3.2 KEY

Ref:	T1 = Tree 1 A1 = Area 1	G1 = Group 1 W1 = Woodland 1
Species:	Common name (Botanical name)	
Height:	Measured with a clinometer (m) where possible or estimated when part of a group	
Stem:	Stem diameter taken at 1.5m with girth tape or rule and recorded in millimeters	
Branch spread:	Paced measurements at compass points or with a laser measure.	
Crown clearance:	Existing height above ground level of canopy and / or first significant branch direction of growth in metres e.g. 2.4 (N) where relevant.	
Epics:	Lower canopy created by epicormic growth.	
Age Class:	Newly planted - 3 years following planting Young - Tree well established but with juvenile crown form Young Mature - Tree in first third of usual life expectancy for species Mature - Tree in second third of usual life expectancy for species Over Mature - Tree in final third of usual life expectancy for species / exhibiting signs of crown retrenchment & senescence Veteran - Older than usual for species or with historical/ cultural / ecological value	
General Observations:	Made with reference to physiological condition (health, vigour) and structural condition, noting evidence of decay, structural weakness and physical defect and preliminary management recommendations.	
Estimated Remaining Contribution:	Estimated in years - less than 10, 10-20, 20-40, 40+	
BS: 5837:2012 category rating:	In accordance with the guidelines of the British Standard.  Category 'A' tree (Green)  Category 'B' tree (Blue)  Category 'C' tree (Grey)  Category 'U' tree – Fell (Red)	
RPA Area	BS:5837 (2012) Root Protection Area calculation in square metres	
RPA Radius	BS:5837 (2012) Root Protection Area calculation circle radius in metres. ¹	
(est)	Estimated where access is not available to measure.	
(FEA)	Feathered form	
(Ave)	Average – usually in the case of multi-stem trees.	

¹ The root protection area radius is for information only and may not be appropriate in every case. BS:5837 advises that 'the RPA for each tree should initially be plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting may have occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distributions.'

4 BS:5837 (2012) TABLE 1: CASCADE CHART FOR TREE QUALITY ASSESSMENT

CATEGORY & DEFINITION		CRITERIA (including sub-categories where appropriate)		
Trees unsuitable for retention				
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.	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 showing signs of significant, immediate and irreversible overall decline. Trees infected with pathogens of significance to the health and / or safety of other trees nearby or very low quality trees suppressing adjacent trees of better quality. NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve			
	Mainly Arboricultural Qualities	Mainly Landscape Qualities	Mainly cultural values including conservation	
Trees considered suitable 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)	
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 remedial 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 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 contribution to the wider locality.	Trees with material conservation or other cultural value.	
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 150mm.	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.	

5 SURVEY DATA

Ref:	Species	Height (m)	Dia. at 1.5m (mm)	Canopy				Crown Clearance	Life-stage	General Observations & Recommendations	Remaining Contribution	BS:5837 Category	RPA Radius	RPA Area
				N	E	S	W							
T1	Walnut (<i>Juglans regia</i>)	12-14	600, 600 (est)	8.3	8	7	7	4	M	Heavily crown-lifted. Offsite tree, stub cuts. Deadwood in canopy.	20-40	B1	10.2	326
T2	Sycamore (<i>Acer pseudoplatanus</i>)	8	390	5.1	4.5	4	4.7	2.5	M	Mature epicormic growth around base. Stub cuts at base stem occluding around fencing.	20-40	B2	4.7	69
T3	Sycamore (<i>Acer pseudoplatanus</i>)	5.5	70 (ave)	2.7	2.7	2.7	2.7	2	Y	Behind brick retaining wall.	20-40	C2	0.8	2.2
T4	Sycamore (<i>Acer pseudoplatanus</i>)	5	<50 (ave)	2	2	2	2	FEA	Y	Group of young sucking trees.	20-40	C2	0.6	<1
T5	Sycamore (<i>Acer pseudoplatanus</i>)	7	350 (est)	3	3	3	3	2	YM	Offsite tree, no access to base.	20-40	Cc2	4.2	55
T6	Lawson Cypress (<i>Chamaecyparis lawsoniana</i> cv.)	6	280	1.3	1.3	1.3	1.3	FEA	M	Offsite small ornamental conifer.	20-40	C1	3.4	36
T7	Lawson Cypress (<i>Chamaecyparis lawsoniana</i> cv.)	5.5	60, 60, 100, 80	1	1	1	1	FEA	m	Offsite small multi-stem ornamental conifer.	20-40	C2	1.8	11

6 ARBORICULTURAL IMPACT ASSESSMENT

6.1 INTRODUCTION

- 6.1.1 The purpose of this Arboricultural Impact Assessment is to evaluate the direct and indirect effects of the proposed redevelopment of land to the rear of 51-65 Wensley Road on the adjacent trees and where necessary recommend solutions or mitigation as appropriate. The assessment will take account of the effects of any potentially damaging activities proposed near the trees growing on or adjacent to the site.

6.2 STATUTORY PLANNING CONSTRAINTS

- 6.2.1 I have confirmed on the Reading Borough Council's Tree Preservation Order Directory that the trees are not subject of a Tree Preservation Order and the property is not within a Conservation Area.

6.3 SOIL

- 6.3.1 The British Geological Survey 1:50 000 scale bedrock geology description for this area is: Lambeth Group – which includes clay, silt and sand. This is a sedimentary bedrock formed in a local environment previously dominated by swamps, estuaries and deltas.
- 6.3.2 As it contains clay, the ground may be more susceptible to damage through compaction and will have some capacity to shrink and swell with changing ground water levels.

6.4 PLOTTING THE RPAS

- 6.4.1 The British Standard 5837 advises that a Root Protection Area (RPA) should initially be plotted as a circle centered on the base of the stem. However, where pre-existing site conditions or other factors exist which indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect soundly based arboricultural assessment or likely root distribution.
- 6.4.2 The retaining walls along the northern boundary of the site are expected to have prevented tree roots from G3 and G4 (Sycamore) from growing into the site (see photo 1).
- 6.4.3 The root protection area for the large Walnut (T1) has been plotted as a circle in accordance with BS:5837 as a precaution to ensure all rooting areas of the tree are fully protected, however the majority of dense rooting for this tree, is expected to be to the north within the gardens of properties in Tintern Crescent where the ground is unsurfaced and / or less compacted, therefore more conducive to healthy root growth.

6.5 SITE ASSESSMENT

- 6.5.1 The build site is a wedge of land set back from the public highway and located to the rear of a two storey block of maisonettes. The area is used for resident parking and appears to be subject to ongoing antisocial behaviour with evidence of ongoing flytipping of household rubbish in the area.
- 6.5.2 Beyond the southeast corner of the site there is a large walnut the canopy of which overhangs the site and has been cut back. Elsewhere, there are a number of low grade trees and shrubs and dense bramble around the periphery of the site.



Photo 1 – Retaining walls and flytipping on site

- 6.5.3 The central area has historically been used for parking for a number of years and is made up of compacted ground and concrete. There are a number of access points from the land through to private residential gardens and this access will need to be maintained.
- 6.5.3 Beyond the southeast corner of the site there is a large walnut the canopy of which overhangs the site and has been cut back.

6.6 TREES APPRAISAL

Total Number of individual trees surveyed:	5
Total Number of tree groups surveyed:	2
Number of category 'A' trees / groups:	0
Number of category 'B' trees / groups:	1
Category B/C tree:	1
Number of category 'C' trees / groups:	5
Number of category 'U' trees:	0

T1 – Walnut

- 6.6.1 The most prominent tree in relation to the development is the Walnut (T1) growing offsite within the gardens of a residential property on Tintern Crescent. The tree is growing in a prominent location visible in wider views from Wensley Road and as a backdrop to houses in Tintern Crescent.
- 6.6.2 This tree is considered of sufficient size and amenity value to be designated a 'Category B1' specimen tree in recognition of its significant public amenity value. The tree has not been downgraded from an 'A' category due to previous poor pruning work and its codominant (sub-optimal) stem form.
- 6.6.3 The Walnut will be partially rooting within the build site however most roots within the build area are currently protected by an existing concrete slab. The revised parking spaces cover 16.4m² of the tree's rooting area which equates to 5% of the total rooting area of the tree and is not significant in terms tree health.
- 6.6.4 Provided the new parking spaces are of a no-dig construction, they are not expected to cause any harm to the trees.



Photo 2 - T1 (Walnut) - blue van parked on existing concrete slab

T2 – Sycamore



Photo 3 - Sycamore (T2)

- 6.6.5 The only mature tree growing within the build area is T2 (Sycamore). The tree is an early mature specimen and significant as being one of only a few mature trees in the area. The tree's quality is undermined by dense suckering and several large lower shoots and stubs growing through and occluding around the chain link boundary fence causing a permanent defect around the base of the tree.
- 6.6.6 The tree is not visible from a public place.
- 6.6.7 The tree has therefore been graded as a borderline category B/C tree reflecting its lower quality and lack of wider public amenity value. There is a raised bank adjacent to the tree which appears to be a more recently tipped mound of sand or soil. Tree roots are not expected to be rooting in within the mound and I am satisfied that it can be removed without any detriment to the trees' roots.
- 6.6.8 Following my recommendations, the retained area of soft landscaping has been extended as far as possible without impacting on vehicle access and movement within the site. The proposed development requires 26m² of additional hard surfacing within the rooting area of the tree. This equates to 37% of the total rooting area of the tree and exceeds the maximum of 20% recommended in BS:5837 2012. This hard standing is essential to the development in order to allow full access to the new garages and existing rear accesses on site.
- 6.6.9 The tree is not of such high quality or amenity value that it should pose a constraint to the proposed development of the site. However, the applicant wishes to retain the tree, and I consider that, as a younger Sycamore with reasonable vitality the tree will tolerate the additional hard standing within its rooting area. The hard standing will need to be of a no-dig construction and the finished surface will need to be porous in order that the roots of T2 can continue to thrive under the surface.
- 6.6.10 All other trees are category 'C' trees of no particular individual arboricultural merit. The category 'C' trees are located to the rear of the residential properties and have wider amenity value.



Photo 4 - Sycamore group (G3)



Photo 5 - Sycamore group (G4) and individual Sycamore (T5)



Photo 6 – Lawson Cypress cultivars (T6 and T7) adjacent to the site entrance

6.7 TREE LOSS AND PRUNING WORKS

- 6.7.1 No trees are to be removed in order to facilitate the build.
- 6.7.2 Selective shoots will need to be cut back from G3 and G4 (Sycamore) and also the mature epicormic growth from the base of T2 (Sycamore) will need to be removed. This is minor pruning works which will not harm the health or wider amenity of the trees.

6.8 BUILD APPRAISAL

- 6.8.1 The new garage will be constructed outside of the rooting area of all trees.
- 6.8.2 Hard standing within the rooting area of T1 will be predominantly into an area currently paved with a concrete slab and used for parking. The increase in hard standing within the rooting areas of the tree is less than 5% and is not significant in terms of tree health.
- 6.8.3 The application will require additional new hard landscaping within the rooting area of T2 (Sycamore) in excess of 20% of the previously undeveloped rooting area recommended in BS:5837 (2012). Although not ideal, it would not be viable to redevelop the site to its full potential without some incursion into the rooting area of the tree. The tree is of a size and amenity value that it should not pose an insurmountable constraint to the redevelopment of the site. The tree is an early mature specimen with reasonable vitality and is expected to tolerate the additional hard standing provided a full no-dig methodology is followed.
- 6.8.4 The resulting layout of trees and their future growth in relation to the garages and parking spaces is considered to be good and sustainable without any foreseeable conflict with access or vehicles. As such the application is considered to be acceptable in Arboricultural Terms.

6.9 TREE PROTECTION DURING BUILDING WORKS

- 6.9.1 The rooting area of T1 (Walnut) and T2 (Sycamore) will be protected with fit for purpose Tree Protection Barriers in accordance with BS:5837 (2012) within the site.
- 6.9.2 The Tree Protection Fencing will consist of a vertical and horizontal scaffold framework braced well to resist impact. The vertical tubes will be spaced at a maximum distance of 3m and driven securely into the ground. Onto this framework panels will be securely fixed.
- 6.9.3 The British Standard 5837:2012 advises the panels should be welded mesh – ‘Heras’ style fencing which can resist reasonable vehicle impact. Where 3m lengths are not practical, chestnut pale fencing can be erected onto the frames in order to achieve shorter lengths of tree protective fencing to protect smaller spaces and around tight corners within the site.

6.10 CONCLUSIONS

- 6.10.1 The application to redevelop land to the rear of 51-65 Wensley Road to provide additional parking and garage facilities represents a real opportunity to improve the aesthetics of the site and to discourage anti-social behaviour and fly tipping.
- 6.10.2 Trees on site have been properly considered in accordance with Arboricultural and Planning best practice (BS:5837 2012 Trees in Relation to Design, Demolition and Construction’).
- 6.10.3 No trees are to be removed in order to facilitate the build and the new garage units will be outside of the identified rooting areas of all trees.
- 6.10.4 Additional areas of hard standing will be of a no-dig construction and the finished surface will be porous in order to protect tree roots which might extend into the area. Significant trees on and adjacent to the site will be protected and retained during the proposed building works in accordance with the guidelines and recommendations in BS:5837 2012 - Trees in Relation to Design, Demolition and Construction.
- 6.10.5 The proposal therefore complies with national and local planning policies as it related to trees and is considered to be acceptable in arboricultural terms.

7 ARBORICULTURAL METHOD STATEMENT (AMS)

7.1 INTRODUCTION

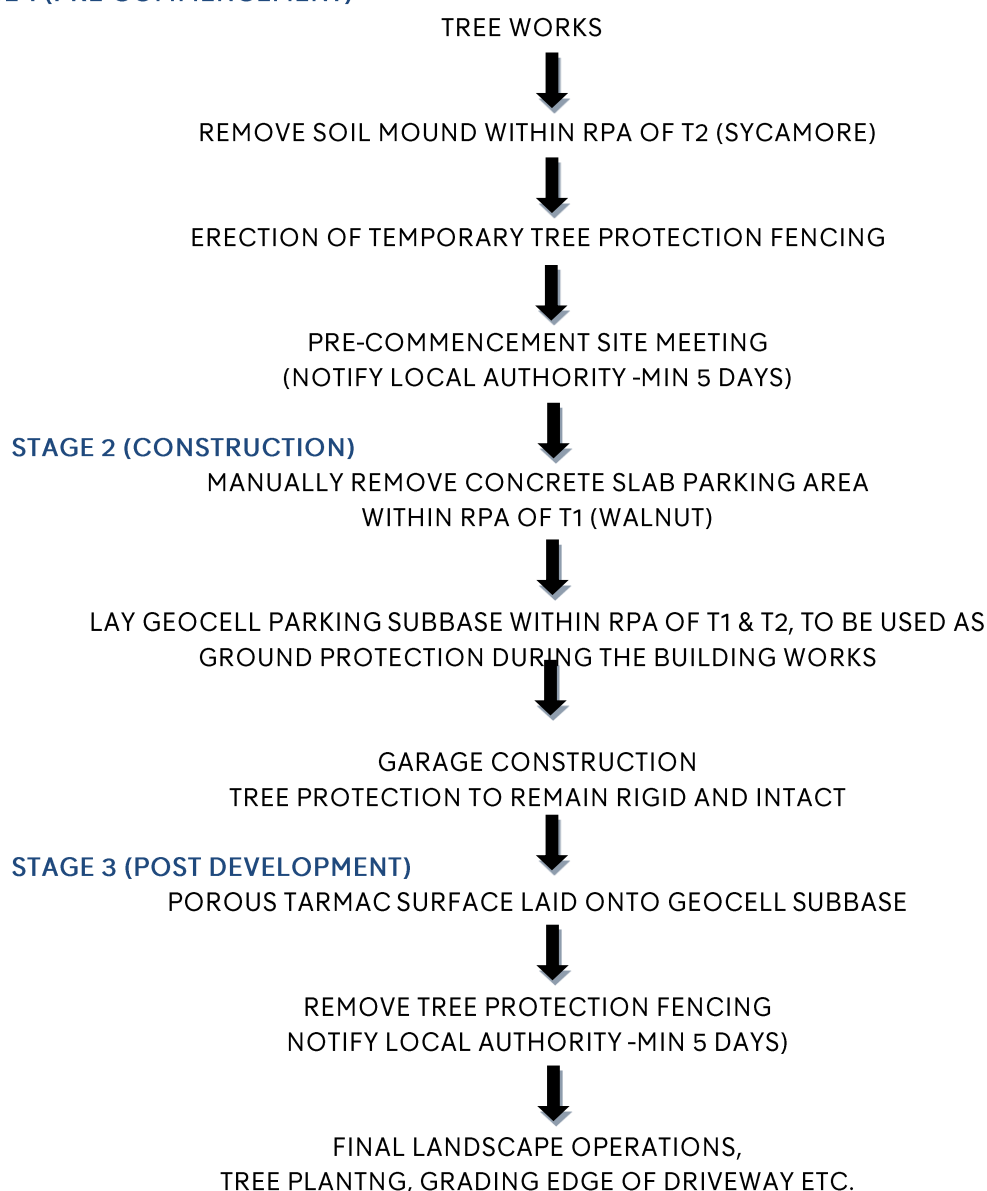
- 7.1.1 This Arboricultural Method Statement specifies the detailed methodology that will be employed to prevent unacceptable harm to trees growing on and adjacent to land to the rear of 51-65 Wensley Road, Reading during building works to construct new garages and extend the associated parking areas.
- 7.1.2 The correct and timely installation of tree protection measures such as tree protection barriers are critical to ensure the long-term retention of a healthy tree stock adjacent to the development.
- 7.1.3 This method statement will be read, approved and agreed to by all key personnel prior to the commencement of works within the site.

7.2 SITE SUPERVISION AND MONITORING.

- 7.2.1 The schedule proposed here for site supervision and monitoring is considered reasonable and proportionate to the arboricultural issues and intensity of development within the site.
- 7.2.2 The Site Manager will assume responsibility for ensuring no works are undertaken on site except in complete accordance with the approved Arboricultural Method Statement.
- 7.2.3 A pre-commencement site visit will be held once the Tree Protection Fencing is installed as shown on the Tree Protection Plan and prior to the commencement of building works on site.
- 7.2.4 The Local Authority Natural Environment Officer will be given a minimum of five days' notice of the time and date of the meeting so that they may attend should they wish to do so.
- 7.2.5 The purpose of the pre-commencement meeting will be to confirm the location and construction of the Tree Protection Measures and ensure a common understanding of the requirements for Tree Protection within the site.
- 7.2.6 If the Local Planning Authority is unable to attend, photographic evidence of the tree protection fencing will be emailed to the appointed planning officer once it has been erected.
- 7.2.7 A copy of the Arboricultural Method Statement and Tree Protection Plan will be available on site for reference.
- 7.2.8 The Site Manager will notify the Local Authority Natural Environment Officer 5 days prior to the tree protection measures being removed on completion of development.

7.3 PHASING OF WORKS

STAGE 1 (PRE-COMMENCEMENT)



7.4 TREE WORKS

7.4.1 The following tree works will take place prior to the commencement of any building works on site:

Ref:	Species	BS:5837 category	Comments
T2	Sycamore	B/C2	Remove epicormic growth back to trunk.
G3	Sycamore	C2	Cut small stems back to boundary
G4	Sycamore	C2	Cut small stems back to boundary

Figure 1 – Schedule for tree work

7.5 TREE WORKS BEST PRACTICE

- 7.5.1 All tree works shall be undertaken in accordance with BS:3998 2010 'Tree Work Recommendations'.
- 7.5.2 No vehicles will be driven beyond the existing driveway onto unprotected ground during the course of the tree work operations.

7.6 PROTECTED SPECIES

- 7.6.1 In accordance with the Wildlife and Countryside Act - 1981, Conservation - Natural Habitats - Regulations 1994 and Countryside Rights of Way Act - 2000, the property owner will consider the timing and type of tree work operations to avoid causing disturbance to any nesting or breeding birds or bat roosts that may be present within trees.
- 7.6.2 It is an offence (subject to exceptions) to intentionally kill, injure, or take, possess, or trade in any wild animal listed, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.
- 7.6.3 Non-urgent major tree work involving tree removal or reduction operations should not be undertaken during the bird nesting or breeding season, which is considered to be from 1 March to 31 July. However, depending on seasonal temperatures, some birds continue breeding into August and September.
- 7.6.4 All wild birds, their young, their eggs and active nests are protected under law. It is an offence to damage a nest intentionally while it is in use or being built and hedge cutting is highly likely to damage nests or cause them to be deserted.

7.7 TREE PROTECTION FENCING

- 7.7.1 No works will commence, including construction, excavation or demolition, prior to the Tree Protection Fencing being installed as identified in the Tree Protection Plan.
- 7.7.2 The Tree Protection Fencing will consist of a vertical and horizontal scaffold framework braced well to resist impact. The vertical tubes will be spaced at a maximum distance of 3m and driven securely into the ground taking care to avoid any tree roots. Heras panels will then be attached on to this framework.
- 7.7.3 At no time will Tree Protection Fencing be removed or relocated (except in accordance with this report) without professional arboricultural advice and without the prior consent of the Local Authority Natural Environment Officer.
- 7.7.4 The Site Manager will notify the Natural Environment Officer once the Tree Protection Fencing is installed on site and 5 days' prior to the Protection Fencing being removed on completion of the build so that a representative from the Local Authority may visit the site if considered necessary.

7.8 CONSTRUCTION EXCLUSION ZONE

- 7.8.1 The area behind the tree protection fencing is designated the Construction Exclusion Zone and is to be isolated from all activity during work on the site.

THERE WILL BE NO STORAGE, PARKING, VEHICLE MOVEMENT OR PEDESTRIAN ACTIVITY, TEMPORARY OR OTHERWISE, WITHIN THE CONSTRUCTION EXCLUSION ZONE AT ANY TIME DURING THE COURSE OF THE BUILD.

7.9 REMOVAL OF SOIL MOUND WITHIN RPA OF T2 (SYCAMORE)

- 7.9.1 Existing soil / sand mound within the rooting area of T2 (Sycamore) can be scraped back to the natural ground level, removing vegetation and up to 3cm of roots / topsoil. This is not a natural landscape feature and tree roots are not expected to be growing within the mound.
- 7.9.2 Any ruts in the ground following the removal of the mound will be levelled with a coarse pH neutral sand or clean angular stone.
- 7.9.3 Once removed, tree protection will be located around the tree as per the Tree Protection Plan.

7.10 REMOVAL OF CONCRETE SLAB WITHIN THE RPA OF T1 (WALNUT)

- 7.10.1 The existing concrete raft within the RPA of T1 (Walnut) will be retained as a sub-base to the new parking areas where possible. If the slab needs to be removed, it can be broken up using a pedestrian operated pneumatic drill and removed by hand working backwards away from the tree.
- 7.10.2 Any roots exposed during the course of this works will be immediately covered with a light topsoil or damp hessian to prevent desiccation. All pedestrian activity on the exposed ground will be kept to an absolute minimum.
- 7.10.3 Once the concrete has been removed, a thin layer of quality topsoil will be laid as required to cover surface roots and provide a level surface. This will be spread promptly on the exposed ground surface and will be levelled using hand tools prior to construction of the no-dig parking spaces (See 7.11).

7.11 NO-DIG HARD STANDING

- 7.11.1 The new hard standing and parking spaces where situated within the rooting areas of T1 (Walnut) and T2 (Sycamore) are to be of a **no-dig** construction.
- 7.11.2 A Geotextile Fabric will be laid across the site, overlapping adjacent rolls by a minimum of 150mm. It may be necessary to lightly pin the Geotextile in place until the overlying layers are installed.
- 7.11.3 A Cell web system (manufactured by Geosynthetics) 200mm deep will then be opened out and pinned in place between the edging boards.
- 7.11.4 Pin spacing will vary according to the site conditions but will generally be required at 1m – 2m centres on flat surfaces, mainly placed around the perimeter of the area and where adjacent sections of the cellular confinement system abut each other, with less in the middle of the area.
- 7.11.5 The open cells will be filled 150mm deep with clean, open graded aggregate with particles between 5 and 45mm, (no fines Type 1 Roadstone of a non-marine source) working toward the tree from the furthest point away and using the filled cells as a platform.
- 7.11.6 Once the Geo-textile grid has been installed and filled with aggregate as per the manufacturer's recommendation it will be used as root protection surfacing for T1, T62 & T64 during the construction process.
- 7.11.7 To ensure compliance with highway standards, a standard HB kerb with concrete bedding will be set on either side of the roadway. Concrete will be laid on to a geotextile membrane placed directly onto the existing ground level to prevent potentially toxic concrete coming into direct contact with tree roots.

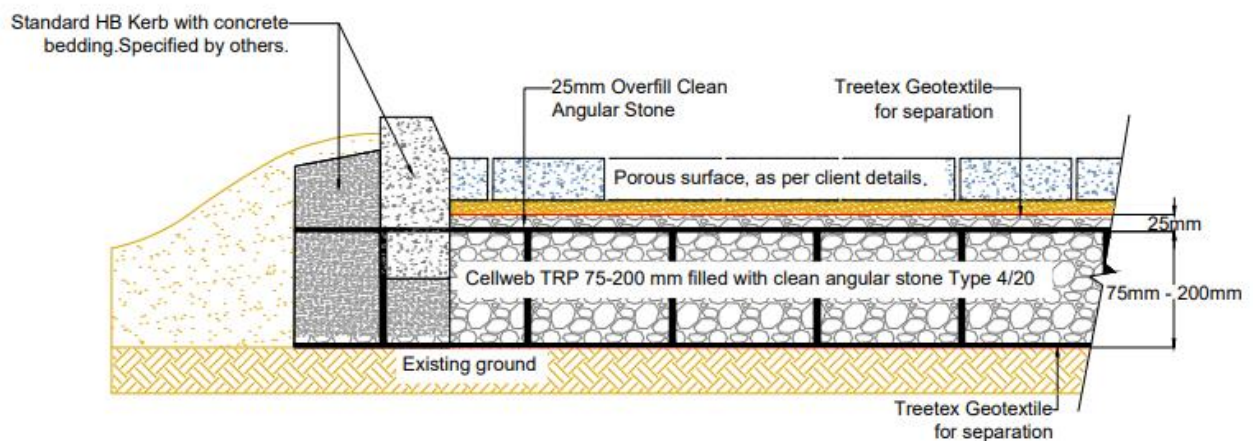


Figure 2 – Concrete edging specification from Geosynthetics Ltd.

- 7.11.8 Where necessary, following completion of the development, topsoil can be used to grade the edge of the driveway and parking areas to meet the adjacent ground level.

7.12 GENERAL CONSIDERATIONS

- 7.12.1 Roots can be killed by pollution of the rooting area by chemicals and leaching. Loose, granular or liquid materials, including cement mix and fuel will be stored on an impermeable membrane placed outside of the rooting areas of all trees.
- 7.12.2 Particular care will be taken in the planning of deliveries if they require wide or tall loads and plants with booms, rigs or counter weights which can cause serious and permanent damage to trees making their safe retention impossible.
- 7.12.3 Any transit or traverse of plant in proximity to the tree protection fencing will be conducted under the supervision of a banksman to ensure that adequate clearance from trees is maintained at all times.
- 7.12.4 Materials will be delivered to site regularly in small quantities in order to keep vehicle delivery sizes small and on site storage to an absolute minimum.

7.13 PLANTING

- 7.13.1 All planting within the rooting area of trees shall be bare root and notched planted where possible, planting positions will be locally adjusted where necessary to avoid tree roots.

7.14 UNFORESEEN CIRCUMSTANCES

- 7.14.1 In the event of unforeseen circumstances whereby it is not possible to work in accordance with the Arboricultural Method Statement then advice should be sought immediately from a qualified Arboriculturist.
- 7.14.2 **THERE SHALL BE NO DEVIATION FROM THIS METHOD STATEMENT WITHOUT CONSULTATION WITH A QUALIFIED ARBORICULTURIST AND / OR THE WRITTEN CONSENT OF THE LOCAL PLANNING AUTHORITY.**

8 APPENDICES

- 1) Plans
- 2) Tree Protection Specification
- 3) Qualifications

1) PLANS

Attached as separate pdf documents

- Tree Protection Plan ref. TPP 05516 /2021 R1

2) TREE PROTECTION FENCING SPECIFICATION

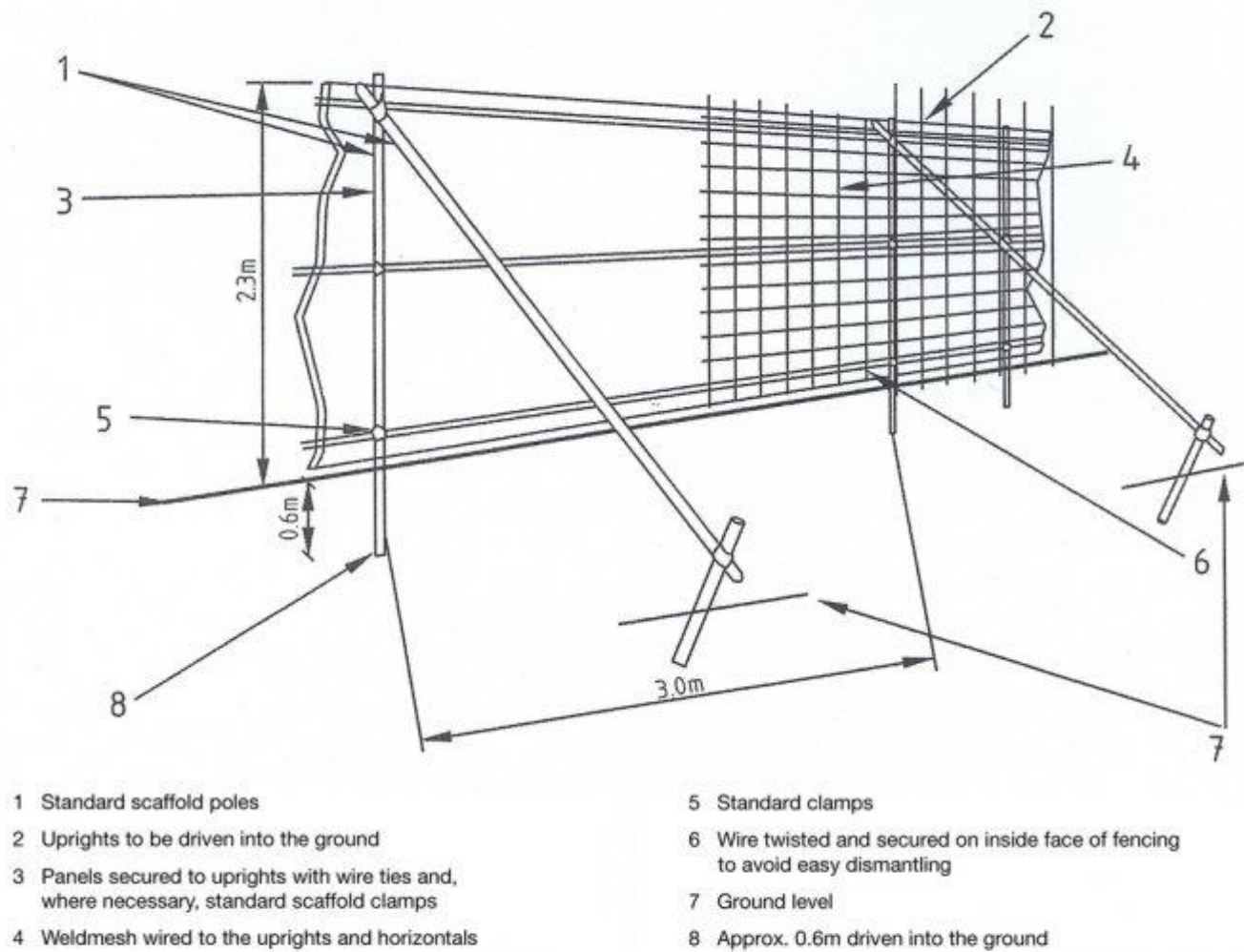


Figure 2. – Protective fencing for RPA

Extract from BS:5837 (2012) Trees in Relation to Design, Demolition and Construction.

3) QUALIFICATIONS

- This Arboricultural report has been prepared by Sarah Duckworth, Independent Arboricultural Consultant, trading as Duckworth's Arboriculture.
- I have over 17 years' experience working in the field of Arboriculture and for the past 15 years I have worked as a Local Authority Tree Officer both directly and independently providing contracted support. Since 2010 I have worked as a private consultant carrying out a range of Arboricultural Reports and Assessments for private clients.
- I hold the Royal Forestry Society's Professional Diploma (Level 6) for which I received the Lockhart Garrett Award commendation in 2009.
- I also hold the Arboricultural Association's Technicians Certificate (with Distinction) and am a LANTRA qualified Professional Tree Inspector.
- I am a Professional Member of both the Arboricultural Association and the Consulting Arborist Society (CAS).