

# Arboricultural Impact Assessment and Method Statement

Client: Stefan Neophytou

Site: 16a Croftdown Road London NW5 1EH

Report by:	Tracy Clarke MICFor. F.Arbor.A. CEnv
Date:	November 2020
Reference:	TCTC-17920

## OUR CONTACT DETAILS:

Website: <u>www.tracyclarke.co.uk</u>

Email: <u>info@tracyclarke.co.uk</u>

Tel: 01371 811831

Tracy Clarke Tree Consultancy Ltd.

**Registered Office:** Fisher Michael | The Old Grange Warren Estate | Lordship Road | Writtle | Chelmsford | England | CM1 3WT | Company No: 10781437 | VAT Registration No: 269 2078 77

## **Executive Summary**

Tracy Clarke Tree Consultancy Ltd are instructed to provide an arboricultural survey and impact assessment of the proposal in accordance with BS5837 (2012), Trees in relation to design, demolition, and construction – Recommendations. The information provided to the client has helped to inform the site layout to ensure that the proposal is sustainable in respect of important arboricultural and landscape features and that it complies with national and local planning policies.

There are several off site trees and one tree within the rear garden that are relevant to consideration of the potential impact from the development proposal

The proposed frontage alterations are low key in terms of construction works and will not involve excavations or substructure works that could affect roots of offsite neighbouring trees.

The proposed single storey rear garden extension has the potential to affect young off site trees (G5) however, site investigations have established there are no roots from these extending under the boundary wall, within the site, and minor pruning works to lift the crowns of T4 and G5 to clear the roof of the extension (3.130m height) is reasonable and arguably necessary pruning regardless of the development proposal to allow reasonable use of the rear garden.

The one tree (T2) within the rear garden will remain unaffected by the proposal provided the recommendations for its protection during site works are adhered to.

My conclusions are that the proposed development is therefore acceptable in both arboricultural terms and in relation to planning policy as it relates to trees.

## Contents

1	Introduction	1
2	Planning Policy Context	3
3	Observations and Tree Information	5
4	Discussion	8
5	Conclusions	11
	Appendix A1 – BS 5837 Tree Data Schedule	12
	Appendix A2 – Tree Work Schedule	13
	Appendix B1 – Tree Survey Plan	14
	Appendix B2 – Proposal and Tree Work Plan	15
	Appendix B3 – Tree Protection Plan and Heads of Terms Method Statement	16
	Appendix C – Tree Data Analysis	17
	Appendix D – Qualifications	18

## 1 Introduction

## Terms of reference

- 1.1 Tracy Clarke Tree Consultancy Ltd are instructed by Stefan Neophytou to:
  - provide a BS 5837 (2012) tree survey of trees relevant to the site, with recommendations for works, and
  - provide an arboricultural impact assessment report which addresses the impacts on trees from the proposed development for planning submission, and provides measures for their protection during construction
- 1.2 The proposal is for a rear extension to the lower ground floor of the property, and rearrangement of existing frontage steps, and provision of storage deck to the front courtyard for refuse.

## Method of assessment

- 1.3 This assessment follows best practice British Standard 5837: Trees in relation to design, demolition and construction (2012) which provides a methodology for the assessment of trees and other significant vegetation on development sites and aims to guide decision making towards sustainable design and tree cover on all new developments.
- 1.4 This assessment also has regard to national and local planning policies in consideration of the arboricultural impacts from the development proposals since these policies will guide the decisionmaking process of the local planning authority.

### Scope and limitations

1.5 The tree survey is of a preliminary nature only; all trees have only been inspected from ground level applying <sup>1</sup>Mattheck's (1994) visual tree assessment method (VTA). No detailed decay investigations of the trees or detailed site investigations have been carried out to inform this report.

<sup>&</sup>lt;sup>1</sup> Mattheck, C, Broeler, H. (1994). The body language of trees. A handbook for failure analysis – Research for Amenity Trees No.4 Research for Amenity Trees

- 1.6 This report is not an assessment of tree condition and the risk they represent to people or property, however where defects trees have been noted as requiring works, recommendations are included in the tree schedule included with this report.
- 1.7 All recommendations are given in the context of the site's current use, or to facilitate the proposed development. Trees are dynamic living organisms, and subject to a change in their condition.
- 1.8 This report should not be considered as a full assessment of the health and safety of trees on and adjacent to the site, and where trees do have the potential to harm people or property, an inspection of their condition by the relevant owner on an annual basis is recommended.
- 1.9 The assessment of trees within this report is valid for two years from its date.
- 1.10 Due to the absence of a full topographical survey, tree positions are approximate only unless otherwise stated.

### Background documents supplied

1.11 The following documents have been supplied by the client team and relied upon for this report:

Supplier	er Name				
The D*Haus Company Ltd	0124_PL-001 Planning Existing Plans 0124_PL-002 Planning Existing Elevations 0124_PL-003 Planning Proposed Plans 0124_PL-004 Planning Proposed Elevations 0124_PL-005 Planning Existing and Proposed Courtyard	26 November 2020			
The D*Haus Company Ltd	0124_PL_CROFTDOWN ROAD DAS	13 November 2020			

## 2 Planning Policy Context

### National and Local Planning Policy

- 2.1 National Planning policy is set out in the government's National Planning Policy Framework (NPPF) 2019, is a material consideration in any planning application and provides a framework for locally prepared plans for housing and other development. This framework policy promotes a presumption in favour of sustainable development, delivering good quality design and change for the better in our built and natural environment over the lifetime of the development. The NPPF recognises that the natural environment is an essential component of the health and wellbeing of society. Growth for communities delivered by the planning system requires the careful consideration of our natural environment during the design and development process to achieve sustainable development.
- 2.2 The NPPF goes on to say that if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or as a last resort, compensated for, then planning permission should be refused.
- 2.3 This report considers how the development complies with the NPPF and how it achieves sustainable development.
- 2.4 The intend to publish London Plan (December 2019) replaces all previous versions of the London Plan and marks a step-change in the approach to the future development and sustainable, inclusive growth of London, promoting the concept of Good Growth – growth that is socially, economically inclusive and environmentally sustainable. Chapter 8 sets out the strategic approach to green infrastructure within London which is considered an integral element of all development proposals. Policy G7 in particular requires that where possible existing trees of value are retained and if planning permission is granted that necessitates the removal of trees there should be adequate replacement based on the existing value of the benefits of the trees removed.
- 2.5 The All London Green Grid supplementary planning guidance adopted in 2012 provides guidance on the implementation of the London Plan policies and in respect of trees and vegetation notes:

"Trees and vegetation in the open spaces, streets and civic spaces within the central area can provide green links through the urban area.... Urban greening of streets and buildings will assist in adapting to the effects of climate change, for example street trees will provide shade and help to alleviate the urban heat island effect through cooling and green roofs can slow down the rate of rainwater run-off into drain and sewers."

- 2.6 The London Environment Strategy (2018) chapter 5 (Green Infrastructure) policy 5.1.1 aims to protect, enhance and increase green areas in the city, to provide green infrastructure services and benefits that London needs now and in the future; New development proposals should avoid reducing the overall amount of green cover and where possible seek to enhance a wider green infrastructure.
- 2.7 Local Planning Authorities are governed in their decision-making process by the principle of sustainable development.
- 2.8 The London Borough of Camden's Local Plan was adopted in January 2017.
- 2.9 **Policy A3 Biodiversity: Trees and vegetation** The Council will protect, and seek to secure additional, trees and vegetation. The Council will:

j. Resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation.

k. Require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;

I. Expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development.

m. Expect developments to incorporate additional trees and vegetation wherever possible.

## 3 Observations and Tree Information

## <u>The Site</u>

- 3.1 The site was visited on 20 November 2020 to carry out a BS5837 (2012) survey and assessment of trees.
- 3.2 The development site is 16a Croftdown Road, London, NW5 1EH



Fig. 1 Google Earth 2020 – site location

## <u>Tree data</u>

- 3.3 The data on the trees surveyed can be found in the tree schedule at Appendix A1. A total of four trees and two off site young groups have been assessed, tree works are identified at Appendix A2.
- 3.4 The surveyed trees and their assessment of quality and value are indicated on the tree survey plan at Appendix B1.
- 3.5 The proposed layout and where relevant, trees for removal are shown at Appendix B2.
- 3.6 The tree protection plan is provided at Appendix B3.

- 3.7 An analysis of the tree quality and value, species mix and age diversity relevant to this proposal is included at Appendix C, which helps to understand the sustainability of the existing tree population on site.
- 3.8 The groups are newly established / newly planted trees, with small stem diameters.
- 3.9 Trial hole excavation along the western rear boundary of G5 indicate that the footings for the wall are 500mm below existing ground levels, and probably currently sufficiently deep enough to act as a physical barrier to root growth from the young neighbouring apple trees.
- 3.10 A trial holes was hand excavated to 600mm depth in line with the stem of the nearest tree within G5, no roots were encountered, suggesting the wall is currently a barrier to root growth from this group within the site (See TC1 and TC2 below, and works in this part of the garden are unlikely to adversely affect the neighbouring trees.



TC1. (26.11.2020) View of trial hole

TC2. (26.11.20) View inside trial hole to a depth of 600mm

## Site soils and influence on rooting

- 3.11 Soil conditions will have a significant effect upon tree growth and will influence:
  - The species that will grow successfully.
  - Rooting depths for different species.
  - The available soil volume that can be used by roots and therefore the likely tolerance of trees and other vegetation to soil disturbance

3.12 As a guide, <sup>2</sup>Cranfield University Soilscapes map describes the soils at the site as **Soilscape 18**: Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils.

### Legal status of trees / woodlands

- 3.13 At the time of writing the report it has not been possible to identify whether the surveyed trees are legally protected by a tree preservation as there is no on-line facility for this, however it has been possible to confirm that the site is within the Dartmouth Park Conservation Area.
- 3.14 The removal or pruning of any legally protected trees requires prior written Local Planning Authority (LPA) approval unless granted through full and detailed planning consent where the works have been clearly specified and agreed as necessary to implement that consent.

<sup>&</sup>lt;sup>2</sup> http://www.landis.org.uk

## 4 Discussion

## Key arboricultural impacts

4.1 The following arboricultural impacts have been identified in relation to the proposed development:

Activity	Potential Impact								
Tree Loss for	Category A	Category B	Category C	Category U					
Development	0	0	0	0					
Tree Loss for	None								
Arboricultural									
Reasons									
<sup>3</sup> RPA and tree	The general impac	ts on retained tree	es can be manage	d by following the					
crown Impact	requirements of the	requirements of the tree protection plan and method statement at Appendix B3.							
RPA incursion:	The frontage steps will be demolished and realigned parallel to Croftdown Road,								
Demolition	these works will not affect any potential roots from T1, as they will not exceed								
	existing construction	r depuis within the c	ourtyard area.						
RPA incursion:	Construction operat	ions are generally	outside the RPA of	retained trees and					
Construction	provided the tree pr	otection plan and m	ethod statement at /	Appendix B3 is used					
	as a guide for construction operations, this should ensure that any works will not harm retained trees.								
	As anticipated the trial hale hand even where along the western have dar a discout								
	G5 has not revealed any roots present in the area of the proposed extension and								
	will not be harmful to these off site trees. The proposal to the rear, including steps								
	into the garden avoid any impacts on the roots of other trees here (T3) and off site trees G3.								
	The work associated	d with re-arrangeme	ent of the frontage s	teps, construction of					
	the storage deck to	o the front of the k	both fall within the $T_1$ however still.	theoretical RPAs of					
	substructure works t	6 and the street tree hat would be harmfu	e TI, nowever neithe Il to any roots that ma	er installation require					
	locations and is ther	efore not a significa	nt concern.	,					

<sup>&</sup>lt;sup>3</sup> RPA Section 3.7 of BS5837 (2012): layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority

RPA Incursion:	No soil level changes are anticipated within the root protection area of retained
Soil levels	trees.
change	
RPA Incursion: Underground services and drainage	No information is currently available relating to underground services or drainage for the proposal, however it should be possible to locate the utilities outside the RPA of trees. If it is essential to locate underground drainage or services runs within the RPAs of retained trees these operations should follow the recommendations in the NJUG guidelines <sup>4</sup> . In addition, it is also recommended that these works are carried out under arboricultural supervision when being installed.
RPA Incursion Landscape operations	<ul> <li>Provided the tree protection plan is used as a guide for landscape operations, this should ensure that any works for improving the hard and soft landscaping features will not harm trees. Any landscaping works within the tree protection areas should be undertaken by hand only avoiding using machinery. Where machinery is unavoidable this should be tracked and light weight only (max of 2 tonnes). Temporary ground protection should always be installed beforehand as follows:</li> <li>Pedestrian – single thickness scaffold boards placed on top of a compressible resistant layer of 100mm of woodchip laid onto a geotextile membrane</li> <li>Pedestrian operated plant – gross weight of 2tonne, proprietary interlinked ground protection boards placed on top of a compressible resistant layer of 150mm of woodchip laid onto a geotextile membrane</li> </ul>
Pruning to facilitate development	G5 and T4 have some minor branches which overextend into the rear garden and will need to be pruned (lifted) to clear the height of the extension which is 3.130m high. This would be reasonable regardless of development and is arguably appropriate formative pruning to help achieve a reasonable relationship with users of the garden.
Future growth of retained trees	I his is not considered to be an issue as the layout is well designed away from trees and tree crowns.
Daylight and sunlight	This is not considered to be an issue as the layout is well designed away from trees and tree crowns. Trees are an asset when it comes to the provision of shade and welcome cooling and can provide a natural alternative to the reliance on air conditioning (for example) to mitigate the effects of climate change resulting in warmer temperatures generally in the UK.

<sup>&</sup>lt;sup>4</sup> National Joint Utilities Group (NJUG) Guidelines for the planning, installation, and maintenance of utility apparatus in proximity to trees. Volume 4 Issue 2. London: NJUG, 2007

#### Changes from the proposal

4.2 The proposal has properly considered the constraints of nearby trees, explorations have revealed no roots from neighbouring trees present within the area of the proposed extension and patio, and the relationship of offsite trees with the proposal can be managed in a reasonable way without harming the health or appearance of the trees, all other trees will be retained and protected during the works without any adverse impacts.

#### Sustainability and Compliance with planning policy

4.3 In terms of national and local planning policies, no trees will be removed with the proposal, and existing trees can be retained and adequately protected in accordance with BS58837 (2012) recommendations. No replacement trees are required. The proposal has properly considered trees during the design process and therefore complies with planning policy.

## 5 Conclusions

- 5.1 This report demonstrates that trees have been considered properly in accordance with best practice, impacts identified, and mitigation suggested to ensure risks from demolition and construction operations associated with the proposal can be reasonably managed and implemented where necessary.
- 5.2 Subject to adopting the approaches and best practice recommendations within this report and associated drawings it is possible to conclude the proposal can incorporate the trees sustainably and therefore complies with national and local planning policies.

## Appendix A1 – BS 5837 Tree Data Schedule



## 16a Croftdown Road

Tree ID	N	b. Species	Height (m)	Stem diameter (cm)	No. of Stems	1 N		WN SP	READ (m)	) W NV	Crown Clearance (m)	Bat Dotantial		Life stage	Condition Notes     Survey       Recommendations     date	RPA (m <sup>2</sup> )	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	Sorbus aucuparia (Rowan/Mountain Ash)	8.0	26	1	2	2.5	2.5	3.5	3.5	5 3.0		-	Mature	Structural condition Good. Physiological condition Good. 20/11/202 Crown to north east been pruned back recently	) 30.6	3.1	20-40	B1/B2
Tree T2	1	Eucalyptus sp. (Eucalyptus Tree)	12.0	22	1	2	2.5	2.5	2.5	3.3	3 4.0	L	-	Early Mature	Structural condition Good. Physiological condition Fair. 20/11/202 Rooting area disturbed, inappropriate species for garden size	) 21.9	2.6	20-40	C1
Group G3	3	Laurocerasus lusitanica (Portugal Laurel)	2.5	5 AVE	1	1.0	1.(	C	1.0	1.0	2.0	L	-	Young	Structural condition Good. Physiological condition Good. 20/11/202 Young planted tree / trees. Off-site stems	) 1.1	0.6	40+	C2
Tree T4	1	Prunus sp. (Cherry sp.)	6.0	10	1	2	2.6	2.6	3.0	2.6	3 2.0	L	-	Semi Mature	Structural condition Fair. Physiological condition Good. 20/11/202	) 4.5	1.2	40+	C1
Group G5	3	Malus sp. (Apple sp.)	5.0	5 AVE	1	2	2.5	2.5	2.5	2.5	5 2.0	L	-	Young	Structural condition Good. Physiological condition Good. 20/11/202 Off-site stems	) 1.1	0.6	40+	C2
Tree T6	1	Ficus sp. (Fig sp.)	6.0	12	1	1	1.8	1.8	2.7	1.(	) 1.5	L	-	Early Mature	Structural condition Fair. Physiological condition Fair. Crown reduction - Recent. Decay / structural defect in crown limb / limbs - Localised.	) 6.5	1.4	10-20	C1

Stem green Estimated value

Stem AVE Average stem diameter for tree groups

 Stem
 COM
 Combined stem diameter in accordance with BS5837

 L.B.
 Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Page 1 of 2

tree management software

Generated By

Table 1 of BS5837 (2012)

Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories	where appropriate)	Identification on	ı plan
Trees unsuitable for retention (see not	e)			
<b>Category U</b> 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> <li>Trees that have a serious, irremediation including those that will become unvisions of companion shelter cannot be</li> <li>Trees that are dead or are showing s</li> <li>Trees infected with pathogens of sign suppressing adjacent trees of better with the second second</li></ul>	ole, structural defect, such that their early loss is able after removal of other category U trees (e.g mitigated by pruning) igns of significant, immediate, and irreversible on ificance to health and/or safety of other trees no quality isting or potential conservation value which it m	expected due to collapse, g. where, for whatever reason, the overall decline earby, or very low quality trees ight be desirable to preserve; see 4.5.	.7
	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	Tree 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 arboricutural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	REEN
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.	BLUE
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.	GREY

## Appendix A2 – Tree Work Schedule

## **Tree Work Schedule**



## Tag Number **BS** Category Life Stage Tree / **Recommended works** Group Species No. Semi Crown lift overhanging branches to give 3.5m clearance above ground level Cherry C1 Τ4 mature C2 Crown lift overhanging branches to give 3.5m clearance above ground level G5 Apple Young

## Site: 16a Croftdown Road

## Date: November 2020

## NOTE:

All tree works should comply with BS 3998 (2010) - Recommendations. If necessary, appropriate checks by a suitably qualified ecologist should be made before tree works are undertaken, and all works should only be carried out once planning permission has been granted and any pre-commencement planning conditions relating to tree work have been discharged

## Appendix B1 – Tree Survey Plan



North	BS5837:2012 Tree Categorisation	
	A Category Trees of high quality with an estimated remaining expectancy of at least 40 years	life
	B Category Trees of moderate quality with an estimated life expectancy of at least 20 years	
	C Category           Trees of low quality with an estimated life expecta at least 10 years, or young trees with a stem diam below 150mm	ancy of leter
	O     U Category     Those in such a condition that they cannot realisti     retained as living trees in the context of the curren     use for longer than 10 years	cally be it land
	Key           Root Protection Area (RPA)           The minimum area around a tree deemed to conta sufficient roots and rooting volume to maintain th viability. Where the tree is ancient the RPA follow Natural England Standing Advice 2018.	ain e trees /s
	Do not scale from this drawing, tree positions and dimensions should alway, checked on site. The original of this drawing is in colour, do not rely on mor versions. This drawing is copyright Tracy Clarke Tree Consultancy Ltd.	s be 10chrome
	0 5m	
	Title Tree Survey Plan	
	Client Mr S Neophytou	
	16a Croftdown, London, NW5 1EH	
	Ref:         TCTC-17920-PL-01         Rev:         Scale:         1:100 @           Status:         Planning         Date:         Nov 2020         Drawing Put 76	₹ A3
	Status: Heaning   Date: Nov 2020   Drawn By: To	
	<b>TRACY CLARKE</b> TREE CONSULTANCY	
	🐮 01372 812831. 😂 info@tracycbrike.co.uk  🏠 www.tracyclarke.c	stuk

## Appendix B2 – Proposal and Tree Work Plan



North	BS5837:2012 Tree Categorisation         Image: Standard Stan
	Do not scale from this drawing, tree positions and dimensions should always be checked on site. The original of this drawing is in colour, do not rely on monochrome versions. This drawing is copyright Tracy Clarke Tree Consultancy Ltd @         0       5m
	 Date Pevision Description
	Title Proposed Layout Plan
	Client
	Mr S Neophytou
	Site 16a Croftdown, London, NW5 1EH
	Ref: TCTC-17920-PL-02 Rev: - Scale: 1:100 @ A3
	Status: Planning Date: Nov 2020 Drawn By: TC
	TRACY CLARKE TREE CONSULTANCY

## Appendix B3 – Tree Protection Plan and Heads of Terms Method Statement

#### ARBORICULTURAL METHOD STATEMENT (HEADS OF TERMS)

#### Tree works

All tree works recommended with the proposal will be carried out in accordance with BS 3998:2010 Tree work - Recommendations prior to any construction machinery arriving on site. Once completed, installation of protective barriers and temporary ground protection will take place immediately.

#### Protective Barriers

Protective barriers will be installed in the locations specified on this drawing prior to any works starting on site. There are two types of fencing specified; the default fencing which is required for areas of highest demolition and construction intensity and risk to trees, and the above ground stabilising system for less intensively used areas of the site.

#### Temporary ground protection

Where specified, temporary ground protection will be installed in accordance with this drawing. The intention is to protect roots and soil from potential compaction damage where the installation of a barrier would be impractical for demolition and construction activities. The specification will be suitable to withstand the vehicle of pedestrian loads to be used in these areas - advice should be taken from the arboriculturist.

#### Underground drainage and services

Drainage and services installation will avoid the root protection area of trees, where this is unavoidable the approach to install will follow NJUG (2007 Volume 4, Issue 2). All manholes must avoid root protection areas entirely.

#### Excavations and Root Pruning

All excavations within root protection areas will be carried out under arboricultural site supervision. Prior to commencement, the extent of excavations will be marked out by the contractor with spray paint. No excavations will extend beyond these defined areas or the specified depths and the site contractor will be responsible for ensuring all ground workers are made aware of these limits. Exposed roots will be pruned making a clean cut with a sterilised handsaw, or secateurs to clear roots to the construction depth required. Where small diameter roots occur in clumps these will be retained and moved out of the way of construction where practical. All exposed pruned roots will be imediately wrapped in wet hessian to prevent desiccation and to protect against extreme temperature fluctuations. On completion of the excavations works the hessian will be removed and all pruned roots covered with good quality top soil. No machinery will be permitted within the RPA of the trees during these works.

#### General Tree Protection Measures

- No construction or demolition works will take place within any protection zone identified on this drawing. Barriers and ground protection will remain intact and in position until works on site are completed, no alterations will take place without consulting the project arboriculturist beforehand
- No chemicals will be used within 3m of a tree, including hazardous material, cement or other toxic materials

#### Supervision of Works

Once protection measures as specified on this drawing are in place, the project arboriculturist will be notified and a site visit will take place to approve the installations are fit for purpose. Site operations can commence once this has been approved.

Ongoing site visits by the project arboriculturist will take place at intervals to ensure that tree protection measures are adhered to for the duration of the project works on site









Date	Revision	Description

Ref: TCTC-17920-PL-03	Rev: -	Scale: NTS@A3
Status: Planning	Date: Nov 2020	Drawn By: TC

## Appendix C – Tree Data Analysis

### BS5837 (2012) quality and value of the tree population

A total of 4 trees and 2 groups are included in the survey



### Life Stage



## Appendix D – Qualifications

I am a qualified arboriculturist with significant experience in dealing with trees in relation to the living environment.

I am a Registered Chartered arboriculturist with the Institute of Chartered Foresters, a Fellow of the Arboricultural Association, a Chartered Environmentalist and I have a Higher National Diploma in arboriculture and a Postgraduate Diploma in arboriculture and community forest management from Middlesex University, I have twenty years' experience in the field of Arboriculture.

Nong

Tracy Clarke MICFor. F.Arbor.A. CEnv







# **Excellence in Arboriculture**



5 High Street

Great Bardfield

Essex

CM7 4RF



