

N22 6XJ

THE
CHOCOLATE
FACTORY

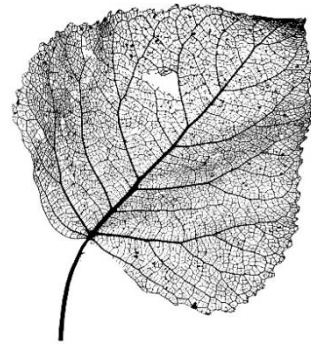


Arboricultural Impact Assessment Report

Batch No: 001

Date: 09/17

MADE BY SHARON HOSEGOOD ASSOCIATES



Sharon Hosegood
ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT
BS 5837:2012 'Trees in relation to design, demolition and construction.
Recommendations'

report

SITE

5 Clarendon Rd, London N22 6XJ

CLIENT

Workspace Management Ltd

SHARON HOSEGOOD

FICFor FArborA BSc (Hons) Tech Cert (ArborA)

DATE: 2 August.2017

OUR REF: SHA 261

OUR CONTACT DETAILS: 01245 608 362
sharon@sharonhosegoodassociates.co.uk



Executive summary

This report is submitted in connection with a planning application for partial demolition, extension and change of use (in part) of the Chocolate Factory buildings. Demolition of the remaining buildings and redevelopment to create three new build blocks ranging in height from three up to 16 storeys. Mixed use development comprising 9, 37 sq.m (GIA) of commercial floor space (flexible use classes A1, A3, B1, D1 and D2), 216 Class C3 residential units, together with associated residential and commercial car parking, public realm works and access at 5 Clarendon Rd, London N22 6XJ. I have provided all information in accordance with the British Standard (BS 5837: 2012 '*Trees in relation to demolition, design and construction – recommendations*' (referred to as BS).

The trees are not protected by a Tree Preservation Order and the site is not in a Conservation Area

The development results in the removal of a group of 13 very low-quality Lawson cypress which have been topped at 4m in height and 2 semi-mature field maples which are street trees. Consent is required from Haringey Council to remove the two street trees and they will expect a financial contribution. All other trees discussed in this report are offsite. A change in surfaces near two silver birch trees, which are growing in an adjacent car park, will be carried out in accordance with an arboricultural method statement outlined in this report. The method statement also includes methodology to ensure that the offsite silver birch is protected during the removal of a bike stand.

Four field maples are growing in the pavement on Western Road. Two will be retained and will be lightly pruned to facilitate demolition and any changes in surfaces will be carried out in accordance with the method statement. Two are being removed.

All new buildings are outside of the root protection area and crown spreads of trees to be retained. The layout follows my previous preliminary report and tree survey (November 2016). The landscaping scheme provides 45 new trees, which is a positive contribution to the setting of the area.

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1. Introduction:

- 1.1. This report accompanies a planning application made by Magdalena Koziel on behalf of Workspace Management Ltd, to London Borough of Haringey for partial demolition, extension and change of use (in part) of the Chocolate Factory buildings. Demolition of the remaining buildings and redevelopment to create three new build blocks ranging in height from three up to 16 storeys. Mixed use development comprising 9,37 sq.m (GIA) of commercial floor space (flexible use classes A 1, A 3, B1, D1 and D2), 216 Class C3 residential units, together with associated residential and commercial car parking, public realm works and access at 5 Clarendon Rd, London N22 6XJ.
- 1.2. This report details tree condition, the impact of the proposal on, and from, the existing trees and the measures taken to protect trees to be retained. It also includes tree surgery recommendations.
- 1.3. The survey has resulted in a layout as shown in the tree protection plan at Appendix 3.

2. Statement of instructions and the issues addressed:

- 2.1. I was instructed by Magdalena Koziel of Barton Willmore on behalf of Workspace Management Ltd to:-
 - 2.1.1. Carry out a tree survey in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS);
 - 2.1.2. Analyse the proposals and the impact on trees to be retained;
 - 2.1.3. Produce a tree protection plan, showing the location of the tree protection fencing in accordance with the BS and a specification for the protection of the existing trees;
 - 2.1.4. Provide a tree surgery schedule which includes work to facilitate construction, based on the layout of, and works to, trees due to their condition or previous management;
 - 2.1.5. Provide arboricultural method statements in as much detail as is practical at this stage.
- 2.2. The issues addressed are tree condition and how the impact of the proposal affects trees and vice versa.

3. The site:

- 3.1 The Chocolate Factory site is located to the south west of Wood Green Metropolitan Town Centre and forms part of the Wood Green Cultural Quarter. The site currently comprises a cluster of buildings of differing size and scale, which are predominately occupied by artists and creative businesses. The surrounding area is intensively developed, generally with buildings of 2 to 3 storeys. The site is 1.37ha (from Barton Willmore 'Final Planning Index & Scope' document).



Plan 1 showing the red line boundary of the detailed application. Extract from Barton Willmore drawing reference PL-003 (25021). Do not scale. North ↑

- 3.1. *Site soils:* An assessment of soils on-site was carried out by a desktop analysis using the National Soil Resources Institute website which identified the soils as likely to be 'slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils'. This is a guide only and detailed on-site soil analysis should be undertaken by the project engineer to inform the foundation design.

4. The trees:

4.1. *Generally:* There are 8 trees and 1 group which form the subject of this survey, none of which are offsite. Predominant species are field maple, Lawson cypress, and silver birch. Full details are found in the survey sheets at appendix 1 and their location on the tree survey plan *SHA 261 TSP Revision A* at appendix 2. Note that tree numbering starts at T3 as two trees (T1 and T2) originally included in the survey conducted in November 2016 are remote from the proposal and are not discussed in this report.

4.2. *Legislation:* The trees are not protected by a Tree Preservation Order and the site is not in a Conservation Area

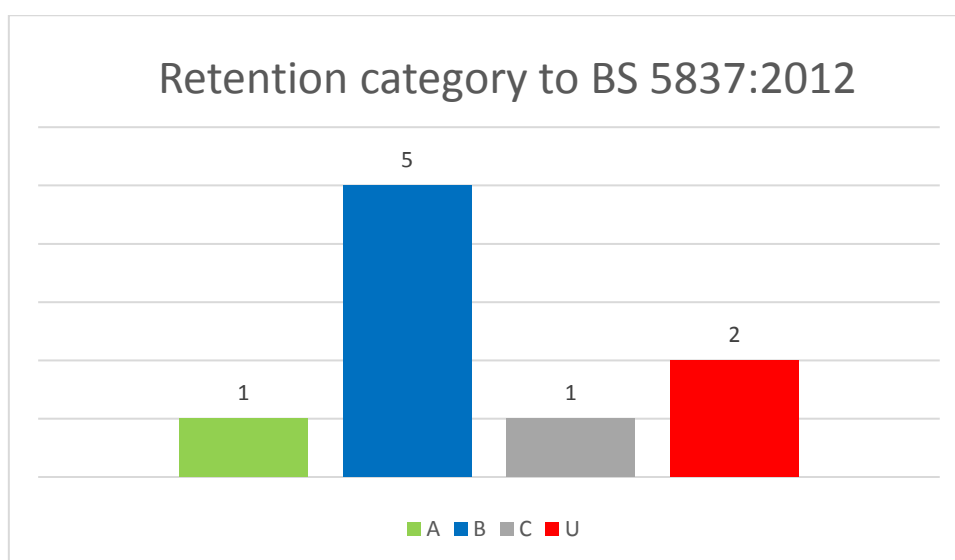


Table 1 – Retention category

A – high quality

B – moderate quality

C – low quality

U – unsuitable for retention

5. The Proposal

5.1 For partial demolition, extension and change of use (in part) of the Chocolate Factory buildings. Demolition of the remaining buildings and redevelopment to create three new build blocks ranging in height from three up to 16 storeys. Mixed use development comprising 9,37 sq.m (GIA) of commercial floor space (flexible use classes A 1, A 3, B1, D1 and D2), 216 Class C3 residential units, together with associated residential and commercial car parking, public realm works and access at 5 Clarendon Rd, London N22 6XJ.

6. Arboricultural impact assessment:

- 6.1. *Summary of the impact on trees:* Development can adversely impact on trees by causing them to be removed to facilitate the development, or in the future, by adversely affecting their potential for retention through disturbance in root protection areas (RPAs) or through post development pressure to prune or remove.
- 6.2. Tree roots can be asphyxiated and die if the rooting zone becomes compacted and soil structure damaged which can easily occur, particularly on clay soils, even with the passage of light vehicles. At the design stage, disturbance within the RPA should be avoided. If unavoidable (which may need demonstrating), consideration must be given to any construction activity such as demolition, including removal of existing hard surfaces, changing soil levels and the provision of services where within RPAs, as well as new surfaces and structures.
- 6.3. At the planning stage, any works proposed with RPAs must be shown to be achievable with minimal impact on retained trees. Areas should be identified where a detailed Arboricultural Method Statement will be required post planning consent.
- 6.4. Construction of hard surfaces and other construction may be acceptable within RPAs providing specialist methods of design and construction are used. This can result in the use of minimal or no-dig methods which result in higher finished levels which must be allowed for during design due to the effect on access thresholds and structure heights etc. The ability of trees to tolerate some disturbance depends on individual circumstances including prevailing site conditions, tree species, age and condition which will be assessed by the Arboriculturist.
- 6.5. Building lines ideally should be at least 2m outside of the RPA to allow for scaffolding and other build-ability issues and to allow for service runs and paths around the edge of buildings. Trees are long-lived organisms which take a long time to mature and if considered at an early stage can complement and increase the value of a development.

6.6. Arboricultural Impact Assessment

All offsite trees will be cared for by virtue of method statements. The scheme results in the loss of a group of very low-quality Lawson cypress trees which are managed by a hedge. This is in line with my previous advice in the report *SHA 261 Arb Prelim* dated 23 November 2017.

6.7. Comments on specific trees and the arboricultural impact

6.7.1. T3 silver birch, T4 rowan, T5 silver birch and T6 rowan

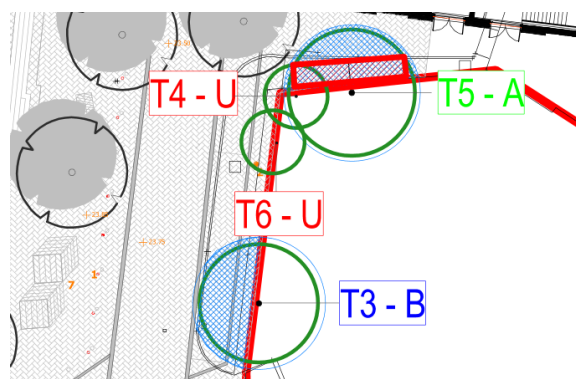
These four trees are growing in a landscaped strip between the car park for Kingfisher Place and Clarendon Road. The two rowan trees are young, in a very poor condition, and should ideally be felled, but this is not essential for health and safety reasons (as they are so small) and they will not affect any potential redevelopment of Parma House. They are both categorised as U under the BS (unsuitable for retention), and are the responsibility of Kingfisher House.

The two silver birch trees are in a good condition and provide a high level of visual amenity. They are 13m high with a crown spread of approximately 6 – 8m. They are classified as T3 B1 and T5 A1. The root protection area for T3 equates to a circle with a radius of 4.2m and extends within the pavement. T5 has a root protection area of 4.3m which extends into Parma House, under the bike shed.

Arboricultural impact assessment:

The silver birch trees' root protection areas extend under the pavement and bike shed. It is proposed that the surface will change, and that the bike stand will be removed.

Therefore, this report includes method statements at appendix 5 to ensure that root integrity and function remain. The proposed change to block paving is an improvement as it will allow gaseous exchange and water infiltration to the roots. The areas to which these method statements apply is shown on the plan *SHA 260 TPP* by blue cross hatching.



Plan 2 – extract from *SHA 261 TPP*. Do not scale. North



Photo 1 of T3 and T3 from Clarendon Road



Photo 2 of T5 looking east along the boundary of Parma House. Note how the crown overhangs the bike shed.

6.7.2. G7 13 x Lawson cypress

G7 is a group of regularly topped Lawson cypress growing in a strip of land between the car park and the pavement, fronted by a low brick wall. Two of the trees are dead. They are classified as C under the BS (low value). They provide a screen, but are a common and widespread species which provide little benefit to the area. They should not be a constraint on development.



Photo 3 of G7 looking east from Clarendon Road



Photo 4 of G7 looking west from the car park. Two dead trees are shown by the arrows.

Arboricultural impact assessment: Fell to facilitate construction.

6.7.3.T8 – T11 field maple – street trees

These four trees are growing in the centre of the pavement fronting Western Road. They are in good health and will provide a high level of visual amenity when they mature. They currently have small root protection areas (averaging 1.6m radius) and crown spreads (averaging 2m radius). A mature field maple will typically have a 4m radius.



Photo 5 of T8 – T10



Photo 6 of T9 – T11

Arboricultural impact assessment: T10 and T11 will need to be removed to facilitate the new access. As the trees are Haringey Council street trees, consent is required from Haringey Council and they will seek a financial contribution, most likely including CAVAT calculations <https://www.ltoa.org.uk/resources/cavat>. In this case the two trees have a CAVAT valuation of £3,504 each. The financial cost will also include tree removal, officer time and replacement elsewhere. The total cost is therefore likely to be at least £10,000. The CAVAT tables for the two trees are found at appendix one.

T8 and T9 will be retained. Crown lifting is recommended and the trees need to be cut back slightly to enable demolition. The trees are young enough to re-grow and establish a full, balanced crown. The site hoarding will be erected along the boundary for demolition and to protect the footpath. The demolition is outside the root protection area of the trees.

6.7.4. Other vegetation

There is a small apple and butterfly bush behind the boundary wall on the north-west corner and a fig tree near the mid – east corner. Neither tree constrains development due to their size, and both are low value.



Photo 7 of the butterfly bush and apple



Photo 8 of the fig

Arboricultural impact assessment: The fig tree will be pruned to clear the low-rise building that will be demolished.

7. Conclusions:

- 7.1. The scheme respects the proximity of the offsite trees and the method statements and tree surgery schedule in this report care for their crowns and root protection areas. The removal of G7 line of conifers is of little arboricultural and landscape consequence and in line with my earlier advice. The removal of T10 and T11 requires consent from Haringey Council as tree owner and will result in a financial contribution likely to be over £10,000.
- 7.2. 45 new trees will be planted to enhance the site.

8. Recommendations:

- 8.1. That a copy of this report, and subsequent more detailed arboricultural method statement, is kept on site, including A1 colour copies of the tree protection plan. The arboricultural documents will be part of site induction by the main contractor to all sub-contractors.
- 8.2. That the arboricultural method statements are developed further and are observed by all site personnel and supervised at key stages by the project arboricultural consultant.
- 8.3. That the foundation design takes into account trees to be retained, trees to be removed and trees to be planted.
- 8.4. That there are no ground level changes with the area shown on the plan by tree protection fencing.
- 8.5. That the line of the underground services should be ideally located outside of Root Protection Areas. However, as a precaution the final service plan should be assessed by an arboriculturalist. If it is unavoidable that services are to be located in RPAs, then a method statement must be produced.
- 8.6. That the landscaping scheme includes a mix of native trees from a cross section of species to ensure biosecurity against host specific pests and diseases. The trees must be planted and maintained in accordance with BS 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations*.
- 8.7. That no tree works within the site take place until consent is granted, other than normal maintenance of the line of conifers G7.

- 8.8. That the locations of the exploratory intrusive investigation for contamination are assessed by the arboricultural consultant and that the ground remediation methodology near trees is discussed with the arboricultural consultant.
- 8.9. That the drainage strategy detailing on and/or offsite drainage works, including SUDS, is reviewed by the arboricultural consultant to ensure minimum impact on trees to be retained and is mindful of new trees to be planted.
- 8.10. That there is an early discussion with Haringey Council Tree Officers regarding the tree works recommended to their street trees.

Sharon Hosegood FICFor FARborA BSc (Hons) Tech. Cert. (Arbor A)

Director
Sharon Hosegood Associates Ltd

Appendix 1

Tree survey sheets
CAVAT valuations for T10 and T11

Tree ID	No.	Species	Height (m)	No. of stems	STEM DIAMETER (cm)					CROWN SPREAD (m)				Crown Clearance (m)	Life stage	Condition Notes	Recs	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
					D1	D2	D3	D4	D5	N	E	S	W								
Tree T3	1	Betula pendula (Silver Birch)	13.0	1	35					4.0	3.5	4.0	3.5	2.0	Mature	Structural condition - Good. Physiological condition - Good. Deadwood - Minor. Form - Good crown structure. No significant faults observed. This tree is growing in a planting bed between a car park and the pavement. It is a good example of the species and provides a high level of visual amenity.		55.4	4.2	20-40	B1
Tree T4	1	Sorbus aucuparia (Rowan/Mountain Ash)	6.0	1	15					2.0	1.0	2.0	3.0	4.0	Early Mature	Structural condition - Poor. Physiological condition - Poor. Decline - Evident / observed. Deadwood - Major. Decay / structural defect - Extensive. This tree is in terminal decline. There is a 2m long strip of decay on the trunk. Ideally the tree should be felled, but this is beyond client control.		10.2	1.8	0-10	U
Tree T5	1	Betula pendula 'Tristis' (Silver Birch cv.)	13.0	1	36					4.0	4.0	4.0	4.0	2.0	Mature	Structural condition - Good. Physiological condition - Good. Deadwood - Minor. Form - Good crown structure. No significant faults observed. Pruning wounds - Historic. This tree is growing in a planting bed between a car park and the site. It is a very good example of the species and provides a high level of visual amenity. The crown overhangs the bike shed on the site.		58.6	4.3	20-40	A1
Tree T6	1	Sorbus aucuparia (Rowan/Mountain Ash)	6.0	1	15					2.0	1.0	2.0	3.0	4.0	Early Mature	Structural condition - Poor. Physiological condition - Poor. Decline - Evident / observed. Deadwood - Major. Decay / structural defect - Extensive. This tree is in terminal decline. There is a 2m long strip of decay on the trunk. Ideally the tree should be felled, but this is beyond client control.		10.2	1.8	0-10	U

Stem green Estimated value

If Stem Diameter is '0' please see condition notes

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.

Tree ID	No.	Species	Height (m)	No. of stems	STEM DIAMETER (cm)					CROWN SPREAD (m)				Crown Clearance (m)	Life stage	Condition Notes	Recs	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
					D1	D2	D3	D4	D5	N	E	S	W								
Group G7	13	Chamaecyparis lawsoniana (Lawson Cypress)	4.0	1	20					1.0	1.0	1.0	1.0	1.5	Early Mature	Structural condition - Fair. Physiological condition - Good. Arboricultural work - Historic. Deadwood - Minor. This line of Lawson cypress are growing in a line between a 1m high wall and the car park. The second tree (from the south) is dead and the third in decline. They have all been topped at 4m and maintained to form an approximately flat fronted profile.		18.1	2.4	20-40	C2
Tree T8	1	Acer campestre 'Elsrijk' (Field Maple cv.)	7.0	1	13					2.0	2.0	2.0	2.0	2.0	Semi Mature	Structural condition - Good. Physiological condition - Good. Form - Good crown structure. No significant faults observed. One of four attractive street trees growing in the pavement.		7.6	1.6	20-40	B1
Tree T9	1	Acer campestre 'Elsrijk' (Field Maple cv.)	7.0	1	13					2.0	2.0	2.0	2.0	1.5	Semi Mature	Structural condition - Good. Physiological condition - Good. Epicormic growth - Bole / principal stems. Form - Good crown structure. No significant faults observed. One of four attractive street trees growing in the pavement. Dense growth of maturing epicormic shoots on the western aspect. Tips of the crown are touching the building. The roots are lifting the resin bonded gravel.		7.6	1.6	20-40	B1
Tree T10	1	Acer campestre 'Elsrijk' (Field Maple cv.)	7.0	1	13					2.0	2.0	2.0	2.0	1.5	Semi Mature	Structural condition - Good. Physiological condition - Good. Epicormic growth - Bole / principal stems. Form - Good crown structure. No significant faults observed. One of four attractive street trees growing in the pavement. Dense growth of maturing epicormic shoots on the western aspect. Stake still present and should be removed.		7.6	1.6	20-40	B1

Stem green Estimated value

If Stem Diameter is '0' please see condition notes

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.

Tree ID	No.	Species	Height (m)	No. of stems	STEM DIAMETER (cm)					CROWN SPREAD (m)				Crown Clearance (m)	Life stage	Condition Notes	Recs	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category	
					D1	D2	D3	D4	D5	N	E	S	W									
Tree T11	1	Acer campestre 'Elsrijk' (Field Maple cv.)	7.0	1	13						2.0	2.0	2.0	2.0	1.5	Semi Mature	Structural condition - Good. Physiological condition - Good. Epicormic growth - Bole / principal stems. Form - Good crown structure. No significant faults observed. One of four attractive street trees growing in the pavement. Dense growth of maturing epicormic shoots on the western aspect. Tips of the crown are touching the building. The roots are lifting the resin bonded gravel. Stake still present and should be removed.		7.6	1.6	20-40	B1

Stem green Estimated value

If Stem Diameter is '0' please see condition notes

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.

Table 1 of BS5837 (2012)

Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	* Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) * Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline * Trees infected with pathogens of significance to 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; see 4.5.7			RED
	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 arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	GREEN
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

CAVAT

SPREADSHEET TO CALCULATE VALUE OF INDIVIDUAL TREE STOCK (FULL

T10

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Created by Alexandra Sleet

CAVAT	Quantities you measure / look up	Calculated Values
<u>Step 1: Basic Value</u>		
Stem Diameter	13	£2,108
Unit Value Factor	15.88	
Basic Value		
<u>Step 2: CTI Value</u>		
CTI Factor	175%	£3,689
Accessibility	100%	
CTI Value		
<u>Step 3: Functional Value</u>		
Functional Value Factor	100%	£3,689
Functional Value		
<u>Step 4: Adjusted Value</u>		
Amenity Factors	No Change	£3,689
Appropriateness	No Change	
Adjusted Value	100%	
<u>Step 5: Final Value</u>		
Life Expect. Factor	40 - 80	£3,504
FINAL VALUE		

CAVAT

SPREADSHEET TO CALCULATE VALUE OF INDIVIDUAL TREE STOCK (FULL

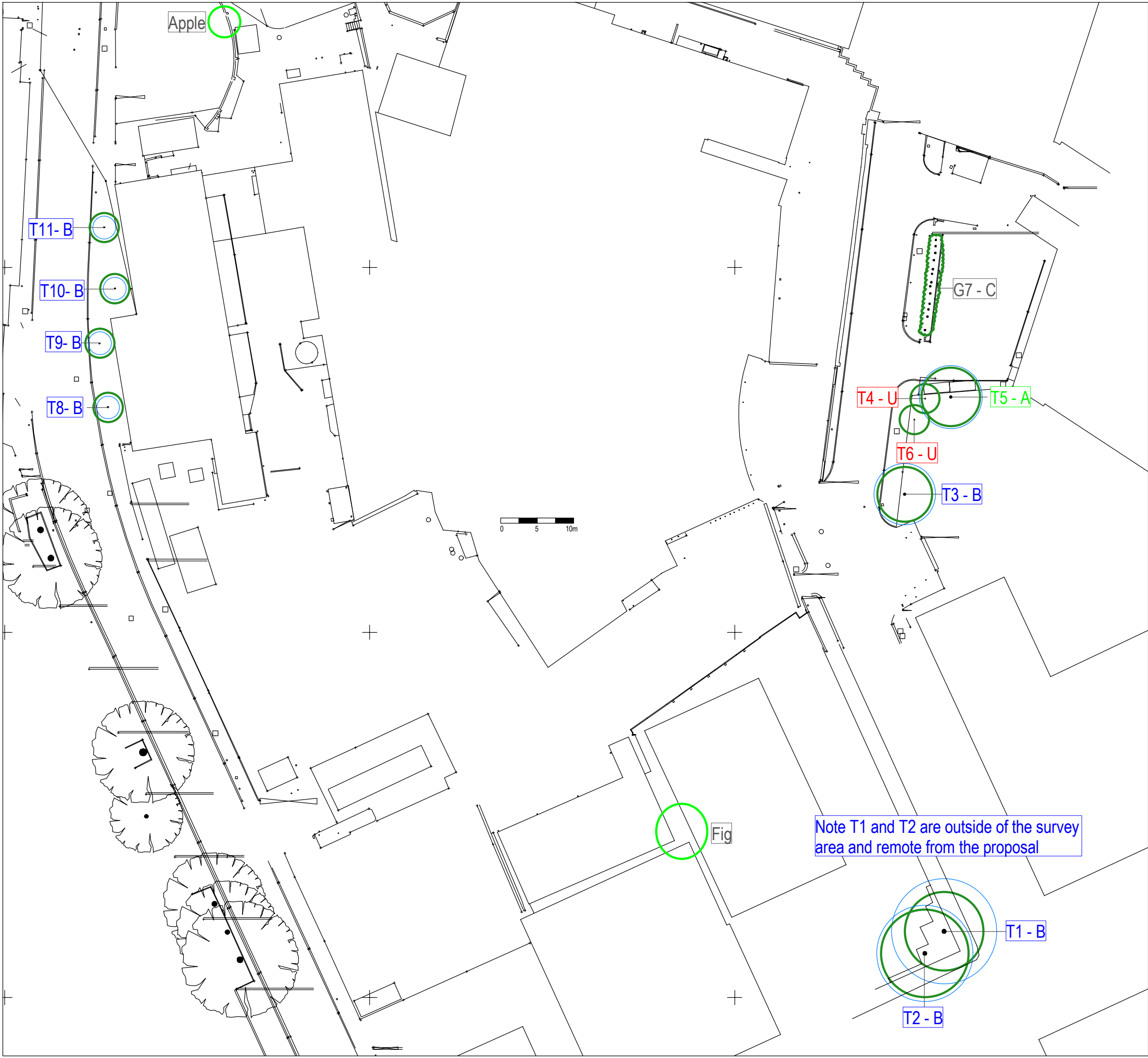
T11

© Christopher Neilan
Created by Alexandra Sleet

CAVAT	Quantities you measure / look up	Calculated Values
<u>Step 1: Basic Value</u>		
Stem Diameter	13	£2,108
Unit Value Factor	15.88	
Basic Value		
<u>Step 2: CTI Value</u>		
CTI Factor	175%	£3,689
Accessibility	100%	
CTI Value		
<u>Step 3: Functional Value</u>		
Functional Value Factor	100%	£3,689
Functional Value		
<u>Step 4: Adjusted Value</u>		
Amenity Factors	No Change	£3,689
Appropriateness	No Change	
Adjusted Value	100%	
<u>Step 5: Final Value</u>		
Life Expect. Factor	40 - 80	£3,504
FINAL VALUE		

Appendix 2

Tree survey plan SHA 261 TSP Revision A



- T1-A Category A - high quality and value
- T1-B Category B - moderate quality and value
- T1-C Category C - low quality and value
- T1-U Category U - unsuitable for retention
- Crown spread
- RPA - root protection area as defined by Table 2 BS 5837:2012
- ▭ Group

- Notes
- Contractors to check all dimensions on site
 - Discrepancies must be reported to the Arboricultural Consultant before proceeding
 - The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
 - It is the responsibility of the contractor to ensure necessary consents for tree works are in place
 - This drawing is copyright © Sharon Hosegood Associates Ltd

Rev : A

Description : T1 & T2 not in survey area

Authorized : SMH 2.8.17



Sharon Hosegood
ASSOCIATES

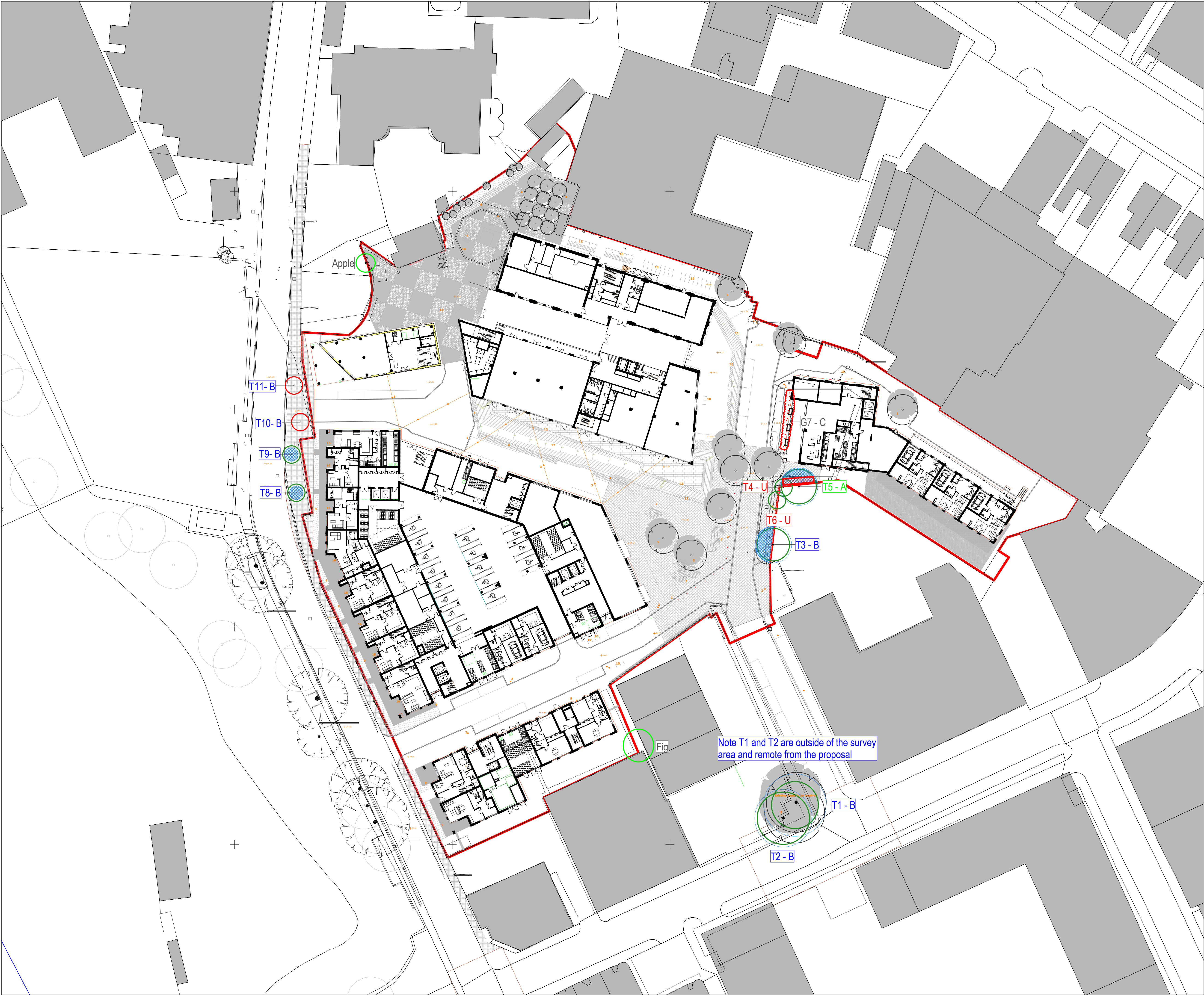
Sharon Hosegood Associates
Moulsham Mill
Parkway
Chelmsford
Essex CM2 7PX

t: 01245 608362
www.sharonhosegoodassociates.co.uk

Client			
Workspace			
Site Address			
5 Clarendon Rd, London N22 6XJ.			
Drawing Title	Orientation	Drawn	Authorized
Tree Survey Plan		ND-H	SMH
Date	Drawing Number	Scale	Drawing Status
16.11.16	SHA 261 TSP	1:500@A3	For Issue
Revision			
A			

Appendix 3

Tree protection plan SHA 261 TPP



- T1 - A Category A - high quality and value
- T1 - B Category B - moderate quality and value
- T1 - C Category C - low quality and value
- T1 - U Category U - unsuitable for retention
- Crown spread of trees to be retained
- RPA - root protection area as defined by Table 2 BS 5837:2012
- Approximate crown spread of offsite trees which could not be fully assessed. These are two small low value trees; an apple and a fig.
- Arboricultural method statement for demolition of the cycle stand
- Area for arboricultural method statement for change in surfaces in the root protection area of trees to be retained
- Refer to the arboricultural impact assessment reference SHA 261 AIA dated August 2017
- G7 group of Lawson cypress to be removed
- Crown spread of street trees to be removed subject to consent from Haringey Council.

- Notes
- Contractors to check all dimensions on site
 - Discrepancies must be reported to the Arboricultural Consultant before proceeding
 - The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
 - It is the responsibility of the contractor to ensure necessary consents for tree works are in place
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Rev:	Description:	Authorized:
		Sharon Hosegood Associates Moulsham Mill Parkway Chelmsford Essex CM2 7PX t: 01245 608362 www.sharohosegoodassociates.co.uk

Client
Workspace
Site Address
5 Clarendon Rd, London N22 6XJ.

Drawing Title	Orientation	Drawn	Authorised
Tree Protection Plan		ND-H	SMH
Date	Drawing Number	Scale	Drawing Status
2.08.17	SHA 261 TPP	1:400@A1	For Issue
Revision			

Appendix 4

Tree surgery schedule

Tree surgery schedule

All works to be carried out in accordance with BS 3998:2010 'Tree works – Recommendations'. All pruning cuts to be made at suitable growing points in the line with the principles of 'Natural target pruning'. An ecological check is required by a competent person prior to tree works being carried.

Works should not take place until planning permission is granted and all pre-commencement conditions are discharged.

Tree no.		Species	Proposed works	Reason
T	3	Silver Birch	Crown lift tips to achieve 3m clearance over the pavement	To provide clearance over the pavement
T	4	Rowan/ Mountain Ash	No works (although very low quality and ideally should be felled and replaced)	Responsibility of the owner
T	5	Silver Birch	Crown lift tips to achieve 4m clearance over the bike sheds	To provide clearance over the bike sheds for demolition
T	6	Rowan/ Mountain Ash	No works (although very low quality and ideally should be felled and replaced)	Responsibility of the owner
G	7	Lawson Cypress x 13	Fell to ground level and grind stumps	To facilitate construction
T	8	Field Maple	Crown lift tips to achieve 2.5m clearance Prune back crown to ensure 1m clearance from existing building	Good arboricultural management of a street tree Responsibility of Highway Authority To provide clearance for demolition
T	9	Field Maple	Crown lift tips to achieve 2.5m clearance Prune back crown to ensure 1m clearance from existing building	Good arboricultural management of a street tree Responsibility of Highway Authority To provide clearance for demolition
T	10	Field Maple	Fell to ground level and grind stump To be carried out by Haringey Council's contractor and only by agreement	To facilitate construction of new access

Tree no.		Species	Proposed works	Reason
T	11	Field Maple	Fell to ground level and grind stump To be carried out by Haringey Council's contractor and only by agreement	To facilitate construction of new access
-	-	Fig	Prune back lower crown over low rise building	To provide clearance for demolition

Appendix 5

Draft arboricultural method statement

Tree works:

Recommendations for tree works can be found in the tree surgery schedule in Appendix 5. All works shall be in accordance with BS 3998:2010 '*Tree work. Recommendations*'. The use of a competent and insured tree surgery contractor is necessary to comply with this. The main contractor and tree surgery contractor must ensure that any necessary consents have been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works. Within root protection areas, stumps, shrubs and other vegetation must be removed by hand or using stump grinding machinery to minimize root damage of retained trees. Where poisoning of stumps is specified, this must be carried out by competent operatives. Only chemicals approved for this purpose and used in accordance with the manufacturer's instructions will be used.

The following information must be sought:

- Current employers, public and product liability insurance
- Waste carriers license
- Qualification and experience of key personnel, including relevant NPTC certificates
- COSHH assessment
- Tool and task based risk assessment, including a Working at Height Risk Assessment
- Site specific risk assessment
- Emergency procedure plan
- Method Statement

A list of suitable tree surgeons is found at: <http://www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons>

Bio security measures are important and found at <https://www.forestry.gov.uk/biosecurity>

Fires: Fires on site should be avoided if possible. If unavoidable, they should be situated far enough so that there is no risk of damage to the trees, taking into consideration the wind direction.

Site and fuel storage, cement mixing and washing points: All site storage areas, cement mixing and washing points for equipment and vehicles and fuel storage areas should be outside root protection areas unless otherwise agreed with the Local Planning Authority. No discharge of potential contaminants should occur within 10m of a retained tree stem or where there is a risk of run off into Root Protection Areas.

Temporary buildings for site use: Site cabins, trailers and other temporary buildings can sometimes be used in root protection area if consent is agreed by the local planning authority. This can be very useful if there is a robust existing hard surfacing in place. The method for installing the buildings, and assessment of whether ground protection is needed is to be agreed with the Arboriculturist and specified prior to installation.

Protection of tree canopies: Piling rigs and cranes are often used close to trees. Work must be carefully planned so that there is sufficient room to avoid hitting the canopy during transportation or operation. Arboricultural supervision may be required, however it is the responsibility of the contractor to assess and plan the work. Any access facilitation pruning required is detailed in the tree surgery schedule.

New landscaping: Within the root protection areas of trees to be retained, the preparation of soil for planting and turfing will be carried out by hand. Cultivation will be kept to a minimum and new topsoil must not exceed 100mm in depth within 1m of the stem. Top soil and other materials will be transported by wheelbarrow on running boards when working near trees.

Removal of the bike stand near the silver birch T5: The area to which this applies is shown by red hatching on the plan *SHA 261 TPP*.

- Carry out the crown lifting to T5 (4m over the site boundary, as described in the tree surgery schedule)
- Remove the above ground structure in the normal way in accordance with the contractors Risk Assessment and Method Statement
- Remove any deeper posts with care. Any roots found entwined around the post to be pruned cleanly with bypass secateurs and the hole backfilled with good quality top soil.
- The method statement for removal of hard surfacing applies.

Removal of hard surfacing within the root protection areas: The hard surfacing will remain in place during works and lifted at the external works stage. The following method statement will be followed in the areas shown by blue cross hatching on the plan *SHA 261 TPP*:

Lift the tarmac using hand held tarmac spade or a digger pulling backwards to lift the hard surfacing whilst keeping the ground underneath intact. In my experience, using a smooth bucket digger carefully can lift large slabs relatively easily without disrupting the ground beneath. There may be a sheath of fine feeder roots and main structural roots beneath the concrete. Great care must be taken to avoid scuffing and damaging these roots. Once removed, the exposed soil must be immediately covered with a suitable backfill medium such as good quality top soil.

The works should not take place in frosty or hot sunny dry weather as this can harm fine roots. If roots are accidentally damaged, then the arboricultural consultant must be contacted immediately.

Installation of pavements within the root protection areas of T3, T5, T8 – T11: The area to which this applies is shown by blue cross hatched areas on the tree protection plan *SHA 261 TPP*. The purpose of the method statement is to ensure that tree roots are retained and that they can function. Therefore digging down, compacting the soil and creating an impermeable surface will be prevented. A method to spread and support the load of the hard surface and anticipated usage without causing compaction of the soil structure beneath will be used, in this case it is likely that the existing subbase will be used, although I defer to the landscape architect's specification.

The use of a geotextile membrane (such as Tree Tex T300) will help support the sub-base and be a partial filter (a last line of defense) for contaminants such as oil and road salt. This works by laterally diffusing the contaminants over a wider surface area so that the effect is minimized. If the subbase is to be changed, the new sub-base will be porous to enable gaseous exchange and water infiltration. A suitable material is washed angular stone with a diameter between 20 – 40mm with no fines. Aggregates or stones must have a near neutral PH. The surface material will be permeable paving. The exact specification of the hard surface is a matter for the engineer and landscape architect, however the principles are as follows overleaf:

1. Follow the removal of hard surfacing method statement
2. The sub-base will be laid to a depth and specification prescribed by the engineer/architect. A second geotextile layer to be laid to prevent mixing of materials
3. The no fines sand to be laid on top of the geotextile layer
4. Porous paving blocks (or similar) laid
5. Due to the presence of existing kerbs, I am not concerned about changing the kerb providing the location is on the same line and the trench is lined with impermeable plastic sheeting to prevent the alkalinity of concrete scorching the ends of fine roots.

Appendix 6

Tree related legislation

Tree preservation orders

The Town and Country Planning (Tree Preservation) (England) Regulations 2012.

The trees are not protected by a Tree Preservation Order and the site is not in a Conservation Area.

Ecological considerations

The Wildlife and Countryside Act 1981, as amended, The Conservation of Habitats and Species Regulations 2010 and the Countryside and Rights of Way Act 2000, provide statutory protection to species of flora and fauna including birds, bats and other species that are associated with trees.

Occupiers Liability Act 1957 and 1984

The Occupiers Liability Act (1957 and 1984) places a duty of care to ensure that no reasonably foreseeable harm takes place due to tree defects. Therefore this report includes recommendations within the tree tables for work required for safety reasons. 'Common sense risk management of tree (National Tree Safety Group 2012)' states that *'The owner of the land on which a tree stands, together with any party who has control over the tree's management, owes a duty of care at Common Law to all people who might be injured by the tree. The duty of care is to take reasonable care to avoid acts or omissions that cause a reasonably foreseeable risk of injury to persons or property'*.

Common law enables pruning back to the boundary line providing the work is reasonable. Other restrictions, such as tree preservation orders/conservation areas still apply.

The owner of a tree is not obliged to trim their trees or hedges to prevent them from crossing over a boundary. Whilst the tree owner is not obliged to cut back the branches, the person whose property is overhung has the right to cut back the branches to the boundary providing there are no planning or legal restrictions on the trees such as Tree Protection Orders or if they are located in a church yard, in which case suitable consent must be obtained. Such pruning works must be undertaken to a suitable standard and must not cause damage to the tree.

The resulting debris remains the property of the tree owner, but you must not cause any damage to their property when returning it back to them and you do not have the right to trespass on the tree owner's property in carrying out the works. In the interests of good neighbourly relations, we would encourage neighbours to discuss their intentions with each other before carrying out such works, providing the work is reasonable and that the trees are not subject to TPO or Conservation Area protection.

Appendix 7

Statement of methodology and reference material

Statement of methodology

Review of architects plans

Site visit made by 16th November 2016 by Sharon Hosegood.

Tree survey using Visual Tree Assessment carried out in accordance with BS 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (BS). All investigations were from ground level only and binoculars were used when necessary. All trees with a trunk diameter of 75mm or above were surveyed. Obvious hedges and shrub masses were identified where appropriate. Information collected is in accordance with recommendations in subsection 4.4.2.5 of BS and include species, height, diameter, branch spread, crown clearance, age class, physiological condition, structural condition and remaining contribution. Each tree was then allocated one of four categories (U, A, B or C).

Repeat check of TPO status with Haringey Council on 2 August 2017

Received material

TS16-093M1-3D-PRELIM

OS Base- Survey

20161026094108

25021_SK01-001-Rev_B

25021 PL002 Rev_

25021 PL 003

170707 Chocolate Factory - Non-Residential Floorspace Schedule

170721 FINAL Planning Index and Scope

25021 SK01-001-Rev D

25021_SK01-001-Rev_D_site plan

Reviewed text

BSI. BS 3998:2010 *Tree work-Recommendations*.

BSI. BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*

R.G.Strouts and T.G.Winter 'Diagnosis of ill-health in trees' TSO 1994

London Borough of Haringey website

C. Mattheck 'The body language of trees' 2015

Appendix 8

Caveats & Exclusions

Specific report caveats

1. At the time of writing this report, the protected tree status is correct. However, this can change. Therefore I advise that a further check is made with London Borough of Haringey before any works to trees take place.
2. No internal diagnostic equipment was used other than a sounding mallet and probe and all inspections where from ground level only, with the aid of binoculars where necessary.
3. The survey is concerned solely with arboricultural issues.
4. Any changes in ground level, or excavations near to tree roots not discussed within this report may change the stability and condition of the trees and a further examination would be required.
5. As trees are a dynamic living organism this report is only valid for a period of 12 months, in respect to their health and condition. My last visit was November 2016 and I note that tree condition could have changed. As all trees (with the exception of the Lawson cypress) are offsite, the management and responsibility of the offsite trees rests with the owners and, in the case of T8 – T11, with the Highway Authority.
6. Only the trees listed in this report have been examined.
7. The base and trunk of the offsite trees could not be examined, and therefore a full assessment of the trees condition could not be made – this applies to the Fig and Apple.
8. The tree information is from the time of the survey. Some pests, diseases and fungi only appear seasonally, therefore it is possible not all issues that may affect the health of the trees could be observed.

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Appendix 9

My experience and qualifications



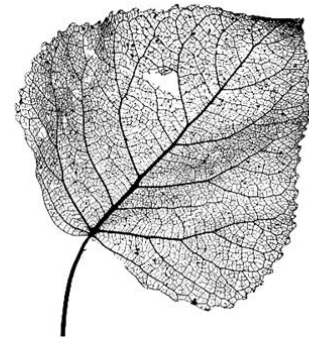
Sharon Hosegood

FICFor FARbor A BSc (Hons) Tech Cert Arbor A

Profile

Sharon is an Expert Witness, chartered arboriculturist and Director of Sharon Hosegood Associates Ltd. Sharon had eleven years' experience as a local government tree and landscape officer before joining DF Clark Contractors as a tree consultant in 2005. In 2007 she formed an environmental practice in Essex with the owner. As managing director, she built up the ecological and arboricultural consultancy to a team of 20. She is a regular presenter and an occasional trainer for Trevor Roberts Associates. She appeared on BBC1 in July 2015 and September 2015, in 'Britain Beneath Your Feet' demonstrating tree radar at the Burghley Country Park, Lincs, with Dallas Campbell, and latterly in the consumer programme 'Rip Off Britain', again with tree radar equipment. Sharon was the technical coordinator and chair of the Institute of Chartered Foresters national study tour 2016 'The streets of London'.

Specialties:	Trees in relation to development, including appeals and planning hearings Tree root investigations, including TreeRadar Tree hazard evaluation Tree preservation orders Trees and well-being with community engagement
Professional bodies:	Fellow of the Institute of Chartered Foresters (ICF) Councilor for the ICF Assessor for the ICF examination board Fellow of the Arboricultural Association
Qualifications:	Cardiff University Law School Bond Solon Civil Expert Certificate Arboricultural Associations Technicians Certificate BSc (Hons) Geography and Landscape Studies Managing Safely IOSH (2017)
Awards:	Top student award for the Technician's certificate in 2005 The Broomfield Hospital Woodland Management project she has managed since 2009 has won the following awards: The Essex Biodiversity Awards (nomination) The Excellent Community Engagement Award (NHS Forest) Green Flag and Green Apple Award Highly commended for the Health Sector Journal Award 2013



Sharon Hosegood
ASSOCIATES

ARBORICULTURAL IMPACT ASSESSMENT REPORT
BS 5837:2012 'Trees in relation to design, demolition and construction.
Recommendations'

SITE

5 Clarendon Rd, London N22 6XJ

CLIENT

Workspace Management Ltd

DATE: 2 August 2017
OUR REF: SHA 261

Sharon Hosegood Associates Moulsham Mill, Parkway, Chelmsford Essex CM2 7PX
T: 01245 608362 www.sharonhosegoodassociates.co.uk
Registered Office: Fisher Michael Chartered Accountants, The Old Grange, Warren Estate,
Lordship Rd, Writtle, Chelmsford, Essex CM1 3WT
Company Registration Number: 9361038 Director: Sharon M.Hosegood