



Connick Tree Consultants

TREE DEVELOPMENT SURVEY AND REPORT

(BS5837:2012 ARBORICULTURAL IMPACT ASSESSMENT)

OUR REFERENCE	178648
LOCAL PLANNING AUTHORITY	Havant Borough Council
CLIENT	Malins Group
SITE	The Briars, Waterloooville, PO7 7YH
REPORT BY	Mr Paul Roberts
DATE	17 th December 2020

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1 INTRODUCTION

1.1 INSTRUCTION

Connick Tree Consultants were instructed by the Malins Group to produce an Arboricultural Impact Assessment of the proposed development works to form a new office space. This is undertaken in accordance with BS5837: 2012 Trees in relation to design, demolition, and construction - Recommendations.

1.2 SCOPE OF REPORT

The survey included all trees within and adjacent to the site comprising of residential properties and associated infrastructure with a stem diameter of 75 mm or more, measured at 1.5m above the highest adjacent ground level and significant shrub groups which may be impacted upon by future development and construction access.

The tree information recorded relates to the tree condition, age, safe useful life expectancy, location, canopy spread, canopy height and tree height and direction of first significant branch as well as any work that is required. Where trees are located within neighbouring properties all measurements are estimated and the assessment in relation to their condition has been made upon those parts visible only.

No information regarding soil assessment was provided and no investigation was taken on site.

The report and recommendations relate to the condition of the trees and their surroundings at the time of inspection only. Trees are living organisms whose health and condition can change rapidly and all trees, even healthy ones, are at risk from unpredictable climatic and man-made events. This report and recommendations relate to the condition of the trees and their surroundings at the time of inspection only.

1.3 DOCUMENTATION

We have been provided with a copy of the proposed plans

1.4 QUALIFICATIONS AND EXPERIENCE

I have based this report on my site observations and investigations, and I have come to conclusions in the light of my qualifications gained and experience obtained whilst working in the field of arboriculture. I have qualifications and practical experience in arboriculture and details of these can be supplied on request.

1.5 LIMITATIONS AND USE OF COPYRIGHT

All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means without our written permission. Its contents and format are for the exclusive use of the person, firm or company to whom it is addressed (and that of any other person, firm or company whose interest was disclosed to us prior to its preparation). It may not be sold, lent out or divulged to any third party not directly involved in this situation without the written consent of Connick Tree Care.

DISCLAIMER: I have no connection with any of the parties involved in this situation that could influence the opinions expressed in this report.



2 SITE VISIT AND OBSERVATIONS

2.1 SITE VISIT

A site visit was undertaken on the 14th December 2020 who is a qualified arboriculturist.

2.2 GENERAL OBSERVATIONS AND BACKGROUND

The site of the proposed development is located within the commercial site known as The Briars an Office Park located in the Waterloo area of Portsmouth. The area of development is located centrally along the south east boundary of the site adjacent to Elettra Avenue

The site consists of an area of soft landscaping that merges with a verge, small built structures, and car parking.

All the trees included in the survey are shown within the Tree Constraints Plan attached as Appendix II.

3 TREE SURVEY

In total 21 individual trees were recorded within or adjacent to the site during the survey process.

Attached as Appendix I is the tree survey schedule summarising the information obtained within the survey process.

The trees surveyed have been assessed and categorised in accordance with the Cascade chart in section 4 of the BS5837:2012. This has identified that there are the following within the site:

No individual 'A' grade trees of a high quality and value, which are worthy of retention and a high level of protection.

14 individual category 'B' grade trees which are deemed to be of moderate quality and value, which are worthy of retention and protection.

6 individual category 'C' grade trees of low quality and value, which should only be retained and protected when they do not pose a constraint on the development.

1 individual 'U' grade tree has been identified as requiring removal for reason of sound arboricultural management.

The location of the trees is shown on the Tree Constraints Plan attached as Appendix II. All trees surveyed have been given a unique identification number and are identified on the schedules and plans by a 'T' prefix for individual trees.

3.1 TREES SUBJECT TO STATUTORY CONTROLS

The Local Planning Authority has not yet been contacted to establish whether any Tree Preservation Order (TPO) covers any of the trees, or to determine if the site is situated within a Conservation Area (CA). However, an online search of the Havant Borough Council mapping system (<http://maps.havant.gov.uk/havant.aspx>) has identified that no trees within the site are subject to a TPO and that the site is not located within a conservation area.

4 TREE CONSTRAINTS

4.1 ROOT PROTECTION AREA

To avoid damage to the tree roots or rooting environment, a minimum area in m² should be left undisturbed around each retained tree (category A, B and C trees).

The root protection area's (RPA's) of the tree recorded within the survey are shown in the Tree Constraints Plan (Appendix II).

The root protection area has been calculated using the formula specified within section 4.6 of the BS5837:2012 standard and should initially be plotted as a circle centred on the base of the stem.

The RPA can be modified where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically. Any deviation in the RPA from the original circular plot should reflect soundly based arboricultural assessment of potential root disturbance and consider the following factors, whilst still providing adequate protection for the root system.

- The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground services).
- Topography and drainage.
- The soil type and structure.
- The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

The calculated RPA should be capped at 707 m², which is equivalent to a circle with a radius of 15m or a square with approximately 26m sides (BS 5837:2012 Trees in relation to design, demolition and construction).

4.2 CONSTRUCTION EXCLUSION ZONE

The Construction Exclusion Zone (CEZ) required by the current edition (2012) of BS 5837 Trees in Relation to Design, Demolition and Construction relates to the stem diameter of each tree when measured at a height of 1.5m from ground level. The CEZs are to be afforded protection at all times and will be protected by a combination of fencing and ground protection measures.

4.3 ABOVE GROUND CONSTRAINTS

The current height and canopy spread of the trees is an important factor which needs to be considered when deciding the layout of a proposed development. The shading of trees, and/or their size can cause anxiety to residents, leading to pressure for pruning or removal.

5 ARBORICULTURAL IMPACT ASSESSMENT

The following Arboricultural Impact Assessment has been made in relation to the proposed development details provided by our client. This is for the extension of the basement and the construction of a new two storey office block. The location of the footprint of the proposed development has been included within the attached Arboricultural Impact Plan.

5.1 SIGNIFICANT TREES

The survey process has identified that there are no significant trees within the site.

5.2 TREE REMOVAL FOR REASONS OF SOUND ARBORICULTURAL MANAGEMENT

The survey process has identified that 1 tree within the site requiring removal due to reasons of sound arboricultural management. This tree is identified as T16. Further details of these tree can be found within the attached tree survey schedule (Appendix I).

5.3 TREE LOSS

Consideration has been given to retaining all trees on site. However, ultimately their removal is dependent on their condition and proximity to the development. This has identified that the following trees will require removal to facilitate the development.

Table 1: Showing which require removal to facilitate the development.

Tree ID	Species	Maturity	Category
T11	Silver Maple (<i>Acer saccharinum</i>)	Semi-mature	B
T10	Silver Maple (<i>Acer saccharinum</i>)	Semi-mature	B

5.4 IDENTIFIED IMPACTS

5.4.1 ROOT PROTECTION AREAS

The survey process and the Tree Retention and Protection Plan (Appendix III) has indicated the extent of the theoretical Root Protection Areas (RPA) of the surveyed trees and identifies the potential impacts resulting from the proposed development. The details of the impacts are identified within table 3 below:

Table 3: Identifying development impacts.

Tree No.	Development Section	Total RPA m ²	Impact of proposed development.
T12	Construction of new hard landscaping	107.3	The proposed basement will impact upon up to 3.6m ² of total RPA equating to 3.4%.

5.4.2 TREE CROWNS

The survey process and the Tree Retention and Protection Plan (Appendix III) has indicated the extent of the crown spread, crown clearance and height of the surveyed trees and identifies that there will be no additional impact resulting from the proposed development.

6 SUMMARY

On completion of the site survey and report it is concluded that the proposed development will have an impact upon 3 trees of the 21 recorded within and adjacent to the site. These trees are as follows:

- 2 category 'B' semi-mature Silver maple trees will require removal to facilitate the development.
- 1 category 'B' tree recorded as T12 a semi-mature Silver maple can be retained, although the development will encroach upon 3.4% of the trees RPA, this is primarily as a result of the proposed hard landscaping.

The most significant impact is the loss of the 2 semi-mature category 'B' Silver maple trees, however the loss of these will be mitigated through replacement planting of 5 standard size specimens of a species to be agreed with the local planning authority prior to the start of any development. This planting will be used as an opportunity to diversify the species and age range of the trees in the verge,

The new proposed hard landscaping within the RPA of T12 will not exceed 20% of any previously unsurfaced areas and be formed using permeable materials. The hard standing will be formed in an area which is already raised and as such a no dig construction is unlikely to be possible. However, the impact is less than 3.4% and any excavations required to allow grading of the site in the RPA of T12 will be undertaken using hand tools only.

The advice given above is a summary of the required precautions to ensure that the proposed development can be constructed with a minimal impact to all retained trees. The exact methods of construction required in and adjacent to the RPA of retained trees and a final Tree Protection Plan should be addressed within a separate Arboricultural Method Statement.

APPENDIX I TREE SURVEY SCHEDULE

Client: Malins Group

Project: The Briars

Survey Date: 14/12/2020

Surveyor: Mark Haddock

BS5837:2012 Tree Survey



Connick Tree Care

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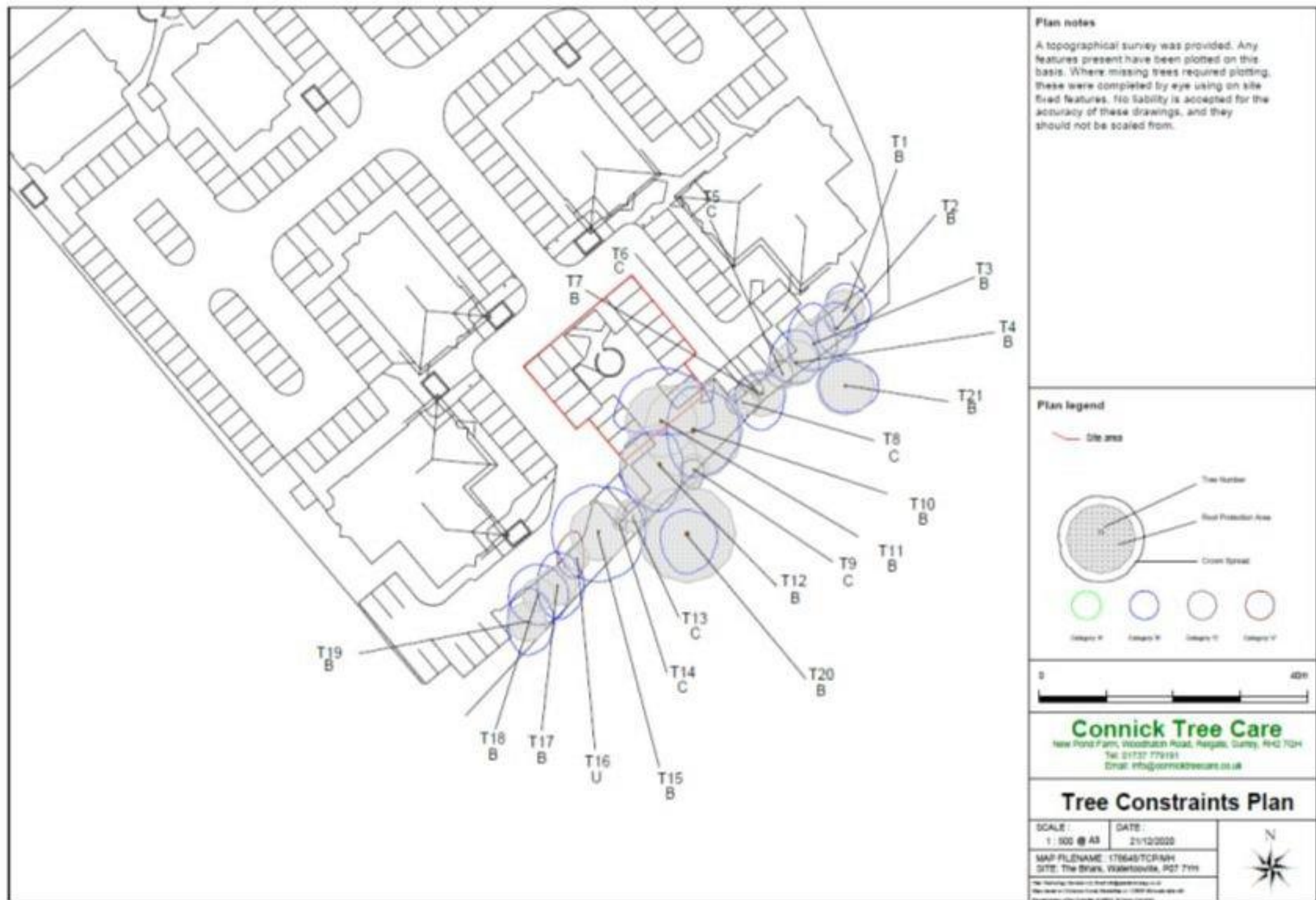
Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment	
T1 Estimated Measurements											
Bird Cherry <i>Prunus padus</i>	8.5	1	249	N 4 E 4 S 4 W 3	2 2.2 2.2 3	SM	A: 28.1 R: 2.99	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
T2 Estimated Measurements											
Bird Cherry <i>Prunus padus</i>	8.5	1	288	N 4 E 3 S 4 W 3	2 2.2 2.2 3	SM	A: 37.5 R: 3.45	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
T3 Estimated Measurements											
Bird Cherry <i>Prunus padus</i>	8	1	301	N 6 E 3.5 S 4 W 4	2 2.2 2.5 2.5	SM	A: 41 R: 3.61	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
T4 Estimated Measurements											
Bird Cherry <i>Prunus padus</i>	8.2	1	277	N 5 E 3.5 S 3 W 4	2 2.2 2.5 2.5	SM	A: 34.7 R: 3.32	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature EM Early Mature M Mature OM Over Mature Condition: C Crown S Stem B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contribution											

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T5											Estimated Measurements	
Common Hawthorn <i>Crataegus monogyna</i>	6	1	185	N E S W	2 1.5 2 2.5	1.6 1.6 2 1.6	SM 	A: 15.5 R: 2.22	Good	C: Good S: Good B: Good	No action :: Unspecified	C >40 yrs
T6											Estimated Measurements	
Mountain Ash <i>Sorbus aucuparia</i>	4	1	88	N E S W	1.8 0.8 0.5 1	2.2 2.2 2.5 2.2	Y 	A: 3.5 R: 1.05	Good	C: Good S: Good B: Good	No action :: Unspecified	C 10 to 20 yrs
T7											Estimated Measurements	
Common Ash <i>Fraxinus excelsior</i>	13.8	1	280	N E S W	3 3.5 5.5 4	3.8 4 3 2.5	SM 	A: 35.5 R: 3.36	Good	C: Good S: Good B: Good	No action :: Unspecified	B >40 yrs
T8											Estimated Measurements	
Cotoneaster <i>Cotoneaster Spp.</i>	4	7	159 (Eq)	N E S W	2.5 2.5 2 2.5	2 1.5 1.6 1.5	SM 	A: 11.4 R: 1.9	Good	C: Good S: Good B: Good	No action :: Unspecified Deciduous shrub Cotoneaster	C 10 to 20 yrs
T9											Estimated Measurements	
Bird Cherry <i>Prunus padus</i>	4	1	180	N E S W	1.5 1.5 3 2	1.5 1.5 2 2	SM 	A: 14.7 R: 2.16	Fair	C: Fair S: Good B: Good	No action :: Unspecified Established root stock (likely Prunus spinosa) established from now dead grafted tree	C 20 to 40 yrs
T10											Estimated Measurements	
Silver Maple <i>Acer saccharinum</i>	18	1	604	N E S W	6.5 7 7 4	1.8 1.6 2 2	SM 	A: 165.1 R: 7.24	Good	C: Good S: Good B: Good	No action :: Unspecified	B >40 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC				
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment						
T11											Estimated Measurements					
Silver Maple <i>Acer saccharinum</i>	16	1	437	N E S W	8 8 2 7	2 3 7 2.5	SM A: 86.4 R: 5.24	Good	C: Good S: Good B: Good	No action :: Unspecified Southern side supressed by T10 and T12.		B >40 yrs				
T12											Estimated Measurements					
Silver Maple <i>Acer saccharinum</i>	17	1	487	N E S W	5 3.5 7 6	3 15 5 5	SM A: 107.3 R: 5.84	Good	C: Good S: Good B: Good	No action :: Unspecified		B >40 yrs				
T13											Estimated Measurements					
Common Hawthorn <i>Crataegus monogyna</i>	4	9	210 (Eq)	N E S W	2 2 1 1.5	2.5 2.5 3 2.5	SM A: 20 R: 2.52	Good	C: Good S: Good B: Good	Self-set multi stemmed tree		C >40 yrs				
T14											Estimated Measurements					
Common Hawthorn <i>Crataegus monogyna</i>	4	1	80	N E S W	0.5 1 1 1	3 2 2 2	Y A: 2.9 R: 0.96	Good	C: Good S: Good B: Good	No action :: Unspecified Self-set tree		C >40 yrs				
T15											Estimated Measurements					
Red Oak <i>Quercus rubra</i>	12.5	1	354	N E S W	7 7 7.5 7	2.5 3 2.5 3	SM A: 56.7 R: 4.24	Good	C: Good S: Good B: Good	No action :: Unspecified		B >40 yrs				
T16											Estimated Measurements					
Bird Cherry <i>Prunus padus</i>	4.5	1	150	N E S W	4 1 3 3	2 4 2.5 2	SM A: 10.2 R: 1.8	Decline	C: Poor S: Poor B: Fair	Fell :: Fell to ground level Daedaleopsis confragosa on main stem		U <10 yrs				
Age Classifications: N Newly planted Y Young SM Semi-mature													EM Early Mature M Mature OM Over Mature	Condition: C Crown S Stem B Basal area	Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

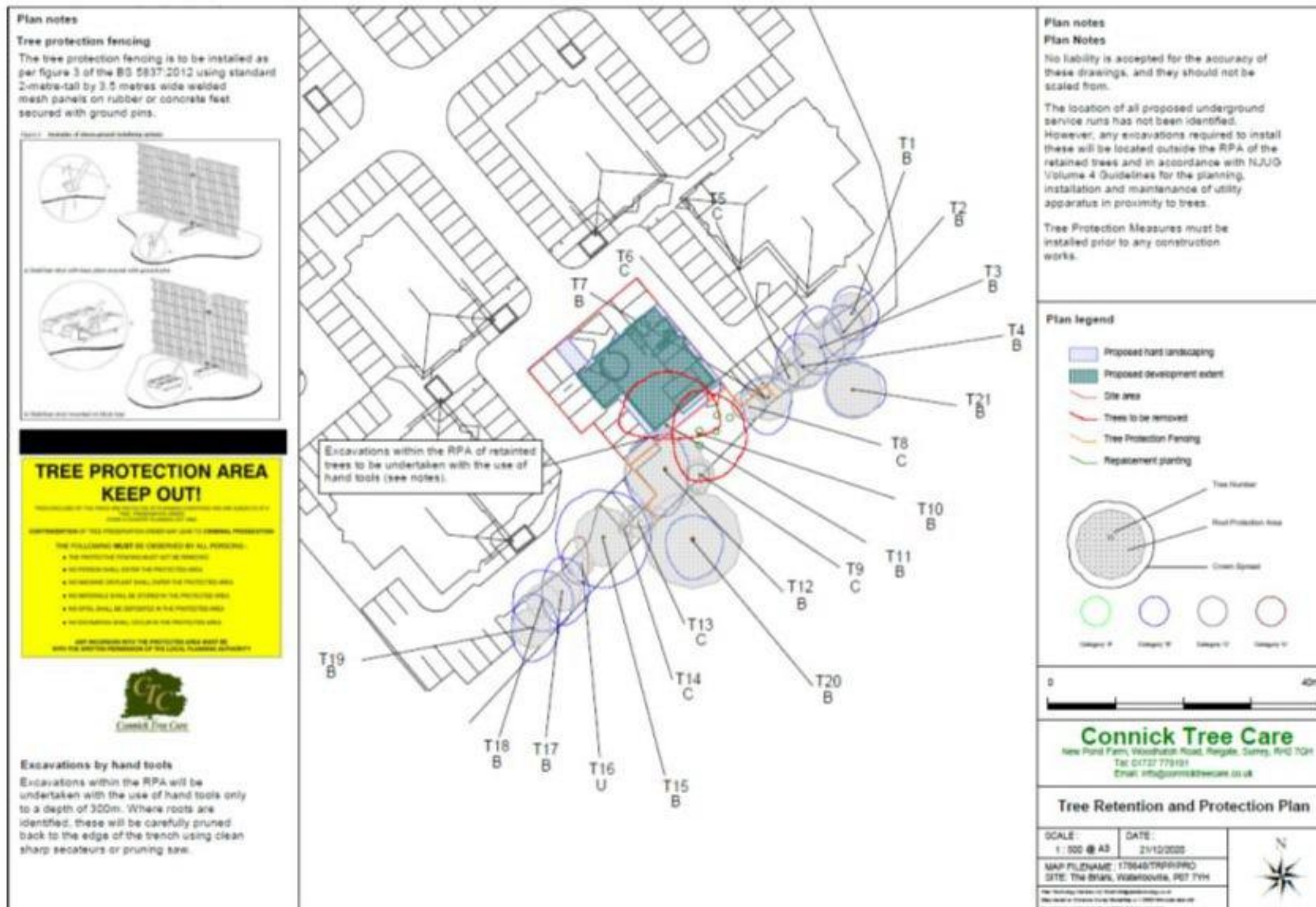
Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
Estimated Measurements												
T17 Bird Cherry <i>Prunus padus</i>	6.7	1	240	N E S W	5 4 5 3	1.7 1.7 2 3	SM 	A: 26.1 R: 2.88	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
Estimated Measurements												
T18 Bird Cherry <i>Prunus padus</i>	6.7	1	200	N E S W	4.5 4.5 4.5 4.5	3 1.7 3 2.5	SM 	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
Estimated Measurements												
T19 Bird Cherry <i>Prunus padus</i>	6.7	1	240	N E S W	5 4 5 3	1.7 1.7 2 3	SM 	A: 26.1 R: 2.88	Good	C: Good S: Good B: Good	No action :: Unspecified	B 20 to 40 yrs
Estimated Measurements												
T20 Tulip Tree <i>Liriodendron tulipifera</i>	15	1	592	N E S W	3.5 4.5 6 4	6.5 2.5 2.5 4	M 	A: 158.6 R: 7.1	Good	C: Good S: Good B: Good	No action :: Unspecified	B >40 yrs
Estimated Measurements												
T21 Common Ash <i>Fraxinus excelsior</i>	8	1	356	N E S W	4 5 4 4	2 2 5 2.5	SM 	A: 57.3 R: 4.27	Good	C: Good S: Good B: Good	No action :: Unspecified	B >40 yrs
Age Classifications: N Newly planted Y Young SM Semi-mature												
EM Early Mature M Mature OM Over Mature												
Condition: C Crown S Stem B Basal area												
Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition												
ERC: Estimated Remaining Contributio												

APPENDIX II TREE CONSTRAINTS PLAN



APPENDIX III

TREE RETENTION AND PROTECTION PLAN



APPENDIX IV SITE PHOTOGRAPHS



Photograph 1: View of the site looking north



Photograph 2: View of the site looking south



Photograph 3: A close up of trees T10, T11 and T12 from left to right.