



ARBORICULTURAL REPORT

Royal Berkshire Hospital
London Road
Reading
RG1 5AN

June 2024

Ref: 24134

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1. INTRODUCTION

1.1 Instructions

- 1.1.1 Instructions have been received to undertake an arboricultural impact assessment on land at The Royal Berkshire Hospital, Reading (Site Location Plan Appendix 1).
- 1.1.2 This arboricultural impact assessment has been prepared to assess the likely impact and effect regarding the proposal to construct a new hospital building. This appraisal assesses the impact of the proposal in relation to the trees surveyed and discusses mitigation measures that may have to be adopted.

1.2 Arboricultural Survey

- 1.2.1 During June 2024 a tree survey was carried out in accordance with British Standard 5837:2012 'Trees in relation to Design, Demolition and Construction-Recommendations' and good arboricultural practice. This is a basic data collection exercise and a record of the trees condition at the time of surveying. The tree survey data can be viewed at Appendix 2, root protection area (RPA) data at Appendix 3 with the tree constraints plan provided at Appendix 4.

2. TREE PROTECTION

- 2.1 A desktop study of information posted on Reading Borough Council's (RBC) interactive mapping system (<https://www.southoxon.gov.uk/south-oxfordshire-district-council/planning-and-development/wildlife-trees-and-landscape/trees/>) was carried out on the 27th June 2024.
- 2.2 RBC's interactive mapping system indicates that the survey area is not located within a Conservation Area. The interactive mapping system also indicates that no Tree Preservation Orders (TPO's) are present on trees located within or adjacent to the site.
- 2.3 Before undertaking any work that may be recommended within this report, it is advisable to check directly with Reading Borough Council to determine whether any planning controls are in operation. Where work is proposed to trees other than immediately affected by a development written consent must be obtained for works on trees subject to a TPO; and in the case of a Conservation Area six weeks' notice of intent must be forwarded before undertaking any such work.

3. ARBORICULTURAL SURVEY

3.1 Eight trees and one hedge have been recorded within this assessment. The tree quality is assessed as follows:

U: Trees that are considered to be of such condition that any existing value would be lost within 10 years, and which should, in the current context, be removed for reasons of sound arboriculture management. However, if category 'U' trees are placed in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer this recommendation.

A: Trees of the highest quality and value and are considered to be of such a condition as to be able to make a substantial contribution (e.g., 40 years +).

B: Trees of moderate to high value and are considered to be of such a condition as to be able to make a significant contribution (e.g., 20 years +).

C: Trees of low quality with an estimated life expectancy of at least 10 years. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Young trees with a stem diameter of less than 150mm should be considered for relocation or replacement through mitigation (e.g., 10 years).

Category A, B & C trees are further divided into the following sub-categories. These sub-categories carry equal weight and are selected for either arboricultural values, landscape values or cultural values, including conservation:

- 1: Mainly arboricultural qualities.
- 2: Mainly landscape qualities.
- 3: Mainly cultural values, including conservation.

The British Standard 5837:2012 also recommends recording hedges and shrub masses, however in the context of the standard it is not necessary to assess the quality of these or to provide a category classification.

The numbers of trees falling under each classification within the arboricultural survey are as follows:

A summary of the trees in each of the four categories is provided below:

BS 5837 (2012) Category	No. of Trees	No. of Groups	No. of Hedges	Tree Number
U	0	0	0	
A	0	0	0	
B	6	0	0	T1, T2; T5, T6, T7, T8
C	2	0	1	T3, T4, H1

4. PRINCIPLE ARBORICULTURAL IMPLICATIONS

4.1 Introduction

- 4.1.1 Consideration is given to the significance of the trees identified in the arboricultural tree survey, the constraints that they are likely to pose to any development that may occur, post development implications (if any) and work requirements to trees for reasons of sound arboricultural management in order to facilitate the development (BS5837:2012 Section 5.4).
- 4.1.2 All tree numbers referred to in this document relate to the tree numbers annotated on the tree constraints plan and arboricultural impact assessment plan (Appendix 5).

4.2 Site Description

- 4.2.1 The site is situated between Craven Road and Redlands Road and is positioned in between an existing prefabricated building and the main South Block hospital building. An area of soft ground and a pedestrian path are also present in the survey area. In addition select trees growing adjacent to an existing car park entrance onto Addington Road have also been surveyed.

4.3 Trees

- 4.3.1 With the exception of two third party trees T1 & T8, all the trees are located within the survey areas. Trees T3 & T4 are young specimens which could be transplanted should this be considered desirable.
- 4.3.2 The Wildlife & Countryside Act 1981, as amended by the Countryside Rights of Way Act 2000, provides statutory protection to birds, bats and other species that inhabit trees. These have the potential to pose additional constraints on the use and timings of works that may occur to trees located at the site. These issues are beyond my expertise, and it is recommended that appropriate advice is sought prior to the implementation of any works considered within this report.

4.4 Overview

- 4.4.1 The appended arboricultural impact plan illustrates the proposals in relation to the tree stock. In addition to pre-development concerns, post development concerns such as debris and concerns of the trees' proximity and juxtaposition to the proposal have also been considered during the design process.
- 4.4.2 An assessment of the design on the tree stock has been carried out. No trees require removal to construct the new building, however 3 category 'B' trees will be removed to facilitate access for the work.
- 4.4.3 The scheme has undergone a careful design process to ensure an efficient use of the site, whilst safeguarding the continued contribution to the greening of the immediate landscape. On the basis of the appraisal, it is considered that the arboricultural impact of the scheme on the tree stock will not result in an adverse impact on the character and appearance of the site or wider landscape.

4.5 Impact of the proposal on the tree stock

Overview

- 4.5.1 Whilst trees in categories 'A', 'B' and 'C' are all a material consideration in the development process, the retention of category 'C' trees, being of low quality or of only limited or short-term potential, will not normally be considered necessary where they impose a significant constraint on development. Furthermore, BS 5837:2012 makes it clear that young trees, even those of good form and vitality, which have the potential to develop into quality specimens when mature "*need not necessarily be a significant constraint on the site's potential*".
- 4.5.2 The BS5837:2012 recommends that the root protection areas (RPA's) for trees should initially be plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced.
- 4.5.3 The arboricultural survey has identified that existing site constraints have influenced the root protection area of tree T2. As such the rooting area of this tree have been adjusted. The modified RPA's has considered the expected morphology and disposition of roots, site topography, including levels, drainage and the likely tolerance of the trees to root disturbance based on factors such as age, condition and past management (BS5837:2012 Section 4.6.3).

4.6 Proposed Development

- 4.6.1 The scheme comprises of the demolition of an existing prefabricated building and construction of a new hospital building that will link into the adjacent South Block building. No trees are required to be removed to implement this element of scheme.
- 4.6.2 To allow for a crane to be present on site during the construction three category 'B' trees (T5, T6 & T7 Poplar x 3) will be removed. The tree survey identifies that the trees are growing in a modest landscaping strip and are young middle mature trees. Given the context of the development, age of the trees and the ability to provide post planting tree mitigation it is concluded that these trees should not be regarded as a significant constraint. As such it is concluded that the tree removal is warranted in favour of development.

4.7 Proposed Landscaping

- 4.7.1 A landscape plan will be developed which provides an enhanced environment and compliments the development of the site. New tree planting is proposed whereby suitable species for the site and for climate change will be chosen.

4.8 Construction

- 4.8.1 Careful consideration has been given regarding the buildability of the proposals. The arboricultural impact plan illustrates that sufficient room exists to locate the site compound and contractor parking outside the RPA's of the retained trees.
- 4.8.2 Fence protection is required for the retained trees. The fencing will comprise of Heras fencing and will be based on Figure 2 'Default Specification for Protective Barrier' as recommended within the British Standard 5837:2012. Where appropriate the fencing will be braced to withstand impacts.

- 4.8.3 Ground protection measures are also required to facilitate access for the works. Where existing hard standing is present this will act as ground protection for the duration of the demolition and construction phases.
- 4.8.4 A tree pruning works schedule to facilitate the proposal has not yet been finalised, however it is not anticipated that tree pruning will be required. In event pruning works to trees are required it is judged that trees can be pruned to acceptable standards in accordance with British Standard 3998:2010 'Tree Works - Recommendations'.
- 4.8.5 New service runs have not yet been finalised; however, it is anticipated new services will connect to existing. In the unlikely event new services fall within the RPA's of retained trees all proposed service installations will be carried out in accordance with the guidelines set out in NJUG Volume 4 and in accordance with the recommendations at Section 7.7 of the British Standard 5837:2012.

5. SUMMARY

5.1 Conclusions

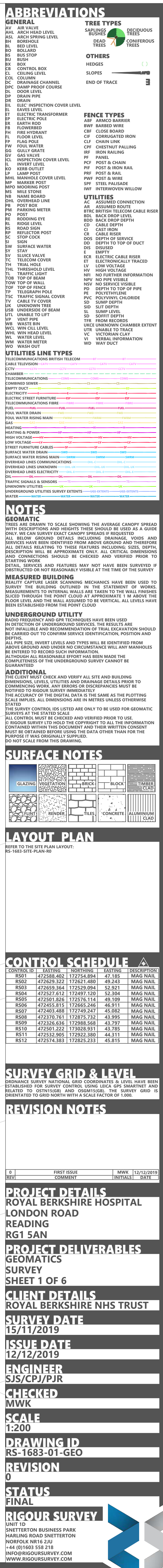
- 5.1.1 The British Standard 5837:2012 states that there is the need to avoid misplaced tree retention; for example, to attempt to retain too many unsuitable trees on a site may result in excessive pressure on the trees during the development work and subsequent demands for their removal post development. To facilitate the proposal three category 'B' trees will be removed. The scheme enables three category 'B' trees, two category 'C' trees and one category 'C' hedge to be retained.
- 5.1.2 Consideration for both the direct impact and indirect impact of a development with respect to retained trees needs to be assessed. With respect to the retained tree stock, it is considered that their successful integration into the layout can be achieved.
- 5.1.3 Careful planning of site operations must be carried out to avoid any adverse impact to the retained trees. To safeguard the trees through the development it is advised that a site-specific Arboricultural Method Statement is drawn up and implemented.

5.2 Post development tree management.

- 5.2.1 Section 8.8.2 of the British Standard 5837:2012 recommends post development aftercare of trees following the completion of development works. It is recommended the following is considered with regard to post development inspection of retained trees:
1. Trees that grow on a site prior to development may, if adversely affected, be in decline over a period of several years before they die. This varies due to age, species, condition prior to development, extent of damage during development, soil conditions and climate. It is recommended that regular inspections are undertaken.
 2. Where trees are protected by planning controls, it is recommended that the Local Planning Authority is informed, and necessary agreements obtained prior to any remedial works.
 3. Following completion of a development it is recommended that the arboricultural consultant inspects the trees for signs of intolerance to the change of conditions and the effect of the development. There may be a need for additional tree works to those originally specified.

APPENDIX 1

SITE LOCATION PLAN



APPENDIX 2

TREE SURVEY DATA

KEY TO TREE SCHEDULE

Tree No: Relates to individual trees, groups, hedges and woodlands as identified within the Tree Survey Schedule and Tree Constraints Plan

'T' prefixes have been used to identify individual trees.
'G' prefixes have been used to identify groups of trees.
'H' prefixes have been used to identify hedgerows.
'W' prefixes have been used to identify woodlands.

Species: Common name

Height: Estimated height expressed in meters

ST: Stem diameter of the main trunk taken at 1.5m above ground level or in accordance with Annex C BS5837:2012.

Height in M of Canopy: Information of the first significant branch and direction of growth in order to inform on ground clearance.

Abbreviations:

#:	Estimated
Ave:	Average
A.G.L:	Above ground level
SULE:	Safe Useful Life Expectancy

Branch Spread: Estimated crown radius expressed in meters, taken for each cardinal compass point.

Age Class:

Y	Young - Less than one third of natural life expectancy
MM	Middle aged - One to two thirds of natural life expectancy
M	Mature - More than two thirds of natural life expectancy
OM	Over mature
NP	Newly Planted

Physiological Condition:

G	Good
F	Fair
P	Poor
D	Dead

Notes:

Root Protection Area: This is a layout 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 (detailed in paragraph 3.7 British Standard 5837:2012 'Trees in relation to Construction-Recommendations').

Young trees with a stem diameter of less than 150mm: Whilst the presence of young trees of good form and vitality is generally desirable (i.e those which have the potential to develop into quality mature specimens), they need not necessarily be a significant constraint on the site's potential (detailed in paragraph 4.5.10 British Standard 5837:2012 'Trees in relation to Construction-Recommendations').

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 the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>	Dark Red
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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	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light 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	Mid 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

TREE NO.	SPECIES	Height in (M)	CALCULATED STEM DIA (MM)	BRANCH SPREAD				HEIGHT IN M OF CANOPY	AGE CLASS	PHYS. COND	COMMENTS	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY GRADING
	(Latin)			N	E	S	W						
											Preliminary Recommendations		
T1	Hornbeam <i>Carpinus betulus</i>	12	370	4.5	3	5	4.5	N/A	MM	G	Young middle mature street tree. Pleasant feature. <i>No Work</i>	20 to 40	B2
T2	Sycamore <i>Acer pseudoplatanus</i>	12.5	540	3.5	3.5	4	4	2	MM	F	Growing in an area of soft ground to the south of an existing building. Provides screening. <i>No Work</i>	20 to 40	B2
T3	Sycamore <i>Acer pseudoplatanus</i>	7	110	2	2	2.5	2.5	N/A	Y	G	One of 2 young trees within the survey area. Not a constraint. Could be transplanted. <i>No Work</i>	10 to 20	C2
T4	Norway Maple <i>Acer platanoides</i>	5	110	2	1.5	1.75	2	N/A	Y	G	One of 2 young trees within the survey area. Not a constraint. Could be transplanted. <i>No Work</i>	10 to 20	C2
T5	Poplar <i>Populus sp</i>	12	300	4	4.5	2	5	1	MM	F	One of 3 poplar trees growing in the existing car park in a small planting verge. Young middle mature. Long term should not be regarded as a significant constraint due to age. Low foliage over parking bay. <i>Tip back foliage over parking bay to 4m agl.</i>	20 to 40	B2
T6	Poplar <i>Populus sp</i>	11	265	3.5	4	2	4	1	MM	F	One of 3 poplar trees growing in the existing car park in a small planting verge. Young middle mature. Long term should not be regarded as a significant constraint due to age. Low foliage over parking bay. <i>Tip back foliage over parking bay to 4m agl.</i>	20 to 40	B2
T7	Poplar <i>Populus sp</i>	13	250	2	2.5	3	2.25	1	MM	F	One of 3 poplar trees growing in the existing car park in a small planting verge. Young middle mature. Long term should not be regarded as a significant constraint due to age. Low foliage over parking bay. <i>Tip back foliage over parking bay to 4m agl.</i>	20 to 40	B2
T8	Lime <i>Tilia sp</i>	15	660	2.25	2.75	3	2	2	MM	F	Third party street tree. Has been recently reduced. Low foliage over road. <i>Tip back foliage over the road to 5.2m agl</i>	20 to 40	B2
H1	Mixed species	Ave 1.5	Ave 100	1	1	1	1	GL	MM	F	Mixed species tree species pruned to form a hedge. Average dimensions recorded. <i>No Work</i>	10 to 20	C2

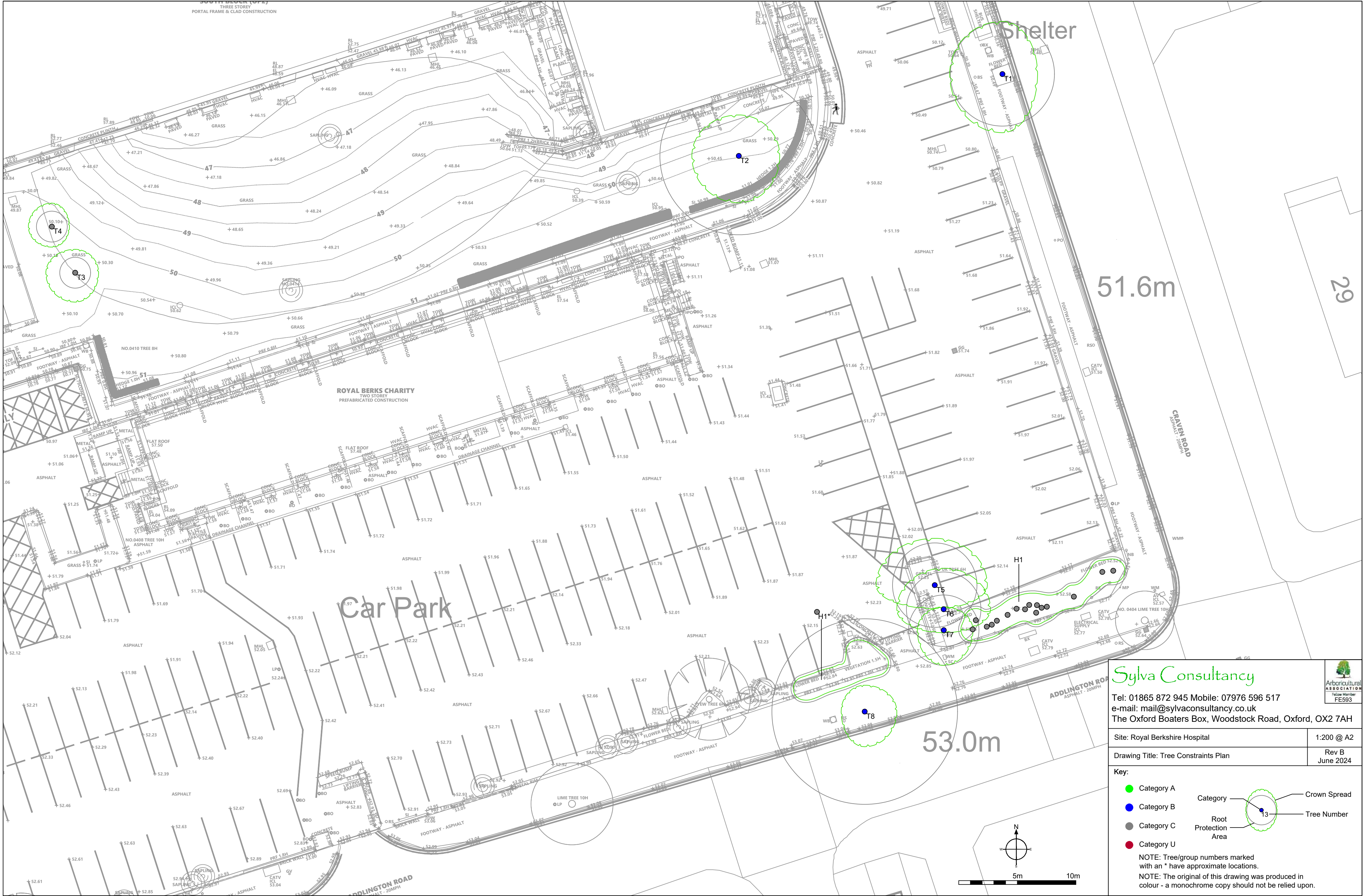
APPENDIX 3

ROOT PROTECTION AREA

ROOT PROTECTION AREA

TREE NO.	SPECIES	NO. OF STEMS	SINGLE STEM DIA (mm)	2-5 STEMS					> 5 STEMS	ROOT PROTECTION AREA - RPA (RADIUS IN M)	RPA (M ²)	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY
				STEM 1 (mm)	STEM 2 (mm)	STEM 3 (mm)	STEM 4 (mm)	STEM 5 (mm)	MEAN STEM DIA (mm)				
T1	Hornbeam	1	370							4.44	62	20 to 40	B2
T2	Sycamore	1	540							6.48	132	20 to 40	B2
T3	Sycamore	1	110							1.32	5	10 to 20	C2
T4	Norway Maple	1	110							1.32	5	10 to 20	C2
T5	Poplar	1	300							3.60	41	20 to 40	B2
T6	Poplar	1	265							3.18	32	20 to 40	B2
T7	Poplar	1	250							3.00	28	20 to 40	B2
T8	Lime	1	660							7.92	197	20 to 40	B2
H1	Mixed species	1	100							1.20	5	10 to 20	C2

TREE CONSTRAINTS PLAN



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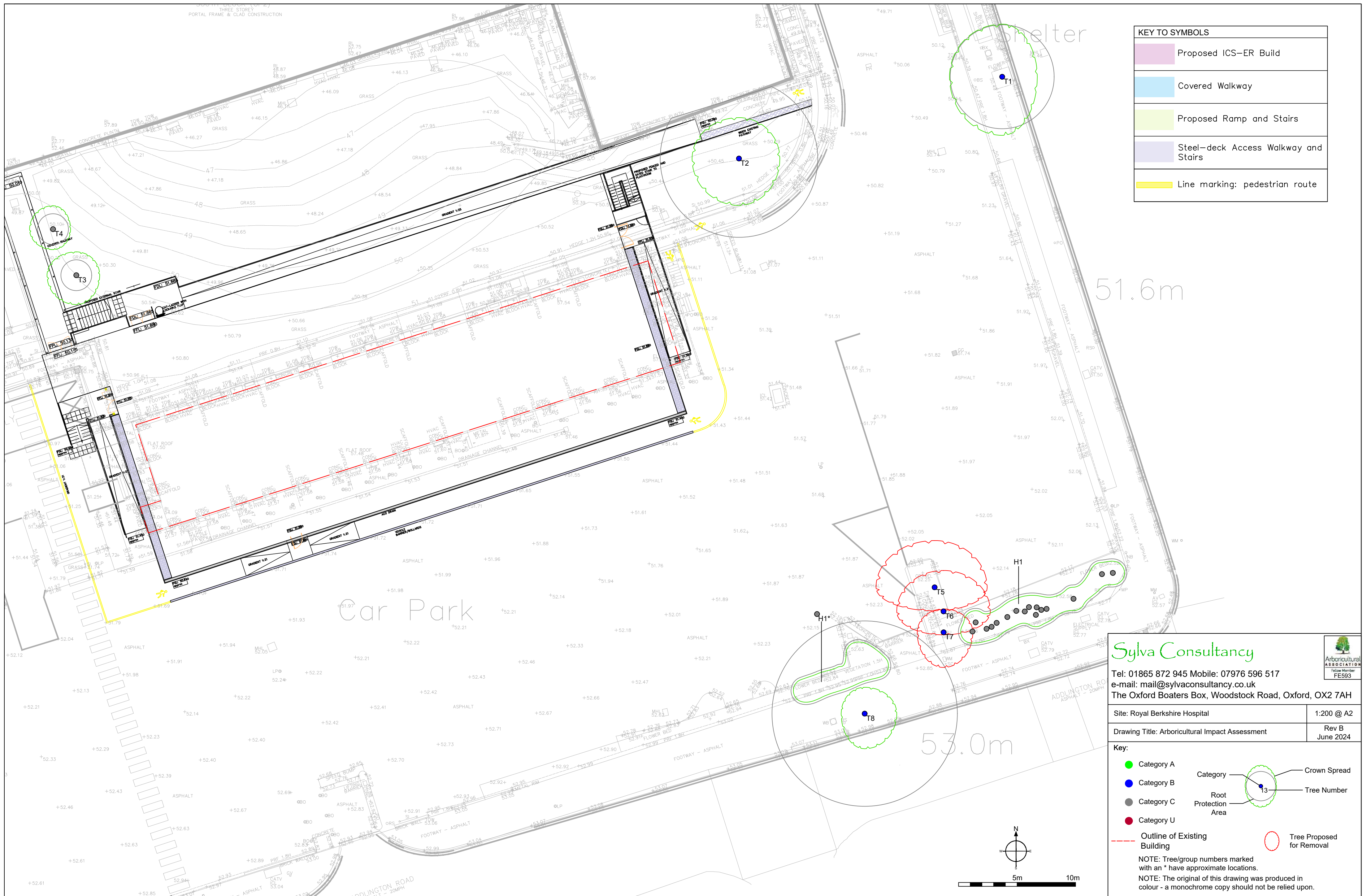
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The Oxford Boaters Box, Woodstock Road, Oxford, OX2 7AH

Site: Royal Berkshire Hospital	1:200 @ A2
Drawing Title: Tree Constraints Plan	Rev B June 2024

- Key:
- Category A
 - Category B
 - Category C
 - Category U
- Category 13
- Crown Spread
- Tree Number
- Root Protection Area

NOTE: Tree/group numbers marked with an * have approximate locations.
NOTE: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

ARBORICULTURAL IMPACT ASSESSMENT PLAN



APPENDIX 6

PHOTOGRAPHS



Photograph 1

View of tree T2



Photograph 2

View of trees T3 & T4



Photograph 3

View of the existing car park entrance adjacent to Addington Road (view from within the hospital car park)



Photograph 4

View of the existing car park entrance adjacent to Addington Road (view from Addington Road).

APPENDIX 7

QUALIFICATIONS

Fiona Bradshaw

MicFor; RFS Dip Arb;F. Arbor.A; Tech Cert (Arbor.A)

I have over 25 years' experience of arboriculture and I am the principal consultant at Sylva Consultancy. I hold the Royal Forestry Society's Professional Diploma in Arboriculture and the Arboricultural Associations Technicians Certificate. I am a Fellow member of the Arboricultural Association and a professional member of the Institute of Chartered Foresters, of which I am also a registered Consultant.

I have the benefit of both a local authority and private practice background and I am frequently instructed to provide advice and assistance relating to trees and the planning process. I am also experienced at compiling expert reports, providing evidence and also appearing as an expert witness at Public Inquires.

I am committed to my continued professional development which is reflected in my regular attendance of seminars and workshops.