DRYAD tree specialists

ARBORICULTURAL REPORT

BS 5837:2012

INITIAL TREE SURVEY

SITE ADDRESS:
23A Hampton Road, Teddington, TW11 0JN

CLIENT:
Mr Simon Kinsman

REF NO:
D3023.V1.0-TS

INSPECTION DATE:
10th of July 2023

PREPARED BY:
Tom Butterfield BSc(HONS) DipArb L4
18th of July 2023

REPORTS	INCLUDED
~INITIAL TREE SURVEY~	✓
~TREE SURVEY SCHEDULE~	✓
~TREE CONSTRAINTS PLAN~	✓
~ARBORICULTURAL IMPACT ASSESSMENT~	✘
~TREE SURVEY SCHEDULE + REQUIRED WORKS FOR THE PROPOSAL~	✘
~TREE PROTECTION PLAN~	✘
~ARBORICULTURAL METHOD STATEMENT~	✘

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BIBLIOGRAPHY

- BS5837:2012. "Trees in relation to design, demolition and construction – Recommendations".
- Mattheck, C., Breloer, H. (2006). "The body language of trees a handbook for the failure analysis". London: TSO.
- www.mapapps.bgs.ac.uk/geologyofbritain/home.html

INTRODUCTION

CLIENT	Mr Simon Kinsman
INSPECTION DATE	10th of July 2023
SITE LOCATION /S	23A Hampton Road, Teddington, TW11 0JN
INSPECTED BY	Tom Butterfield BSc (HONS) DipArb L4

1.0 Terms And Abbreviations

Tree Preservation Order	TPO
Conservation Area	CA
Arboricultural Impact Assessment	AIA
Arboricultural Method Statement	AMS
British Standard 5837:2012 – Trees in Relation to Design, Demolition and Construction - Recommendations	BS5837
Root Protection Area	RPA
Root Protection Radius	RPR
Local Planning Authority	LPA
Tree Protective Fencing	TPF
Diameter of the stem at breast height (1.5 meters)	DBH
Tree Survey Schedule	TSS
Construction Exclusion Zone	CEZ
Sustainable Urban Drainage System	SUDS
Cellular Confinement System	CCS
Ground Protection	GP

2.0 Contact Details

Contact	Name	Company	Contact details	Issued
Client	Mr Simon Kinsman	NA	Simonkinsman1@gmail.com	✓
Arboricultural Consultant	Mr Tom Butterfield	Dryad Tree Specialists Ltd	tom@dryad-trees.co.uk 01483 455555	
LPA Tree Officer	/	London Borough of Richmond	trees&parks@richmond.gov.uk	
Architect	Mr Harry Insall-Reid	Fletcher Crane Architects	Harryinsallreid@fletchercranearchitects.com	✓

3.0 Brief And Purpose

3.1 This Arboricultural report was commissioned by Mr Harry Insall-Reid on behalf of Mr Simon Kinsman on the 29th of June 2023.

3.2 To survey trees within or adjacent to the site boundary in accordance with BS5837.

3.3 To make preliminary management recommendations.

4.0 Planning Information

4.1 The site falls under the jurisdiction of London Borough of Richmond, the LPA for this area.

4.2 A planning application has not yet been submitted to London Borough of Richmond (LPA) as of the 18th of July 2023.

5.0 Document Source

Document	Source	Format
Site plan	Fletcher Crane Architects	DWG & PDF TP(00)03 Existing Site Plan (topographic + trees)
Layout plans and proposal	/	/

6.0 Site Details

6.1 The site is located off Hampton Road.

6.2 The site consists of a small detached dwelling with a small front garden and a rear garden laid to paving and bare earth. In addition, there is access to the South East to Coleshill Road.

6.3 The site is bordered by the road to the North and private residential dwelling to the East, South and West.

6.4 This site is quite flat, with no significant rise or fall.

6.5 The soil type on-site, at a scale of 1:50,000 as revealed by Online British Geological Society, is classified as:

- Bedrock: "London Clay Formation" consisting of clay and silt.
- Superficial deposits: "Kempton Park Gravel Member" consisting of sand and gravel.

6.6 The site has the potential to be located over soil that is shrinkable, indicating it could be more vulnerable to compaction and subsidence than that of a non-clay soil.

6.7 Note – No soil samples were taken on-site to confirm these findings.

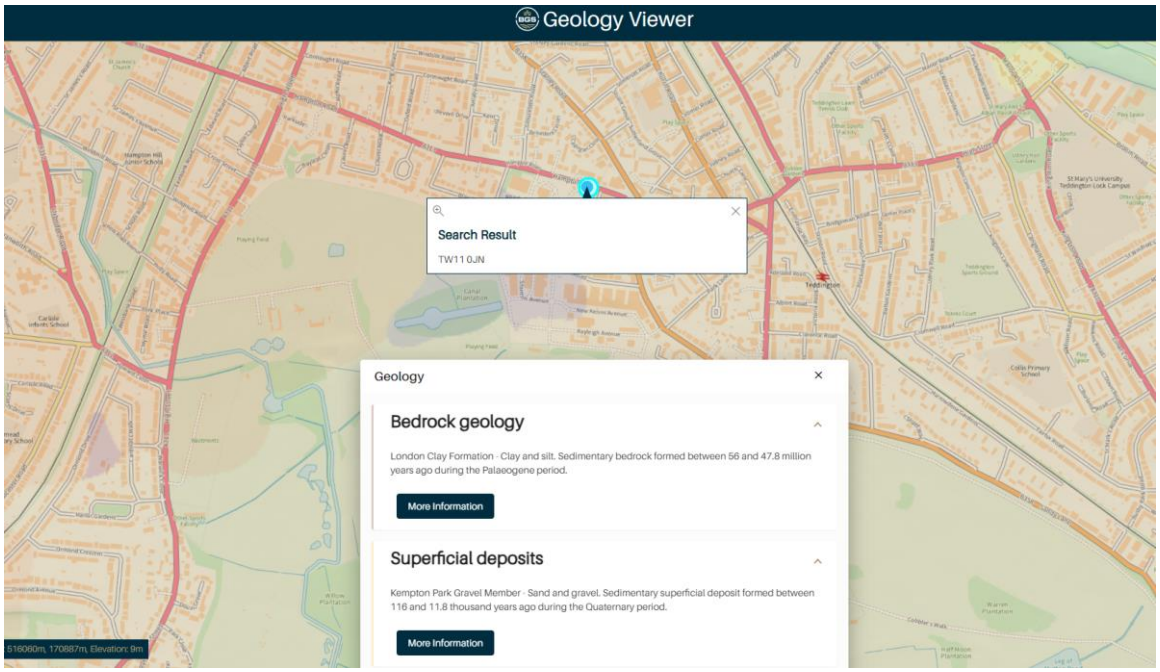


Figure 1 – BGS extract

TREE SURVEY

7.0 The Scope of the Survey

7.1 Only trees likely to be affected by the development (including neighbouring trees) were recorded in the tree survey.

7.2 Only trees with a DBH of 75mm or greater were surveyed in accordance with BS5837.

7.3 A full hazard assessment of the trees (including an assessment of decay, defects and their implications), as well as ecological implications, have not been undertaken, as it is seen to go beyond the scope of this report.

7.4 Observations, including any hazards, have been identified and documented in the Tree Survey Schedule with recommendations (Appendix 1).

8.0 Tree Survey Methodology

8.1 The trees were surveyed on the 10th of July 2023.

8.2 The tree survey was undertaken as to the recommendations of British Standards BS5837:2012.

8.3 The trees were plotted using a laser measure, rolling wheel, tape measure and landmarks such as buildings to give approximate measurements as to the locations of the trees on-site and on the map. If a more precise tree location is required, then a qualified surveyor should be instructed to perform a full topographical survey of the site.

8.4 The trees were assessed from ground level using Visual Tree Assessment (Mattheck, et al. 1993) with the aid of binoculars and a mallet where necessary. No invasive techniques were employed to assess the structural integrity of the trees, or were soil samples taken.

8.5 Measurements are approximate but give a fair representation of the dimensions of the trees. Tree heights were estimated by eye, the crown spreads paced out, and the DBH's were measured with a rounded down centimetre diameter tape. Where the tree stems were not accessible, they have were estimated, and a "?" was placed after the figure in the Tree Survey Schedule.

9.0 Tree Details

9.1 The total number of trees recorded are as follows:

- Individual Trees (T): Six (6)
- Groups of Trees (G): Three (3)

9.2 Full details of the surveyed trees can be found in the TSS (Appendix 1), and the tree locations can be found in the Tree Constraints Plan and Tree Protection Plan (Appendix 3).

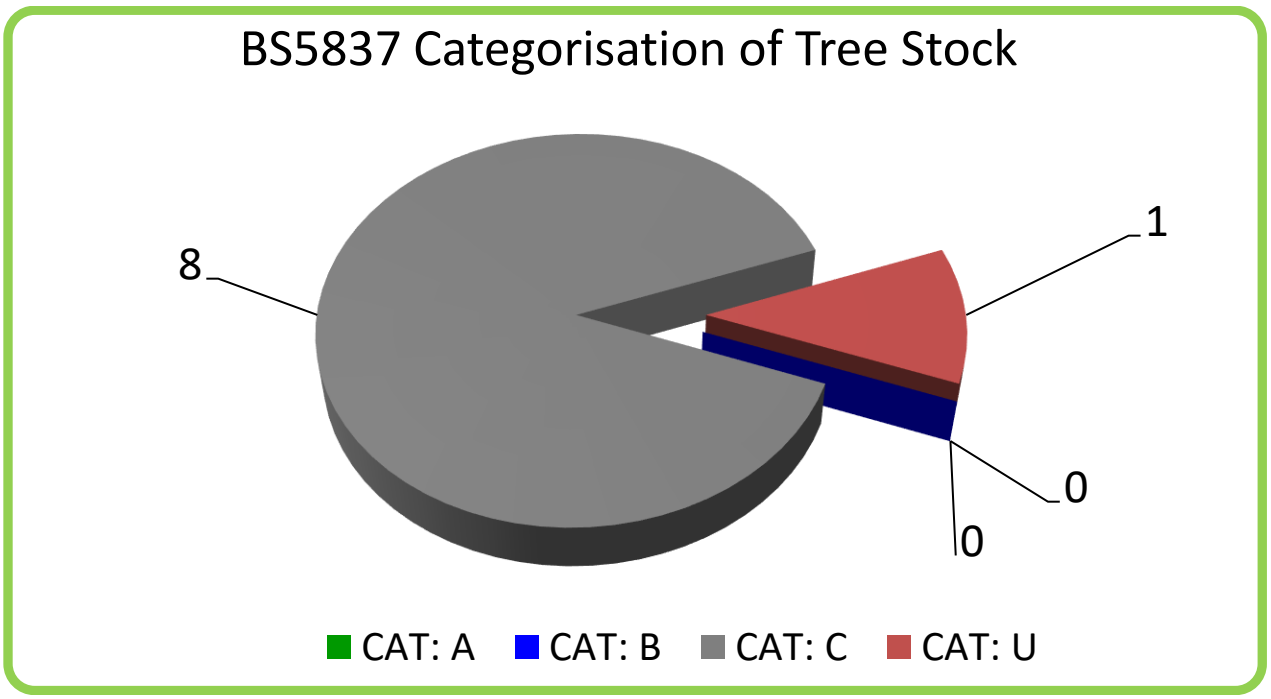
9.3 The quality and value of the trees on site have been categorised in accordance with BS5837, and the grading system is as follows:

- **A Grade** – Trees of high quality and value, with a life expectancy of more than 40 years
- **B Grade** – Trees of moderate quality and value, with a life expectancy of more than 20 years
- **C Grade** – Trees of low quality and value, with a life expectancy of more than 10 years
- **U Grade** – Trees for removal, with a life expectancy of less than 10 years

(For full details on BS5837 cascade for tree quality assessment, refer to Appendix 2)

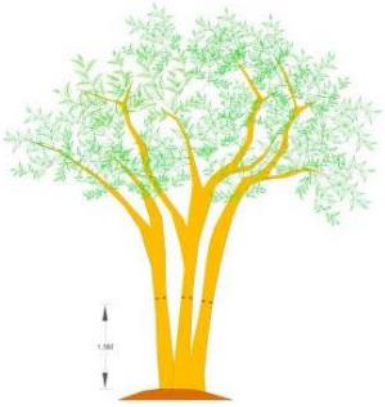
9.4 Quality and overview of existing tree stock:

Grade	A	B	C	U
Tree No.	0	0	8	1



10.0 Root Protection Area

10.1 The RPA radius is calculated by multiplying the tree's stem diameter at 1.5m above ground level by 12. For multi-stem trees, the RPA radius is calculated by multiplying a formulated stem diameter by 12, as shown below.



Multi-stem diameter calculations:

For Trees with 2 – 5 stems:

$$\sqrt{(Stem\ diameter\ 1)^2 + (Stem\ diameter\ 2)^2 \ldots . + (Stem\ diameter\ 5)^2}$$

For Trees with more than 5 stems:

$$\sqrt{((Mean\ stem\ diameter)^2\ x\ Number\ of\ stems)}$$

10.2 The RPA figures shown in the TSS (Appendix 1) are in meters squared, and RPR figures represent the radius in meters from the tree stem. These figures are derived from DBH calculations in accordance with section 4.6 of BS5837 Appendix D.

10.3 The figures should provide retained trees with sufficient rooting material to survive and remain healthy during the proposed development and beyond.

10.4 The RPA of each tree has been plotted as purple dashed circles on the constraints plans.

11.0 Current Tree Protection Status

Protection type	Constraints / details
Tree Preservation Order (TPO)	✖
Conservation Area (CA)	✖

11.1 Details checked with London Borough of Richmond (LPA) via email communications on the 18th of July 2023.

11.2 No further forms of communication were initiated to confirm these findings.

11.3 It was confirmed that there are no TPO`s within the site boundary and that the site does not reside within a Conservation Area.

11.4 There is a TPO to the West of the site as illustrated on the plan below. Looking at the plan the protected tree is likely to be the neighbouring Yew tree (part of NG4) that appears to be in decline and has been graded as U grade in the contact of this report.

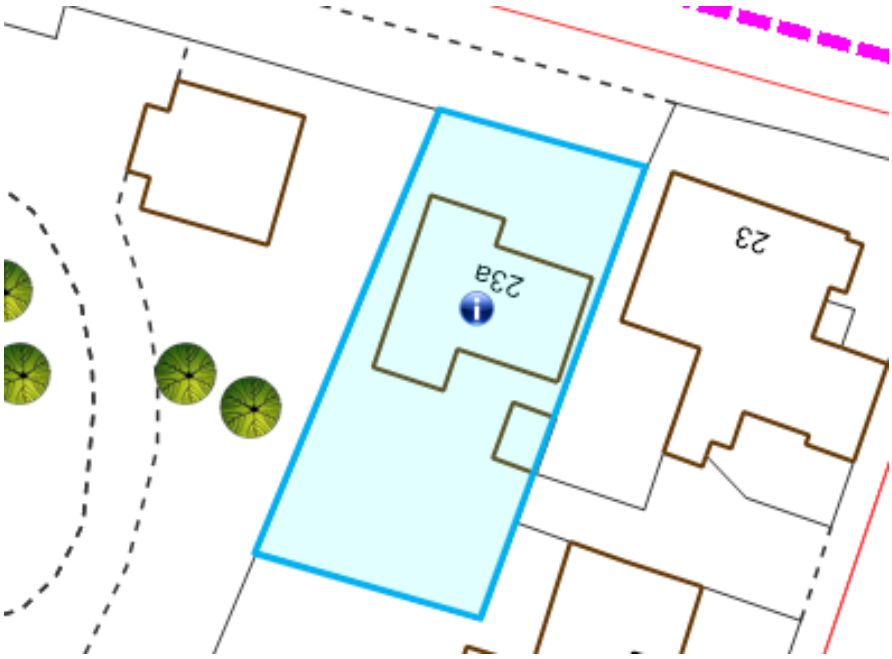


Figure 2 – Extract of TPOs

12.0 Summary

12.1 The survey revealed that 0% of the tree stock is of high quality (A grade), 0% is of moderate quality (B grade), 88% is of low quality (C grade) and 12% is dead or dying (U grade).

12.2 The majority of the tree stock is low quality (C grade).

12.3 All of the trees on and surrounding the trees are of little Arboricultural merit.

12.4 Root Protection Areas of trees to be retained should be avoided during any potential development phase.

12.5 There are several trees identified as dead or dying (U grade) during the survey. These trees should not be considered in the future landscape or potential development.

12.6 The site does not reside within a Conservation Area and has no TPOs located within its boundary.

13.0 Appendices

Appendix 1 – Tree Survey Schedule BS5837:2012

Site: 23A Hampton Road, Teddington, TW11 0JN
Client: Mr Simon Kinsman
Survey Date: 10th of July 2023
Ref No: D3023.V1.0-TS
LPA: London Borough of Richmond
Weather: Sunny
Inspector: Tom Butterfield BSc (HONS) DipArb L4

Tree Survey Schedule

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Wood Street Village,
Guildford, GU3 3ET.
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branchline@dryad-trees.co.uk

Prefix	ID	Species	No. Trees	No. Stem	HT (m)	Crown Spread (m) N	E	S	W	LB/Bear	LB/Ht(m)	DBH (mm)	Age	Landscape	RPR (m)	RPA (m^2)	Vitality	Structure	BS Cat	Life (yrs)	Notes and Observations	Preliminary Management Recommendations
NT	1	Ash	1	2	5.5	3	2.5	2	2.5	W	1.5	110	SM	L	1.3	5.5	Good	Fair	C3	10+	Off-site tree growing against the boundary fence. Twin-stem from near ground level. The canopy overhangs the ground to the front of the site. Currently not showing symptoms of Ash Die Back Disease	/
G	2	Mixed	/	/	5	1.5	0.5	1.5	1.5	W	0	80	SM	L	1.0	2.9	Fair	Fair	U	<10	Group of one small Golden Cypress, small Sycamore that has been topped at 1m and a Sweet Chestnut that has sprouted from a previously cut down stump. Poor quality. Encroaching onto neighbouring property	Cut back from neighbouring property to the boundary
NG	3	Mixed	2	/	6.5	2.5	2.5	2	2	E	3	250?	SM	L	3.0	28.3	Good	Fair	C2	10+	Off-site trees, including a Himalayan Birch and one Cherry grow near the boundary. The Cherry overhangs the boundary by 1.5m	/
NG	4	Mixed	/	/	8	2	2	2	2	E	2	200?	EM	L	2.4	18.1	Fair	Fair	C3	10+	Off-site group of shrubs and trees, including one Bhutan Pine, Elder, Magnolia and Yew. Some sections overhang the boundary, particularly the Elder resting on the property's flat roof. The Yews is in poor health and appears to be dying	Prune back to the boundary
T	5	Hazel	1	MS	4	2	1.5	2	0.5	E	1	90	SM	L	1.1	3.7	Good	Fair	C3	10+	Multi-stem from ground level. Crown bias towards the East over the garden	/
NT	6	Sycamore	1	1	10	3	4	3	3	E	3.5	220?	SM	L	2.6	21.9	Good	Fair	C2	10+	Off-site tree. Stem bifurcates at 2m. Canopy overhangs the garden	/
T	7	Photinia	1	1	3	2.5	1	2	2	W	1.5	90	SM	L	1.1	3.7	Fair	Fair	C3	10+	Stem bifurcates at 1m. Crown bias towards the West	/

Prefix	ID	Species	No. Trees	No. Stem	HT (m)	Crown Spread (m) N	E	S	W	LB/Bear	LB/Ht(m)	DBH (mm)	Age	Landscape	RPR (m)	RPA (m^2)	Vitality	Structure	BS Cat	Life (yrs)	Notes and Observations	Preliminary Management Recommendations
NT	8	Cherry Laurel	1	1	6.5	2	1.5	3	2.5	W	2.5	200?	EM	L	2.4	18.1	Good	Fair	C3	10+	Off-site tree. Stem divides into three stems from around 1.5m. Overhangs the garden	Cut back to the boundary
NT	9	Sweet Chestnut	1	1	3	1.5	1.5	1.5	1.5	W	2	100?	SM	L	1.2	4.5	Fair	Fair	C3	10+	Off-site tree. It appears to be re-growth from a previously cut-down stump. Multiple stems. Base not visible	Cut back to the boundary

Tree Survey Schedule Key

Tree Survey Schedule Key and Notes

Prefix		Refers to:	**ID**	Refers to a unique identification number or tag number for the given tree or group. Corresponds to the Tree Constraints Plan and Tree Survey Schedule
	T	Tree		
	NT	Neighbouring Tree		
	G	Group		
	NG	Neighbouring Group		
	W	Woodland		
	H	Hedge		
No. Trees	Refers to the number of trees in a group			
No. Stem	Refers to the number of stems per individual tree			
Height	Describes the approximate height of the tree from ground level or buttress flare in meters			
Crown Spread	Refers to the radius of the canopy in meters from the stem of the tree in the directions of North, East, South and West			
LB/Bear	Lowest Branch Bearing: Refers to the directions of the lowest point of the canopy in meters			
LB/Ht(m)	Lowest Branch Height: Refers to the ground clearance from the ground level to the height of the lowest point of the canopy in meters			
DBH	Diameter at Breast Height. Stem diameter of the tree trunk measured in millimetres. If the tree is multi-stemmed, each diameter is recorded in the survey and a final DBH is calculated in accordance with BS5837			
Age			Refers to the age class of the tree:	
	Y	Young	Young = Usually less than 10 years old	
	SM	Semi-Mature	Semi-Mature = Significant future growth to be expected, both in height and crown spread (typically below 30% of life expectancy)	
	EM	Early Mature	Early Mature = Full height almost attained. Significant growth may be expected in terms of crown spread (typically 30-60% of life expectancy)	
	M	Mature	Mature = Full height attained. Crown spread will increase but growth increments will be slight (typically 60% or more of life expectancy)	
	OM	Over Mature	Over Mature = A level of maturity whereby significant management may be required to keep the tree in a safe condition	
	V	Veteran	Veteran = A level of maturity whereby the crown has undergone natural or aided regression (veteranisation), significant management may be required to keep the tree in a safe condition. Typically contributes richly to ecological diversity	
RPR	The radius of the **R**oot **P**rotection **R**adius given in meters. The minimum area of ground requiring protection thorough developments			
RPA	The radius of the **R**oot **P**rotection **A**rea given in meters. The minimum area of ground requiring protection thorough developments			
Vitality			Refers to the vitality of the tree:	
	G	Good	Having above average vitality	
	F	Fair	Having average vitality	
	P	Poor	Having well below average vitality is struggling to survive and may be dying	
	D	Dead	Tree is dead	
Structure			Refers to the structure of the tree:	
	G	Good	Tree presents no significant structural defects	
	F	Fair	Tree presents some structural defects, unlikely to lead to high priority works	
	P	Poor	Tree presents significant structural defects that may lead to high priority works	
	D	Dead	Tree is dead	
Landscape			Refers to the Landscape contribution value of the tree:	
	H	High	Exceptional or very attractive specimen, observable by a significant number of people and locations	
	M	Medium	Attractive specimen, Medium potential to be observable by many people or vice versa	
	L	Low	Unattractive specimen or largely hidden from view	
BS CAT	Retention category refers to the BS5837, (See Appendix 2) list quality and value. "A"-high, "B"-moderate, "C"-Low and "U"-Remove. List retentions criteria. "1"- Arboricultural, "2"-Landscape and "3"- Cultural / Conservational			
Life Exp	Life Expectancy: An estimated useful remaining contribution in years before the tree requires removal. Classed as (<10), (>10), (20+), (40+)			
Reasons	Refers to the reason a recommendation is made. Typically to facilitate the development, access, good Arboricultural practice or Health and Safety			

Appendix 2 –Cascade chart for tree quality assessment

BS 5837:2012. Trees in relation to design, demolition and construction - Recommendations

Cascade Chart for tree quality assessment

Trees to be considered for retention (see Note)				Identification on Plan
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 NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.			Dark Red RGB Code: 127-000-000
	1 Mainly Arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	Identification on Plan
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 RGB Code: 000-255-000
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 cate or A destination	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	Mild Blue RGB Code: 000-000-255
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 RGB code: 091-091-019

Appendix 3 - Tree Constraints Plans

D3023.V1.0.A3.TCP (Tree Constraints Plan)

N
W
E
S

25 Hampton Road

23a Hampton Road

23 Hampton Road

2a Coleshill Road

NG3-C2

NG3-C2

NG4-C3

NG4-C3

NG4-C3

NG4-U

T5-C3

NT6-C2

NT8-C3

T7-C3

NT9-C3

NT1-C3

G2-U

0 5 10(m)

Notes:

BS5837 Tree Retention Categories

CATEGORY A Trees of a high quality with an estimated remaining life expectancy of at least 40 years ***Apple Arrow Butterbox direction of lowest part of canopy***	CATEGORY B Trees of a moderate quality with an estimated remaining life expectancy of at least 20 years.
CATEGORY C Trees of a low quality with an estimated remaining life expectancy of at least 10 years	CATEGORY U Tree of poor condition that cannot be realistically retained as living trees in the context of the current land use for longer than 10 years
ROOT PROTECION AREA Precautionary areas - soil structure must be protected.	EXISTING DRIVEWAY /PATIO / HARD STANDING

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CLIENT: Mr Simon Kinsman

SITE: 23A Hampton Road, Teddington, TW11 0JN

TITLE: Tree Constraints Plan

SCALE AT A3:	DATE:	DRAWN:
1:150	17/07/2023	Tom B
PROJECT NO:	DRAWING NO:	REVISION:
D3023.V1.0	D3023.V1.0-A3-TCP	1.0