

Trees and Construction

BS5837:2012 Tree Survey, Arboricultural Impact Assessment & Method Statement

Site: BP Sonning Cutting, 709 London Rd,
Woodley, Reading, RG6 1BG

Ref: 261338/A1_AIA

Client: Williams Southern



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- May 2026 -

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Revision	Description	Date
/	/	/

1. INTRODUCTION

- 1.1 **Instruction:** This advice has been prepared in respect of the tree related planning considerations at BP Sonning Cutting, 709 London Rd, Woodley, Reading, RG6 1BG (hereafter; site).

As the proposal relates to development works at site, the advice herein is produced in accordance with the British Standard 5837 : 2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter; BS5837).

- 1.2 **BS5837:** The scope of BS5837 is to provide guidance on how trees and other vegetation can be integrated into construction and development design schemes. The overall aim is to ensure the protection of amenity by trees which are appropriate for retention.
- 1.3 **Scope of this advice:** This assessment is produced in accordance with BS5837 and is secondary to arboricultural constraints advice by email. The objective of this report is to assess the proposed scheme and provide recommendations regarding the potential impact on trees and vice versa with associated tree works, tree protection details and recommendations for the scheme in consideration for trees.
- 1.4 Following instruction the consultant surveyed the site on the 22nd April 2026 where a site walkover and BS5837 tree survey were carried out; all trees on site and around the application boundary were surveyed from ground level and plotted as either an individual or a tree group.
- 1.5 This advice is subject to caveat at Appendix I, outlines relevant terms and definitions at Appendix II and constitutes the findings of the preliminary site assessment and associated arboricultural recommendations.
- 1.6 The survey data and site observations use the supplied topographical survey to illustrate the surveyed trees in plan format as a 'Tree Constraints Plan' (hereafter; TCP).

The TCP has an overlay of the proposed scheme to enable this review. The TCP informs this assessment and is used as a base layer for the appended 'Tree Protection Plan' (hereafter; TPP); the TCP, tree survey data table and TPP are at Appendix III.



2. SITE INFORMATION & TREE ASSESSMENT

2.1 The site currently comprises an in-use petrol station with associated structures, access and parking areas.

2.2 **Proposal:** It is understood that a proposed scheme involves the relocation of 'next wash bays' and installation of a substation and EV charging bays. This is confirmed as per the client's proposed site plan as illustrated on the TCP.

2.3 The site requires consideration from an arboricultural perspective due to the presence of trees on and around the site; these trees are deemed to be within impacting distance of the potential construction area.

2.4 The trees -

2.4.1 The tree survey and assessment resulted in the BS5837 quality/retention categories of 'B - moderate' and 'C - low' being attributed to the trees/tree groups.

2.4.2 The BS5837 tree survey is a means of objective assessment and reflects the trees' condition, quality contribution, remaining life expectancy and spatial considerations (stem, crown and roots). On this basis and in order to consider the trees' accurate constraints, the survey data has the crown extents for north, east, south and west, the stem diameter measurement, and the calculated root protection areas (hereafter; RPAs). Hereafter, the trees are therefore reviewed and considered on their own merits and in line with the guidance of BS5837.



3. FINDINGS & RECOMMENDATIONS

3.1 The following information, as with the prior contents of this report, should be read with the appended tree data table and tree constraints plan (261338/TCP/01).

NOTE: This information as s.3 for the '*tree survey assessment*' is included as an objective and general overview of the trees and consideration for retention and protection. It is included herein for reference and context and is supplemented with a review of the scheme as the AIA (section 4) and the AMS 'considerations' (section 5).

3.2 General Considerations for Tree Retention / Removal

3.2.1 There is a smaller scale trees with limitations on the current amenity contribution or useful remaining life expectancy, categorised as 'C - low'.

These 'C' category trees should not constrain nor significantly guide a scheme, although protection may be preferable to retain canopy cover on site. For any proposed tree removals, mitigation tree planting is recommended as part of a landscape scheme and can suitably replace and enhance the initial loss of canopy cover.

3.2.2 The moderate quality 'B' category trees are noted as such due to their fair future potential and good current amenity contribution. These should be retained and protected where possible as part of the site's development.

3.3 Further to the above information, the proposed scheme (as illustrated on the TCP) is reviewed hereafter at s.4 as an Arboricultural Implications Assessment (hereafter; AIA).



4. SCHEME / IMPLICATIONS ASSESSMENT

- 4.1 For the purpose of this assessment, the proposed site plan is used as a basis for consideration. This takes account of anticipated tree removals, tree protection options and potential alterations to account for arboricultural features; as per s.1.6 and s.2.2 herein, the TCP shows the '*proposed site plan*' as an overlay for review.
- 4.2 The site trees are clear of the proposed scheme and active construction area. However, the installation of temporary tree protection measures will be required to ensure no impact on trees from access, vehicles and material storage.
- 4.3 Further to the above review and in consideration for the need to protect retained trees, the following section contains said details as an Arboricultural Method Statement (Application Stage).

5. METHOD STATEMENT (Application Stage)

5.1 Arboricultural Construction Restrictions

- 5.1.1 The following restrictions are considered relevant for tree protection purposes which are illustrated on the appended Tree Protection Plan:
- a) Tree works; no tree works (or leaning against or attaching of objects to a tree) are permitted unless agreed in writing by the council.
 - b) Protective Barrier Fencing (hereafter; PBF); is to be installed around T8 prior to the site works commencing.
 - c) Construction Exclusion Zone (hereafter; CEZ); following the installation of PBF the fenced off section is to act as a CEZ and be supplemented with ground protection for RPA sections outside of fenced off areas as the CEZ.
 - d) Material Handling; no chemicals/ materials are to be transported/ stored/ used/ mixed within exposed grounds on site; all chemical / cement storage, transport or use will be pre-prepared with impermeable liner and detail within a Construction Management Plan.
 - e) Site Management; no fires are to be lit and no machinery, plant or vehicles are to be washed down within 10m of a tree's canopy, within a RPA / CEZ, and the RPA/CEZ may not be breached, i.e. no mechanical digging or scraping is permitted within a RPA/CEZ.
 - f) Sensitive Landscape; only following construction completion can the PBF be removed and any remaining soft landscape works be undertaken (ground levels to be retained within RPAs and works undertaken manually with non-mechanical hand tools).

5.2 Arboricultural Site Monitoring / Supervision

- 5.2.1 The site should be checked by a qualified arboriculturist throughout the construction processes to ensure the tree protection measures are adhered to, thus -
- (a) pre-commencement to inspect installed tree protection;
 - (b) halfway through construction to ensure adherence to this AMS; and
 - (c) prior to removal of tree protection after construction completion to sign off the site for correct tree protection.



5.3 Protective Barrier Fencing (PBF) Specification

5.3.1 Barrier fencing is to be installed (and signed off by way of arboricultural supervision) to protect T8. It is illustrated on the Tree Protection Plan and is to remain in situ for the entire duration of preparation/ construction processes unless otherwise agreed in writing by the council.

5.3.2 The barrier fencing is to consist of a series of Heras panels secured in place by driven scaffold posts or a scaffold frame to ensure that the fencing lines are well braced to resist impact, and site hoarding around the application boundary to prevent access to the RPA/CEZ areas around the approved works.

5.4 Underground utilities

5.4.1 Underground utilities are to be installed as per a dedicated plan and be clear of RPA by design. Otherwise, and if RPAs cannot be avoided, the following restrictions are recommended for underground utilities within RPAs:

- Any necessary excavations to be undertaken sensitively using either a no-dig method (e.g. Air-Spade) and/or under arboricultural supervision;
- Any exposed roots shall be packed with a clean damp sand (not builders sand) and wrapped in hessian sacking to protect them;
- Small roots which are identified (those less than 25mm diameter) may be carefully pruned back with a clean sharp tree saw; and
- Larger roots which are identified (those greater than 25mm in diameter) are to be retained and protected as they may be necessary for a tree's health and stability.

5.5 Ground Works within RPAs

5.5.1 No direct RPA incursion is anticipated.

5.5.2 Any excavations within a RPA or designated CEZ (the area enclosed by PBF) must:

- Only be undertaken when the construction works are completed; and
- Use sensitive excavation techniques to protect the tree roots and their existing growing conditions.

5.6 Landscape Detail

5.6.1 The finer details of the site landscaping proposals are to be illustrated on a landscape plan.



5.7 Report Handling

- 5.7.1 This report is released to the client and architect to be distributed at their discretion and the consultant is available for queries relating to this report and/or trees.
- 5.7.2 The proposed scheme is reviewed in respect of the arboricultural constraints and is considered to be achievable in line with the BS5837 guidance. The recommendations herein may be approved by the council as a means of authorised tree works and tree protection.
- 5.7.3 This AMS and the TPP may be approved by the council in support of the application as a means of authorised tree protection measures; all site personnel will have access to a copy and the tree work and protection details are to be inspected as per s.5.2 for *'Arboricultural Monitoring / Supervision'*.

This concludes our advice.



Caveat

Any and all information supplied to Indigo Surveys Ltd by/on behalf of the client is assumed to be accurate unless otherwise informed. | This advice is limited to the observations made on the date of inspection as detailed herein and any deletion, editing or alteration will result in the advice being null and void in its entirety. | This advice in its entirety may be deemed null and void if remedial works are undertaken on any area of the site, on or after the date of the survey. | No liability is assumed by the author or by Indigo Surveys Ltd for any misuse, misinterpretation or misrepresentation of this advice. | This advice is not valid in adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events. | No responsibility is assumed either by the author of this advice or by Indigo Surveys Ltd for any legal matters that may arise as a consequence. | Neither the author nor Indigo Surveys Ltd will be required to attend court or give testimony as part of this agreement. | The responsibility for any works undertaken on the basis of the recommendations of this advice does not form part of this agreement.

Appendix II

Terms and Definitions

“Arboriculturist” - person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.

“Competent Person” - person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.

“Topographical survey” - an accurately measured land survey undertaken to show all relevant existing site features. *A method of carrying out topographical surveys is given in RICS specification* Surveys of land buildings and utility services at scales of 1:500 and larger.

“BS5837 Tree survey” - should be undertaken by an arboriculturist to record information about the trees on or adjacent to a site. The results of the tree survey, including material constraints arising from existing trees that merit retention, should be used (along with any other relevant baseline data) to inform feasibility studies and design options. For this reason, the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development.

“Tree categorisation method” - trees should be categorised in accordance with the BS5837 cascade chart by an arboriculturist. This is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

“Root protection area (RPA)” - layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority, shown as an arboricultural constraint in m². The radius is calculated using the BS5837 calculation method. An arboriculturist may change the shape of an RPA but not reduce its area.

“Arboricultural implications assessment” - a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

“Arboricultural method statement” - methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.

“Tree protection plan” - a scale drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.



Appendix III

Data Table:	As appended (BS5837 Tree Survey Key & Table)
Tree Constraints Plan:	As appended (261338/TCP/01) As appended (261338/TCP/01_proposed scheme)
Tree Protection Plan:	As appended (261338/TPP/01)

TREE SURVEY IN ACCORDANCE WITH BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'

CLIENT: Williams Southern

PROJECT REF: 261338

SITE: BP Sonning Cutting, 709 London Rd, Woodley, Reading, RG6 1BG

CONTACT:

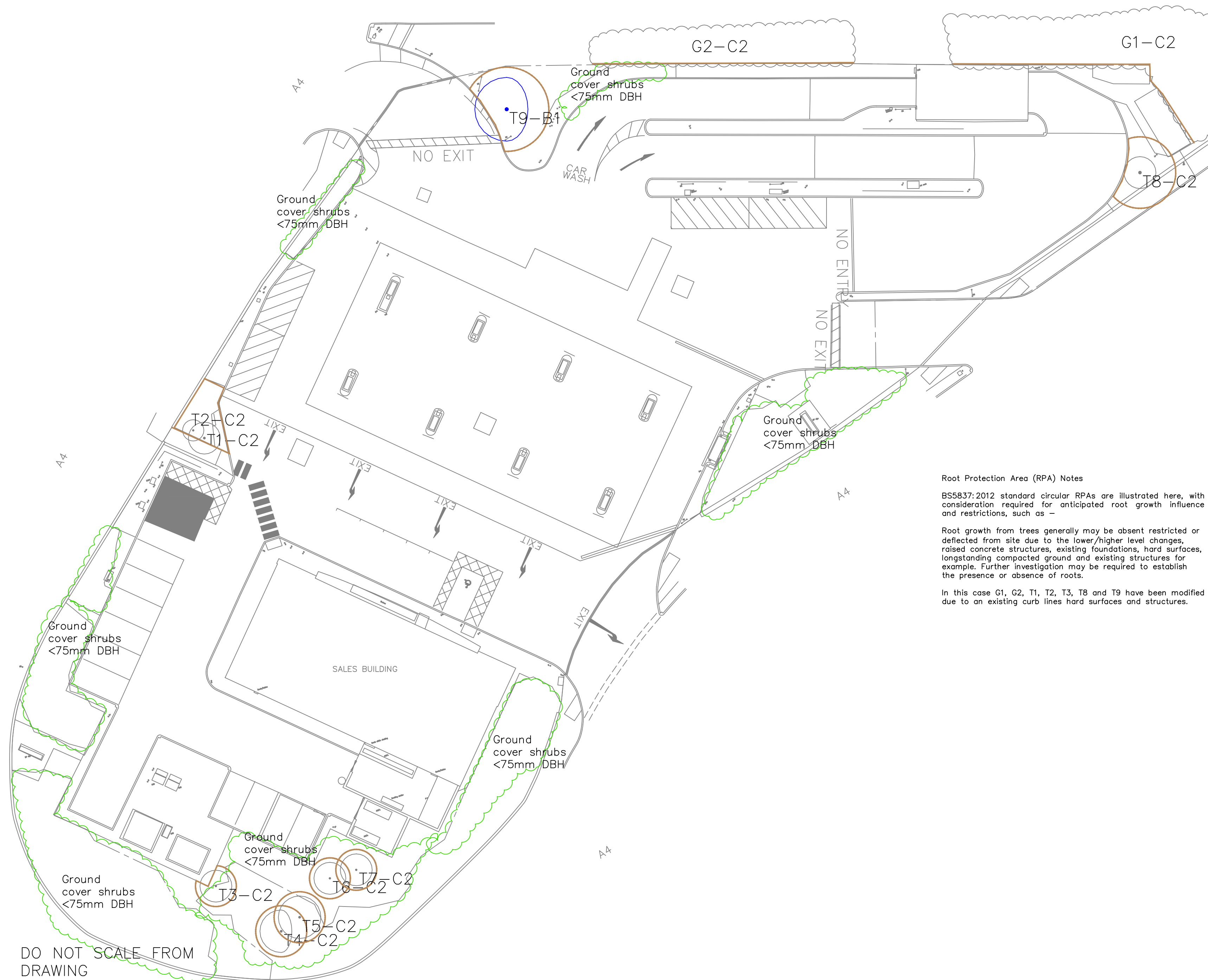
SURVEY DATE: 22 April 2026

ARB CONSULTANT: Rod Benzies BSc MA ArborA

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.	MANAGEMENT
T1	Birch; Betula (species); betulaceae	SM/EM	8	1.5	1.5	1.5	1.5	200*	2.4	1	1	Norm	10-20	Staked and tied (in situ); crown lifted. Located within a raised planted bed with groundcover shrubs.	C 2	
T2	Birch; Betula (species); betulaceae	SM/EM	7	1	1	1	1	160*	1.9	1	1	Norm	10-20	Staked and tied (in situ); crown lifted. Located within a raised planted bed with groundcover shrubs.	C 2	
T3	Norway Maple; Acer platanoides; Aceraceae	SM/EM	7	1.5	1.5	1.5	1.5	160	1.9	1	1	Norm	10-20	Crown lifted; occluded linear stem scar present; staked and tied (in situ). Monitor scar area for any signs of dysfunction/decay.	C 2	
T4	Norway Maple; Acer platanoides; Aceraceae	Y/SM	7	2	2	1	2	200*	2.4	1	1	Norm	10-20	Located within a raised planted bed with groundcover shrubs; crown lifted; staked and tied (in situ). Canopy intermingles with adjacent tree (joint canopy).	C 2	
T5	Norway Maple; Acer platanoides; Aceraceae	Y/SM	7	2	2	2	2	200*	2.4	1	1	Norm	10-20	Located within a raised planted bed with groundcover shrubs; crown lifted; staked and tied (in situ). Canopy intermingles with adjacent tree (joint canopy).	C 2	
T6	Norway Maple; Acer platanoides; Aceraceae	Y/SM	7	1.5	1.5	1.5	1.5	160*	1.9	1	1	Low	10-20	Located within a raised planted bed with groundcover shrubs; crown lifted. Low vigour noted with minor crown dieback.	C 2	Monitor tree condition
T7	Norway Maple; Acer platanoides; Aceraceae	Y/SM	7	1.5	1.5	1.5	1.5	160*	1.9	1	1	Low	10-20	Located within a raised planted bed with groundcover shrubs; crown lifted. Low vigour noted with minor crown dieback.	C 2	Monitor tree condition
T8	Norway Maple; Acer platanoides; Aceraceae	Y/SM	2	1.5	1.5	1.5	1.5	280	3.4	3	3	Low/ Norm	10-20	Located within a raised planted bed with groundcover shrubs; crown lifted. Slightly reduced vigour for age; historic pruning wounds present. Lamppost in close proximity.	C 2	Monitor tree condition
T9	Norway Maple; Acer platanoides; Aceraceae	SM/EM	8	3	3	2	3	330*	4.0	3	3	Norm	20-40	Ivy present on stem and into crown, limiting effective VTA inspection; remnants of stake/tie still present. Co-dominant structure. Located within a raised planted bed with groundcover shrubs. Evidence of ad hoc lower-crown nuisance pruning over the access way.	B 1	
G1	Common Ash; Fraxinus excelsior; Oleaceae; Field Maple; Acer campestre; Aceraceae ; Norway Maple; Acer platanoides; Aceraceae	SM	9	n/a	n/a	n/a	n/a	200*	2.4	0	0	Norm	10-20	Adjacent property group overhangs site by up to 2 m in places; no access to stem bases. Periodically clipped back to boundary. Hard surfacing/structures extend to boundary on site side	C 2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W				STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.		MANAGEMENT
G2	Elm; Ulmus (species); Ulmaceae;Common Ash; Fraxinus excelsior; Oleaceae	SM	7	n/a	n/a	n/a	n/a	200*	2.4	0	0	Norm	10-20	Adjacent property group overhangs site by up to 2 m in places. Some elm stems show symptoms consistent with Dutch elm disease (DED).	C	2	

TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W	STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.	MANAGEMENT
TREE SURVEY 'KEY' - BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'													
	TPO/CA	-	On client request: presence of Tree Preservation Orders (TPO) / site location within a Conservation Area (CA) & date checked;										
	TREE REF. #	-	Tree reference number: tag or plan number (T - individual tree, G - group of trees/shrubs, H - hedge);										
	SPECIES	-	Genus, species and/or common name;										
	AGE	-	Age classification (NP - new planting, Y - young, EM - Early-Mature, SM - semi mature, M - mature, LM - late mature, OM - over mature);										
	HEIGHT (in m)	-	Approximate height of tree in metres;										
	CANOPY (in m) N - S - E - W	-	Approximate branch spread in metres of the four principal compass points;										
	STEM (in mm)	-	Stem diameter in millimetres: measured in accordance with s.4.6 of BS5837;										
	RPA (in m)	-	Circle radius of the Root Protection Area: calculated using the stem diameter (single/multiple stem variant, as outlined within BS5837);										
	CLEARANCE (in m)	-	Crown clearance in metres above the adjacent ground level;										
	1st BRANCH (in m)	-	Clearance in metres to first significant branch and direction of growth (where relevant);										
	VITALITY	-	Physiological condition typically gauged from canopy cover and annual extension growth (good, fair, poor, dead);										
	ESTIMATED REMAINING CONTRIBUTION	-	Approximate number of years a tree will continue to contribute without the need for oppressive arboricultural intervention, categorised in years as <10, 10-20, 20-40 and >40;										
	NOTES	-	Structural and physiological condition observations;										
	BS CAT.	-	BS5837 tree quality assessment category: resulting from structural/physiological condition and remaining contribution (approximate useful life expectancy);										
		-	Standard retention category U : in such a condition that any existing value would be lost within 10 years;										
		-	Standard retention category A : high quality and value, in such a condition as to be able to make substantial contribution of 40+ years;										
		-	Standard retention category B : moderate quality and value, in such a condition as to make a significant contribution of 20+ years;										
		-	Standard retention category C : low quality and value, currently in adequate condition to remain until new planting could be established 10+ years;										
	MANAGEMENT	-	Standard retention sub-category, mainly due to: 1 - Arboricultural values, 2 - Landscape values, 3 - Cultural values, including conservation;										
		-	Preliminary management recommendations (as appropriate);										
	***	-	Within the survey schedule denotes an estimate										



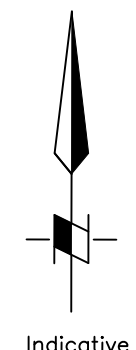
KEY

Tree Crown Spread
Root Protection Area (RPA)
Tree Stem
T1 Tree No.
Removed Tree

Tree Condition Category

A
B
C
U

The surveyed trees are illustrated on this Constraints Plan which is prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'



Root Protection Area (RPA) Notes

BS5837:2012 standard circular RPAs are illustrated here, with consideration required for anticipated root growth influence and restrictions, such as –

Root growth from trees generally may be absent restricted or deflected from site due to the lower/higher level changes, raised concrete structures, existing foundations, hard surfaces, longstanding compacted ground and existing structures for example. Further investigation may be required to establish the presence or absence of roots.

In this case G1, G2, T1, T2, T3, T8 and T9 have been modified due to an existing curb lines hard surfaces and structures.

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REV.	DESCRIPTION	DWN	CHK'D	DATE
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CLIENT
Williams Southern

PROJECT
261338/A1
BP Sonning Cutting
709 London Rd, Woodley, Reading, RG6 1BG

TITLE
Tree Constraints Plan

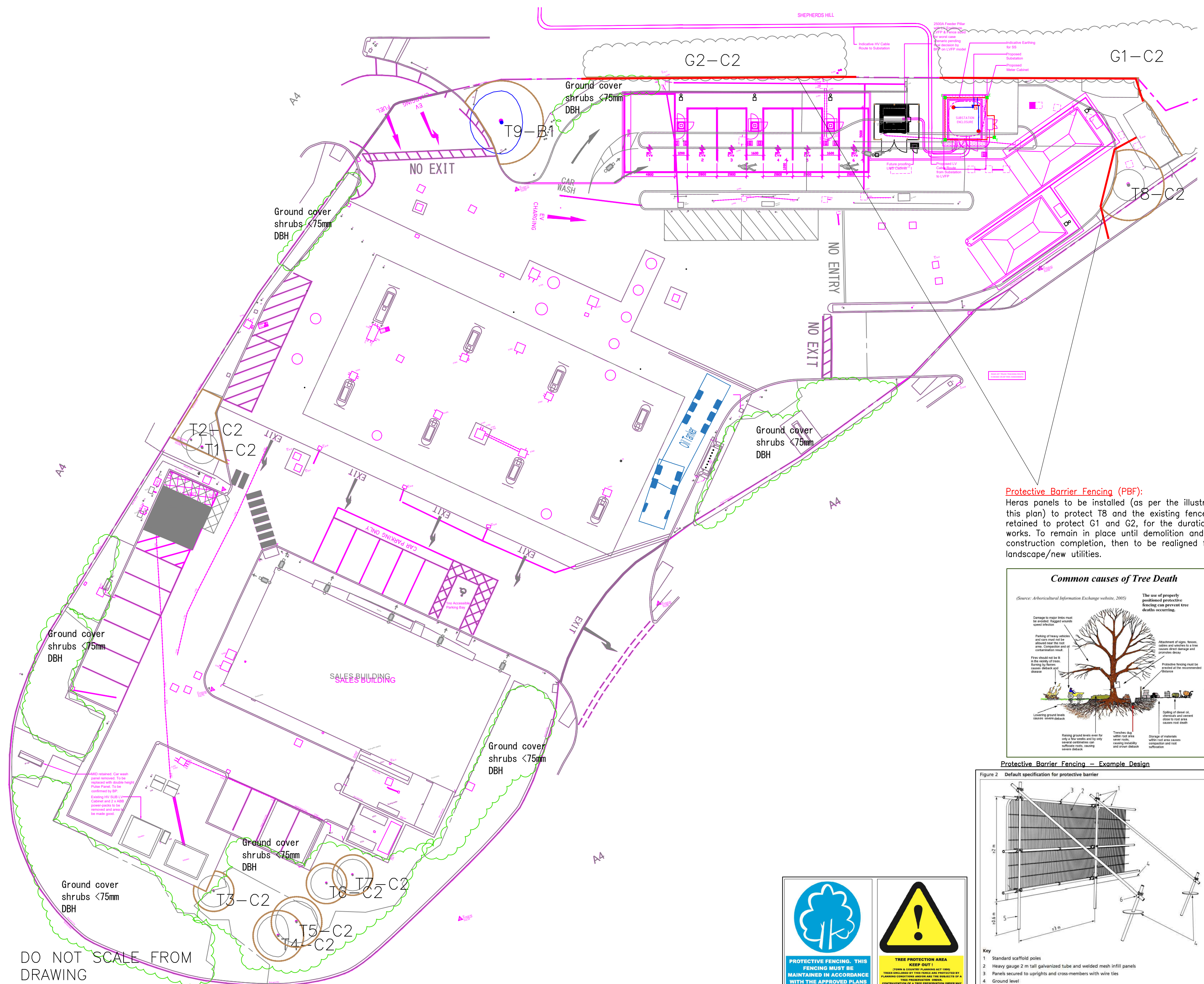
DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RPHB	23/04/2026	AT	23/04/2026			1-250

(Mail) Second Floor, 1 Hunter's Walk, Canal Street, Chester. CH1 4EB
Telephone: 0333 123 7080 www.indigosurveys.co.uk

Drawing Number
261338/A1/TCP/01

A2
REV.

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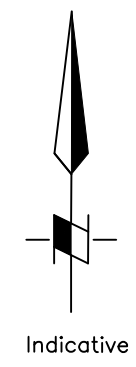
KEY

- Tree Crown Spread
- Root Protection Area (RPA)
- Tree Stem
- T1 Tree No.
- Removed Tree

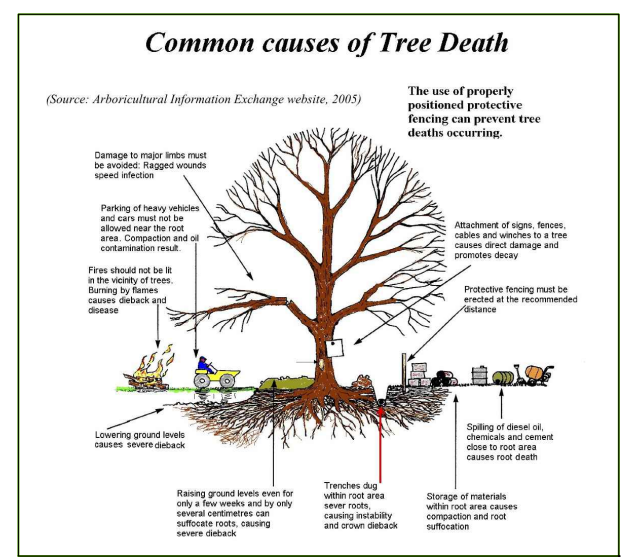
Tree Condition Category

- A
- B
- C
- U

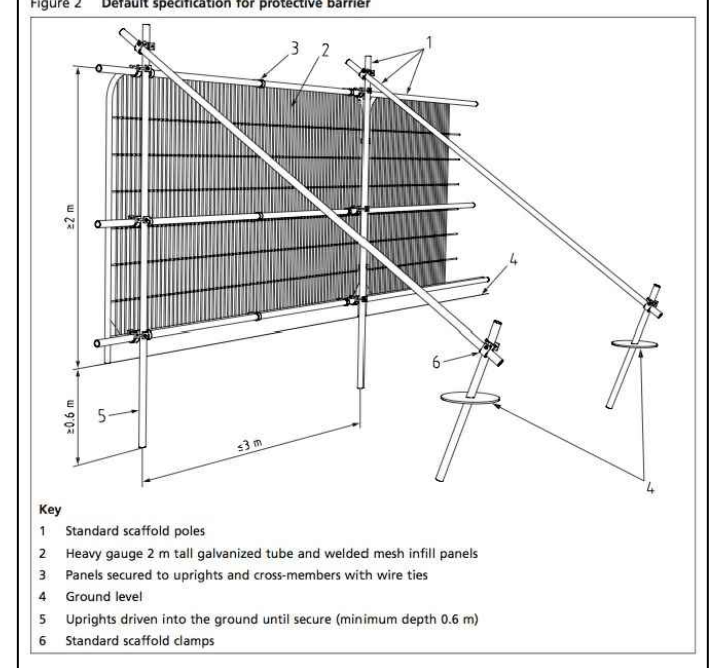
The surveyed trees are illustrated on this Constraints Plan which is prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'



Protective Barrier Fencing (PBF):
Heras panels to be installed (as per the illustration on this plan) to protect T8 and the existing fence to be retained to protect G1 and G2, for the duration of site works. To remain in place until demolition and construction completion, then to be realigned for hard landscape/new utilities.



Protective Barrier Fencing - Example Design



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

TREE PROTECTION AREA
KEEP OUT!
FROM A COUNTRY PLANNING ACT 1990
TREES INCLUDED IN THIS PLAN ARE PROTECTED BY PLANNING CONDITIONS AND ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION.
ANY INCURSION INTO THE PROTECTIVE AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY.

DO NOT SCALE FROM DRAWING
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REV.	Uses TCP as base	TB	AT	07/05/26
	DESCRIPTION	DWN	CHK'D	DATE

CLIENT
Williams Southern

PROJECT
261338/A1
BP Sonning Cutting
709 London Rd, Woodley, Reading, RG6 1BG

TITLE
Tree Protection Plan

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RPHB	23/04/2026	AT	23/04/2026			1-250

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A2
REV.

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