

Trees and Construction

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

Site: 34 Church Road, Knowsley, L36 9TP

Ref: 251380/AIA/A2_Rev.A

Client:



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Arboricultural Consultant (Author):

- August 2026 -

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Revision	Description	Date
/	First report release	20/04/2025
A	Revised scheme review	14/08/2026

1. INTRODUCTION

- 1.1 **Instruction:** This advice has been prepared for (hereafter; client) and is in respect of the tree related considerations at the 34 Church Road, Knowsley, L36 9TP (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 amenities 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 which assisted with the design process as a per TCP 251380 and tree survey data. The objective is to systematically assess the proposed scheme and provide suitable recommendations regarding the potential impact on trees and vice versa with associated tree protection recommendations.

- 1.4 Following instruction the consultant surveyed the site on the 9th May 2025 and August 2026 with an extended boundary 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 used the supplied topographical survey to illustrate the surveyed trees in plan format as a 'Tree Constraints Plan' (hereafter; TCP). The TCP was supplied with the initial tree survey advice, this informed this assessment and is used as a base layer for the appended 'Tree Protection Plan' (hereafter; TPP); the TPP and tree survey data table are at Appendix III.

2. SITE INFORMATION & TREE ASSESSMENT

- 2.1 The site is a semi-detached residence with driveway access from Church Road. Gardens to front side and rear. The rear garden is accessed from the side of the property.
- 2.2 **Proposal:** A proposed scheme involving the partitioning of the existing garden and the construction of a detached dwelling with joint access from the shared existing driveway from Church Road
- This is now 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 existing property and potential construction area.
- 2.4 The tree survey and assessment resulted in the BS5837 quality/retention categories of 'A' – Good, 'B' – moderate and 'C - low' being attributed to trees/tree groups on site and off site, as well as one poor quality 'U' category tree; It is also worth noting that the BS5837 circular RPAs are considered to halt at the extents of existing property, driveways and substantial walls.

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 (251380/TCP/01); this information was provided as our initial advice and is supplemented herein 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 Based on the boundary line location/neighbour's site location of G1, T6 and T17 (straddles boundary line), their retention and protection are to be assumed as part of the scheme.
- 3.2.2 Based on the individual prominence, amenity contribution and future potential of the high quality 'A' category trees, it is recommended that they be retained, protected and be clear of the proposal.
- 3.2.3 The 'B' Class trees are considered of value both individually and in the landscape and should be retained by design. Proposed encroachment or removal would need to be justifiable and mitigated in any approved scheme. In this case there is a car park intended to be within the RPA of T18
- 3.2.4 There are smaller scale trees and those with defects or limitations on the current amenity contribution, these are categorised as 'C - low'. These 'C' category trees should not constrain nor significantly guide a scheme, although protection may be preferable to retain landscape function.
- 3.3 Further to the above, the proposed scheme is reviewed at section 4.

4. SCHEME / IMPLICATIONS ASSESSMENT

- 4.1 For this assessment, the proposed scheme has been considered (see; s.2.2 herein). This includes consideration for arboricultural management / tree works for H&S tree risk management, tree removal and pruning options, design solutions, tree protection and sensitive measures to account for trees. As per s.1.6 and s.2.2 herein, the TCP scheme overlay illustrates the proposed scheme.
- 4.2 The proposed scheme conflicts with the 'C' category trees T7 and T8. However, as per s.3.2.4, these trees are low quality and should not significantly constrain nor guide the scheme. Therefore, T7 and T8 should be removed to facilitate the scheme and mitigated by new tree planting as part of a landscape scheme.
- 4.3 The proposed parking bay within the RPA of T18. This incursion is minor, however, sensitive installation methods will be required to minimise the ground and RPA impact. That is, retain the existing soil level, prepare grounds manually stripping the soil surface and turf only and manual installations.
- 4.4 Following the above considerations, the trees are clear of the active construction area. These will be protected during the site's development by the retaining walls at the existing driveway and by temporary protective fencing.
- 4.5 Further to the above, the following tree works are considered necessary in conjunction with the proposed scheme.

TREE WORK SUMMARY

NUMBER	TREE REMOVALS / PRUNING WORKS	
T7 and T8	Remove	Remove in conjunction with the scheme: - to be replaced with new tree planting as part of the general site landscaping and new tree planting proposals.
Retained trees		Protection by existing retaining walls along the driveway and the placement of fixed barrier fencing around the crown / RPA extents to have no access during construction. To be realigned during landscape phase

- 4.6 Further to the above scheme review, the tree protection measures are outlined at s.5 as Arboricultural Method Statement 'considerations' (hereafter; AMS) and correspond to the appended Tree Protection Plan (TPP).

5. METHOD STATEMENT 'CONSIDERATIONS'

5.1 Arboricultural Construction Restrictions

5.1.1 The following restrictions are considered relevant for tree protection purposes which are to be illustrated on a detailed Tree Protection:

- a) Tree works; are to be completed prior to any and all site works: additional tree works (or leaning against or attaching of objects to a tree) are not permitted unless agreed in writing by the council.
- b) Protective Barrier Fencing (hereafter; PBF); is to be installed around the retained trees immediately after the tree works and 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.

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 -

- (1) ***Pre-commencement*** to confirm approved tree works, site hoarding / tree protection fence line and construction restrictions for ground works;
- (2) ***Halfway*** through the program to confirm maintained tree protection, no tree damage and exclusion of RPA access;
- (3) ***Development completion*** after all hard landscape works and tree and shrub planting is complete to sign off the site as having adhere to the AMS.

5.3 Protective Barrier Fencing (PBF) Specification

- 5.3.1 Barrier fencing is to be installed (and signed off by way of arboricultural supervision) following the completion of the tree works. It is to be illustrated on a Tree Protection Plan to aid installation and is to remain in situ for the entire duration of demolition/construction processes unless otherwise agreed in writing by the council.
- 5.3.2 The barrier fencing is to consist of a series of braced scaffolding panels secured in place by driven scaffold posts or a scaffold frame to ensure that the fencing lines are well braced to resist impact, prevent access to RPAs and the designated CEZs around the trees and groups.

5.4 Underground utilities

- 5.4.1 Any new underground utilities are to utilise the construction area for new installations and avoid the need for works in proximity to trees. Certainly, utility installations are to be:
- Located outside of RPAs and construction exclusion zones; and
 - Installed only following the installation of the protective barrier fencing to ensure the retained trees and their RPAs are protected.
- 5.4.2 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 Sensitive Ground Works within RPAs

- 5.5.1 The proposed new parking bay is within retained trees' RPAs, and will require sensitive installation methods to minimise ground and RPA impact.
- 5.5.2 Excavations within a RPA or designated CEZ (the area enclosed by PBF) must:
- Be undertaken prior to construction works with a temporary wear layer; and
 - Use sensitive excavation techniques to protect the tree roots and their existing growing conditions i.e. prepare grounds manually stripping the existing soil surface/hard surface and turf only, retain soil levels and manual installations.

5.6 Landscape Detail

- 5.6.1 The finer details of the tree planting proposals are to be illustrated on a tree planting landscape plan. This is to include the exact proposals for hard and soft landscape, retained soil levels for trees' RPAs, together with the details for new replacement tree planting locations, species and stock selection, installation and maintenance; this is to be undertaken by the appointed landscape architect who will have the full support of the arboricultural consultant where required.

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 tree protection methods herein may be approved by the council based on the approved information and other detail i.e. utility layout, final landscape plan, construction management plan (CMP) etc.
- 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.

Appendix I

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 (251380/TCP/01) As appended (251380/TCP/01_Proposed scheme)
Tree Protection Plan:	As appended (251380/TPP/01)

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

CLIENT: [REDACTED]

PROJECT REF: 251380

SITE: 34 Church Road, Knowsley, L36 9TP

CONTACT: [REDACTED]

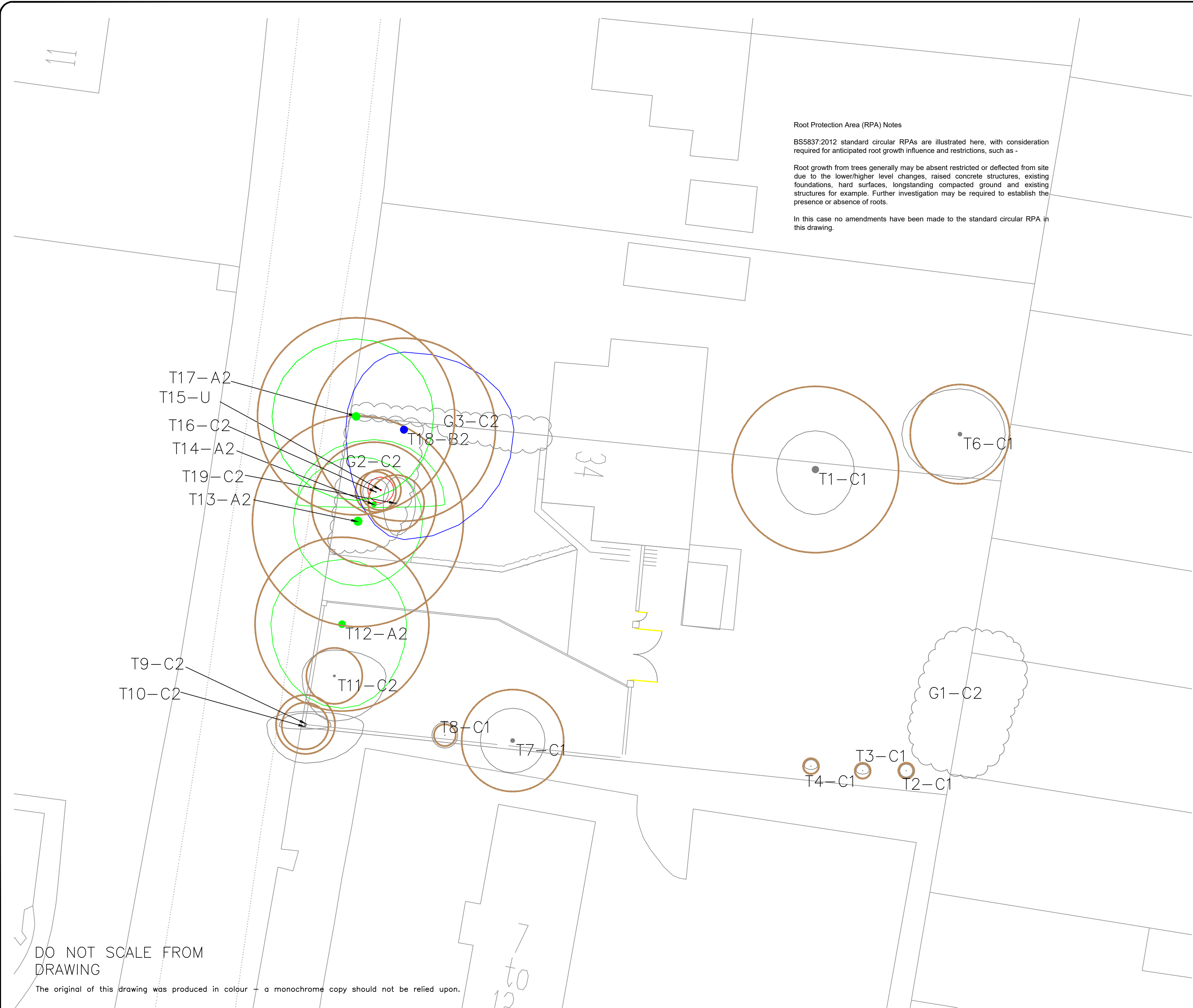
SURVEY DATE: 9th May 2025 & 12th August 2026

ARB CONSULTANT: [REDACTED]

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	Hybrid Holly; Ilex alterclarensis; Aquifoliaceae	M	17	3	3.5	3	3	320, 430*	6.4	2	2	Norm	20-40	Managed by crown lifting. Managed by clipping. Bird nest in crown. Multistemmed tree 2 stems. Bifurcates at 1.5m or below	C	1	
T2	Flowering Cherry; Prunus (spps); Rosaceae	NP	3	0.5	0.5	0.5	0.5	<75	0.6	1	1	Norm	10_20	Newly planted tree	C	1	
T3	Rowan; Sorbus aucuparia; Rosaceae	NP	3	0.5	0	0.5	0.5	<75	0.6	1	1	Norm	10_20	Newly planted tree	C	1	
T4	Flowering Cherry; Prunus (spps); Rosaceae	NP	3	0.5	0	0.5	0.5	<75	0.6	1	1	Norm	10_20	Newly planted tree	C	1	
T6	Birch; Betula (species); betulaceae	EM/M	19	3.5	3.5	3.5	4.5	320*	3.8	1	1	Norm	10_20	Newly planted tree. Located within neighbouring property	C	1	
T7	Lawson Cypress; Chamaecyparis lawsoniana; Cupressacea	EM/M	12	2.5	2.5	2.5	2.5	170, 170, 100, 200*	3.9	0	0	Norm	20-40	Close to boundary wall. Branches in close proximity touching or close proximity to building/structure. Multistemmed tree 4 stems	C	1	
T8	Hybrid Holly; Ilex alterclarensis; Aquifoliaceae	Y	3	1	1	1	1	70, 30*	0.8	0	0	Norm	20-40	Close to boundary wall. Multistemmed tree 2 stems	C	1	
T9	Horse Chestnut; Aesculus hippocastanum; Hippocastanaceae	SM/EM	11	1	3	4.5	3	190*	2.3	1	1	Norm	20-40	Close to boundary wall. Ivy on stem into crown. Growth affected by adjacent trees due to light competition	C	2	
T10	Hawthorn; Crataegus	SM	11	1	0	2	2	150	1.8	1	1	Norm	20-40	Close to boundary wall. Growth affected by adjacent trees due to light competition. Grown in conjunction with adjacent tree	C	2	
T11	Sycamore; Acer pseudoplatanus; Aceraceae	SM	12	2	3.5	4	2.5	180*	2.2	2	2	Norm	20-40	Close to boundary wall. Ivy on stem into crown. Growth affected by adjacent trees due to light competition	C	2	
T12	European Lime; Tilia europaea; Tiliaceae	M	20	5	6.5	5	5.5	560*	6.7	1	1	Norm	40+	Close to boundary wall. Close to drive way retaining wall , appears to be pushing wall out. Extensive lime epicormic growth at base obscuring lower trunk. Managed in the past by crown lifting and reduction. Low visibility to mid upper crown due to vegetation	A	2	Remove lime Epicormic
T13	European Lime; Tilia europaea; Tiliaceae	M	20	5	5	5	5	480, 480*	8.2	4	4	Norm	40+	Close to boundary wall. Ivy on stem into crown. Ivy inhibiting VTA. Large pieces of deadwood in crown and over road. Multistemmed tree 2 stems	A	2	Remove major crown deadwood

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
T14	European Lime; Tilia europaea; Tiliaceae	M	20	5	0	5.5	6	400*	4.8	4	4	Norm	40+	Ivy on stem into crown. Ivy inhibiting VTA. Part of group	A	2	
T15	Rowan; Sorbus aucuparia; Rosaceae	Y	6	1	1	1	1	130*	1.6	4	4	Dead	<10	Failed at base, lying on ground.	U		
T16	Elm; Ulmus (species); Ulmaceae	Y	6	1	1	1	1	130*	1.6	4	4	Norm	10_20	Subdominant tree. Ivy on stem into crown. Ivy inhibiting VTA	C	2	Remove major crown deadwood
T17	European Lime; Tilia europaea; Tiliaceae	M	20	6	6.5	6	6.5	570, 280*	7.6	4	4	Norm	10_20	Ivy inhibiting VTA. Ivy on stem into crown. Low visibility to mid upper crown due to vegetation. Situated half and half on boundary	A	2	Remove major crown deadwood
T18	Sycamore; Acer pseudoplatanus; Aceraceae	M	20	6	8.5	8.5	4.5	380, 450*	7.1	4	4	Norm	10_20	Ivy inhibiting VTA. Ivy on stem into crown. Low visibility to mid upper crown due to vegetation. Situated half and half on boundary. Multistemmed tree 2 stems. Part of group	B	2	Remove major crown deadwood
T19	Pissards Plum; Plum; Prunus cerasifera Rosaceae 'Atropurpurea' Rosaceae	M	8	2	2.5	1.5	1	180*	2.2	4	4	Norm	10_20	Ivy inhibiting VTA. Ivy on stem into crown. Low visibility to mid upper crown due to vegetation. Situated half and half on boundary. Multistemmed tree 2 stems. Part of group	C	2	Remove major crown deadwood
G1	Leyland Cypress; x Cupressocyparis leylandii; Cupressaceae	M	9	n/a	n/a	n/a	n/a	450	5.2	0	0	Norm	20-40	3 trees used as screen hedge, managed by clipping and height reduction. Located within neighbouring property	C	2	
G2	Rhododendron; Rhododendron ponticum; Ericaceae; Laurel; Prunus laurocerasus; Rosaceae	M	2	n/a	n/a	n/a	n/a	100	0.8	0	0	Norm	10_20	Undergrowth screen planting	C	2	
G3	Cherry Laurel; Prunus laurocerasus; Rosaceae; Hawthorn; Crataegus monogyna; Rosaceae; Hornbeam; Carpinus betulus; Carpinaceae; Shrubs	Y/SM;E M;EM/M	2	n/a	n/a	n/a	n/a	100	0.8	0	0	Norm	10_20	Boundary hedge and screen planting. Managed by clipping	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										



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 no amendments have been made to the standard circular RPA in this drawing.

KEY

Tree Crown Spread

Root Protection Area (RPA)

Tree Stem

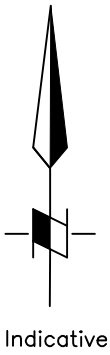
T1 Tree No.

Removed Tree

Tree Condition Category

A
B
C
U

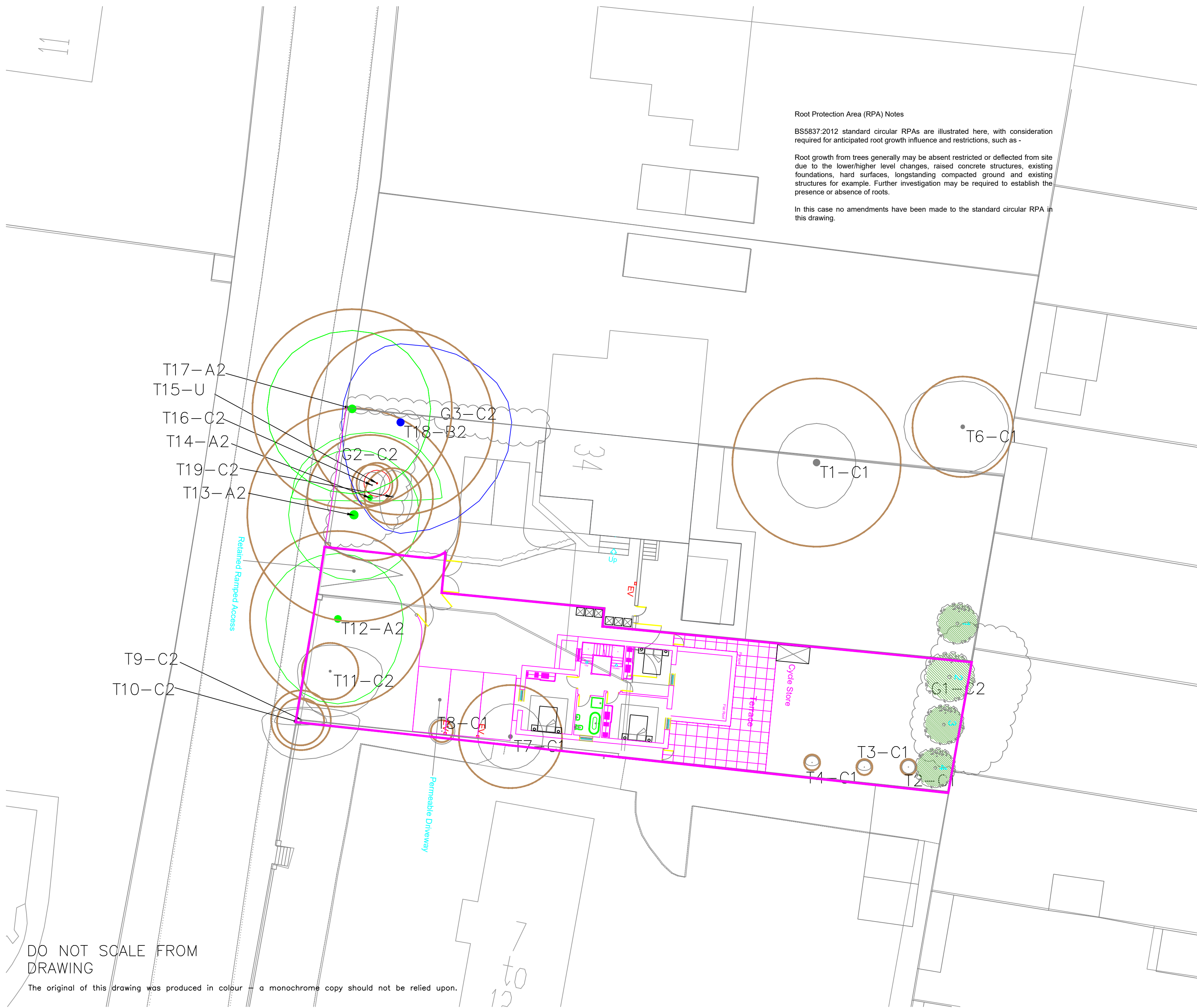
The surveyed trees are illustrated on this Constraints Plan which is prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'



REV.		DESCRIPTION		DWN	CHK'D	DATE	
CLIENT							
PROJECT							
251380/A1							
34 Church Road, Knowsley, L36 9TP							
TITLE							
Tree Constraints Plan							
DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE	
RPHB	20/05/2025	AT	20/05/2025			1-200	
 Indigo Surveys Ltd (Mail) Second Floor, 1 Hunter's Walk, Canal Street, Chester, CH1 4EB Telephone: 0333 123 7080 www.indigosurveys.co.uk							
Drawing Number						A2	
251380/A1/TCP/01						REV.	

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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 no amendments have been made to the standard circular RPA in this drawing.

KEY

Tree Crown Spread

Root Protection Area (RPA)Tree Stem

T1 Tree No.

Tree Condition Category

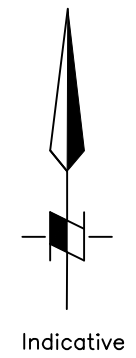
A

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'



/	Proposed scheme overlay for review	TB	AT	14/08/26
REV.	DESCRIPTION	DWN	CHK'D	DATE

CLIENT

PROJECT 251380/A1
34 Church Road, Knowsley, L36 9TP

TITLE

Tree Constraints Plan

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RPHB	20/05/2025	AT	20/05/2025			1-200



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

Drawing Number

251380/A1/TCP/01

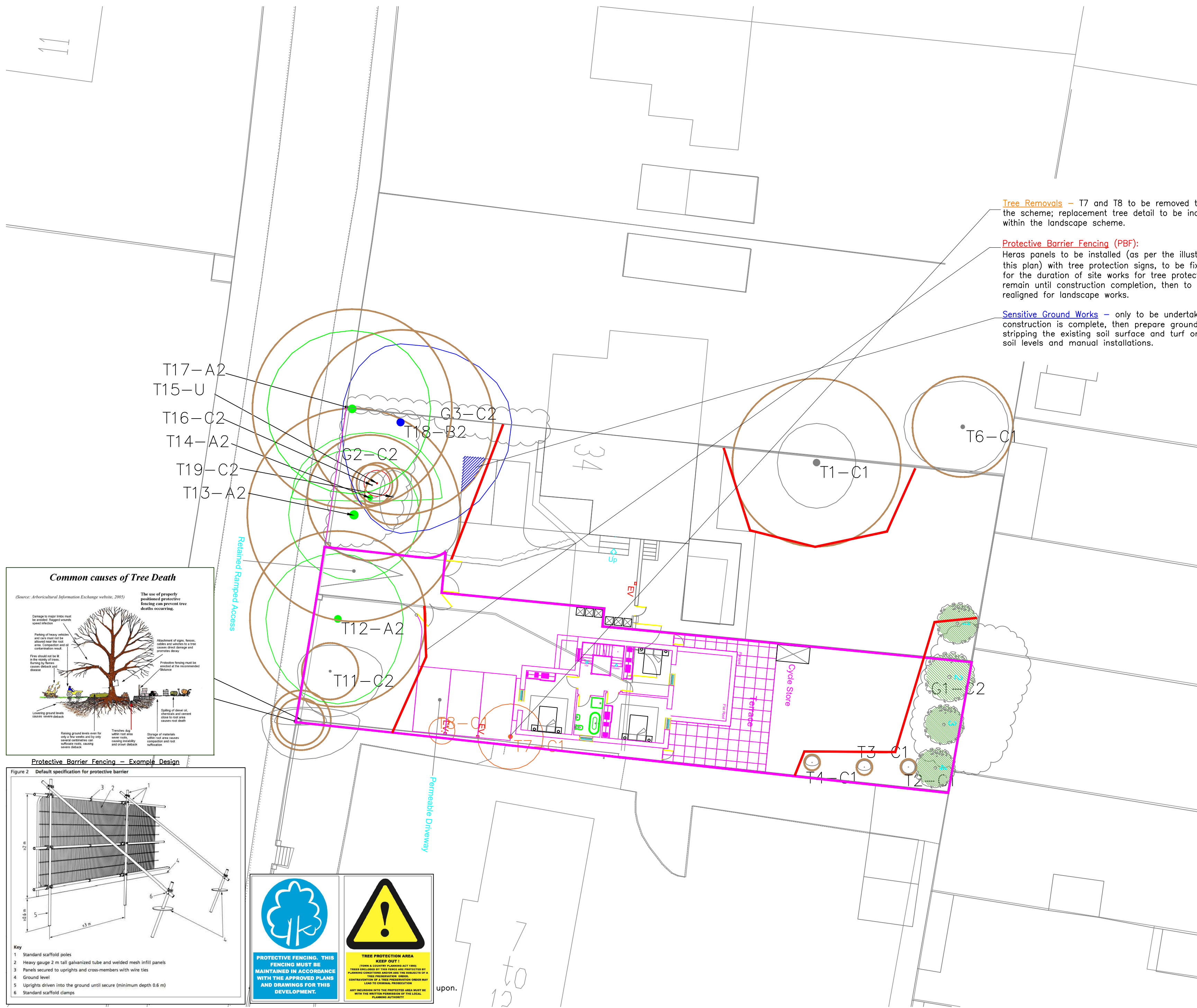
A2

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'

Tree Removals – T7 and T8 to be removed to facilitate the scheme; replacement tree detail to be included within the landscape scheme.

Protective Barrier Fencing (PBF):
Heras panels to be installed (as per the illustration on this plan) with tree protection signs, to be fixed in place for the duration of site works for tree protection and to remain until construction completion, then to be realigned for landscape works.

Sensitive Ground Works – only to be undertaken once construction is complete, then prepare grounds manually stripping the existing soil surface and turf only, retain soil levels and manual installations.

Common causes of Tree Death

Damage to major limbs must be avoided. Ragged wounds healed effectively.

Parking of heavy vehicles and use of heavy machinery should be avoided near the root area. Compaction and oil contamination must be avoided.

Fires should not be lit in the vicinity of trees. Burning of refuse, garden debris and other debris should be avoided.

Lowering ground levels causes severe damage.

Raising ground levels even for only a few weeks and by only several centimetres can suffocate roots, causing severe damage.

Trenching, digging within root area causes root damage and root severance.

Storage of materials within root area causes compaction and root severance.

Attachment of signs, fences, cables and wires to a tree causes direct damage and promotes decay.

Protective fencing must be erected at the recommended distance.

Spilling of diesel oil, chemicals and cement close to root area causes root death.

The use of properly positioned protective fencing can prevent tree death occurring.

Protective Barrier Fencing – Example Design

1

2

3

4

5

6

1

Standard scaffold poles

2

Heavy gauge 2 m tall galvanized tube and welded mesh infill panels

3

Mesh secured to uprights and cross-members with wire ties

4

Ground level

5

Uprights driven into the ground until secure (minimum depth 0.6 m)

6

Standard scaffold clamps

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

! TREE PROTECTION AREA KEEP OUT !

TOWN & COUNTRY PLANNING ACT 1990. VIOLATION OF THIS FENCING IS PROHIBITED BY PLANNING CONSENTS AND THE SUBJECTS OF A TREE PRESERVATION ORDER. CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION. ANY INCLUSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY.

/	Proposed scheme overlay for review	TB	AT	14/08/26
REV.	DESCRIPTION	DWN	CHK'D	DATE

CLIENT

PROJECT
251380/A1
34 Church Road, Knowsley, L36 9TP

TITLE
Tree Protection Plan

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RPHB	20/06/2025	AT	20/06/2025			1-200

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Drawing Number
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A2
REV.

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