

Tree Surveys

BS5837 – Pre Planning – Mortgage – Risk Management & Prediction

ARBORICULTURAL IMPACT ASSESSMENT FOR SEND SPACE AT THAMESIDE PRIMARY



**Prepared on behalf of:
Capital Project Manager
Property & Asset Management
Economic Growth and Neighbourhood Services
Reading Borough Council
Civic Offices
Bridge Street
Reading RG1 2LU**

Ref: PB/AIA-25/01.09

28 February 2025



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Bramley House
Newnham Bridge
Tenbury Wells
Worcestershire
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1. Report details

1.1 Arboricultural Impact Assessment (AIA)

1.1.1 An arboricultural impact assessment (AIA) is a term used to describe a specific type of tree survey which examines the relationship between trees and adjacent features (existing & proposed) such as buildings, roads etc. The study describes how the trees and features interact and influence each other and should consider both present and future interactions.

1.1.2 AIA studies are commonly used to determine whether a proposed development will adversely affect established trees and whether these trees will be the cause of nuisance to the proposed development.

1.2 Scope

1.2.1 This assessment is concerned with the arboricultural aspects of the site only.

1.2.2 This assessment was undertaken in accordance with British Standard 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations (BS: 5837).

1.3 Limitations

1.3.1 The assessment contained within this document is based upon plans and other supporting information (verbal or documented) as supplied to us by Education Asset Management, Economic Growth and Neighbourhood Services, Reading Borough Council, Civic Offices, Bridge Street, Reading RG1 2LU and the tree survey conducted by ourselves on 9 January 2025.

1.4 Clients instructions

1.4.1 We are instructed by Jo O'Kane, Education Property Officer on behalf of Education Asset Management, Economic Growth and Neighbourhood Services, Reading Borough Council, Civic Offices, Bridge Street, Reading RG1 2LU to visit Thameside Primary School, Harley Road, Caversham, RG4 8DB and prepare an arboricultural impact assessment to determine the effects of the proposed works on the trees identified in our survey of the 9 January 2025 and visa-versa.

1.5 Supplied information

1.5.1 We were provided with a copy of the principal drawings listed below prepared by Property Services, Reading Borough Council, Civic Offices, Bridge Street, Reading RG1 2LU (PS-RBC) and Fawns Recreational Services Ltd, Beech House, Ancells Road, Fleet, GU51 2UN (FRS) and this arboricultural impact assessment is based upon the supplied information and tree survey report ref. PB/5837-25/01.09.

Drawing ref.	Prepared by
Proposed Location Plan – ref. 2061-2024-SK-06 Rev A (TPSchool-SEND Requirement-03_Rev A-Proposed Playground-SK-06_Issued 250107)	PS-RBC
Thameside Primary School – Proposed Play Area (TP-PHQ6877_B THAMESIDE PRIMARY SCHOOL)	FRS



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2. The site

2.1 Site description

- 2.1.1 The site is currently a school playground area. The site is bounded by an existing fence to the east and south, a short length of brick wall to the southwest and a grassed surface to the north.

2.2 Proposed development

- 2.2.1 The proposed development consists of the construction of a play area with Wetpour surfacing and the installation of new play equipment with a sports goal & basketball court, with new boundary fencing along the north and northwest boundary, including 1No access gate.
- 2.2.2 The tree survey report ref PB/5837-25/01.09 identified five individual trees and one group that may be impacted by the scheme. The tree details have been assessed against the proposed scheme set out on the proposed site layout drawing.

2.3 Tree survey

- 2.3.1 The trees were surveyed by Paul Billin, BSc, MICFor, on 9 January 2025. All tree identification numbers used within this report correspond with those contained within the tree survey schedule included at Appendix 2.

2.4 Statutory Designations

- 2.4.1 A check of the Reading Borough Council web site was undertaken on 3 February 2025 to assess the legal status of the trees on this site. There are no trees listed on the TPO Directory protected by Tree Preservation Order. The site is not within a Conservation Area.

3. Introduction

3.1 AIA objectives

- 3.1.1 To assess the areas within this site where proposed works are to be carried out in close proximity to established trees.
- 3.1.2 To determine whether the proposed works can be carried out successfully without adversely affecting the trees both in the short and long term.
- 3.1.3 To determine whether the trees will have adverse effects on the proposed development both in the short and long term.
- 3.1.4 To suggest ways to mitigate any conflicts that may arise between the trees and the proposed development and to offer recommendations relating to the protection of the trees during redevelopment works.



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3.2 Items for consideration

3.2.1 Trees and development located within close proximity to each other can influence each other in a number of ways. The following generic items are normally considered during arboricultural impact studies:

- Root disturbance caused by demolition, excavation & construction e.g. hard surfaces, installation of playground equipment and fencing.
- Location of service runs, welfare/office buildings & materials storage.
- Changes in levels & surface types.
- Sunlight shading of exterior amenity areas (such as gardens, playgrounds etc).
- Physical encroachment by roots, tree stem & branches.
- Allowance for future tree growth.
- Health, safety and nuisance items e.g. leaves, fruit and residues.

3.3 Guidance whilst assessing trees in relation to development includes:

- *BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations*. Published by the British Standards Institute.
- *Tree Preservation Orders: A Guide to the Law and Good Practice*. Published by the Department of the Environment, Transport and the Regions.
- *NJUG 10 - Guidelines for the planning, installation and maintenance of Utility Services in relation to trees*. Published by the National Joint Utilities Group (NJUG).

4. Analysis

4.1 Assessment methodology

4.1.1 The assessment is based on the guidance given in BS 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.

4.2 Key issues

4.2.1 The key issues associated with the proposed items identified above in relation to trees are:

- Will there be direct impacts from tree losses on the landscape, both in terms of impacts on visual receptors and impacts on the landscape character of the area?
- Will the proposed development require grade and ground level alterations resulting in compaction that may have significant implications for root systems of retained trees?
- The tree constraints and tree protection measures.
- Services in close proximity to the retained trees
- Leaf/fruit or sap fall and shade constraints leading to pressure to prune or fell.
- Damage to mature trees with low canopy heights growing in close proximity to machinery and contractors' plant operating areas.

4.2.2 These key issues and associated impacts are considered below along with possible tree protection measures and mitigation as necessary.



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5. Impact on existing trees

5.1 Tree loss, tree damage and pruning works

- 5.1.1 The proposed layout will require the removal of one small tree in category 'B', "Trees of moderate quality".
- 5.1.2 Details of the trees are set out on the tree protection plan drawing PB/TPP-25/01.09 included at Appendix 1, and in the tree survey schedule included at Appendix 2.
- 5.1.3 The proposed layout of the site development works will not require necessary facilitation pruning works to any of the retained trees.

5.2 Impacts on root protection areas (RPAs)

- 5.2.1 The proposed site layout is shown on drawing Proposed Location Plan – ref. 2061-2024-SK-06 Rev A.
- 5.2.2 There will be incursions within the root protection areas of trees (T)2, T3, T5 and T6 due to the proposed new Wetpour surfacing, which will require ground protection mitigation.
- 5.2.3 The location of playground equipment is also encroaching within the RPA, particularly the 2.4 metre birds nest swing which requires deep foundations, and the design will require appropriate mitigation, to be described in an Arboricultural Method Statement, to ensure that the proposal does not have a detrimental effect on the tree RPAs; such as locating the birds nest swing away from the RPA of retained trees.
- 5.2.4 Provided that the tree protection barrier and ground protection mitigation is installed and maintained as per the tree protection plan ref PB/TPP-25/01.09, there will be no major impacts on tree root protection areas as a result of this scheme.

5.3 Grade changes

- 5.3.1 It is not known whether any grade changes are proposed within the RPAs of the retained trees to facilitate the new development.
- 5.3.2 Should grade changes be required within the RPA of retained trees, the contractor must prepare a method statement setting out how the work will be undertaken, and the machinery used in order to minimise disturbance and reduce compaction to the RPA of retained trees. The method statement must be submitted to and approved by the Local Authority prior to any alterations or changes and the work must be supervised by the AC.

5.4 Tree protection measures

- 5.4.1 To protect retained trees from construction activities the retained trees must be protected by suitable protection barriers and ground protection, to be addressed in an Arboricultural Method Statement (AMS).
- 5.4.2 The accompanying tree protection plan drawing PB/TPP-25/01.09 shows the specific tree protection locations required prior to and during the construction of the new play area



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- 5.4.3 The tree protection barriers (TPB) must be installed prior to any site or construction activity, to provide construction exclusion zones around the RPAs of all trees to be retained, as shown on drawing PB/TPP-25/01.09 using the default temporary protective barrier as specified and detailed in BS5837:2012 (Section 6.2, Fig 2) and included in Appendix 5 of the tree survey report ref PB/5837-25/01.09. Additional runs of TPB should be erected to prevent public access to the development area.
- 5.4.4 To avoid compaction of the soil the areas marked as 'Ground protection - temporary' on the tree protection plan are to be protected with temporary ground protection conforming to section 6.2.3. of BS 5837:2012.
- 5.4.5 The extent of RPA incursions by the construction of Wetpour Surfacing within the root protection areas of retained trees has been calculated as set out in Table 1 below, and is shown on tree protection plan ref PB/TPP-25/01.09 as 'Ground protection':

Table 1. Anticipated RPA incursion by construction of new Wetpour Surfacing

Tree No.	Anticipated Incursion (m2)	Tree RPA (m2)	% of Tree RPA	Existing surfacing
T2	31.2	144.8	21.5	Hard playground / mulched bed
T3	21.8	168.2	13.0	Hard playground / mulched bed
T5	50.9	707.0	7.2	Hard playground
T6	8.7	25.9	33.6	Hard playground / grass

- 5.4.6 Disturbance to tree roots of retained trees T2, T3, T5 and T6 can be significantly reduced by appropriate mitigation work to be set out in an AMS.
- 5.4.7 We do not anticipate any long-term negative impacts upon the retained trees provided that the required tree protection measures are implemented.

5.5 Services in close proximity to retained trees

- 5.5.1 We have no details of the location of any new underground services.

6. Visual impact on the landscape and tree character

- 6.1 The removal of one small Norway maple tree, 7.5 metre tall, T1, in category 'B', will have a minor loss of amenity locally and no negative impact on the wider landscape character.
- 6.2 There are no landscape reasons to mitigate the loss of this tree. The wider landscape will remain unchanged, as the tree is located internally within the site and there are no neighbouring properties that would have their visual amenity adversely affected.

7. Direct or indirect impacts of trees

- 7.1 The retained trees will not be affected by the development work providing the protection measures set out and included on the tree protection plan ref PB/TPP-25/01.09 are followed.
- 7.2 There is no requirement for crown pruning to facilitate the development works.



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- 7.3 The retained trees within the site will continue to increase in size as they reach full maturity, and it is anticipated that some minor management intervention may be required in keeping with normal arboricultural practice.

8. Leaf, fruit or sap fall and shade

- 8.1 The retained trees will provide shade over parts of the site early to mid-morning. Shade is considered beneficial especially in hot weather and we do not anticipate any adverse impacts as a result of these retained trees.
- 8.2 Leaf fall is anticipated from the retained trees, but this can be managed by leaf collection as currently practiced and therefore no adverse impact is anticipated as a result of the proposal.
- 8.3 There are no trees near the proposal which are prone to the production of honeydew exudate, or fruit fall.

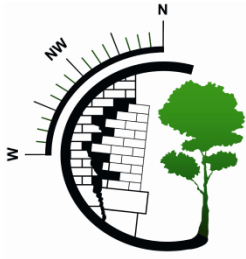
9. Conclusions

- 9.1 The proposed scheme results in the removal of one small Norway maple tree 7.5 metre tall, T1, in category 'B', that will have a minor loss of amenity locally and no negative impact on the wider landscape character.
- 9.2 To protect retained trees from the construction activities, notwithstanding the need for an Arboricultural Method Statement (AMS), the retained trees must be protected by suitable protection barriers and ground protection.

10. Recommendations

- 10.1 We recommend that tree protection measures as set out on the tree protection plan drawing PB/TPP-25/01.09 are implemented and should be conditioned as part of any planning consent.
- 10.2 We recommend that an Arboricultural Method Statement is prepared to address specific mitigation measures required for foundation excavation and construction work.

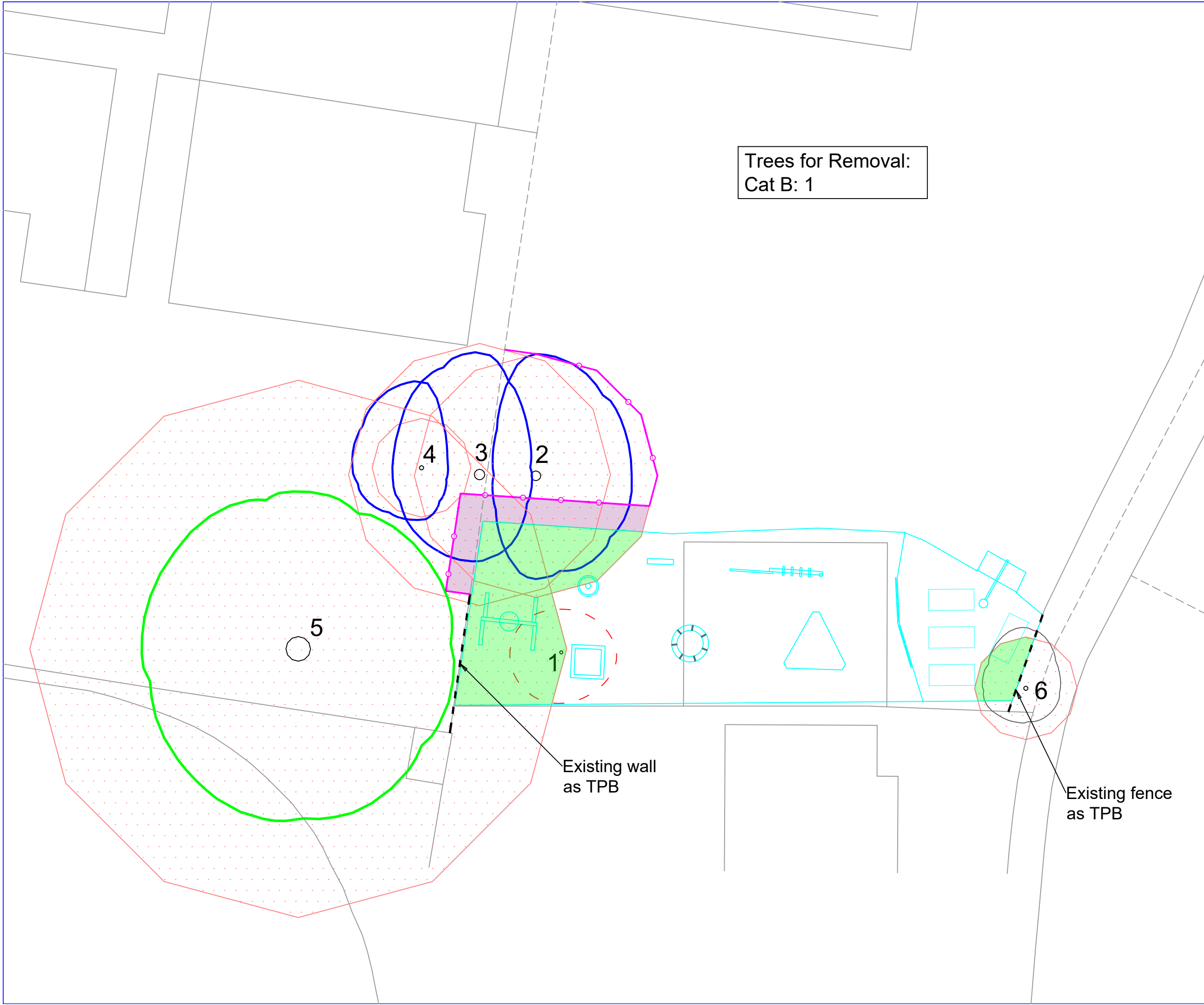
Paul Billin BSc MICFor
Arboricultural Consultant
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APPENDIX 1

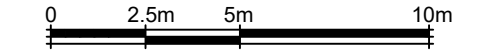


Trees for Removal:
Cat B: 1

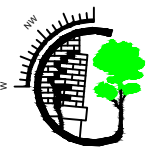
- NOTES
- All dimensions must be checked on site and not scaled from this drawing.
 - The original of this drawing was produced in colour, a monochrome copy should not be relied upon.
 - Read drawings in conjunction with arboricultural report.
 - Topo based on OS data, © Crown Copyright and database rights 2024. OS AC0000813445.



- Key:
-  Trees retained
 -  Root protection area (RPA)
 -  Tree number
- refer to report for information
 -  Trees for removal
 -  Tree protection barrier (TPB)
 -  Existing site features
 -  Proposed SEND Play Area
 -  Ground protection
 -  Ground protection - temporary (min. area)



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Client	Reading Borough Council		
Job Title	Thameside Primary School 2024 SEND Space		
Drawing Title	Tree Protection Plan		
Scale	1:200 @ A3		
Date	February 2025	Drawn: MjE	Checked: PB
Drg. No.	PB/TPP-25/01.09	Rev.	



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APPENDIX 2

BS5837:2012 Tree Survey

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Client: Reading Borough Council
 Project: Thameside Primary School 2024 SEND Space
 Survey Date: 09/01/2025
 Surveyor: Paul Billin



Bramley House
 Newnham Bridge
 Tenbury Wells
 Worcestershire
 WR15 8NX
 Phone: 0118 9762 902

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
1												
Norway Maple <i>Acer platanoides</i>	7.5	1	180	N	2.5	2	Y	A: 14.7 R: 2.16	Fair	C: Fair S: Fair B: Fair	No action :: Unspecified ----- Fair form and condition	B 20 to 40 yrs
2												
Sycamore <i>Acer pseudoplatanus</i>	15	3	566 (Eq)	N	7	3	SM	A: 144.8 R: 6.78	Fair	C: Fair S: Fair B: Fair	No action :: Unspecified ----- Co-dominant stems from ground level	B.2 20 to 40 yrs
3												
Sycamore <i>Acer pseudoplatanus</i>	15	5	610 (Eq)	N	7	3	SM	A: 168.2 R: 7.31	Fair	C: Fair S: Fair B: Fair	No action :: Unspecified ----- Co-dominant stems from ground level 14.9m from south boundary	B.2 20 to 40 yrs
4												
Field Maple <i>Acer campestre</i>	8	1	230	N	5	3	Y	A: 23.9 R: 2.75	Fair	C: Fair S: Fair B: Fair	No action :: Unspecified ----- Fair form and condition	B >40 yrs
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Stems: Ø Diameter Y Young M Mature S Stem (Eq) Equivalent stem diameter using BS5837:2012 definition SM Semi-mature OM Over Mature B Basal area ERC: Estimated Remaining Contributio												

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations	Cat ERC	
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
5												
London Plane <i>Platanus x hispanica</i>	23	1	1410	N	9	4	M	A: 707 R: 15	Fair	C: Fair S: Fair B: Fair	No action :: Unspecified Large bole, well buttressed. Co-dominant stems main bifurcation 6m AGL Previously reduced and crown lifting 9.1 3.5	A.2 >40 yrs
6											Estimated Measurements	
A Group - -	7	2	239 (Eq)	N	3.5	2	Y	A: 25.9 R: 2.87	Fair	C: Fair S: Fair B: Fair	No action :: Unspecified Alder and hawthorn outside of fence	C 10 to 20 yrs
Age Classifications: N Newly planted EM Early Mature Y Young M Mature SM Semi-mature OM Over Mature Condition: C Crown S Stem B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio												

Report selection criteria.

Projects.

Thameside Primary School 2024 SEND Space

Date Range.

Any Date

Work types.

----> No action :: Unspecified

Latest Survey.

All surveys for the selected trees.
---> Last survey for each selected tree.

Work Completed.

---> Work Completed
---> Work Not Completed

Number of trees in selected Project(s) 6
Number of trees in Report selection 6

Age Classifications:	N	Newly planted	EM	Early Mature	Condition:	C	Crown	Stems:	Ø	Diameter
	Y	Young	M	Mature		S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature		B	Basal area		ERC:	Estimated Remaining Contributio