ARBORICULTURAL IMPACT ASSESSMENT

TURNER LANE, CRUDWELL

ON BEHALF OF

DB LAND AND PLANNING LIMITED

REFERENCE: ZTL_171
DATE: July 2023
V1

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Report Data	
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Client	DB Land and Planning Limited
Development Site	Turner Lane, Crudwell
Author	George Pickering *BSc(Hons), TechArborA*

Rev	Report	Author	Date Issued
A	Arboricultural Impact Assessment	George Pickering	24th July 2023

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1.0 INTRODUCTION

Background

1.1 This report has been prepared by George Pickering *BSc (Hons). TechArborA*. George is a Technician Member of the Arboricultural Association (AA) and is therefore required to uphold the professional and ethical standards within the AA Code of Conduct. George holds the LANTRA certificate in Professional Tree Inspection.

1.2 This Arboricultural Impact Assessment (AIA) has been prepared on behalf of DB Land and Planning Limited to support a full planning application for the erection of 25no. new residential dwellings with associated access and works at Turner Lane, Crudwell (hereafter referred to as the 'site').

1.3 The planning application is to be submitted to Wiltshire Council (WC)

Purpose

1.4 The tree survey and AIA has been carried out in accordance with the recommendations outlined within British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

1.5 This AIA report includes:

- A baseline survey data of existing trees, including a Tree Schedule and Tree Constraints Plan (TCP).
- Arboricultural Impact Assessment.
- Tree Protection Plan

2.0 PLANNING POLICY AND LEGISLATION

National Planning Policy Framework (NPPF)

2.1 The following paragraphs within the NPPF set out policies which guide the planning policy and decision-making process of Local Planning Authorities in relation to trees. These are:

Paragraph 131

2.2 Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.

Paragraph 174 (b & d)

2.3 Planning policies and decisions should contribute to and enhance the natural and local environment by:

b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

Paragraph 180

2.4 When determining planning applications, Local Planning Authority's (LPA) should apply the following principles:

a) If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternate site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists.

d) Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Tree Preservation Orders and Conservation Areas

2.5 An enquiry has been submitted to WC to assess if any trees on site are subject to a Tree Preservation Order (TPO) or if the site is located within a Conservation Area. At time of writing, no response has been received.

Protected Wildlife and Trees

Bats

2.6 All species of British bat are listed as European Protected Species (EPS) on Schedule 2 of the Conservation Regulations (Annex IV (a) to the Habitats Directive). This affords bats protection under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Prior to undertaking any tree works or tree removal further advice should be sought from a suitably qualified ecologist.

Nesting Birds

2.7 The main bird nesting season is between March and August inclusive. Current legislation relating to breeding birds, under the *Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000*, confirms that birds, as well as their nests and eggs are protected. Prior to undertaking any tree works or tree removal further advice should be sought from a suitably qualified ecologist.

Felling Licence

2.8 Tree felling is also restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for *"Felling trees immediately required for the purpose of carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) ..."*

2.9 If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

3.0 BASELINE TREE SURVEY

Method of data collection

3.1 A tree survey was undertaken on 30th August 2022, by George Pickering *BSc (Hons), TechArborA.*

3.2 The trees on the Site were surveyed in accordance with the requirements of BS5837:2012. The survey recorded trees either as individual specimens or as groups, where these trees were aerodynamically, culturally or visually important as groups. The tree numbers associated with each tree are cross-referenced within the Tree Schedule and Plans at Appendix 1 and 2 respectively.

Summary of data

Trees

3.3 The survey recorded 5no. individual trees, comprising of 3no. category B and 2no. category C retention value.

Groups

3.4 The survey recorded 2no. groups of trees of category C retention value.

Hedges

3.5 The survey recorded 1no. hedge however this was not given a retention category.

4.0 IMPACT ASSESSMENT

4.1 The impact of the proposed development upon existing trees is illustrated on the Arboricultural Impact Plan at Appendix 2.

4.2 Table 1 details the tree and group removals required to implement the Proposed Development.

Table 1 – Tree / Group Removal for Proposed Development

	Retention Category				Total
	A	B	C	U	
Trees to be removed for Proposed Development	-	T15	-	-	**1**
Total	**0**	**1**	**0**	**0**	**1**

4.3 There will also be a requirement to part remove H1 for the proposed main road access and a pedestrian access.

4.4 New tree planting will be undertaken within the site following development to mitigate the loss of trees.

4.5 None of the trees proposed for removal are considered aged or veteran and therefore the principles for refusal within the NPPF would not be considered applicable.

Mitigation

4.6 Soft landscaping proposals should consider including new tree planting within landscaped areas.

4.7 New tree planting with a variety of suitable species will provide long-term tree cover and much needed diversity among tree species for futureproofing against pests, diseases and the effects of climate change.

Root Protection Areas (RPAs)

4.8 The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012.

4.9 The RPA is an area in which no ground works should be undertaken without due care in relation to the retained tree(s) and this is to avoid soil compaction, changes in levels or soil contamination which could alter the trees condition and/or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions.

4.10 The RPA for the trees has been calculated as prescribed by BS5837:2012 and are shown as circles for polygons on the Tree Constraints Plan at Appendix 2. These plans illustrate the relationship between the RPAs associated with the trees and the proposed development.

4.11 In addition to the illustration of RPAs on the plans at Appendix 2, the numerical RPA values are provided within the Tree Schedule at Appendix 1. Within the schedule both RPA radius in metres from the main stem and total area for the RPA as square metres.

4.12 There will not be any new RPA incursions as a result of the proposed development.

Facilitation Tree Pruning

4.13 In order to provide sufficient clearance for construction and future use of the Proposed Development, one hedge will require minor pruning work to be carried out.

4.14 Required tree pruning is likely to include the following:

4.15 H1 (Mixed) – Prune hedge away from proposed development (road, garage and building) – see TCP at Appendix 2 to see approximate locations of pruning.

4.16 A final specification for facilitation tree pruning should be determined by the Project Arboriculturist following a pre-commencement site meeting with the appointed contractor.

4.17 Further requirements for facilitation pruning may be identified during the course of construction and should be addressed by ongoing liaison with the Project Arboriculturist.

Future growth

4.18 Due to the location of retained trees, future growth of trees is not considered to be an issue to the Proposed Development.

4.19 Minor pruning of lateral branches will address any issues where the canopy of trees encroaches towards the proposed buildings.

5.0 Tree Protection

Tree Protection Fencing

5.1 The principal protection for the retained trees is provided by Tree Protection Fencing (TPF) positioned to form a Construction Exclusion Zone (CEZ) around retained trees. No access should be allowed to the other than for operations specified in the approved documents or those agreed with the LPA later.

5.2 The location of Tree Protection Fencing (TPF) is illustrated on the Tree Protection Plan at Appendix 2.

5.3 The CEZ must be in place prior to the commencement of construction work on site. The TPF must not be moved or relocated without approval from the Project Arboriculturist and, where necessary, approval from the Local Planning Authority.

5.4 The TPF specification should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees.

5.5 The most common specification as illustrated in BS5836:2012 Figure 3b (Appendix 3) comprises welded mesh panels (Heras Fencing) on rubber or concrete feet, the panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from within the fence. The distance between fence couplers should be at least 1m and should be uniform throughout the fence. The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins. Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray.

5.6 Weatherproof signage will be attached to the fencing with words such as 'Construction Exclusion Zone – No Access'.

5.7 At the end of the project the fence will be removed only after confirmation by the Project Arboriculturist and the Council that this is appropriate.

6.0 REFERENCES

- British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendation'
- British Standard 3998:2010 'Tree work – Recommendations'
- BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations
- National Planning Policy Framework (NPPF) 2021
- The Forestry Act 1967
- The Town and Country Planning Act 1990
- The Town and Country Planning (Tree Preservation) (England) Regulations 2012

6.0 CAVEATS AND LIMITATIONS

6.1 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

6.2 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, soils ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.

6.3 This is not a Tree Risk Assessment. As such this report should not be taken to mean or imply that any of the inspected trees should be considered safe. A Tree Risk Assessment can be provided but would be subject to additional survey requirement and further fees.

6.4 Trees are growing dynamic structures. Whilst reasonable effort has been made to identify defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever absolutely safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.

6.5 For the purposes of this survey all dimensions of trees and their associated parts are based on estimation unless otherwise stated.

6.6 Trees are living organisms whose health, condition and structure can change quickly and without warning. Therefore, the contents of this report are valid for a period of one year from the date of this survey.

APPENDIX 1

Tree Survey Schedule
(ZTL-171_Schedule 1_v1)

Client: DB Land and Planning Limited

Site: Turner Lane, Crudwell

Date of Survey: 02/09/2022

Consultant George Pickering

Tagged N/A

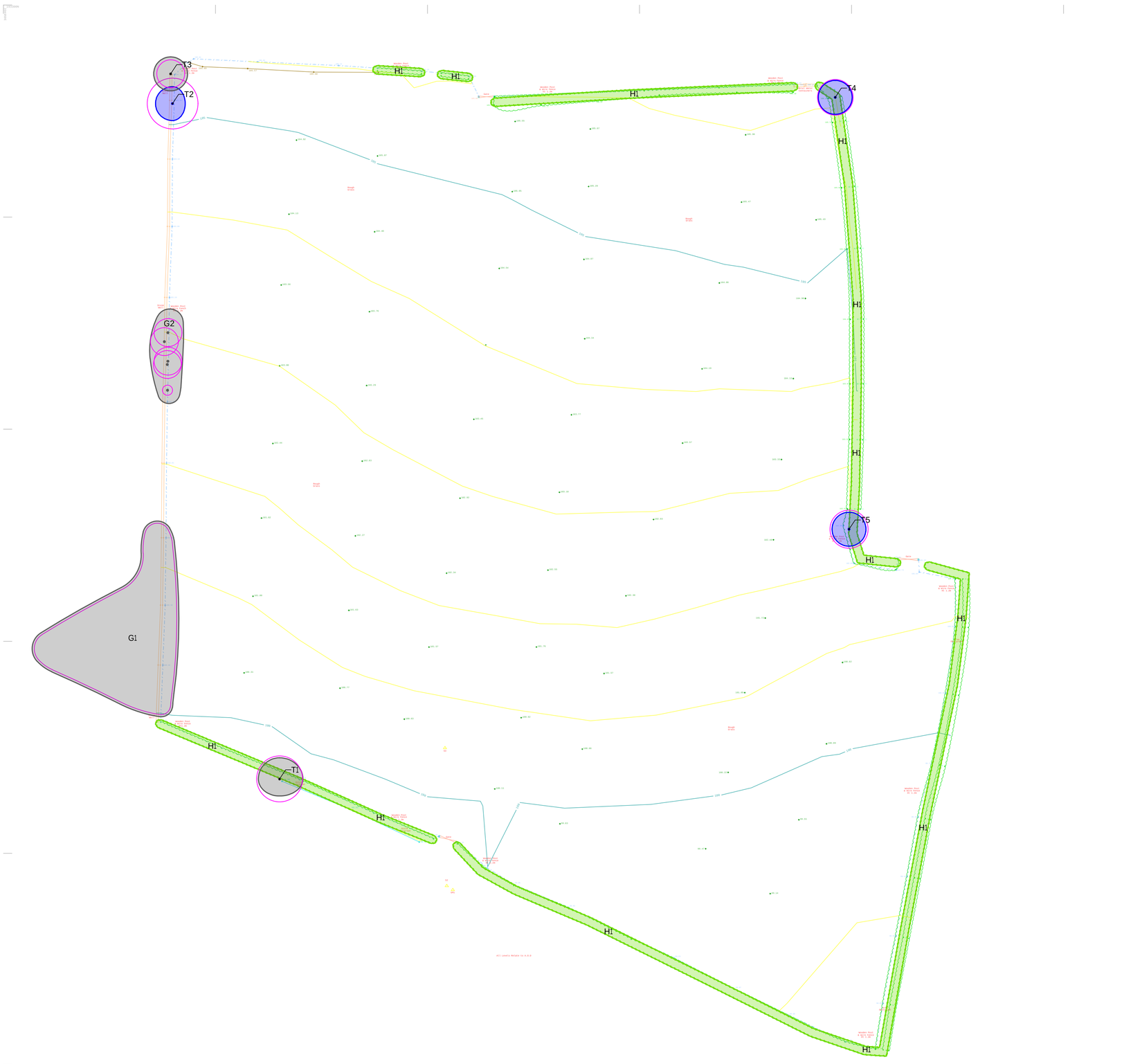
Sequential Reference No.	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Canopy Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments / Notes	Management Recommendations (Priority)	Estimated Remaining Contribution (Years)	Category Grading	Root Protection Radius (m)
				North	East	South	West									
T1	Common ash	18	450	5	5.5	4	5	2.5	Mat	Fair	Fair	Located within hedge row behind wire fence. Tree has dense vegetation around base restricting detailed assessment. Moderate ash dieback within tree with approx 75%of canopy remaining. Moderate deadwood associated with canopy. Limited future contribution.	No work required at time of assessment	10 to 20 years	C1	5.4
T2	Field maple	9	490	4	3	4	4	0.3	S/Mat	Fair	Fair	Located on edge of field boundary behind wire fence. Confirm ownership. Multi stemmed from base. Tree is likely self set. Heavily pruned on eastern side of lower canopy to site boundary. Good form and good canopy vigour. Minor deadwood associated with canopy.	No work required at time of assessment	20 to 40 years	B1	6
T3	Common hawthorn	7	280	4	4	4	4	0.3	E/Mat	Fair	Fair	Tree located on site boundary behind wire fence, confirm ownership. Dense ivy located on tree covering majority of main stem and canopy. Unable to conduct detailed assessment of tree. Site wide screening value only.	No work required at time of assessment	10 to 20 years	C	3.3
T4	Pedunculate oak	7	350	4	4	4	4	2	S/Mat	Good	Good	Located on edge of field boundary within hedge line. Confirm ownership. Tree is likely self set. Located within hedge line, unable to access base, attributes estimated. Tree is well formed and good canopy vigour. Minor deadwood associated with canopy. Good future potential.	No work required at time of assessment	20 to 40 years	B1	4.2
T5	Pedunculate oak	7	380	4	4	4	4	2	S/Mat	Good	Good	Located on edge of field boundary within hedge line. Confirm ownership. Tree is likely self set. Located within hedge line, unable to access base, attributes estimated. Tree is well formed and good canopy vigour. Minor deadwood associated with canopy. Good future potential.	Remove tree to facilitate proposed development	20 to 40 years	B1	4.5
G1	Field maple, Italian alder, Common hawthorn, Leyland cypress, Common ash, Pedunculate oak	Min 4 - Max 13	Min 50 - Max 400	See associated plans				1.3	E/Mat	Fair	Fair	Group located behind wire fence, confirm ownership. Canopies encroach on site by max 4m. Likely part of old hedge line with stone wall running along length of group. Mixed quality with one dead ash located centrally. Ash associated with group showing signs of ash dieback. Good screening potential.	No work required at time of assessment	10 to 20 years	C2	See associated plans
G2	Common hawthorn, Common ash	Ave 8	Ave 260	See associated plans				2	E/Mat	Fair	Fair	Group located on edge of site boundary. Some wall passes centrally to group. Small trees likely self set. Ash associated with group showing signs of ash dieback. Minor deadwood located throughout group. Offers good screening value.	No work required at time of assessment	10 to 20 years	C2	See associated plans
H1	Blackthorn, Common ash, Common hawthorn, Elder, Field maple, Pedunculate oak	Ave 2	Ave 90	See associated plans				0.3	S/Mat	Good	Good	Field boundary hedge line. Regularly maintained at approx 2m. Very dense with few gaps.	Partial removal to facilitate proposed development	10 to 20 years	-	See associated plans

APPENDIX 2

Tree Constraints Plan
(ZTL_171-TCP-101-A)

Arboricultural Impact Plan
(ZTL_171-AIP-201-A)

Tree Protection Plan
(ZTL_171-TPP-301-A)



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DB Land and Planning Limited

ZTL 171
Turner Lane
Crudwell

ZTL 101
Tree Constraints Plan

date September 2022
status Planning

rev A

KEY.

Trees / Groups

Canopy Spread
Tree Stem
Root Protection Area

A Category Tree
(High quality / retention value)

B Category Tree
(Moderate quality / retention value)

C Category Tree
(Low quality / retention value)

U Category Tree
(No remaining retention value)

N

scale 1 : 500 @ A1

0 10 20 35 m

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DB Land and Planning Limited

ZTL 171
Turner Lane
Crudwell

ZTL 201
Arboricultural Impact Plan

date July 2023
status Planning

rev A

-	revision description	00/00/22

KEY.

Trees / Groups

Canopy Spread
Tree Stem
Root Protection Area

A Category Tree
(High quality / retention value)

B Category Tree
(Moderate quality / retention value)

C Category Tree
(Low quality / retention value)

U Category Tree
(No remaining retention value)

Arboricultural Impact

Tree to be REMOVED

Hedge to be PART REMOVED

N

scale 1 : 500 @ A1

0 10 20 35 m

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Tree Protection Fencing

The principal protection for the retained trees (above and below ground) and associated soils within the Site is through the erection of Tree Protection Fencing (TPF) to create a Construction Exclusion Zone (CEZ).

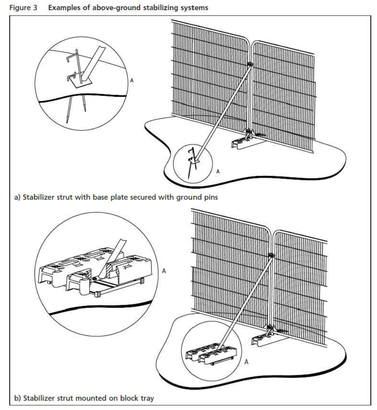
Prior to any on-site demolition or construction, tree protective measures and the CEZ must be in place. TPF Specification is show in Figure 3 (BS5837:2012) - pictured above.

The following points are critical to the function of the CEZ:

- The protective tree fencing shall be maintained throughout the development phase
- No materials, machinery, temporary structures, chemicals or fuel shall be stored within the CEZ
- No excavations or increases in soil level within the CEZ are permitted without prior written approval from the LPA
- Care should be taken to ensure that wide or tall loads or plant with booms, jibs and counterweights do not come into contact with retained trees. Any transit or traverse of plant in close proximity to trees should be conducted under the supervision of a banks person to ensure that adequate clearance from trees is maintained at all times
- Material which will contaminate the soil such as concrete mixing, diesel oil and vehicle washing must not be discharged within 10m of the tree stems. In the event of an accident or spillage the PA must be notified
- Fires must not be lit in a position where their flames can extend to within 5m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction
- Any landscaping within the CEZ must avoid soil disturbance. Therefore, re-grading and rotavators are not permitted. Any agreed soil re-profiling to facilitate final agreed levels must be carried out by hand with topsoil.

Tree Protection Fencing - BS5837:2012 Figure 3

Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

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DB Land and Planning Limited

ZTL 171

Turner Lane
Crudwell

ZTL 301

Tree Protection Plan

date July 2023

status Planning

rev A

-	revision description	00/00/22

KEY.

Trees / Groups

Canopy Spread
Tree Stem
Root Protection Area

A Category Tree
(High quality / retention value)

B Category Tree
(Moderate quality / retention value)

C Category Tree
(Low quality / retention value)

U Category Tree
(No remaining retention value)

Tree Protection

Tree Protection Fencing

N

scale 1 : 500 @ A1

0 10 20 35 m

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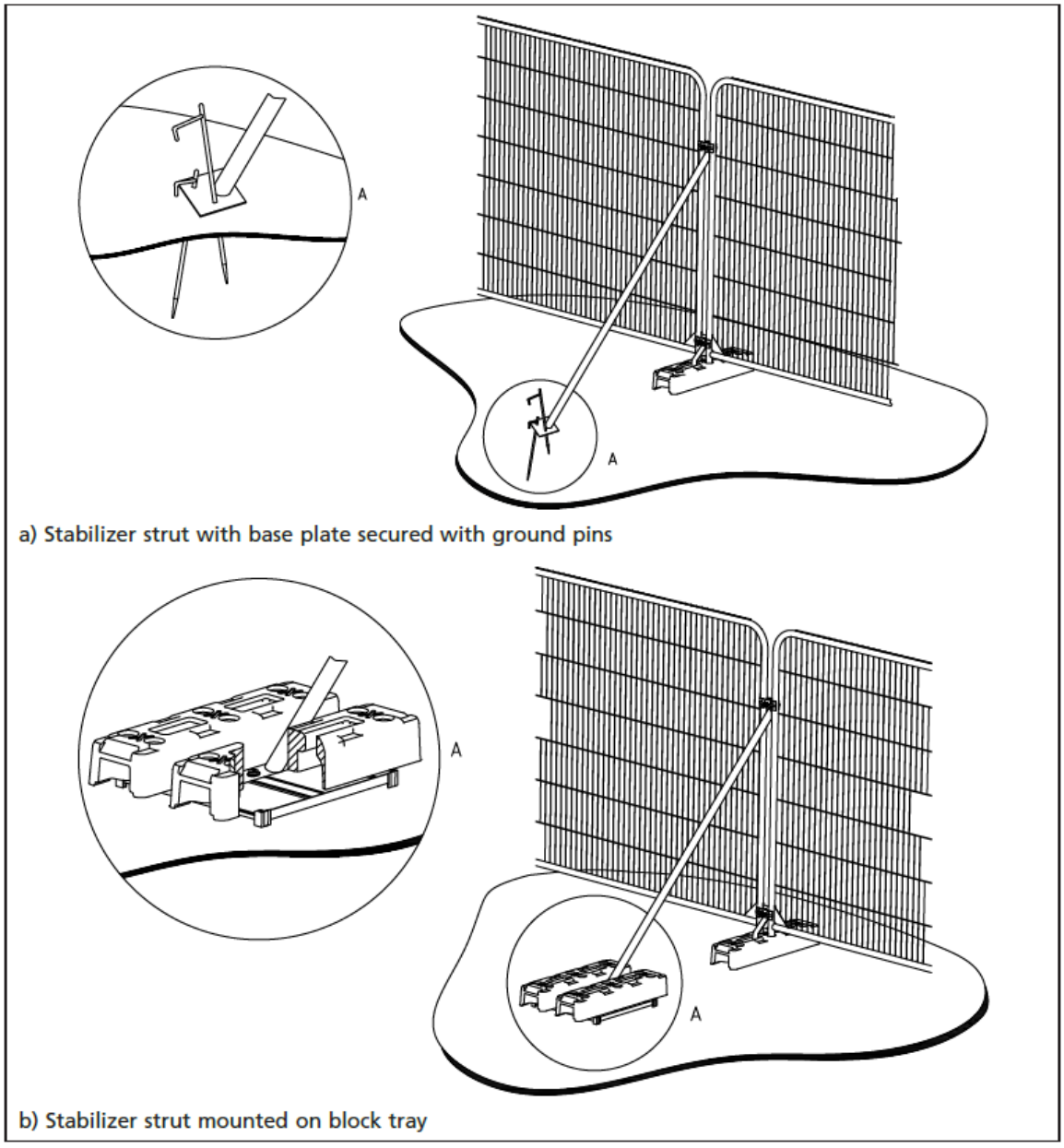
APPENDIX 3

Tree Protection Specification

Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray