



ARBORICULTURAL IMPACT ASSESSMENT

SITE LOCATION

The Old Rectory,
Market Bosworth

ISSUE DATE

5th July 2023

SEED REF

1535-AIA-V1-B

CLIENT

Witherslack Group

ARBORICULTURAL CONSULTANCY

SEED-ARB.CO.UK

DOCUMENT CONTROL

Date	Author	Checked	Revision
04.07.2023	George Pickering BSc (Hons). TechArborA	SH	Rev A
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Any alteration to the application site or development proposals could change the current circumstances and may invalidate this report and any recommendations made.

The tree survey was a preliminary assessment from ground level and observations were made solely from visual inspection for the purposes of an assessment relevant to planning and development. This report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a tree risk assessment.

This is not an ecological report. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitat Regulations 2017 make it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Where the presence of birds or bats is suspected, a qualified ecologist or Natural England should be contacted for advice.



Contents

1. Introduction	3
2. Planning Policy and Legislation	5
3. Baseline Tree Survey	7
4. Impact Assessment	8
5. Tree Protection	13
6. References.....	15

Appendices

Appendix 1	Site Boundary
Appendix 2	Tree Schedule
Appendix 3	Plans
Appendix 4	Tree Protection Fencing
Appendix 5	Temporary Ground Protection
Appendix 6	Greenfix Geoweb Installation Guide

Plans

Tree Constraints Plan

Arboricultural Impact Plan

Tree Protection Plan

1. Introduction

Background & Instruction

- 1.1.1. This report has been prepared by George Pickering BSc (Hons). TechArborA, Arboricultural Assistant at SEED Arboriculture Ltd. George is a Technician Member of the Arboricultural Association (AA) and is therefore required to uphold the professional and ethical standards within the AA Codes of Conduct. George holds the LANTRA certificate in Professional Tree Inspection.
- 1.1.2. This Arboricultural Impact Assessment (AIA) has been prepared by SEED Arboriculture Ltd on behalf of Witherslack Group in support of a Planning Application for the erection of two new classroom building, a MUGA with associated works and parking at The Old Rectory, Market Bosworth (hereafter referred to as the 'site').
- 1.1.3. The planning application is to be submitted to Hinckley and Bosworth Borough Council (HBBC)

Purpose

- 1.1.4. 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'.
- 1.1.5. This AIA report:
 - Provides the baseline survey data of existing trees, including a Tree Schedule and Tree Constraints Plan (TCP).
 - Evaluates the direct and indirect impacts of the Proposed Development upon the existing trees.
 - Where necessary, provides details of mitigation and tree protection, including a Draft Tree Protection Plan

Site Description

- 1.1.6. The site is centred at UK National Grid Reference (SK 40759 02953) and comprises an existing building with trees located throughout the site. The site is bordered by fields to the south and residential dwellings to all other sides.
- 1.1.7. The application boundary is illustrated on the Site Location Plan (**Appendix 1**)

Reference Documents

1.1.8. **Table 1** provides a summary of documents which provide the basis for this tree survey and AIA.

Table 1 - Reference Documents

Document	Reference Number	Prepared By	Date
Topographical Survey	PMS23032	PMS Surveys Ltd.	March 2023
Proposed Site Plan	-	Witherslack Group	June 2023

2. Planning Policy and Legislation

National Planning Policy Framework (NPPF)

2.1.1. 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:

2.1.2. **Paragraph 131**

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.

2.1.3. **Paragraph 174 (b & d)**

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

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;

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

2.1.4. **Paragraph 180**

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

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;

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;

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.

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.

Statutory Tree Protection & Designations

- 2.1.5. A search using the interactive map provided by HBBC has shown that one TPO is present on site covering a number of trees – 83/0005/TPORD
- 2.1.6. The site is located within the Market Bosworth Conservation Area.
- 2.1.7. No Ancient Woodland¹ designations are present upon or adjacent to the Site.

Felling Licence

- 2.1.8. Tree felling is 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)”
- 2.1.9. 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.

¹ Ancient woods are areas of woodland that have persisted since 1600 in England and Wales, and 1750 in Scotland. The Magic Maps website (<https://magic.defra.gov.uk/MagicMap.aspx>) has been used to search for ancient woodland on or adjacent to a site.

3. Baseline Tree Survey

- 3.1.1. The tree survey was undertaken in on 16th March 2023, by Sam Hobson *MICFor, BSc (Hons), MArborA*, Director at Seed Arboriculture Ltd.
- 3.1.2. The tree survey was undertaken in accordance with the methodology outlined within BS5837:2012.
- 3.1.3. The locations of the trees surveyed are illustrated on the Tree Constraints Plan (TCP) (**Appendix 3**) together with details of the constraints to new development in accordance with BS5837, including:
- Tree Retention Category
 - Root Protection Areas (RPAs)
 - Tree Canopy Spreads
- 3.1.4. Details for each of the trees surveyed are provided in the Tree Schedule (**Appendix 2**), including; reference numbers, species, tree dimensions, life stage, physiological and structural condition, and retention category.

Tree Survey Summary

Trees

- 3.1.5. The survey recorded 43no. individual trees, comprising of 4no. category A, 13no. category B, 20no. category C and 6no. category U retention value.

Groups

- 3.1.6. The survey recorded 9no. group of trees consisting of 1no. category A, 1no. category B and 7no. category C retention value.

4. Impact Assessment

4.1.1. The impact of the proposed development upon existing trees is illustrated on the Arboricultural Impact Plans (**Appendix 3**).

Tree Removal

Table 2 – Tree Removal for Proposed Development

Tree Removal for Proposed Development			
Reference Number	BS5837:2012 Category	Reason	Notes
T1 (Scot pine)	U	Fell for safety reasons	-
T10 (Sycamore)	C	Conflict with proposed layout	-
T14 (English holly)	C	Conflict with proposed layout	-
T19 (Horse chestnut)	U	Fell for safety reasons	-
T23 (Scots pine)	C	Conflict with proposed layout	-
T25 (Yew)	C	Conflict with proposed layout	-
T26 (Horse chestnut)	U	Fell for safety reasons	-
T28 (Common ash)	C	Conflict with proposed layout	-

T29 (Common ash)	C	Conflict with proposed layout	-
T30 (Common ash)	C	Conflict with proposed layout	-
T31 (Common ash)	C	Conflict with proposed layout	-
T32 (Common apple)	C	Conflict with proposed layout	-
T34 (Wild cherry)	C	Conflict with proposed layout	-
T35 (Wild cherry)	U	Conflict with proposed layout	Remove tree regardless of proposals
T36 (Wild cherry)	C	Conflict with proposed layout	-
T37 (Wild cherry)	C	Conflict with proposed layout	-
T38 (Common ash)	C	Conflict with proposed layout	-
T39 (Wild cherry)	C	Conflict with proposed layout	-
T40 (Common ash)	B	Conflict with proposed layout	-
G3 (Mixed)	C	Conflict with proposed layout	-
G5 (English holly)	C	Conflict with proposed layout	-

G7 (Yew)	C	Conflict with proposed layout	-
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- 4.1.2. 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

- 4.1.3. New planting to mitigate for the tree loss will be outlined within a detailed landscaping scheme.

Root Protection Areas (RPAs)

- 4.1.4. 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.
- 4.1.5. The RPA is an area in which no ground works should be undertaken without due care in relation to the retained tree(s), 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.
- 4.1.6. The RPA for the trees has been calculated as prescribed by BS5837:2012 and are shown in relation to the Proposed Development on the Arboricultural Impact Plan at **Appendix 3**.

New RPA Incursions

- 4.1.7. The Proposed Development will result new RPA incursion as detailed below:

Proposed Buildings and MUGA

- T24 (Horse chestnut):** New incursion of 73m² out of a total RPA of 452m² = New RPA incursion of 16% for proposed new classroom.
 Mitigation – Foundation design to be minimal dig, pile and above ground beam or similar. Temporary ground protection to be used during construction phase (see appendix 3).
- T27(a) (Horse chestnut):** New incursion of 3.7m² out of a total RPA of 547m² = New RPA incursion of <1% for proposed temporary building.
 Mitigation – Negligible incursion. Temporary ground protection to be used during construction phase (see appendix 3).
- T27(b) (Horse chestnut):** New incursion of 101.1m² out of a total RPA of 547m² = New RPA incursion of 16% for proposed new classroom.
 Mitigation – Foundation design to be minimal dig, pile and above ground beam or similar. Temporary ground protection to be used during construction phase (see appendix 3).
- T41 (Cedar of Lebanon):** New incursion of 48.9m² out of a total RPA of 652m² = New RPA incursion of 16% for proposed new MUGA.

Mitigation – MUGA to be of no-dig construction. Temporary ground protection to be used during construction phase (see appendix 3).

- 4.1.8. Further minor landscaping works are proposed within the RPAs of retained trees as detailed below.

Proposed Landscaping

- **T3 (Horse chestnut):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T4 (Sycamore):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T5 (Horse chestnut):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T6 (Common lime):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T7 (Sycamore):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T8 (Sycamore):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T9 (Common beech):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T11 (Sycamore):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T12 (Scots pine):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T13 (English holly):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T15 (Sycamore):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T16 (Horse chestnut):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T17 (Horse chestnut):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T18 (European larch):** Proposed parking with permeable surface
Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.
- **T21 (Scots pine):** Proposed parking with permeable surface

Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.

- **T24 (Horse chestnut):** Proposed parking with permeable surface

Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed parking.

- **T41 (Cedar of Lebanon):** Proposed play area and path with permeable surface

Mitigation – No-dig construction using Tree Root Protection (Cellular) for proposed play area and path.

Tree Canopies & Shade

- 4.1.9. The distribution of tree canopy cover on and within influencing distance of the site is illustrated on the TCP (**Appendix 3**). The Tree Schedule lists the vertical clearance from site ground level to significant tree branching of individual trees. This measurement informs the impacts of accessibility and development beneath tree canopies.
- 4.1.10. If considered appropriate the principal tree shadow constraints can be shown on the TCP and are plotted in accordance with BS5837 using the current height of surveyed trees.
- 4.1.11. Where shading is unavoidable, the potential adverse impact of shadowing should also be reviewed on balance with the positive aspects of retaining a degree of canopy shade. BS5837:2012 (para. 5.3.4, a) NOTE 1) states that “shading can be desirable to reduce glare or excessive solar heating, or to provide comfort during hot weather. The combination of shading, wind speed/turbulence reduction and evapotranspiration effects of trees can be utilised in conjunction with the design of buildings and spaces to provide local microclimatic benefits”.
- 4.1.12. The impact of shade upon the Proposed Development is not considered to be significant or negative.

Future growth

- 4.1.13. Due to the location of retained trees, future growth of trees is not considered to be an issue to the Proposed Development.
- 4.1.14. Minor pruning of lateral branches will address any issues where the canopy of trees encroaches towards the proposed buildings.

5. Tree Protection

Tree Protection Fencing

- 5.1.1. 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.
- 5.1.2. The location of Tree Protection Fencing (TPF) is illustrated on the Tree Protection Plans at **Appendix 3**.
- 5.1.3. There will be a requirement to move the position of the TPF between work stages as defined on the TPP.
- 5.1.4. 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.
- 5.1.5. 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.
- 5.1.6. The most common specification as illustrated in BS5836:2012 Figure 3b (**Appendix 4**) 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.
- 5.1.7. Weatherproof signage will be attached to the fencing with words such as 'Construction Exclusion Zone – No Access'.
- 5.1.8. 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.
- 5.1.9. At the end of the project the TPF will be removed only after confirmation by the PA and the Council that this is appropriate.

Removal / Replacement of hard surfacing

- 5.1.10. The removal of existing surfacing within the RPAs of retained trees should be carried out with arboricultural supervision initially.
- 5.1.11. Tree Protection Fencing should be in the locations indicated for this work stage on the Tree Protection Plan.
- 5.1.12. The removal of existing surfacing should be carried out beginning closest to the trees and working backwards, away from the trees so no machinery stands on the exposed ground. The use of large plant machinery should be avoided where possible.

- 5.1.13. Tree Protection Fencing of the default specification should be in place during the removal of the existing surfacing and moved accordingly to protect the exposed ground as the removal progresses.
- 5.1.14. Where new surfacing is to be laid, the existing sub-base should be retained and augmented as required.

Temporary Ground Protection

- 5.1.15. To reduce the likelihood of ground compaction through development there will be a requirement to install temporary ground protection in the locations illustrated on the Tree Protection Plan at Appendix 3.
- 5.1.16. BS5837:2012 - Paragraph 6.2.3.3 recommends that new temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.
- 5.1.17. The ground protection might comprise one of the following:
- a) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;
- 5.1.18. For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.
- 5.1.19. Following the construction of the proposed extension the temporary ground protection will be removed to allow for the installation of the cellular tree root protection and the landscaping scheme.

Tree Root Protection (Cellular)

- 5.1.20. To facilitate the installation of new permeable hard surfacing for parking and play area/path within the RPA of several retained trees, a cellular confinement tree root protection system will be used. The location of this Tree Root Protection is shown on the Tree Protection Plan at **Appendix 3**.
- 5.1.21. For the purposes of this AMS, Greenfix Geoweb has been recommended. Should a comparable alternative system be used, an updated installation method statement should be submitted to the LPA and approved in writing before the installation commences.
- 5.1.22. For this application, the depth of system to be used is:
- 75mm – Suitable for pedestrian and cycles (up to 1t gross weight). -The top surface for all areas will be a permeable paved surface (for play area and path).
 - 100mm – Suitable for light vehicle traffic (up to 6t gross weight). -The top surface for all areas will be a permeable paved surface (for parking area).
- 5.1.23. The manufacturers recommended method statement for installation of the system can be found at **Appendix 6**.
- 5.1.24. The appointed Project Arboriculturist will be on site at regular intervals and at key stages throughout the installation of the Tree Root Protection system.

6. References

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

Appendix 1 – Site Location Plan



Appendix 2 – Tree Schedule

BS5837:2012 TREE SCHEDULE

DATE
18/04/2023

CLIENT
Witherslack Group

SITE
The Old Rectory, Market Bosworth

REFERENCE
1535-TS-001-A

Tree No.	Common Name	Botanical Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
T1	Scots pine	<i>Pinus sylvestris</i>	18	400	4	4	1	1	9	Dead	Dead	Poor	Standing dead tree on edge of group.	Fell for safety reasons.	U	72	4.80
T2	Wych elm	<i>Ulmus glabra</i>	12	524	7	4	1	5	5	E/Mat	Fair	Fair	Heavily leaning multistemmed tree on edge of tree group.	No works required at time of survey	C1, 2	125	6.30
T3	Horse chestnut	<i>Aesculus hippocastanum</i>	18	880	7	7	5	5	9	Mat	Fair	Fair	Large mature tree on edge of group.	No works required at time of survey	B1, 2	346	10.50
T4	Sycamore	<i>Acer pseudoplatanus</i>	18	700	6	6	6	6	8	Mat	Good	Good	-	No works required at time of survey	B1, 2	222	8.40
T5	Horse chestnut	<i>Aesculus hippocastanum</i>	17	500	1	2	7	5	6	E/Mat	Good	Fair	Drawn up tree towards edge of group.	No works required at time of survey	C1, 2	113	6.00
T6	Common lime	<i>Tilia x europaea</i>	16	402	4	2	5	6	5	E/Mat	Good	Fair	Twin stemmed tree with partial lean west adjacent to neighbouring access track.	No works required at time of survey	B1, 2	72	4.80
T7	Sycamore	<i>Acer pseudoplatanus</i>	19	822	7	7	5	5	7	Mat	Good	Fair	Large mature tree, multi-stemmed from 1m. Well formed radial canopy.	No works required at time of survey	B1, 2	308	9.90
T8	Sycamore	<i>Acer pseudoplatanus</i>	18	430	3	6	5	6	8	E/Mat	Good	Good	Tree stands to southern end of group. Well formed radial canopy.	No works required at time of survey	B1, 2	82	5.10
T9	Common beech	<i>Fagus sylvatica</i>	15	530	3	6	4	6	3	E/Mat	Good	Fair	-	No works required at time of survey	B2	125	6.30
T10	Sycamore	<i>Acer pseudoplatanus</i>	17	350	3	6	3	2	4	E/Mat	Fair	Fair	Tree within group, stem partially obscured by ivy. Canopy suppressed to west by adjacent trees.	Remove to facilitate proposed development	C2	55	4.20
T11	Sycamore	<i>Acer pseudoplatanus</i>	17	590	7	4	7	5	6	Mat	Good	Good	Mature tree on northern site boundary.	No works required at time of survey	B1, 2	163	7.20
T12	Scots pine	<i>Pinus sylvestris</i>	18	700	5	4	5	3	7	Mat	Good	Good	Mature tree on site frontage.	No works required at time of survey	A1, 2	222	8.40
T13	English holly	<i>Ilex aquifolium</i>	9	396	2	5	4	5	2	Mat	Good	Fair	Twin stemmed three within frontage border.	No works required at time of survey	C1, 2	72	4.80
T14	English holly	<i>Ilex aquifolium</i>	10	420	2	3	3	3	1.5	Mat	Good	Fair	Individual within frontage border.	Remove to facilitate proposed development	C1, 2	82	5.10
T15	Sycamore	<i>Acer pseudoplatanus</i>	18	567	5	4	7	7	7	E/Mat	Good	Fair	-	No works required at time of survey	B1, 2	150	6.90
T16	Horse chestnut	<i>Aesculus hippocastanum</i>	17	750	6	5	5	5	7	Mat	Fair	Fair	Large tree on site boundary. Dense ivy obscuring main stem and structural limbs.	Remove ivy to all detailed assessment.	C1, 2	254	9.00
T17	Horse chestnut	<i>Aesculus hippocastanum</i>	17	1080	5	6	7	6	7	Mat	Fair	Fair	Large tree on site boundary. Dense ivy obscuring main stem and structural limbs. Large cavity on west side of main stem with internal decay visible, further inspection required to determine future management.	Remove ivy to facilitate detailed assessment.	B1, 2	523	12.90
T18	European larch	<i>Larix decidua</i>	18	460	6	5	5	5	3.5	Mat	Good	Fair	-	No works required at time of survey	B1	92	5.40
T19	Horse chestnut	<i>Aesculus hippocastanum</i>	9	450	7	3	4	7	2.5	E/Mat	Declining	Declining	Extensive bleeding canker infection with bark splitting and staining throughout.	Remove to facilitate proposed development	U	92	5.40
T20	Sycamore	<i>Acer pseudoplatanus</i>	10	150	3	3	3	2	9	S/Mat	Fair	Fair	Slender tree, cavity in upper canopy.	No works required at time of survey	C1, 2	10	1.80
T21	Scots pine	<i>Pinus sylvestris</i>	21	710	6	6	4	4	12	Mat	Good	Good	Large tree adjacent to site boundary.	No works required at time of survey	A1	222	8.40

BS5837:2012 TREE SCHEDULE

DATE

18/04/2023

CLIENT

Witherslack Group

SITE

The Old Rectory, Market Bosworth

REFERENCE

1535-TS-001-A

Tree No.	Common Name	Botanical Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
T22	English holly	<i>Ilex aquifolium</i>	15	250	3	3	2	2	3	S/Mat	Good	Fair	-	No works required at time of survey	C1, 2	28	3.00
T23	Scots pine	<i>Pinus sylvestris</i>	16	400	1	3	3	3	8	Dead	Dead	Poor	Standing dead tree	Remove to facilitate proposed development	U	72	4.80
T24	Horse chestnut	<i>Aesculus hippocastanum</i>	19	1000	8	7	2	7	4	Mat	Fair	Fair	Large horse chestnut on site boundary. Suppressed canopy to south from tree which has previously failed tree.	No works required at time of survey	B1, 2	452	12.00
T25	Yew	<i>Taxus baccata</i>	6	200	5	4	4	5	0.5	S/Mat	Good	Fair	-	Remove to facilitate proposed development	C1, 2	18	2.40
T26	Horse chestnut	<i>Aesculus hippocastanum</i>	8	900	1	1	1	5	3.5	Mat	Poor	Poor	Mature tree adjacent to boundary. Previously failed at 7m. One remaining live limb to west. Very limited remaining value.	Remove to facilitate proposed development	U	366	10.80
T27	Horse chestnut	<i>Aesculus hippocastanum</i>	20	1100	4	7	7	8	3	Mat	Fair	Fair	Large mature tree on site boundary. Twin stemmed from 1.5m. Dense ivy partially obscuring main stem. Evidence of bleeding canker throughout, longitudinal bark splits associated with structural limb to east overhanging garden. Tree may benefit from canopy reduction to improve form preventing limb failures.	No works required at time of survey	B1, 2	547	13.20
T28	Common ash	<i>Fraxinus excelsior</i>	20	640	10	3	9	8	8	Mat	Declining	Declining	Large tree adjacent to building. Inonotus hispidus bracket at 2m. Tight forked union with crossing / rubbing branches. Canopy overhangs building to north. Onset of ash dieback visible within canopy.	Remove to facilitate proposed development	U	191	7.80
T29	Common ash	<i>Fraxinus excelsior</i>	20	600	9	6	7	6	12	Mat	Fair	Fair	Large ash on edge of boundary group. Stem bifurcates at 4m. Ivy obscuring stem. Sparse canopy with indications of ash dieback.	Remove to facilitate proposed development	C1, 2	163	7.20
T30	Common ash	<i>Fraxinus excelsior</i>	18	600	2	4	7	7	5	Mat	Fair	Fair	Large ash on edge of boundary group. Ivy obscuring stem. Sparse canopy with indications of ash dieback.	Remove to facilitate proposed development	C1, 2	163	7.20
T31	Common ash	<i>Fraxinus excelsior</i>	18	463	3	4	4	5	5	Mat	Fair	Fair	Stands on lawn area. Bifurcates at 1m. Sparse canopy with indications of ash dieback.	Remove to facilitate proposed development	C1, 2	102	5.70
T32	Common apple	<i>Malus domestica</i>	4	150	3	2	3	2	3	E/Mat	Good	Fair	Small ornamental tree.	Remove to facilitate proposed development	C1	10	1.80
T33	Norway spruce	<i>Picea abies</i>	14	290	4	3	3	3	2	E/Mat	Good	Fair	-	No works required at time of survey	C1	41	3.60
T34	Wild cherry	<i>Prunus avium</i>	15	460	7	6	4	4	1	Mat	Good	Fair	-	Remove to facilitate proposed development	C1, 2	92	5.40
T35	Wild cherry	<i>Prunus avium</i>	15	430	5	4	1	5	7	Mat	Fair	Poor	Large cavity associated with base and lower stem.	Remove to facilitate proposed development	U	82	5.10
T36	Wild cherry	<i>Prunus avium</i>	15	361	5	3	2	3	7	Mat	Fair	Fair	-	Remove to facilitate proposed development	C1, 2	55	4.20

BS5837:2012 TREE SCHEDULE

DATE

18/04/2023

CLIENT

Witherslack Group

SITE

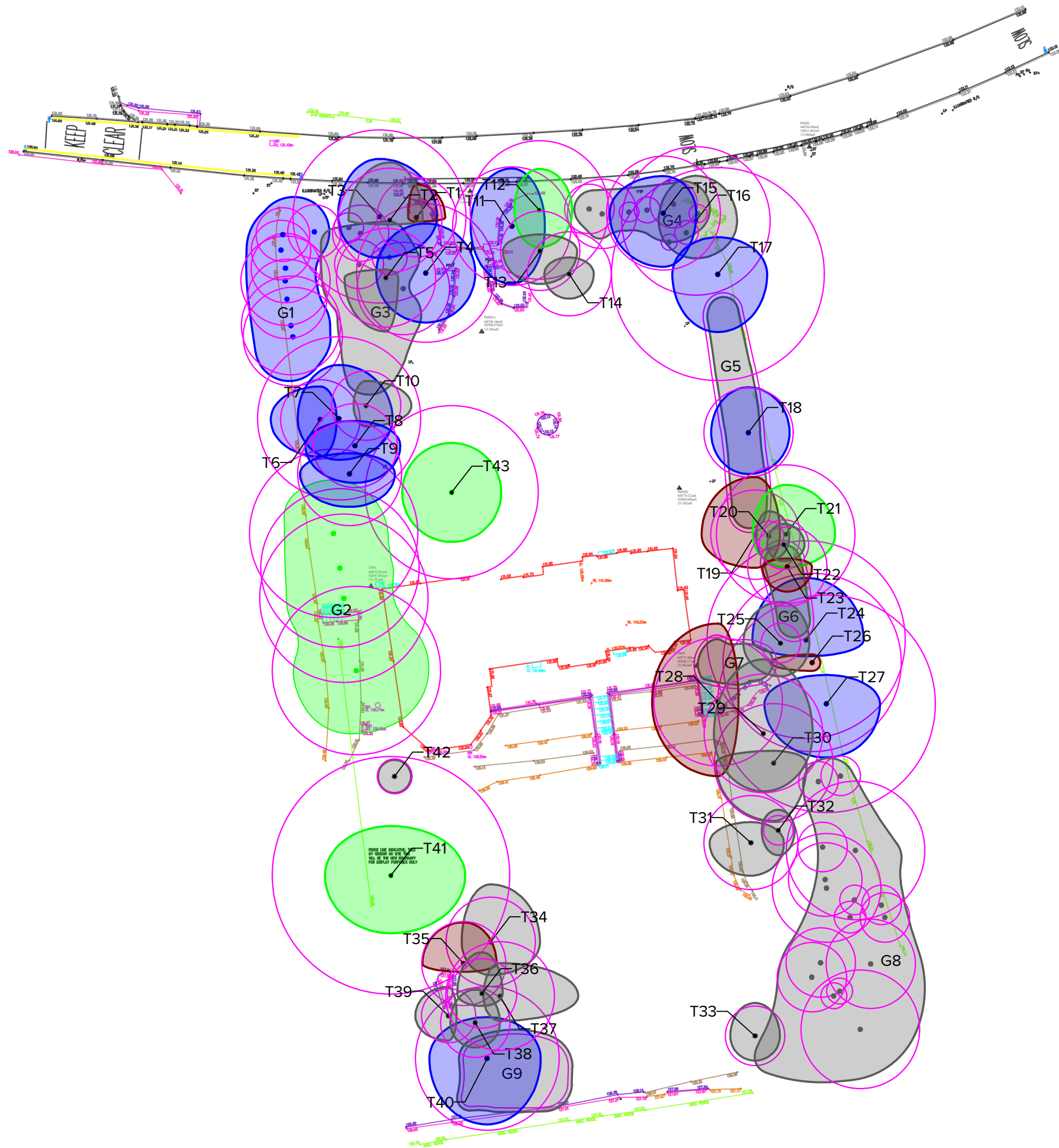
The Old Rectory, Market Bosworth

REFERENCE

1535-TS-001-A

Tree No.	Common Name	Botanical Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W									
T37	Wild cherry	<i>Prunus avium</i>	15	560	4	10	3	2	7	Mat	Fair	Fair	Narrow included union at 2m. Canopy biased east.	Remove to facilitate proposed development	C1, 2	137	6.60
T38	Common ash	<i>Fraxinus excelsior</i>	16	340	4	3	3	3	8	Mat	Declining	Fair	Slender drawn up specimen. Evidence of ash dieback within canopy.	Remove to facilitate proposed development	C1, 2	55	4.20
T39	Wild cherry	<i>Prunus avium</i>	11	274	4	1	3	4	4	E/Mat	Fair	Fair	-	Remove to facilitate proposed development	C1, 2	34	3.30
T40	Common ash	<i>Fraxinus excelsior</i>	20	730	5	7	8	7	7	Mat	Fair	Fair	Large individual. Minor dieback visible within canopy, generally good with some indications of early ash dieback.	Remove to facilitate proposed development	B1	238	8.70
T41	Cedar of Lebanon	<i>Cedrus libani</i>	25	1200	6	9	7	8	0	Mat	Good	Fair	Large individual with two significant lower limbs to east. Second lower limb has limited remaining canopy due to previous failure. Small cavity to south of base.	No works required at time of survey	A1	651	14.40
T42	English holly	<i>Ilex aquifolium</i>	5	180	2	2	2	2	1	E/Mat	Fair	Fair	-	No works required at time of survey	C1	14	2.10
T43	Yew	<i>Taxus baccata</i>	8	866	6	6	6	6	2	Mat	Good	Good	-	No works required at time of survey	A1	346	10.50
G1	Common lime		Ave 19	Ave 500	See associated plans				4	Mat	Good	Fair	Line of lime trees. Lapsed coppice growth. Provides good contribution to area.	No works required at time of survey	B2	See associated plans	
G2	Common lime		Ave 20	Ave 850	See associated plans				5	Mat	Fair	Fair	Row of four pollarded lime trees on site boundary. Moderate decay around some pollard unions. Trees will require repollarding or reduction to manage.	No works required at time of survey	A1, 2	See associated plans	
G3	Sycamore, English holly, Cherry laurel, Yew		Min 2 - Max 9	Min 60 - Max 250	See associated plans				0.5	S/Mat	Fair	Fair	Dense scrub and small trees within understorey of group.	Remove to facilitate proposed development	C2	See associated plans	
G4	Sycamore, English holly		Ave 11	Min 60 - Max 37-	See associated plans				1.5	E/Mat	Fair	Fair	Group of holly trees within overgrown area adjacent to northern boundary. Dense ivy throughout many, provides screening to boundary.	No works required at time of survey	C2	See associated plans	
G5	English holly		Ave 4	Ave 80	See associated plans				0.5	S/Mat	Fair	Fair	Linear group recently cut to 4m, hedge like screen on boundary.	Remove to facilitate proposed development	C2	See associated plans	
G6	English holly		Ave 9	Ave 150	See associated plans				1	E/Mat	Fair	Fair	Group of small scrubby trees along boundary.	No works required at time of survey	C2	See associated plans	
G7	Yew		Ave 7	Min 150 - Max 300	See associated plans				1.5	E/Mat	Good	Fair	-	Remove to facilitate proposed development	C2	See associated plans	
G8	Sycamore, Common ash, Myrobalan Plum, Yew		Min 5 - Max 17	Ave 200	See associated plans				0.5	E/Mat	Fair	Fair	Dense group in southeast corner. Offers good boundary screening.	No works required at time of survey	C2	See associated plans	
G9	Common ash, Cherry laurel		Min 4 - Max 15	Min 140 - Max 350	See associated plans				0.5	E/Mat	Fair	Fair	Cluster of smaller regeneration ash and Laurel understorey.	No works required at time of survey	C2	See associated plans	

Appendix 3 – Plans



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)

Hedgerows
(Not assigned BS5837:2012 category)



Rev A	Issue to client	18.04.2023
Rev	Description	Date



SEED Arboriculture Ltd
Suite F6.1, Adelphi Mill, Bollington, Cheshire, SK10 5JB
www.seed-arb.co.uk

PROJECT
The Old Rectory, Market Bosworth

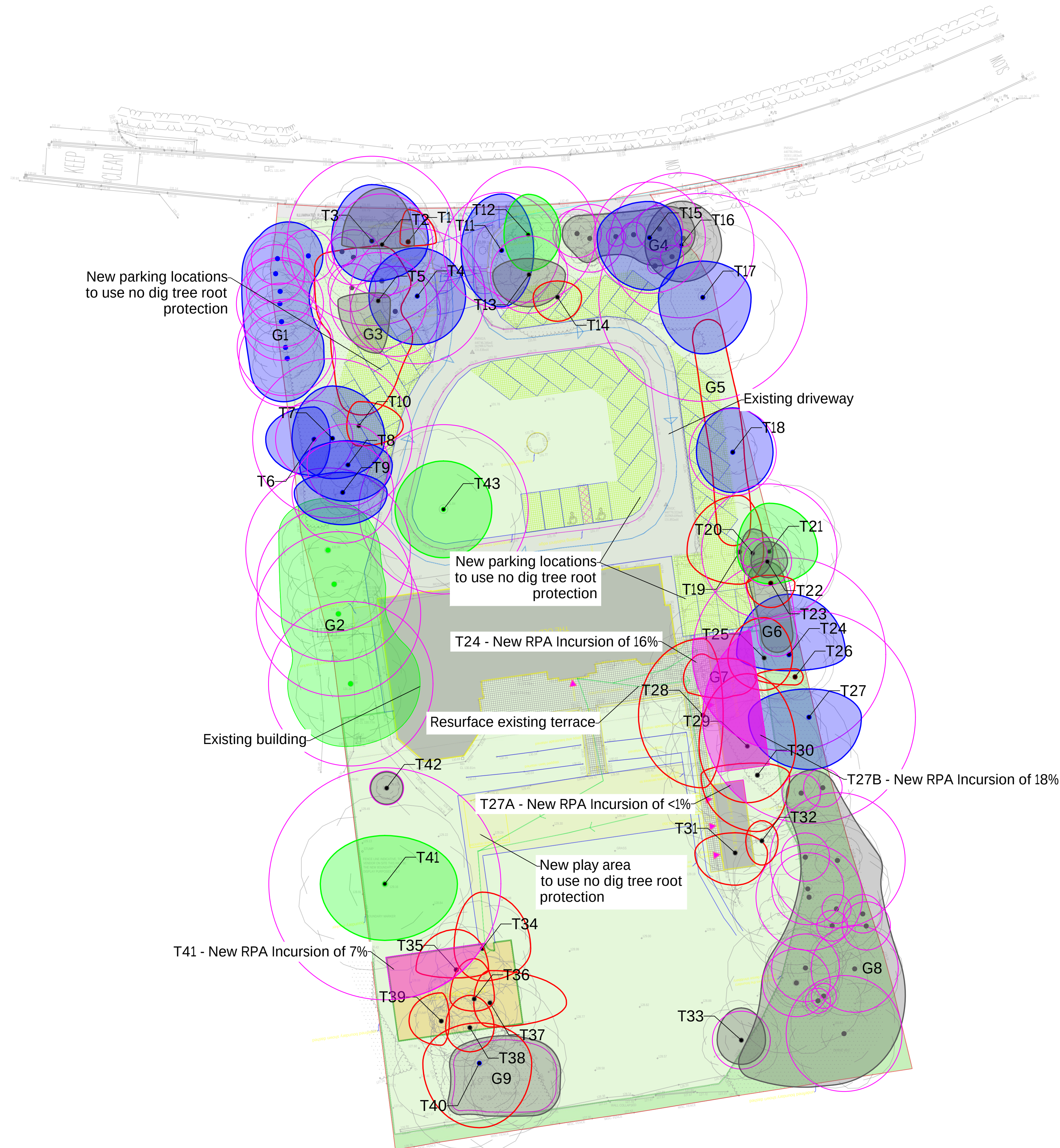
TITLE
Tree Constraints Plan

DRAWING REF
1535-TCP-001-A

SCALE
1:500 @ A3

DRAWING NO
001

REVISION
Rev A



KEY.

Trees / Groups

- Canopy Spread
- Tree Stem
- Root Protection Area

A Category Tree
(High quality / retention value)

B Category Tree
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C Category Tree
(Low quality / retention value)

U Category Tree
(No remaining retention value)

Hedgerows
(Not assigned BS5837:2012 category)

ARBORICULTURAL IMPACT

Tree / Group to be REMOVED

New RPA Incursion

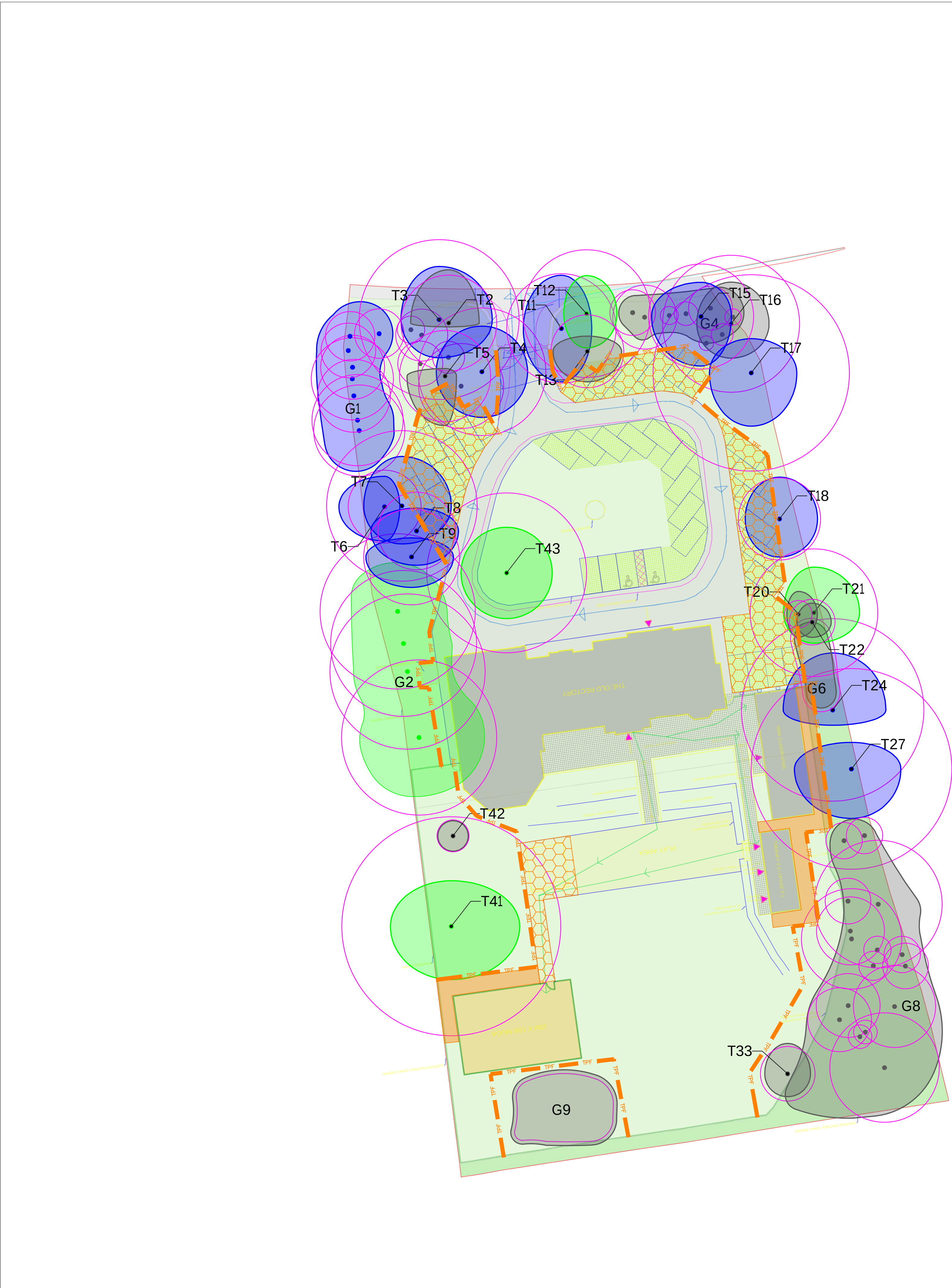


Rev A	Issue to client	27.06.2023
Rev	Description	Date

SEED

SEED Arboriculture Ltd
Suite F6.1, Adelphi Mill, Bollington, Cheshire, SK10 5JB
www.seed-arb.co.uk

PROJECT The Old Rectory, Market Bosworth	
TITLE Arboricultural Impact Plan	
DRAWING REF 1535-AIP-002-A	DRAWING NO 002
SCALE 1:300 @ A1	REVISION Rev A



EXAMPLE: GroundGuards temporary ground protection

TEMPORARY GROUND PROTECTION

During construction there will be a requirement to provide pedestrian access around the building and scaffolding. Where this access enters the RPA of any retained tree, Temporary Ground Protection will be installed as per the recommendation below.

BS5837:2012 - Paragraph 6.2.3.3 New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

NOTE The ground protection might comprise one of the following:

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;

b) for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;

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)

Hedgerows

(Not assigned BS5837:2012 category)

TREE PROTECTION

Tree Protection Fencing

Temporary Ground Protection

No dig tree root protection to be installed

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

Rev A

Rev

Issue to client

Description

27.06.2023

Date

SEED Arboriculture Ltd
Suite F6.1, Adelphi Mill, Bollington, Cheshire, SK10 5JB
www.seed-arb.co.uk

PROJECT

The Old Rectory, Market Bosworth

TITLE

Tree Protection Plan

DRAWING REF

1535-TPP-003-A

DRAWING NO

003

SCALE

1:300 @ A1

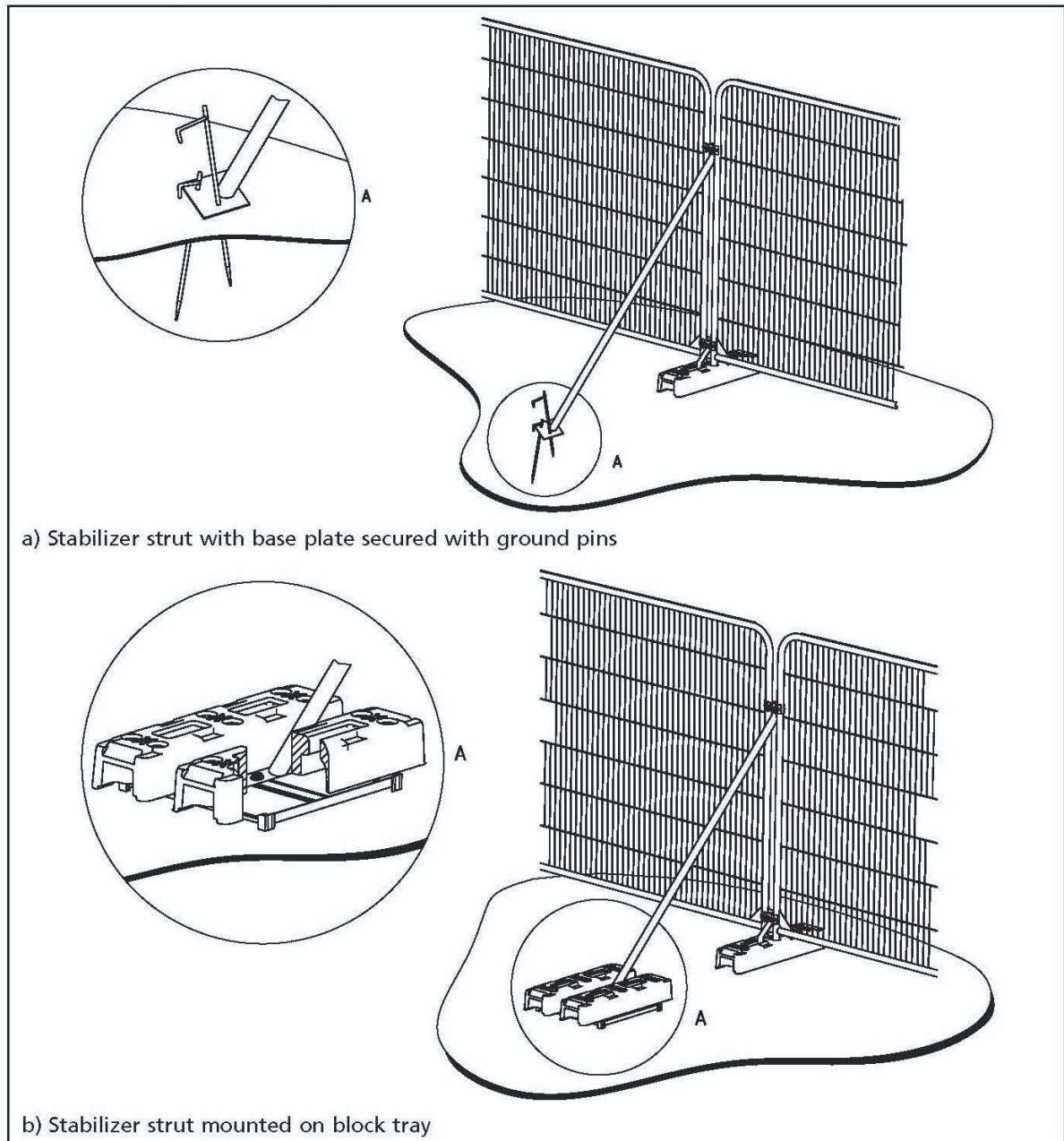
REVISION

Rev A

Appendix 4 – Tree Protection Fencing

BS5837:2012 – Figure 3

Figure 3 Examples of above-ground stabilizing systems



TREE PROTECTION AREA



NO ACCESS - TREE PROTECTION AREA

- NO MATERIALS, MACHINERY, TEMPORARY STRUCTURES OR CHEMICALS SHALL ENTER OR BE STORED WITHIN THIS AREA
- FENCING WILL NOT BE ALTERED OR MOVED WITHOUT PRIOR AGREEMENT OF THE PROJECT ARBORICULTURIST.



TREE PROTECTION FENCING

- TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
- UNAUTHORISED DAMAGE TO PROTECTED TREES IS A CRIMINAL OFFENCE AND COULD LEAD TO ENFORCEMENT ACTION.



ARBORICULTURAL CONSULTANTS

For any issues relating to this Tree Protection Fencing or other guidance with any arboricultural matters on this development, please contact **Seed Arboriculture Ltd.**

www.seed-arb.co.uk

- info@seed-arb.co.uk

- 01625 460 252

Appendix 5 – Temporary Ground Protection

Recommended specification

BS5837:2012 - Paragraph 6.2.3.3 - *For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.*

Membrane - TERRAM T1000 Geotextile

Compression later – woodchip (provided on-site by tree work contractors) 150mm depth

Ground Protection Boards – Ground-Guards MultiTrack 39kg mats

Edging – Timber or other similar.



Appendix 6 – Greenfix Geoweb Installation Guide

PRESTO



INSTALLATION GUIDE

■ **simplified**



GEOWEB® Tree Root Protection



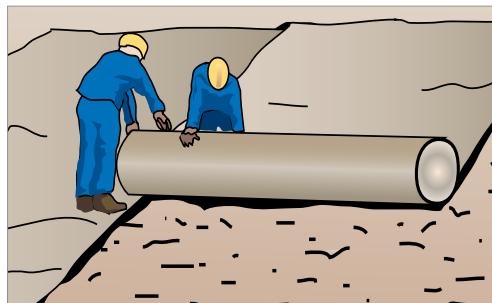


GEOWEB® Tree Root Protection

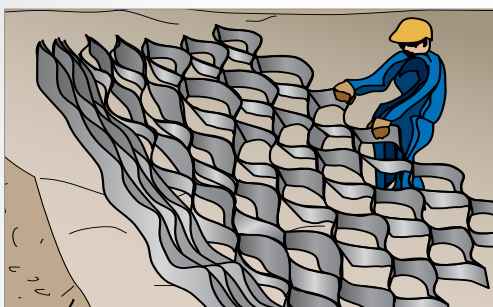
- 1 Prepare subgrade. Remove debris, rocks.



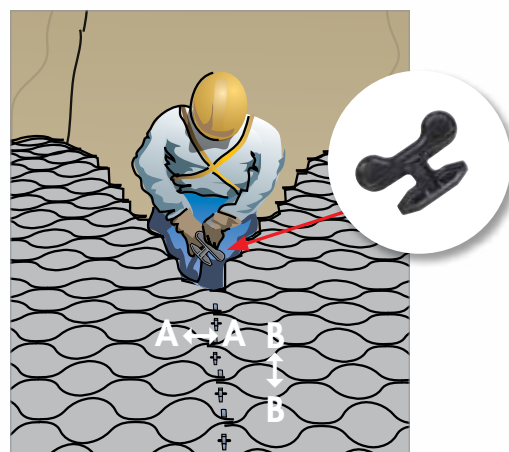
- 2 Install TRP4000 geotextile.
Overlaps by minimum 300 mm.



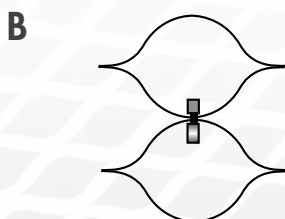
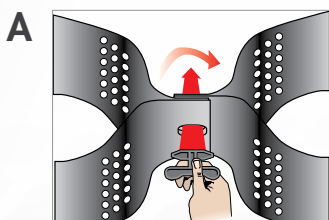
- 3 Partially expand GEOWEB® sections.



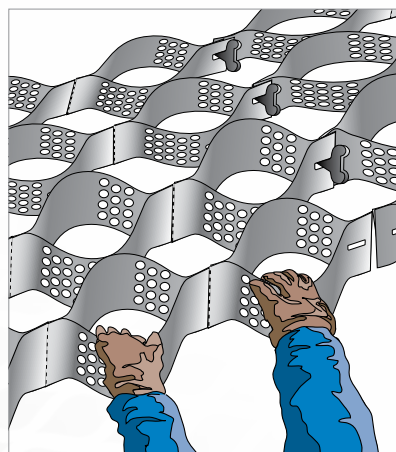
- 4 Connect GEOWEB® sections with ATRA® keys.



- 5 Connect side to side (A) and end to end (B).



- 6 Fully expand GEOWEB® sections.



IMPORTANT NOTE:

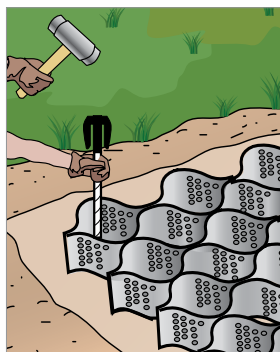
The simplified installation guide provided by Presto GEOSYSTEMS® is intended as a general guideline only. The contractor should follow contract plans and specifications and refer to detailed installation guidelines for more information.

- 7** Hold sections open. Use Options A, B, C or D.

A T-Bars



B ATRA® anchors



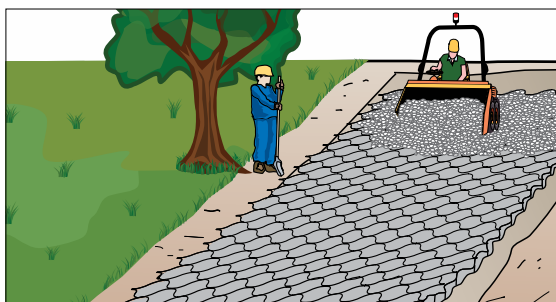
C Wood Stakes



D Infill Select Cells



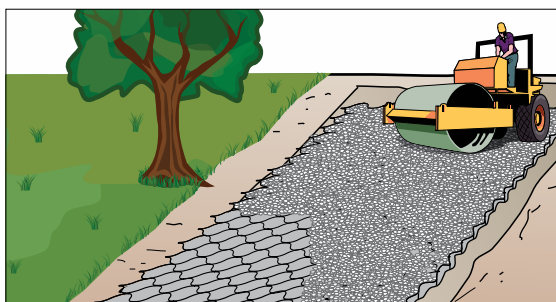
- 8** Infill GEOWEB® cells.



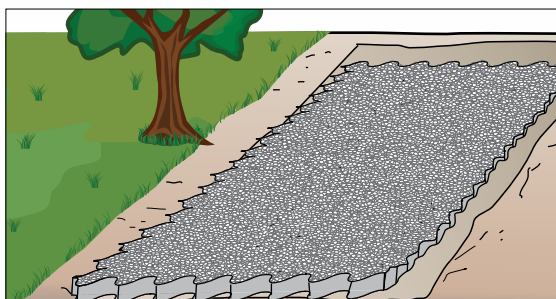
- 9** Spread Infill ensuring a 25 mm overfill at all times.



- 10** If required, use a 4t smooth, non-vibrating roller on overfilled GEOWEB® system. Refill as needed to ensure a 25 mm overfill.



- 11** Surface option ready to install according to specification.



Greenfix
Soil Stabilisation and Erosion Control Specialists

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www.greenfix.co.uk

Geoweb infill material for Tree Root Protection
Clean Angular Stone 4-20mm

Specification for open graded infill material for Geoweb cellular confinement within tree root protection applications. The no fines material is to ensure high ratio void space which corresponds with ideal soil void ratios for tree root health.

Material to BS EN1342 or BS EN12620. Crushed gravel is not permitted.

Properties of material	Test	Value
Grading of particle size	BS EN 13242	Grading 4-20mm
Fines Content	BS EN 13242	f ₄
Shape flatness index	BS EN 13242	F ₄₅₀
Resistance to fragmentation	BS EN 13242	LA ₁₀
Resistance to wear	BS EN 13242	M ₁₀ 20
Water absorption rate BS EN 1097-6:2000 clause 7	BS EN 13242	WA ₂ 2
For typical WA > 2% magnesium sulphate soundness	BS EN 13242	MS ₁₈
Acid soluble sulphate content air-cooled blast furnace slag	BS EN 13242	ASo ₁
Acid soluble sulphate content non air cooled blast furnace slag	BS EN 13242	ASo ₂
Total sulphur aggregates other than air cooled blast furnace slag	BS EN 13242	<1% by mass
Total sulphur air cooled blast furnace slag	BS EN 13242	<2% by mass

Sieve Size mm	Percentage of 4-20mm passing
40	100
31.5	98 - 100
20	90 - 99
10	25 - 70
4	0 - 15
2	0 - 5
1	-

Air cooled blast furnace and steel slag should be free from Dicalcium silicate and iron disintegration in accordance with BS EN 13242:2002, 6.4.2.2 v5
Leaching of materials for blast furnace slag and other recycled materials should meet requirements of the Environmental waste acceptance criteria for inert waste when tested in accordance with BS EN 12457-3
On poor site conditions which require compaction, this should be minimum 4 passes of a smooth wheeled roller at max weight 1000kg/m width without vibration.

For assistance on correct 4–20mm clean angular stone infill specification, please contact Greenfix technical team.

MATERIALS SUPPLIED BY **Greenfix**

GEOWEB®



TRP4000
Non-woven Geotextile



ANCHORS



ATRA® KEY



ADDITIONAL MATERIALS REQUIRED

4–20mm clean, angular stone



LIMITED WARRANTY

Presto GEOSYSTEMS® warrants each GEOWEB® section which it ships to be free from defects in materials and workmanship at the time of manufacture. Presto's exclusive liability under this warranty or otherwise will be to furnish without charge to Presto's customer at the original f.o.b. point a replacement for any section which proves to be defective under normal use and service during the 10-year period which begins on the date of shipment by Presto. Presto reserves the right to inspect any allegedly defective section in order to verify the defect and ascertain its cause.

This warranty does not cover defects attributable to causes or occurrences beyond Presto's control and unrelated to the manufacturing process, including, but not limited to, abuse, misuse, mishandling, neglect, improper storage, improper installation, improper alteration or improper application.

PRESTO MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, IN CONNECTION WITH THE GEOWEB® SYSTEM. IN NO EVENT SHALL PRESTO BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OR FOR ANY OTHER REASON, INCLUDING NEGLIGENCE, IN CONNECTION WITH THE GEOWEB® SYSTEM.

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EU HEAD OFFICE/ENGINEERING SUPPORT:



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