Arboricultural Method Statement
Capitol Park, Barnsley

Client	**Marshall Construction (West Yorkshire) Ltd**
Agent	**Peacock + Smith**
Site Address	**Capitol Park, Barnsley, S75 2UB**
Arboricultural Consultant	**Mike Wood**
Local Authority	**Barnsley Metropolitan Borough Council**
Project Description	**Planning application for an extension to Capitol Park comprising the development of 2no warehouses (floorspace of 9,755m2 and 7,804m2) for general industrial and storage and distribution purposes (use classes B2 and B8) with provision of ancillary office accommodation.**
Planning Reference	**2024/0824**
Planning Conditions	**16**
Document Reference	**260514-1.4-CPB-AMS-T21**

Contents

1.0 Key Contact Details 1

2.0 Background 1

3.0 General Tree Welfare 3

4.0 General Precautions 3

5.0 Tables of Tasks and Detailed Method 5

Task 1: Tree Pruning and Removal 6

Task 2: Installation and Management of Tree Protection Fencing 7

Task 3: Demolition of the Existing Bungalow 8

Task 4: Supervised Exploratory Excavation Works 9

Task 5: Underground HV cable installation 10

Task 6: Site Preparation, Materials & Welfare/Storage Set up 11

Task 7: Site Rules & Contingencies 12

Task 8: Landscaping Operations 13

Appendix A – Tree Protection Plan

Appendix C – Tree Schedule

Appendix C – Tree Schedule

Appendix D – Tree Protection Specifications

1.0 Key Contact Details

Name	Company	Role	Contact Details
Chris Simms	Marshall Construction (West Yorkshire) Ltd	Senior Design and Build Co-ordinator	Tel: 01422 375533 Mobile: 07789984615 Email: csimms@mcwy.co.uk
Tom Garner	Marshall Construction (West Yorkshire) Ltd	Assistant Planner	Tel: 01422 375533 Mobile: 07860 308517 Email: tgarner@mcwy.com
Mike Wood	Tree 21 Limited	Arboricultural Consultant	Mobile: 07971287767 Email:info@tree21.co.uk
Unknown at time of document production	Barnsley Metropolitan Borough Council	Local Authority Tree Officer	Tel: 01226 772557 Email: developmentmanagement@barnsley.gov.uk

2.0 Background

2.0.1 Tree 21 Limited have been instructed by Marshall Construction (West Yorkshire) Ltd to produce an amended version of the previous Arboricultural Method Statement (Ref. 260428-1.3-CPB-AMS-T21), following an **updated tree survey on 22nd April 2026**, which followed an onsite meeting on 10th February 2026. The Tree Protection Plan at Appendix A, **has been updated to reflect the updated tree survey information recorded on 22nd April. The updated data recorded, during the tree survey is included in the Tree Schedule at Appendix B.** This document is intended to be used as a site reference document and to discharge planning condition 16 of planning consent: 2024/0824.

2.0.2 This document is designed to inform site personnel on how trees on and around the site will be managed from commencement and throughout the enabling works and demolition, construction, and final landscaping. The document provides information on tree protection measures and methods that will be required to safeguard retained trees on site. The document is intended to be used as a reference on site, providing detailed information on tree management. Before the document can be implemented it will need to be approved by Barnsley Metropolitan Borough Council.

2.0.3 The document follows best practice guidelines in accordance with BS5837:2012 Trees in relation to design, demolition, and construction – Recommendations where

possible and practical solutions, based on sound arboricultural knowledge and experience of the author.

2.0.4 The document has been produced by Mike Wood *L4 Dip Arb. TechArborA*, Principal Arboricultural Consultant of Tree 21 Limited. Mike Wood has over 25 years' experience in arboriculture, with over 20 years' experience in providing BS5837 surveys, reports, and technical documents, is a certified LANTRA Professional Tree Inspector and a member of the Arboricultural Association.

2.0.5 Any proposed works within areas protected by tree protection barriers known herein as Construction Exclusion Zones (CEZ) or any other works near trees or to these trees that may not covered within this document are to be agreed with the Local Planning Authority and/or the Arboricultural Consultant, and appropriate additional methodology provided.

2.0.6 This document and the appended Tree Protection Plan is intended as an instruction manual for site operatives. In addition to the document, an important part of the process will be for the arboricultural consultant to directly oversee the grading/batter bank works within the hedgerow Root Protection Areas and the exploratory works, as detailed on the appended Tree Protection Plan and provide subsequent methodology in follow up reports depending on the site results. This system will ensure that any potential impact on retained trees is minimised.

The Document should be read along with the following appendices:

- Appendix A: Tree Protection Plan
- Appendix B: Tree Schedule
- Appendix C: Tree Protection Specifications

3.0 General Tree Welfare

3.0.1 When working near trees, it is important to be aware that most tree roots are normally located in the top 600 mm of soil and can spread out horizontally to a distance at least equal to the height of the tree.

3.0.2 The distance from the tree in which damage is likely to occur is calculated by the Root Protection Area (RPA), which represents the minimum area around a tree deemed to contain sufficient roots and soil volume to keep the tree viable. RPAs should be treated as a precautionary area within which activities such as ground compaction, excavation, the storing of materials, ground stripping, raising of levels and building are likely to cause damage to trees and therefore should not take place. Usually, barriers are erected around the RPA to physically exclude such activities. The area within these barriers is known as the Construction Exclusion Zone (CEZ). Unavoidable activity within the CEZ must be carefully executed and must be guided by this detailed method statement.

3.0.3 Damage can sometimes be avoided, or at least minimised, by suitable technical measures which can be devised with consultation with an Arboricultural Consultant. The protection measures and technical construction measures, applicable to this site, are included within this document.

3.0.4 Tree protection fencing will be installed as set out within the Tree Protection & Removal Plan at Appendix A. The fenced-off area will become a Construction Exclusion Zone (CEZ). Any works to be undertaken in the CEZ must follow the detailed method tables set out below.

4.0 General Precautions

4.0.1 In general, the following procedures will also be followed. No materials that are likely to have an adverse effect on tree health will be stored or discharged within the CEZ.

4.0.2 Where storage of such materials is upslope of the trees, barriers will be put in place at ground level to minimise the risk of spillages leaching down-slope and contaminating the Root Protection Area of a tree. Such materials include:

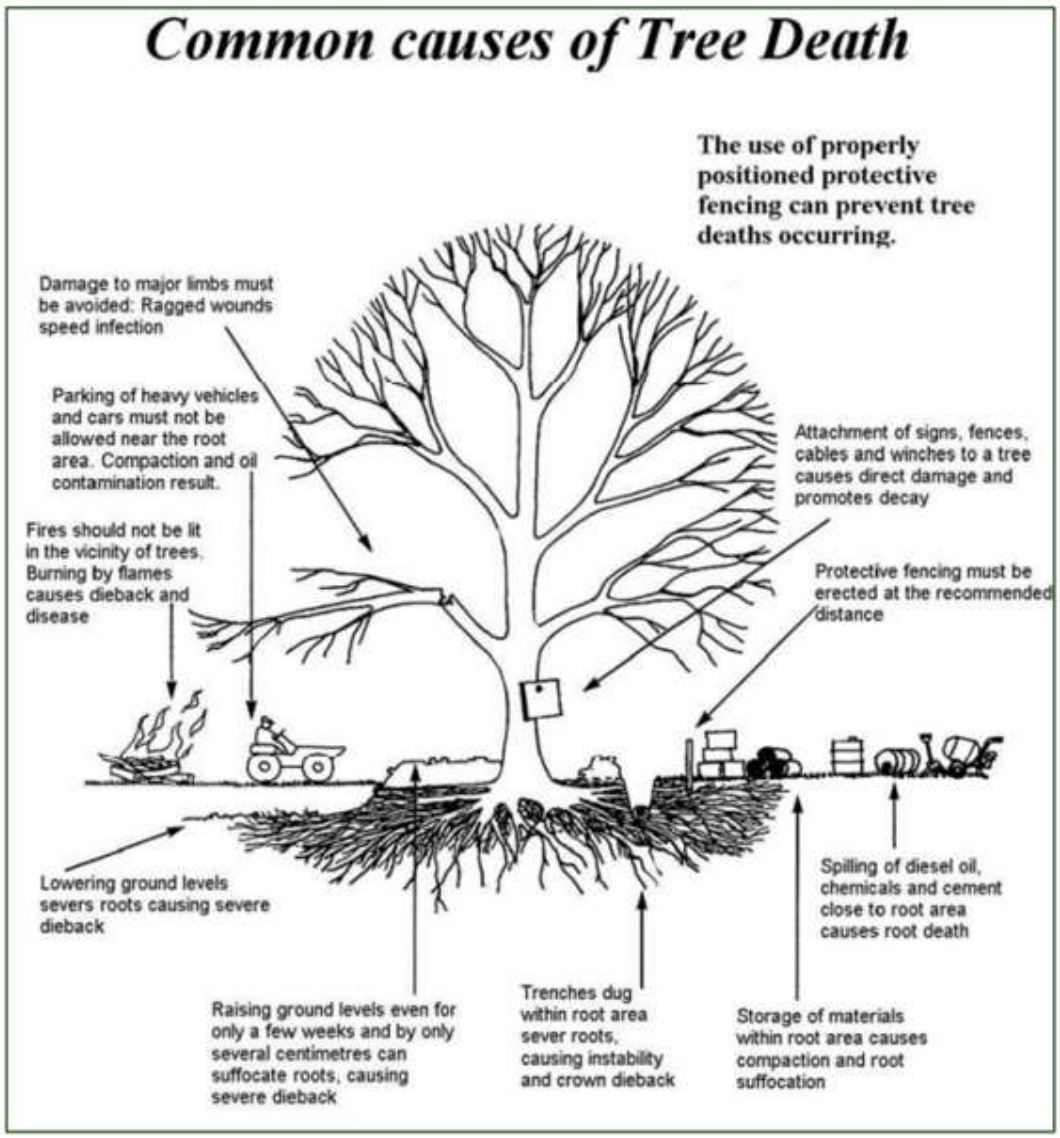
- Fuel and oil
- Bitumen
- Cement & Concrete
- Building Sand

4.0.3 Fires on sites should be avoided if possible. Where they are unavoidable, they should not be lit in a position where heat could affect foliage or branches. The potential size of a fire and the wind direction should be considered when determining its location in relation to trees, and it should be attended at all times until safe enough to leave. Any fire should be at least 50m away from the foliage of any retained tree.

4.0.4 Concrete will not be mixed or transported over unprotected ground within the CEZ.

4.0.5 Any incidents involving potential damage to retained trees will be recorded on site and a copy of the incident made available to the Local Authority Tree Officer within 48 hours.

4.0.6 The Poster below will be enlarged and installed in welfare areas to remind operatives of potential tree damage



5.0 Tables of Tasks and Detailed Method

5.0.1 The tables below provide detailed methods on each task and how they are to be undertaken, along with general tasks which may be required to complete the works. Any deviation from the methods set out in the tables below will be discussed and agreed with the Arboricultural Consultant and/or the Local Authority before being implemented.

Task 1: Tree Pruning and Removal

Method and Action Required

1) Trees shown for removal are illustrated by a red dashed crown outline or by text notes on the Tree Protection Plan to identify their location. These trees are also listed in the Tree Schedule at Appendix C.

2) All tree works will be undertaken by suitably qualified Tree Surgeons and the work will be undertaken in accordance with BS3998:2010 and undertaken before any other operations on site, including installation of the tree protection barrier.

3) Where stumps are to be removed, and the tree is within 15 m of a tree to be retained, the stump will be ground out using a mechanical stump grinder, working locally on that stump to avoid potential damage to retained tree roots.

4) If outside of this area, then the stump can either be ground out or grubbed out using an excavator or ground out with a stump grinder. Note: existing underground services should be checked before any stump removal work is undertaken.

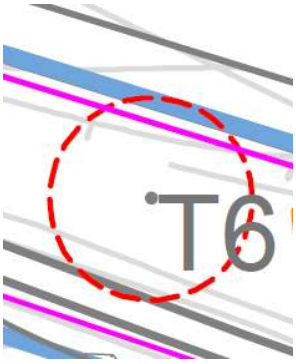
5) Any variation to the tree surgery works will be agreed with the Arboricultural Consultant before being implemented.

6) All arisings will be removed from site, except where identified for reuse.

7) Areas of groups, woodland, or hedges to be removed/pruned will be minimised to enable the works and installation of tree protection barriers only.

8) An example of trees/groups/hedges and part groups/hedges to be removed in the Tree Protection Plan with red dashed outline and retained trees/groups/hedges with green solid outline (crown spread) and orange outline (Root Protection Area) is provided below.

Example of red dashed outline (to be removed) and solid green and orange outline (to be retained)



Task 2: Installation and Management of Tree Protection Fencing

Method and Action Required
1) The Tree Protection Fencing will be installed following completion of the tree work and before any other works associated with the construction works, begins on site.
2) Fencing will be aligned as shown on the Tree Protection Plan (specifications provided at Appendix A). Once the fencing alignment has been set out (this can be achieved with wooden pegs or road pins) the Arboricultural Consultant will check the alignment, confirm any alterations, and sign this off (this was undertaken on February 10th, 2026). A second visit will also be undertaken once the fence has been installed to check it meets the specified criteria.
3) The tree protection fencing will be constructed, following the criteria set out in BS 5837:2012 (specification shown at Appendix C). The tree protection fencing/ barrier will be as illustrated (figure 3 of BS5837:2012). The fenced off area will form the Construction Exclusion Zone (CEZ) for the duration of the works.
4) A tree protection information sign (example shown at Appendix C) will be secured to every third fencing panel at eye level, facing into the site. This will aid identification of the CEZ and inform site operatives of its importance.
5) The tree protection fencing will remain in place, not moved, and kept in good condition until all works are complete, unless specified following task 4. The fencing will however, be removed before any final landscaping works planned within the CEZ, which will follow the method in task 6, below or otherwise agreed with the Arboricultural Consultant.
6) Once installed and during the active construction stage, the tree protection fencing will be checked once per month during active works by an Arboricultural Consultant and any repairs , damage or realignment advised on site will be rectified within 2 working days.
7) Acoustic fencing to be installed adjacent H2 will be installed. This fencing can take the place of additional tree protection, providing it is installed before any earth works commence.

Task 3: Demolition of the Existing Bungalow

Method and Action Required
1) Before access can be gained an existing bungalow and associated landscaping will need to be demolished and cleared. 2) Tree removal and protection measures associated with this task will depend on the final layout (roundabout or no roundabout). 3) The same applies to this work, as the wider site and trees to be removed should be removed first, followed by the installation of the tree protection barrier, as shown on the relevant Tree Protection Plan, following the principles in Tasks 1 and 2 above before the bungalow is demolished and the site is cleared, or any plant machinery is brought onto the site. 4) Once the tree work is complete and the tree protection barriers are installed, the works can progress as planned, once all operatives have been briefed on the relevance of the tree protection barrier. 5) Location of Bungalow to be removed is shown below.

COMPLETED SEPTEMBER 2022

Task 4: Supervised Exploratory Excavation Works

Method and Action Required
1) A retaining wall near H1 is proposed as part of the planning consent. The preference for the location of this retaining wall may conflict with the Root Protection Areas of trees within H1. 2) To determine the presence/absence of significant roots (woody roots >25mm dia. or clumps of fibrous roots), supervised, careful exploratory excavations will be undertaken, to a depth of at least 600mm before any other earthworks are undertaken. 3) This task will be undertaken, using a small, rubber tracked excavator <2T, using an untoothed bucket. A toothed bucket will only be used where agreed with the supervising arboricultural consultant. Operatives with hand tools will also be available to hand dig where required. Disinfected pruning loppers will also be available to prune any potentially small damaged roots flush with the soil profile. 4) The arboricultural consultant will confirm where to excavate and monitor and record the work to ensure that minimal impact occurs to retained trees with H1. A photographic log will also be taken. 5) Following this supervised exploratory works, this document will be updated to reflect any changes.

Task 5: Underground HV cable installation

Method and Action Required
1) Underground HV cable installation is planned within the RPA of T4. This installation will follow the guidelines within The National Joint Utilities Volume 4. 2) There will be no excavation within 1 m of the stem of a tree and, beyond this prohibited zone, trenching within the RPA is still considered to present a high potential to harm the tree. The following points will be applied to ensure that root damage is minimal. I. All operations by hand/using hand operated tools only to minimise damage. II. Hand dig trenches and feed services through roots that are present. III. Where roots are exposed, they will either be pruned to a clean face using disinfected sharp secateurs or pruning saw, or, if they are to be pushed aside and re-covered, kept damp and out of direct sunlight whilst exposed. IV. The trench will be backfilled within 6 hours with soil of a suitable quality to encourage rooting

Task 6: Site Preparation, Materials & Welfare/Storage Set up

Method and Action Required
3) On completion of the installation of tree protection fencing barriers and following the updates to this document and the supervised exploratory works set out in task 4 above, site equipment can be brought to site and the works can commence. 4) The site facilities including welfare areas, site offices, material storage compounds etc. will be set up outside of the tree protection areas/construction exclusion zones. 5) The tree protection fencing barriers will not be moved during the active enabling works, earthworks and construction stages.

Task 7: Site Rules & Contingencies

Method and Action Required
1) Movement and storage of earthworks and materials are to remain outside of all tree protection barriers, as these areas are a Construction Exclusion Zone (CEZ). 2) If any damage to tree protection barriers happens during this work (or other work), the damage is to be repaired at the first available opportunity and not more than 2 working days. 3) Any incident of damage to barriers or retained, protected trees are to be reported to the Arboricultural Consultant and the Local Authority immediately and no longer than 2 working days. 4) Any damage that may have caused damage to a protected tree, or the protected ground within the CEZ, defined with tree protection barriers will require a site visit from the Arboricultural Consultant and addendum methods provided to repair or mitigate any damage. This could include soil compaction, ground contamination, or level alterations. 5) The tree protection barrier is to remain in place in good repair throughout the project duration, whilst there is demolition and construction related activity. 6) On completion of all works associated with the construction, including movement of soil and ground materials and once all construction related equipment, machinery, storage, and welfare areas have been removed from site, the tree protection fencing can be removed. 7) Once removed the Arboricultural Consultant will visit the site and check all retained trees within 15m of the tree protection to ensure the site is left in satisfactory condition. 8) Any improvements required will be confirmed in writing and another visit will take place to check the improvements have been made.

Task 8: Landscaping Operations

Method and Action Required

1) All new soft landscaping works including tree planting will be undertaken following completion of the earthworks, construction, and hard surfacing works.

2) Works with the CEZ (barriers can be removed following pint 1 above) will only be undertaken with hand operated equipment only. No plant or wheeled machinery except unless it is pedestrian operated.

3) No trenches will be dug; post holes will be at least 2m from retained trees and dug by hand.

4) Levels will not be altered within Root Protection Areas of retained trees.

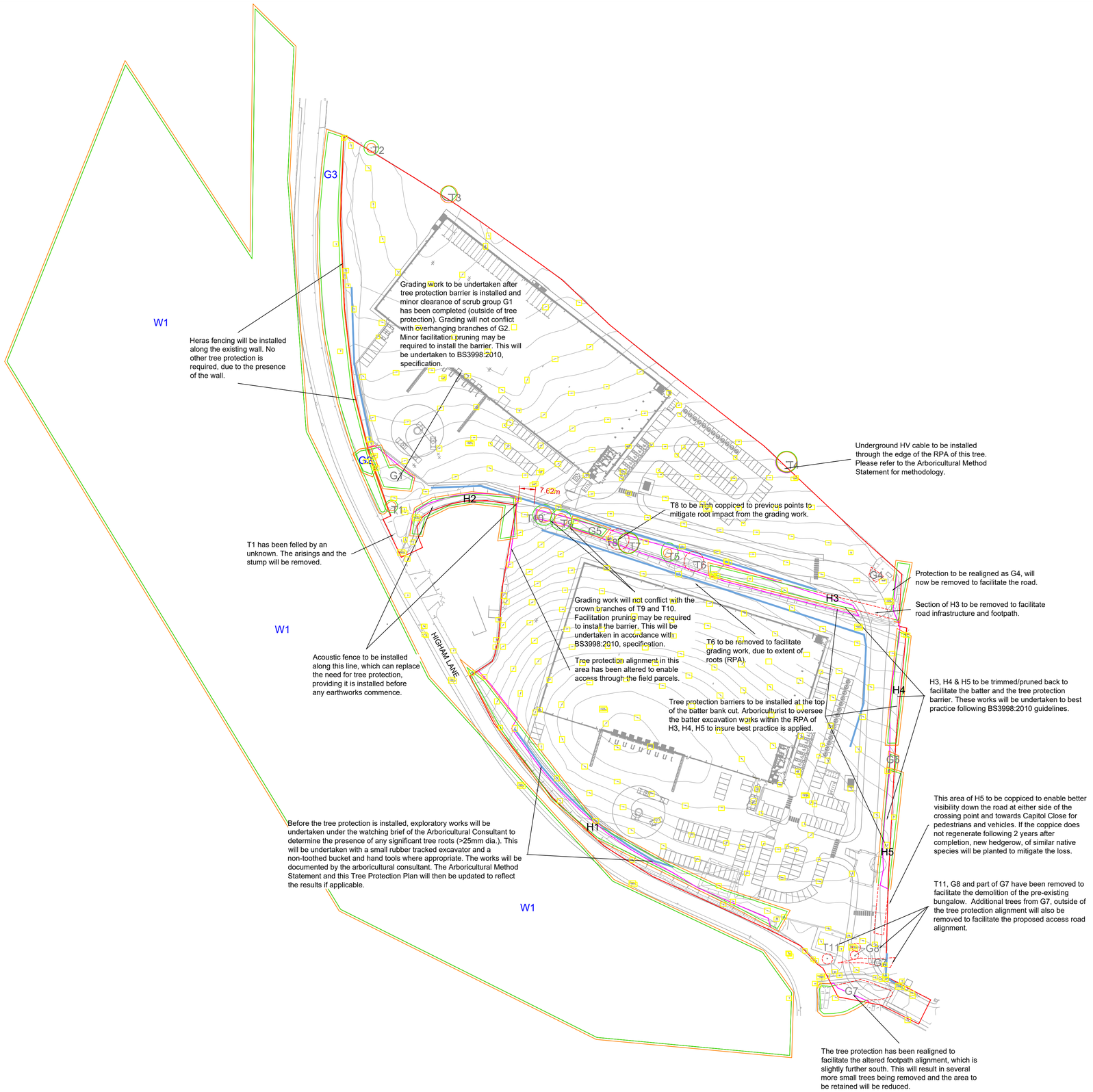
5) New trees to be planted will be sourced from reputable tree nurseries and movement and handling will follow the guidance of BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

6) Tree Planting will follow best practice and be undertaken by landscape professionals.

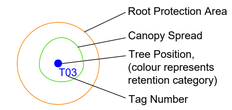
7) Aftercare of newly planted trees will include:-

- Ensuring the base is clear of vegetation within at least 0.5m radius from the tree, with a suitable mulch added into this clear area.
- Adjusting stakes, ties and guards as the trees grow.
- Undertaking appropriate formative pruning during the first 5 years.
- Ensuring adequate water to is provided in dry/drought conditions (this means when there has been no rain for 2 weeks or more).
- Removing stakes, ties, and guards once the trees have become established and independent within the landscape.
- If any tree dies within 5 years of planting, it will be replaced in the next planting season.

Appendix A: Tree Protection Plan



Symbol Guide



BS5837:2012 - Tree Category

- Category A Trees High Quality
- Category B Trees Moderate Quality
- Category C Trees Low Quality
- Category U Trees Poor Quality

KEY

- Indicative Red Line Boundary
- Tree Protection Fencing
- Proposed Retaining Wall

TREE 21
Tree Surveys & Consultancy Services

Project Name:	Capitol Park Barnsley
Drawing Title:	Tree Protection Plan
Drawing Number:	260426-1.5-CPB-TPP-LH
Client:	Marshall Construction (West Yorkshire) Ltd
Date:	May 2026
Scale:	1:500 @ A1

Appendix B: Tree Schedule

BS5837 Survey Data

Ref.	Species	Measurements	General Observations	Category	Recommendations
G1	Grey alder x25 (Alnus incana) Blackthorn (Prunus spinosa)	Height (m): 6 26 stems, avg.(mm): 100 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Life Stage: Young Rem. Contrib.: 40+ Years	An area of scrub vegetation/semi mature trees, of limited arboricultural value.	C1 RPA Area: 253 sq m.	Pre construction: Localised pruning to facilitate works/installation of tree protection barrier. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.
G2	Alder (Alnus sp.) Common ash x2 (Fraxinus excelsior)	Height (m): 11 3 stems, avg.(mm): 280 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 2 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Two off-site ash trees. One is intertwined with an alder and is overhanging the boundary wall by 2.5m. Both interfere with telecoms cables and pole.	B1 RPA Area: 105 sq m.	Pre construction: No action required. Off site. During construction: No action required. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
G3	Crab apple (Malus sylvestris) Alder (Alnus sp.) Field maple (Acer campestre) Hazel (Corylus avellana) Common hawthorn (Crataegus monogyna) Common ash (Fraxinus excelsior) Sycamore (Acer pseudoplatanus)	Height (m): 5 7 stems, avg.(mm): 250 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Dense boundary group of trees, mainly off-site but a small cluster of alder are on the site side of the boundary wall.	B1,2 RPA Area: 1133 sq m.	Pre construction: No action required. During construction: Install heras type fencing along the east face of the existing wall - as shown on plans. Post construction: No action required.
G4	Goat willow x7 (Salix caprea)	Height (m): 7 7 stems, avg.(mm): 110 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 1 Life Stage: Young Rem. Contrib.: 40+ Years	Small cluster of willow stems of limited arboricultural value.	C1 RPA Area: 50 sq m.	Pre construction: Remove trees and stumps to facilitate space for the footpath. During construction: No action required. Post construction: No action required.
G5	Common ash x2 (Fraxinus excelsior) Pedunculate oak (Quercus robur)	Height (m): 10 3 stems, avg.(mm): 370 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Three hedgerow trees, all multiple-stemmed as they have been topped in line with the hedgerow in the past. Minor decay pocket at the base of the oak.	C1 RPA Area: 105 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
G6	Common hawthorn (Crataegus monogyna)	Height (m): 5 Stem Diam(mm): 100 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 0 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Small clump of hawthorn stems. An isolated part of what was previously a consistent boundary hedge.	C1 RPA Area: 45 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.
G7	Italian alder (Alnus cordata) Hazel (Corylus avellana) Common ash (Fraxinus excelsior)	Height (m): 7 3 stems, avg.(mm): 100 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 2 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Small group of densely planted trees, pruned back over the adjacent footpath. A utility pole (electric) is situated in the middle of the group. Diameters in group range 80-100mm.	C1 RPA Area: 131 sq m.	Pre construction: Remove part of tree group, to facilitate the road infrastructure. During construction: Protect remaining trees with protective barriers - as shown on plans. Post construction: No action required.
H1	Common hawthorn (Crataegus monogyna) Common ash (Fraxinus excelsior) Common holly (Ilex aquifolium) Elm (Ulmus sp.)	Height (m): 10 4 stems, avg.(mm): 250 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 0 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Unmanaged, lapsed hedgerow of principally Elm and Ash. Growing into overhead telecoms cables. Some vehicle strikes noted to branches. Some early evidence of Dutch elm disease and Ash dieback to some of the specimens.	NotRecorded RPA Area: 1560 sq m.	Pre construction: Exploratory works to establish the presence/absence of significant roots which may extend into the footprint of the proposed retaineding wall. The results will determine the positioning of the retaining wall. See task 4 of the Arboricultural Method Statement for details. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
H2	Leyland cypress (X Cuprocyparis leylandii)	Height (m): 3 Stem Diam(mm): 90 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Typical boundary hedgerow, located off-site but potentially within influencing distance.	NotRecorded RPA Area: 484 sq m.	Pre construction: Third party hedgerow/screen. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.
H3	Common hawthorn (Crataegus monogyna) Goat willow (Salix caprea) Common holly (Ilex aquifolium) Blackthorn (Prunus spinosa) Elder (Sambucus nigra)	Height (m): 5 5 stems, avg.(mm): 100 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 0 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	A generally neat, well maintained field boundary hedgerow. There is evidence of past hedge laying present.	NotRecorded RPA Area: 722 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. Remove section to facilitate road infrastructure as illustrated on the Tree Protection Plan. During construction: Protect remaining hedgerow with protective barriers - as shown on plans. Post construction: No action required.
H4	Common hawthorn (Crataegus monogyna) Elder (Sambucus nigra)	Height (m): 5 2 stems, avg.(mm): 100 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 0 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Typical field boundary hedgerow. Fairly well maintained.	NotRecorded RPA Area: 359 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
H5	Elm (Ulmus sp.) Common hawthorn (Crataegus monogyna) Blackthorn (Prunus spinosa) Sessile oak (Quercus petraea) Sycamore (Acer pseudoplatanus) Ash (Fraxinus sp.) Willow (Salix sp.)	Height (m): 5.5 7 stems, avg.(mm): 160 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	A lapsed section of hedgerow/hedgerow trees, left unmanaged and degenerating into scrub. Situated beneath electric cables.	NotRecorded RPA Area: 589 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. Coppice south end of the hedge to facilitate teh retaining wall and tempoaryt and permanent access road. During construction: Protect remaining hedgerow with protective barriers - as shown on plans. Post construction: Monitor the coppice stools. If they do not regenerate within 2 years following completion of the project, replant with native hedgerow species in the same location.
T1	Italian alder (Alnus cordata)	Height (m): 10 Stem Diam(mm): 180 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	This tree has been felled by another party within the last year.	C1 RPA Radius: 2.2m. Area: 15 sq m.	Pre construction: Arisings will be cleaned up if they are on site at the time of the other tree work around the site. During construction: No action required. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
T10	Common ash (Fraxinus excelsior)	Height (m): 7.5 Stem Diam(mm): 290 Spread (m): 5N, 5E, 5S, 5.5W Crown Clearance (m): 1 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Good hedgerow tree with a balanced crown. No major visible defects.	C1 RPA Radius: 3.5m. Area: 38 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect tree with protective barriers - as shown on plans. Post construction: No action required.
T2	Common hawthorn (Crataegus monogyna)	Height (m): 6 Stem Diam(mm): 180 Spread (m): 3.5N, 3.5E, 3.5S, 3.5W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Situated off-site. Typical example of species. Very dense crown with many crossing/rubbing branches. Acceptable condition at this time. Access to base not possible. Tree is located on motorway verge.	C1 RPA Radius: 2.2m. Area: 15 sq m.	Pre construction: No action required. During construction: No action required. Post construction: No action required.
T3	Common ash (Fraxinus excelsior)	Height (m): 9 7 stems, avg.(mm): 130 Spread (m): 4N, 3.5E, 3S, 3.5W Crown Clearance (m): 3 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Multi-stemmed from base with a fairly balanced crown. Situated on the boundary line. Acceptable condition at this time. No major visible defects.	C1 RPA Radius: 4.1m. Area: 53 sq m.	Pre construction: No action required. During construction: Protect tree with protective barriers - as shown on plans. Post construction: No action required.
T4	Pedunculate oak (Quercus robur)	Height (m): 7 Stem Diam(mm): 390 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 3 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Small, self-set specimen. Situated off-site but overhanging the boundary fence by 2.5m. Branches are rubbing against the fence line. It is located adjacent to an electricity pole and beneath cables; possibly limiting its useful future.	C1 RPA Radius: 4.7m. Area: 69 sq m.	Pre construction: No action required. During construction: Protect tree with protective barriers - as shown on plans. HV cable toi be instaaled through RPA. See task 5 of teh Arboricultural Method Stataemnet for details on installation. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
T5	Goat willow (Salix caprea)	Height (m): 6.5 Stem Diam(mm): 170 Spread (m): 5N, 5E, 4S, 3W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Self-set specimen in acceptable condition at this time but of limited arboricultural value.	C1 RPA Radius: 2.0m. Area: 13 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect tree with protective barriers - as shown on plans. Post construction: No action required.
T6	Pedunculate oak (Quercus robur)	Height (m): 9 Stem Diam(mm): 390 Spread (m): 6.5N, 6.5E, 6S, 6W Crown Clearance (m): 2 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Hedgerow tree, bifurcated from base, previously topped in line with the hedgerow. Acceptable condition at this time. Coppiced around 50cm and regrown.	C1 RPA Radius: 4.7m. Area: 69 sq m.	Pre construction: Remove tree due to grading work in the Root Protection Area. During construction: No action required. Post construction: No action required.
T7	Common ash (Fraxinus excelsior)	Height (m): 5 5 stems, avg.(mm): 180 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Self-set specimen in acceptable condition at this time but of limited arboricultural value.	C1 RPA Radius: 4.8m. Area: 72 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect tree with protective barriers - as shown on plans. Post construction: No action required.

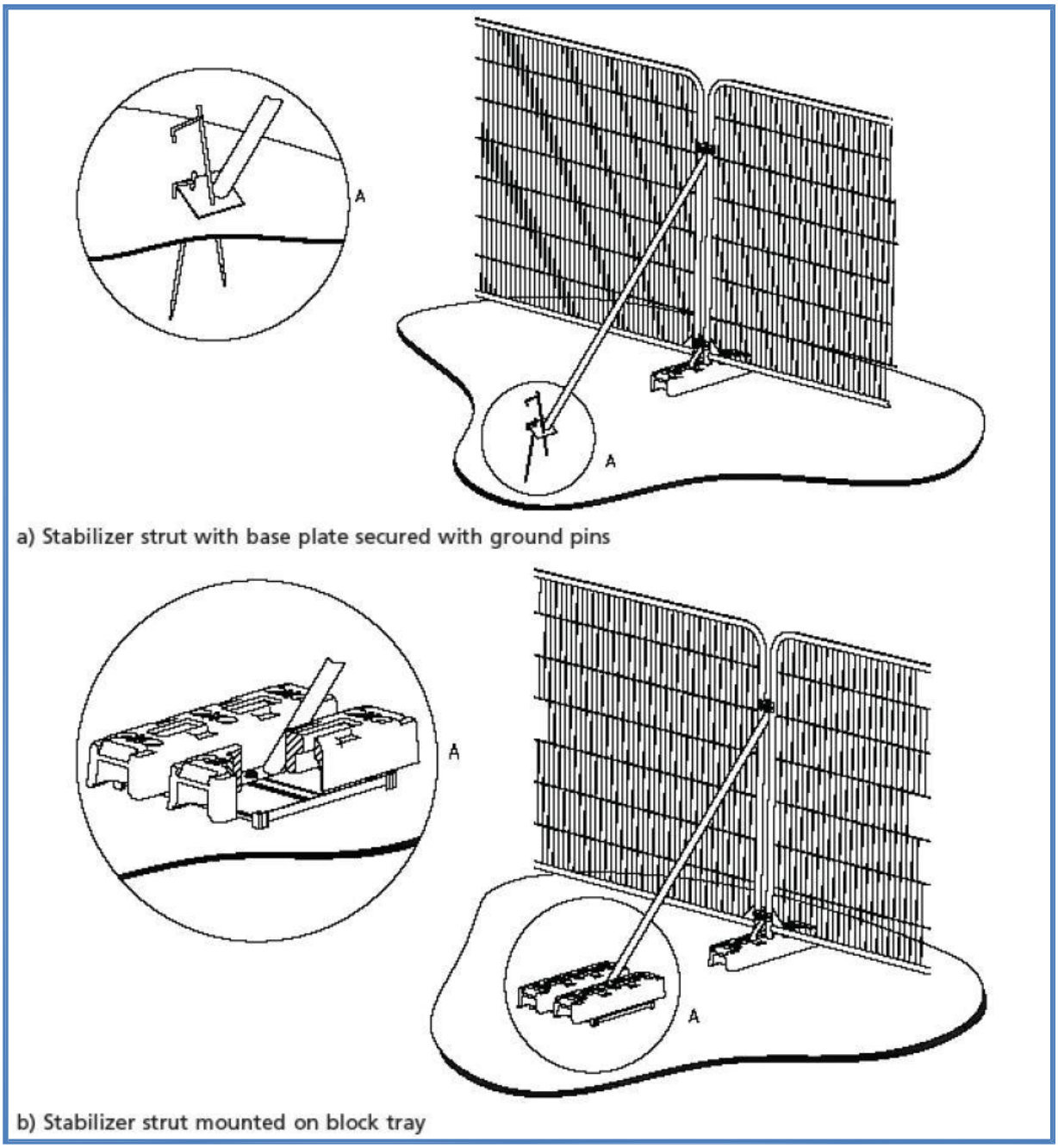
Ref.	Species	Measurements	General Observations	Category	Recommendations
T8	Pedunculate oak (Quercus robur)	Height (m): 7 2 stems, avg.(mm): 400 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 0.5 Lowest Branch (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Coppiced/pollard at 1m and regrown. Measured at 70cm from ground.	C1 RPA Radius: 6.8m. Area: 145 sq m.	Pre construction: Re-coppice/low pollard back to 1m to mitigate impact from grading/batter works within the RPA. During construction: Protect tree with protective barriers - as shown on plans. Root pruning anticipated to facilitate the retaining wall and batter bank. Post construction: No action required.
T9	Goat willow (Salix caprea)	Height (m): 5 2 stems (mm): 160, 190 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 1.5 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	Self-set specimen in acceptable condition at this time but of limited arboricultural value. Large bark wound noted at base.	C1 RPA Radius: 3.0m. Area: 28 sq m.	Pre construction: Trim/prune back to facilitate the installation of the tree protection. During construction: Protect tree with protective barriers - as shown on plans. Post construction: No action required.

Ref.	Species	Measurements	General Observations	Category	Recommendations
W1	Elm (Ulmus sp.) Field maple (Acer campestre) Silver birch (Betula pendula) Common hawthorn (Crataegus monogyna) Aspen (Populus tremula) Oak (Quercus sp.) Elder (Sambucus nigra) Sycamore (Acer pseudoplatanus) Norway maple (Acer platanoides) Common alder (Alnus glutinosa) Common beech (Fagus sylvatica) Plum (Prunus domestica)	Height (m): 16 12 stems, avg.(mm): 350 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 1 Life Stage: Early Mature Rem. Contrib.: 40+ Years	Large, dense, overgrown shelterbelt which is forming a young woodland. Situated on an old colliery bund located off-site. Mainly non-native species. Dead elms noted along frontage.	B1,2 RPA Area: 55172 sq m.	Pre construction: No action required. Off site. During construction: No action required. Post construction: No action required.

Table 1 **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Appendix C: Tree Protection Specifications



BS5837: 2012 - Figure 3 – Examples of Above Ground Stabilisation Systems

Example Tree Protection Fencing Sign

End of report

www.tree21.co.uk