Arboricultural Report

Impact assessment and method statement

Copthall Farm
Breakspeare Road South
Ickenham
UB10 8HB

15th January 2026

Compiled for:

Toby Dalton

By

Phil Dye

BSc (hons) Arb, Cert Arb L4 (ABC), BA (Hons), MArborA

Ref: WTC_1655.01

Status: FINAL

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Validation statement for LPA registration

This report is submitted to the London Borough of Hillingdon Council to accompany a planning application. The report contains tree information relating to the proposal for a 2-storey detached dwelling and associated infrastructure.

For local planning authority (LPA) validation purposes, this report contains the following:

- A full tree survey compliant to the requirements of BS5837:2012 'Trees in relation to design, demolition and construction – recommendations' undertaken by a competent and qualified arboriculturist.
- A suitably scaled plan with a north point showing the site boundaries and the tree survey information.
- An assessment of the impacts of the proposed development on the existing trees. This includes recommendations of which trees should be removed/retained and the proposed protection measures.
- An arboricultural method statement outlining appropriate methods of tree protection and any specific technical construction methods needed to implement the design proposals with minimal detriment to retained trees.

Summary

A 9m section of hedge will require removal to facilitate the access. The remaining trees will be protected with a combination of temporary tree protection fencing and a cellular confinement system.

With works being carried out in accordance with this tree report the overall impact on the trees is considered to be low.

Contents

1.0 INTRODUCTION

1.1 **Instruction:** I am instructed by Toby Dalton, to inspect the trees that could affect or be affected by the development proposal at the land known as Copthall Farm. This report, in compliance with BS5837:2012 'Trees in relation to design, demolition and construction - recommendations' is required to accompany the submission of a planning application for the proposal for a 2-storey detached dwelling and associated infrastructure. My instruction is to prepare the following information:

- A schedule of the relevant trees including tree data and condition assessment.
- A tree constraints plan.
- An arboricultural impact appraisal.
- An arboricultural method statement.
- A tree protection plan.

1.2 **Documents provided:** Drawings WTC_1655.02 (tree constraints plan), WTC_ 1655.03 (tree retention/removal plan) and WTC_1655.04 (tree protection plan) are derived solely from the following drawings which were supplied to me by John Broderick:

- Charles Board drawing – *Site Plan* – Dwg. No. J30 1-2 – Dated: 17.8.21

- JPB Architects drawing – *Block Plan/Location Plan* – Dwg. No. 101 – Dated: Nov 24

1.3 I am a consulting arboriculturist with Wotton Tree Consultancy Ltd. I have a BSc (hons) Arboriculture and the AA Technicians Certificate in Arboriculture (Cert Arb L4 (ABC)). I am a LANTRA qualified Professional Tree Inspector. I am a professional member of the Consulting Arborists Society, a professional member of the Arboricultural Association and a licensed user of Quantified Tree Risk Assessment (QTRA) - license no. 2278. I am trained in valuing amenity trees using the Capital Asset Value for Amenity Trees (CAVAT) system. I have been a consulting arborist since 2006.

1.4 Limitations:

1.4.1 My survey was a preliminary assessment undertaken from ground level and observations have been made solely from visual inspections for the purposes of assessment in terms relevant to planning and development. Only binoculars, mallet and a probe have been used to aid tree assessment. No invasive or non-invasive internal decay detection devices have been used in assessing tree condition.

1.4.2 The recommendations and conclusions in this report relate only to the conditions found on this site at the time of the site visit and inspection. The recommendations contained within this report are valid for a period of 12 months from the date of this report. Any significant alteration to the site that may affect the trees that are present or have planning implications (level changes, additional tree works, post extreme weather events, hydrological changes) and will necessitate a re-assessment of the trees and the site.

1.4.3 The tree plans are based solely on the plans provided to WTC by the client. WTC takes no responsibility for the accuracy of the provided plans.

1.4.4 The tree survey that forms part of this report is not a tree safety inspection. The survey has been carried out in order to inform the planning process. Where obvious risks have been observed, they have been addressed in the 'preliminary management recommendations' (see Appendix 1 – Tree Schedule). Potential hazards and levels of risk are likely to change as the site usage changes during and post development.

1.5 Ecological Constraints: The Wildlife and Countryside Act 1981 and amendments made within and subsequent to the Countryside and Rights of Way act 2000 provides statutory protection to bats, birds and other species that inhabit or use trees. The protection afforded to these species could impose significant constraints on the use of a particular site as well as significantly restrict the timing of any works that may be necessary. Any restrictions are in addition to the tree restriction highlighted in this report. Whilst I have some working knowledge of these potential issues they are outside my area of expertise and you must seek advice from a qualified ecologist to ascertain if any further restrictions apply.

1.6 Tree preservation orders and/or conservation area protection:
Having consulted London Borough of Hillingdon Council's online planning map (https://lbhillingdon.maps.arcgis.com/apps/View/index.html?appid=7b18f60872a94d38a0c9bf1aea032760) [accessed 14th January 2026] I am informed that the site does not sit within a Conservation Area, nor are any trees on site subject to a Tree Preservation Order. Due to occasional inaccuracies with web-based records it is advisable to check directly with London Borough of Hillingdon Council before undertaking tree works.

2.0 SITE VISIT AND DATA COLLECTION

2.1 Site Visit: I visited the site on 7th January 2026. All observations were made from ground level (aided by the Visual Tree Assessment method – Mattheck and Breloer, 1994) and all measurements except stem diameter were estimated unless otherwise stated in the tree schedules. The weather at the time of the visit was cool and overcast; these conditions in no way hindered my ability to view the trees.

2.2 Site Description:

The site is a section of an agricultural field containing a static home. A row of trees runs east to west along the southern boundary of the site.

2.3 Data collection: Each tree or group was inspected and allocated an identification number as indicated in the tree schedule (appendix 1) and tree survey plan. For each tree the following information was collected:

- species
- height (m)
- stem diameter (mm)
- average radius of crown to 4 cardinal points (m)
- height and orientation of first significant branch
- average height of canopy clearance
- life stage
- observations regarding condition
- preliminary management recommendations
- safe useful life expectancy

As encouraged in BS5837:2012, each tree or group was allocated to one of four categories (A,B,C or U), which reflects its suitability for retention in context of the development. Please see table 1 for explanation of the criteria for tree categorisation.

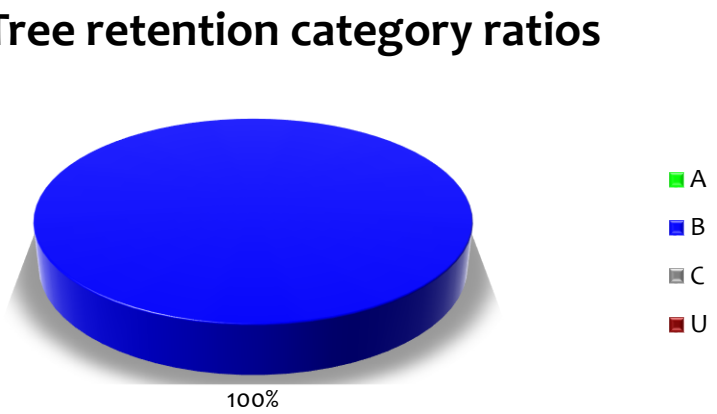
Table 1: cascade chart for tree assessment, adapted from Table 1 of BS5837:2012

Category & definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention				
Category U Trees in such a condition that they cannot realistically be retained as living trees in the context of current land use for >10 yrs	• 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 • Trees that are dead or showing signs of significant, immediate and irreversible decline • Trees infected with significant pathogens affecting health or safety, or very low quality trees suppressing trees of better quality *NOTE: these trees can having existing or potential conservation value making retention desirable*			**DARK RED**
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values incl conservation**	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of >40 yrs	Particularly good examples of their species, esp if rare or unusual. Those that are essential components of groups or formal or semi-formal arboricultural features	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	**LIGHT GREEN**
Category B Trees of moderate quality with an estimated remaining life expectancy of >20 yrs	Trees that might be included in category A but are downgraded because of impaired condition such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit category A designation.	Trees present in numbers, usually growing as groups or woodlands such that they attract a higher collective rating that they might as individuals. Trees occurring as collectives but situated so as to make little visual contribution to the area.	Trees with material conservation or other cultural value	**MID BLUE**
Category C Trees of low quality with an estimated remaining life expectancy of >10 years, or young trees with a stem diameter <150mm	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 landscape benefits.	Trees with no material conservation or other cultural value.	**GREY**

2.4 **Interpretation of data:** Section 4.6 of BS5837:2012 recommends that the trunk diameter measurement is used to calculate the RPA which can then be interpreted to identify the design constraints of a particular site. Once the design principal has been established the construction exclusion zone and location of protective measures can be identified.

3.0 ARBORICULTURAL OVERVIEW

3.1.1 A total of 2 items were surveyed within and adjacent to the development site. These items comprised 1 group of trees and 1 hedge. The chart below shows the ratio of tree retention categories on the site.



3.1.2 G1 is a 'B' category group of trees consisting mainly of ash, oak and field maple. The trees make up a row running to the south of the site, providing a useful screen. Hard standing is proposed within its RPA and so a cellular confinement system is proposed to minimise root disruption. This is detailed further is section 5 of this report.

Plate 1: G1 – B category group of ash, oak and maple.

3.1.3 H1 is a B category mixed hedge. To facilitate the new access, a 9m section requires removal.

Plate 2: H1 – B category mixed hedge. Yellow arrow indicates section for removal

4.0 ARBORICULTURAL IMPACT ASSESSMENT

4.1 Below ground constraints

4.1.1 Below ground constraints refer to tree roots. These are easily overlooked during construction operations as they are unseen and often little is understood about their importance. It is essential to ensure that roots are not damaged during building operations as they are the life blood of each tree, providing structural stability by anchoring the tree to the ground and providing transportation of water and nutrients from the soil to the foliage.

4.1.2 In reality the spread of roots for trees in an urban environment will rarely be distributed in a perfect circle as the environment below ground level is highly variable. The presence of structural foundations, pipes, impermeable surface coverings and differing soil conditions mean that tree roots will extend in to areas that offer a preferential environment; where water is most available and the soil is least compacted.

4.1.3 Root protection areas (RPAs) are shown as a circle centred on the base of the stem unless site conditions such as nearby structures indicate that the shape of the rooting area deviates from this format.

4.2 Above ground constraints

4.2.1 Trees in close proximity to buildings can provide some constraints, both actual and perceived. Actual constraints may be where low branches conflict with new elevations either at the time of building or in the future. Future growth of young trees should be accommodated in building design. Other constraints include shade, leaf litter and damage from falling branches.

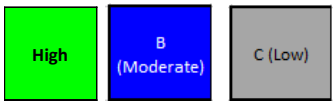
4.2.2 Large tree canopies close to buildings can also cause ‘post-development pressure’ by way of requests for tree removal or pruning as a result of resident anxiety.

4.2.3 Although some shading is likely it is not considered to be significant.

4.2.4 It is possible that leaf fall could block gutters and downpipes. This can be mitigated through regular maintenance of the guttering or by installing a proprietary gutter guard.

4.3 ARBORICULTURAL IMPACT CASCADE CHART

4.3.1 Tree **Values** are taken from BS: 5837 and comprise of the following:



4.3.2 The **Impacts** comprise of 6 elements:

4.3.3 Causes of impacts comprise of 6 factors: ***'None', 'To facilitate development', 'Due to poor condition', 'Direct disturbance to roots', 'Pruning required'*** **and** ***'Possible future pruning pressure due to shade and other factors'***.

4.3.4 Comments are also included providing more information where necessary.

	REMOVAL	PARTIAL REMOVAL	HIGH	MODERATE	LOW
TO FACILITATE DEVELOPMENT	Tree / group requires removal.	Partial removal of group is required. I.e., 'a section of hedge may require removal to allow a new access road'.	N/A	N/A	N/A
DUE TO POOR CONDITION	Tree or group require removal due to poor structural and / or physiological condition.	Part of group require removal due to poor structural and / or physiological condition.	N/A	N/A	N/A
DIRECT DISTURBANCE TO ROOTS	N/A	N/A	In many case this will result in the loss of tree/s - refer to '**TO FACILITATE DEVELOPMENT**'. In rare cases a Tree/s may be retained but damage will occur to the roots. Up to 30% of total RPA area affected.	Disturbance will be caused to roots of a tree/s that are likely to result in some physiological and structural dysfunction. The extent of damage does not require trees to be felled. Remedial actions may be taken in some cases that would help mitigate against damage but site topography, tree age, condition and species condition may result in disturbance being considered **MODERATE** as opposed to **LOW.** Up to 20% of total RPA area affected.	Activity will occur within the root protection area of trees which will have a low impact, or can be mitigated by special measures. Up to 10% of total RPA area affected.
PRUNING REQUIRED	N/A	N/A	Pruning that may retain a tree but will have a potential impact on the tree condition and visual appearance	Pruning is required that is acceptable within recommendations within BS3008:2010, but would require a material alteration to the tree/group affected.	Pruning is required that will have little impact to the structural, physiological and visual amenity of a tree or group.
POSSIBLE FUTURE PRUNING PRESSURE DUE TO SHADE OR OTHER FACTORS	Removal of tree/s required as retention is unsustainable and/or undesirable within the context of development. i.e. fast growing tree in small garden.	Partial removal of tree/s required as retention is unsustainable and/or undesirable within the context of development. i.e. fast growing tree in small garden.	Tree/s likely to cause significant shading. i.e. small garden areas with dense mature trees to south.	Some level of shade or other inconvenience will occur. Not highly oppressive, but some residents may seek management of trees in long term.	Some level of shading / overhang will occur.

Table and cascade chart courtesy of Mike Gregory (2021)

Arboricultural Implications Assessment						
Ref No.	Species	Value	Impact	Impact Cause	Management Options / Comments	Other
G1	Ash, oak, field maple	B (Moderate)	Low	**Direct disturbance to roots**	Hard standing is proposed in the margins of the RPA. A cellular confinement system is proposed to minimise root disturbance.	Tree protection fencing required. See Tree Protection Plan - WTC_1655.04
H1	Hawthorn, dogwood, field maple	B (Moderate)	**Partial Removal**	**To facilitate development**	A 9m section of hedge will require removal to facilitate the new entrance.	Tree protection fencing required. See Tree Protection Plan - WTC_1655.04

4.4 Trees to be retained

Of the 1 group and 1 hedge surveyed, 1 group and a part hedge are proposed to be retained.

4.4.1 Tree protection on development sites is of paramount importance if trees are to be retained successfully. The inevitable stress caused by development near an existing tree can, if provision for adequate protection is not made, be a strain that can severely damage the trees or even result in their death. Although the trees appear healthy during and on completion of the development, the full effects may not come apparent for up to five or more years after works have finished.

4.5 Trees to be removed

4.5.1 A 9m section of hedge is proposed for removal as a result of this development.

Retention category	Proposed for removal due to development	Proposed for removal due to poor condition	Total number of removals
A	-	-	0
B	9m section of H1	-	1
C	-	-	0
U	-	-	0
Totals	1	0	**1**

5.0 ARBORICULTURAL METHOD STATEMENT

5.1.1 Control measures for construction works in or near to the root protection zone are detailed in this chapter. This will form the method statement of works and will be the exact principle/methodology utilized during construction periods.

5.2 Tree works prior to construction

5.2.1 Following the approval of London Borough of Hillingdon Council's appointed Tree officer**,** all tree works will be carried out to BS 3998 "*Recommendations for Tree Work"* (2010) *or* BS 5837 *"Trees in relation to design, demolition and construction - Recommendations"* (2012) or as modified by more recent research. Tree works will be undertaken before commencement of other site operations.

5.3 Protective fencing

5.3.1 Before the commencement of any works on site protective fencing shall be erected to the dimensions shown on the accompanying drawing 'tree protection plan'. Individual root protection areas at the measured m² will be erected for the duration of the development around retained trees. Although these protection measures will be in place for the duration of the development on site monitoring will allow for the successful retention of the subject trees.

5.3.2 Tree protection fencing will be constructed to the specification as set out in Appendix 5 of this report. It is imperative that the fencing is constructed in such a way that it cannot be easily moved or opened during construction work.

5.3.3 Signs will be affixed to the fencing to inform on-site contractors of the importance of the fencing barriers (Appendix 6).

5.3.4 The construction exclusion zones (CEZs) are to be treated as sacrosanct and the following guidelines must be followed:

- NO mechanised excavations
- NO movement of construction traffic or parking of vehicles
- NO storage of building materials
- NO storage of chemicals or fuels
- NO fires to be lit in close proximity to trees

5.3.5 Fences must only be removed following a site visit from the Local Authority officer to confirm on-site construction activity has been completed.

5.4 Site access

5.4.1 The site shall be accessed via the access drive off Breakspeare Road South.

5.5 Contractors car parking

5.5.1 No vehicles shall be parked on un-surfaced ground within the RPA of retained trees.

5.6 Site huts and storage

5.6.1 Any storage required for materials, spoil, plant or welfare facilities shall be positioned outside the RPA of retained trees. Mixing of cement shall be in a designated area where runoff will not enter the RPAs of retained trees. Ground protection in the form of a geotextile membrane will ensure no leaching of mixings enters the soil and kick boards around the perimeter will ensure that runoff is contained.

5.7 Service installation

5.7.1 I have not been supplied with details of the routing of underground services that may affect the trees on site. The provision of underground services must be led by the site's tree constraints. Should the routing of services cause conflict with the specified RPAs, a detailed and specific method of work will be provided in writing to the LPA for approval prior to installation of services.

5.8 Ground level changes

5.8.1 There shall be no changes in ground levels within the RPAs of retained trees during the construction.

5.9 Foundations within Root Protection Areas

5.9.1 There shall be no foundations within RPAs of retained trees.

5.10 Hard surfaces within Root Protection Areas

5.10.1 Specialised hardsurface construction will be required for the driveway and patio area within the RPAs of G1.

Specified product - Cellweb Tree Root Protection System www.geosyn.co.uk or equivalent

5.10.2 The aforementioned hard surfaces will be constructed using a no dig cellular confinement system such as that shown in Appendix 8.

5.10.3 Prior to installation all existing vegetation within the areas of the new driveways will be sprayed using a suitable herbicide in accordance with the manufacturers' recommendations.

5.10.4 The area will then be left for the specified period to allow the vegetation to die off completely. Once the vegetation has completely died off the area will be raked to remove any loose debris and to achieve a clear level base.

5.10.5 If time constraints prevent using herbicide, the turf layer within the areas of the new driveways will be scraped using hand tools or a turf-cutter.

5.10.6 Fill any hollows in the exposed ground with sharp sand or 4/20mm or 40/20mm clean angular stone.

5.10.7 A geotextile membrane will then be laid over the area and the cellular system placed onto this as prescribed below.

5.10.8 Lay a geotextile membrane (Treetex T-300, Permatex 300 or similar approved) over the ground, between pegged timber edging if used, and overlapping membrane joints by a minimum 300mm. Keep the membrane in place temporarily using stakes or weights.

5.10.9 Place the collapsed panel on the geotextile and insert staking pins provided through three cells across the width of the panel end at the start of the driveway.

5.10.10 Expand the panel to its full length to ensure the cells have been expanded to their full dimension and pin across the opposite panel end using staking pins provided.

5.10.11 Pin along the length of the panel with two pins on each side using staking pins provided.

5.10.12 Staple any adjacent panels together using the provided stapler and staples.

5.10.13 If full panels are not being used then ensure the cells have been expanded to their full dimension.

5.10.14 Cut panels with a heavy duty Stanley knife to shape, or remove excess sections, if required.

5.10.15 Use a mini digger under the supervision of a qualified and competent arboriculturist to infill the panels. The mini digger can travel over infilled panels, but it must not be used or parked on open ground within RPAs.

5.10.16 Infill each cell with 4-20mm or 40-20mm clean angular stone to BS EN 13242 and 12620 (depending on cell depth being used).

5.10.17 Allow for any settlement of the stone in the cells and top up if necessary.

5.10.18 Add extra stone up to 50mm depth over the panels if the area is to be trafficked immediately.

5.10.19 When the area is complete the agreed finishing surface can be applied.

5.11 Soft landscaping within exclusion zones

5.11.1 Soft landscaping must respect the rooting areas of retained trees. Removal of spoil and the import of materials must be outside the specified RPAs.

5.11.2 No level changes or disturbance to the soil will take place within RPAs of retained trees. This includes in particular any rotavating of the ground. Should the soils require cultivating, the use of an airspade can be employed under an arboricultural watching brief.

5.12 Responsibilities

5.12.1 It will be the responsibility of the main contractor to ensure that any planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.

5.12.2 The main contractor will be responsible for contacting the Local Planning Authority at any time issues are raised related to the trees on site.

5.12.3 If at any time pruning works are required permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998 Recommendations for Tree Works 2010.

5.12.4 The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position until completion of ALL construction works on the site.

5.12.5 The fencing and signs must be maintained in position at all times and checked on a regular basis by an onsite person designated that responsibility.

5.13 Arboricultural supervision

5.13.1 It is recommended a number of short inspections of the subject trees should be undertaken by the project arboriculturist familiar with BS5837:2012 operations during the extent of the project to ensure that methods of works are in accordance with this method statement.

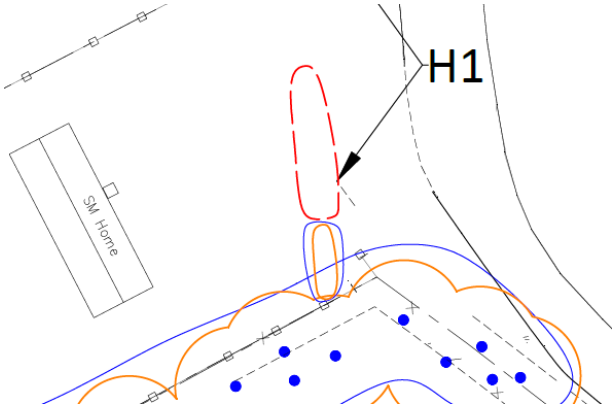
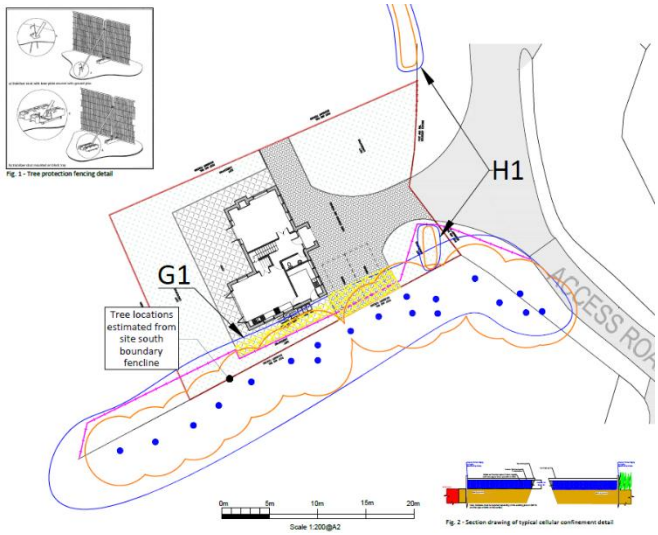
5.13.2 Any works required within the RPA of retained trees that is not covered in this document can only be done so with the written permission of the Local

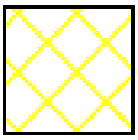
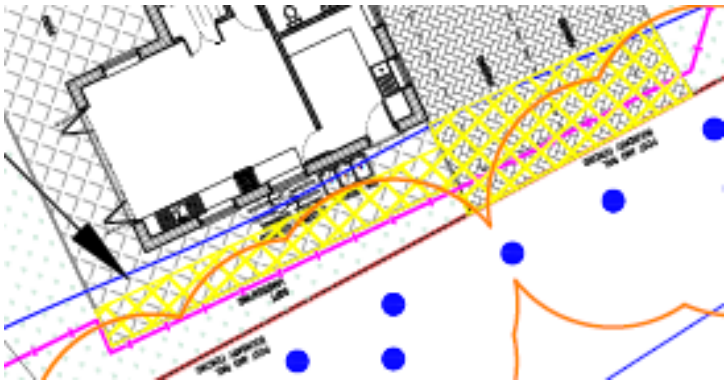
Planning Authority, in accordance with a detailed arboricultural method statement and under an arboricultural watching brief.

Phil Dye - BSc (hons) Arb, Cert Arb L4 (ABC), BA (Hons), MArborA

15th January 2026

Phasing of arboricultural works

Phase	Requirements	Method
1 Prior to any construction works on site	Undertake hedge removal and tree pruning works. **Removal of a 9m section of H1 and crown lifting of G1 to 4m.**	**Refer to section 4.5 of this report.** All tree works to be carried out to BS3998: 2010: by suitably qualified and insured professional tree surgeons. **All items requiring removal are marked in red on the Tree Retention/Removal Plan** 
2 Prior to any construction works on site	Erection of protective fencing: 	Protective fencing is to be erected in accordance with 5.3 **of this report**. The fencing must comply with the positions shown in the Tree Protection Plan and agreed at the pre-commencement site meeting. No works, no storage of materials, no access, or any ground disturbance is to take place within the Tree Protection Barrier Fencing. **Fenced areas are to be treated as Construction Exclusion Zones.** Warning signs to be placed on all protective fencing. For large sections of fencing the signs must be placed at 15m intervals. Signs must be laminated and securely attached at all corners. Two signs are to be placed side by side; copies of which are attached within **Appendix 6**. 

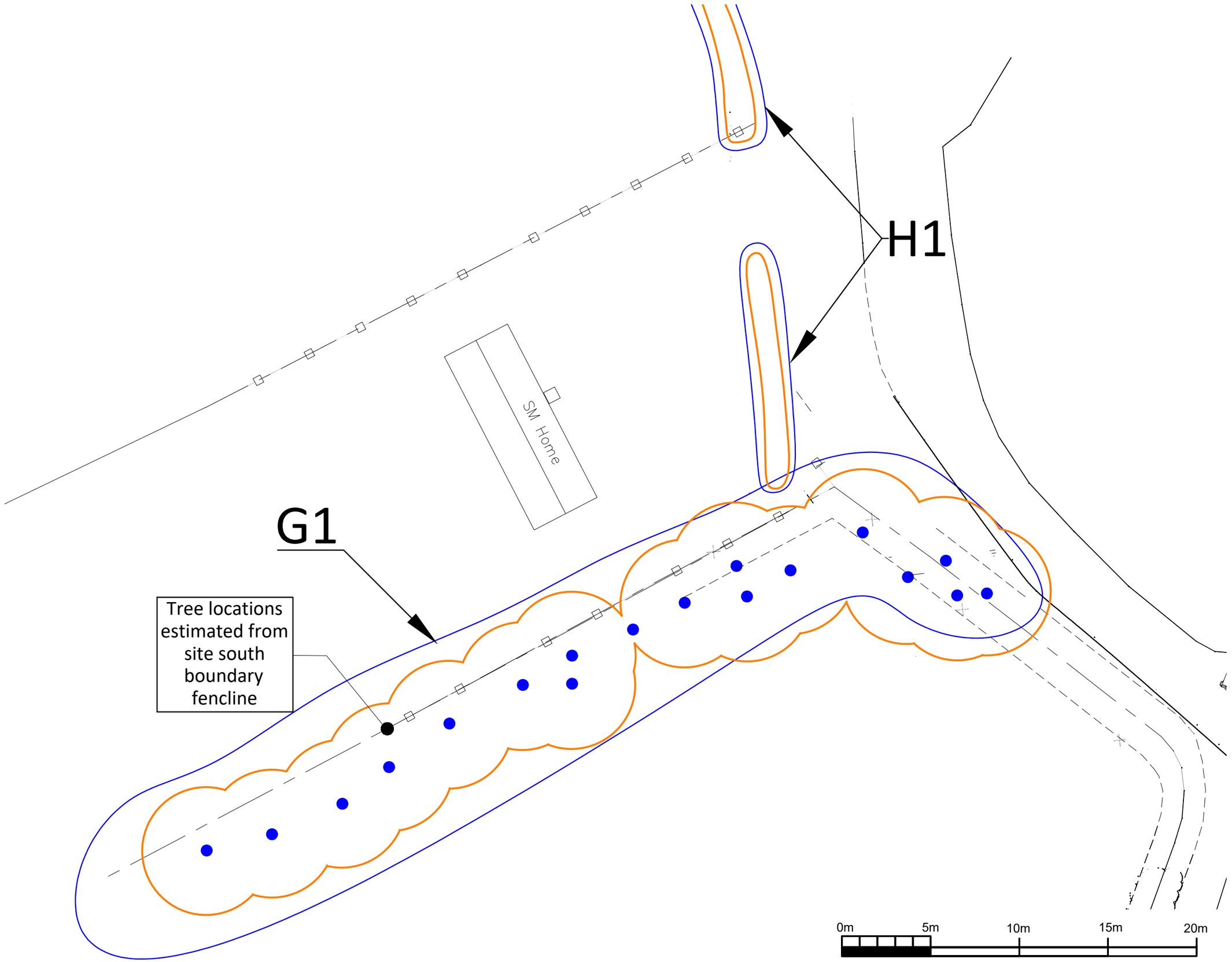
Phase	Requirements	Method
3 Installation of geotextile cellular confinement systems	Installation of three dimensional cellular confinement system. **To be installed as part of tree protection phase** 	Installation of non-dig surfacing: A three dimensional cellular confinement system is to be utilised (CCS). Guidance for the installation of the CCS is attached within **Appendix 8**. Cross section details are to be provided (in conjunction with engineer and manufacturer recommendations). Technical specifications required, as well as cross section details relevant to the site can be provided by the manufacturer. The installation is to be carried out **under Arboricultural Supervision**. The ground layer in which the CCS is to be installed is to be subject only to removal of existing turf layer/stone chip. Adjoining levels must marry with the required depth of the CCS, not vice versa. Once the CCS is installed the protective fencing is to be relocated immediately adjacent the intalled areas of the CCS. 
4 Start of development	Commencement of development	Protective fencing to remain in situ during development phase.
5 Completion of main construction and undertaking of landscaping	Landscaping and Dismantling of tree barrier protective fencing.	It is essential that ground levels within the root protection areas are not altered, either by raising or lowering soil levels; even at the landscaping stage. Landscaping operations must be undertaken in a manner that will not impact trees. Landscaping within the root protection area of trees must be undertaken using hand tools only in line with any approved Landscaping management plans

APPENDIX 1: Tree schedule

Tree ID	Species	Ht (m)	Stem Dia. (mm)	Spread (m)				Avg. Canopy Height (m)	Life Stage	Health & vitality	Struct. cond.	General Observations	Preliminary Recommendations	Estimated safe useful life expectancy (Years)	BS5837: 2012 Category	RPA Radius (m)	RPA m²
				N	E	S	W										
G1	Ash, oak, field maple	12	300	-	-	-	-	4	Mature	Fair	Good	Row of trees within a 5m swathe. Not plotted on location plan. Location estimated. Ash trees comprise approximately 1/3 of the species mix. Ash dieback likely but could not confirm due to time of year	Crown lift to 4m over the site to facilitate construction activities.	20+	B2/3	3.6	41
H1	Hawthorn, dogwood, field maple	2	70	-	-	-	-	0	Mature	Good	Good	Field boundary hedge	-	20+	B3	0.8	2

APPENDIX 2: Tree constraints plan

WTC_ 1655.02



N

WTC
WottonTreeConsultancy

Key

T1 Tree/group canopy

Root Protection Area

Retention Categories

A *High quality* B *Moderate quality*

C *Low quality* U *Unsuitable for retention*

Project

Copthall Farm
Breakspeare Road South
Ickenham
UB10 8HB

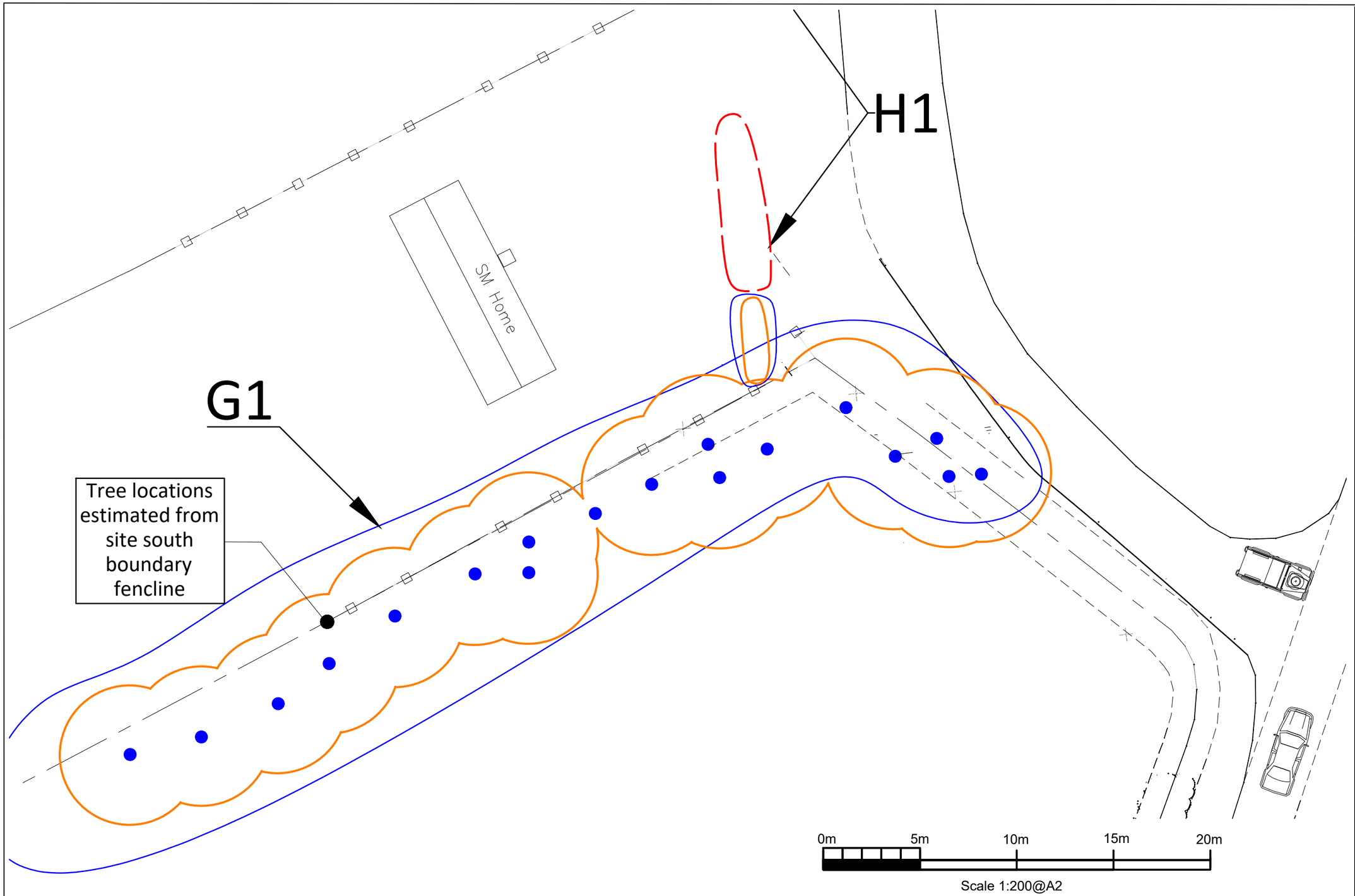
Title

Tree Constraints Plan

		Rev	Rev date
Drg No	WTC_1655.02		
Scale @A3	1:200	Drn by	PD
Date	January 2026	App	

APPENDIX 3: Tree retention/removal plan

WTC_ 1655.03



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WTC WottonTreeConsultancy

Key

T1 Tree for removal

T1 Retained tree

Root Protection Area

Retention Categories

A *High quality* B *Moderate quality*

C *Low quality* U *Unsuitable for retention*

Project

Copthall Farm
Breakspeare Road South
Ickenham
UB10 8HB

Title

Tree Retention/ Removal Plan

		Rev	Rev date
Drg No	WTC_1655.03		
Scale @A3	1:200	Drn by	PD
Date	January 2026	App	

APPENDIX 4: Tree protection plan

WTC_ 1655.04

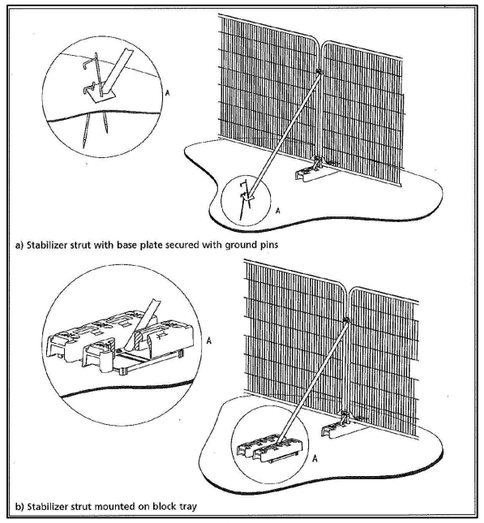
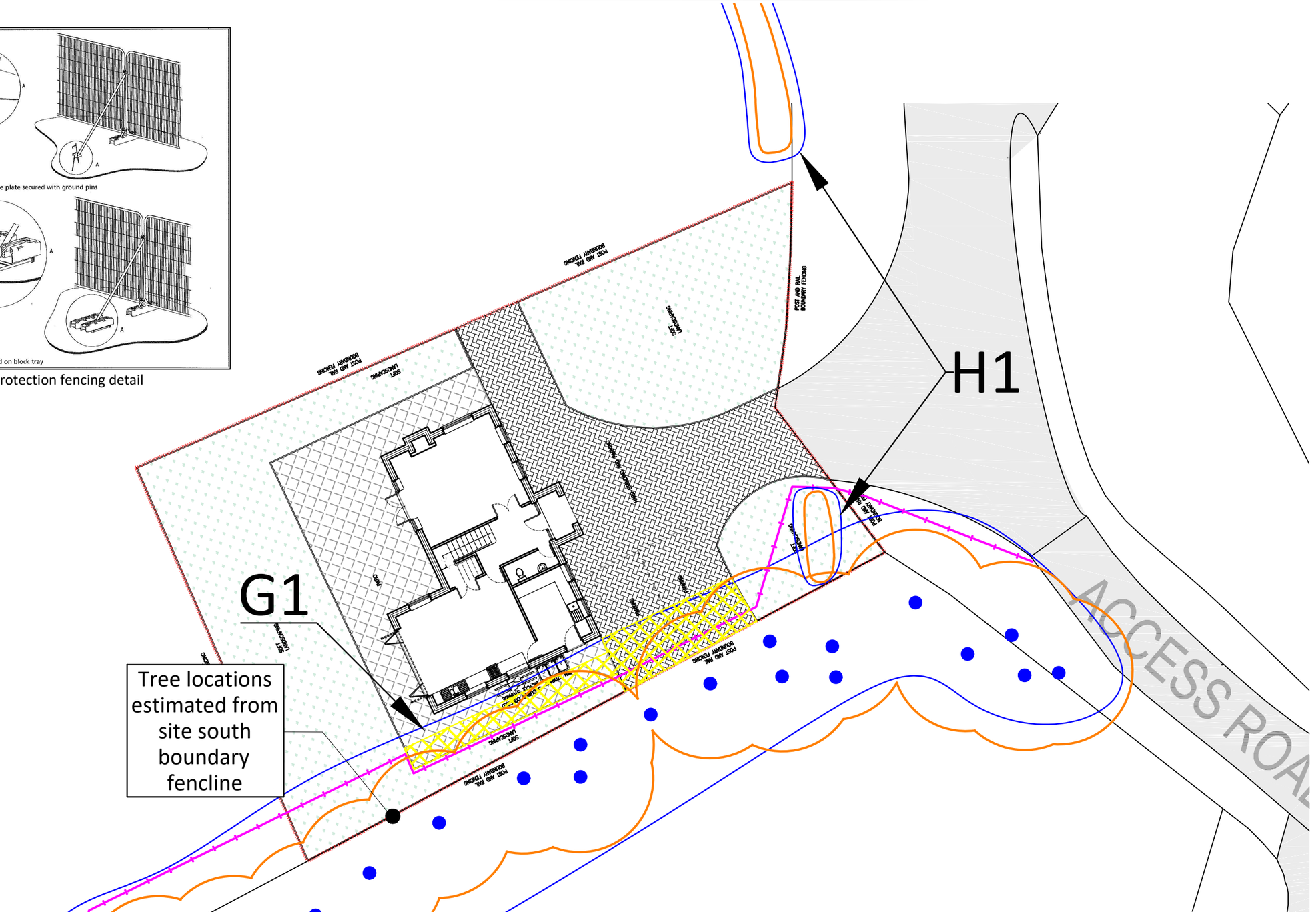


Fig. 1 - Tree protection fencing detail



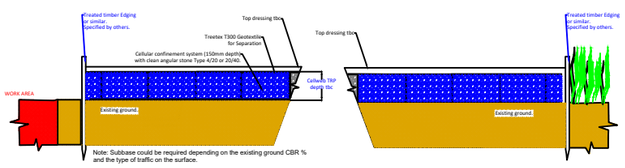


Fig. 2 - Section drawing of typical cellular confinement detail

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This drawing is solely for planning purposes.
Do not scale from this drawing.
Please check all dimensions on site and notify us of any discrepancies. Wotton Tree Consultancy Ltd (WTC) cannot be held responsible for any discrepancies or inaccuracies in the topographical plan upon which this drawing is based.

This drawing is designed to reflect only the principles of layout and/or design insofar as these relate to the protection of trees to be retained and should NOT be read as a definitive engineering or construction method statement. Reference should be made to the architect or engineer as appropriate over any matters of construction detail or specification or any engineering standards or regulatory requirements relating to proposed structures, hard surfaces or underground structures.

Key

- Cellular confinement system
- Tree/group canopy
- Root Protection Area
- Protective fencing

Retention Categories

- A *High quality*
- B *Moderate quality*
- C *Low quality*
- U *Unsuitable for retention*

Project

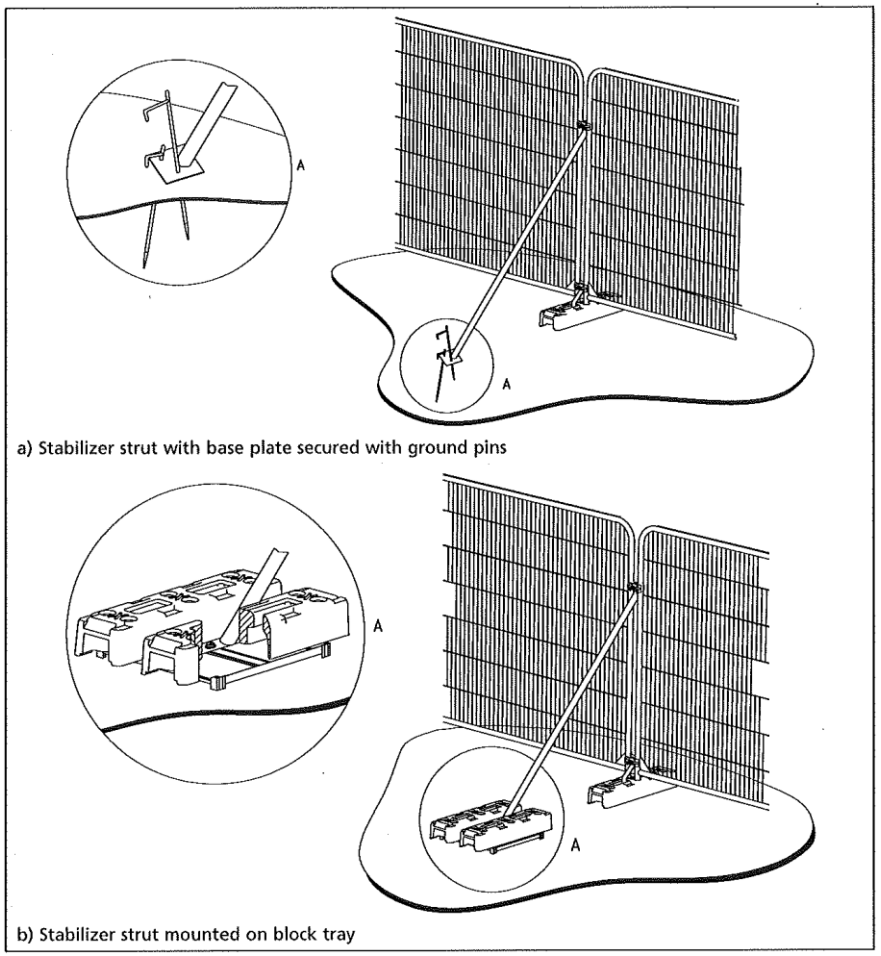
Copthall Farm
Breakspeare Road South
Ickenham
UB10 8HB

Title

Tree Protection Plan

		Rev	Rev date
Drg No	WTC_1655.04		
Scale @A3	1:200	Drn by	PD
Date	January 2026	App	

APPENDIX 5: Tree protection fencing (source: BS5837:2012)

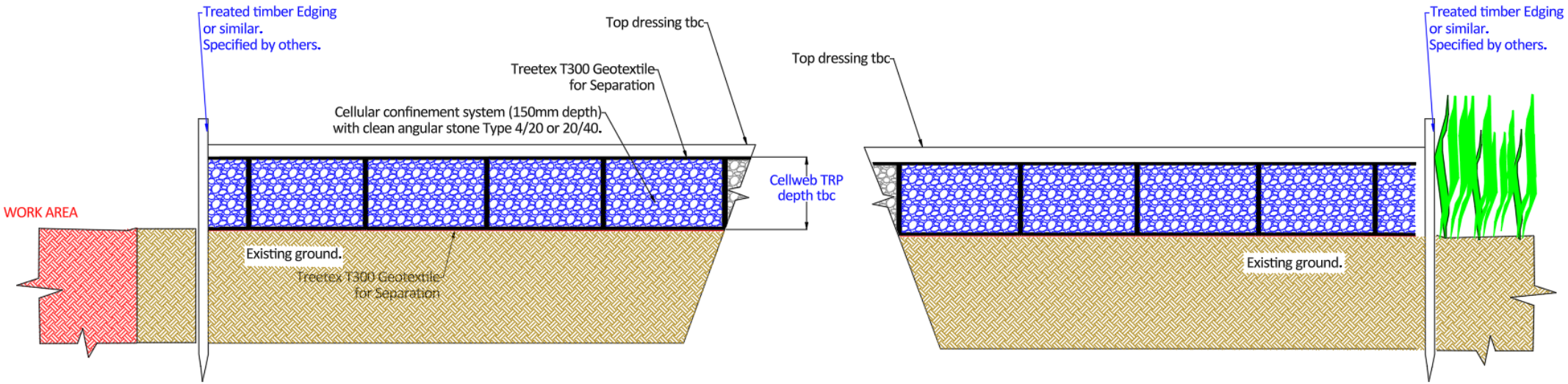


a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray

APPENDIX 6: Tree protection fencing signs

APPENDIX 7: Typical details for Cellular Confinement System. Final specifications to be confirmed by project engineer.



APPENDIX 8: Outline specification for installation of Cellweb®

PRODUCT DATA SHEET

Geosynthetics Limited Tel: 01455 617 139 Fax: 01455 617 140 Email: sales@geosyn.co.uk

Cellweb® TRP Installation Guide

Step 1: Prepare Surface

Step 2: Lay Treetex® T-300

Step 3: Layout Cellweb® TRP

- Cellweb® TRP is a NO DIG tree root protection measure and it is recommended that no excavation be performed without prior approval and guidance from the Local Authority Arboricultural Officer.
- Soil compaction from vehicles, machinery and materials is to be strictly prohibited during construction within Root Protection Areas (RPAs).
- Approval must be obtained from the Local Authority that the design and the method of construction is acceptable.
- Further information is available from the following two documents;
  - British Standard BS5837: 'Trees in Relation to Design, Demolition and Construction' (2012).
  - Arboricultural Advisory and Information Service: Practice note 12 – 'Through the Trees to Development' (APN12).

Installation Method

1. Prepare the Surface

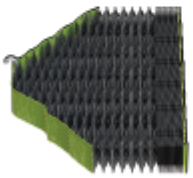
- Remove the surface vegetation using appropriate hand held tools or herbicide (see Note 1).
- Remove any surface rocks, debris and organic material.
- Create a level surface by filling any hollows with clean angular stone or sharp sand.
- Do not level off high spots or compact the soil through rolling.

2. Lay the Treetex® T-300 Non-Woven Geotextile

- Lay the Treetex® T-300 over the prepared area, overlaying the edges of the required area by 300mm.
- Overlap any joins by 300mm minimum or more, depending on soil structure (see Note 2).

3. Lay the Cellweb® TRP Cellular Confinement System

- Lay the collapsed Cellweb® TRP on-top of the Treetex® T-300.
- Place one of the supplied J pins into the centre cell at the end of the panel and secure into the ground.



DR: 8/V1/18.08.14 (Page 1 of 3)

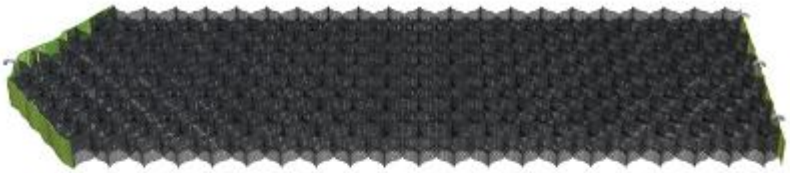
Cellweb® TRP - Installation Guide

Step 3: Pinning Cellweb ® TRP

Step 3: Stapling Cellweb ® TRP

- Pull out the Cellweb® TRP to its full 8.1m length and secure its length with another J pin.

- Now measure its width to 2.56m and secure in each of the corners with the J pins.



- Use 10 pins per panel to create a panel measuring 8.1m x 2.56m.
  (3 pins at each end of the panel and 2 pins on each side)

- This will produce a cell size of 259mm x 224mm which is the required cell diameter. Each cell must be fully extended and under tension.
- Staple adjacent panels together at each cell (see Note 3).
- If a curved path or shape is required, this should be cut when the Cellweb® TRP panel is pinned out to 8.1 x 2.56m, ensuring complete cells remain. Do not try to curve or bend the Cellweb® TRP panels into place.
- All cells must be fully opened to the required diameter.

DR: 8/V1/16.08.14 (Page 2 of 3)

Cellweb® TRP - Installation Guide

Step 4: Clean Angular Stone

Step 5: Edge Restaints

Step 6: Surface Options

4. Infill the Clean Angular Stone

- The infill material must be a clean angular stone, Type 4/20mm or Type 20/40mm (see Note 4).
- Do not use M.O.T type 1 or crushed stone with fines for tree root protection.
- Infill the Cellweb® TRP cells with the clean angular stone, working towards the tree and using the infilled panels as a platform.
- No compaction is required of the infill. Do not use a whacker plate or other means of compaction.

5. Edge restraints

- Excavations for kerbs and edgings should be avoided within the RPAs.
- Where edging is required for footpath and light structures, a peg and treated timber board edging is acceptable
- Other options include wooden sleepers, kerb edging constructed on-top of the Cellweb® TRP system, plastic and metal edging etc.

6. Surface options

- Surfaces can include block paving, asphalt, loose gravel, grass and gravel retention systems (eg Golpla), resin bound gravel, concrete etc.
- For Root Protection Areas this surface must be porous.

NOTES

1. **Herbicide:** According to BS5837:2012 "The use of herbicides in the vicinity of existing trees should be appropriate for the type of vegetation to be killed, and all instructions, warnings and other relevant information from the manufacturers should be strictly observed and followed. Care should be taken to avoid any damaging effects upon existing plants and trees to be retained, species to be introduced, and existing sensitive habitats, particularly those associated with aquatic or drainage features."
2. **Geotextile:** We recommend the installation of a Non-Woven Geotextile [illegible] under the sub-base, if installed. The overlapping between adjacent rolls of Geotextile should be: CBR > 3%: 300mm minimum, CBR between 1% and 3%: 500mm minimum. CBR ≤ 1%: 750mm minimum.
3. **Staples:** Number of staples per join: 200mm: 5 staples. 150mm: 4 staples. 100mm: 3 staples. 75mm: 3 staples.
4. **Granular Fill:** Open graded sub-base, clean angular stone Type 4/20 or Type 20/40. Please refer to BS7533-13:2009 and to the Design Manual for Roads and Bridges (DMRB), Volume 4 Geotechnics and Drainage, Section 1 Earthworks, HA44/91, Volume 7 – IAN 73/06 Design Guidance for road pavement foundations and Manual of Contract Documents for Highway Works (MCHW), Volume 1 Specification for Highway Works for the construction and maintenance of the fill material.

References

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