

313-315 THE ROUNDWAY
LONDON,
NW17

BRITISH STANDARD 5837:2012

ARBORICULTURAL REPORT - AMS

DECEMBER 2023

STATUS: PLANNING

NTA R0516-001 -REV D 25-03-24



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If this report has been released in hard copy the appendices will be bound into the back of this report. Plans may be annexed separately as A1 or A2 copies where a bound-in A3 copy is not appropriate.

QUALITY ASSURANCE

This document has been prepared and checked in accordance with BS EN ISO 9001: 2000.

Rev	Date	Revision Details	Author	Checked	Approved
A	14 th December 23	First issue	CN	NT	NT
B	14 th March 24	Second Issue	CN	NT	NT
C	15 th March 24	Third issue	CN	NT	NT
D	25 th March 24	Fourth issue	CN	NT	NT

*Revision B references to report - 9400 – Tottenham Pile Method Statement.

**Revision D – includes updated pruning schedule with TFL requirements from JK@ Haringey

Addendum to SHA 1391_Arboricultural Impact Assessment Report.

Arboricultural Method Statement for The Roundway.

Haringey Council - HGY/2022/0967 – Demolition of existing building and erection of three to five storey building with new class E floorspace at ground floor and residential C3 units with landscaping and associated works – this statement addresses the following condition 20.

Con 20. – ARBORICULTURAL METHOD STATEMENT: Prior to the commencement of any works on site an Arboricultural Method Statement, in accordance with the tree protection measures shown in the approved Arboricultural Impact Assessment Report, shall be submitted to the Local Planning Authority for its written approval. The AMS shall include enhanced ground protection measures and details for all operations within tree root protection areas. Once approved the details shall be followed thereafter during the construction of the development.

Introduction:

Read in conjunction with **SHA 1391, Arboricultural Impact Assessment Report** which shows the tree survey & constraints plan (reproduced by drawing NTA D0516_001) and gives the outline methodology for the works. And refer to the tree protection drawings NTA D0516_002 and D0516_003.

The proposed construction works are for the demolition of existing site buildings/structures and the erection of a three to five storey building with new class E floorspace at ground floor and residential C3 units with landscaping and associated works at 313-315 The Roundway and 8-12 Church Lane, London N17. Information has been provided in line with BS 5837: 2012 “*Trees in relation to design, demolition, and construction. Recommendations*”



Site location plan (by G Howells Architects) showing redline boundary and highways area and The Roundway and Church Lane

The site trees are not covered by a Tree Protection Order (TPO), and the site is not within a conservation area. The design has been formulated to minimise impact on the site trees.

There are 7 trees on site or just adjacent to the site boundaries. The development results in the removal of two category C trees – a young poplar (T5) and a mature elder (T7), their removal will have a low visual impact on the surrounding environment. A sycamore (T6) category B which is just offsite has an RPA within the site area which falls within a proposed area of hard and soft landscaping. The existing hard surfacing will be retained until the end of works for protection and removed as part of the final landscaping works. The four category A London planes (T1 to T4) will be protected by tree protection fencing and site hoarding where applicable. The existing hard surfaces will be retained and reinforced where needed to act as temporary ground protection until the final external landscape works are implemented.

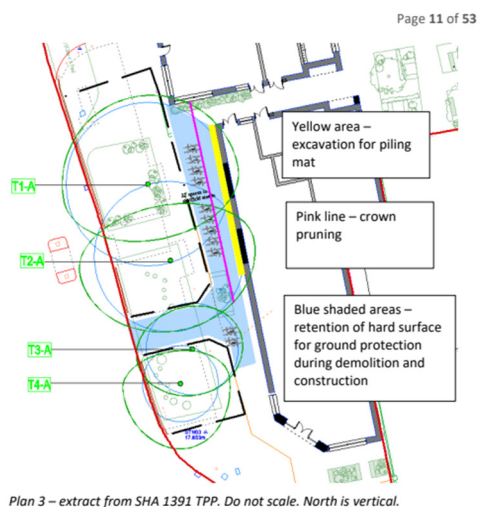
The 4 London plane trees will need to be pruned back to enable an approximate 2 metre clearance between the trees and the new building using best pruning practice and will need to be managed biennially for the life of the trees as noted in the original SHA report. London planes are tolerant of root and crown pruning, and the visual impact of the crown pruning will be minimal. The trees will provide a visual and pollution buffer between the building and The Roundway.

With reference to the earlier **Tree Report SHA 1391 AIA** as submitted, it was proposed that excavation for a 'piling mat' may be required (refer to diagram *page 11 of 53* yellow zone (shown below) and *text page 12 of 53*) assuming piles were required in this area. The yellow excavation area is indicated as circa 600mm wide x circa 800mm deep to form this piling mat along the edge of the proposed building with root pruning as required. **The current design** is for a level ground slab on CFA piles as needed, with a depth of circa 550mm below FGL so this wider trench will not be required within the RPA of T1 and T2.

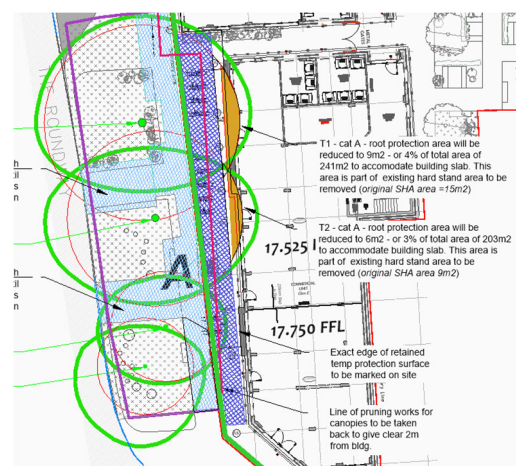
For the Plane trees T1 and T2 it was originally proposed (SHA) to excavate an approximate outer RPA edge area of 15m² at T1 (6%) and an area of 9m² at T2 (5%) to form the suggested pile mat/crusher run. (600mm w. x 800mm d.)

There will still be some minor excavation along this eastern side within the nominal RPA area as part of the civil engineering slab formation works. At T1 it will be reduced to 9m² or 4% of outer the RPA area on the eastern side and for T2 reduced to 6m² or 3% of the RPA on the eastern side. This includes for a 250mm wide easement zone out with the building footprint.

Original SHA plan 2022- excavation area in yellow



NTA plan 2024- excavation area in ochre



From Page 11 SHA report.

From NTA_D0516_003_D

The new pile/slab works will be in an area of existing hardstanding, and it is deemed the plane trees will be able to tolerate these proposed works well.

The works will be carried out in line with this Arboricultural Method Statement, the contractors' construction phase plan/RAMS and engineering detail.

Five trees will be retained, two removed and sixteen new trees planted, which will have a minimum net gain of fourteen additional trees on site subject to final planting plans.



Above: Outline Concept design scheme showing the five retained tree locations in red.



Above: Streetview image of plane trees T1 and T2 looking toward the site.

Arboricultural Method Statement

General

Tree Works – The canopies of all trees are susceptible to damage during construction work and require protection. As such any remedial tree works to the canopy of retained trees should be undertaken in advance of any demolition and construction works to avoid undue damage to the canopy by plant, machinery etc. Refer to tree works schedule in the appendices.

All pruning works to be undertaken in accordance with BS 3998:2010 'Tree work.

Recommendations and current health and safety legislation. All contractors should be competent, fully insured and registered with the Arboricultural Association through the ARB approved contractor directory. (<https://www.trees.org.uk/ARB-Approved-Contractor-Directory>).

The main building contractor and appointed tree work contractor must ensure that all necessary consents have been received from the LPA and that no protected species are harmed in carrying out the works and that a full method statement is produced and approved.

Within RPA's vegetation can be removed by hand and or using stump grinding methods but must minimise any damage to trees and their root systems. Unauthorised works/damage to protected trees is a criminal offence and could lead to enforcement.

Tree works should maintain a natural shape and balance to the tree canopies both individually and where appropriate as part of a group. The plane trees should be pruned to reduce the crowns by around 20% (refer to pruning schedule with TFL requirements) and to give a min 2m clearance from the building façade and to maintain proportionate shape and form using target pruning methods (see pruning schedule in appendix 1). All the site tree crowns should be lifted to give site clearance – refer to tree works schedule. For health and safety reasons remove all diseased, dying, and dead wood.

Excavations - No activities that result in excavations or changes in level will take place within the RPA of any of the retained trees other than to Plane trees T1 to T4 and T6 sycamore as detailed in this report. This would include the storage of any materials, site buildings and any construction work.

Any ground protection is to be installed before construction work begins - this protection will be either existing surfaces retained and or temporary surfacing only for the duration of the construction works. Where the ground is uneven levels should be regulated using washed permeable sand. Where local levels need lowering an air spade or hand tools or small excavator working from without the area with non-toothed bucket should be utilised and any small roots uncovered dampened and covered with hessian immediately. The hessian should be maintained damp until the works are carried out. Ensure materials such as hessian are on site before works commence.

Where the building slab/piles are to be formed near the nominal edge of the RPAs of T1 and T2 then the existing surface of paving and its sub-base should be carefully removed using hand /or mini excavator (with smooth bucket) methods to form a level clean area to a depth of circa 550mm with a vertical edge. This excavation should not exceed 250mm beyond the building footprint unless approved otherwise by H.L.A. (The previous SHA report suggested a slightly larger zone). Before pouring any concrete, an impervious membrane with taped joints

(1200 gauge DPM or similar and approved) should be laid to separate all the concrete areas from the soil areas to prevent any harmful leachates contaminating the ground/soil.

Any exposed areas between the edge of the slab and the existing temporary surfaces should then be covered with clean washed sand to prevent drying out of any fine roots present and prevent any surface compaction.

The remaining hard paving surfaces, low walls will be removed as part of the landscape enabling works and subject to final programme. If the programme requires earlier removal, then a temporary surface as App.8, will be laid and or final landscape hard surface whichever appropriate to retain protective layer.

NB: The RPA roughly equates to the spread of a tree canopy. This area or an area equivalent to a radius 12 times the stem diameter of the tree at 1.5m above ground level, whichever is the greater, should be designated as the RPA. This should become a total exclusion zone during construction works unless otherwise shown and be fenced-off and protected in accordance with BS5837: 2012 Fig. 2 or Fig.3. Onto the Heras fence (and site hoarding at RPA's) a weatherproof sign(s) to be attached clearly stating 'Tree Protection Zone – DO NOT ENTER – do not move this fence' or similar approved with the LPA Officer.

A pre-commencement meeting shall be proposed to the LPA prior to starting any works on site to agree the scope of works and alignment of the protective fences/hoardings. If required attendees to include the LPA officer, client representative, site manager and landscape architect /Arboricultural consultant. A record of this prestart meeting and subsequent discussions with the Officer will be made and sent to all attendees.

Any new services are intended to be routed outside the existing or potential root zone of trees. Where and if this is unavoidable, then hand excavation shall be employed to avoid damage to the larger roots and the services slid through or below the root system. Ducting should be used to carry cables. Trenchless techniques such as thrust boring should also be considered, where other routes are not possible.

Schedule and Phasing of Operations

Pre-commencement: Securing RPA

Arrange a pre-commencement site meeting with, client representative, site manager and landscape architect/arborist (and LPA if required) to agree scope of works and final alignment of protective fences, protective surfaces, construction exclusion zones as per the attached plans. Final alignment of the RPA fencing adjacent to 'The Roundhouse' will also need to be agreed with Highways.

Trees to be retained and protected.

Protective Fencing

1. At pre-commencement meeting agree final alignment of protective fence with LPA Officer, and landscape architect prior to starting any site operations if requested.
2. Check the existing 2.3m high timber site boundary hoarding which will be retained as part of the protective fencing. When the landscaping works commence the site hoarding will be replaced with movable Heras fencing Fig 3 in 3. below.

3. Erect 2.3m high protective fence as BS 5837:2012 as Fig 2 or Fig 3 and as shown on the attached plan NTA D0516- 002 and NTA D0516-003. *This must remain in place throughout the works and must not be altered.*
4. Secure weatherproof sign to fence stating, 'Tree Protection Zone – DO NOT ENTER – do not move this fence' or similar approved with the LPA Officer.
5. Arrange for site inspection by landscape architect/arboriculturist to monitor works.
6. Maintain all protection fencing for the full duration of the construction works or as agreed in writing with the LPA Officer to allow works such as landscaping.

Site investigations /RPA work areas

Detail designs by the engineer/architect/landscape architect and contractor will be circulated for final approval of the works in relation to any affected RPA's. Arrange for site inspection as required to finalise these works /designs.

Fires

Fires on site are not permitted.

On site storage of spoil and building materials

Prior to and during all construction site no spoil or construction materials will be stored within the RPA of any trees.

Any facilities for storage of oils, fuels shall be sited on impervious bases and surrounded by impervious bund walls.

Cement washings are harmful and toxic to trees and must be contained so that they don't contaminate and harm the existing trees and soil. Leachate from poured concrete is also toxic to RPAs and soil and must be isolated by an impermeable layer/liner to stop contamination.

All material storage facilities and work areas must consider the effects of potentially harmful liquid spillages towards or into protected areas.

Temporary buildings for site use

Site cabins and other temporary buildings are to be located in areas out with root protection zones unless otherwise agreed with the local planning authority.

Protection of tree canopies

Piling rigs, cranes and excavators are often used in proximity to trees. All works must be carefully planned to observe all restrictions to avoid hitting tree canopies whilst carrying out any site activities. The Contractors Phase Plan and RAMS will be formed to reflect this.

Remedial Pruning

1. Carry out preventative crown pruning as agreed on site at the pre-commencement meeting with the LPA Officer / client rep./landscape architect and as Tree Pruning Schedule Appendix 1.
2. Any tree works shall be completed prior to commencement of site operations.

3. Tree works shall be carried out in accordance with BS 3998:2010 Recommendations for Tree Work by an appropriately qualified Tree Surgeon (Arboricultural Association Approved contractor) who shall comply with all current H&S requirements and agree a Method Statement with the principal contractor.

Demolition

Once all tree protection is in place carry out the demolition as follows in line with contractor's phase plan and RAMS

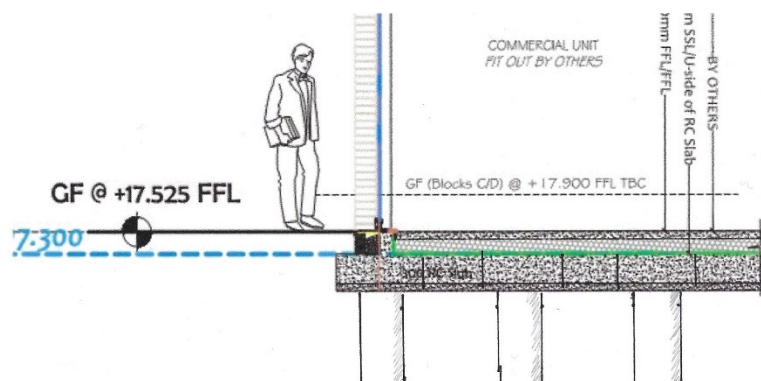
1. Carry out internal and soft strip around buildings but leaving all hard paved areas identified as temporary protection surfaces in place.
2. Pull back the buildings from top down and from the east side so that building façades nearest trees is pulled to the east and inwards within the footprint of the existing buildings to avoid working in proximity to any of the RPA's.
3. Remove any debris from the vicinity of the tree areas.
4. Dust should be controlled on site with watering/sprinkler systems – if the trees are in leaf and effected by site dust then hose down the foliage every second day to remove all dust from the canopies to protect the trees.

Foundations

With reference to Tottenham Piling Method Statement Condition 15

T1 to T2 specific works: Preparation - The building footprint sits just on the edge of the normative root protection areas of Trees T1 and T2.

With reference to the SHA submitted Arboricultural Report the proposal was to form a pile mat in the yellow zone area (see page 6), of c. 60cm w. x c. 80cm d. just out-with the building footprint which would encroach into the RPA. (15m² in T1 and 9m² in T2 RPAs) The current ground slab design with CFA piles minimises works in the RPA to circa 550mm depth from FGL and not extending more than 250mm out-with the building footprint. (now reduced to T1/4% and T2/3% of the RPAs) refer to ochre areas in NTA plan (see page 6)



Typical Ground slab /CFA piles adjacent to RPA of trees T1 and T2

The foundation to be constructed on the edge area adjacent to tree T1 and T2 will be formed as a level ground slab. As above this construction will avoid the need for a large trench in the areas

adjacent to the retained plane trees T1 and T2 and will reduce/ minimise the disturbance to root areas.

Foundations continued.

1. Mark out the area for the building slab carefully with spray line to establish the area for excavation.
2. Carefully remove the existing concrete and tarmac along this line and then remove the loose surface material/hardcore in the area of works.
3. An excavation to be dug by spade or mini digger along this perimeter with a smooth bucket to a depth of circa 550mm and not more than 250mm wider than building footprint with any roots found cleanly pruned back to the tree side of the trench when uncovered. All shallow excavations to be worked from the building side of the trench.
4. Cover the tree side of the trench with damp hessian pegged into place to protect the edge of the excavated area until the slab is poured.
5. CFA piles where required near the trees will be drilled from the building side of the plot. The piling rig will be positioned facing the western boundary and be fully situated within the building footprint.
6. Fully line the excavated slab area with an impermeable membrane (e.g. 1200-gauge DPM) with taped joints to prevent any leachate from the poured concrete contaminating the surrounding ground and soil.
7. Backfill the tree side of excavations between the existing surface and the new foundation with clean washed sand as a temporary measure until the external landscape works are carried out.

Cranes – site vehicles

Cranes to be positioned so as they do not have to arc over the retained/protected trees for any site operations. Cranes should be programmed to avoid such contact or instruct crane operatives as part of RAMs to do so. When operating close to trees then use of a banksman is necessary. Allow for method statement in RAMs for erection and disassembling of site cranes to avoid damaging existing trees.

Other site vehicles such as piling rigs and excavators will be kept away from protected trees by fencing or special surfacing. Branches of the main trees will be lifted to 5m to give clear site operation.

Piling rigs must be carefully positioned as above in Foundations, point 5.

Removal of existing hard surfaces and walls in RPAs

1. These surfaces will be retained through the main construction period and only removed during external landscaping operations by the appointed contractor unless otherwise agreed. If they have to be removed earlier, then a suitable temp surface (App. 8) and or the final surface must be installed straight away.
2. Hand operated tools should be used to lift existing surfacing, walls, and footings. Where possible a mini digger maybe used where it can work from without the area or using the existing surfaces to work from outwards from the RPAs using a non-toothed small bucket. A test area is to be undertaken to agree final methodology and exact programme sequencing of these operations.
3. Surfacing should be removed in small sections with materials being removed as work commences.
4. All works to be overseen by arborist/landscape architect.

5. If any roots in excess of 50mm are unearthed they shall be retained, and an engineering solution shall be employed to ensure roots are retained. All 20 to 50mm roots unearthed to be retained unless project arborist deems, they can be removed. In which case they can be neatly pruned. Roots between 10mm and 25mm that need removal to be neatly pruned with sharp secateurs. All exposed roots shall be protected with damp soil or hessian sheeting to be kept on site.

6. Where root pruning has occurred below a proposed hard surface area fertile soil should not be used as backfill – use an urban type of structural tree soil. (Bourne Amenity tree sand osap)

7. Following the removal of existing surfaces but prior to installation of new surface no vehicles or plant machinery shall access and or operate on this surface.

8, Following removal of existing surface where no new hard surface will be installed the underlying soil shall be decompacted with using a hand or air spade and organic biochar introduced to an approx. depth of 300mm on a 1 metre grid spacing to promote gaseous exchange.

New hard surfaces in RPA's

Where new hard surfaces are to be laid in RPA's (Root Protection Areas) then where present, existing sub-base should be re-used so that the surfacing will be founded no deeper than the existing surfaces and their formation layers. Where soft landscape was present then use of a no dig type three dimensional cellular build up (see appendix 8) can be used. There are two footpaths that cross over into the site for pedestrians which go through RPA areas – one on the west side through the plane trees T1-T4 and one in the northeast by T6 – sycamore both of which are covered by existing hard surfaces.

No dig will involve either excavating existing hard surfacing down to sub-base and building up or laying materials to create new hard surfacing onto existing ground levels. No scraping or reducing of existing soft ground levels in the no dig areas indicated on this plan will be undertaken and all construction in these areas will avoid the use of machinery unless separately approved.

Surfaces to be used in RPAs should be either Cedec crushed granite type permeable gravel surfacing and or resin bound tree porous gravel– all these areas are for pedestrian lightweight use only. Where required finishes/construction will be subject to relevant highway approvals.

Site Furniture

Any play equipment or site furniture (bike racks/seats) should be surface fixed, or freestanding as opposed to ground/root fixed when situated within the RPA areas – ideally site these elements elsewhere and not within RPAs to avoid compaction and minimize site use in these areas. Coordinate with final detail landscape design to fine tune these items.

Boundary elements

Where walls or fences/gates are required to the site boundary then short sections of fencing are preferred within RPA's rather than walls to avoid the need for any strip foundations. Posts for fences/gates can be site positioned to avoid roots and fencing adapted to suit post centres.

When positioning posts excavate holes by hand - if roots over 25mm are found then move hole position to avoid. Roots under this size can be pruned back with sharp secateurs.

Line footing holes to separate any concrete from soil/RPA areas to avoid any contamination to soil areas.

Cultivation of soft surfaces in RPA

1. Heavy mechanical soil cultivation techniques are not to be carried out within the RPA. Any cultivation should be carried out by hand or pedestrian controlled light machinery to minimise potential damage to tree roots.
2. Existing ground levels within the RPA's should be maintained at all times.
3. Preparation of soil for planting and turfing to be carried out by hand in RPAs. Cultivation should be kept to a minimum and new topsoil must not exceed 100mm in depth above current ground levels near trees. Within 1 metre of the stem of trees maintain existing ground levels.
4. Topsoil's and other materials should be transported by wheelbarrow with inflated tyre and run on boards when working trees to avoid and prevent any compaction. Do not work soil areas when too wet.
5. Incorporate Biochar and mycorrhizal fungi onto root protection areas. Use Carbon Gold Biochar tree soil improver or similar and approved to 1 kg per m² of soil under the tree canopy.
(<https://www.green-tech.co.uk/fertilisers/soil-conditioner-and-root-dips/carbon-gold-tree-soil-improver>)
For Mycorrhizal use Rootgrow professional (<https://rootgrow.co.uk/product/rgpro-2-5l/>) 200ml per tree to manufacturers recommendations.
6. All planting areas including RPAs to have fine well composted bark mulch applied such as 'Melcourt composted fine bark' to a depth of 50-60mm

Services within the RPA

Services should be routed outside existing RPA or potential future RPA. If it is found to be unavoidable, then hand excavation should be employed to avoid damage to roots and services slid through or below the root system. Ducting should be used to carry cables to extend min. 1m either side of the trunk. Trenchless techniques can also be considered.

Reporting and Monitoring Procedures

In accordance with item 6.3 of BS 5837:2012, the site and associated development should be monitored regularly to ensure that the arboricultural aspects of the planning permission (e.g., the installation and maintenance of protective measures) are implemented. Furthermore, regular contact between the Site Manager and the arboriculturist allows them to effectively deal with and advise on any tree related problems that may occur during the development process. This system should be auditable. Should any issues arise during the arboricultural monitoring of the development the Local Planning Authority will be contacted, and appropriate action taken only with the prior permission of NTA and the Local Planning Authority.

Appendices

Appendix 1 – Tree Pruning Works

Appendix 2 – Tree survey Plan, Tree survey Demolition and Tree Protection Plan Construction

Appendix 3 – BS5837: 2012 Figure 2, 3 and ground protection

Appendix 4 - Arboricultural Site Supervision Summary

Appendix 5 - Arboricultural Monitoring Report Sheet

Appendix 6 – Contact Details

Appendix 7 – Tree Protection Notice

Appendix 8 – Three-dimensional Cell web ground protection

APPENDIX 1

TREE PRUNING WORKS

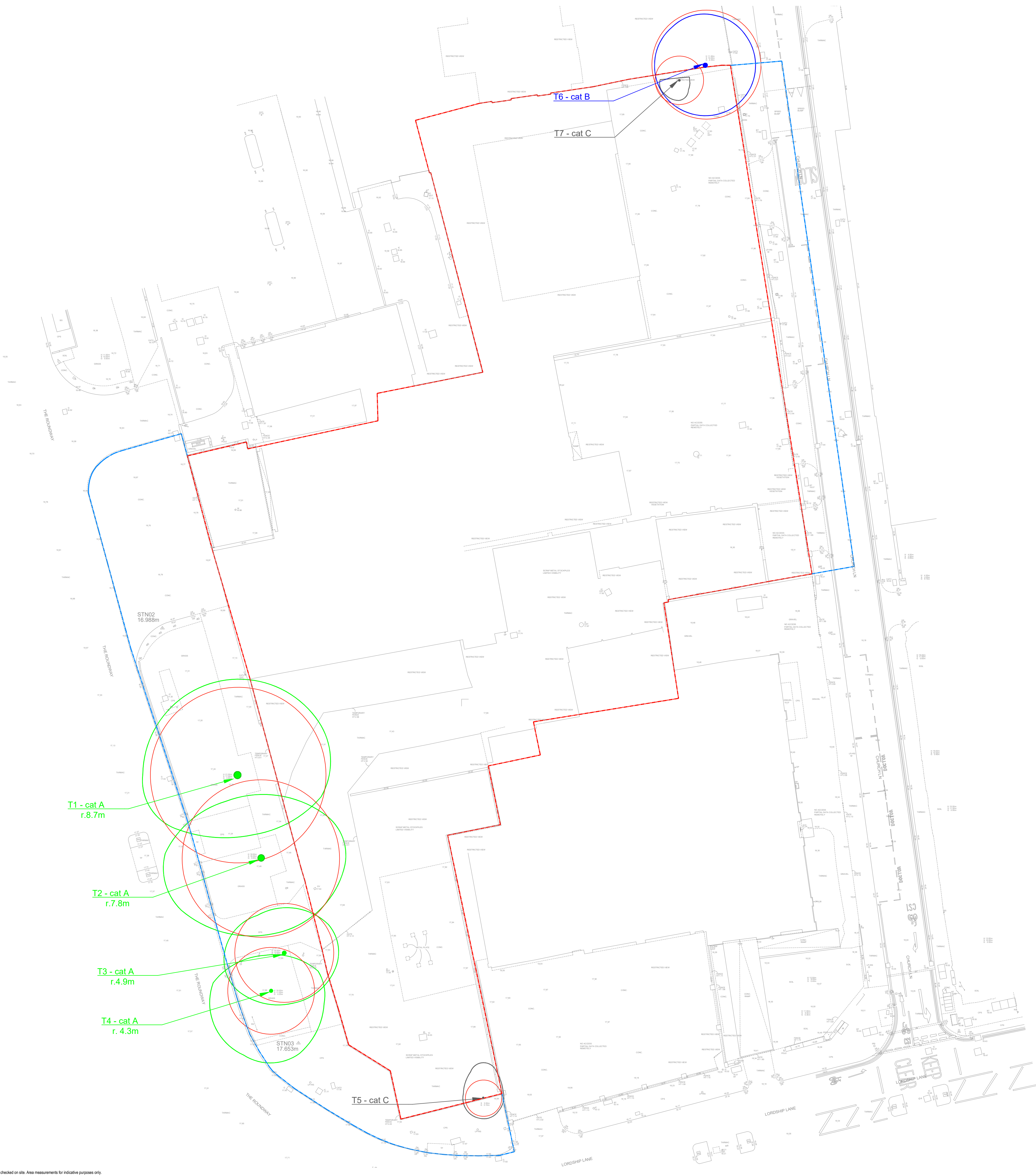
Tree Pruning Schedule 04-12-2023 - revised 25-03-24					
All tree works to be carried out in accordance with 'BS3998:2010 Tree Works - Recommendations' Pruning to be in line with Target Pruning techniques. Ecological check to be undertaken by competent person prior to carrying out any works.					
	TREE NUMBER	BS CATEGORY	SPECIES	PROPOSED WORK	REASON
	T1	A2	LONDON PLANE	Crown lift canopy up to 5m height and removed diseased,dying and deadwood.	To provide site clearance and for safety reasons
				Remedial pruning on TLRN boundary	All final cuts should be completed in relation to BS3998:2010 Tree Works – Recommendations
				No crown reduction on The Roundway street side	
	T2	A2	LONDON PLANE	Crown lift canopy up to 5m height and remove diseased,dying and deadwood from crown.	To provide site clearance and for safety reasons
				Remedial pruning on TLRN boundary	All final cuts should be completed in relation to BS3998:2010 Tree Works – Recommendations
				No crown reduction on The Roundway street side	
	T3	A2	LONDON PLANE	Crown lift canopy up to 5m and removed diseased, dying and deadwood from crown	To provide site clearance and for safety reasons
				Remedial pruning on TLRN boundary	All final cuts should be completed in relation to BS3998:2010 Tree Works – Recommendations
				No crown reduction on The Roundway street side	
	T4	A2	LONDON PLANE	Crown lift canopy up to 5m and removed diseased, dying and deadwood from crown	To provide site clearance and for safety reasons
				Remedial pruning on TLRN boundary	All final cuts should be completed in relation to BS3998:2010 Tree Works – Recommendations
				No crown reduction on The Roundway street side	
Summary					
• Crown lifts and deadwood removal to remain in work specs. • Crown reduction on The Roundway street side for balance to be removed from work specs. • Remedial pruning on the TLRN boundary to be added to work specs, following the pruning that has already been completed. All final cuts should be completed in relation to BS3998:2010 Tree Works – Recommendations. Stub cuts are not best practice and cuts should be made at suitable growth points.					
	T5	C2	HYBRID BLACK POPLAR	Remove tree and treat stump/root to prevent suckering with Ecoplug max tree stump killer asap	To facilitate construction of scheme and to prevent regrowth and suckering from roots
	T6	B2	SYCAMORE	Crown lift canopy up to 3.5/4m and remove any diseased, dying and dead branches. Remove ivy growth from tree	To provide site clearance and for safety reasons
	T7	C2	Elder	Remove tree and all roots	To allow construction of landscape and remove low quality tree which is growing into T6

APPENDIX 2

TREE SURVEY,

TREE PROTECTION PLAN -DEMOLITION

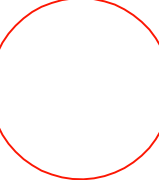
AND TREE PROTECTION PLAN - CONSTRUCTION



Tree Survey			
Summary			
Ref	Species	B.S Cat.	
T1	Plane	A2	high quality + value
T2	Plane	A2	high quality + value
T3	Plane	A2	high quality + value
T4	Plane	A2	high quality + value
T5	Black Poplar	C2	low quality + value
T6	Sycamore	B2	moderate quality + value
T7	Elder	C2	low quality + value

Legend

Key

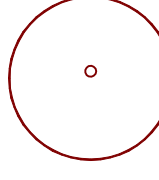
Root Protection Areas (RPA)

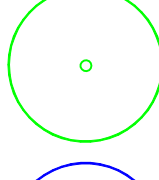
Tree Stem

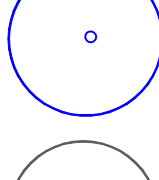
T1Tree No.

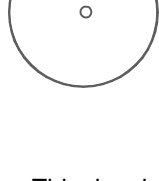
G1Tree Group No.

Guide To Tree Quality Assessment Categories

U - category tree

A - category tree

B - category tree

C - category tree

This drawing has been prepared in accordance with BS 5837:2012.

Site Boundary

Highway works Boundary

This drawing replicates the submitted survey information shown on SHA Drawing SHA_1391 TSP - 1:250@A1 - 3/11/21 and information supplied by JFP

NORTH

This drawing has been prepared in accordance with British Standard BS5837:2012. it draws upon info gathered in 2021 and a recent topographic survey in 2023.

The original of the drawing was produced in colour - and a black & white copy should not be used.

This Tree Survey Plan is to be used to inform the design and layout of the proposed development, including demolition, earthworks, buildings, roads, and services.

To be read in conjunction with all current Tree Survey Reports.

It forms an appendix of a tree report which expands on the data presented and therefore it must not be read without referring to that report and method statements

Contractors to check all dims on site

It is the responsibility of the contractor to ensure all consents for tree works are in place

This drawing is based on information supplied by JFP

ROOT PROTECTION AREAS (RPAs):

BS.5837: 2012 recommends that an area around each retained tree should be protected from disturbance and damage to tree roots by ensuring the prevention of compaction and contamination of the rooting environment.

RPAs are calculated for all category A, B and C grade trees in accordance with the recommendation of the Standard, and are shown as solid colored lines according to the tree category.

RPAs are calculated and shown as a concentric circle centred on the trunk of each tree or a series of overlapping circles where a group is shown, if there appeared to be a significant obstructions to root growth both natural and manmade these can be adjusted

and where applicable reshaped to illustrate more accurately the likely distribution of roots.

The RPAs are shown unadjusted on this plan.

B

A

REV

notes ammended

first issue

DESCRIPTION

CN

CN

APP.

13.12.23

05.12.23

DATE

London

T 020 70171786



313–315 The Roundway
London N17

Tree Survey Plan

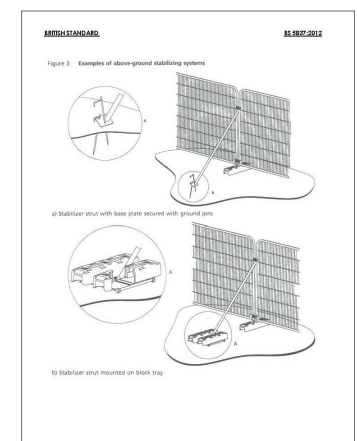
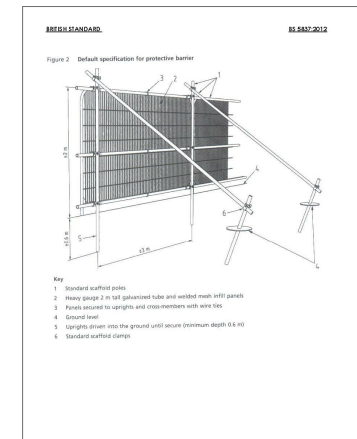
DATE	December 2023	DRAWN	CN
SCALE	1/200@A1	CHECKED	NT
STATUS	Planning	APPROVED	
DWG. NO	D0516_001	B	

GENERAL NOTES:
Protective Fencing

To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise either 2.3m high scaffolding framework, with uprights at maximum 3m spacings, every other one braced to the ground with 45 degree struts supporting standard anti-climb 'Heras' welded mesh fence panels secured with anti-lift devices to concrete or plastic bases pinned to the ground by scaffold uprights sunk to a minimum depth of 600mm; individual panels fixed to each other with at least 2 clamps and to scaffolding with heavy-duty cable ties.

Care must be taken when locating the vertical poles to avoid underground services and, in the case of the bracing poles to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification must be prepared in in conjunction with an arboriculturalist that provides equal protection. Such alternatives could include the attachment of the panels to a free standing scaffold framework.

All weather notices must be attached to the barrier with words such as 'Construction Exclusion Zone - No Access'.



Ground Protection

Where construction working space or temporary construction access is justified within the RPA this must be facilitated by a set back in the tree protection barrier. Within this area existing hard surfacing that is not proposed for re-use as part of the finished design must be related to act as temporary ground protection during construction, rather than be removed during demolition. Suitability of such surfacing for this purpose must be evaluated by the project arboriculturalist and an engineer as appropriate.

Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection must be installed prior to work starting on site.

For pedestrian movements only, single thickness of scaffold boards placed on a scaffold frame or compression resistant layer laid on a geotextile membrane.

For pedestrian operated plant up to gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression resistant layer, laid on a geotextile membrane.

For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system, (e.g a proprietary system or pre-cast concrete slabs) to an engineering specification designed in conjunction with arboricultural advice to accommodate the likely loading.

Soil De-compaction

Soil compaction must be avoided around existing vegetation including trees. Where soil compaction has occurred within the vicinity of existing trees, remedial works may include sub-soil aeration using compressed air and the addition of other materials such as bulky organic matter (excluding peat) to improve structure. Any cultivation must be undertaken carefully by hand to minimise damage to the trees, particularly the roots. This includes forking, spiking, soil augering and tilted radial trenching.

Activities within the RPAs

No activity of any description must occur at any time within these areas including but not restricted to the following:

- a) no mixing of cement or other materials
- b) Storage or disposal of any soil, building materials, rubble, machinery, fuel, chemicals, liquids waste residues, or materials/debris of any other description.
- c) Siting of any temporary structures of any description including site offices/sales buildings, temporary car parking facilities, porta-toos, storage compounds or hard-standing areas of any other description.
- d) Soil/turf stripping, raising/lowering of existing levels, excavation or alterations to the existing surfaces/ground conditions of any other description.
- e) Installation/siting of any underground services, temporary or otherwise including drainage, water, gas, electricity, telephone, television, external lighting, or any associated ducting.
- f) Parking/use of tracked or wheeled machinery or vehicles of any description. In addition to the protection measures specified above:
 - a) no fires must be lit within 20 metres of the trunks of trees or the centre line of any hedgerow shown to be retained.
 - b) No signs, cables, fixtures or fittings of any other description shall be attached to any part of the retained tree.

Arboricultural Supervision

The arboricultural consultant will directly supervise all construction works that have to be undertaken within root protection areas. These include:

1. Location of protective fencing and ground protection.
2. Lifting/excavation of existing hard surfaces.
3. Excavation/demolition of existing foundations.
4. Construction of above-ground hard surfacing.
5. All excavations, whether for proposed foundations, hard surfacing, or underground services.

Hard surface removal

Only where identified. Within root protection area (RPA) of Trees existing hard surfaces/paths/footings shall be removed with care, under the direct supervision of the arboricultural consultant. Surfaces will be broken up with handheld breakers, and then removed by hand, wheelbarrow, or in the bucket of an excavator standing outside the RPA.

Following removal, the underlying soil shall be decompacted using an air spade and organic matter/biochar introduced to a depth of 300mm on a (1m grid spacing) to promote gaseous exchange. At the discretion of the arboricultural consultant, an excavator positioned outside the RPA and using an appropriately sized toothless bucket may be used in some instances. Once completed, the base of the excavation and/or the edge closest to the trees will be covered immediately with hessian sacking to prevent drying out of the soil.

Construction of New Hard Surfaces

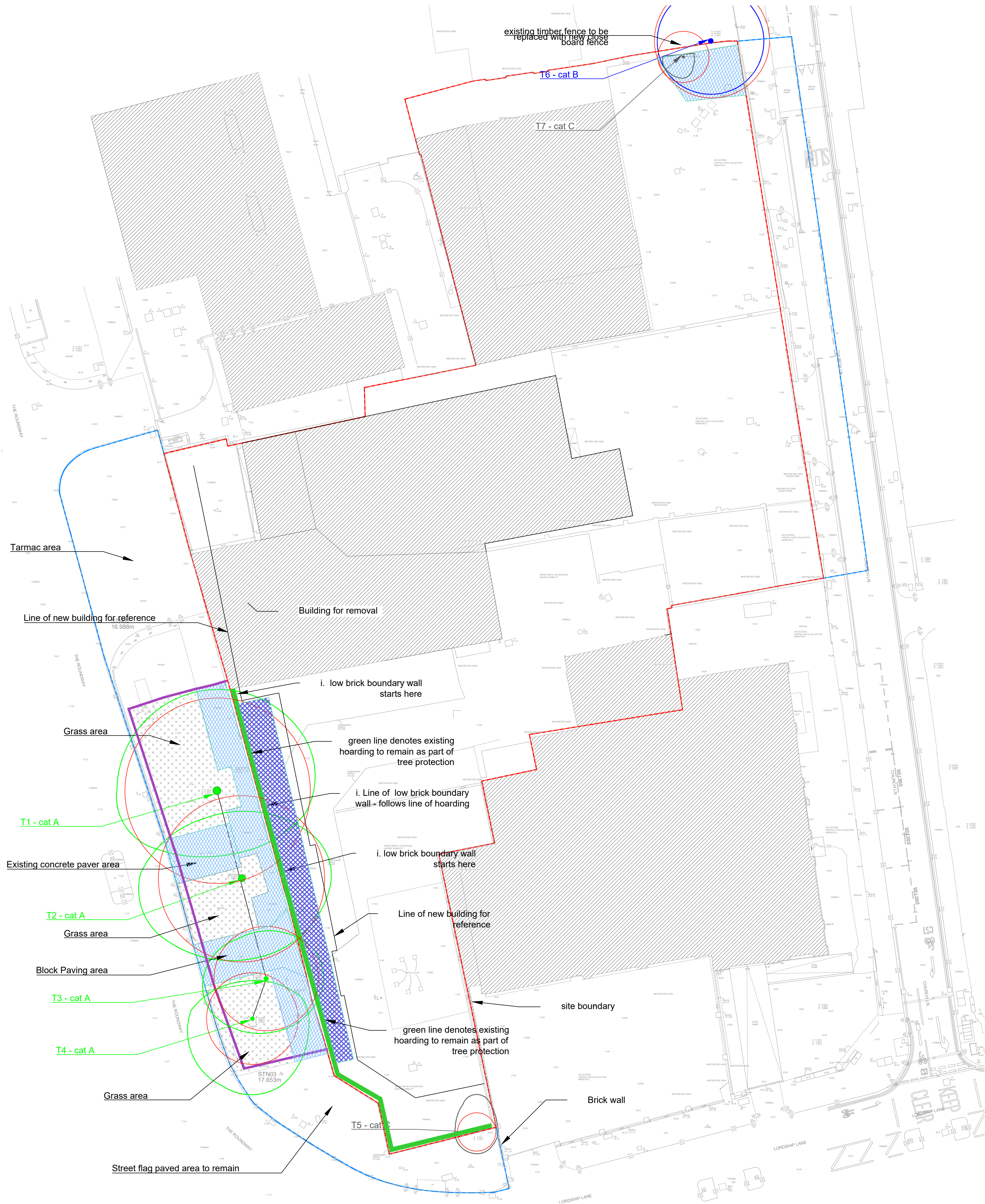
Only where identified - Proposed hard surfacing within the root protection areas will be founded no deeper than the existing surfaces and there formation layers so that the soil beneath is not disturbed or compacted in any way.

A no-dig approach will be taken to the installation of proposed hard surfaces within the areas if required marked on the plan.

No-dig will involve either excavating existing hard surfacing down to sub base and building up, or laying materials to create new hard surfacing onto existing ground levels. No scraping or reducing of existing soft ground levels in the no dig areas indicated on this plan will be undertaken, and all construction in these areas will avoid the use of machinery.

All to be undertaken in line with approvals from LPA and in conjunction with site monitoring engineer as appropriate.

Read in conjunction with NTA report



Tree Survey				
Summary				
Ref	Species	BS Cat	Quality + value	Retention
T1	Plane	A2	high quality + value	retain
T2	Plane	A2	high quality + value	retain
T3	Plane	A2	high quality + value	retain
T4	Plane	A2	high quality + value	retain
T5	Black Poplar	C2	low quality + value	remove
T6	Sycamore	B2	moderate quality + value	retain
T7	Elder	C2	low quality + value	remove

Legend

Key

Trees to be retained

Tree Identification Numbers/Categories

T1 - cat A → A - category tree

T1 - cat B → B - category tree

T1 - cat C → C - category tree

T1 - cat U → U - category tree

Root Protection Areas (RPA) shown in red to BS5837:2012

Trees to be removed: shown in grey

Tree No.'s All shown in grey for removal

CEZ - construction exclusion zone: Area of Hand or No Dig only on site. Construction of landscape structures e.g. footpaths acceptable if using 'no dig techniques' such as cellweb.

Existing paved surfaces to be retained as temporary ground protection surface during demolition. Subject to use, reinforce to accommodate any site vehicle used to prevent compaction

For Construction Phase remove old surfaces carefully in line with Method Statement. No new excavation below existing sub-base including for services in these areas

Area of existing surface to form temporary protection over area subject to construction phasing - or lay as new temp surface protection as detail cellweb TRP, appendix 8. Prior to any construction works pruning to trees must be undertaken.

Line of protective fencing to BS 5837 2012 - refer to diagram fig.2 - final line and type to be agreed with LPA

Line of protective fencing to BS 5837 2012 - refer to diagram fig.3 - final line and type to be agreed with LPA

Line of existing site 2.3m hoarding which will remain as tree protection

This drawing has been prepared in accordance with British Standard BS5837:2012. it draws upon info gathered in 2021 and a recent topographic survey in 2023.

The original of the drawing was produced in colour - and a black & white copy should not be used.

This Tree Survey Plan is to be used to inform the design and layout of the proposed development, including demolition, earthworks, buildings, roads, and services.

To be read in conjunction with all current Tree Survey Reports.

It forms an appendix of a tree report which expands on the data presented and therefore it must not be read without referring to that report and method statements

Contractors to check all dims on site

It is the responsibility of the contractor to ensure all consents for tree works are in place

This drawing information is based on information supplied by JFP

ROOT PROTECTION AREAS (RPAs):

BS.5837: 2012 recommends that an area around each retained tree should be protected from disturbance and damage to tree roots by ensuring the prevention of compaction and contamination of the rooting environment.

RPAs are calculated for all category A, B and C grade trees in accordance with the recommendation of the Standard, and are shown as solid colored lines according to the tree category.

RPAs are calculated and shown as a concentric circle centred on the trunk of each tree or a series of overlapping circles where a group is shown, if there appeared to be a significant obstructions to root growth both natural and manmade these can be adjusted and where applicable reshaped to illustrate more accurately the likely distribution of roots.

The RPAs are shown unadjusted on this plan.

This drawing has been prepared in accordance with BS 5837:2012.

This drawing is based on the info on the submitted survey information shown on SHA Drawing SHA_1391 TPP1 - 1:200@A1 - 3/11/21 - updated in line with current design proposals

REV	DESCRIPTION	APP.	DATE
C	notes ammended-edited		12.03.24
B	notes ammended		13.12.23
A	first issue		05.12.23

London
T 020 70171786

313-315 The Roundway
London N17

Tree Protection Plan
Demolition

DATE	December 2023	DRAWN	CN
SCALE	1/200@A1	CHECKED	NT
STATUS	Planning	APPROVED	
DWG. NO	D0516_002	C	

GENERAL NOTES:

Protective Fencing

To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise either 2.3m high scaffolding framework, with uprights at maximum 3m spacings, every other one braced to the ground with 45 degree struts, supporting standard anti-climb 'heras' welded mesh fence panels secured with anti-lift devices to concrete or plastic bases pinned to the ground by scaffold uprights sunk to a minimum depth of 600mm; individual panels fixed to each other with at least 2 clamps and to scaffolding with heavy-duty cable ties.

Care must be taken when locating the vertical poles to avoid underground services and, in the case of the bracing poles to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification must be prepared in conjunction with an arboriculturalist that provides equal protection. Such alternatives could include the attachment of the panels to a free standing scaffold framework.

All weather notices must be attached to the barrier with words such as 'Construction Exclusion Zone - No Access'.

Soil De-compaction

Soil compaction must be avoided around existing vegetation including trees. Where soil compaction has occurred within the vicinity of existing trees, remedial works may include sub-soil aeration using compressed air and the addition of other materials such as bulky organic matter (excluding peat) to improve structure. Any cultivation must be undertaken carefully by hand to minimise damage to the trees, particularly the roots. This includes forking, spiking, soil augering and tilted radial trenching.

Activities within the RPAs

No activity of any description must occur at any time within these areas including but not restricted to the following:

- no mixing of cement or other materials
- Storage or disposal of any soil, building materials, rubble, machinery, fuel, chemicals, liquids waste residues, or materials/debris of any other description.
- Siting of any temporary structures of any description including site office/sales buildings, temporary car parking facilities, porta-toos, storage compounds or hard-standing areas of any other description.
- Soil/turf stripping, raising/lowering of existing levels, excavation or alterations to the existing surfaces/ground conditions of any other description.
- Installation/siting of any underground services, temporary or otherwise including drainage, water, gas, electricity, telephone, television, external lighting, or any associated ducting.
- Parking/use of tracked or wheeled machinery or vehicles of any description. In addition to the protection measures specified above:
 - no fires must be lit within 20 metres of the trunks of trees or the centre line of any hedgerow shown to be retained.
 - No signs, cables, fixtures of fittings of any other description shall be attached to any part of the retained tree.

Arboricultural Supervision

The arboricultural consultant will directly supervise all construction works that have to be undertaken within root protection areas. These include:

- Location of protective fencing and ground protection.
- Lifting/excavation of existing hard surfaces.
- Excavation/demolition of existing foundations.
- Construction of above-ground hard surfacing.
- All excavations, whether for proposed foundations, hard surfacing, or underground services.

Hard surface removal

Only where identified. Within root protection area (RPA) of trees existing hard surfaces/paths/footings shall be removed with care, under the direct supervision of the arboricultural consultant. Surfaces will be broken up with handheld breakers, and then removed by hand, wheelbarrow, or in the bucket of an excavator standing outside the RPA.

Following removal, the underlying soil shall be decompacted using an air spade and organic matter/biochar introduced to a depth of 300mm on a (1m grid spacing) to promote gaseous exchange. At the discretion of the arboricultural consultant, an excavator positioned outside the RPA and using an appropriately sized toothless bucket may be used in some instances. Once completed, the base of the excavation and/or the edge closest to the trees will be covered immediately with hessian sacking to prevent drying out of the soil.

Construction of New Hard Surfaces

Only where identified - Proposed hard surfacing within the root protection areas will be founded no deeper than the existing surfaces and there formation layers so that the soil beneath is not disturbed or compacted in any way.

A no-dig approach will be taken to the installation of proposed hard surfaces within the areas if required marked on the plan.

No-dig will involve either excavating existing hard surfacing down to sub base and building up, or laying materials to create new hard surfacing onto existing ground levels. No scraping or reducing of existing soil ground levels in the no dig areas indicated on this plan will be undertaken, and all construction in these areas will avoid the use of machinery.

All to be undertaken in line with approvals from LPA and in conjunction with site monitoring

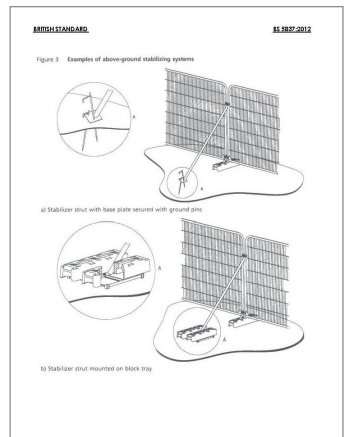
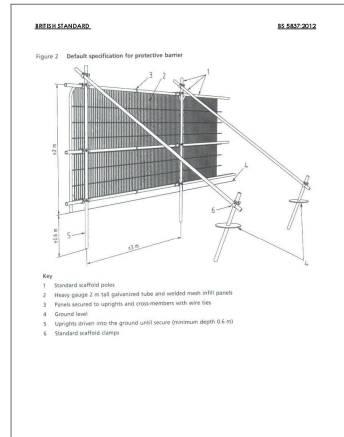
Read in conjunction with NTA report

Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection must be installed prior to work starting on site.

For pedestrian movements only, single thickness of scaffold boards placed on a scaffold frame or compression resistant layer laid on a geotextile membrane.

For pedestrian operated plant up to gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression resistant layer, laid on a geotextile membrane.

For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system, (e.g a proprietary system or pre-cast concrete slabs) to an engineering specification designed in conjunction with arboricultural advice to accommodate the likely loading.



Ground Protection

Where construction working space or temporary construction access is justified within the RPA this must be facilitated by a set back in the tree protection barrier. Within this area existing hard surfacing that is not proposed for reuse as part of the finished design must be retained to act as temporary ground protection during construction, rather than be removed during demolition.

Suitability of such surfacing for this purpose must be evaluated by the project arboriculturalist and an engineer as appropriate.

Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection must be installed prior to work starting on site.

For pedestrian movements only, single thickness of scaffold boards placed on a scaffold frame or compression resistant layer laid on a geotextile membrane.

For pedestrian operated plant up to gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression resistant layer, laid on a geotextile membrane.

For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system, (e.g a proprietary system or pre-cast concrete slabs) to an engineering specification designed in conjunction with arboricultural advice to accommodate the likely loading.

Line of pruning works for canopies to be taken back to give clear 2m from bldg

T1 - cat A

existing hard footpath surface retained until landscape works undertaken

T2 - cat A

existing hard footpath surface retained until landscape works undertaken

T3 - cat A

T4 - cat A

T1 - cat A - root protection area will be reduced to 9m2 - or 4% of total area of 241m2 to accommodate building slab. This area is part of existing hard stand area to be removed (original SHA area =15m2)

T2 - cat A - root protection area will be reduced to 6m2 - or 3% of total area of 203m2 to accommodate building slab. This area is part of existing hard stand area to be removed (original SHA area 9m2)

Exact edge of retained temp protection surface to be marked on site

Line of pruning works for canopies to be taken back to give clear 2m from bldg.

T5 - cat C

T6 - cat B

Tree Survey				
Summary				
Ref.	Species	B.S. Cat	Quality + value	Retention
T1	Plane	A2	high quality + value	retain
T2	Plane	A2	high quality + value	retain
T3	Plane	A2	high quality + value	retain
T4	Plane	A2	high quality + value	retain
T5	Black Poplar	C2	low quality + value	remove
T6	Sycamore	B2	moderate quality + value	retain
T7	Elder	C2	low quality + value	remove

Legend
Key
Trees to be retained

Tree identification Numbers

T1 - cat A A - category tree

T1 - cat B B - category tree

T1 - cat C C - category tree

T1 - cat U U - category tree

Root Protection Areas (RPA) shown in red to BS5837:2012

Trees to be removed: shown in grey

Tree No.'s All shown in grey for removal

Existing paved surface to be retained as temporary ground protection surface during demolition. For Construction Phase Landscape works remove old surfaces carefully in-line with Method statement. No new excavation below existing sub-base including for services in these areas

Area of existing surface to form temporary protection over area subject to construction phasing - or lay as new temp surface protection as detail cellweb TRP, appendix 8. Prior to any construction works pruning to trees must be undertaken.

Area of minor excavation required to form level slab within edge of RPA - working from building side away from trees form clean vertical cut with smooth bucket for slab construction. Ensure separation membrane between slab and soil areas is used.

CEZ - construction exclusion zone: Area of Hand or No Dig only on site. Construction of landscape structures e.g. footpaths acceptable if using 'no dig techniques' such as cellweb.

Line of pruning to accommodate building works for Plane Trees T1 - T4 - minimum 2m offset from building facade

Area for method statement for boundary fence installation adjacent T6 (offset). Design review layout

Tree protection barriers

Line of protective fencing to BS 5837 2012 - refer to diagram fig 2 - final line and type to be agreed with LPA

Line of protective fencing to BS 5837 2012 - refer to diagram fig 3 - final line and type to be agreed with LPA

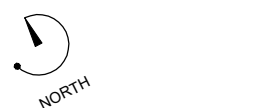
Line of existing site 2.3m hoarding which will remain as tree protection

This drawing has been prepared in accordance with BS 5837:2012.

Site Boundary Built

Site Boundary -Highways

This drawing is based on the info on the submitted survey information shown on SHA Drawing SHA_1391 TPP1-1:200@A1 - 3/11/21 - updated in line with current design proposals and JFP info supplied



D	minor notes amended	CN	15.03.24
C	RPA works area/ notes amended	CN	13.03.24
B	notes amended	CN	13.12.23
A	first issue	CN	05.12.23
REV.	DESCRIPTION	APP.	DATE

London
T 020 70171786



313-315 The Roundway
London N17

Tree Protection Plan
Construction

DATE	December 2023	DRAWN	CN
SCALE	1/200@A1	CHECKED	NT
STATUS	Planning	APPROVED	
DWG. NO	D0516_003 D		

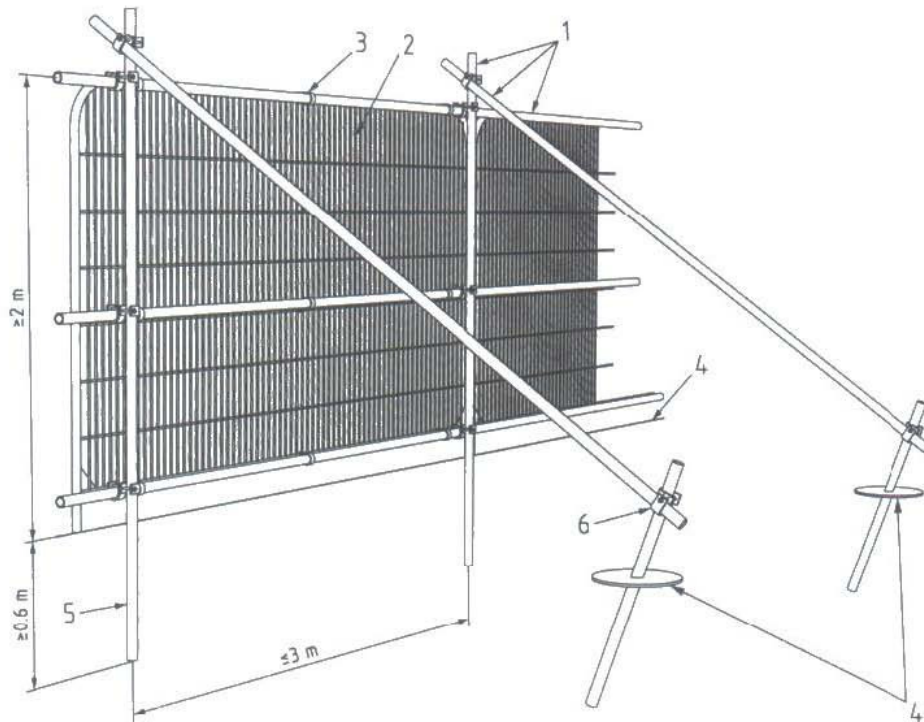
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APPENDIX 3

BS5837: 2012: FIGURE 2, 3 AND GROUND PROTECTION

BRITISH STANDARDBS 5837:2012

Figure 2 Default specification for protective barrier

**Key**

- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps

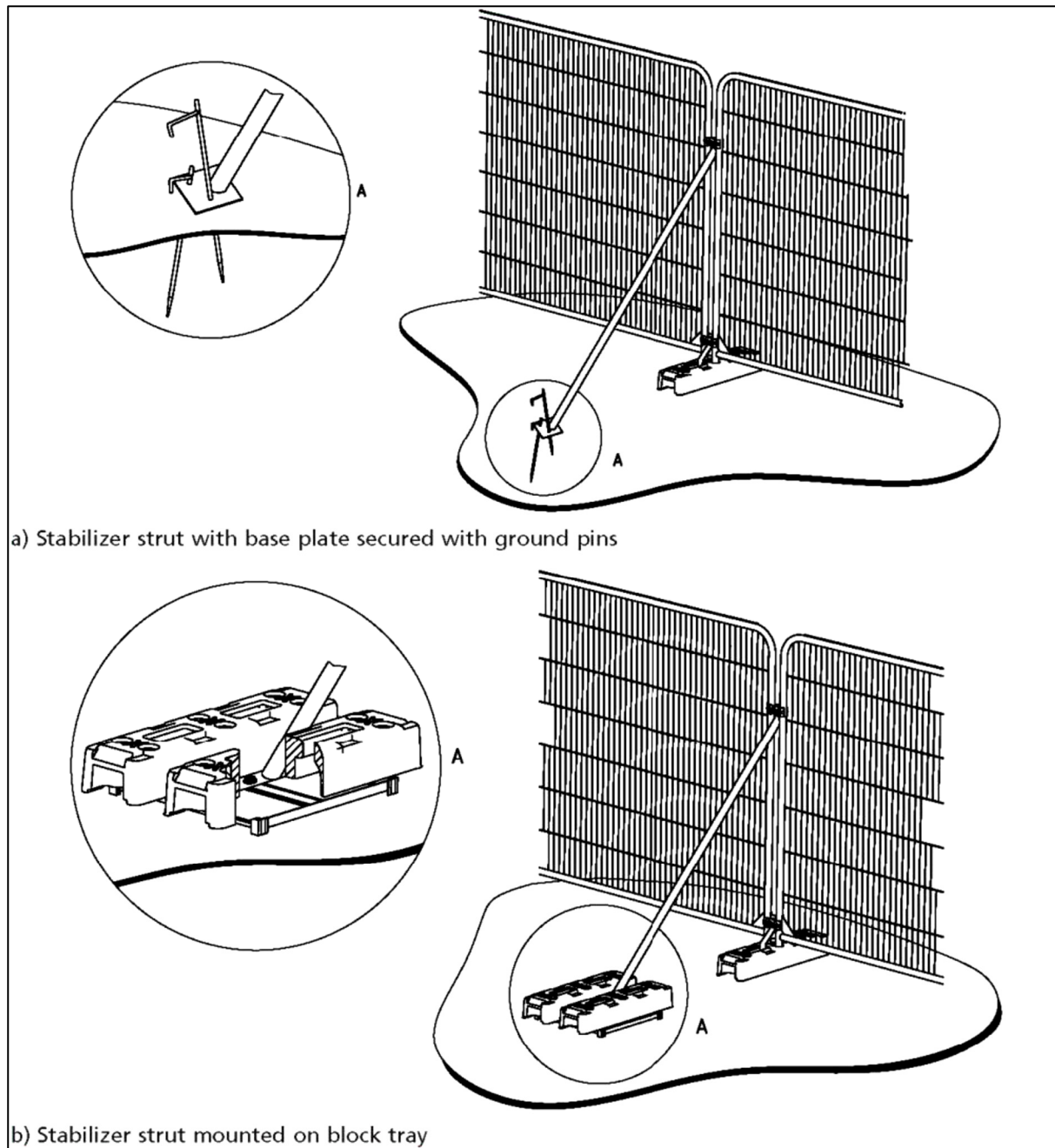
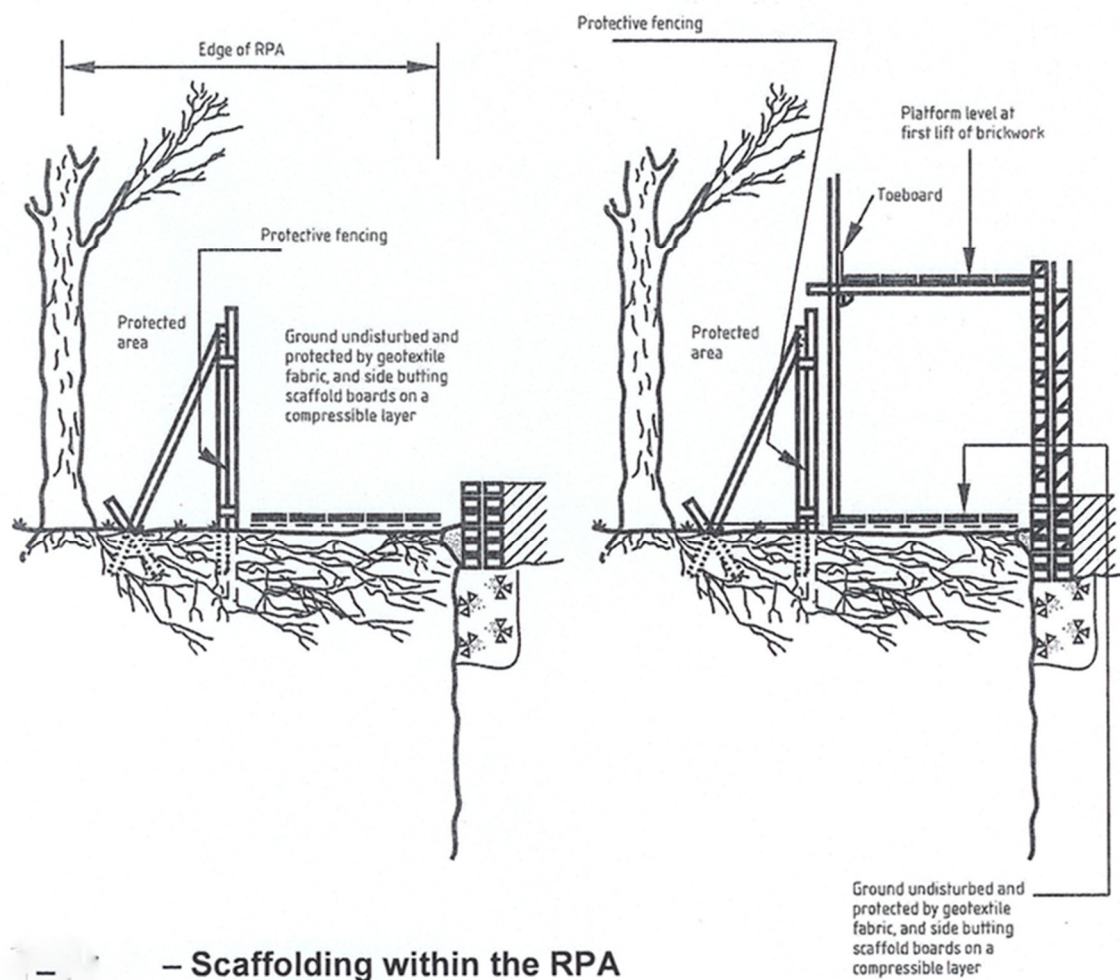


Figure 3: Protective Barrier Fencing



– Scaffolding within the RPA

APPENDIX 4

ARBORICULTURAL SITE SUPERVISION SUMMARY

BS 5837:2012 –

Trees in Relation to Design, Demolition and Construction –
Recommendations

ARBORICULTURAL SITE SUPERVISION – SUMMARY

1. All site monitoring will be undertaken by a suitably qualified experienced Arborist.
2. A site agent must be nominated for all arboricultural matters on site. They will be on site the majority of the time and be in attendance at the prestart meeting. They will have the authority to stop any works that could cause damage to the trees. Be responsible for inducting all site staff toward the responsibilities with regard to site trees and their protection. Make immediate contact with the LPA and or arborist if any tree related problems occur.
3. An Arborist will be present throughout the key operations to ensure compliance with the Arboricultural Method Statement and Tree Protection Plan. Key operational points will be agreed in writing with the client and LPA prior to commencement of works. Typically, these will include.
 - Remedial tree works
 - Installation of protective measures (fences and ground)
 - Installation of site facilities
 - Demolition works
 - Installation of foundations/piles/slabs
 - Installation of services
 - Landscaping within RPA's
 - Site completion
4. Monitoring will be undertaken throughout all operations onsite as well as ongoing communications with the Client, Site Manager and LPA. A checklist will be completed (appendix 4) and a copy will be retained by the Site Manager with a copy sent to the LPA.
5. Monitoring visits will generally be unannounced. Upon arrival, the Arborist will check in at the site office and inspect the tree protection measures in conjunction with the Site Manager. The Arborist will also visit the site at pre-determined dates to view specific operational issues (see above).
6. Any defects requiring attention will be notified to the Site Manager and Client (copied to the LPA by e-mail). Any emergencies will be notified to the Client and LPA by phone.
7. Day to day site supervision will be the responsibility of the Site Manager. They will be aware of the tree protection measures and significant steps in the development process which have arboricultural implications. To ensure compliance the Site Manager will undertake a site briefing with the retained Arborist before the commencement of works. Where works are ongoing after briefings supervision maybe reduced to telephone and email/photo exchange contact between site and the arborist.
8. A final sign off visit will be carried out at the end of the development and a formal letter sent both to the client and the LPA to indicate the end of the monitoring period.

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APPENDIX 5

ARBORICULTURAL MONITORING REPORT SHEET

Arboricultural Monitoring Report Sheet			
(BS 5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations)			
Client		Planning Ref.	
Planning Authority		Date of Inspection	
Site address			
Site Checklist			
Protective Fencing in place			
Protective fencing to specification			
Ground protection in place (if applicable)			
Site Foreman briefed			
Tree(s) damaged?			
Remedial works required			
General Comments:			
Recommendations:			
Report sent to LPA:		Inspection by:	

APPENDIX 6

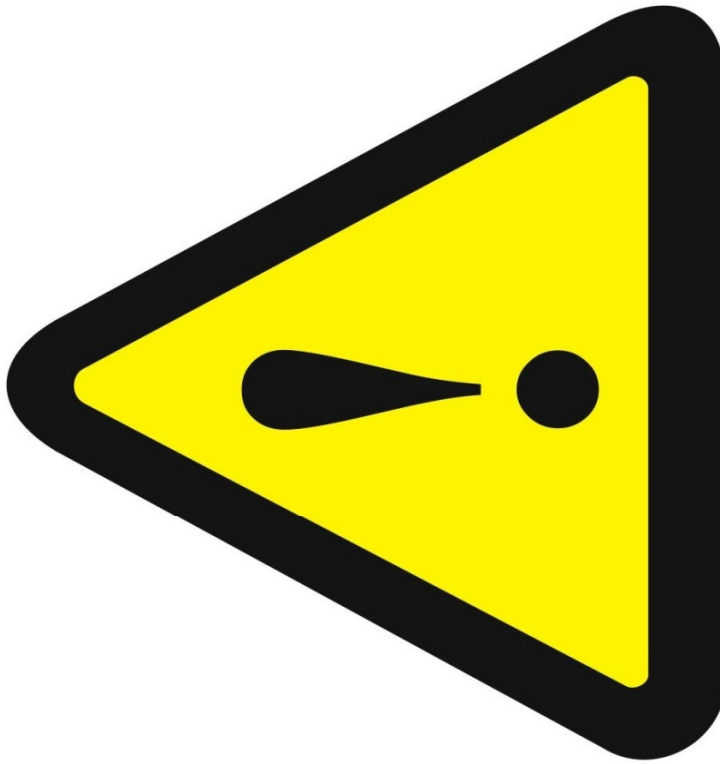
CONTACT DETAILS

Title	Name	Authority/ Company	Telephone	E-Mail
Mr	Neil Tully	NTA	07855 256591	nmt@neiltully.co.uk

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APPENDIX 7

TREE PROTECTION NOTICE



TREE PROTECTION AREA

KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A
TREE PRESERVATION ORDER.

CONTRAVENTION OF A TREE PRESERVATION ORDER MAY
LEAD TO CRIMINAL PROSECUTION

ANY INCURSION INTO THE PROTECTED AREA MUST BE
WITH THE WRITTEN PERMISSION OF THE LOCAL
PLANNING AUTHORITY



**PROTECTIVE FENCING. THIS
FENCING MUST BE
MAINTAINED IN ACCORDANCE
WITH THE APPROVED PLANS
AND DRAWINGS FOR THIS
DEVELOPMENT.**

APPENDIX 8

THREE DIMESIONAL CELL WEB GROUND PROTECTION

If required.



Cellweb® TRP is a 3D cellular confinement tree root protection system. The system provides a 'no dig' solution for the construction of new hard surfaces within root protection areas (RPAs). Cellweb® TRP has been designed and independently tested to comply with recommendations made in Arboricultural Practice Note 12 and BS 5837 2012 – Trees in relation to design, demolition and construction.



Cellweb® TRP Key Functions

Cellweb® is a 'no dig' solution which is constructed directly on the existing ground surface. This eliminates the requirement for excavation, preventing root severance.

Cellweb® is a completely porous system allowing continued water permeation and gas exchange between the rooting environment and atmosphere.

Cellweb® spreads point loads, minimising increases in soil compaction within the rooting environment. This maintains an open graded soil structure allowing continued root growth, water, gas and nutrient migration.

The Cellweb® TRP system comprises the following three components

Treetex™ Geotextile. Following minimal ground preparation the Treetex™ is laid onto the existing ground and top soil. This acts as a separation layer, separating the system above from the soil and rooting environment below. Treetex™ performs as a hydrocarbon pollution control measure in accordance with BS5837, holding 1.7lt of oil per square meter.

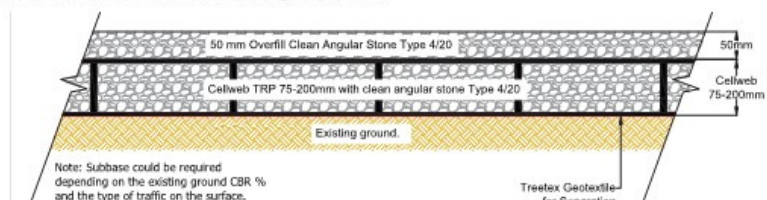
Cellweb® 3D Cellular Confinement. The Cellweb® is installed on top of the Treetex™ layer. This is fixed to the ground using ten steel J pins per panel. The panels can be cut to the required shape and adjoining panels can be connected using heavy duty staples or cell ties.

4-20mm Clean Angular Stone. The expanded Cellweb® is infilled with a 4-20mm clean angular stone. The confined angular stone locks together to produce a rigid stone mattress, while maintaining air pockets for continued water permeation and gas exchange. The low fines content of the stone prevents the Treetex™ layer from becoming blocked over time.

Which depth of Cellweb® TRP?

The Cellweb® System is provided in four different depths; 200mm, 150mm, 100mm and 75mm. The depth required is determined by the proposed traffic loadings and the site ground conditions. Geosynthetics in house engineering department can provide a free site specific technical recommendation. For free technical and engineering support please contact Geosynthetics Ltd 01455 617139 or the full installation guide can be found on our website www.geosyn.co.uk.

Indicative Cellweb with overfill



Web: www.geosyn.co.uk | Tel: 01455 617139
Fax: 01455 617140 | Email: Sales@geosyn.co.uk



Geosynthetics
Engineered Solutions