

North

HAWLEY ROAD

Tree No.	Species	Reason for works	Tree Works
Tree Removal & Facilitative Pruning			
1	Leyland Cypress	Removal approved as part of planning consent	Fell to ground level, grind out stump
7	Ash	Removal approved as part of planning consent	Fell to ground level, grind out stump
16	Sycamore	To facilitate demolition of existing building. Off-site tree subject to TPO. Tree owners permission required	Tip reduce laterals on west profile to provide 2m clearance from building, remove dead wood, stubs and defective branches overhanging site.
17	Sycamore	To facilitate demolition of existing building. Off-site tree subject to TPO. Tree owners permission required	Tip reduce laterals on west profile to provide 2m clearance from building, remove dead wood, stubs and defective branches overhanging site.
22	Buddleia	Removal approved as part of planning consent	Fell to ground level, grind out stump
23	Tree of Heaven	Removal approved as part of planning consent	Fell to ground level, grind out stump
24	Elder	Removal approved as part of planning consent	Fell to ground level, grind out stump
25	Hornbeam	To facilitate removal of existing hard standing and minimise shading. Off-site tree. Tree owners permission required	To crown lift to provide 3.5m clearance above ground level on west profile only, remove dead wood, stubs and defective branches overhanging site.
26	Dove Tree	Removal approved as part of planning consent	Fell to ground level, grind out stump
27	Birch	Removal approved as part of planning consent	Fell to ground level, grind out stump
28	Cypress	Removal approved as part of planning consent	Fell to ground level, grind out stump

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General

This illustrative plan is submitted in respect of Condition 13 of Planning Consent 2012/4640/P and intended to identify the location of trees for retention, trees for removal and preliminary tree work, the location of protective barriers, other relevant physical protection and highlight precautionary areas for retained trees. This plan should be read in association with the Construction Management Plan submitted under separate cover and incorporated into subsequent drawings and contractors method statements for issue on site, to ensure that all parties are fully aware of the areas in which access and works may and may not take place.

Planning Conditions (trees)

Condition 13 of Planning Consent 2012/4640/P states: Prior to commencement of any works on site, details demonstrating how trees to be retained shall be protected during construction work shall be submitted to and approved by the Council in writing. Such details shall follow guidelines and standards set out in BS5837: 2012 Trees in relation to design, demolition and construction. All trees on the site, or parts of trees growing from adjoining sites, unless shown on the permitted drawings as being removed, shall be retained and protected from damage in accordance with the approved protection details.

Statutory Designations (trees)

Tree Preservation Order C167 specifies 2x Sycamore located within the rear gardens of 51 & 53 Kenilsh Town Rd. Written consent must therefore be obtained from London Borough of Camden Council prior to carrying out works to trees subject to the TPO.

Hawley Wharf lies within a Conservation Area and as such all trees over 75mm diameter (measured at 1.5m a.g.l.) are subject to statutory protection. Six weeks written notification must be given to the LPA in writing prior to carrying out tree works. During this period the LPA may initiate a TPO in respect of the trees or make no comment and allow the works to proceed.

Tree Preservation Order No. C167

Site Boundary

Indicative boundary

Demolition

Demolition (structure)

Tree Removal and Retention

Tree No. to be retained

Tree No. to be removed

Tree Protection Measures

Preliminary root protection area

Tree Protection Barriers Type 1

Precautionary Area 1 (single hatch)

Precautionary Area 2 (cross hatch)

Arboricultural Method Statement

The primary purpose of this plan is to aid the preservation of retained trees through setting out the appropriate working practices, demolition techniques and tree protection measures that are to be adopted when demolition works are undertaken in the proximity of trees. The methodology of this Tree Protection Strategy follows a logical sequence of events. Variations to the sequence could significantly reduce the efficiency of the tree protection measures.

This plan should be incorporated into subsequent drawings and method statements used for design purposes or issued for use on site, to ensure that all parties are fully aware of the areas in which access and works may and may not take place.

A summary of tree protection will be provided to all personnel through the Site Induction. This summarises the key precautionary measures and responsibilities of all site personnel to ensure an awareness of trees during site works and that they are successfully protected throughout the demolition and land remediation works. Demolition Contractor - It is the responsibility of the Demolition Contractor to ensure that the Tree Protection Plans are implemented on site, maintained during the development process and understood by all site personnel and contractors prior to commencement of works.

Pre-commencement meeting - A pre-commencement meeting shall be held on site prior to commencement of enabling or demolition works - This shall be attended by the Client's Representative, Demolition Contractor and Project Arboriculturist. The Local Authority Tree Officer will be notified and invited to attend. The methods of tree protection outlined within this statement and revisions for the particular phase shall be fully discussed at the meeting, so that all aspects of their implementation and sequencing are made clear to all parties. Any clarifications or modifications to this statement shall be recorded and circulated to all parties in writing.

Tree Roots - The majority of tree roots are typically concentrated within the top 600mm of soil. Repeat tracking by vehicles, excavation or cement (including crushed) over soft ground near trees is likely to cause root damage. This may have an adverse impact on the trees health and stability. Any tree roots exposed during operations should be treated as once. Exposed roots smaller than 25mm diameter may be pruned back, preferably to a side branch, using proprietary cutting tools. In the event that roots are required to be pruned, sharp cutting tools are to be used to ensure the minimum damage is caused. Clean cuts can result in the redevelopment of fine roots. Poor utility cuts can, however, result in root die back and decay. No roots greater than diameters of 25mm are to be pruned without prior agreement with the Local Authority Tree Officer.

Tree Works - All tree works are to be carried out in accordance with BS 3998 Tree Works - Recommendations (2010). Trees identified for removal or remedial works within this plan are to be completed prior to commencement of enablement, demolition or ground works. Prior to commencement of tree work, the Local Planning Authority, All recommendations or precautionary measures made by the Project Ecologist will be adopted by the tree contractor. Any trees to be felled shall be soft felled as a precautionary measure. No tree works are to take place within the winter season (November to August) unless a survey undertaken by a suitably experienced person establishes that active nests are absent.

All arisings will be removed from site by the tree contractor unless otherwise agreed in writing by the client.

Tree Removal - felling in one piece should only be carried out when there is no significant risk of damage to people, property or protected species. Where trunks or branches display features such as small rot holes, which bats could use for roosting trees will be removed in sections and lowered to the ground - Once felled any features should be checked for bats. If a bat or evidence of bats is found or suspected at any point during the tree work, all work to the tree must stop immediately and the local Natural England team and/or a suitable ecologist must be contacted for advice. Where the work is undertaken during the summer, the tree should remain on the ground and undisturbed overnight to allow any undetected bats to leave. If carried out during the winter months (November to March inclusive), the tree should be felled for a minimum of five nights, during which at least one night the temperature should be above 7 degrees Celsius or as recommended by an Ecologist.

Remove stump - the stump is to be ground out to the base of the stump and the resultant hole backfilled with good quality topsoil and capped to match surrounding material as specified by an engineer.

Crown Lift - pruning to achieve a desired vertical clearance above ground level (expressed in meters).

Directional pruning - to reduce laterals on specified cardinal point to achieve desired clearance from structure or infrastructure.

Arisings - parts of a tree, including stem roots, branches, bark, other woody material and foliage, derived from the tree during tree work operations.

Tree Protection Barriers - All barriers are to be erected prior to commencement of any external works on site (including site enablement) and are to be retained throughout the demolition process. All barriers are to be fit for purpose. The area between the tree and the protection barriers forms the Construction Exclusion Zone. The construction exclusion zone is to remain sacrosanct with storage of materials, machinery or equipment prohibited. No excavation or changes in land levels are to occur within this area unless agreed in writing by the Local Planning Authority. All damage to protective barriers or accidental damage to trees must be reported to the Client's Representative immediately. Works occurring within the vicinity will cease immediately until adequate tree protection measures are rectified. Where appropriate the protection barriers will be aligned with the site hoarding.

Type 1 Barriers - should consist of a scaffold framework comprising of a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3m and driven into the ground. Once this, weldmesh panels should be securely fixed with wire or scaffold clamps in accordance with the Local Planning Authority. See Tree Protection Barriers - Type 1 (extract of Fig.2 BS5837 2012 - Default specification for protective barrier).

Once the barriers have been properly installed and erected in position, the fenced area is to be considered sacrosanct and must not be removed or altered in any way without prior approval from the Project Arboriculturist.

All weather tree protection notices are to be fixed to the outside of all tree protection barriers.

Precautionary Areas - Within the precautionary areas, measures must be observed to minimise potential root disturbance during removal of hard surfacing. Existing hard surfacing will remain in place to provide ground protection to vehicular traffic during the demolition process or until such time agreed with the Project Arboriculturist. Tracking by vehicles is prohibited within soft ground areas. All plant and vehicles will be appropriate to the operation in hand in order to minimise damage/disturbance to the above and below ground constraints formed by trees.

Precautionary Area 1 - area hatched (single)

Appropriate machinery to the constraints at hand will be used to break-up and remove the existing surface and sub-base ensuring that excavation does not encroach within the soft ground below. Where the hard surface is close to the soil level, hand tools or appropriate machinery is to be used to prevent unnecessary damage to the tree roots which may be directly below the surface. All surfacing shall be pulled tangentially away from the tree's RPA using the undisturbed hard surfacing as ground protection. Removal of sections will be carried out sequentially to ensure vehicles work backwards and remain on the undisturbed hard surfacing. Any tree roots exposed by such operations should be treated at once. Exposed roots will be wrapped in dry, clean Hessian sacking to prevent desiccation and to protect from rapid temperature changes until the proposed surface is reinstated, damaged roots will be recorded and clearly cut (see Tree Roots).

Immediately following removal of hard standing, the soil structure must be protected by the installation of tree protection barriers to the extent of the RPA to form the Construction Exclusion Zone.

Precautionary Area 2 - area hatched (cross)

All plant and vehicles engaged in demolition work must operate outside of the RPA. All plant and vehicles will be appropriate to the demolition in hand and site constraints in order to minimise damage/disturbance to trees. Precautionary measures must be observed to avoid contact with the crown of any retained trees from tall loads, plant with booms, plant & counterweights.

Protection and precautionary measures must be considered by the Demolition Contractor and provision made within the contractor's Method Statement for tree protection and physical impact from demolition material. A copy of the protection and precautionary measures contained within the contractor's Method Statement will be provided to the Client's Representative for checking.

Demolition of standing structures shall be carried out using a 'top down and pulled back' methodology within the footprint of the existing building. Following demolition and removal of demolition debris and prior to commencement of removal of the foundation base, areas of potential conflict will be marked out on site by the Site Manager and Project Arboriculturist to indicate precautionary areas.

Removal of the foundation base must be carefully carried out in order not to disturb tree roots that may be present below them. Appropriate machinery under arboricultural monitoring will be used to break-up and remove the existing surface and sub-base ensuring that excavation does not encroach within the soft ground below. When the foundation is close to the soil level, hand tools or appropriate machinery is to be used to prevent unnecessary damage to the tree roots. All surfacing should be pulled tangentially away from the RPA's. Any tree roots exposed by such operations should be treated at once. Exposed roots will be wrapped in dry, clean Hessian sacking to prevent desiccation and to protect from rapid temperature changes. Following completion of works within all exposed roots will be covered with good quality topsoil before backfilling. Roots smaller than 25mm diameter may be pruned back, preferably to a side branch, using proprietary cutting tools.

Immediately following demolition of foundations, the underlying soil structure must be protected by installation of tree protection barriers to the extent of the RPA to form the Construction Exclusion Zone.

Utilities and drainage runs - All redundant utility or drainage runs within the RPA will be disconnected and capped-off outside of the RPA and are to remain in-situ. In the event that excavation is required within the RPA as part of agreed utility and drainage plans, hand tools only must be used in accordance with National Joint Utility Guidelines Vol. 4 issue 2 Nov 07.

Installation of Hard Surfacing or Structure within Area of Previously Disturbed Ground - Precautionary Area hatched (single & cross)

Where installation of hard surfacing is proposed within an area of previously disturbed ground from previous hard standing or removal of foundations, precautionary measures will be observed to minimise further root disturbance. Prior to installation the tree protection barriers will be dismantled. Removal of existing hard standing or structures will be carried out in accordance with the principles for tree protection (see Precautionary Areas 1 & 2). Excavation shall not encroach within the soft ground below the existing sub-base or foundation. Any exposed roots shall be treated at once and retained roots covered with sharp sand (see Tree Roots). During re-installment of hard surfacing within the RPA all vehicles will operate outside of the RPA and not directly on the soft ground. Where concrete is specified, a non porous membrane will be installed as a separator layer to the soft ground to minimise leaching of wet concrete within the surrounding soils. Construction of site furniture i.e. Glass House, Storage Shed or Compost Bins, must be of a slab foundation as specified by an engineer and laid no deeper than the existing excavated sub base to avoid root severance/disturbance.

Arboricultural Monitoring & Recording

In order for tree and root protection measures to work effectively all personnel associated with the demolition/construction process should be familiar with the tree protection and precautionary measures to be observed. However, it is recommended that the following works within the Construction Exclusion Zone or RPA are carried out under arboricultural supervision. It is the responsibility of the demolition contractor to inform the Client's Representative of works within the RPA at least 48hrs prior to commencement.

Work stage and scope of arboricultural monitoring		
Work Stage	Scope of watching brief	
Pre-commencement meeting	Attend site, discuss and agree method statement and tree protection strategy with Site Manager. Circulate written minutes of meeting including any modifications or clarifications.	
Tree Protection Barriers and Ground Protection	On installation of tree protection barriers, inspect identifying any outstanding works or action required. On completion of any outstanding actions sign off on completion. Report breaches to Site Manager for action. Circulate report to all parties.	
Demolition of structure within RPA	Attend site, discuss and agree method statement and provide arboricultural monitoring during demolition	
Removal of hard standing within RPA	Attend site, discuss and agree method statement and provide arboricultural monitoring during demolition	

Storage of materials - All materials for demolition purposes should be carefully stored outside the enforced Construction Exclusion Zone.

Cranes, rigs and booms - Where enabling works or demolition is to occur within 2m of the crown extent of any retained tree, protection and precautionary measures must be observed and provision made within the contractors method statement to avoid contact with the trees crown from tall loads, plant with booms, jibs and counterweights.

Removal of boundary fencing - Removal of boundary fencing within the RPA of a retained tree will be dismantled using handheld tools. During dismantling all tree protection and precautionary measures recommended within this method statement will be observed.

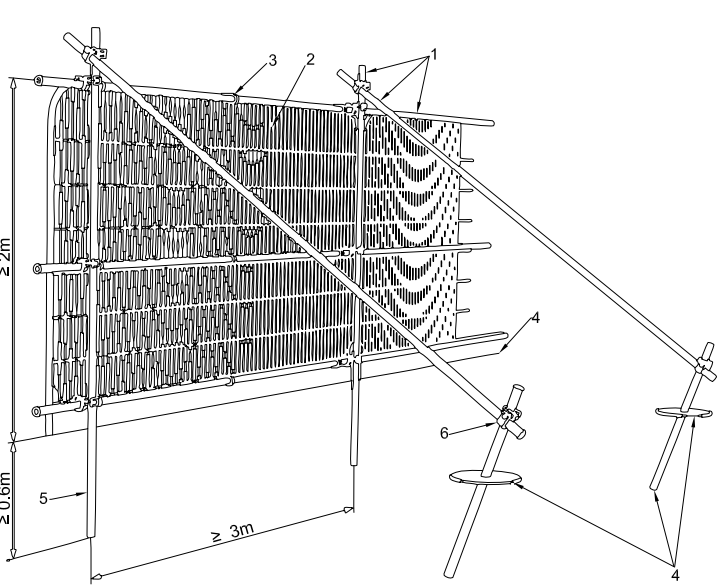
Breaches of Tree Protection & Unforeseen Events - All damage to protective barriers or accidental damage to trees must be reported to the Site Manager immediately. Works occurring within the vicinity will cease immediately until adequate tree protection measures are rectified. A record of the damage will be made by the Site Manager and, if appropriate in consultation with the appointed Project Arboriculturist, remediation measures carried out.

In the event of spillage the area is to be secured with sandbags on the line of the tree protection area and measures taken to drain/soak any spillage away from the protected area.

Tree Protection and Dismantling Protective Barriers - In order to implement final surface treatments and landscaping works it will be necessary to dismantle the protective barriers. Within tree protection distances, all works will conform to the principles set out within this Arboricultural Method Statement and be carried out under arboricultural monitoring by the Project Arboriculturist.

Tree Protection Barrier - Type 1

Figure 2 Default specification for protective barrier



- Standard Scaffold Pole
- Heavy gauge 2" tall galvanized tube and welded mesh infill panels
- Weldmesh panels secured to uprights and cross-members with wire ties
- Ground level
- Uprights driven into the ground until secure (minimum depth 0.6 m)
- Standard scaffold clamps

Revisions	No.	Date	Reason	Name
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Project
**HAWLEY PRIMARY SCHOOL
CAMDEN**

Drawing
**ARBORICULTURAL METHOD STATEMENT
& TREE PROTECTION PLAN**

Scale
1:125

Date
AUG '14

Drawn
AR

Drawing No.
tf 752/TPP/300

Revision
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<input type="checkbox"/> Preliminary	<input type="checkbox"/> Issued for Design/Information
<input checked="" type="checkbox"/> Issued for Planning Approval	<input type="checkbox"/> Issued for Tender
<input type="checkbox"/> Issued for Construction	<input type="checkbox"/> As Built

0 2.5 5 10 12.5
SCALE
1:125
Drawing sheet size - A1