

LIZARD

Landscape Design and Ecology

MR M. OSBORNE-SHAW

Land to the Rear of The Spires, East Preston, West Sussex

Arboricultural Impact Assessment and Method
Statement

Tree Retention and Protection

Prepared by	GS
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Planning Issue

- 1.0 Introduction
- 1.1 The proposal site is located within the town of East Preston, West Sussex. The surrounding area is predominantly residential; the south coast is approximately 600.0 m to the south.
- 1.2 The site consists of what was originally the northern section of garden of the dwelling called 'The Spires'. A number of trees on the site are protected through a Tree Preservation Order (Ref. TPO/R/1/14).
- 1.3 The development proposals consist of the demolition of the garage and the construction of a new detached dwelling within the gardens.
- 1.4 The development proposals (for a dwelling in this plot as well as another in the western section of the garden of 'The Spires') have previously been given permission under planning application reference: R/91/17/PL, which is still current. The current application is for an alteration of the design. The proposals have been designed in order to minimise impacts on the existing trees, in particular moderate-value trees and those protected through the Tree Preservation Order whilst making the proposed dwelling (in particular the entrance and garage) more useable. A small number of trees would require removal from the site to accommodate the design proposals. All trees which would require removal are of low quality and value; all moderate value trees on the site would be retained and protected.
- 1.5 The existing trees within the site proposals boundary have been surveyed in detail for condition, and are recorded within the attached report; LLD1935-ARB-SCH-001 - Existing Tree Schedule and Schedule of Tree Works; and identified on the following drawings; LLD1935-ARB-DWG-001 - Tree Constraints Plan and LLD1935-ARB-DWG-002 - Tree Retention and Protection Plan. The Tree Retention and Protection Plan illustrates the impact of the proposed development upon the existing trees and setting out where vegetation is proposed to be removed and specifically measures for tree and root protection wherever existing trees and vegetation are proposed to be retained and protected.
- 1.6 Following the proposed removal of existing vegetation from the site in accordance with the drawing LLD1935-ARB-DWG-002 - Tree Retention and Protection Plan and accompanying LLD1935-ARB-SCH-001 - Existing Tree Schedule and Schedule of Tree Works, there are a number of existing trees within the vicinity of the development proposals that would remain and would be directly impacted upon by the development proposals. The existing retained trees are to be protected in accordance with the guidance contained within BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- 1.7 The status, impact, and protective measures upon the existing trees and vegetation within the site affected by the development proposals are subject to the protective measures and construction method statement detailed in the following Arboricultural Method Statement.

PROPOSED NEW DWELLING

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- 2.0 Arboricultural Impact Assessment
- 2.1 The development proposals consist of the demolition of the existing garage and the construction of a new detached dwelling within the site. An existing unmade track to the north would be hard-surfaced to create the road access for the proposed dwelling. The dwelling would be accompanied by hard landscape parking and turning areas and garage.
- 2.2 The proposals would affect a number of the existing trees on site; 4 no. individual trees, 2 no. tree groups, 1 no. area of shrubs and scrub and 1 no. section of ornamental hedge would require removal to accommodate the design proposals. The trees have previously been approved for removal under the existing planning permission, with the exception of T 06, TG 21 (iii) and (iv), and the section of H 05. The alteration to the proposed highway access and garage requires the removal of these trees, but no longer requires the removal of two other trees (one of the three silver birches approved for removal from TG24, and T23 - holly). The cypress trees in TG21 have declined in condition since the surveys carried out in 2017, with further storm damage including torn limbs. The curved section of H 05 has largely died, and it is proposed to replace this with new hedge planting long the edge of the proposals, reconnecting the live sections of hedge.
- 2.3 The proposals now are considered an improvement in this regard upon the original proposals, retaining native trees which provide better screening.
- 2.4 All other trees and areas of shrubs shall require detailed protection to enable their retention within the proposed scheme. All existing trees to be retained shall be protected in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- 2.5 The following trees would require removal from the site to accommodate the design proposals:
- ¿ H 05 - Cupressus x leylandii 'Golden'; Category C; to north of site; removal of curved section which has died and replacement with new hedging;
 - ¿ T 06 - Ginkgo biloba; Category C; to north of site; tree requires removal to accommodate proposed new garage;
 - ¿ T 08 - Ilex aquifolium; Category C; at end of track, to north of site; tree requires removal to accommodate proposed new road access;
 - ¿ T 14 - Acer pseudoplatanus; Category C; within track, to north of site; tree requires removal to accommodate proposed new road access
 - ¿ SH 15 - Mixed species shrubs and scrub; Category C; along access to Cross Road; Remove shrubs and scrub to accommodate highway access;
 - ¿ T 16 - Sorbus sp.; Category C; within track, to north of site; tree requires removal to accommodate proposed new road access;
 - ¿ TG 21 - Cupressus sp.; Category C; to north-east corner of site; 2no. trees from group require removal to accommodate proposed new access driveway;
 - ¿ TG 26 - Prunus sp.; Category C; to south-east of site; tree group requires removal to accommodate demolition of existing garage.

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- 2.6 The trees and shrubs proposed for removal are Category C trees of low quality and value; all trees bar 2no. cypresses, a section of cypress hedge and a low-value ginkgo have already received approval for removal as part of the original proposals for the site. The loss of the trees within the site would be mitigated through the planting of suitable replacement trees within the site, and the retention of 2no. trees previously approved for removal. Given the heavily tree-lined nature of the site, the loss of these trees is not considered likely to significantly impact the visual amenity of the site. The moderate value trees within the site and to the site boundaries represent the most significant visual amenity and are proposed to be retained and protected.
- 2.7 The following trees would require tree surgery works to accommodate the design proposals. The majority of these works have previously been approved under the original planning application for the wider Spires site:
- ¿ T 07 - Populus sp.; Category B; to north of site; Crown-lift to 4.0 m height;
 - ¿ T 09 - Populus nigra :Italica; Category B; Crown reduction of 2.4 m to the eastern aspect;
 - ¿ T 11 - Populus nigra :Italica; Category B; Crown reduction of 2.3 m to the eastern aspect;
 - ¿ T 12 - Betula pendula; Category B; Crown reduction of 2.2 m to the eastern aspect;
 - ¿ T 18 - Acer pseudoplatanus; category B; Crown reduction of 4.0 m to the eastern aspect;
 - ¿ T 19 - Betula pendula; Category C; Crown reduction of 1.5 m to the eastern aspect; Crown-lift to 4.0 m height;
 - ¿ T 20 - Cupressus sp.; Category C; Crown-lift to 4.0 m height;
 - ¿ TG 21 - Cupressus sp.; Category C; Crown-lift trees (i) and (ii) to 4.0 m height;
 - ¿ TG 25 - Acer pseudoplatanus; Category C; Crown-lift to 3.0 m height.
- 2.8 **New Road Access and Car Parking Area**
A new, hard surfaced road access is proposed from the northern boundary, which would run along an existing grassed track south to the proposed northern dwelling. The proposed access would require removal of sections of low-quality understorey shrubs, and several low-quality trees. Several low and moderate-quality trees, which are protected under the Tree Preservation Order Ref: TPO/R/1/14, would also require tree surgery works to allow vehicular access without damage to the trees. Tree surgery works shall be carried out in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' and BS 3998: 2010 - 'Tree Work: Recommendations'.
- 2.9 The access widens further south-west, to become a car parking area which adjoins a new garage and the proposed dwelling. The car parking area and garage would require the removal of low quality tree and section of ornamental hedge. Minor tree surgery works would also be required to 1 no. moderate-quality tree and 2 no. low-quality trees. Tree surgery works shall be carried out in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' and BS 3998: 2010 - 'Tree Work: Recommendations'.

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- 2.10 The proposals encroach into the RPAs of several low-moderate value trees, including significant encroachment into the RPA of T 07. In the absence of mitigation this would cause the likely failure of these trees over time due to root damage and soil compaction. Where the road access and car parking areas encroach into the RPAs of trees to be retained, these areas of hard surface are proposed to be constructed using a 'no-dig' construction method to protect the roots of these trees and avoid compaction of the soil. Operation zones, with ground protection measures would also be utilised during construction to allow for construction access on unmade ground, without compaction of the soil. The remaining trees are proposed to be retained and protected to maintain the character of the site, in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- 2.11 **North- Western Sector of Site - New Garage**
A new garage is proposed to be constructed to the north-west of the site to provide car parking for the dwelling; The proposals would encroach slightly into the RPAs of several moderate-quality trees; it is proposed to use a no-dig solution such as a micro-pile or a concrete raft. An operation zone would surround the garage during construction and protected any unmade ground from compaction. A single low-quality tree would require removal to accommodate the garage. All other trees are to be retained and protected utilising Tree Protective Fencing, in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- 2.12 **Demolition of Existing Buildings**
An existing garage proposed for demolition protrudes into the Root Protection Area of a low value group of trees, which are proposed for removal to allow for demolition and re-planting with higher-quality vegetation. The removal of this tree group has already been approved as part of the previous planning application. In these situations, siting protective measures correctly may not be possible until after demolition has occurred. When this is the case, the protection measures should be sited directly surrounding the building in question. As soon as the demolition has been completed the protection measures (including tree protection fencing) should be moved to their proper locations at the edge of all Root Protection Areas where possible, in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- 2.13 Any excavations required to remove foundations from the ground within Root Protection Areas must be carried out using manual excavation methods. When buildings are being demolished adjacent to existing trees, a 'top down, pull back' method should be employed whereby demolition is undertaken inwards within the building footprint, in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations'. Where existing building foundations or areas of hard standing exist within the root protection areas of existing trees; these hard surfaces shall be removed and excavated by manual methods and excavated back to the level of the base of the existing hard standing sub-base. The soiled root zone within the tree root protection areas of existing adjacent trees should remain unaffected, and further protected with Tree Protection Fencing.

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- Services and Utilities
- 2.14 Services are proposed to run largely under the proposed access road, and elsewhere to avoid RPAs. All services shall be routed to avoid RPAs wherever possible; where not possible, an appropriate no-trench method shall be used.
- 2.15 A soakaway is proposed to the south of the site. The soakaway when being designed in detail, shall be designed to avoid the RPAs of surrounding trees. Any access over unmade ground to install the soakaway shall require appropriate ground protection and adjustment of the tree protective barriers under arboricultural supervision.
- 3.0 Stages of Work / Programme
- 3.1 The site development proposals shall involve the following site operations that could impact upon the existing tree / vegetation cover;
- ¿ Contractor movements; site access and operations; storage and compound;
 - ¿ Removal of existing vegetation not for retention;
 - ¿ Demolition of existing structures and buildings;
 - ¿ Construction of proposed road access, garage and dwelling;
 - ¿ Implementation of services and utilities.
- 4.0 Arboricultural Method Statement
- Contractor Movements; Site Access and Operations;
Storage and Compound Areas
- 4.1 The contractor site compound shall be located outside of the defined tree root protection areas as indicated on drawing; LLD1935-ARB-DWG-002 - Tree Retention and Protection Plan.
- 4.2 The contractor's site compound shall be located so as to not incur damage or injury to the tree root systems or canopy of any existing trees or vegetation within or adjacent to the site, in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'. All operations associated with the usage of the compound area shall be undertaken with due care and attention so as to negate damage of the surrounding environment.
- 4.3 All access to the site area shall be made via Cross Road to the north. Pre-construction vehicular movement to facilitate the removal of existing vegetation shall be limited to the minimum requirement in order to fulfil the vegetation removal works and no vehicular access shall be permitted over unmade ground within the defined tree root protection area of existing trees to be retained and protected. Once the tree removal and tree surgery works have been completed the tree protective fencing works proposed shall be put in place. During construction proposed access is via Cross Road to the north. Vehicular movements during the construction period shall be limited to the areas of existing hard ground and newly protected ground only.
- 4.4 Phasing of construction, or additional ground protection measures may be required to ensure that no vehicular access occurs over unmade ground within RPAs; the proposed highway access should be cleared first and either ground protection, or no-dig hard surface construction with a sacrificial top layer laid to enable construction access.
- 4.5 All site clearance / demolition works shall be undertaken once the tree protective fencing measures have been put in place in order to protect existing tree canopies and tree root protection areas from vehicle movements and material storage.

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- 4.6 All site operations and construction procedures for the duration of the construction period shall seek to protect the existing site vegetation and tree root protection areas in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'.
- 4.7 **Removal of Existing Vegetation**
All existing trees designated for removal are to be removed in accordance with the Tree Protection and Retention Drawing LLD1935-ARB-DWG-002 - Tree Retention and Protection Plan. All tree work and removal shall be carried out in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' and BS3998: 2010 - 'Tree Work: Recommendations'. Trees designated for removal and felling shall be clearly marked on site with white paint. Prior to the removal and felling of trees, the required work and tree positions shall be agreed on site with the Landscape Architect / Arboricultural Consultant. Trees shall be felled, and tree surgery works undertaken prior to the erection of the Tree Protective Fencing. Care should be taken during the tree removal process to avoid any damage to any trees which are designated to be retained and protected.
- 4.8 Stumps shall be removed and cut away so that the top of the tree stump shall be at least 450 mm below the final topsoil level in order that the site can be reinstalled in accordance with the existing site levels. Stumps are to be treated with an approved herbicide to be agreed with the Landscape Architect / Arboricultural Consultant. Where the depth is greater than 450 mm the areas shall be backfilled with topsoil to the required level.
- 4.9 The removal of shrub or scrub material within the tree root protection area of any tree to be retained shall employ a manual removal method; the use of hand tools shall be used in order to maintain the ground surface of the tree root protection area, and reduce any damage to existing tree roots within the protected tree root zone. Adjacent trees shall not be utilised as anchors or levers to facilitate the removal of adjacent vegetation.
- 4.10 **Tree Surgery**
Tree surgery measures and works have been identified as necessary within the attached LLD1935-ARB-SCH-001 - Existing Tree Schedule and Schedule of Tree Works. Any significant defects found in the trees during the course of the scheduled work shall be reported to the Landscape Architect / Arboricultural Consultant. Any arising tree work shall be undertaken by an approved and qualified Tree Surgeon in accordance with BS3998: 2010 - 'Tree Work: Recommendations'. Care should be taken to avoid damage to neighbouring trees to be retained. Branches in confined spaces shall be removed and taken down in sections. All arisings shall be transported and disposed of away from site to the contractor's tip. All tree surgery work is detailed within the attached LLD1935-ARB-SCH-001 - Existing Tree Schedule and Schedule of Tree Works report.
- 4.11 It should be noted that, as a number of trees within the site are subject to a Tree Preservation Order, additional works required to protected trees would require discussion with the Local Planning Authority, and may require an additional Tree Works Application or variation to the planning permission.
- 4.12 **Tree and Vegetation Management**
For tree and vegetation retention and removal proposals refer to the attached LLD1935-ARB-SCH-001 - Existing Tree Schedule and Schedule of Tree Works report. For tree and vegetation management proposals refer to the tree surgery works and management prescriptions contained within LLD1935-ARB-SCH-001 - Existing Tree Schedule and Schedule of Tree Works.

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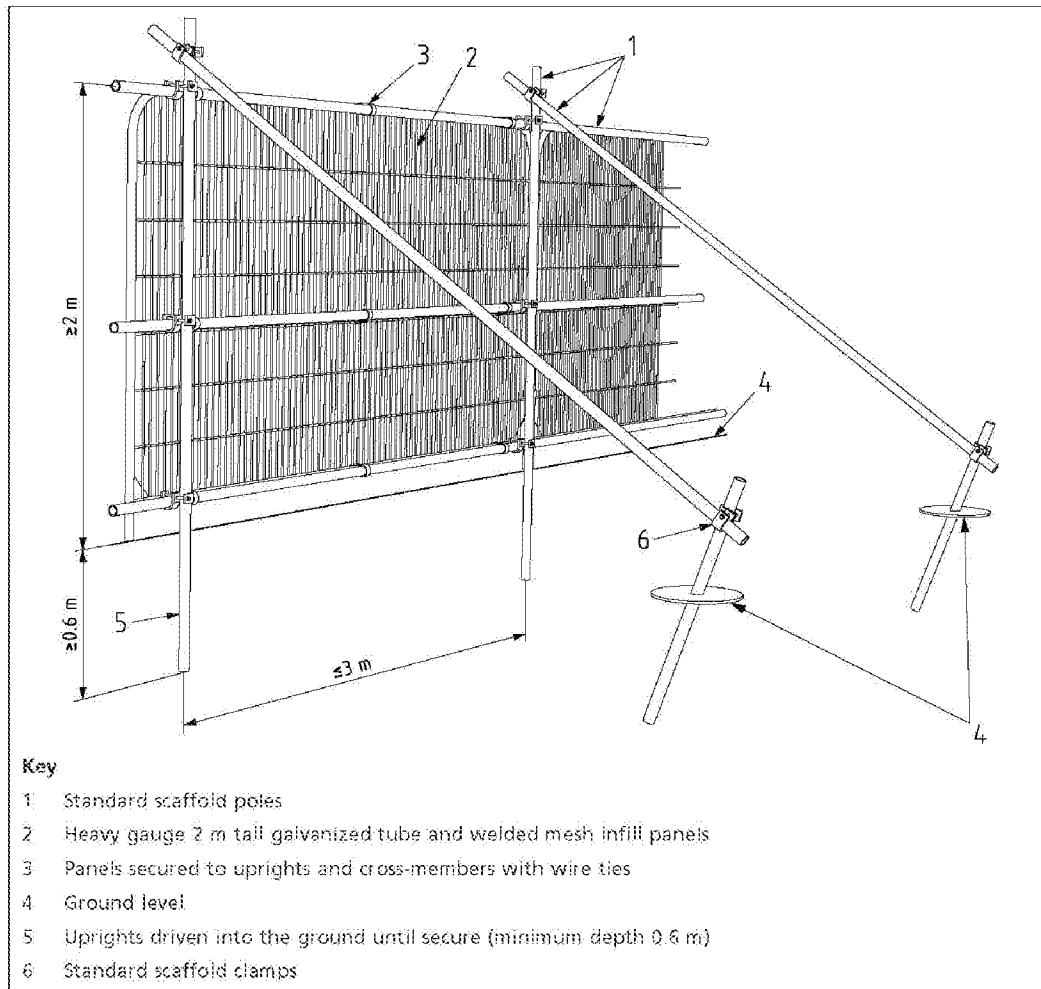
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- 4.13 Ongoing Inspection and Maintenance of Existing Vegetation
All retained vegetation on the site shall require ongoing regular inspection (annual inspection recommended) and any remedial works undertaken as required to maintain trees in a safe and healthy state. Works to any trees subject to the Tree Preservation Order would require prior approval by the Local Planning Authority.
- 4.14 Protection and Retention of Existing Vegetation
The contractor shall exercise extreme care when performing operations beneath the canopy of existing mature trees and vegetation and within the specified tree root protection areas designated for protection and avoid at all times damage to the roots, trunk and branches of existing trees proposed to be retained.
- 4.15 All excavations, cultivation, and grading beneath the canopy of existing mature trees and within the specified tree root protection areas of the existing trees and vegetation shall be carried out using hand tools, taking care not to damage or disturb any existing tree roots.
- 4.16 All trees to be retained on site shall be protected with fencing erected around the area of mature vegetation in accordance with BS5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'. The fencing shall be installed, protected, and maintained during the main works by the contractor who shall be responsible for protecting any area beneath the canopy of the existing trees and within the specified tree root protection areas. At the end of the contract period the contractor shall remove the tree protective fencing from the site. All retained vegetation shall be healthy and thriving at the handover date.
- 4.17 The installed protective fencing shall be 2.0 metres height 'Heras' Welded Wire Mesh Fencing secured to a scaffolding framework, set into the existing ground, and positioned to the outside edge of the existing tree root protection area. The fencing should be strained, and fixed to fences, walls, knee rails where possible to provide a complete protected area (Refer to Figure No. 2 and Figure No. 3 below; © British Standards Institute 2012). All tree protection to be in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' set out as specified within Drawing LLD1935-ARB-DWG-002 - Tree Retention and Protection Plan.
- 4.18 Day-glo ribbons shall be maintained during the main works by the contractor attached to the top of the fencing to ensure that the fencing is clearly visible during the works. The tree protection fencing shall display all-weather notices stating 'Construction Exclusion Zone - NO ACCESS'.
- 4.19 All such fencing shall be maintained for the full contract period. All necessary excavations, earthworks, and cultivation beneath the canopy spread of any existing tree; shrub or hedge shall be undertaken by hand. No commencement of construction operations may occur prior to the inspection of the installed tree and ground protection by the Landscape Architect / Arboricultural Consultant. Repositioning of the protective fencing during the course of the contract as the contract works progress shall need prior agreement with the Landscape Architect / Arboricultural Consultant.
- 4.20 Within the protected area the following activities must not take place;
- ¿ No vehicles are to be used in the fenced off areas;
 - ¿ No materials are to be stockpiled or stored;
 - ¿ No chemicals are to be stored;
 - ¿ No excavation or increase in the soil level shall occur;
 - ¿ No fires shall be lit on site.

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Figure 2 Default specification for protective barrier



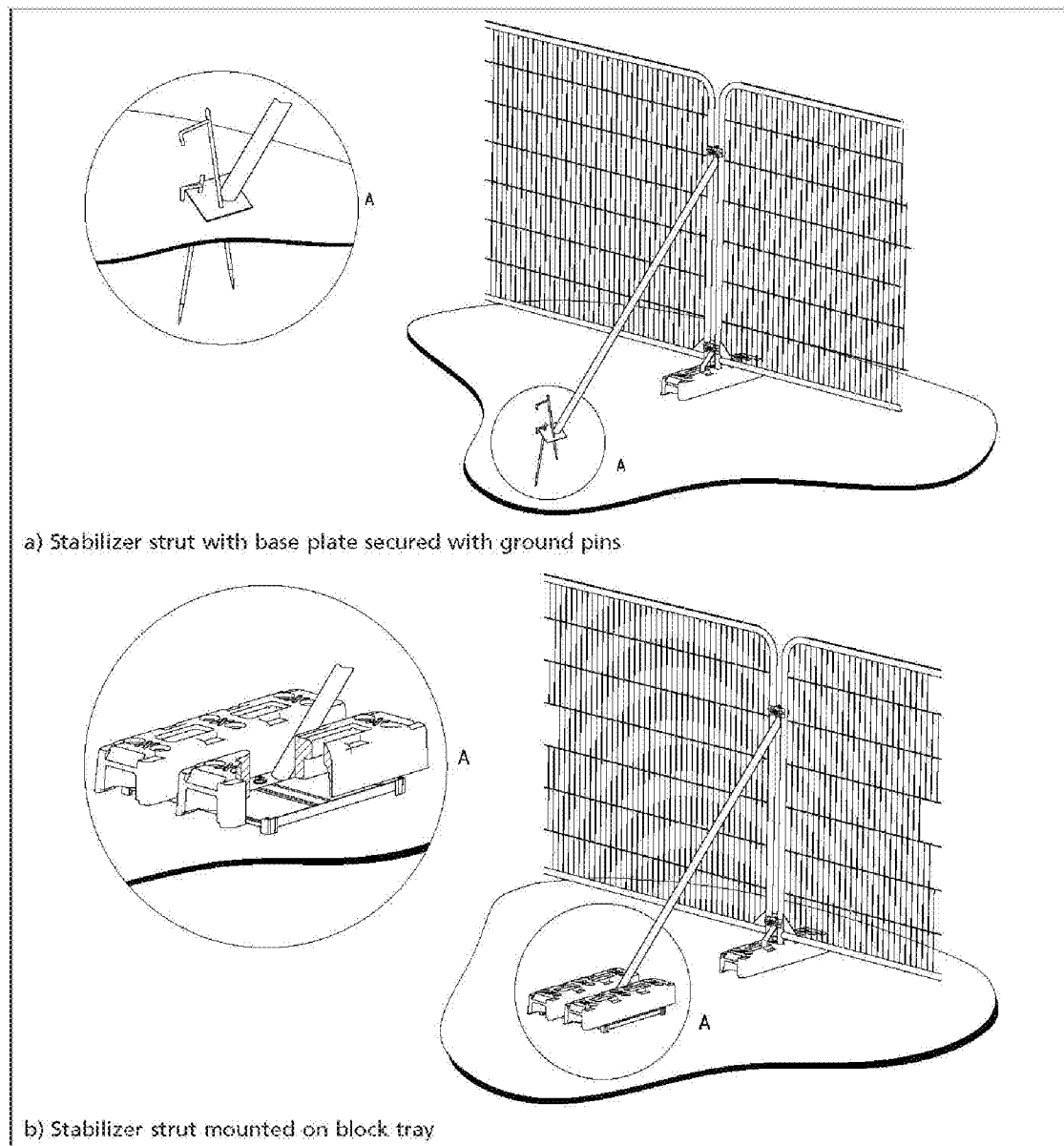
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(Care should be taken to avoid damage to unseen tree roots and underground services; a secondary fencing support system may be implemented to accommodate these as outlined in Figure No. 3 below).

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Figure 3 Examples of above-ground stabilizing systems



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- Ground Protection; Tree Protection Zone - No-Dig Construction Area - Proposed Highway Access and Hard Surfaces
- 4.21 Where new surfacing and means of access within Root Protection Areas have been proposed, the construction method should be implemented to avoid intrusion into or change of existing ground levels within the tree Root Protection Areas of existing trees.
- 4.22 A :No Dig~Construction should allow for the paving of specified areas within or adjacent to tree Root Protection Areas to be constructed without disturbance to root systems.
- 4.23 Ground levels should not be raised or lowered within the existing tree Root Protection Areas. A permeable surface treatment should be laid over the existing ground allowing water to permeate, and allow for nutrient access and gaseous exchange.
- 4.24 The construction area / existing ground within the existing tree RPA is to be overlain with a geo-membrane and covered with a granular fill of no fines - open graded aggregate Type 3 incorporated within a 3-dimensional cellular confinement system. This should ensure a minimum supportive depth of 200mm for vehicular access / 100mm for pedestrian footpaths, above which a permeable surface treatment should be laid. The pH of the aggregate must be near neutral to avoid damage to pH-sensitive tree species.
- 4.25 Existing paving material overlying the RPA of existing trees should be left undisturbed during the construction period in order to protect the Root Protection Area of the tree to be retained. The existing paving/ hard standing can then be reused as a base for the proposed surfacing, subject to Engineer's specification.
- 4.26 All retaining kerb restraints / edge supports are to be secured above ground and no general excavation within existing tree RPAs should be permitted.
- 4.27 Where stepped or ramped access have been proposed within the RPAs of existing trees, this should be constructed with limited disturbance to the existing ground. A raised frame supported upon posts concreted in the ground is recommended. The holes for footing to posts should be dug out using handheld tools. The sides of the holes should be lined with an impermeable membrane to prevent the caustic and toxic effects of wet cement in the concrete from damaging tree roots.
- Ground Protection; Tree Protection Zone - Operation Zone During Construction
- 4.28 Where construction operations require activity within the exposed unmade ground of any existing tree Root Protection Area, a temporary ground protection measures should be implemented allowing for access, limited traffic and operations during the construction period.
- 4.29 A temporary 'Ground Protection Zone' shall allow for the passage of construction vehicles to the site and should be implemented without intrusion or change of existing ground levels within the defined tree Root Protection Areas of existing trees. The ground protection measures should be implemented prior to the main construction works.
- 4.30 The temporary ground protection measures should remain in place for the duration of the construction period.

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- 4.31 Ground protection must be fit for the purpose of supporting the level of traffic entering or using the site within RPAs without being distorted or causing compaction of underlying soil. The appropriate solutions include:
- ¿ For pedestrian movements or the erection of scaffolding within the RPA - single layer of scaffold boards either on top of a driven scaffold frame, to form a suspended walkway, or on top of a compression-resistant layer, e.g. 100 mm depth of woodchip laid onto a geotextile;
 - ¿ For pedestrian-operated plant (up to a gross weight of 2 t) - proprietary, inter-linked ground protection boards or panels laid on top of a compression-resistant layer, e.g. 150 mm depth of woodchip laid onto a geotextile membrane;
 - ¿ For vehicular access (exceeding a gross weight of 2 t) - an alternative system subject to engineer's specification appropriate for expected loads, designed in consultation with the project Landscape/ Arboricultural Architect.
- 4.32 The surface material should be contained with edging type requiring no excavation. It is proposed to utilise a Drivesett kerb, installed on top of the no-dig construction in line with the proposed no-dig driveway construction without encroachment into the soil.
- 4.33 **Ground Protection; Tree Protection Zone - Manual Excavation Area**
Where the development proposals necessitate the tying in and re-grading of existing and proposed levels for vehicular access or include the implementation of underground services such as services, cables, pipe work; a "Manual Excavation Method" must be assumed using hand held tools to minimise the impact on existing trees. The excavation should be executed with due care and attention not to disturb exposed unmade ground and any existing tree roots present within it.
- 4.34 **Roots over 25mm diameter or those occurring in clumps** must not be severed without Arboricultural advice. Tree roots below such size should be cut cleanly using specialised hand tools only and to the minimum extent to allow provision. All exposed roots should be immediately wrapped in dry Hessian to avoid drying. On completion of the excavation and at the earliest opportunity the wrapping should be removed, and the roots surrounded and protected with a loose granular fill (clean washed sharp sand or topsoil free of contaminants or matter injurious to rooting systems) prior to backfilling the excavation to the desired levels.
- 4.35 **New Structures in Proximity to Trees**
The use of traditional strip footings can result in damage to roots and subsequent failure of trees and should therefore be avoided. For the purpose of retention of good quality trees, the application of specially engineered structures and solutions that would minimize impact on the existing trees are acceptable alternatives. A site-specific and specialist advice regarding foundation design should be sought from the Project Engineer.
- 4.36 In shrinkable soils, the foundation design should take account of the risk of indirect damage.

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- 4.37 Root damage can be minimised by implementation of pile and beam construction techniques. The following aspects of the design should be accounted for:
- ¿ Piles – optimal location determined through site investigation, to avoid damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement (air lance), to a minimum depth of 600 mm. The smallest practical pile diameter should be used to minimize the risk of striking a major root. The smallest practical pile rig should be used to facilitate works within the canopy spread of existing trees. To protect the soil and adjacent roots from the potentially toxic effects of uncured concrete, the use of sleeved bored pile or screw pile should be accounted for;
 - ¿ Beams – laid at or above ground level and cantilevered as necessary to avoid tree roots identified by site investigation.
- 4.38 For smaller structures, other construction methods such as concrete rafts may also be acceptable, subject to the Project Engineer's design and approval.
- Services in Proximity to Existing Trees
- 4.39 The location and direction of new services should be designed to allow for services to be routed away from the RPAs of existing trees. Existing service runs should always be used wherever possible.
- 4.40 Where the proposed routing of services impinges upon the tree RPA of any existing tree to be retained; the routing should be undertaken as a minimum standard in accordance with NJ UG Volume 4, issue 2: "Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees".
- 4.41 A "Manual Excavation Method" to be followed to carefully hand dug and route the apparatus most directly to and from the exterior of the RPA radius.
- 4.42 Services are to be routed together wherever possible to create the minimum impact upon the roots of the existing trees to be retained. Trench excavation across the tree Root Protection Area radius beside an existing tree should be avoided, whereby tree roots would become severed. Where services are to cross the edge of an existing RPA, they should be routed via a hand dug ducting sleeve, avoiding damage to roots.
- 4.43 Heras – Anti-climb Smart Weld Panel Fencing
 Supplier: Safe Site Facilities; or equal and approved;
 Address; Old Selden Farm, Selden Lane, Patching, West Sussex, BN13 3UL
 Tel: 0845 463 5421; Email: info@safesitefacilities.co.uk;
 Web: www.safesitefacilities.co.uk;
 Specifications; Galvanised anti-climb mesh; 2.0m height x 3.5m width;
 13.8kg weight.

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- 5.0 Arboricultural Method Statement - Notes; General
- 5.1 The principles and recommendations of BS5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' shall be adhered to where possible in order to prevent damage or undue stress upon the existing trees, soils and roots potentially impacted upon by the development proposals.
- 5.2 Destruction of soil structures through soil compaction, excavation or contamination shall be avoided at all times within the tree root protection areas. Physical damage to existing trees to be retained; roots, stems, branches shall be prevented wherever possible.
- 5.3 All tree protection measures are to be carried out, on site and within the development proposals, in accordance with the relevant approved drawings accompanying this method statement.
- 5.4 Arboricultural Supervision shall be required at the following stages of work;
- ¿ Installation of tree protection measures (including ground protection measures);
 - ¿ Method statement briefing for site staff;
 - ¿ Supervision of the 'no-dig' construction of the proposed road access, garage and car parking/turning areas within tree root protection areas;
 - ¿ Removal of tree protection measures.
- 5.5 The loss through development of existing trees may occasionally be unavoidable. Wherever existing trees are removed to accommodate development, contingency should be made for relocation of removed trees if possible or the replanting of young trees with suitable species for the site location where relocation of existing trees is not viable.
- 5.6 The phasing of works might be appropriate in order to implement the proposed development. Where the construction operations impact upon existing trees to be retained the trees shall be fully protected where possible in accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' for the duration of the construction period. The phased retraction of construction operations may allow for tree protection measures to be withdrawn / re-sited. The re-alignment or withdrawal of any Tree Protection Measure shall only be permitted with the agreement of the Project Arboricultural Consultant / Local Planning Authority.
- 6.0 Contact Details
- Landscape Consultant
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