



Seaward Properties Ltd

Langstone Gate, Solent Road, Havant, Hampshire
COMMERCIAL PREMISES DEVELOPMENT PROPOSALS

ARBORICULTURAL IMPACT ASSESSMENT **TREE PROTECTION – METHOD STATEMENT**

Approved By: Joe Jackson
Signed:
Position: Principal
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October 2016 – Planning Issue

LLD970/GS/05.10.2016/Rev02

LANGSTONE GATE, SOLENT ROAD, HAVANT, HAMPSHIRE
COMMERCIAL PREMISES DEVELOPMENT - ARBORICULTURAL METHOD STATEMENT
Planning Issue - Rev 02; 05.10.16

1.0 Introduction

- 1.1 The Langstone Gate site is located to the south of the town of Havant and is accessed from Solent Road to the north. The site consists of a modern multi-storey office building, with associated hardstanding access and parking areas, areas of amenity grassland, a small stream with a pond, ornamental planting and scrub. The site is bordered by main roads to the north, south and east. To the west the site is bounded by a small stream which separates it from an adjacent supermarket.
- 1.2 The site is situated within the urban area of Havant. Despite this, there are a number of local areas of greenspace and patches of trees, especially adjacent to the A27 dual carriageway. The majority of the land on the site is given over to the building itself, parking areas and amenity grassland, bordered by ornamental planting. The proposed development site consists of the north-east sector of the site, which is dominated by hardstanding car parking areas. Small areas of ornamental shrub planting contain several large trees which overshadow the site.
- 1.3 The development proposals consist of the construction of a new commercial premises. This would be accompanied by the alteration of the existing site access and creation of a new vehicular access route through the north of the site. A new pedestrian access route would be made to the shop from the north and parking areas would be slightly enlarged and reconfigured to provide both customer parking and large-order parking.
- 1.4 The development proposals have been designed such that impacts on the existing trees would be minimal; one tree would however require removal to accommodate the proposals, due to the proposed building and vehicular access route encroaching into the RPA of the tree and the tree significantly overshadowing the site.
- 1.5 The existing trees within the site development boundary have been surveyed in detail for condition, and are recorded within the attached report; *LLD970 – Existing Tree Schedule and Schedule of Tree Works*; and identified on the following drawings; *LLD970 / 01 – Tree Constraints Plan* and *LLD970 / 02 – 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 *LLD970 / 02 – Tree Retention and Protection Plan* and accompanying Existing Tree Schedule, 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.

2.0 Arboricultural Impact Assessment

- 2.1 The development proposals consist of the construction of a new commercial premises. This would be accompanied by the alteration of the existing site access and creation of a new vehicular access route through the north of the site. A new pedestrian access route would be made to the retail unit from the north and parking areas would be slightly enlarged and reconfigured to provide both customer parking and large-order parking.
- 2.2 The proposals affect a small number of the existing trees on site; one tree is unviable for retention and other trees 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’*.
- 2.3 The following tree requires removal to accommodate the construction proposals:
- *T 02 – Acer saccharinum (Silver Maple); Category A; to eastern side of garage, north of site; tree requires removal to accommodate the proposed commercial premises and associated pedestrian and vehicular access routes.*
- 2.4 This tree is considered of high quality and a dominant feature of this corner of the site. The tree is multistem with a broad crown which overshadows a large area. It would not be possible to retain the tree in the context of the development proposals. Instead it is proposed that several replacement trees be planted to the south or south-western boundary of the site. This would provide and preferably increase the screening lost when this tree is removed. Replacement trees could also be of a higher amenity to the site and to wildlife, whilst also reducing leaf litter-drop onto parking and access areas.
- Northern Boundary Sector**
- 2.5 The parking to the north of the proposal site is bounded by ornamental shrub planting within which 2 no. mature silver maple trees are growing. One of these trees is proposed for removal to accommodate the proposed commercial premises and associated pedestrian and vehicular access routes. The second tree is proposed to be retained and protected. The proposed pedestrian access route and extended parking areas encroach upon the RPA of this tree. These areas are to be constructed using a ‘no-dig’ permeable construction method in accordance with *BS 5837; 2012 – ‘Trees in Relation to Design, Demolition and Construction – Recommendations’*.
- South-Eastern Boundary Sector**
- 2.6 To the south-east of the proposal site are areas of ornamental shrub planting and scrub, from which several trees, particularly field maple and common alder emerge. The parking arrangements within this sector are proposed to be altered, however the areas in question are already laid to tarmac hardstanding and as such these alterations are not considered to have any negative impact upon the eastern sector trees. The trees are proposed to be retained and protected in accordance with *BS 5837; 2012 – ‘Trees in Relation to Design, Demolition and Construction – Recommendations’*.

3.0 Stages of Work / Programme

- 3.1 The Langstone Gate 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;
 - Construction and implementation of proposed Commercial Premises; construction of car parking and pedestrian and vehicular access routes; and ground work operations;
 - Construction and implementation of proposed hard landscape areas;
 - 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; LLD970 / 02 – *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 Pre-construction access to the site area shall be made at all times via the existing access point and entrance from Solent Road. Pre-construction vehicular movement to facilitate the removal of existing vegetation and undertake tree surgery works 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 situated on Solent Road on the northern site boundary. Vehicular movements during the construction period shall be limited to the areas of existing hard standing or newly protected ground only.
- 4.4 All site clearance / demolition works within the existing car park area 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.
- 4.5 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'*.

Removal of Existing Vegetation

- 4.6 All existing trees designated for removal are to be removed in accordance with the Tree Protection and Retention Drawing LLD970 / 02 - *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.
- 4.7 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.
- 4.8 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.

Tree Surgery

- 4.9 Tree surgery measures and works have been specified and identified with the attached *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. All scheduled and 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 is detailed within the attached LLD970 – *Existing Tree Schedule and Schedule of Tree Works* report.

Tree and Vegetation Management

- 4.10 For tree and vegetation retention and removal proposals refer to the attached *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 the *Existing Tree Schedule and Schedule of Tree Works*.

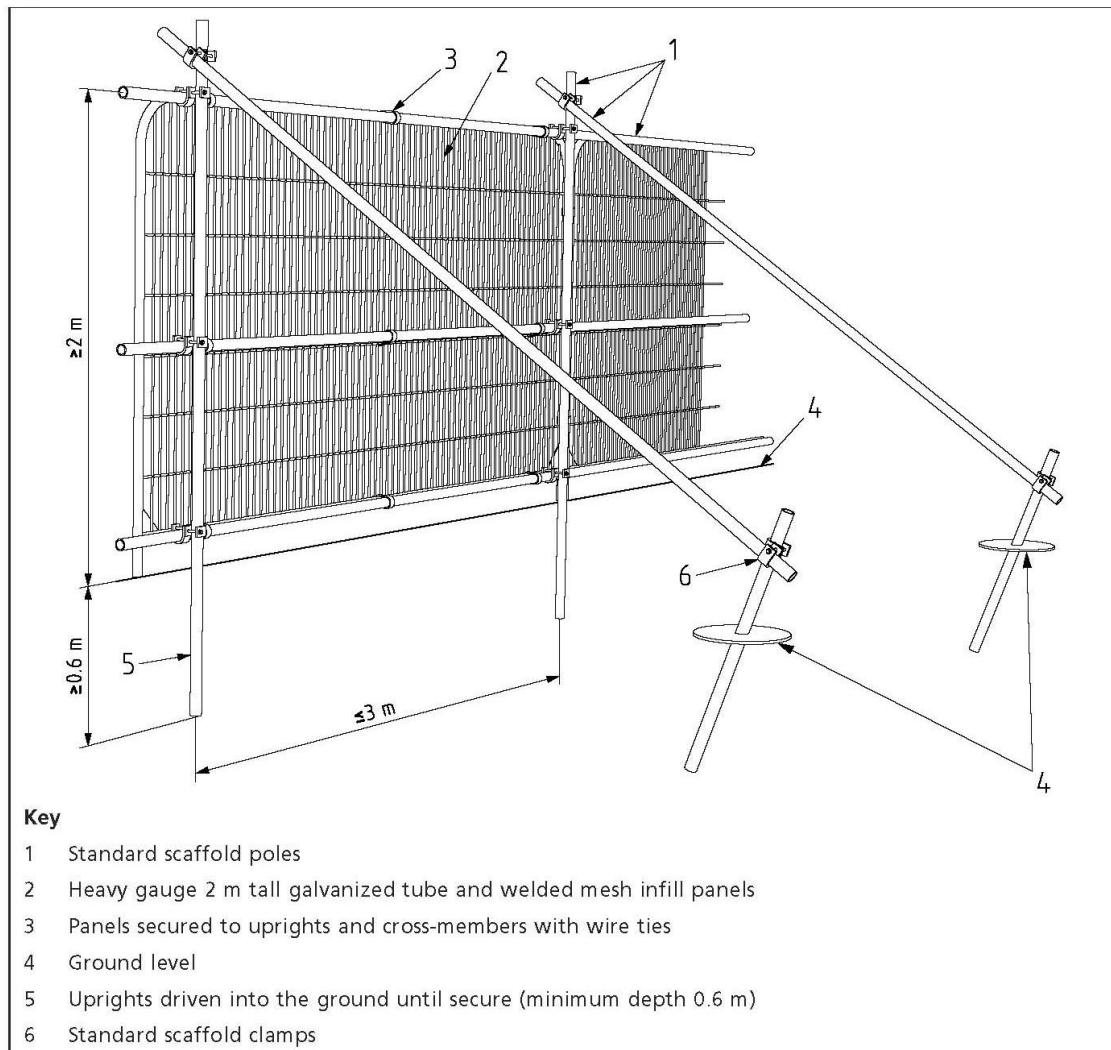
Replacement Tree Planting

- 4.11 To compensate for the loss of T 02, it is proposed that replacement trees be planted to the south or south-western boundary of the site. Replacement trees could also be of a higher amenity to the site and to wildlife, whilst also reducing leaf litter-drop onto parking and access areas. Possible species which could be used include *Betula pendula* (Silver Birch), *Acer campestre* (Field Maple); *Corylus avellana* (Hazel); *Alnus glutinosa* (Common Alder); *Cornus sanguinea* (Common Dogwood). These are native species which are either already present on the site or suited to the location. Use of multistem species would further increase the visual screening amenity and the potential habitat for wildlife such as nesting birds.

Protection and Retention of Existing Vegetation

- 4.12 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.
- 4.13 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.
- 4.14 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.
- 4.15 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 LLD970 / 02 – *Tree Retention and Protection Plan*.
- 4.16 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*'.
- 4.17 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.
- 4.18 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.*

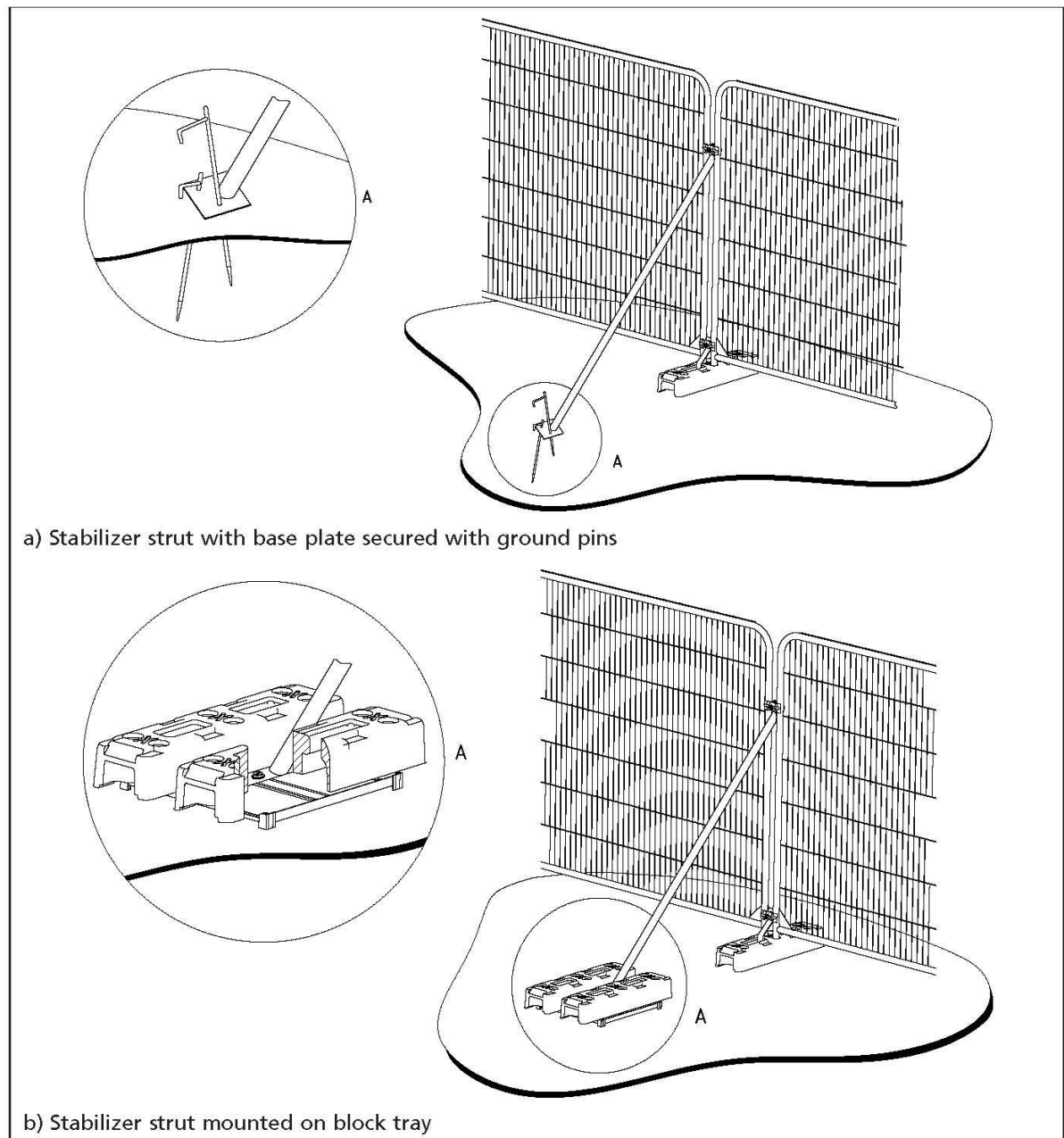
Figure 2 Default specification for protective barrier



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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)

Figure 3 Examples of above-ground stabilizing systems



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- 4.19 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.

**Ground Protection; Tree Protection Zone - No Dig Construction Area -
Pedestrian Access Route and Car Parking**

- 4.20 In accordance with BS 5837: 2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations' ground levels should not be raised or lowered within the existing tree root protection area. A 'no-dig' Construction method shall be employed in order to avoid damage to existing tree roots and localised compaction of subsoil within the tree root protection area of trees T 01.
- 4.21 Where new surfacing is proposed within the tree root protection area of the existing tree it shall be installed using a 'no-dig' permeable construction. Existing surfacing materials where possible shall be left undisturbed and retained during the construction period for as long as possible in order to protect the tree root protection area of the existing trees to be retained; existing surface hard landscape materials and sub-base layers only shall be removed carefully by hand within the existing tree root protection areas and shall not exceed the depth of the existing construction. Existing subsoil / topsoil layers shall be retained and protected in place in order to protect tree roots.
- 4.22 A ground stabilising geo-mesh shall be installed above the existing ground levels of the proposed pedestrian access route; prior to installation, all hollows within the existing construction are to be filled and no high points of existing undisturbed / unmade ground shall be skimmed. A ground stabilising mesh ('TDP SN20 GeoGrid' or equal and approved), shall be rolled out over the existing ground level and evenly covered with a No Fines - Open Graded Aggregate (*in accordance with Highways Agency Specification; Clause 805 (Type 3) or equal and approved.*)
- 4.23 The granular fill shall be incorporated within a 3 dimensional GeoCell (*Terram Geocell 250/100 or equal and approved*) and shall ensure a minimum supportive construction depth of 100 mm for the pedestrian access route (to be suitable for pedestrian traffic) and 200 mm for the new car parking areas (to be suitable for vehicular traffic, to be suitable for pedestrian traffic. A geo-textile filter membrane is to be laid over the granular fill construction (*Geotextile filter membrane to be TDP 115 Non-woven Geotextile Fabric or equal and approved.*)
- 4.24 A permeable system and construction method shall be installed over the prepared sub-base layers. A bedding layer of crushed aggregate (*to BS EN13242; range size; 4 – 14 mm*) is to be laid level and compacted above the Geotextile filter membrane to a depth of 25 mm. A layer of permeable tarmacadam (or other suitable permeable top layer) to create the pedestrian access route area shall then be installed above the bedding layer.
- 4.25 Existing service runs should always be used wherever possible. Where the proposed routing of services impinges upon the root protection area of any existing tree to be retained, the routing shall be undertaken in accordance with a manual excavation method; to be carefully hand dug and routed most directly to and from the exterior of the tree root protection area radius. Services are to be trenched and routed together wherever possible to create the minimum impact upon the tree roots of the existing trees to be retained. Trench excavation across the tree root protection area radius beside an existing tree shall be avoided, whereby tree roots will become severed. Where services are to cross the edge of an existing tree root protection area, they should be routed through existing tree roots, via a hand dug ducting sleeve, avoiding damage to existing tree roots within the root protection zone.

- 4.26 **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.*

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;*
 - *Method statement briefing for site staff;*
 - *Supervision of the 'no-dig' area for the proposed pedestrian access route and car parking area prior to and for the implementation of the construction process;*
 - *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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01903 216033; lizard.landscape@btconnect.com