



THE SEAMAN PARTNERSHIP LTD

28 Kingsway, Craigweil, Aldwick

- Arboricultural Method Statement

Planning Issue

Prepared by	GS
Checked by	JJ
Date	11 th May 2017
Document Reference	LLD856
Revision	02

**LLD856 – 28 KINGSWAY, CRAIGWEIL, ALDWICK, WEST SUSSEX
RESIDENTIAL DEVELOPMENT - ARBORICULTURAL METHOD STATEMENT
Planning Issue - Rev 02; 11th May 2017**

1.0 Introduction

- 1.1 The residential development proposals are located within the existing site of 28 Kingsway, Craigweil, Aldwick. The original site boundary for 28 Kingsway is being split into two to accommodate the new proposal. The development consists of 1 no. residential unit in total. The residential development proposal consists of 1 no. detached building, which is located to the north-west of the original plot. The proposal will also include access, gardens, car parking and bin storage. The development scheme would require the realignment of the existing site access and entrance with the proposed entrance remaining on the Kingsway to the south-west of the site area.
- 1.2 The existing site area is at 28 Kingsway which is located within a private no through road of Craigweil in Aldwick. This detached property is a part of a large residential area in Bognor Regis. The existing site area consists of a large detached residential unit to the east of the site with two separate outbuildings to the west. The proposed site area is located within the large mature garden of the existing property. The site is predominately made up of amenity grassland to the south, east, and west. To the west of the site is the existing swimming pool and paving surrounding the pool area. To the north of the site is mature vegetation in the form of trees, shrubs as well as an existing access gate and gravel driveway. There are several different habitats within and adjacent to the site boundary including trees of varying quality, and mixed species shrub.
- 1.3 The proposed site area is enclosed to the eastern, southern and western boundaries by existing properties. To the northern edge of the site are a number of mature trees (*T01, T03, T04, T05*) and a mixed-species shrub group (*SH 02*) which includes *Leylandii, Ilex, Fushia, Bay and Pittosporum*. To the southern edge of the site there are large areas of amenity grassland and 1. no mixed species shrub group (*SH 08*) which includes *Camellia, Azalea, Berberis, Escallonia* and *Euonymus*. In the centre of the site and directly where the proposed building is located are 2 no. large mature mixed species shrubs (*SH 02, SH06*) consisting of *Lonicera nitida*.
- 1.4 The existing trees, hedge line, and shrub within and adjacent to the 28 Kingsway, Craigweil site development boundary have been surveyed in detail for tree condition, and are recorded within the attached report; *LLD856 – Existing Tree Schedule and Schedule of Tree Works*; and identified on the following drawings; *LLD856 / 01 – Tree Constraints Plan*; and *LLD856 / 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 to be removed and specifically measures for tree and root protection wherever existing trees and vegetation are to be retained and protected where necessary.
- 1.5 Following the proposed removal of existing vegetation from the site in accordance with the drawing *LLD856 / 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 where possible in accordance with the guidance contained within *BS 5837; 2012 – ‘Trees in Relation to Design, Demolition and Construction – Recommendations’*.

- 1.6 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 comprise a residential layout, parking, garden plot with adjoining vehicle access road. The proposals affect a number of the existing trees on site; a number shall require removal and others shall require detailed protection to enable their retention within the proposed scheme. All existing trees to be retained shall be protected where possible in accordance with *BS 5837; 2012 – Trees in Relation to Design, Demolition and Construction – Recommendations*.

- 2.2 The following trees and vegetation shall require removal in order to accommodate the development proposals. The majority of the trees and shrubs are of low quality and condition;

- *SH 02 – Mixed Species Shrub Group; Category C; (Large Bay to be retained);*
- *T 05 – Quercus robur – Category C;*
- *SH 06 – Mixed Shrub Group - Category C;*
- *H 07 – Laurel Hedge - Category C;*
- *SH 08 – Mixed Shrub Group - Category C.*

Northern-east Boundary – SH 02 Bay laurel (Laurus nobilis)

- 2.3 The bay laurel located in the mature mixed species shrub group located on the north-east boundary is to be retained and protected. To ensure the preservation of the root protection area (RPA) it is proposed that tree protective fencing is erected to minimise compaction and contamination to the associated roots. Due to the location of the proposed building an *Operation Zone during Construction* is suggested of 1.50 metres width running from the western site boundary between the proposed building and the tree protective fencing. It is also proposed that a no dig construction zone be implemented to the western boundary of the protective fencing, which will be running north to south and across the proposed access driveway beneath the base of the existing trees to the northern site frontage. This is due to the RPA encroaching outside the proposed protective fence line for the proposed development access driveway (see Figure No. 1 below and drawing *LLD856 / 02 – Tree Protection Plan* for detailed information). The bay is due to be retained and renovated, all basal growth is to be removed and the crown lifted to 1.50 metres height from the ground to allow light to penetrate to the understorey. The *Leylandii*, *Ilex*, *Fushia* and *Pittosporum* located within SH02 are all to be removed in accordance with *BS 5837; 2012 – Trees in Relation to Design, Demolition and Construction – Recommendations*.

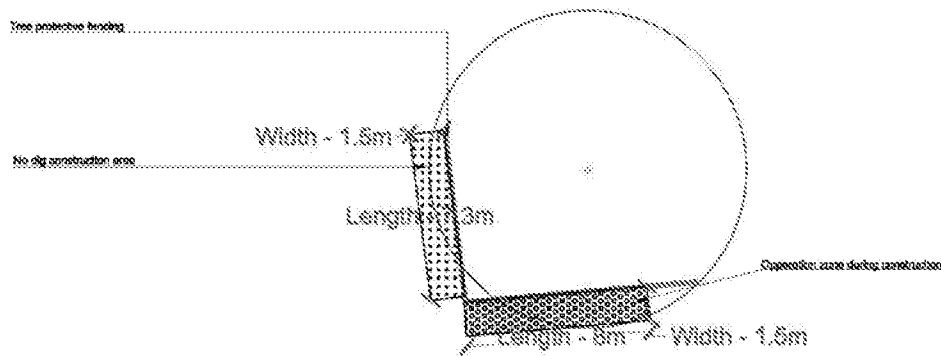


Figure No. 01 – Tree Protection Measures (SH 02)

3.0 Stages of Work / Programme

- 3.1 The residential development at 28 Kingsway, Craigweil shall involve the following site operations that could impact upon the existing tree cover;
- Contractor movements; site access and operations; storage and compound;
 - Removal of existing vegetation not for retention;
 - Construction of dwelling houses; car park construction; and ground work operations;
 - Implementation of services and utilities;

4.0 Arboricultural Method Statement

Contractor Movements; Site Access and Operations; Storage and Compound Areas

- 4.1 The contractors site compound shall be located outside of the defined tree root protection areas as indicated on drawing; LLD856 / 02 – *Tree Retention and Protection Plan*.
- 4.2 The contractors 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*. 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 Access to the site area shall be made at all times via the existing access point and entrance from Kingsway. 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 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 shall be put in place. Vehicular movements during the construction period shall be limited to the areas of existing hard standing or newly protected ground only.
- 4.4 Demolition of the existing buildings 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*.

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 *LLD856 / 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 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.

Tree and Vegetation Management

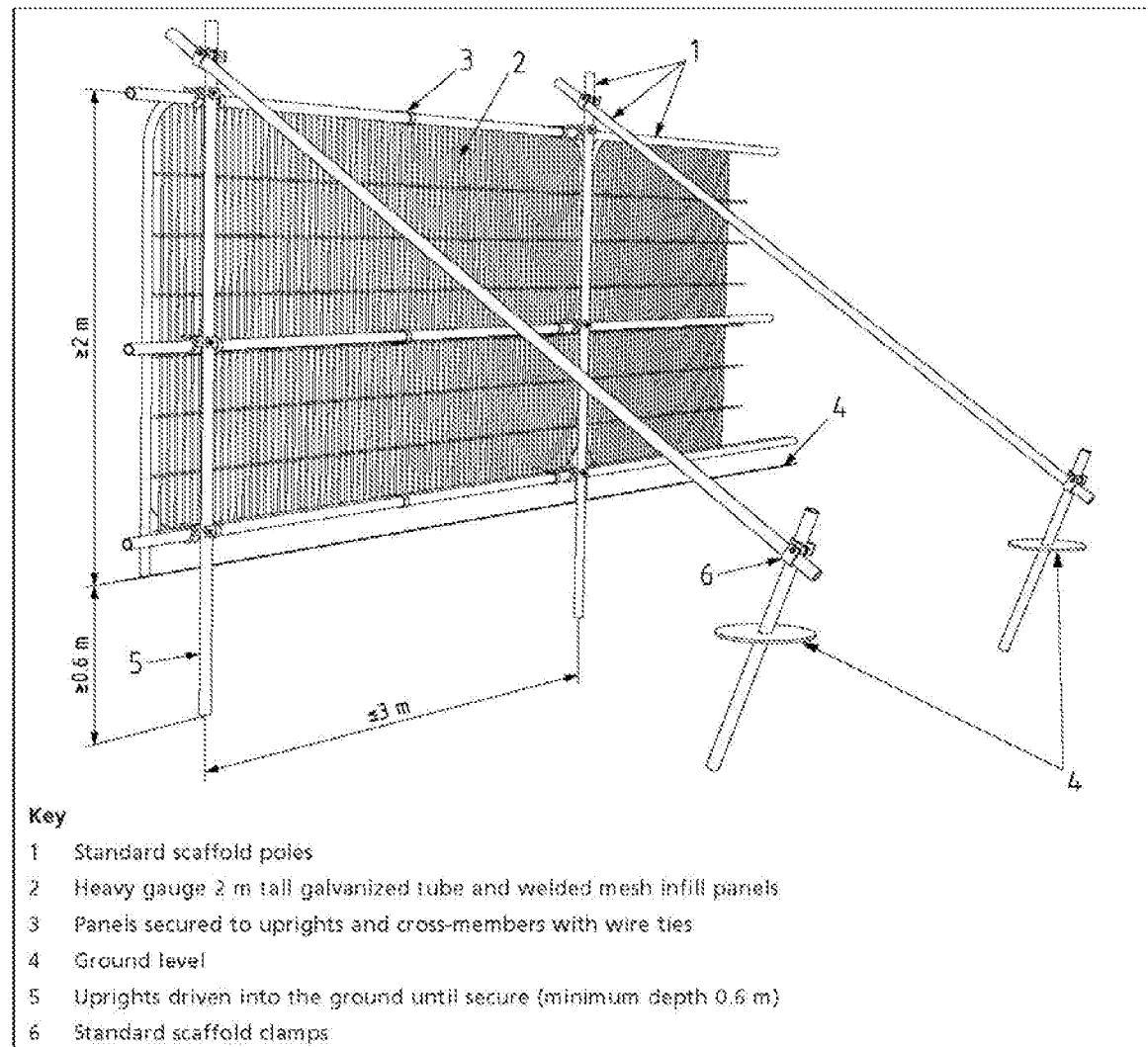
- 4.10 For tree and vegetation retention and removal proposals refer to the attached *Existing Tree Schedule*. For tree and vegetation management proposals refer to the tree surgery works and management prescriptions contained within the *Existing Tree Schedule and Schedule of Tree Works*.

Protection and Retention of Existing Vegetation

- 4.11 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.
- 4.12 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.

- 4.13 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.
- 4.14 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 LLD856 / 02 – *Tree Retention and Protection Plan*.
- 4.15 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*'.
- 4.16 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.
- 4.17 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.*

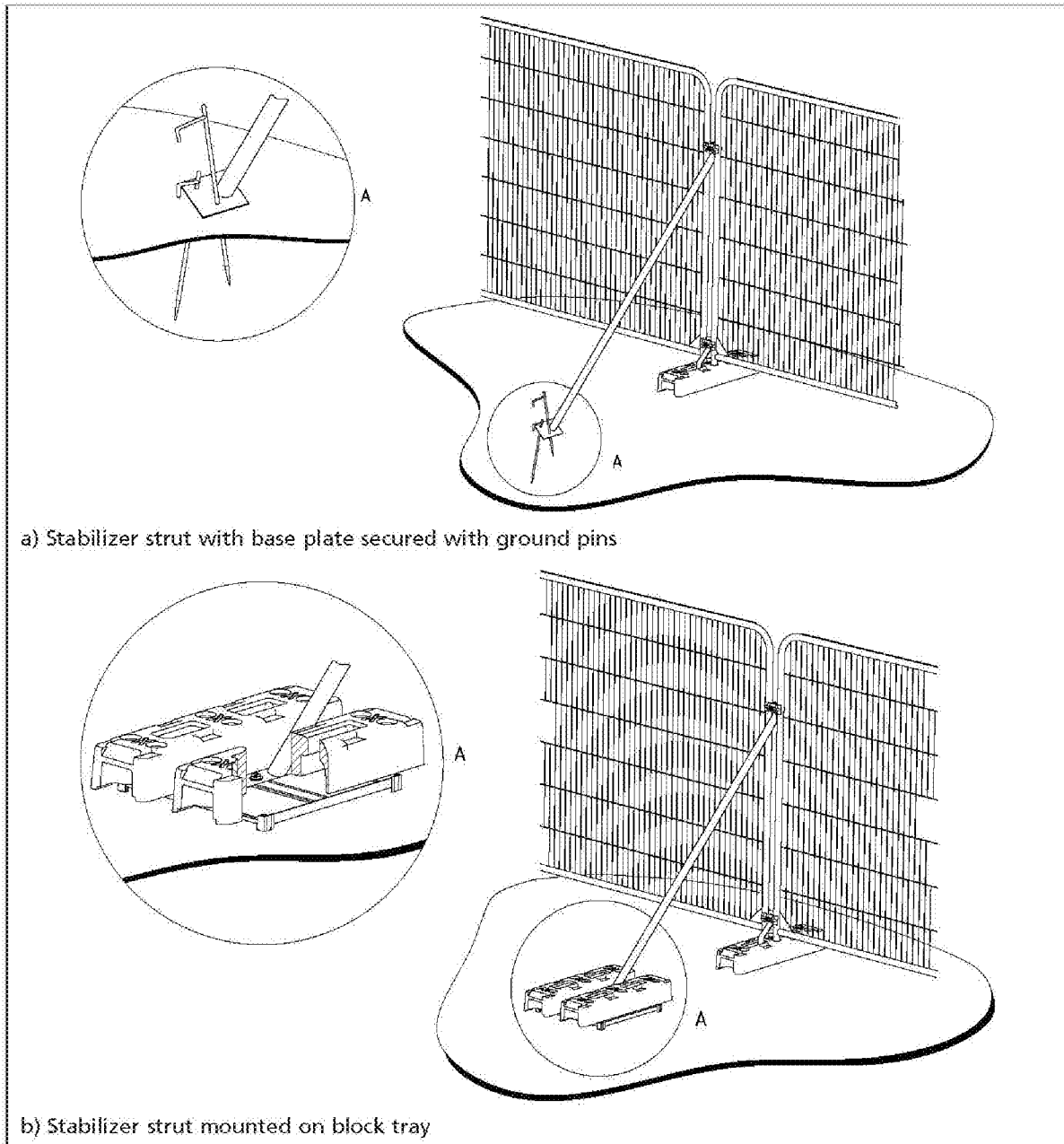
Figure 2 Default specification for protective barrier



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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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- 4.18 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
- Operation Zone during Construction**

- 4.19 Where construction operations require activity within the exposed unmade ground of any existing tree root protection area, a temporary protection zone shall be implemented allowing for construction operations only, but no vehicular access close to existing trees during the construction period. The temporary ground protection measures are to be set out in accordance with drawing *LLD856 / 02 – Tree Retention and Protection* and shall remain in place for the duration of the construction period. The temporary ground protection for construction operations only, but no vehicular access, shall comprise a single thickness of metal plates secured and supported upon a scaffold framework driven into the ground or by a retained non-compressible layer (*woodchip / Type 1*) of 150mm depth placed above a geo-textile separation membrane in order to protect existing tree roots.

Ground Protection; Tree Protection Zone – ‘No-Dig’ Construction

- 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 areas. 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.
- 4.21 Where new surfacing is proposed within the tree root protection areas of the existing trees it shall be installed using a ‘No-Dig’ *Permeable Geo-Grid Construction*. Existing paving material 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 car drive area; 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. 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 paving 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 - 14mm*) is to be laid level and compacted above the Geotextile filter membrane to a depth of 25 mm. A porous paving system shall be installed above the bedding layer.
- 4.25 **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; 2.0 m 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 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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