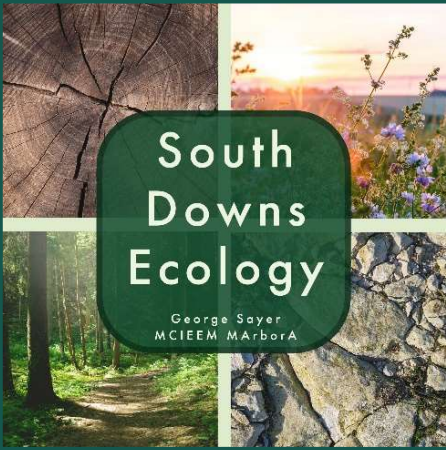


Arboricultural Impact
Assessment and
Method Statement

New Dwellings at
Oklahoma, Westbourne



South
Downs
Ecology

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Arboricultural Impact Assessment and Method Statement

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Westbourne

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1.0 Introduction

- 1.1 A tree survey and tree protection package have been commissioned for the proposals for demolition of the existing dwelling and construction of five new dwellings at Oklahoma, Long Copse Lane, Westbourne.
- 1.2 A detailed tree survey was carried out on 6th December 2023 by George Sayer (*BScHons PgDip MArborA; LANTRA Professional Tree Inspection 2019*); from which a schedule and constraints plan of existing trees on and surrounding the site was produced in accordance with BS 5837:2012 – ‘*Trees in Relation to Design, Demolition and Construction – Recommendations*’. From this information an arboricultural impact assessment was undertaken, and a plan of tree protection devised to ensure the long-term retention of the trees on-site.

Proposals

- 1.3 The proposals are for the removal of an existing dwelling and attached garage, and construction of three detached and two semi-detached dwellings in the site. The existing access would be partly re-used, being adjusted further west due to visibility concerns from and to the highway.

Site Description

- 1.4 The site consists of an area of an existing detached dwelling, surrounded by gardens. The site covers c.0.21 Hectares and is rectangular in shape. To the south, east and west are further dwellings, whilst to the north is the verge and road of Long Copse Lane, and a grassland field to the north. This land is understood to be subject to an outline application for development (APP/21/00893) for c.210 dwellings.

Surrounding Landscape

- 1.5 The site is located within the residential area of New Brighton, to the west of Westbourne. To the south lies residential land for a significant distance. To the north-west the residential land gives way to Hollybank Woods. To the north-east lies areas of treelined paddocks. To the east lies new development with large greenspace. The wider surroundings to south and west consist of the urban coastal areas of Havant and Emsworth, whilst to north and east the land is a mixture of woodland and farmland, with large areas of woodland and parkland at Stansted Park.

Existing Site Vegetation

- 1.6 The trees on the site are all located to the boundaries. To the north is a native hedge with emergent oak, beech and a large hazel stool. Along the eastern boundary are a scattered line of mostly native and low value trees. The southern boundary contains a line of mixed trees of low value including beech, field maple, and cherry plum. The western boundary contains an off-site moderate value weeping willow and moderate value silver birch. Several section of ornamental hedge line the western boundary and a cherry laurel hedge divides the site approximately three-quarters of the way down.

2.0 Arboricultural Impact Assessment

Removal of Trees

- 2.1 Of the existing trees, three low value garden trees would be removed. This would have a limited effect on Arboricultural or ecological amenity with these being small specimens. Two moderate value trees are proposed for removal; a large hazel stool and a moderately large oak, both at the frontage, which whilst of some screening and character value, are not well-connected ecologically and lie at the end of the section of hedge. Some of this hedge would also require removal.

Disturbance to Roots and Rooting Environment

- 2.2 The proposed new dwellings would not encroach materially into any RPAs, and subject to engineer specification, could proceed with a standard foundation design.
- 2.3 The existing access drive would be utilised, but would require adjusting further to the west to improve the visibility splays of the access. In the absence of mitigation, removal of the original access might cut roots of trees to the east. Such works might be able to utilise small machinery but must be supervised by the arboriculturalist to ensure roots beneath are not harmed. Traffic over this area must cease once the surface is removed.
- 2.4 Several minor incursions into RPAs would be required for the construction of patios and shed bases. These are generally so minor, or impacting trees of such low value that specialist construction or re-design of proposals is not merited. Whilst there is fairly major incursion proposed to the RPA of T04, this is a small self-seeded ash of no intrinsic value, and specialist construction to accommodate it is both unnecessary and unduly onerous. The tree would likely tolerate some root pruning here. Such areas shall be manually excavated and any roots found cut back cleanly and the live ends re-interred in soil. Such excavation and the construction over the top shall be the minimum necessary to construct shallow concrete bases or install paving.

Construction in Proximity to Trees and Hedges

- 2.5 Access over a small area of RPA would be required to construct one proposed dwelling to the south-west. In the absence of mitigation, such access might cause soil compaction and crushing of roots, leading to the decline of a moderate value tree. Appropriate ground protection measures should be utilized in these areas to allow temporary access over RPAs.
- 2.6 The construction works would bring the built form closer to existing trees, but as the trees are already in a garden and of relatively low value, the increase in pressure on trees would be negligible. The trees of most value lie along the roadside and adjacent the access already, and there would be no additional pressures on or risks from trees here.
- 2.7 To protect trees from vehicular collision and damage to RPAs outside of the operation zones, Tree Protection Barriers will be installed surrounding the RPAs of retained trees.

Further Protection Measures

- 2.8 Assuming that new surface water drainage is required, such as soakaways or French drains, these should be designed to avoid all RPAs. There appears to be sufficient space within the proposed gardens on the site for such drainage.
- 2.9 New services would be required; these should either come from the existing dwelling to the north, or if these come along the amended track, will have to be installed outside of RPAs or using a manual excavation methodology.

Replacement Planting

- 2.10 New native tree planting should be incorporated into the design. Species should be natives such as field maple, whitebeam, hawthorn, crab apple, hornbeam, silver birch and rowan. The loss of the oak, hazel and hedge section at the frontage would open the site more to views and slightly degrade the character of the frontage. At least one oak should be planted at the frontage and should be an extra-large nursery specimen. New native hedges should also be planted to ensure privacy and character is retained. This should ultimately result in an ecological and Arboricultural gain. A Biodiversity Net Gain assessment also accompanies the application detailing how an ecological gain would be achieved.

Summary of Impacts

- 2.11 Overall, the proposals require removal of a small number of trees, generally of low or moderate value. The proposals present a low risk of harm to several low and moderate value trees; this risk can be avoided through basic protection measures. The proposals are therefore supportable.

3.0 Arboricultural Method Statement

Site Movements, Storage and Compound

- 3.1 No vehicular or pedestrian movements shall be permitted during construction over unmade ground within RPAs. The site storage, waste and compound areas must be located either within existing hard surfaces or outside of tree RPAs. Fuel and chemicals shall be stored in appropriate containers to prevent spillage into unmade ground. All site movements, storage and compound shall seek to protect trees during construction in accordance with BS 5837:2012 – *Trees in Relation to Design, Demolition and Construction – Recommendations*.

Tree Protective Fencing

- 3.2 The RPAs of trees to be retained shall be protected through the installation of tree protective fencing to the outside of the root protection area. The installed protective barriers shall be 2.0 metres minimum 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. Where existing ground conditions do not allow for the above method, the Welded Wire Mesh Fencing Panels may be mounted on concrete or rubber feet, supported on the inner side with stabilizer struts fixed on a block tray or secured with ground pins; and positioned as specified. The fencing should be strained, and fixed to fences, walls, knee rails where possible to provide a complete protected area (*refer to Figure 2 and Figure 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 figures 2 and 3 below.
- 3.3 In locations where no construction is being undertaken, but there is a risk of inappropriate storage or vehicle parking, exclusion zones shall be created through the use of barrier tape, traffic bollards or low level traffic barriers. Such measures shall be pinned down to prevent easy removal.
- 3.4 Signs shall be affixed to the barriers stating '*Tree Protection Zone – No Access*' in addition to day-glo tapes to the top of the fencing, in accordance with BS 5837:2012 – '*Trees in Relation to Design, Demolition and Construction – Recommendations*'. Within the protected area, no construction activities shall be permitted, to include:
- *Lighting of fires*
 - *Storage of chemicals or building materials*
 - *Dumping of spoil or rubbish*
 - *Driving of vehicles*
 - *Alteration of soil levels.*

Figure 2 Default specification for protective barrier

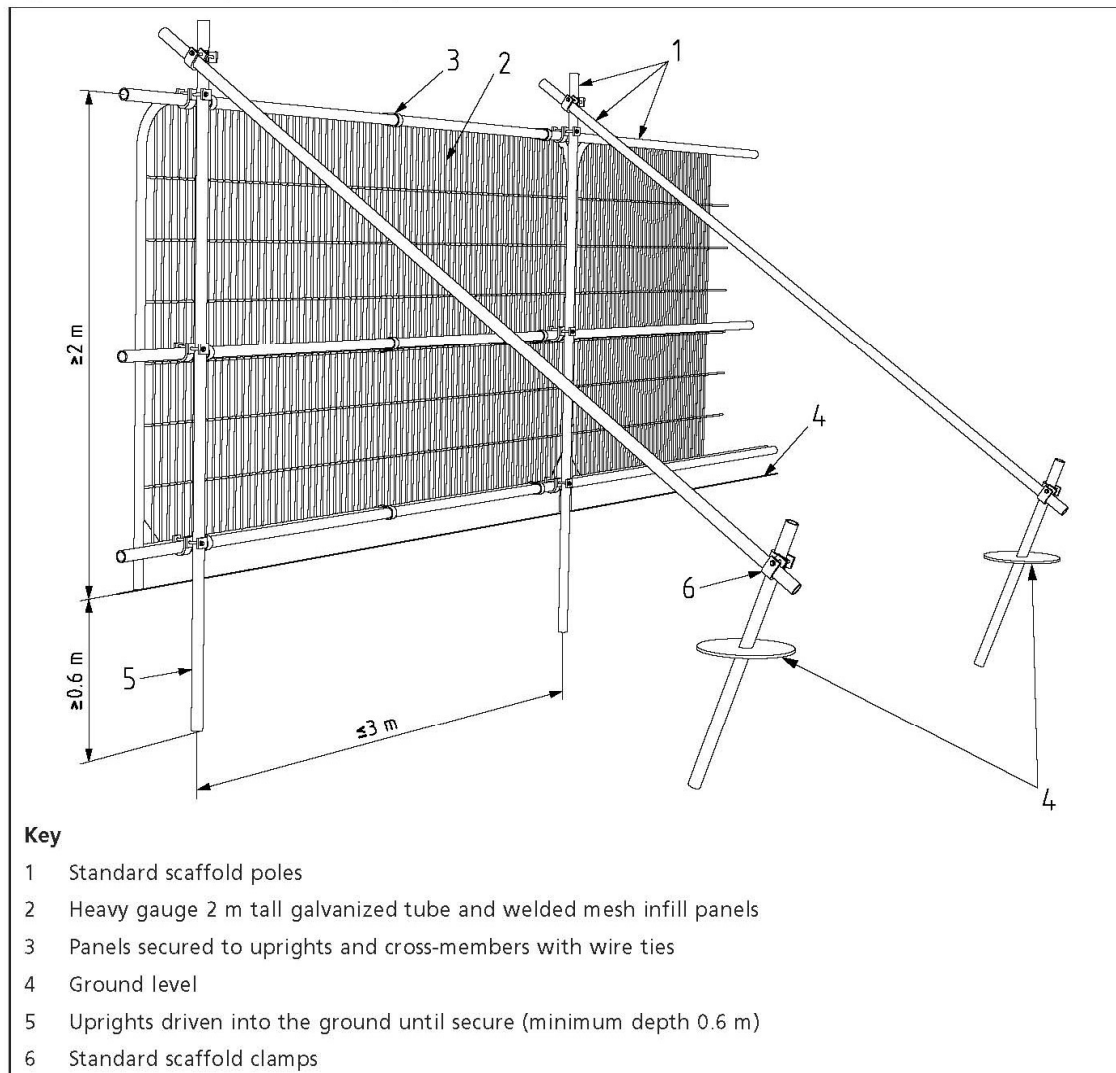
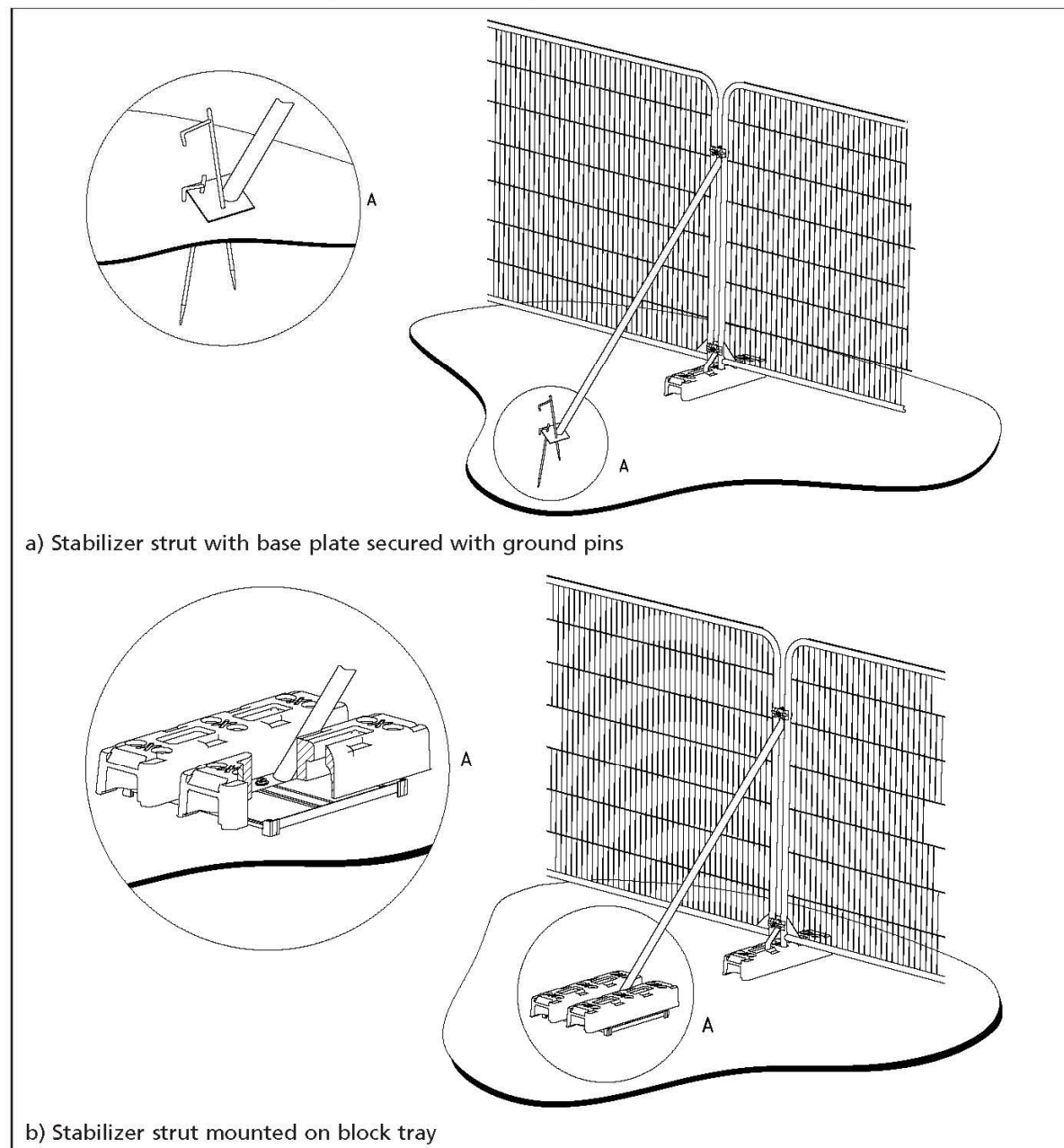


Figure 3 Examples of above-ground stabilizing systems



- 3.5 Tree protective barriers shall be installed and maintained throughout the construction phase by the main contractor, who shall be responsible for ensuring the fencing remains in place and is properly maintained. The fencing shall be installed in accordance with the *Tree Retention and Protection Plan*. Adjustment or relocation of the fencing during the construction phase shall be undertaken only following prior agreement by the arboriculturalist.
- 3.6 Wherever possible, tree protective fencing shall surround the entirety of the tree RPA. Where this is not possible, ground protection measures shall be utilised within designated operation zones to prevent damage to roots or compaction of soil. The locations of tree protective fencing and ground protection measures are detailed within the *Tree Retention and Protection Plan*.

Ground Protection Within RPAs

- 3.7 Where vehicular access is required over the soft ground of an RPA, ground protection measures shall be installed to ensure no compaction occurs. The appropriate construction shall be determined by the engineer, supplier or contractor and approved by the arboriculturalist. 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.*
- 3.8 The surface material shall be contained with edging type requiring no excavation. Where proposed levels of any new access routes do not ascertain minimum required depth for installation of traditional kerbs, other solutions should be sought:
- *- Timber edging boards and spikes would be considered appropriate for pathways;*
 - *Timber sleepers should be used as a kerb edge restraint for vehicular areas and anchored with non-intrusive pinning (such as road pins) in order to maintain the existing levels within the specified Root Protection Areas.*

New Surfacing within RPAs

- 3.9 Where small areas of new surfacing is required within RPAs, the turf layer shall be scraped back to soil, and then a geotextile laid to form the base of the surface. Only the minimum necessary soil shall be removed and new surfaces shall allow water to shed into RPAs where possible
- 3.10 In places some minor excavation will be necessary to allow tying in of levels of surfaces and construction of footings; such excavation shall be undertaken manually under arboricultural supervision to minimise damage to roots. Any significant roots shall not be cut unless so directed by the arboriculturalist; any such roots shall be recorded, cut cleanly and the ends wrapped in dry hessian. Should roots likely to be significant to the vitality of any tree be found, these shall be wrapped, retained and incorporated into the surface wherever possible, with bridges formed over the root or footings adjusted to allow it to remain and grow further.
- 3.11 The arboriculturalist shall confirm the appropriate measures have been undertaken either through supervision or photographic evidence.

Vegetation Removal

- 3.12 All remaining tree surgery works (i.e. stump removal) shall be undertaken in accordance with BS3998:2010 – Tree Works: Recommendations. Stumps shall either be stumpground or carefully pulled up and away from trees, taking care to check for larger entangled tree roots and cutting the stump away from these. Log piles shall be created in the site from the arisings to create new habitat.

Installation of Services

- 3.13 Wherever possible, the proposals utilise existing service routes. Any new drainage shall be sited outside of the RPAs of any trees. The new drainage shall be sited so as to be as far as possible from any tree stems.
- 3.14 Where the proposed routing of other new services such as electrical wiring impinges upon the tree RPA of any existing tree to be retained; the routing should be undertaken as a minimum standard in accordance with NJUG Volume 4, issue 2: '*Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees*'. 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. Services are to be sleeved to ensure protection of the services and surrounding roots.

Supervision of Works

3.15 Given the scale of proposals, a suite of supervisory works shall be undertaken to ensure that works accord with the principles and detailed specifications provided to protect trees. The supervision should be compiled into a report of works at the site to confirm compliance with the British Standard and this report.

3.16 The following is considered the most appropriate schedule of site checks and supervision:

- Arboriculturalist to check specification of ground protection and tree protective barriers prior to their implementation;
- Prior to works commencing and any construction vehicular access to site, the tree removal and location of protective measures shall be agreed on-site between the contractor, arboriculturalist and preferably the tree officer;
- Following tree removal all protection measures shall be implemented and checked by the arboriculturalist before any other vehicles enter site;
- Removal of existing surfaces within RPAs, and scraping-back of areas for minimal-dig construction to be supervised by an arboriculturalist;
- Ongoing compliance to be checked through site visits and/or site photographs;
- Removal of protection measures to be agreed with arboriculturalist.