



LIZARD

Landscape Design and Ecology

ARBORICULTURAL IMPACT ASSESSMENT AND METHOD STATEMENT

**BRAEMER, LAND TO THE NORTH, HIGH STREET,
ETCHINGHAM**

Gowing Build

Prepared by	Kofi Bernson BSc (Hons) Assistant Ecology
Checked by	Louise Barker, MSc, BSc (Hons) Consultant Ecologist.
Date	22 February 2024
Document Reference	LLD3116-ARB-REP-001
Revision	00
Status	Planning Issue

Contents

1.0	Introduction.....	4
2.0	Arboricultural Impact Assessment.....	6
3.0	Arboricultural Method Statement.....	12

1.0 INTRODUCTION

Lizard Landscape Design and Ecology has been commissioned to undertake a dendrological survey and produce arboricultural documentation for the proposed development at Braemer, Land to the North, High Street, Etchingham.

The Arboricultural Impact Assessment and Method Statement report provides assessment of the direct and indirect effects of the proposed design and where necessary recommends mitigation.

The Arboricultural Impact Assessment and Method Statement report for the development at Braemer, Land to the North, High Street, Etchingham has been prepared by Kofi Bernson, Assistant Ecologist at Lizard Landscape Design and Ecology, Worthing.

This written Arboricultural Impact Assessment and Method Statement should be read in conjunction with the associated tree survey documentation, including *LLD3116-ARB-DWG-002 – Tree Constraints Plan*, *LLD3116-ARB-SCH-001 – Existing Tree Schedule*, and *LLD3116-ARB-DWG-002 – Tree Retention and Protection Plan.0*

Existing Site Information

The survey area covers c. 0.14ha and consists of a recently cleared area of land, enclosed by a line of trees to the north and is accessible via a small, concrete driveway leading north off the A265 (located around central grid reference: TQ 70714 25986– hereafter referred to as ‘the site’). The main body of the site was assessed as being recently cleared, as patches of bare ground persisting amongst areas of deadwood and tree stumps. Grasses and lower forbs were present; however, no higher plants or notable patches of vegetation were noted in the main body. A fence encloses the site to the east and west, while 2no. residential holdings with associated parking and garages are present south, which is also accessed by the previously mentioned driveway. The site is c.40m above sea level.

Existing Site Vegetation

The northern boundary of the site consisted of a line of trees, containing Oak *Quercus robur*, Norway Maple *Acer platanoides*, Ash *Fraxinus excelsior* and Field Maple *Acer campestre*. The quality of the trees ranged across the northern boundary. The majority were assessed as being of a fair-moderate quality, while several others were assessed as being either poor or notably good. 2no. small, low-quality trees were also noted in

the southern section of the site, adjacent to the high street and in the front garden of the neighboring residential property. The main body of the site was considered to be highly disturbed and appeared recently cleared. Small patches of bare ground persisted across the site, while no higher plants in the main body were noted.

Development Proposal

It is understood that development proposals include the erection of 2no. new detached dwellings alongside associated parking and soft landscaping. It has also been assumed that the current driveway may be subject to resurfacing during construction.

2.0 ARBORICULTURAL IMPACT ASSESSMENT

Impacts of Development Proposals on Existing Vegetation

The proposed development can have an adverse impact on the existing trees by adversely affecting their potential for retention through disturbance in Root Protection Areas (RPAs) or through post-development pressures to prune.

The development proposals would involve the following site operations that could impact upon the existing trees:

- Contractor movements; site access and operations;
- Storage and compound;
- Plant, vehicle, and material cleaning;
- Installation of construction elements; groundwork / general site operations;
- Construction in proximity to trees;
- Demolition/ removal of existing structures;
- Installation of services and underground apparatus;
- Future maintenance;
- Removal of protective measures.

The impacts of development proposals include the RPA incursions to the following tree, which may result in negative impacts due to the removal of ground to facilitate the construction of the foundations; T01 – *Q. robur*, category (A).

A Manual Excavation Zone has been recommended for implantation in accordance with BS 5837:2012 (BSI, 2012) in the northwestern corner of the proposed new dwelling, to ensure that the removal of existing ground within the RPA of T01 – *Q. robur*, category (A) is undertaken with due care with handheld tools under arboricultural supervision. Given that less than 2% of the RPA of T01 – *Q. robur*, category (A) is within the foundation of the proposed structure, the implementation of a 'Pile and Beam' construction zone has been deemed too excessive.

A Ground Protection Zone has been recommended for implantation in accordance with BS 5837:2012 (BSI, 2012) in certain areas surrounding the proposed site to protect the RPAs of the following trees; T01 – *Q. robur*, category (A), T02- *A. platanooides*; category (C), T03 – *Q. robur*, category (B); T04 – *Q. robur*, category (B), T15 – *Prunus. sp.*; category (C) and T16 – *Abies sp.*; category (C). This will include securing the area with

a ground protection layer, fit for the expected level of traffic above a compression resistant layer for the duration of the construction period.

A 'No Dig' construction zone has been recommended for implementation in accordance with BS 5837:2012 (BSI, 2012) along the western edges of T15 – *Prunus. sp.*; category (C) and T16 – *Abies sp.*; category (C). Any resurfacing of the currently existing driveway should not involve the removal or ground or reduction of currently existing ground levels within these zones, to ensure the RPA of these trees are protected during construction.

Tree Retention and Protection

All trees on-site are being retained and will be protected where appropriate using Tree Protective Barriers. Where Barriers cannot protect the entire RPA and canopy of trees, further measures are proposed to ensure trees are not harmed by proposals. These additional measures are detailed in this report.

The northern section of the site consists of a line of trees, and the implementation of a 'Operation Zone' area will ensure that the RPA's of the trees are protected during construction, while the provision of a 'Manual Excavation' area located on the proposed foundation will ensure that the proposed development minimises any impacts the RPAs of nearby trees. More so, a construction zone of 'No Dig' has also been recommended to reduce the likelihood of any root damage during the possible resurfacing of the existing driveway and access route in the southern section of the site.

No further trees or notable sections of vegetation were noted in the central, east or west of the site.

Disturbance to Root Protection Areas

The impacts of development proposals include the disturbance to the following trees, which may result in negative impacts; T01 – *Q. robur*, category (A), T02- *A. platanoides*; category (C), T03 – *Q. robur*, category (B), T04 – *Q. robur*, category (B), T15 – *Prunus. sp.*; category (C) and T16 – *Abies sp.*; category (C). This will occur due to the planned removal of the soil within the RPAs of the trees, along with the increased traffic associated with construction resulting in the possible compaction of soil around roots. If standard construction methods were used and with the absence of mitigation, major negative impacts could occur in the form of; significant root damage which would facilitate pathogen colonisation and anchorage forces, loss of rooting area resulting in a reduction in water and nutrient availability, soil compaction resulting in a reduction of

overall resources available to the tree and potential soil contamination. Collectively these impacts can cause a significant loss in overall vitality possibly causing the decline or the death of the tree.

Existing surfacing materials shall be left undisturbed and retained during the construction period for as long as possible to protect the tree root protection area of the existing trees to be retained.

Where the proposed dwelling foundations are within an RPA, a Tree Protection Zone – ‘Manual Excavation’ construction shall be implemented. The removal of any existing area which is within the RPA of an existing tree shall be undertaken with due care using handheld tools, under Arboricultural Supervision only. Areas further away from the trees will be removed first and works will then progressively move closer to the base of the tree. Should any exposed roots be found during this excavation, they are to be secured in dry hessian wrapping.

Access will be required within areas of RPA to enable construction, scaffolding and general works to the buildings. A small area of ground protection will be required while construction work is commencing, the existing ground levels within the RPAs of trees shall be retained and protected. An Operation Ground protection zone to enable construction work within the Root Protection Area is to be within the RPAs of the existing trees with a ground protection layer, fit for the expected level of traffic, above a compression-resistant layer for the duration of the construction period.

All the above protection measures must in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'.

Installation of services

All services installation will need to avoid RPAs as this normally involves an amount of trenching. Should any service installation be required in the RPA, a specialist method statement would need to be provided and must be in accordance with BS 5837:2012 - 'Trees in Relation to Design, Demolition and Construction - Recommendations'.

Construction in Proximity to Existing Trees

The resulting proximity of the new structure is likely to result in pressures on the existing trees. This would include:

- Altered soil conditions including access to water and gas exchange, resulting from proposed surfacing and construction of foundations.
- Shading of the canopy of existing trees.

With the current proposals there will be no ongoing pressures to prune back and lift the canopy sections.

Construction access and storage will be required in different areas of the site. In the absence of mitigation, vehicular access might compact soils, harming both tree roots and marshy grassland on the site. It is proposed to have a defined access route to and from all construction areas, and ground protection areas where access over RPAs is required.

The planned access route to the site passes from the A265 to the south of the site via an already existing driveway leading north. This aspect of development is unlikely to cause any notable negative impacts to existing trees.

Areas of construction within RPAs will be covered in ground protection measures to ensure that the soil is not compacted and that the access is level. The ground protection will be designed to suit the level of traffic proposed but will likely consist of an interlocking mat system installed onto a 150mm depth of woodchip. Woodchips can be created from site arisings and used to form footpaths afterwards.

Inappropriate storage of liquids such as fuel, paint or cleaning chemicals might result in spillages with a significant impact upon high value and or TPO trees. All such liquids will be stored outside of any RPAs. Bunded containers with spill kits will be required and used to minimise the risk of spillage. This must be present on site before any work starts including ground preparations and tree works.

Tree Pruning, Canopy Reduction, or Lifting

With the current proposals, it is expected that no trees will require surgery.

Risk Management of Dead Wood

All deadwood features should be managed in accordance with BS 3998-2010: Tree work Recommendations.

- Safety needs should be balanced against wildlife habitat protection.

- Dead branches should be shortened or if necessary, removed if they pose an unacceptable risk to people or property and if other options (e.g. diverting a footpath) are not practicable.

When deciding whether dead branches or dead trees should be retained and, if so, to what extent they might need to be pruned, a balance should be made between the mitigation of risk and the maintenance of wildlife habitats. The unnecessary loss of deadwood habitats should be avoided when specifying pruning or other works, particularly if legally protected species are using the tree. The following risk factors should be taken into account:

- The location (e.g., whether the deadwood overhangs a target that cannot be readily moved, such as a highway);
- The wood properties and decay characteristics of the species concerned.
- The size of the deadwood.

Removal of Trees and Vegetation

The proposed development will not result in the removal of any trees.

Tree Loss Mitigation Measures

Given the retention of all trees on site in accordance with BS5837, no compensatory planting of replacement trees is required.

Further Enhancement Methods

Further enhancement can be/will be achieved with the utilisation of arisings resulting from vegetation removal or clearance works within the site.

Arisings will be retained for use as deadwood habitat log piles at the base of the existing trees and woodland foliage. Piles shall be made from arisings of native vegetation taken from the site or surrounding areas where possible. Piles should contain both larger logs (with gaps between), brash and branches and smaller leaf litter and cuttings/ grass clippings, to create varied conditions.

All branches and stems larger than 75mm in diameter, can/will be retained for use as deadwood habitat log piles at the base of the existing foliage. These are best left in lengths of a metre or more, but smaller sections will also be suitable. In suitable areas,

these can also be pushed under the bottom of the hedgerows and areas of scrub where they will provide suitable habitat for a plethora of invertebrates and in turn suitable refuge and forage for small mammals, birds, reptiles, and amphibians.

Retaining arisings on or near the site can have conservation benefits and allows for the gradual recycling of the mineral nutrients and carbon that they contain which will further enrich the trees on site.

Proposals will include the provision of a hedgerow which will separate 2no. proposed residential dwellings.

Watering regime

It is further advised that a watering regime is established and enforced. All existing trees should be well watered at the end of each week if there has not been significant rain during that week. If the foliage of the existing trees mentioned in this report becomes clad with dust this is dust is to be washed off from all foliage at the end of the day. These additional watering and foliage washing requirements will significantly help the trees to deal with the potential impacts of the build.

Ongoing Management of Tree, Hedges and Native shrubs

Responsibility for the management of the site shall fall to an appropriate management company appointed by the housebuilder, the company's management team and as required by their approved contractors.

Conclusion

The protection, compensation and enhancement detailed herein have been designed to ensure the ongoing favourable status of retained trees and vegetation, and the species which use these. Additionally, adherence to the methods detailed will ensure that all works accord with the relevant wildlife legislation and planning conditions.

If all arboricultural protection measures which are detailed in this report are followed and well implemented, and a suitable plan for the ongoing management of any new trees, hedges and native shrubs is followed then the development of the site can be supported in arboricultural terms.

3.0 ARBORICULTURAL METHOD STATEMENT

Protection and Retention of Existing Trees and Habitats

The Contractor shall exercise due care when performing operations beneath the canopy of existing mature trees and vegetation designated for protection and avoid at all times damage to the roots, trunk and branches.

The Contractor shall train all members of the construction workforce operating within the proximity of valued habitats and make such persons aware that there shall not be, without having sought prior notification, the following operations undertaken within the protected areas:

- Dumping of spoil or rubbish, excavation or disturbance of topsoil, parking of vehicles or plant, storing of materials or placing of temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk, and within the specified Root Protection Areas;
- Severance of roots exceeding 25 mm in diameter. If unintentionally severed; notice shall be given, and specialist arboricultural advice sought;
- Changes to the level of the ground within the specified Root Protection Areas;
- Vegetation clearance to site boundaries during the bird nesting season (nesting season: March-September inclusive). Any clearance must be undertaken outside nesting season or alternatively under a watching brief from a suitability-qualified ecologist.

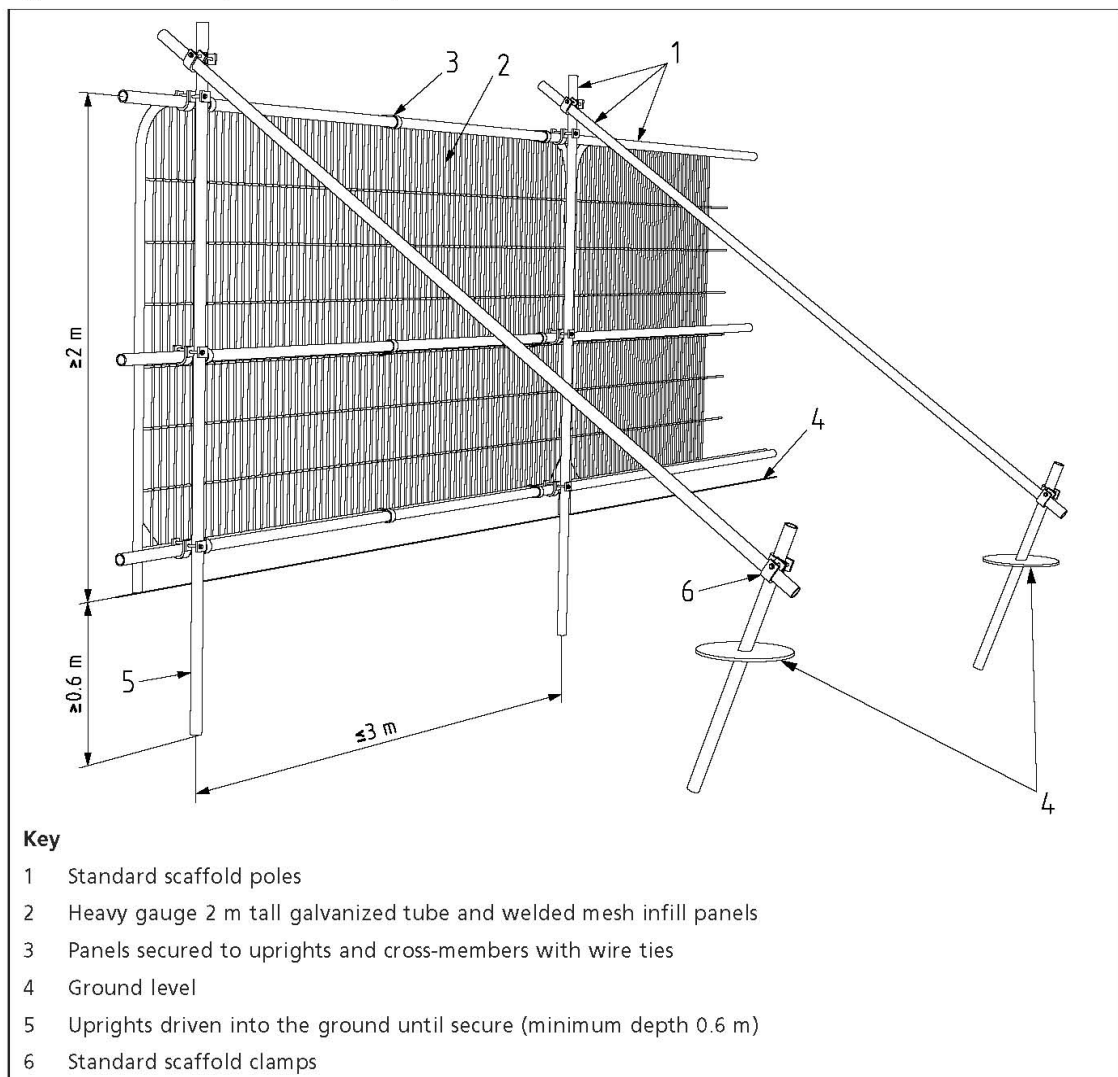
Tree Protection Barriers

The Contractor shall exercise due care when performing operations beneath the canopy of existing mature trees and vegetation and within the specified 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.

All trees to be retained on site shall be protected with barriers erected around the area of mature vegetation in accordance with *BS 5837; 2012; 'Trees in Relation to Design, Demolition and Construction - Recommendations'*. The barrier 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 Root Protection Areas.

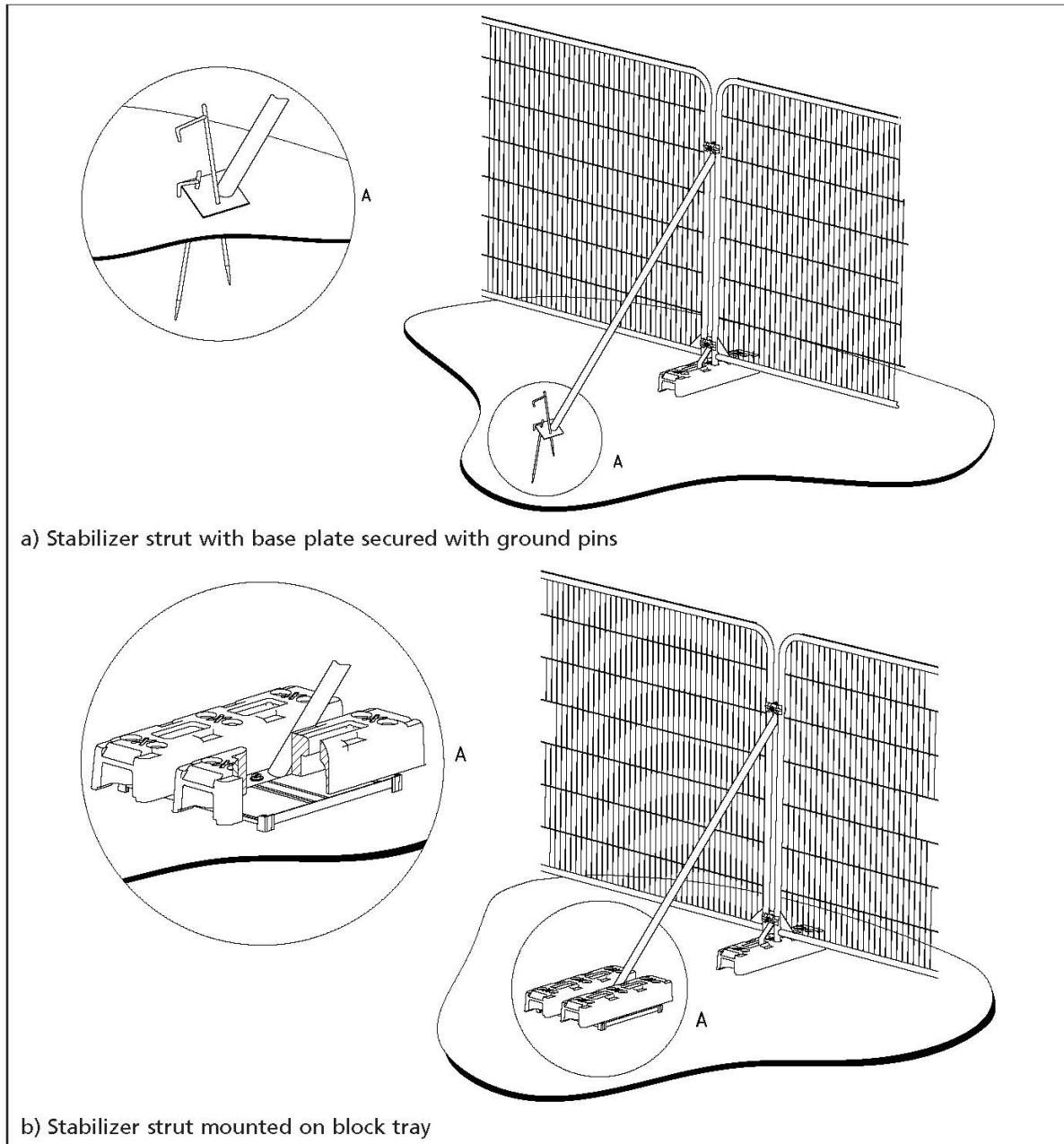
The installed protective barrier shall be 2.0 metres minimum height 'Heras' Welded Wire Mesh Fencing secured to a scaffolding framework, set into the existing ground, and positioned to the outside edge of the existing Tree Root Protection Area. Where existing ground conditions do not allow for the above 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 barrier should be strained, and fixed to fences, walls, and knee rails where possible to provide a completely protected area (*refer to Figure 2 and Figure 3 below; © British Standards Institute 2012*). All tree protection is to be in accordance with *BS 5837: 2012; 'Trees in Relation to Design, Demolition and Construction - Recommendations'* set out as specified within drawings *LLD3116-ARB-DWG-002-Tree Retention and Protection Plan*.

Figure 2 Default specification for protective barrier



© The British Standards Institution 2012

Figure 3 Examples of above-ground stabilizing systems



Day-Glo ribbons shall be maintained during the main works by the Main Contractor attached to the top of the barrier to ensure that the fencing is clearly visible during the works. The tree protection barrier shall display all-weather notices starting '*Construction Exclusion Zone – NO ACCESS*'.

All such barriers 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 should occur prior to the inspection of the installed tree and ground protection by the Landscape / Arboricultural Consultant.* Repositioning of the protective barrier during the course of the contract as the contract works progress shall need a prior consultation with the Landscape / Arboricultural Consultant.

Within the protected areas 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.

Ground Protection Measures

Where construction operations require an activity within the exposed unmade ground of any existing tree Root Protection Area, temporary ground protection measures should be implemented allowing for access, limited traffic, and operations during the construction period.

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.

The temporary ground protection measures should remain in place for the duration of the construction period.

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 the underlying soil. The appropriate solutions include:

- For pedestrian movements or the erection of scaffolding within the RPA – a 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 the engineer's specification appropriate for expected loads, designed in consultation with the project Landscape/ Arboricultural Architect.

The surface material should be contained with an edging type requiring no excavation. Where proposed levels of any new access routes do not ascertain the 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.

Manual Excavation

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, and pipe work; a '*Manual Excavation Method*' must be assumed using handheld 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.

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.

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.

In shrinkable soils, the foundation design should take into account the risk of indirect damage.

Root damage can be minimised by the 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.

New Surfacing and Means of Access within Root Protection Areas

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.

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.

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.

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.

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 the Engineer's specification.

All retaining kerb restraints/edge supports are to be secured above ground and no general excavation within existing tree RPAs should be permitted.

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.

Services in Proximity to Existing Trees

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.

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 *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 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.

Contractor Movements. Site access and operations. Storage and Compound Areas

The Contractor Site Compound shall be located outside of any prescribed tree Root Protection Area and shall be permitted for the storage and securement of materials only within a temporary compound.

The compound area shall be located so as to not incur damage or injury to the 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 site operations associated with the usage of the compound area shall be undertaken with due care and attention so as to negate damage to the surrounding environment.

All site operations and construction procedures for the duration of the construction period shall seek to protect the existing site vegetation and root protection areas in accordance with *BS 5837:2012*.

Tree Surgery

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 *BS 3998: 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. Arisings; Disposal; Utilisation; and Retention.

Arising; Disposal; Utilisation; and Retention

The disposal, utilization and retention of arisings must be in line with *BS 3998: 2010 ‘Tree Work: Recommendations’*. Retaining arisings on or near the site can have conservation benefits and allows the gradual recycling of the mineral nutrients and

carbon that they contain. Effective financial gains can be achieved with efficient arisings management planning.

Before any work on a tree commences, it should be agreed on what is to happen to the arisings (such as retained or removed from the site). Any arisings remaining on the site should be stored safely in locations agreed with the client. The following should be taken into account when deciding what is eventually to be done with the arisings:

- Site usage: access, space, and safety;
- Scope for utilisation (such as use of woodchip for mulch, weed suppressant, etc.)
- Wildlife and habitat, particularly where veteran trees are present and invertebrate colonisation is likely.
- The disposal, utilization and retention of arisings must be in line with BS 3998: 2010 'Tree Work: Recommendations'. Retaining arisings on or near the site can have conservation benefits and allows the gradual recycling of the mineral nutrients and carbon that they contain.

Arisings should not be disposed of by burning on site unless:

- other options are impracticable, or the material is affected or likely to become affected by a disease or pest for which sanitation is a necessary form of control.
- NOTE: Attention is drawn to regulations made under: **The Clean Air Act 1993, The Plant Health Act 1967, The Weeds Act 1959, and the Wildlife and Countryside Act 1981**, in respect of prevention of the spread of plant and soil pests.

Removal of Existing Vegetation

All existing trees to be designated for removal are to be removed in accordance with the *LLD3116-ARB-DWG-002 – Tree Retention and Protection Plan*. All tree work and removal shall be carried out in accordance with *BS 5837:2012 and BS 3998:2010*. 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 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.

Arisings from Existing Vegetation Removal

Before any vegetation removal commences, it should be agreed on what is to happen to the arisings (such as retention; utilisation; disposal; or removal from site).

Retaining arisings on or near the site can have conservation benefits and allows the gradual recycling of the mineral nutrients and carbon that they contain. Effective financial gains can be achieved with efficient arisings management planning.

Arisings should not be disposed of by burning on site unless:

- other options are impracticable, or the material is affected or likely to become affected by a disease or pest for which sanitation is a necessary form of control.
- **NOTE 2 Attention is drawn to regulations made under: *The Clean Air Act 1993, The Plant Health Act 1967, The Weeds Act 1959, and the Wildlife and Countryside Act 1981, in respect of prevention of the spread of plant and soil pests.***

Stump Removal and Retention

Stumps to be removed should be cut away so that the top of the stump shall be at least 450 mm below the final topsoil level in order for the site can be reinstated in accordance with the existing site levels. Where the depth is greater than 450 mm the areas shall be backfilled with topsoil to the required level.

Options for retention of and management of stumps, particularly those arising from dead trees should be considered as these subterranean deadwood habitats allowances are of great ecological benefit. These stumps should not be treated with any form of pesticide or chemical application as this can be detrimental to the remaining trees, and local ecology.

The height of stumps for retention should be determined by management objectives and or site-specific conditions. Stumps should be left in a safe condition and or location that does not pose a hazard.

The removal of shrub or scrub material within the 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 Root Protection Area and reduce any damage to existing tree roots within the protected root zone. Adjacent trees shall not be utilised as anchors or levers to facilitate the removal of adjacent vegetation.

Vegetation clearance to site boundaries should take place outside the bird nesting season (*nesting season: March-September inclusive*) or alternatively under a watching brief from a suitability qualified ecologist.



LIZARD

Landscape Design and Ecology