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# Cloney Cottage, Woodstone Road, Kippen, FK8 3EZ

## Arboricultural Impact Assessment/Bat Survey

*February 2024*

Arboricultural Association Fellow Member

AA Registered Consultant trees.org.uk

UK Register of Expert Witnesses Registered

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## Limitation

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# Chapter 1 Introduction

**1.01**
ACS Consulting is instructed McEachern Architects to report on trees and the implications for the proposed development as well as bat roosting potential at: Cloney Cottage, Woodstone Road, Kippen, FK8 3EZ. The assessment and report was undertaken by Ian Murat, Registered Consultant of the Arboricultural Association and Chartered Environmentalist.

**1.02**
In accordance with guidance on information requirements and validation for planning applications, this report fulfils the recommended national list criteria for tree survey/arboricultural information. More specifically, it contains the following:

- A full tree survey to the requirements of BS5837 (2012) Trees In Relation To Design, Demolition and Construction – Recommendations.
- A plan showing tree survey information, retention categorisation and root protection areas,
- An assessment of the arboricultural implications of development detailing trees to be retained/removed and appropriate protection measures,
- An Arboricultural Method Statement detailing a set of agreed principles for tree protection, implementation and phasing of works.
- A bat survey of buildings.

**1.03**
The site was visited during February 2023. A survey of the trees was completed recording; species type, age, height, crown spread, diameter-at-breast-height and, condition. The buildings and trees were surveyed for Potential Roost Features (PRF) in accordance with Bat Survey for Professional Ecologists: Good Practice Guidelines (3rd Edition) 2016.

# Chapter 2 Background

## 2.01 Location

The site is located to the west of Kippen, a village in west Stirlingshire, Scotland. It comprises a single storey cottage and a large barn structure set in mature grounds on an undulating site. (Figure 1).

## 2.02 Statutory Protection

The application is subject to the Statutory Development Plan for the Stirling Council Planning Authority Area. The site is not located in a Conservation Area. The position of Tree Preservation Orders has not been confirmed.
All bat species found in Scotland are classed as European protected species. They receive full protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

## 2.03 Soils

BS 5837 – 2012 requires a basic assessment of the soils on site. An examination of the British Geological Survey site records the superficial deposits for a section of the site as: *Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period. [sic]*


**Figure 1**

# Chapter 3 Tree Survey

**3.01**
The tree data can be found at Appendix A. There is no requirement in BS 5837 to repeat the details of the constraints information save for confirming that the trees were surveyed for species type, age, height, crown spread, diameter-at-breast-height, condition, and their suitability for retention from ground level. Each tree or group was assigned to one of the four retention categories [A,B,C,U] specified by BS5837. The individual descriptions and other relevant information are contained in the attached schedule and they are shown on the attached plans, based on the original topographical survey. Only trees with a stem diameter of 75 millimetres measured at 1.5 metres above the ground are required to be recorded.

**3.02**
The heights were measured with a digital Hypsometer and the diameters taken with a diameter tape to give an average stem measurement. Canopy spreads have been measured at the cardinal points or where they significantly extend in other directions.

**3.03 Bat Roosting**
The trees were surveyed for Potential Roost Features (PRF) in accordance with *Bat Survey for Professional Ecologists: Good Practice Guidelines (3rd Edition) 2016* and *BS 8596:2015 Surveying for bats in trees and woodland. Guide*. The trees were inspected with a high-powered torch and a camera with optical zoom. A detailed examination found no signs of features that could be used by bats. The trees are categorised in the table below.

| Tree category and description (following scoping survey) | Tree No |
|---|---|
| Known or confirmed roost | 0 |
| High/medium risk (Trees with a suitable potential roost feature, or with several features with some bat roost potential) | 0 |
| Low risk (Trees of sufficient size and age to contain bat roosts but with no obvious potential roost features seen during the scoping survey, or features seen with limited roosting potential only, e.g., small amounts of ivy.) | 0 |
| Negligible/no risk (Trees with low or no potential to support bats) | 1 – 10, H1 |

# Chapter 4 Building Survey - Bats

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**4.01**
The preliminary roost assessment is a detailed inspection of the full building structure. The aim of the survey is to inspect the building to ascertain if it has the potential to support roosting bats. A detailed inspection found no evidence. The building was surveyed for Potential Roost Features (PRF) in accordance with Bat Survey for Professional Ecologists: Good Practice Guidelines (3rd Edition) 2016.

**4.02**
The buildings were surveyed in detail. They were surveyed for access to potential roosting places and evidence of their use such as droppings, urine spots, staining and scratch marks around entrances, feeding remains and bats - alive or dead. This was a preliminary survey to discover whether there are obvious signs of use by bats.

**4.03**
The building structures can provide a wide range of roosting potential due to defective masonry joints; loose slates, lifted flashings, cracks in brick and stone work. The building was inspected with a high-powered torch, camera with optical zoom and a fibrescope, access to the loft was gained with a ladder. The loft section only occurs in the eastern elevation. The western elevation and middle section have open joists.

**4.04**
The buildings are in a good condition. A detailed examination found no signs of use in either the main cottage or the barns. There are no features that could be used by bats..

# Chapter 5 Development Implications - Arboriculture

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**5.01 Application**
The proposed development is described in the design and access statement. In simple terms: *Demolition of existing dwellinghouse and conversion and extension of existing barns to form dwellinghouse together with a detached garage at Cloney Cottage, Woodstone Road, Kippen, FK8 3EZ, - 24/00022/FUL. [sic]*

**5.02 Development Implications**
The methodology for assessment is based on BS5837 – 2012 Trees in relation to design, demolition and construction – Recommendations. The guidance recommends that impacts on arboricultural assets should be assessed by considering:
1. Which arboreal assets are affected by the proposed development;
2. Understand what contribution the arboreal assets make to the significance of the site and location;
3. Identify what impact the loss of arboreal assets of the site might have on that significance;
4. Consider maximising enhancements and avoiding harm.

**5.03 Loss for Development**
The principal implications will be the replacement of two small C Category trees (T3 and T5) and a section of sporadic hedge along the site's western boundary with open fields. Only small remnants of the hedge remain. The impact of the loss of these specimens in this location is considered to be very slight. The trees and hedge provide a very limited contribution to the significance of the site and its setting.

Their removal will result in very low harm to the significance of the setting and its treed character. None of the arboreal specimens proposed for replacement within the application footprint can be considered "major constraints", their lower quality grading does not merit this description or, justify substantial modification of the proposals.

The Category C trees and hedgerows are unremarkable specimens of very limited merit or such impaired condition that they do not qualify in higher categories. They offer low or only temporary/transient landscape benefits.

**5.04 Retained trees that may be affected by disturbance**
The scheme poses two distinct issues for the retained tree T9:

a) Damage to soil, and consequently to roots, by the installation of the hard surfacing.
b) Temporary construction access.

The roots from the sycamore (T4) and ash (T6 and T7) will be growing in the access track and throughout the site.

**5.04 Retained trees that may be affected by disturbance (continued)**

The roots will be substantial anchor roots and significant woody roots. Where the roots of these trees extend into the proposed drive, the surface, for the extent of the trees' individual Root Protection Area (RPA), will be constructed using a no-dig construction using a three-dimensional cellular confinement system. The use of this technique, if implemented in strict accordance with the manufacturer's method statement, has been demonstrated over a number of successive years to be a sound way of crossing roots, allowing them to continue functioning, maintain tree health and stability.

During the demolition and construction phases, access will be required to the plotted RPAs of retained trees. In order to minimise construction stresses, the ground will be protected as detailed in the Arboricultural Method Statement (AMS)for the extent of that tree's RPA. If implemented in strict accordance with the AMS, the methods prescribed are a sound way of crossing roots, allowing them to continue functioning, maintaining tree health and stability.

**5.05 Pruning/Tree Management**

The canopy of T4 will require crown lifting for clearance for construction operations. The pruning will be of small diameter branches. The pruning has no implications for visual amenity or tree physiology.

**5.06 Secondary Development Pressures**

The proposal has been assessed against typical secondary development pressures associated with the genus at the site. The issues are centred around leaf litter, sap and falling debris. It is often claimed, anecdotally, that trees retained close to areas of amenity space or parking cause excessive nuisance preventing the reasonable use of the site leading to their premature felling or harsh pruning. It is my experience; these problems are not as frequent as they are thought to be and there is very little evidence that such pressures ever result in any significant diminution of the treescape. There is no published data to support the contention that trees are being excessively pruned or felled for these reasons.

**5.07 Summary**

None of the trees proposed for replacement within the application site can be considered major constraints. Their lack of quality does not merit the description. The impact of construction activities on retained trees are considered de minimis. The location of surfacing, using three-dimensional geogrids has been demonstrated over a number of successive years to be a sound way of crossing roots, allowing them to continue functioning, maintaining tree health and stability.

# Chapter 6 Conclusions

**6.01**
The application site is described in detail in the planning, design and access statement.

**6.02**
The proposal is for: *Demolition of existing dwellinghouse and conversion and extension of existing barns to form dwellinghouse together with a detached garage at Cloney Cottage, Woodstone Road, Kippen, FK8 3EZ [sic].*

**6.03 Bat Survey**
The site is in a rural location with open fields, hedgerows, broadleaved trees and woodland. It is likely to be frequented by bat species. Numbers are likely to be good due to the surrounding countryside and availability of good feeding habitat in the area. There is no evidence of the building being used for roosting or hibernation purposes. The whole building structure has been examined in detail. No evidence has been found nor, any of the features found considered to be suitable for bat roosting. Further survey work is not considered necessary.

**6.04 Arboricultural Implications**
Overall, the replacement of two small C Category trees (T3 and T5) and a section of sporadic hedge along the site's western boundary with open fields to facilitate the development has only very low implications for the tree cover at the site. The impact of new development on the natural environment has been kept to a minimum.

The development design is driven by prescriptive site width and depths which means that the proposed development can only be accommodated on this site in the proposed layout.

**6.05**
None of the trees proposed for replacement within the application footprint can be considered major constraints. In line with the advice set out in BS 5837, the Category C trees are not of such importance and sensitivity as to be a major constraint on development or, justify substantial modification of the proposals. They are unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. They offer low or only temporary/transient landscape benefits.

**6.06**
Where the roots of retained trees extend into the parking/hard surface, the surface, for the extent of that tree's individual RPA, will be constructed using a no-dig construction using a three-dimensional cellular confinement system. The use of this technique, has been demonstrated over a number of successive years to be a sound way of crossing roots, allowing them to continue functioning, maintain tree health and stability. In order to minimise construction stresses, the ground will be protected as detailed in the Arboricultural Method Statement (AMS) for the extent of that tree's RPA. if implemented in strict accordance with the AMS, the methods prescribed are a sound way of crossing roots, allowing them to continue functioning, maintaining tree health and stability.

# Appendix A

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**KEY**

| | |
|---|---|
| Age | Y – Young: Out-planted trees that have not yet established<br>SM – Semi-mature: Established trees up to 1/3 of expected height and crown<br>EM – Early mature: Between 1/3 and 2/3 of expected height and crown<br>M – Mature: Between 2/3 and full expected height and crown<br>FM – Fully mature: Full expected height and crown<br>OM – Over mature: Crown beginning to break-up and decrease in size<br>S – Senescent: Crown in advanced stage of break-up |
| Physiological Condition | Good – Very few defects a reasonable long life expectancy depending on age class<br>Fair – Some defects giving the tree a shortened life expectancy<br>Poor – Limited life with major problems |
| Structural Condition | Good – Very few defects<br>Fair – Some defects rectifiable with minor tree surgery<br>Poor – Significant defects rectifiable with major tree surgery or felling |
| # | Estimated dimensions. |
| (a) | Average stem diameter across a group of trees. |
| * | Tree subject to TPO. |

**Table 1 – Cascade chart for tree quality assessment**

| Category and definition | Criteria | | | Identification on Plan |
|---|---|---|---|---|
| **Category U**<br><br>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. | • Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).<br><br>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline.<br><br>• Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality.<br><br>*NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7* | | | RED |
| | **1 Mainly arboricultural qualities** | **2 Mainly landscape qualities** | **3 Mainly cultural values, including conservation.** | |
| **Trees To Be Considered For Retention** | | | | |
| **Category A**<br><br>**Trees of high quality** with an estimated remaining life expectancy of at least 40 years | Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dormant and/or principal trees within an avenue) | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features. | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) | GREEN |
| **Category B**<br><br>**Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years. | Trees that might be included in category A, but are downgraded because of impaired condition ( e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation. | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality. | Trees with material conservation or other cultural value. | BLUE |
| **Category C**<br><br>**Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm. | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefits. | Trees with no material conservation or other cultural benefits | GREY |

| Tree Ref No. | Species | Height M | Stem Diameter MM | Branch Spread M | | | | Height of Crown Clearance M | Clear Branch Height M | Age Class | Physiological Condition | Structural Condition | Comments/Preliminary Management Recommendations | Estimated Remaining Contribution Years | Category Grading | RPA Radius (M) | RPA Area ($M^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | N | E | S | W | | | | | | | | | | |
| 1 | Sorbus | 6 | 300 | 1 | 5 | #5 | 0.5 | 2 | 2 | EM | Poor | Very Poor | Formally twin stemmed with included stem union.<br>Failed with advanced decay. | #- | U | 3.6 | 41 |
| 2 | Ash | 10 | 455 | 5 | 5 | 4 | 3 | 1 | 3 | SM | Good | Good | Reasonable distribution of buds, seeds and twigs.<br>A tree of low quality and value in the landscape. | 10+ | C1/2 | 5.5 | 94 |
| 3 | Malus | 6 | 250 | 2 | 2 | 2 | 2 | 2 | 2 | M | Good | Good | A tree of low quality and value in the landscape. | 10+ | C1/2 | 3.0 | 28 |
| 4 | Sycamore | 17 | 1260 | 10 | 10 | 4 | 8 | 1 (N) | 3 (N) | FM | Good | Good | Significant specimen.<br>Damage to surface roots along the track.<br>A tree of high quality and value in the landscape. | 40+ | A1/2 | 51.1 | 718 |
| 5 | Hawthorn | 3 | 150 | 2 | 0.5 | 1 | 1 | 1 | 1 | SM/ EM | Good | Good | Suppressed.<br>A tree of low quality and value in the landscape. | 10+ | C1/2 | 1.8 | 10 |
| 6 | Ash | 15 | 800 | 5 | 4 | 6 | 5 | 5 | 5 | M | Good | Good | Extensively pruned from electricity wires.<br>Profusion of epicormic growth on the stem.<br>A tree of moderate quality and value in the landscape. | 20+ | B1/2 | 9.6 | 290 |
| H1 | Hedge | 3 | 100 | 1 | 1 | 1 | 1 | 0 | 0 | M | Good | Good | Remnants of a sporadic hawthorn hedge along the boundary.<br>A hedge of moderate quality and value in the landscape. | 20+ | B1/2 | 1.2 | 5 |
| 7 | Ash | 12 | 730 | 6 | 4 | 0.5 | #6 | 5 | 3 | M | Poor | Good | Poor distribution of buds and twigs.<br>Significant crown asymmetry.<br>Large pieces of dead wood.<br>A tree of low quality and value in the landscape. | 10+ | C1/2 | 8.8 | 241 |
| 8 | Ash | 12 | 600 | 0.5 | 5 | 5 | #4 | 3 | 3 | M | Poor | Poor | Large canker on the northern stem and a profusion of epicormic growth beneath the canker.<br>Poor distribution of buds and twigs.<br>Very large pieces of dead wood.<br>In decline. | <10 | U | 7.2 | 163 |
| 9 | Spruce | 18 | 750, 700 | 6 | 5 | 6 | 6 | 1 | 1 | M | Good | Good | 2 trees as one visual unit in the landscape.<br>Visually prominent due to height.<br>2 pieces of epicormic growth/natural regeneration.<br>Trees of moderate quality and value in the landscape. | 20+ | B1/2 | 12.3 | 476 |
| 10 | Birch | 14 | 450 | #5 | 6 | 6 | 3 | 2 | 2 | M | Good | Good | Crown asymmetry due to the influence of adjacent spruce.<br>A tree of moderate quality and value in the landscape.<br><br>**Work**<br>Crown clean. | 20+ | B1/2 | 5.4 | 92 |

# Appendix B

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## Arboricultural Supervision

The general purpose is to ensure compliance with planning conditions. It is anticipated that arboricultural input is likely to be needed for the following operations:

- Pre-commencement meeting;
- Tree/vegetation removal/pruning;
- Tree Protection measures;
- No dig surfacing;
- Removal of protection measures.

All supervisory visits will be logged and a copy of the minutes circulated to all team members including the LPA. A number of the operations named above can be undertaken in a single visit.

The pre-commencement site meeting is to be held before any work is undertaken. All tree protection measures, haul routes, site storage, contractor parking, deliveries, working methods are to be freely discussed and agreed in writing. Initial site visits may be intense to ensure measures are implemented.

General site visits will be undertaken once the site is 'live' at intervals agreed with the team. Our role will be to initially to act in a compliance capacity to ensure the protective measures are fit for purpose and meet or exceed the council's requirements and the tree works are undertaken to the required standard.

Once this has been completed, our role will be one of monitoring and 'troubleshooting'.

## Targets

- Pre-commencement site meeting to agree roles, responsibilities and duties in relation to tree protection. Details to be minuted and distributed.
- Appointment of an Arboricultural Clerk of Works (ACoW) to oversee works.

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## Construction Methods and Sequence

A Construction Method Statement and Timetable is to be drafted on the appointment of a construction firm. As noted in BS5837 – 2012 5.5.6 it is sufficient to list a heads of terms summary of the issues requiring more detailed consideration once consent is issued. On this site, those issues are likely to include:

- site construction access;
- the intensity and nature of the construction activity;
- phasing of construction works;
- the space needed for foundation excavations and construction works;
- the location and space needed for all temporary and permanent apparatus and service runs, including, electricity or other communication cables;
- working space for cranes, plant, scaffolding and access during works;
- space for storing (whether temporary or long-term) materials, spoil and fuel and the mixing of cement and concrete;
- the effects of slope on the movement of potentially harmful liquid spillages towards or into protected areas.

**Tree Felling/Stump Removal/Tree Pruning**

The following precautions are to be taken.

**Targets**

- Trees to be removed shall be felled so as to fall away from tree protection zones and to avoid pulling and breaking of roots of trees to remain. Brush can be chipped into the tree protection zone to a depth of 150 mm.
- The roots shall be removed by severing the major woody root mass before extraction. This may be accomplished by Hydro Vacuum & Suction Excavation or Compressed Air Displacement and then, cutting through the roots by hand, with a vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment.
- Trees to be removed within the tree protection zone shall be removed by qualified tree contractors.
- All felled brush and trees shall be removed from the tree protection zone either by hand or with equipment sitting outside the tree protection zone. Extraction shall occur by lifting the material out or by 'skidding' it across the ground.
- Exposed roots to be kept moist with hessian sacking.
- Site inspections to be reported to the development team and the LPA.
- Tree pruning to BS3998 – 2010. No deviation from the specification.

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**Construction Exclusion Zone Root Protection – (Soft Areas)**
Due to the nature of the works, standard BS 5837 fencing will be used. The Construction Exclusion Zone fence will be heras fence panels fixed to a scaffold framework. Alternatively, heras panels fixed to timber posts. The location will be marked on site by the Arboricultural Consultant and are also shown on the Drawing No. – TPP/5065/Y/300. The requirement will be assessed on a weekly basis by the ACoW.

**Targets**

- Heras fencing fixed to a scaffold framework or timber posts as illustrated.
- Fencing installed at locations shown on the plan (TPP/5065/Y/300) and marked on site.
- Location and adequacy signed off by Arboricultural Consultant and LPA advised.
- Tool Box Talk – make construction staff aware of the importance of areas by site manager.
- Signs to be erected advising of the area's importance.
- Fence to be adjusted as noted in the Construction Timetable.



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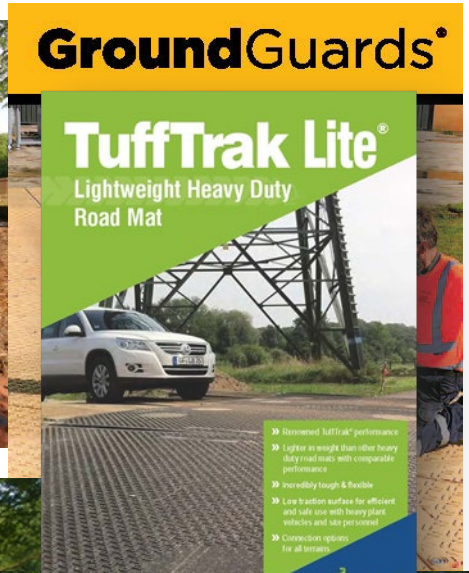
**Construction Exclusion Zone Ground Protection**
The Construction Exclusion Zone will be protected by Tuff Trak over a sand blinding. Adequate protection of trees requires the installation of the correct ground protection .

**Targets**

- The following applies to Tuff Trak (other systems follow a similar installation procedure).
- The existing grass and ground cover and any hard surfaces are to be removed by hand working.
- Permatex 300 geotextile to be laid with a sharp sand blinding layer, or wood chip compressible layer to bring to level.
- Tuff Trak laid over. This surface will be retained through the contract to form a working surface.
- Location and adequacy signed off by the Arboricultural Clerk of Works and the LPA advised.
- Works to be monitored by Arboricultural Consultant.





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**Construction Exclusion Zone No dig Surface**

Where the footpaths and car parking/passing areas extend into the RPA of retained trees, the paths/road, for the extent of that tree's individual RPA, will be constructed using a no-dig construction using a three-dimensional cellular confinement system. The use of this technique, if implemented in strict accordance with the manufacturer's method statement, has been demonstrated over a number of successive years to be a sound way of crossing roots, allowing them to continue functioning, maintain tree health and stability.

**Target**

- The no dig path/drive is to be designed by a reputable supplier of three-dimensional products used for such purposes. Surface finish to be agreed but will be a porous surface (depth TBC).
- The contractor is required to follow the method statement supplied by the product supplier.
- The contractor is required to meet with the ACS Consulting at the site prior to beginning work to review all procedures, access and haul routes, storage and tree protection measures.
- Tree contractors and not construction personnel must perform additional tree pruning required for clearance during construction.
- Works to be overseen by ACoW.

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## Services - NJUG 4.2

Work area to be marked out in accordance with NJUG 4.2.

## Targets

- The precautionary area is to be identified.
- Suitable method of service installation to be identified this may include Hydro Vacuum & Suction Excavation or Compressed Air Displacement.
- Location and adequacy signed off by the ACoW and the LPA advised.
- Works to be monitored by ACoW.

**Vertical Mulching for unauthorised access to Root Protection Areas/Construction Exclusion Zones:**

Work area to be marked out.

**Targets**

- Use an air spade or hand-held auger to create holes that are between 50 and 75 millimetres in diameter and drilled at around 600-millimetre centres. The holes should be arranged in a grid pattern up to 1 – 1.5 x the RPA. They should be drilled to a depth of around 300/350 millimetres.
- Dispose of the soil dislodged by the air spade/auger and fill each hole with a diluted liquid fertiliser.
- The liquid fertiliser used and dilution rate (1:100 or 1:50) will depend on the results of a soil nutrient analysis.
- Once the liquid fertiliser has drained away refill each hole with the following blend of fresh soil:
- Biochar (5%):John Innes Soil No 2 or 3 (50%):Multi-Purpose Compost (40%): Slow release (6-12 month) inorganic or organic fertiliser (5%).

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## General Precautions

The retention of trees requires a number of general precautions to be taken. Compliance is to be maintained on site by the Arboricultural Consultant. The site visits are detailed at criterion 1 – Timing of Works.

## Targets

- Spoil from the foundation pits or other excavations shall not be placed within the Construction Exclusion Zone.
- No materials, equipment, spoil or washout water may be deposited, stored or parked within the Root Protection Area/ Construction Exclusion Zone.
- On-site inspections to be undertaken by the Arboricultural Clerk of Works with the Arboricultural Consultant visiting during critical operations. The aim of the visits is to maintain on-going liaison with all personnel involved in the site development, Local Planning Authority and its Tree Officer.
- Any defects requiring rectification shall be notified to the Contractor/Site Manager/Arboricultural Consultant and the client.
- A site logbook for tree protection measures is kept to record all stages of the development from the erection of the protective fencing, right through to the completion of the project. This will be made available to the Arboricultural Consultant and the Local Planning Authority, if required, to show evidence of continuous site monitoring.

## Protection and Emergency Procedure/Contacts

Adherence to the method statement, appointment of the Arboricultural Consultant and their involvement, at the critical demolition and construction phases, should negate any incident. The contact page details those personnel who should be contacted if an incident involving a retained tree should take place.

## Targets

- Spill kit available.
- On site fuels to be located away from RPA/CEZ and contained in a bunded tank at 110% capacity.
- All incidents involving trees to be reported by telephone and email.
- Bunded storage of oil/fuels.
- Refuelling points for machinery at distance to the watercourse.
- Use of drop trays under plant/machinery overnight.
- Availability of spill kits on site – and training of site staff in their use.
- No excavation during periods of heavy rain.
- Regular maintenance and inspection of plant – engines and hydraulic systems.

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## Contact List

| Title | Name | Address | Telephone | Email |
|---|---|---|---|---|
| Arboricultural Consultant | TBA | | | |
| Arboricultural Clerk of Works (ACoW) | TBA | | | |
| Design | TBA | | | |
| Project Manager | TBA | | | |
| Arboricultural Consultant (Council) | TBA | | | |

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