## ARBORICULTURAL METHOD STATEMENT

### Statutory implications

Trees and other vegetation can often provide nesting, roosting and feeding opportunities for protected species, including bats. Providing guidance on these issues is outside my expertise, so I recommend that appropriate advice is sought before any tree work proceeds on site.

## SUPERVISION AND MONITORING

It is important that the tree protection measures are understood and adopted at all levels from client to project manager and any sub-contractors in order that the measures can be successful.

A qualified Arboricultural Consultant will be retained during the period of construction to:

- meet with the treework contractor, groundworks contractor and the construction team prior to any works commencing on site to discuss the treeworks needed; the implementation of the tree protection measures; the location of the site compound and facilities (if not already known) and any phased construction that may affect the protection of trees
- inspect barriers and ground protection prior to the commencement of construction or demolition

Communication between the Client, Main Contractor (and their sub-contractors), the Project Manager and the Arboriculturalist are of high importance.

The Site Manager will monitor the physical and managed protective tree measures continually.

## ARBORICULTURAL WORKS

### Standards

Tree work is skilled and potentially dangerous work, which must be carried out by trained and certificated staff working to BS3998: 2010 and working in accordance with the various Regulations within the Health and Safety at Work Act 1974

Contractors must have Public Liability Insurance (preferably £5 million) and Employer's Liability Insurance (preferably £10 million)

Machinery and equipment must be maintained, inspected and operated in accordance with the various Regulations within the Health and Safety at Work Act 1974

The British Standard 5837: 2012 'Trees in Relation to Design, Demolition and Construction' gives detailed guidance on the implications of constructing near to trees.

### Prior to works

Tree work must be the first operation, before any other activity on site involving plant, machinery or materials.

Before the commencement of any treeworks, the contractor will ensure that the proper checks for bats and nesting birds have been carried out by an appropriately-qualified inspector.

The Contractor will be responsible for producing their own Method Statement for the works that will include Risk Assessments, staff profiles and certification, machinery and equipment inspection records and certificates.

Disposal of timber, brash and other arising to be agreed with the Client.

### Work required

Prune Horse Chestnut NT1 to reduce the height by up to 5m and reduce the lateral spread by up to 3m; lift the crown to 3.5m and remove any dead wood greater then 25mm diameter.

Group B to the centerline to facilitate development

## PROTECTIVE MEASURES

### Barriers

Once the treeworks are complete, a barrier to Fig 2 BS5837 will be erected where shown by the broad blue line and to Fig 3 where shown by the dashed broad blue lines on the Tree Protection Plan.

Weather-proof notices stating: 'PROTECTED AREA - DO NOT ENTER' to be erected on the fencing not less than 5m apart.

Temporary access to the protected area will be by permission of the LPA arboriculturalist.

The site manager will assess the integrity of the protective barrier protection measures continually. Any shortcomings must be rectified to the original specifications immediately.

Barriers will remain in place until the end of the main construction period.

The Site Manager will keep a copy of the Tree Protection Plan on site for reference during construction and for site induction where staff or contractors' work may implicate working near trees so they understand the purpose of the measures.

### Ground Protection

Ground within the root protection area of Horse Chestnut NT1 that cannot be fenced will be protected with a heavy-duty panel-based ground protection system laid over a 50mm thick covering of chipped woodmulch before any construction starts and be retained in-situ until the end of the main development period. Areas for ground protection are shown by the blue crosshatch on the drawing

LIVE (formerly Eve) provide Trakway access systems in timber, aluminium or plastic for a variety of potential loads. Their Emtek Mat is particularly designed for use in boggy and extremely wet areas (see). See http://www.livetrakway.com for more details or call 08700 76 76 76).

Alternatively, Ground-Guards provide a range of ground protection mats from lightweight to heavy-duty. See http://www.ground-guards.co.uk for more details or call 0113 267 6000).

Start Traffic Ltd stock medium and heavy-duty ground protection mats with coarse tread patterns to provide traction in all weathers. See https://starttraffic.uk/ for more details or call 01905 700 340)

## CONSTRUCTION PHASE

Once the adequacy of the barrier and ground protection has been signed off by the Project Arboriculturalist, development will then continue in accordance with the Approved Plans.

No fires will be lit on site

No storage or discharge of materials within the area covered by ground protection

No mixing of cement or dispensing of fuel or chemicals within 15 metres of the Horse Chestnut

No stripping of topsoil, excavation or changing of levels to occur within the RPA of Horse Chestnut NT1 other than that specified at 6.3 below.

Any damage that occurs to the Horse Chestnut during construction will be rectified to BS3998: 2010.

The tree will not be used as an anchor point for winching or for supporting wires/cables.

### Installation of Services

Any trenching for the installation of services or other excavations for soakaways etc. will be located at least 1m from the radial extent of the RPAs drawn.

### Construction of Parking Area

Once all the main construction activity is complete, the ground protection panels within the car park area will be removed and the barrier relocated as-per the drawing.

The area denoted by the blue hexagonal hatch on the drawing will be paved over the existing surface level so far as practical with the use of a cellular confinement system in accordance with the following specification:

- The soil in the vicinity of Horse Chestnut NT1 (but not within the tree's root protection area) will be sampled and tested in a laboratory for the California Bearing Ratio (CBR). The final specification of the parking court will be calculated by an engineer using the CBR figure derived from the laboratory testing and with knowledge of the type of final paved finish approved elsewhere.
- The engineer will set out the area for finished levels that take account of the full depth of the geoweb and paved finish.
- The Project arboriculturalist will be in attendance for the installation of the no-dig surfacing.
- The vegetable layer of soil will be carefully removed by hand using hand tools only to a depth of no more than 75mm
- A filter membrane such as 'Terram 1000' will be laid over the excavated area. Filter membranes can be sourced from most builder's merchants.
- A cellular confinement system to the specified profile depth will be laid over the membrane. Options include:

The Geoweb® Tree Root Protection System offered by Greenfix UK (see http://greenfix.co.uk for more details or call 01608 666027).

Cellweb® Tree Root Protection (TRP) from Geosynthetics Limited (see http://www.geosyn.co.uk or call 01455 617 139)

- If possible, the driveway edgings will be formed with timber edging boards supported by driven stakes. If concrete kerbs and haunching is essential, kerbs and concrete will be laid on top of the cellular confinement system and secured by driven reinforcing rods or similar.
- The cellular confinement system will be backfilled with 20-40mm no-fines graded stone and compacted, adding more aggregate as necessary to bring to level.
- The prepared surface will be finished with gravel or a SuDS compliant block paving, noting that the block paving will affect the finished level of the parking area.

## POST CONSTRUCTION

### General notes

Once all the construction and hard landscaping works are completed, the protective barriers will be removed and the landscaping works will be completed.

Soil cultivation within the previously protected zones (i.e. within the Root Protection Areas) will be carried out by hand only. No machine cultivation will take place within these zones whatsoever.

Planting within Root Protection Areas will be carried out by hand using hand tools only.

The Horse Chestnut will be re-inspected post-development by a qualified arboriculturalist and any works arising carried out within the time limits specified.

### Paving

Paving laid within root protection areas will be constructed with a minimum of excavation. Excavation will be limited to 50mm below the existing ground level.

Figure 3 **Examples of above-ground stabilizing systems**

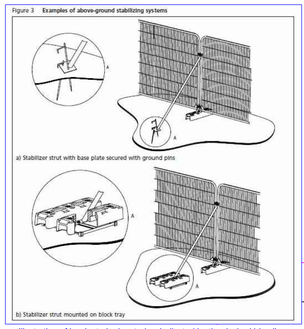
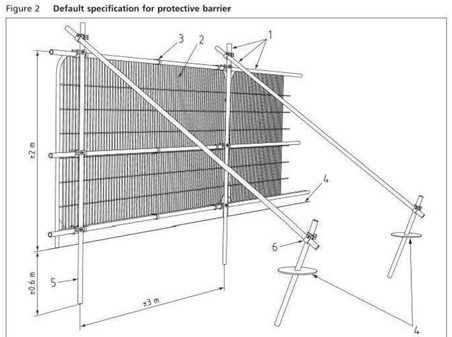



Illustration of barrier to be located as indicated by the dashed blue lines




Figure 2 **Default specification for protective barrier**




**Key**

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Illustration of barrier to be located as indicated by the broad blue lines

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NOTES: Based on proposed site layout drawing 504-03

KEY

- Extent of Root Protection Area
- Extent of Canopy
- Extent of Canopy - Groups
- Trees to be Removed
- Barrier to Fig 2 BS5837: 2012
- Barrier to Fig 3 BS5837: 2012
- Re-located Barrier Position for Car Park Construction
- Areas to be Pruned
- Protected no-dig zone. Use Robust Matting to Cover Ground. 'Live' Event Panels' 3m x 2m Shown
- Parking Constructed Over Existing Ground Level
- Service Trench Location

| Rev | Description | Date |
|---|---|---|
| | | |

Purpose of Issue
**Planning**

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Project
Land Adjacent To Lucas Lane, Ashwell

Drawing Title
TREE PROTECTION PLAN

| Drawn | Checked | Reviewed | Date |
|---|---|---|---|
| AMB | TC | AMB | 26/03/18 |
| **Job No.** | **Scale** | **Sheet Size** | **Revision** |
| 3385 | 1:100 | A1 | |

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