

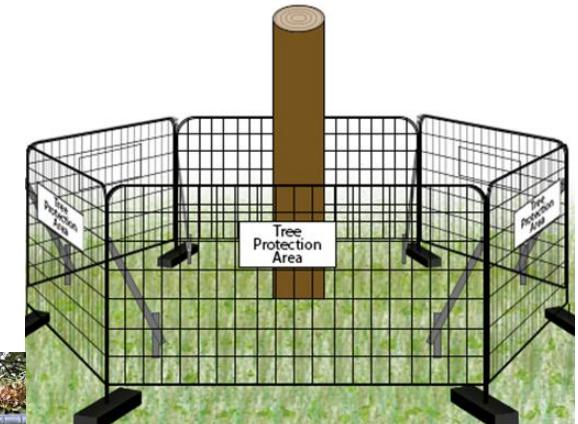
Wood's
Tree Consultancy Ltd

APPENDIX 1
GUIDANCE FOR TREE PROTECTION MEASURES

Photographic examples of the most used tree protection fencing

Standard tree protection (STP)

The most common form of tree protection fencing. Consisting of Heras fencing panels, the number of which will be determined by the diameter of the Root Protection Area (RPA) of the tree(s) in question, then footed with rubber feet which should be pinned using a soil pin. A support bar should be placed at a 45-degree angle within the construction exclusion zone at each end of the Heras panel. Each panel should then be clamped to each other using Heras anti-tamper coupler. A "Tree Protection Area" sign should then be installed on every panel.



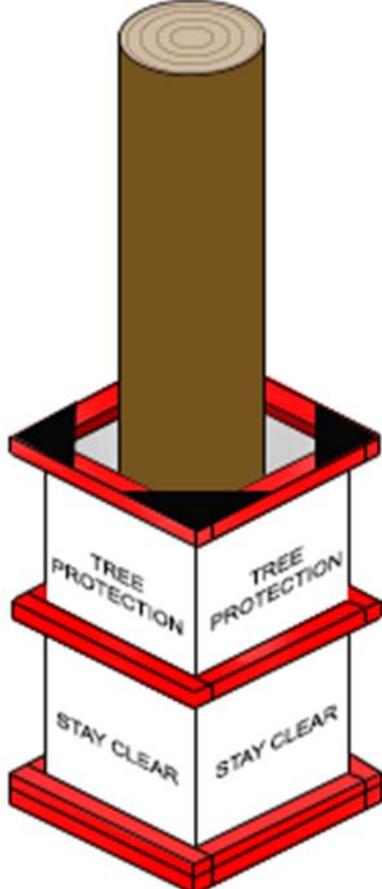
Photographic examples of the most used tree protection fencing

Heavy tree protection (HTP)

Heavy tree protection should be used on high value trees or in areas of high traffic, where construction around the tree's root protection area is possible. It should be constructed from scaffold poles. The vertical poles should be placed at 3m intervals and then driven into the ground by 600mm. Horizontal scaffold poles should then be placed 2.3m apart on the vertical poles and secured using clamps. A diagonal pole should then be inserted between the two vertical poles, as per the diagram. A third, pole should be attached to the underside of the lower horizontal pole at a 90-degree angle (pointing towards the construction exclusion zone). A diagonal pole should then be inserted and clamped (ideally at 45-degree angle) between the vertical pole and the horizontal pole. A pin should then be inserted into the ground at the base of the diagonal, to which the diagonal and horizontal pole should be attached to. A wire mesh should then be attached to the two horizontal poles using wire ties, the mesh should then be wired to the next panel to secure the area. Tree protection signs should also be displayed on the mesh.



Examples of other tree protection fencing



Box tree protection (BTP)

Box tree protection should be used in high traffic areas, where standard fencing would make construction impossible, or to add further protection to a high value tree.

The box should be made from 2440mm x 1220mm x 25mm plywood (or greater). External battening (red in the diagram) should be made from 100mm x 100mm x 1220mm (or greater) pine battens, with a double layer around the base. 500mm x 500mm corner braces (black on the diagram) should be installed to the top corners of the box to support the structure. A minimum distance of 300mm should be kept from the stem. Which should be backfilled with a compressible material such as polystyrene. The box should be painted in bright colours to ensure it will be seen. The words "TREE PROTECTION" and "STAY CLEAR" should be displayed as per the diagram by either stencilling or displaying signs, both of which can be found in the appendices documentation.

This should be used in combination with ground protection over the root protection area.



Light tree protection (LTP)

Light tree protection should consist of sweet chestnut pale fencing or extruded plastic barrier pinned with a metal stake every 1.5m and capped with a fluorescent cap. This fencing will be used in areas that are designated for no or later construction and should be used to act as a deterrent for persons entering the area.

Rules for tree protection measures

1. Barriers should be installed at the location indicated by the solid blue line as shown on the Tree Protection Plan. The type of tree protection will also be referenced on the TPP using the abbreviations STP, HTP, BTP, LTP, which correspond to the tree protection types on the previous page of this document. No site work should commence until this has been carried out and written confirmation from the Local Authorities representative of the location and construction method approval.
2. Signs placed on the barrier stating no access must be made into this area or removal of the fencing must be used.
3. Inside the fencing the following rules must be observed: -
 - a. No vehicular access.
 - b. No fires.
 - c. No storage of excavated debris, building materials or fuels.
 - d. No mixing of cement.
 - e. No service installation unless prior approval is obtained.
 - f. No excessive cultivation for landscaping purposes.
4. No barriers shall be removed, re positioned or dismantled without prior approval from the Local Authority.
5. Barriers should be regularly inspected and if damaged replaced immediately.
6. The page at the end of this document can be used as tree protection fencing signage.

Ground protection

The following guidance is for the application of ground protection. Ground protection is required in areas where tree protection fencing is not possible. It is shown on the tree protection plan as an orange shaded area.

The following guidance explains how ground protection should be constructed.

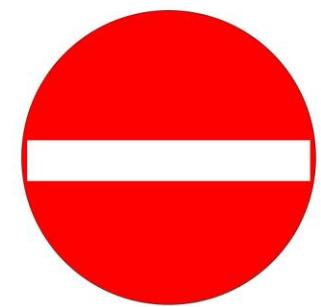
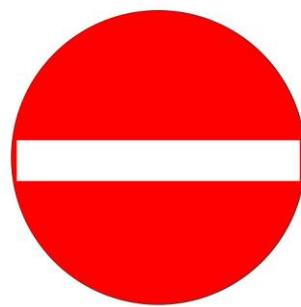
- A light scrape of the surface vegetation by no more than 50mm to level the surface, by hand tools only.
- Laying of a nonpermeable membrane i.e. 'Terram' over the area.
- Apply a 150mm depth layer of woodchip (or sharp sand), which should be regularly "topped up" if required
- Placing of wooden sheets of at least 25mm in depth over the woodchip area.
- Secure the sheets to prevent movement with wooden/steel pegs.
- Vertical battens may be used to further secure the protection measures.



Heavy duty ground protection

For heavy construction traffic such as excavators and dumpers, a more substantial form of ground protection must be used. This is in the form of aluminium tracking, an example of which is shown below. TrakMats (of suitable loading) can also be used.





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TREE PROTECTION ZONE

DO NOT ENTER

**KEEP ALL EQUIPMENT,
MATERIALS AND
CHEMICALS OUT OF THIS
AREA.**