

- NOTES ON TREE PROTECTION**
- The exact root spread of an individual tree is difficult to quantify, but most tree roots are found in the upper 600mm of the soil with the finer absorbing roots normally in the upper 250mm of the soil.
 - Dependant on soil conditions and the species of tree, the roots may extend for distances in excess of the height of the tree.
 - This is the reason why trees on development sites are prone to damage during Demolition, Earthworks, Construction and Landscaping works.
 - Retained trees need to be protected from change as set out in **British Standard 5837:2012** Trees in relation to design, demolition & construction.
 - This involves the formation of a **Construction Exclusion Zone (CEZ)** around the tree which should remain undisturbed within appropriate protective barriers to prevent access and this should remain in place for the duration of the project.
 - In the case of development sites, the root protection area is designed to prevent any significant long-term damage to the tree by protecting the root and where possible the lower branches of the tree.
 - Details on minimum protection requirements are included as a Magenta circle to show the **(ROOT PROTECTION AREA (RPA))** where possible 2 metres beyond this figure shall be used as the location for Tree Protection Fencing.
 - All **CONSTRUCTION EXCLUSION ZONES (CEZ)** shall be treated as **'NO-GO ZONES'** for all site operatives and these will be protected by the methods appropriate to the expected level of construction intensity.
 - Inside the exclusion area of the fencing, the following actions need to be avoided:-
 - No linear mechanical excavation whatsoever.
 - No excavation by any other means without arboricultural site monitoring.
 - No hand digging without the approval of the consulting arboriculturalist.
 - No lowering of levels for any purpose (except removal of grass sward by hand).
 - No construction of a sealed hard surface (except where agreed with the arborist)
 - No storage of plant or materials.
 - No storage or handling of any chemical, including cement washings.
 - No vehicular access.
 - No fire lighting.
 - In addition to the above, further precautions are necessary adjacent to trees:-
 - A 10m separation distance shall be observed between any tree and substances injurious to tree health, including fuel, oil, bitumen, cement (including cement washings), builders' sand, concrete mixing and other chemicals.
 - No fire shall be lit such that flames come within 5m of tree foliage; this shall be taken to mean a fire separation distance of 20m from any tree canopy.
 - TREE PRECAUTIONARY ZONES (TPZ)** are required, when access into the RPA & CEZ is required and shall be appropriately protected before the start of the works. These will be appropriate to the expected level of construction intensity.
 - Barriers should be erected prior to work commencing on site and should remain until construction activities have been completed and should be located outside the minimum Root Protection Area. The root protection area should be considered essential and should not be removed or altered without prior recommendation by an Arboriculturalist and approval of the local planning authority.
 - Where **Tree Stem Protection (TSP)** is required, it shall be installed before tree protective fencing.
 - Tree Protection Fencing - (TPF1), (TPF2) & (TPF3)** suitable for the perceived intensity of development, is to be installed immediately after the tree works & before the start of the project.
 - Ground Protection (GP1), (GP2) & (GP3)** suitable for the expected weight and intensity of traffic, shall be installed immediately following the tree pruning operations and before the installation of fencing.
 - NO Demolition, Site Clearance, Soil Stripping, Groundworks, Materials Handling, Grade Changes or Excavation shall be undertaken before the **'INSTALLATION'** and **'SIGNING OFF'** of all tree protection. Such works are to be undertaken without entering the CEZ or unprotected TPZ.
 - Where appropriate - access into the TPZ by tree contractors may be required. Access will be limited to agreed locations, times, ground conditions & will be controlled by appropriate marker paint, pegs or tape with temporary ground protection to be agreed by the Consulting Arborist.
 - Where construction within the TPZ is approved - minimal excavation and low impact construction methods are to be adopted, wherever possible to restrict site changes.
 - Where utilities are to be installed within the TPZ, minimal impact / no dig methods shall be adopted.
 - Where Landscaping is proposed within the root protection area, it shall be undertaken by specialised methods that avoid the severance of significant roots during cultivation. Works shall be limited to minor works to amend the difference within the final landscape levels & such changes shall remain distinct and not be graduated across the root protection area.
 - Monitoring** To ensure the tree protection measures are appropriately maintained the **CEZ & TPZ**, shall be regularly assessed by the **Consulting Arborist** who shall circulate findings to the Client, Contractor & Local Planning Authority.
 - As the project progresses or sequences change the **Consulting Arborist** shall be made aware of key elements due to come on line or when works are planned close to **Tree Protection Measures**.

REFER ANY TREE PROTECTION QUERIES TO THE CONSULTING ARBORIST

ARCHITECTS DETAILS TAKE PRECEDENCE FOR ANY LAYOUT DISCREPANCIES

TREE PROTECTION

Do's ✓ **Don'ts** ✗

Trees add value to the site, provide shade, improve habitat, improve Air quality and are typically protected as part of any planning approval, so their protection is in everyone's interest: to avoid costly stoppages and damage.

Tree Roots - Spread out a lot further than the branches. Trees shall be limited to minor works to amend the difference within the final landscape levels & such changes shall remain distinct and not be graduated across the root protection area.

Trees Roots - Many People believe tree roots extend as deep as the tree's high or simply plug into the ground like a carrot, which is untrue.

To Help Trees Survive any proposed changes a minimum amount to undisturbed rooting area needs to be protected or provided to help the tree feed itself and survive this can easily be done by creating a Construction Exclusion Zone. These are normally detailed on a Tree Protection Plan or detailed within an Arboricultural Method Statement. Please look at these before you start work to understand what Fencing & Ground Protection are to be used where.

Results of Breaching the CEZ

- Soil Compaction** - Starves roots of Oxygen and Nutrients and increases water run off the site.
- Excavation** - Cuts or damages the roots, which can affect a tree's health or stability.
- Turf or Soil Removal** - Even shallow excavations can remove or damage fine feeder roots.
- Canopy or Branch Damage** - Limits food production and encourages pest or disease.
- Chemical spill including cement** - Kills roots, Starving the tree Oxygen, Water and Nutrients.
- Fires** - Scorch & Burn Leaves, Stems & Branches.

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Tree Protection is not a puzzle, everything you need is on the Tree Protection Plan or can be found in the Arboricultural Method Statement

Before Work Starts Erect & Maintain the correct fencing and ground protection.

Tree Protection is usually a Planning condition and breaches can result in a Stop notice, Prosecution or fines.

Tree Damage Can Be Avoided, If In Doubt - Ask for Help

Help Avoid Costly Shut Downs & Financial Penalties

Construction Exclusion Zone

Type 1 Tree Protective Fencing.

Heras Fencing (or similar) as per diagram fixed into place, to identify the Construction Exclusion Zone.

Example Tree Protection Fencing Sign

**TREE PROTECTION AREA
KEEP OUT!**

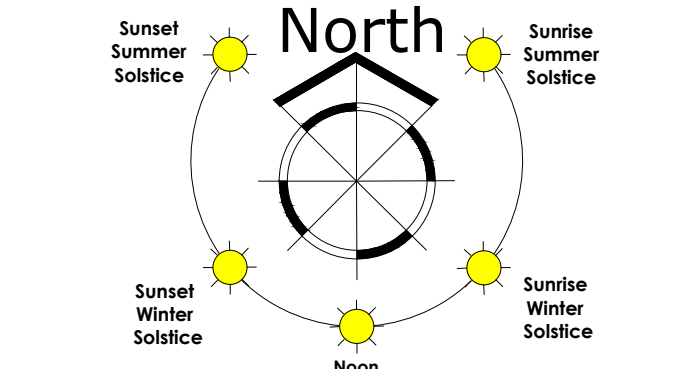
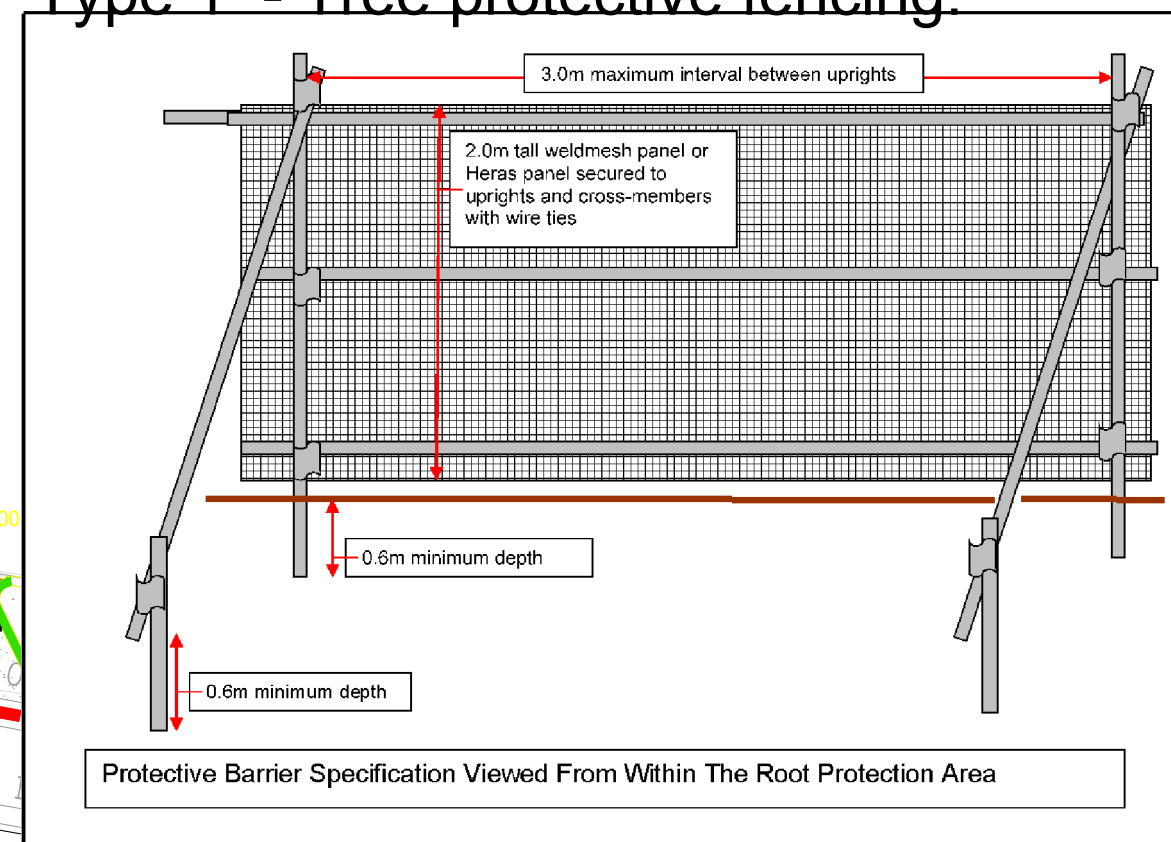
ALL TREES ENCLOSED BY THIS BARRIER ARE PROTECTED BY PLANNING CONDITIONS (TOWN & COUNTRY PLANNING ACT 1990) AND ARE THE SUBJECTS OF A TREE PRESERVATION ORDER, CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL

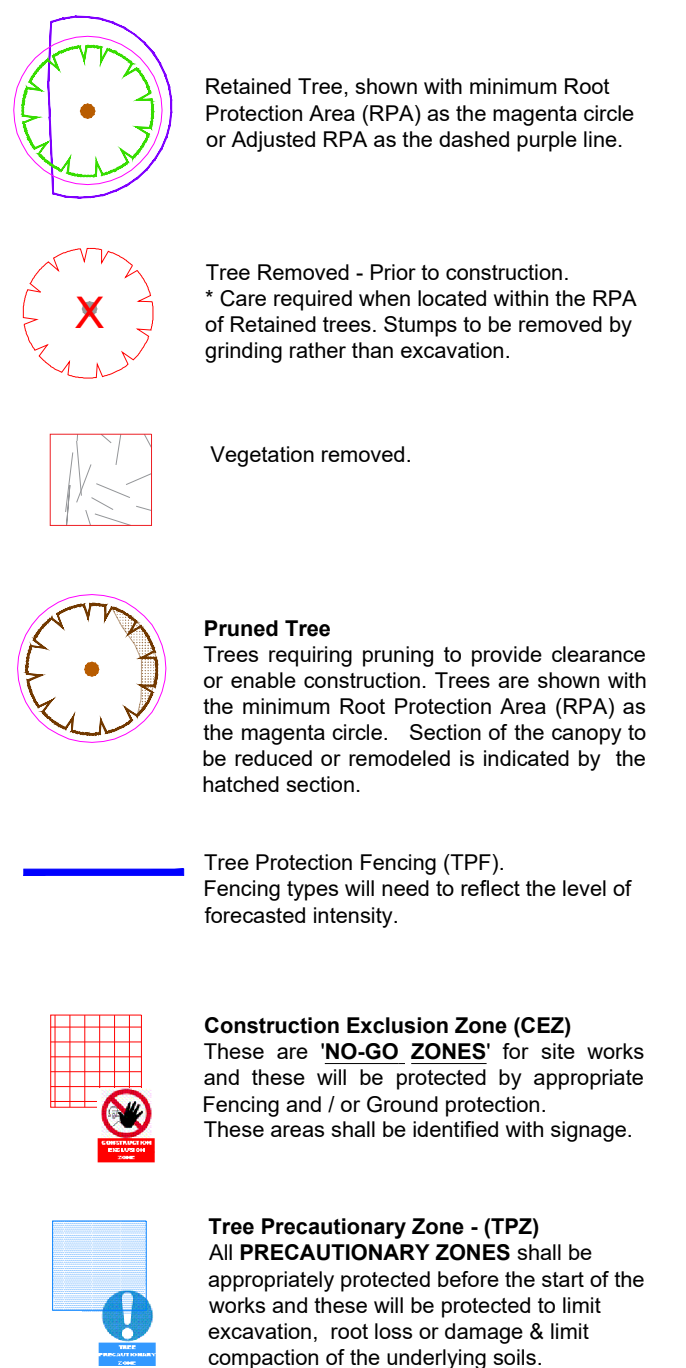
- THE PROTECTIVE FENCING MUST NOT BE MOVED
- NO PERSON SHALL ENTER THE PROTECTED AREA
- NO MACHINE OR PLANT SHALL ENTER THE PROTECTED AREA
- NO MATERIALS SHALL BE STORED IN THE PROTECTED AREA
- NO SPOIL SHALL BE DEPOSITED IN THE PROTECTED AREA
- NO EXCAVATION SHALL OCCUR IN THE PROTECTED AREA

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Type 1 - Tree protective fencing.



Symbol Guide:



Client:
**Bayswater Ltd c/o
Yeme Architects**

Site:
**North Street
Kirk Burton
HD8 0RL**

Drawing Title:
**Tree Protection
Arboricultural Method
Statement Plan**

Drawing No: **BA9903AMS**
Revision: **A**
Scale: **1:100 @ A1**
Date: **09/01/2020**
Drawn By: **IB**
Checked By: **SB**
Approved By: **IB**

Notes:
Plan based upon initial topographical data.
Extent of canopy spread based upon site
Amendments to RPA data based upon neighbors supplied data.



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