

Trunk Protection

Protective trunk Wrapping:
To be attached to the trunks of retained trees prior to the commencement of all works on site, and retained in place throughout construction. To comprise of a minimum of three wrappings of clean dry hessian around the trunk from ground level up to 2.3m high and held in place using sisal. Onto the hessian a minimum of three wraps of chestnut palling and is to be held in place by 2.50mm mild steel galvanized wire in three locations and fixed into place using fencing staples fixed into the chestnut palling.

Protective hoarding:
To be erected prior to the commencement of all works on site, and retained in place throughout construction. To comprise of 2.4m wooden site hoarding constructed upon a timber frame work situated around the outside of the planting pit. Where the timber frame is constructed around the tree trunk a minimum of 4 layers of clean dry hessian is to be wrapped around the trunk to protect the bark.
All weather notices should be erected at regular intervals on the weld mesh panels with words such as "Construction exclusion zone - Keep out".

Ground boarding

New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

Note The ground protection might comprise one of the following:

a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100mm depth of woodchip), laid onto a geotextile membrane;
b) for pedestrian-operated plant up to a gross weight of 2t, proprietary inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150mm depth of woodchip), laid onto a geotextile membrane;
c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary system or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

Foundations within RPAs

The use of traditional strip foundations can result in excessive root loss and as such should be avoided.
Designs for foundations that would minimize the adverse impact upon trees soil include particular attention to the existing levels, proposed finished levels and cross sectional details. Site specific and specialist advice should be sought from the project engineers and arboriculturist.

Root damage can be minimized by using:

- Piles with site investigation used to be determined their optimal location whilst avoiding damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement, to a minimum depth of 600mm;
- Beams, laid at or above ground level, and cantilevered as necessary to avoid tree roots identified by site investigation.

Where a slab for minor structures (e.g. shed base) is to be formed within the RPA, it should bear on the existing ground level, and should not exceed an area greater than 20% of the existing unsurfaced ground.

Slabs for larger structures (e.g. dwellings) should be constructed with a ventilated air space between the underside of the slab and the existing soil surface to enable gas exchange and venting through the soil surface. In such cases, a specialist irrigation system should be employed (e.g. roof run-off redirected under the slab). The design of the foundation should take into account the effect on the load bearing properties of the underlying soil from the redirected roof run-off. Approval in principle for a foundation that relies on topsoil retention and roof run-off under the slab should be sought from building control authority prior to this approach being relied upon.

Where piling is to be installed near to trees, the smallest practical pile diameter should be used, as this reduces the possibility of striking major tree roots, and reduces the size of the rig required to sink the piles. If a piling mat is required, this should conform to the parameters for ground boarding. Use of the smallest practice piling rig is also important where piling within the branch spread is proposed, as this can reduce the need for access facilitation pruning. The pile type should be selected bearing in mind the need to protect the soil and adjacent roots from the potentially toxic effects of uncured concrete, e.g. sleeved bored piles or screw piles.

Manual Excavation

Excavation within the RPAs will be initially undertaken by hand under direct on-site arboricultural supervision to a minimum of 600mm deep of any excavation, whether for proposed foundations, hard surfacing or underground services. The soil is to be loosened with the use of a fork or pick and then cleared with the aid of an air-spade and air-vac. All roots to be cut will be cleanly severed with the use of a hand saw or secateurs. The edge of the excavation closest to the retained trees will be covered over with damp hessian to prevent drying out, and where necessary be shuttered to prevent soil collapse or contamination by concrete. If appropriate soil beneath the depth 600mm may be sheet piled, regular piled or individual piles. Any deeper excavations may be undertaken by a machine provided it works from outside of the RPA or has appropriate ground protection in place to move and work upon.

'No Dig' Surfacing

Multi-dimensional confinement system
Existing vegetation may be removed with hand tools or sprayed with an approved non residual herbicide such as 'Glyphosate'. The new hard surfacing will be constructed using a 'No Dig' surfacing situated entirely above the existing soil surface and where needed using a proprietary cellular confinement system (GeoWeb or similar) laid over a bi-axial geo-grid (tensar TriAx or similar). Prior to this any small hollows on the surface may be filled with clean sharp sand (not builders sand) to a maximum depth of 150mm. The 'GeoWeb' is to be back filled by hand with a no-fines aggregate of 20mm - 30mm. The area of 'GeoWeb' will be covered with a permeable geotextile fabric and the finished wearing course laid on top. Edge supports of an appropriate size and strength should be set above ground level and secured with haunching or steel pins driven into the ground. The outer edge of the supports may be banked up with clean top soil.

Arboricultural Supervision

The arboricultural consultant will be required to attend site to directly supervise all demolition and construction works that have to be undertaken within the root protection areas. This will include:

- Pre-commencement site meeting.
- Location of protective measures.
- Manual excavation of foundations for gate and fence posts within RPA of tree no. 123.
- Installation of 'No Dig' hard surfacing.
- Any excavations within or adjacent to RPAs, including foundations, hard surfacing or underground services.
- Removal of protective measures and arboricultural sign off.

Arboricultural Method Statement

Please refer to Arbttech Consulting Ltd. Tree Schedule and Arboricultural Method Statement, for full details on all surveyed trees and how all aspects of the the development maybe implemented without detriment to retained trees.

Tree Protection Area

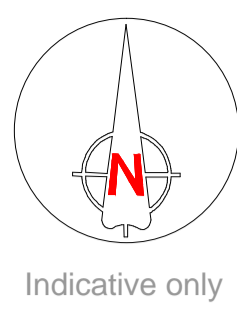
KEEP OUT

Do **not** move this fence

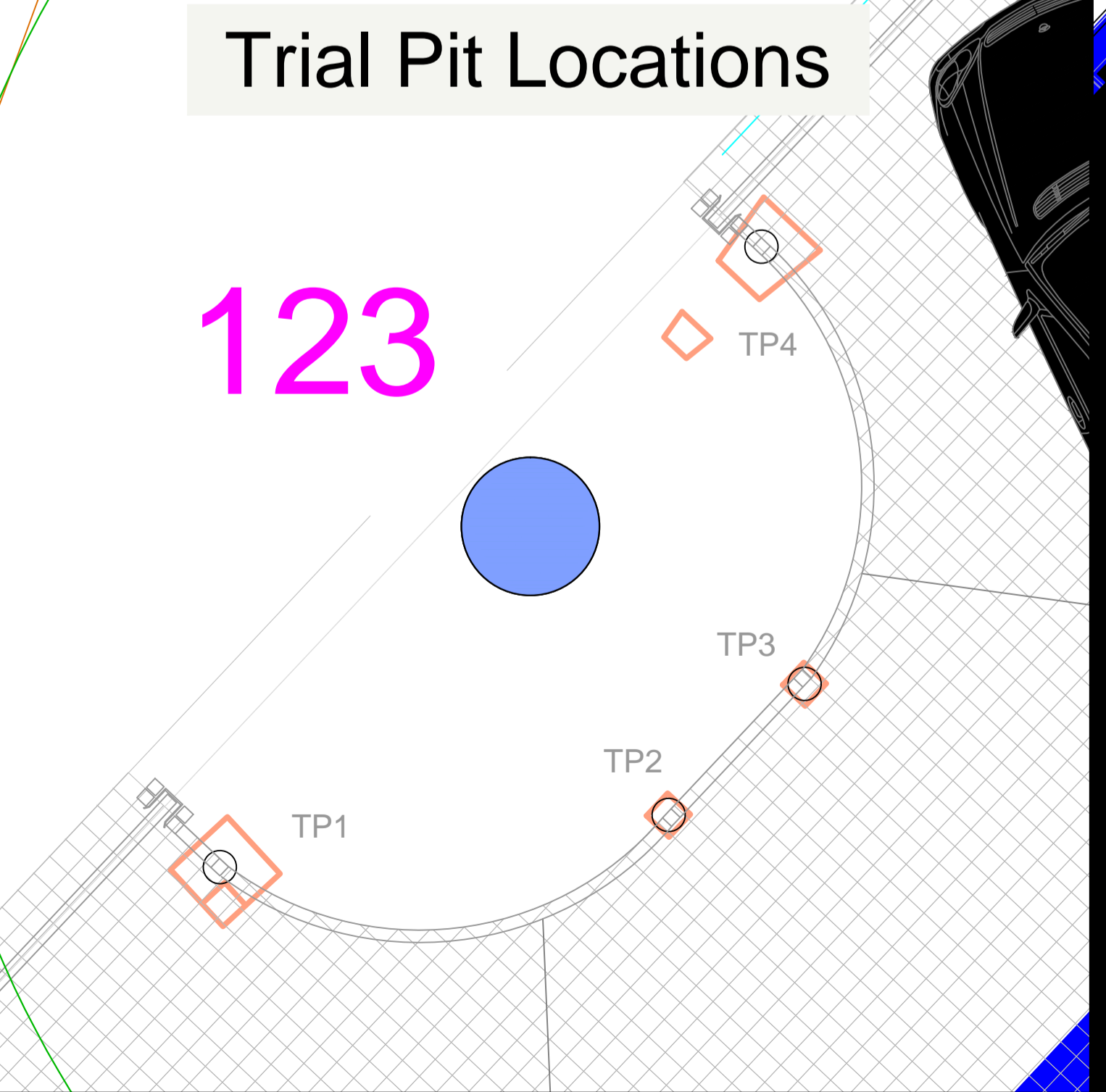
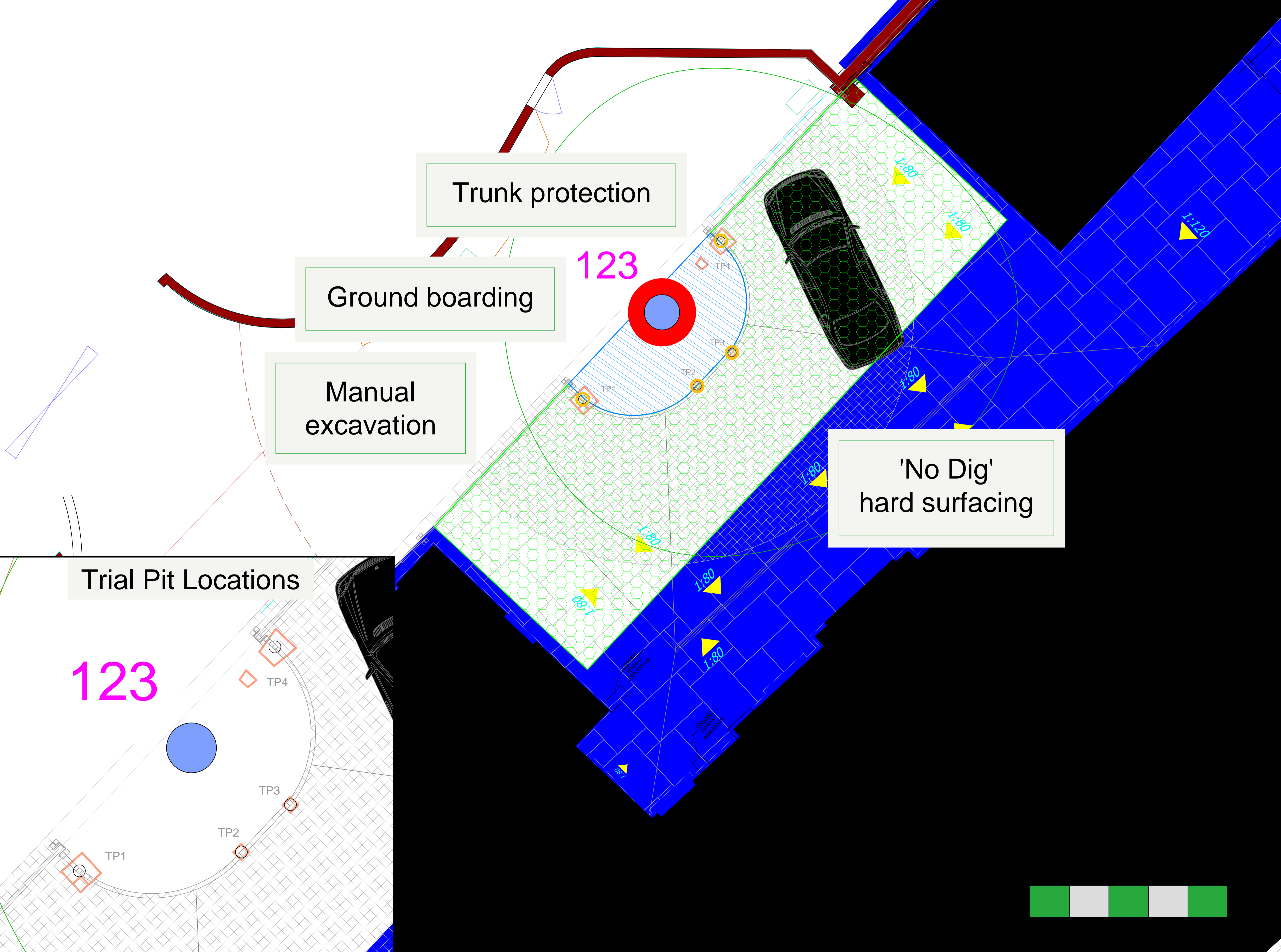
(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECT OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

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

ARBTECH



Indicative only



ARBTECH

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Project:
**1 Radlett Place,
London,
NW8 6BT.**

Client:
Collins Construction PLC

Drawing:
Tree Protection Plan

Based on:
(700) 559.1 P06

Drawing No:
Arbttech TPP 02

Date:
Apr 2016

Scale:
1:50 @ A1

Drawn:
MGM

Rev:

Key:

Tree Nos.: 123	Tree Canopies:	Trunks:
RPAs:	Category 'B' trees:	Trunk protection:
Ground boarding:	Manual excavation:	'No Dig' hard surfacing:
Basement:	Buildings:	Trial pits:

All dimensions should be checked on site. No dimensions are to be scaled from the drawing. Please notify us of any discrepancies found. Arbttech Consulting Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based. This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of trees. This drawing is not to be read as a definitive part of the engineering or construction design or method statement and should be checked against any relevant standards or specifications. This drawing is not to be used for any other purpose. This drawing is produced in colour - a monochrome copy should not be relied upon.

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