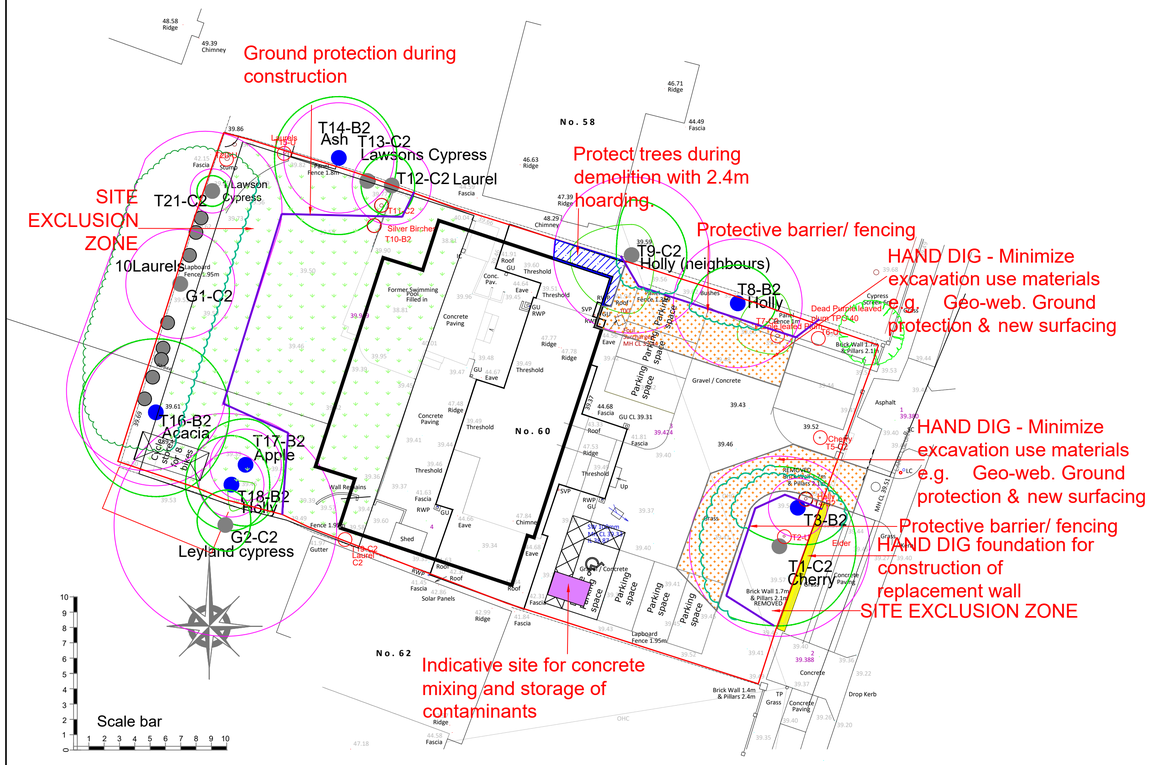
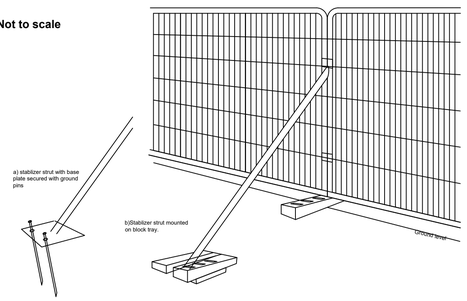


SCHEDULE

- Trees to retain
- Groups of trees
- Trees to remove
- Group of trees to remove
- Root protection areas
- Protective /barrier fencing
- Protect trees during demolition with 2.4m hoarding.
- HAND Dig for foundations of replacement wall
- HAND DIG - Minimize excavation use materials e.g. Geo-web. Ground protection & new surfacing
- Concrete mixing and storage of contaminants

Not to scale



Copy of BS 5837:2012 Figure 3 Examples of above ground stabilizing systems (for Heras type fencing) Total height 2.4metres

Arboricultural method

Pre construction

1. Carry out tree removal and tree surgery and listed
2. Fence off all trees to be retained prior to demolition and site work
3. Provide and insert ground protection for the duration of construction works
4. Carry out demolition and site clearance
5. Set up site working area

Construction

6. Carry out construction
7. Had dig for extension of hard surfacing within the RPA of tree, minimize excavation of the foundation by use of Geo-web type construction
8. For new surfacing insert ground protection as above for use of site works

Post completion

9. On completion of works remove protective fencing and ground protection
10. Carry out remedial works as listed prior to landscape works
11. Carry out landscape works

Tree Protection

Protective Fencing/Protective Barrier

Details of the fencing are shown in the appendices to this report and comply with British Standard recommendations. All weather notices are to be affixed to this fencing with signage "**CONSTRUCTION EXCLUSION ZONE - NO ACCESS**".

Ground Protection

In the vicinity of the temporary unit working space will mainly be confined to existing hard surfacing. Where additional working space is required for construction within the root protection areas of retained trees, the British Standard specifies the following type of ground protection.

a) For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway,or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geo-textile membrane.

b) For pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geo-textile membrane;

c) For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems 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.

Storage of contaminants and mixing of concrete

This must be carried out outside the root protection areas of all trees. The ground should be protected with heavy duty plastic sheeting, e.g. 1200 gauge DPM , with edges secured and raised to prevent spillage and with a raised lip along the access point.

Demolition

a) Prior to demolition the trees and hedges to be retained should be fenced off and ground protection installed within their root protection area.
b) for the tree close to the building to be demolished this will be 2.4 metre high boarding
c) For the trees along the drive the crown should be faced back to ensure there is clearance under the canopy to remove building materials
d) All heavy machinery and demolition vehicles should be positioned within the footprint of the building.
e) No material should be stored under the tree canopies
f) All hard surfacing to be removed by hand with care so as not to damage tree roots, and stored outside the tree root protection areas.
g) If temporary surfacing is required this should be in accordance with ground protection outlined above.

Methods of Construction for the Development

Hand dig

Hand digging will also be required for all works within root protection areas of trees,including removal of surfacing, trenches, excavation for fence post and for cultivation for soft landscape areas. All hand digging within the root protection areas of trees should be supervised by a competent arboricultural.

Within root protection areas all excavation should be hand dug. A trench should be hand dug near the trees to ascertain whether roots are present. If roots over 50mm are found these should, where possible, be bridged, and surrounded by sand- roots under this dimension should be cut to a clean cut and surrounded by sand. No roots are to be left exposed but covered with damp sand or hessian. The surface level of the path may need to be adjusted to retain these roots.

If on investigation of the hand dug trench there are no roots present mechanical excavation may be possible if a banksman is supervising the excavation to ensure that if roots are unearthed they can be protected and clean cut and surrounded by sand. Hand digging may need to be resumed to complete the excavation.

This would include exploratory excavation by hand for the foundations of the paths and new hard surfacing within the root protection area of the trees.

Surfacing within the Root Protection Area

Minimizing excavation within the root protection area by removing surfacing herbage and laying a geo-textile to stabilize the ground.

a) Infill any irregularities with 50mm sharp sand
b) On this lay a geo web, depth to be specified by the supplier to accommodate the proposed weight load.
c) This will be filled with no fines gravel / stone 20-40mm
d) Lay final wearing surface on top of this base- for example permeable paving or porous tarmac.
e) Use timber edging to avoid excessive excavation to facilitate haunching of edging.

Location of Underground Services

All drainage and below ground services will be designed to avoid tree protection zones. If there is no alternative but to site these within the root protection area of trees, then trenches excavation should be hand dug and comply with 'Hand dug ' as outlined in section 5.1 or the NJUG regulations

Remedial works and soil improvement

This will be application within the footprint of the outbuilding to be demolished. Exposed soils are easily compacted resulting in loss of water and gaseous exchange and leading to root deaths. To relieve ground compaction, which may have resulted from the overrun of vehicles or by storage of materials, the clay soils should be broken up to allow air to penetrate and for the soil structure to be restored.

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Scheme: 60 Long Lane, Ickenham. UB10 8SZ	Date: August 2022
Title: Tree Protection Plan	Drawn by: E.J.G
Scale: 1:200 @ A1	Job No: 1133.22
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