



Note: Dimensions of structure estimated due to absence on the plan provided.

Issue: Proposed boundary fences situated within the RPA of G1. Solution: Excavations of posts of the proposed boundary fences within RPAs are to be undertaken manually under arboricultural supervision; posts may need to be relocated if roots important to the stability of the tree will be affected

Issue: Proposed hard surfacing situated within RPAs of G1 and G2. Solution: Proposed surfacing to be designed in conjunction with an arboriculturist so that it can be constructed entirely above the existing soil level.

Arboricultural Impacts

Impacts	No. of trees
Trees to be removed	0
Structures / hedges to be removed (partial removal of groups)	0 (0)
Trees with proposed incursions into RPAs	0
Structures / hedges with proposed incursions into RPAs	2
Trees that will require pruning	0
Structures / hedges that will require pruning	0
Trees to be translocated	0
Structures / hedges to be translocated	0

No. of individual trees to be removed				
U	A	B	C	D
0	0	0	0	0

No. of groups / hedges to be removed				
U	A	B	C	D
0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

U = Partial removal of a group

Arboricultural Method Statement

'No Dig' Surfacing

Trees can be affected by construction within the RPAs either through the direct damage caused by the removal of roots, connection of the rooting environment or secondary damage such as poisoning through leaks and spills (oil, fuels, etc.) or through de-icing (road salt, etc.).

Proposed hard surfacing within the RPAs of retained trees is to be designed so that it can be situated above the existing soil level and to minimise any adverse impact upon the tree RPAs, as the use of traditional foundations can result in excessive root loss through direct removal of roots during excavation and by compaction of the soil beneath the excavation, as such this traditional type of foundation should be avoided.

When designing hard surfacing that is to be situated within RPAs, the design team need to pay particular attention to the proposed surfacing and finished floor levels, edging types and details, proximity to tree trunks and surface rooting, contamination capture, etc.

Possible sub-bases (foundations systems) for hard surfacing situated within the RPAs of retained trees could include:

- A proprietary system such as a multi-dimensional confinement system (Dallwitz TSD or similar);
- Engineered solution such as a road deck, bridge, etc.

An engineered solution is likely require a level of excavation for site specific investigations to locate roots to aid in foundation design so that a suitable foundation can be designed to avoid roots and for the installation of the structure.

NB: The use of a multi-dimensional confinement systems and or an engineered solution will affect the finished level of the hard surfacing by raising the levels and needs to be taken into consideration when designing foundations and setting the finished floor levels of adjacent buildings.

Utility apparatus

Mechanical trenching for the installation of underground apparatus and drainage sewers may be present and can change the local hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the route and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside of RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts, all inspection chambers should be sited outside of the RPAs.

Where underground apparatus is to pass within the RPAs, detailed plans showing the proposed route should be drawn up in conjunction with the project arboriculturist. In such cases trenchless methods should be used with entry and retrieval pits being located outside of the RPAs. If this option is not feasible and providing roots can be retained and protected excavations should be undertaken using hand held tools (air-spade, forks, shovels) or a combination of trenchless and manual excavation (broken trench).

Any design and installation should be undertaken in accordance with the National Joint Utilities Guidelines (NJUG).

Above-ground utility apparatus

Above-ground apparatus (including CCTV cameras and lighting) should be sited to avoid the need for detrimental tree pruning, as such the current and future crown size of the tree should be assessed.

Tree branches can be pruned back with care to provide space, though it is not appropriate for repetitive and significant tree work to be an initial design solution unless this is a suitable management outcome for the tree. Any pruning should be undertaken in accordance with BS3998:2010

Site investigations

Site investigations are to be undertaken within the RPAs of retained trees to determine the size, depth and location of any roots that may be present for the purpose of informing foundation design.

All excavation within the RPAs are to be initially undertaken to a minimum depth of 800mm deep for any excavation to the full depth of the 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 using a specialist arboriculturist contractor. If an air-spade is not used and all excavations are to be undertaken using hand held tools (shovel, trowel, brush).

Soil will be loosened with the aid of a fork or trowel and the soil removed from with the aid of a shovel. Where an air spade or specialist arboriculturist contractor is not employed, all excavations are to be undertaken under direct arboricultural supervision. All roots are to be retained in situ and the project arborist will visit the site to record and photograph the depth, location, and size of any roots present. During this visit the project arborist may be able to cut specific roots with the use of a hand saw or secateurs. The edge of the excavation closest to the retained trees and all uncovered roots will be covered over with a minimum of two layers of damp hessian to prevent drying out, and where necessary be sheltered to prevent soil collapse or contamination. If appropriate soil beneath the depth of 800mm may be sheet piled with any deeper excavations being undertaken by a machine with an appropriate bucket under direct arboricultural supervision. If a decision is made for a machine to be used it must work from outside of the RPA or have appropriate ground protection in place to move and work upon.

Upon the completion of the site investigations all trial excavations are to be back filled with the original material or inert fill. It may be suitable to insert a root barrier in locations where the proposed roots are not present or are beginning to enter to prevent root activity within areas deemed to be root free.



Project: 118 Hempstead Road, Kings Langley, WD4 8AL

Client: Naem Akhtar

Drawing: Arboricultural Impact Assessment

Based on: Y1481/2023/04

Drawing No: Arbtech AIA 01 Rev: DM

Date: Jan 2024 Scale: 1:100 @ A0 Drawn: DM

Tree No.	Category	Proposed Site	Incursion - Hard Surfacing
G1	Tree Canopies	Category 'A' ground	Category 'C' ground

These works are to be undertaken in accordance with British Standard BS5837:2012 and the Arboricultural Method Statement and Tree Protection Plan, for full details of all surveyed trees and how all aspects of the development may be implemented without detriment to retained trees.

The drawings are to be used in conjunction with the Arboricultural Method Statement and Tree Protection Plan, and are not to be used in isolation.

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