Hard Surfacing

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

Proposed hard surfacing within the RPAs of retained trees is therefore to be designed so that it can be constructed above the existing soil level and minimise any adverse impacts upon the trees RPAs. As the use of traditional foundations and sub-bases can result in excessive root loss through the direct removal of roots during excavations and by compaction of the soil beneath the excavation, as such the 'traditional' methodology must be avoided.

When designing hard surfacing that is to be situated within the RPAs of retained trees, the design team need to pay particular attention to the proposed usage (pedestrian, domestic traffic, delivery vans, emergency services, HGVs, etc.,) the existing and proposed levels of hard surfacing and finished floor levels, edging types and details, proximity to tree trunks and surface rooting, contamination capture and SUDs, etc.,.

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

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

An engineered solution is likely to 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 system and or engineered solution will affect the finished levels of the hard surfacing by raising the levels and needs to be considered when designing foundations and setting the finished floor levels of adjoining buildings.

Replacement Hard Surfacing

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

Where it is required for hard surfacing is to be removed and or re-surfaced within the RPAs of retained trees it is to be undertaken under direct on-site arboricultural supervision, during the landscaping phase of the development. The wearing course will be broken up using a handheld pneumatic breaker, hand tools and wheelbarrows to break up and remove the surfacing. Where is necessary to remove the subbase, this is to be undertaken using a fork to loosen the material and moved using shovels and wheelbarrows.

In some situations, and at the discretion of the arborist it may be possible to use an excavator using a hydraulic breaker and a suitably sized toothless grading bucket. If an excavator is to be used it must be situated outside of the RPAs, on top of the hard surfacing working away from the RPAs or from ground boarding. Whichever system is used there is to be **NO** disturbance of the soil beneath. If roots are found they are to be covered over with damp hessian and a layer of either sharp sand, wood chip or topsoil will be applied as soon as practicably possible to prevent desiccation.

Utility Apparatus

Underground utility apparatus:

Mechanical trenching for the installation of underground apparatus and drainage severs any roots present and can change the local hydrology in a way that adversely affects the health of trees. For this reason, particular care should be taken in the rout and methodology of installation for all underground apparatus. Wherever possible, apparatus should be routed outside of the RPAs; where this is not possible, it is preferable to keep apparatus together in common ducts. All inspection chambers should be sited outside of 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 Arboriculturalist. In such cases trenchless insertion 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, manual excavations using hand held tools (air-spade, folks, shovels etc.,) or a combination of trenchless and manual excavations (broken trench) should be used.

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 works to an initial design solution unless this is a suitable management outcome for the tree. Any pruning must be undertaken in accordance with BS3998:2010.

Arboricultural Method Statement

All tree works must be undertaken in accordance with British Standards. Please refer to the Tree Schedule, Arboricultural Method Statement & Tree Protection Plan, for full details of all surveyed trees and how the development maybe implemented without detriment to retained trees.

Indicative only

Arboricultural Impacts

Impacts	No. of Trees
Trees to be removed	2
Groups / Hedges to be removed (Partial removal)	1 (2)
Trees with proposed incursions into the RPAs	2
Groups / Hedges with proposed incursions into the RPAs	0
Trees that require pruning	1
Groups / Hedges that require pruning	4
Trees to be transplanted	0
Groups / Hedges to be transplanted	0

Arboricultural Impacts

Ref.	Species	Proposed Structure	Incursion (%)
6G	Mixed group	Hard surfacing	26.1
15T	Common Lime Tilia europaea	Hard surfacing	0.8

Tree Work Schedule

Ref.	Species	Works	Category
1T	Black Locust Robinia pseudoacacia	Prune crown by 1m on all sides to facilitate demolition access while maintaining a balanced crown. Prune 1m from northern canopy extent of retained section in proximity to proposed construction.	B1
2G	Common Lime Tilia europaea	Prune up to 3m from western canopy extent to facilitate demolition access.	B2
3G	Mixed group	Prune up to 2m from northern canopy extent to facilitate demolition access.	B2
6G	Mixed group	Prune 1.5m from lower canopy to achieve 2.5m clearance above the proposed footpath.	C2
7G	Lombardy Poplar Populus nigra 'Italica'	Remove. Fell to ground level and grind stumps.	B2
8T	Lombardy Poplar Populus nigra 'Italica'	Remove. Fell to ground level and grind stump.	U
10G	Mixed group	Partial removal. Fell highlighted section to ground level and grind stumps. Prune northern canopy extent by up to 1m to facilitate construction access.	B2
11G	Common Lime Tilia europaea	Partial removal. Fell highlighted section to ground level and grind stumps. Prune northern canopy extent by up to 1.5m to facilitate demolition access.	B2
15T	Common Lime Tilia europaea	Prune 1m from southeast crown extent to facilitate construction access.	B1
16T	Common Ash Fraxinus excelsior	Remove. Fell to ground level and grind stump.	B1

All tree work is to be undertaken in accordance with British Standards (BS3998:2010 Tree Work - Recommendations. All arisings are to be removed and the site left as it was found. Care is to be taken to ensure that the ground around retained trees does not become compacted as a result of tree surgery operations. No equipment or vehicles such as (but not limited to) timber lorries, tractors, excavators, or cranes are to be parked or driven beneath the crowns of any retained trees to prevent subsequent compaction and root death.

No. Individual Trees Removed				
U	A	B	C	V
1	0	1	0	0

No. Groups/Hedges/Woodlands Removed (*) = Partial				
U	A	B	C	V
0 (0)	0 (0)	1 (2)	0 (0)	0 (0)

Referenced Documents

Title:	Originator:	Drawing Number:	Key
Topographical Survey	Survey Solutions	472428WLS-02	
Residential Care Home Proposed Landscape Plan	Hunters	M10960_APL009_B	

Rev:	Date:	Notes:
01	01/10/2026	Initial assessment.

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Client:
London Borough of Hillingdon

Drawing:
Arboricultural Impact Assessment

Project No.:	Drawing No.:	Revision No.:
47294524	AIA01	01

Date:	Scale:	Drawn:
Oct 2026	1:200@A0	FG

Tree Key:

Trunks:		Tree Canopies:		Root Protection Area:	
Ancient / Veteran Tree Buffer Zone:		Ancient woodland Extent (to trees):		Category 'U' Tree Stems (dashed lines):	
Category 'U' Tree Groups (dashed lines):		Category 'A' Tree Stems (dashed lines):		Category 'A' Tree Groups (dashed lines):	
Category 'B' Tree Stems (dashed lines):		Category 'B' Tree Groups (dashed lines):		Category 'C' Tree Stems (dashed lines):	
Category 'C' Tree Groups (dashed lines):		Category 'V' Tree Stems:		Category 'V' Groups:	
Trees to be Removed:		Proposed Pruning:		Basic Shading Arc:	

All dimensions should be checked on site. No dimensions are to be scaled from this drawing. Please notify us of any discrepancies found. Arbtech Consulting Ltd. cannot be held responsible for inaccuracies in the base drawing in which this plan is based.
This drawing has been designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.
This drawing is not to be read as a definitive part of the engineering or construction designs or method statement. An architect or structural engineer should be contacted over any matters of construction, detailing or specification and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.
This drawing was produced in colour - a monochrome copy should not be relied upon.

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