

No Dig' 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 (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 needs to pay particular attention to the proposed design (pedestrian, domestic traffic, delivery vans, Emergency vehicles, HGVs etc.), the existing and proposed levels of hard surfacing and finished floor levels, edge types and details, proximity to tree trunks and surface rooting, contamination capture, SUDs, 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 (Cellweb TRP 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.

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 (oil, fuels, etc) or through de-icing (road salt, etc).

Where it is required for hard surfacing 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 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 subsoil side bootless grading bucket. If an excavator is to be used it must be kept away from 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 practicable to prevent desiccation.

Utility apparatus

Historical trenching for the installation of underground apparatus and drainage sewers any roots 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. Where 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 insertion methods should be used with entry and retrieval jobs 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 (NJJUG).

Above-ground utility apparatus

Above ground apparatus including CCTV cameras and lighting should be sited to avoid the need for ornamental 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 BS5838:2010.

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Arboricultural Impacts

Impacts	No. of trees
Trees to be removed	16
Trees to be retained (Partial removal of groups)	113
Trees with proposed measures in RPAs	9
Groups / Hedges with proposed measures in RPAs	2
Trees that will require pruning	0
Proposed measures require planting	0
Trees to be transplanted	0
Groups / Hedges to be transplanted	0

Arboricultural Impacts - RPAs (Area)

No.	Species	RPA (m ²)	Incorporation (%)
T06	Sycamore	256.9	11.1
T07	Sycamore	189.6	N/A
T10	Common Holly	7.4	N/A
T11	Common Holly	17.1	N/A
T15	Sycamore	27.4	4.7
T16	Various	3.1	N/A
T21	Various	4.5	N/A

Tree Work Schedule

No.	Species	Works	Category
T01	Goat Willow	Fall to ground level and grind stumps	B1
T02	Goat Willow	Fall to ground level and grind stumps	B1
T03	Goat Willow	Fall to ground level and grind stumps	U
T09	Common Holly	Fall to ground level and grind stumps	C2
T13	Sycamore	Fall to ground level and grind stumps	B1
T14	Common Oak	Fall to ground level and grind stumps	B1
T16	Common Oak	Fall to ground level and grind stumps	B1
T17	Sycamore	Fall to ground level and grind stumps	C2
T18	Sycamore	Fall to ground level and grind stumps	B1
T19	Common Oak	Fall to ground level and grind stumps	B1
T20	Sycamore	Fall to ground level and grind stumps	B1
T21	Myrtaine Plum	Fall to ground level and grind stumps	B1
T25	Sycamore	Fall to ground level and grind stumps	C2
T26	Quarry Pine	Fall to ground level and grind stumps	B1
T27	Sycamore	Fall to ground level and grind stumps	B1
T28	Red Maple	Fall to ground level and grind stumps	B1
G01	Various	Fall to ground level and grind stumps	C2
G02	Cherry Laurel	Fall to ground level and grind stumps	C2
G03	Common Beech	Fall to ground level and grind stumps	B2
G04	Various	Fall to ground level and grind stumps	B2
G05	Various	Prune 1.5m from eastern crown extent	C2
G07	Common Holly	Partial removal of grass. Fall highlighted section to ground level and grind stumps	C2
G08	Various	Fall to ground level and grind stumps	B2
G09	Various	Prune 1.5m from southern end of hedge	C2

All tree work is to be undertaken in accordance with British Standard BS 5838:2010 Tree work - Recommendations.

All stumps are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of heavy machinery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the canopy of any retained trees, to prevent subsequent compaction and root death.

No. of individual trees to be removed

U	A	B	C
0	0	1	0

No. of groups / hedges to be removed

U	A	B	C
0	0	0	0

U = Partial removal of a group

Arboricultural Method Statement

All tree work is to be undertaken in accordance with British Standard BS 5838:2010 Tree work - Recommendations. Please refer to Arbtch Consulting Ltd. Tree Schedule, 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.



Project: Ruckford House, Malthouse Lane, Hurstpierpoint, Hassocks, BN6 9JX

Client: Hurstpierpoint College

Drawing: Arboricultural Impact Assessment

Based on: SK.04

Drawing No: Arbtch AIA 01 **Rev:** FG

Date: May 2025 **Scale:** 1:200 @ A0 **Drawn:** FG

Key:

T04	Tree	Trunk
Category 'A' trees	Category 'A' trees	Category 'A' trees
Category 'B' trees	Category 'B' trees	Category 'B' trees
Category 'C' trees	Category 'C' trees	Category 'C' trees
Trees to be removed	Tree to be removed	Tree to be removed
Proposed Site Plan	Incorporation - Hard Surfacing	Incorporation - Fences

