

**'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, fuel, etc) or through deicing (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 cladding (pedestrian, domestic traffic, delivery vans, Emergency vehicles, 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, 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 (Caféde TRP or similar)
- Engineered solution such as a steel 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.

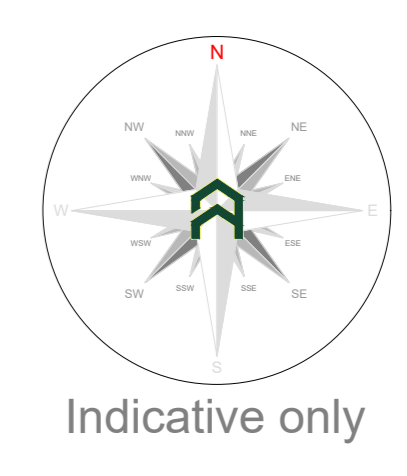
**Utility apparatus**

**Underground utility apparatus**  
Mechanical 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 root and methods of installation of all underground apparatus. Whenever 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 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, fork, shovel) 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 ornamental tree pruning, as such the current and future cover scope 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



Indicative only



**Issue:** Proposed hard surfacing situated within the RPAs of trees T02 & G01.  
**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	4
Trees to be retained (Partial removal of ground)	113
Trees with proposed measures into RPAs	1
Group 1 Hedger with proposed measures into RPAs	1
Trees that will require pruning	0
Trees to be retained (Full removal of ground)	0
Trees to be transplanted	0
Group 1 Hedger to be transplanted	0

No.	Species	Proposed structure	Inclusion
T03	Silver Birch	Driveway & Footpath	RPA
G01	Various	Driveway & Footpath	RPA

**Tree Work Schedule**

No.	Species	Works	Category
T01	Silver Birch	Full tree and removal stump	B1
G02	Various	Partial cut, remove northern half of group (see drawing for details)	B2
G03	Various	Full tree and removal stump	C1

All tree work to be undertaken in accordance with British Standard BS 3998:2010 Tree work - Recommendations.  
All works are to be undertaken in accordance with the site plan to be left in 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 tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

**No. of individual trees to be removed**

U	A	B	C
0	0	0	0

**No. of groups / hedger to be removed**

U	A	B	C	D	E	F	G
0	0	0	0	0	0	0	0

U = Partial removal of a group

**Arboricultural Method Statement**

All tree work to be undertaken in accordance with British Standard BS 3998:2010 Tree work - Recommendations.  
Please refer to ArborTech 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: Land at Egmont Street, Mossley, Ashton-Under-Lyne, OL5 9NB

Client: Bridgewater Land & Developments Ltd

Drawing: Arboricultural Impact Assessment

Based on: Proposed

Drawing No: Arbtech AIA 01 Rev:

Date: Oct 2023 Scale: 1:150 @ A0 Drawn: AJN

**Key:**

Tree Nos.:	T02	Tree Category:	Tree:	Trunk:	○
RPAs:	○	Category 'U' trees:	●	Category 'B' trees:	●
Category 'B' groups:	○	Category 'C' trees:	○	Category 'D' groups:	○
Trees to be removed:	✂	Inclusion - Hard Surfacing:	■		

Arbtech Consulting Ltd. 2023