



# WE KNOW SERVICES

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## ARBORICULTURAL METHOD STATEMENT

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HUYTON  
KNOWSLEY  
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MARCH 2021

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## 1.0 Discussion

- 1.1 The majority of the root system, of a tree, is in the surface 600mm of the soil, extending radically for distances frequently in excess of the trees height. Beyond the main structural roots (close to the base of the trunk), the root system rapidly sub-divides into smaller diameter roots: off this main system, a mass of fine roots develops.
- 1.2 The shape of the main structural roots develops in response to the need for the tree to have physical stability. Beyond these major roots, root growth and development is influenced by the availability of water and nutrients. Unless conditions are uniform around the tree, which would be unusual, the extent of the root system will be very irregular and difficult to predict. It will not generally show the symmetry seen in the branch system.
- 1.3 The parts of the root system, which are active in water and nutrient uptake, are very fine, typically less than 0.5mm diameter. They are short lived, developing in response to the needs of the tree, with the majority dying each winter. It is essential that conditions in the soil remain conducive to the healthy growth of these fine roots so that the water and nutrients necessary for healthy tree growth can be absorbed.
- 1.4 All parts of the root system, but especially the fine roots, are vulnerable to damage. Once they are damaged, water and nutrient uptake will be restricted until new roots have regenerated. Vigorous young trees will be capable of rapid regeneration but over mature trees will respond slowly, *if at all*.
- 1.5 In order to live and grow, roots need oxygen from the soil. Respiration by the roots and other soil organisms depletes this oxygen and increases carbon dioxide levels in the soil; a correct balance of these gases is normally maintained by diffusion between the soil and the atmosphere. Anything, which disturbs this balance, will affect the condition of the root system.
- 1.6 The factors that most commonly affect this diffusion adversely, and therefore damage roots, are the following: -
  - a) Compaction of the ground, which reduces the space between soil particles. This is particularly important on clay soils. A single passage by heavy equipment on clay soils or storage of heavy materials can cause significant damage.
  - b) Changing soil levels, even for a few weeks.
  - c) Covering the root area with impervious surfaces.
  - d) A rise in the level of the water table. Roots can tolerate submersion for short periods. But a permanent rise will deplete the soil of oxygen.
- 1.7 Serious damage is often caused during preliminary site works by stripping the topsoil.
- 1.8 Excavations in the rooting area can sever roots. As the majority of roots are in the surface 600mm, even shallow excavations can cause damage.

- 1.9 Excavations for foundations, landscaping or service trenches are usually sufficiently deep to sever most of the roots, and it should therefore be assumed that all parts of the root system beyond the excavation would no longer serve the tree.
- 1.10 Excavation or soil stripping which sever or damage the roots may impair the stability of the tree and make it dangerous.

## **2.0 Method Statement**

### **2.1 Precaution Measures**

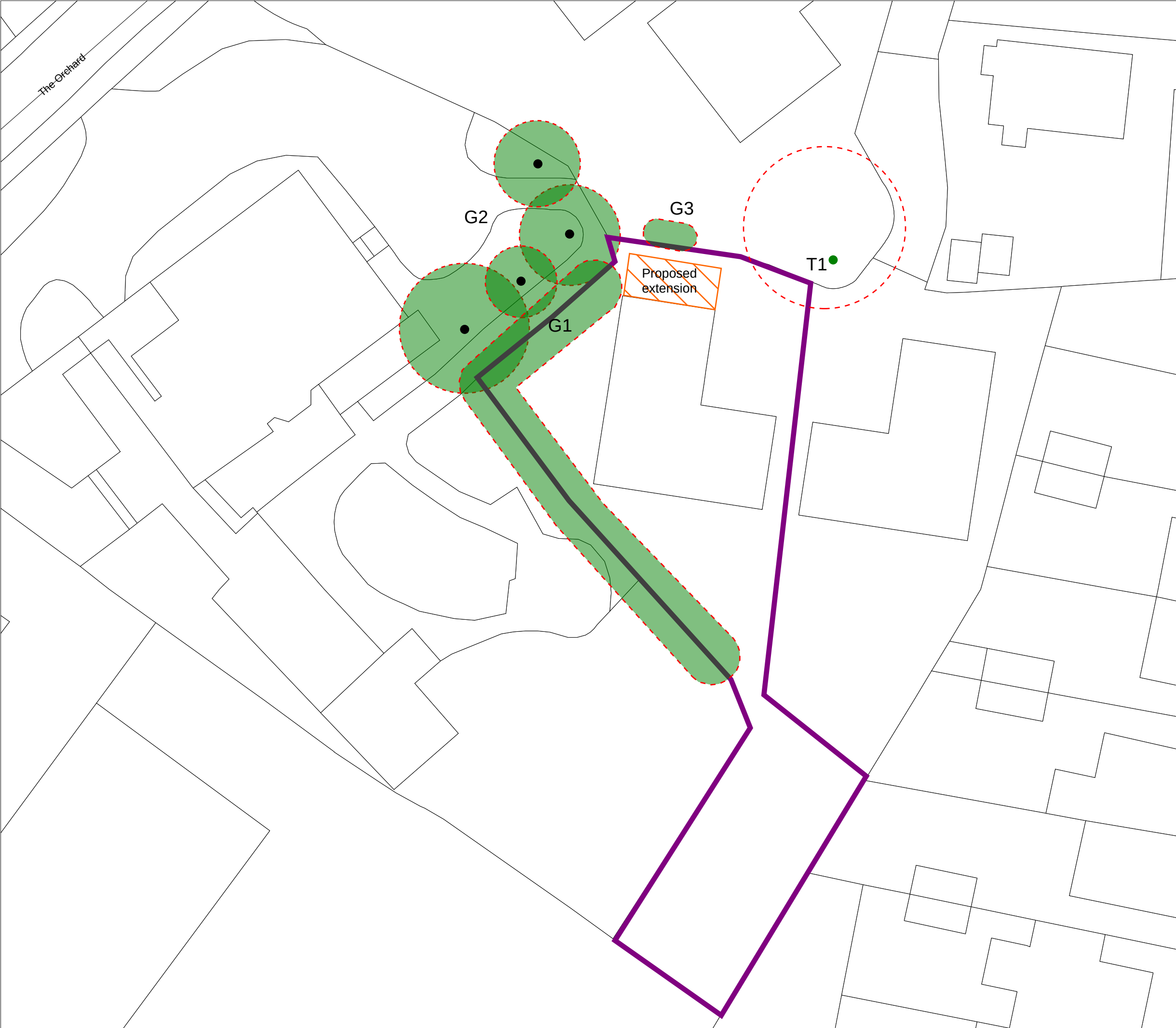
- 2.1.1 Oil, bitumen, cement or other material likely to cause damage to the tree will not be stacked or discharged within 10m of the trees stem or within the root protection area. Also materials in general will not be stacked or discharged within the root protection area.
- 2.1.2 Concrete mixing and washing will not be carried out within 10m of any retained trees.
- 2.1.3 Fires will not be lit beneath the foliage or in a position where the flames could extend to within 5m of the foliage, branches or trunk. If the fire is large then this may necessitate a distance of at least 20m.
- 2.1.4 Trees that are to be retained will not be used as anchorage for equipment.
- 2.1.5 Notice boards, telephone cables, or other services will not be attached to any part of the retained tree.
- 2.1.6 Care should be taken when using cranes or other equipment near the canopy of the retained trees. Also any trees to be felled in proximity to the retained trees should be done so with particular care.

### **2.2 Protective Fencing**

- 2.2.1 Due to the presence of an existing boundary fence and as the scope of the proposed works are small-scale, it is not deemed appropriate to install tree protection fencing.

# **Appendix One**

## **Tree Plan**



**KEY:**

-  Root protection area
-  Tree(s) to be retained
-  Site boundary



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|                |             |
|----------------|-------------|
| Drawing Title: | Drawing No: |
| MS Plan        | 21/00013/MS |

|          |          |           |
|----------|----------|-----------|
| Date:    | Scale:   | Drawn by: |
| 08/03/21 | 1:300@A3 | NW        |

Note: Dimensions are not to be scaled from this drawing. All written measurements are to be checked on site by the contractor. Copyright KMBC.  
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