

**ARBORICULTURAL METHOD STATEMENT  
SERVICE TRENCH EXCAVATION**

**Terms of Reference**

- 1.1 This Arboricultural Method Statement was requested by Henry Rowe, Chief Engineer, Integrated Health Projects, NRC, Stanford Hall Estate, Stanford-on-Soar, Loughborough, LE12 5QW.
- 1.2 It has been compiled to aid the protection of trees to be retained at the Stanford Hall Estate. Implementation of the protection methods and specialist construction detailed here are integral to achieving this goal.
- 1.3 The information contained within this Arboricultural Method Statement is in line with BS5837 : 2012 'Trees in relation to construction – recommendations'.
- 1.4 This method statement is to be made available to all operatives on site during the construction process, so that they understand the scope and importance of the measures set out for tree protection.

**Phasing & Monitoring of Development**

- 2.1 Phasing is governed by operational constraints and therefore subject to change. The project's arboriculturalist must be notified of any changes to this schedule.
- 2.2 Phase 1 – Pre-development stage
  - 2.2.1 Tree protection measures implemented
- 2.3 Phase 11 – Development stage
  - 2.3.1 Site compound / WC / materials
  - 2.3.2 Groundworks and services
  - 2.3.3 Completion of development
- 2.4 Phase 111 – Post development stage
  - 2.4.1 Hard and soft landscaping

### **Root Protection Areas**

- 3.1 The Root Protection Areas (RPA) have been determined for each retained tree and are designed to protect the absolute minimum of tree root mass to ensure that the trees survive the construction process.
- 3.2 For details of the locations of trees to be retained, Root Protection Areas and Tree Protection Barriers, reference should be made to the Tree Protection Plan.
- 3.3 It is the responsibility of everyone involved in the project to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

### **Tree Protection Barriers**

- 4.1 Remedial tree work and any site clearance will be carried out prior to the erection of any tree protection barriers. However, it may be expedient to mark out the extents of any barriers to aid any site clearance and/or trimming of vegetation.
- 4.2 The Tree Protection Plan shows the alignment of Tree Protection Barriers which must be installed before any of the following take place:
  - 4.2.1 Plant and material delivery
  - 4.2.2 Utility installation
  - 4.2.3 Landscaping
- 4.3 Once erected, all barriers will be regarded as sacrosanct and will not be removed or altered without prior approval by the arboriculturalist or the LPA.
- 4.4 The barriers may require initial adjustment to facilitate removal of the current hard surface. All hard surface removal must be carried out in accordance with the relevant section of this method statement. Any alteration to the fence line must be approved by the arboriculturalist.
- 4.5 The default specification for protective barriers is a vertical and horizontal scaffold framework, well braced to resist impacts with welded mesh panes securely fixed onto this framework. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground.

- 4.6 Where site circumstances and associated risk allow, an alternative specification should be prepared by the arboriculturalist and agreed with the Local Planning Authority. For example, 2m tall welded mesh panels on rubber or concrete feet, stabilised on the inside and joined together using a minimum of two anti-tamper couplers, installed so they can only be removed from inside the fence.
- 4.7 “Protected Trees No Entry” signs should be affixed to every fourth panel. The barriers should remain in place until completion of the construction phase and removed only on the consent of the Local Planning Authority.
- 4.8 Should any alternative method of barrier construction be proposed, consultation with the project arboriculturalist will be obtained to clarify the efficacy of the revised design prior to seeking consent from the LPA.
- 4.9 Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence. All weather notices may be erected on the barriers as per the examples in Appendix C.

#### **Restrictions with Tree Protection Areas**

- 5.1 Inside the exclusion area of barriers, the following shall apply:
  - 5.1.1 No mechanical excavation whatsoever
  - 5.1.2 No excavation by any other means without arboricultural site supervision
  - 5.1.3 No hand digging without a written method statement having first being approved by the arboriculturalist
  - 5.1.4 No lowering of levels for any purpose (except removal of grass sward using hand tools)
  - 5.1.5 No storage of plant or materials
  - 5.1.6 No storage or handling of any chemical including cement washings
  - 5.1.7 No vehicular access
  - 5.1.8 No fire lighting
- 5.2 A 10m separation distance shall be observed between any tree and substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals.
- 5.3 No fire shall be lit such that flames come within 5m of tree foliage

### **Installation of Underground Services**

- 6.1 Where possible, the routing of all services has been designed to avoid retained trees and their RPA's. However, the route does pass through or close to the RPA's of eight trees.
- 6.2 Using the attached Tree Protection Plan, the areas designated as NO Dig will follow this protocol:
  - 6.2.1 The only machinery allowed within any RPA will be the vacuum hose of the VAC-EX machine.
  - 6.2.2 The vehicle will operate from the existing tarmac road.
  - 6.2.3 Hand excavation may be carefully undertaken to assist the vacuum soil removal.
  - 6.2.4 Once the trench depth is achieved, all exposed roots will be covered in moist hessian or fleece to prevent dehydration.
  - 6.2.5 As most roots will be in the upper 30cm-50cm, the services will be carefully installed beneath the root mass.
  - 6.2.6 Once the services have been installed, the moist hessian or fleece can be removed and soils carefully replaced to the original levels.
  - 6.2.7 The soils will not be compacted, but allowed to settle naturally to ensure pore space remains viable.
- 6.3 Mechanical excavation can be employed outside the NO DIG zones.

### **Soft Landscaping within Root Protection Areas (RPA)**

- 7.1 Ground preparation will be carried out sensitively to ensure root damage is mitigated as much as is practicable. At no time is any heavy plant to be used within any RPA. Removal of existing vegetation will be carried out by hand, or with light machinery.
- 7.2 At no time shall a rotavator be used within any RPA to prepare the soil. Any levelling will be done by hand and with the use of hand tools.