# Arboricultural Impact Assessment and Method Statement

Site: 41 Broomhill Way
Client: Mr and Mrs Boyce

Author: Christopher Stringer
Date: 29/06/2016

**Reference: 3041-034**

Shawyers is a trading name of MPS Facility Services Ltd.
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## Administrative Information

Instruction

Shawyers were instructed by Robert Boyce to provide the following information:

1. An arboricultural impact assessment of the development proposal on the trees listed within the schedule; and
2. A preliminary arboricultural method statement and tree protection plan detailing tree protection for all retained trees.

Documentation

No documents were officially provided. However, a plan ("2837-01") was available from the planning department of the Local Planning Authority (LPA). This was used for the purpose of introducing the development proposal and for conducting the arboricultural impact assessment.

Site Visit

The site was visited on 25/03/2015 by Christopher Stringer in order to collect the necessary data as part of the tree survey. The survey forms a separate document.

Site Specific Limitations

No topographical survey had been carried out prior to the site visit. It was necessary, therefore, to approximately plot the trees using basic GPS equipment in order to be able to assess the impact. It is not possible to guarantee the level of accuracy.

Report Limitations

Trees, their structure and condition, are dynamic and subject to change throughout their lifetime and following alteration to their immediate environment. Because of the limitation in predicting such natural processes and events, all observations, comments and recommendations herein relate to the structure and condition of the tree at the time of the inspection. The report is valid for a period of one year from the date of the report.

Development often involves multiple areas of expertise including design, engineering, planning, construction and ecology. Shawyers has no specialist expertise in these accompanying disciplines, therefore, this report solely relates to arboricultural aspects.

The survey has been undertaken principally for planning purposes. Although any obvious structural details have been noted, a full Tree Inspection and Risk Assessment has not been carried out. No internal decay detection devices, or other invasive tools, were used to assess tree condition. No soil excavation or root inspection was carried out.

This report has not considered the effect that trees and vegetation may have upon structural integrity of any buildings through heave or subsidence.

No plans were provided with regard to landscaping, including hard standing for vehicle use. Any further soft or hard landscaping or changes in design, not mentioned in the development proposal, must seek specialist advice.

Author and Qualifications

This report has been written and compiled by Christopher Stringer *Bsc (Hons) DipArb L4 TechArborA.*

# Part 1: Arboricultural Impact Assessment

## Introduction

Development can impact trees through necessity for removal, through direct damage or through harm caused by disturbance to their local environment.

Harm to trees can be mitigated through good arboricultural management of a development and tree protection measures. Trees can be successfully retained and suffer no significant long term effects, resulting in benefits to the development proposal and the wider community.

A tree survey has been carried out in order to record information about trees on, or near, the site that have the potential to be influenced by the proposed development. A schedule of trees and the survey methodology may be found in the separate document reference: "Development Feasibility Tree Survey 2270-248-DC".

## Purpose and Contents

This report is an assessment of the impact of the development proposal upon the trees, within the instruction, and how any impacts can be mitigated. It is based on industry best practice and is in compliance with the British Standards Institutions' *BS 5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations* (BS5837), and provides information for the Local Planning Authority (LPA) in determining the associated planning submission.

This report contains the arboricultural impact assessment and an arboricultural method statement. These should be read in conjunction with supplied tree information plans, and in particular the tree protection plan (3041-034-TPP).

## Site Description

41 Broomhill Way is a residential property in the Chandler's Ford area of Eastleigh. The property is bounded by further residential property to the east, south and west, and by woodland to the north.

T1 is covered by individual Tree Preservation Order (TPO).

## The Development Proposal

It is understood that the development proposal comprises of a rear (west) single storey extension, a side (north) second storey extension and some landscaping.

## Impacts and Mitigation

Tables 1 and 2, below, summarise the impacts upon trees by the proposed development at the site.

| Impact | Category A | Category B | Category C |
|---|---|---|---|
| Trees to be removed for management reasons | None | None | None |
| Trees to be removed for implementation of development | None | None | None |
| Trees to be significantly pruned so that their amenity may be effected | None | None | None |

*Table 1: Showing tree removals and significant pruning by categorisation*

| Cause | Potential Impact | Trees Affected | Comments |
|---|---|---|---|
| Proposed development location | Potential impact upon root systems. | T1 | Insignificant encroachment – see notes below |
| Hard surfacing and other supplementary structures | - | - | - |
| Construction activities and access | Direct damage, soil compaction through vehicle access, damage from general construction activities | T1 | Mitigated through implementation of Construction Exclusion Zone (fencing and ground protection) |
| Service locations | - | - | - |
| Landscaping | Potential impact upon root systems. | T1 | Design can help mitigate impacts. |
| Tree influence | - | - | - |

*Table 2: Showing potential impacts for retained trees*

Impact upon Visual Amenity

There are to be no trees removed or significantly pruned as part of the development proposal (*see Table 1, above*), therefore, the site will maintain its current appearance and continue to provide the same level of amenity as pre-development.

Impact upon Retained Trees

There are potential impacts upon retained trees from the proposed development. They are dealt with in turn below.

T1 - potential impact through foundation locations. Trees have a theoretical rooting area that is based on the size of their stem. In the first instance, BS5837 seeks to protect this area and terms it the root protection area (RPA). There is a minor incursion within the RPA of T1 by the proposed development. This incursion is approximately 5m$^2$, which represents approximately 2.6% of the total RPA.

Given the lack of rooting obstructions within the rest of the RPA, and thus good rooting volume availability, 2.6% is not a significant amount and should not significantly affect the tree.

T1 – potential impact through construction access and activities. There is significant potential for the root system, stem and crown of T1 to be negatively affected by construction activities and site access. These can cause harm to a tree through soil compaction by storage of materials and/or pedestrian and vehicle traffic; direct physical damage by accidental collisions between plant and trees; and spillage of substances harmful to trees, such as concrete.

Negative impacts by construction activities and access can be mitigated through the implementation of a Construction Exclusion Zone, temporary ground protection and utilisation of existing ground protection, such as existing hard standing. Specific details can be found in the arboricultural method statement.

T1 – potential impact through construction of terrace extension. There is potential for the construction of a terrace, shown on the submitted plan "2837-01", to negatively affect the root system of T1 because of the incursion into the RPA of T1. Damage to the root system may occur by the removal of soil and the compaction of sub-soil, required by traditional methods to form a base. This could be detrimental to the soil structure and the future potential to the exchange of gasses and water to the root system.

There are methods of construction that can remove the need to lay and compact a sub-base. However, as no detailed plans have been seen, it is beyond the scope of this report to comment.

# Summary

Consideration has been given to all trees within the context of the development proposal. If recommendations, contained within this Arboricultural Impact Assessment and within the accompanying Arboricultural Method Statement, are adhered to, then there should be no significant negative impacts upon any retained trees.

In addition, there will be no significant change to the visual amenity of the site from the public highway.

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# Part 3 – Method Statement

## Introduction

The following document should be read in conjunction with the tree protection plan (*3041-034-TPP*), which details how the following information will be applied to the site.

This method statement is preliminary and may have to be updated with regard to any planning conditions set by the Local Planning Authority (LPA).

A copy of this document, along with tree protection plan, once finalised with the LPA, must be available on site, and to all contractors, at all times throughout the construction of the development.

## Phasing of Work

Phasing of work, in relation to trees, can be divided into three distinct parts: pre – commencement, development and post-development.

Pre-commencement Phase

Pre-commencement meeting (if required by the LPA)

Arboricultural Work (if required)

Installation of protective fencing and/or ground protection (closure of the CEZ)

Inspection of the protection measures (by an LPA representative or retained arboricultural consultant)

Development Phase

Site supervision and reporting (if required by the LPA)

Post-development Phase

Removal of protection measures

Landscaping

## The Construction Exclusion Zone (CEZ)

The CEZ is an area, based on the RPA, where construction activity is strictly prohibited for the duration of construction. Protective fencing (temporary or existing) must be used to protect this area. Site specific details are given below.

Fencing

The use of fencing is the primary protection measure for retained trees. Any tree protection fencing must be in accordance with BS 5837:2012 Section 6.2 and shown in figures A2.1 and A2.2 (Appendix 1).

The preliminary position of the fencing is marked on the tree protection plan 3041-034-TPP. Once erected, all weather signage will be placed on the fences displaying: “Construction Exclusion Zone - No Access”.

## Ground Protection

Ground protection may be used in situations where it is impractical to implement a CEZ, for example where access is required over an RPA. Ground protection comes in many forms, but must be suitable for the usage level.

All hard standing must remain *in situ* for the duration of the build in order to act as ground protection for T1.

All areas of ground, not currently covered by hard standing, must be protected through the use of ground protection boards in the area marked on the tree protection plan.

## Important Notes

Any damage to the protective fencing or ground protection must be reported to the developer and project arboriculturist immediately.

Any incursion into the CEZ, beyond that which is permitted, whether accidental or deliberate, must be reported immediately to the developer and the project arboriculturist.

Removal of protective fencing and ground protection will occur only after *all* construction is complete, as there is significant risk to the retained trees due to the proximity to the work.

Where it may be necessary to gain more access at certain times during construction, this will have to be agreed upon in writing with the LPA and supervised by the project arboriculturist.

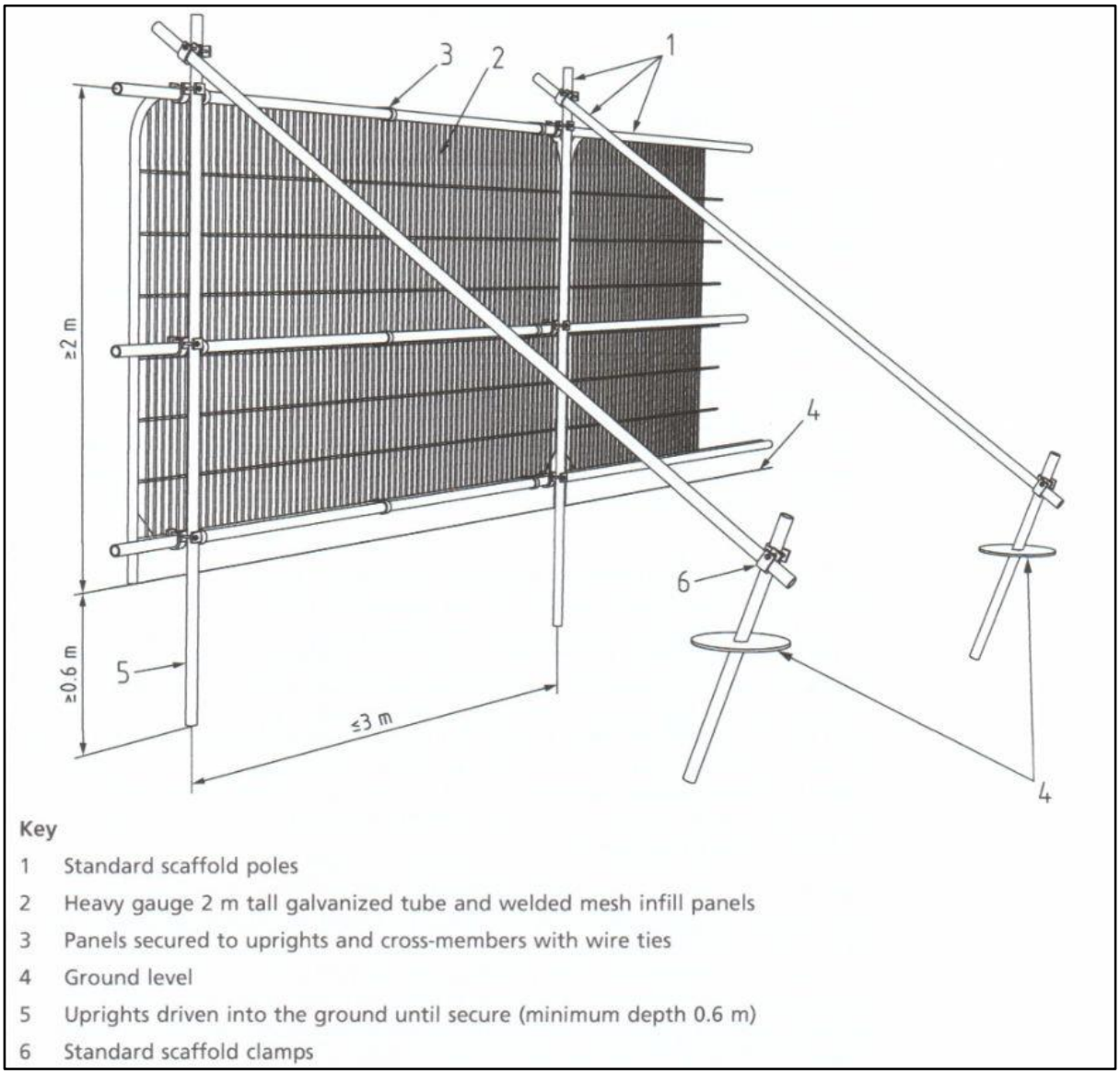
## Activity Prohibited Within the CEZ and Ground Protection Areas

Within the CEZ there must be no fires; no storage of spoil, construction materials or fuel; no mixing of cement or other materials; no installation of services; no excavation; and no level changes.

## Supervision

If the LPA require supervision, this can be discussed at the pre-commencement meeting, after which written confirmation can be provided.

# Appendix 1 – Fence Specification




**Key**

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

*Figure A2.1* - Default specification for protective fence (BS3857:2012)

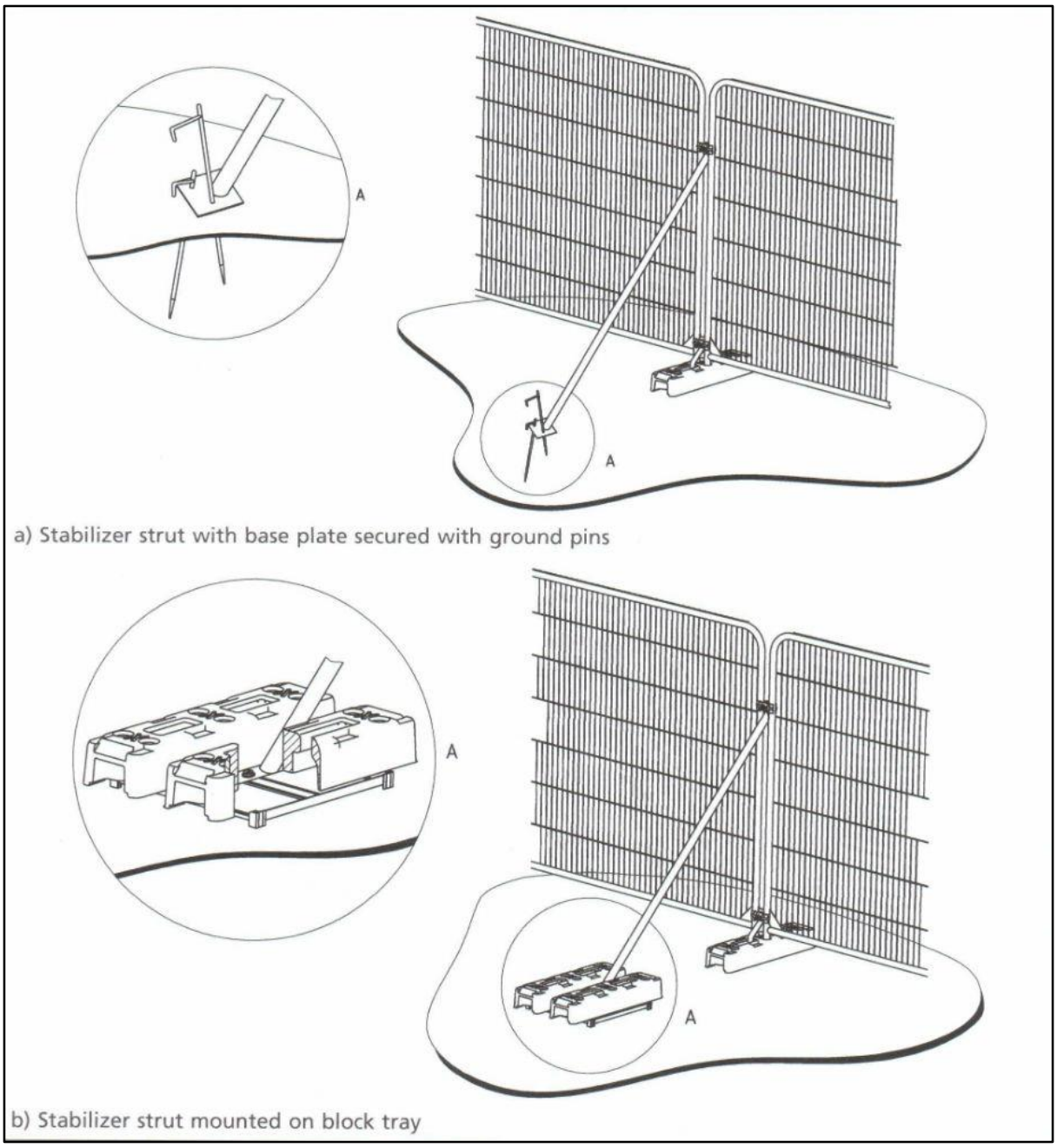



*Figure A2.2* - Examples of above-ground stabilizing systems (BS3857:2012)