SITE SPECIFIC INFORMATION

Explanatory Notes

Tree Survey

Tree Protection Method Statement and Protection Criteria

Root Protection detail

Notices for Protective Fencing

Explanatory Notes

Measurements/estimates: All dimensions are estimates unless otherwise indicated. Measurements taken with a tape or clinometer are indicated with a '*'. Less reliable estimated dimensions are indicated with a '?'.

Species: The species identification is based on visual observations and the common English name of what the tree appeared to be is listed first, with the botanical name after in brackets. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicated it with a '?' after the name in order to avoid delay in the production of the report. The botanical name is followed by the abbreviation sp if only the genus is known. The species listed for groups and hedges represent the main component and there may be other minor species not listed.

Height: Height is estimated height to the nearest metre.

Crown Clearance: The height of clearance from ground to lowest significant branch >5cm diameter

Spread: The maximum crown spread is measured as accurately as possible to the nearest metre of the total crown spread diameter. It should be noted that the crown of some trees can be one sided, however this is usually indicated within the report.

Stem Diameter: These figures relate to 1.5m above ground level and are recorded in centimetres. Estimate measurements are banded 0-10cm, 11-20, 21-30 etc. If appropriate, diameter is measure with a diameter tape. 'M' indicates trees or shrubs with multiple stems. 'AV' indicates average and is the average of two stems when dealing with twin stem trees.

Estimated Age: Age is assessed as Veteran (exceeding its normal life expectancy by a considerable number of years) over mature (OM – exceeding its normal life expectancy) mature (M - last one third of life expectancy), middle aged (MA - one third to two thirds life expectancy) and young (Y - less than one third life expectancy). Estimated age is species specific, as not all trees have the same life expectancy.

Distance to Structures: This is estimated to the nearest metre and intended it as an indication rather than a precise measurement.

SULE: This is the estimated Safe Useful Life Expectancy of the tree. Trees can live longer than this value, but can pose a risk to persons or property.

Condition Physiological: G – Good, F – Fair, P – Poor, D - Dead

BS Cat 5837 2005 - On the basis of this assessment, trees can be divided into one of the following categories:

A (1,2,3) - trees whose retention is most desirable; High category
B (1,2,3) - trees where retention is desirable; Moderate category
C (1,2,3) - trees which could be retained; Low category
R - trees for removal; Fell category

Tag	Name	Age	Height	Stem Dia	Crown clearance	North	South	East	West	Condition	Sule	Recommendations	BS Cat
T1	Hawthorn (Crataegus monogyna)	MA	8	140	2	5	4.5	3	3	G	>40	N/A	C1
T2	Common Oak (Quercus robur)	MA	9	300	1.5	5	5	5	3	G	>40	Maintain at current dimensions.	B2
T3	Common Oak (Quercus robur)	MA	8	350	1.5	4	4	3	4	G	>40	Maintain at current dimensions.	B2
T4	Ash (Fraxinus excelsior)	MA	12	1000	2	6	5	4	6	G	>40	In neighbouring property. N/A	C1
G1	Hawthorn (Crataegus monogyna)	MA	5	120	0	1.9	1	2	2.5	G	20-40	Manage as a hedge.	C1

Method Statement For Tree Protection Measures

PROJECT: 12 Eastcheap, Rayleigh, Essex

CLIENT: Page Estates Ltd

1.1 Brief

Provide protective measures specification for trees to be retained on site and adjacent using the guidelines and principles prescribed in BS5837: 2005 'trees in relation to construction'.

1.2 Protective Fencing and Site Supervision

An important factor in providing protection for the trees during the construction of the extension is the chronological order in which development tasks are undertaken. Before further work continues on site, the following issues will be addressed and submitted to the council for approval.

- The protective fencing will be placed around the perimeter of the RPA or as far as is practically possible, to prevent storage of materials or access in the RPA. The locations of the protective fencing are shown on the tree constraints plan in **Appendix 5.** At no point will materials be stored in the rear garden.

- An arborist will inspect the fencing to ensure that it is in the correct location and adequately installed. Key site personnel will also be briefed about the need for the fencing and how the trees could be affected by their actions.

- Once the tree protection requirements have been installed a construction timetable will be compiled indicating the key construction phases. This will be used to manage traffic activities on site to prevent excessive and unnecessary vehicular movements that could affect the rooting zone and contribute to further compaction or leaching of toxins from these vehicles. This timetable will also be used to coordinate site supervision by an arborist at these key stages. A log of these visits and any mitigation works such as root pruning and correct work practices to ensure tree protection are being carried out. Details of these visits will be recorded and available for viewing by the local authority at any time.

The placing of tree protection measures and the required tree surgery works within the construction timescale should not be altered and it is re-emphasised that this is to take place prior to any other activities.

1.3 **Table 1** shows the root protection area as designated in the guidelines of BS5837 2005.

Table 1

Area of root protection required in accordance with BS5837 2005

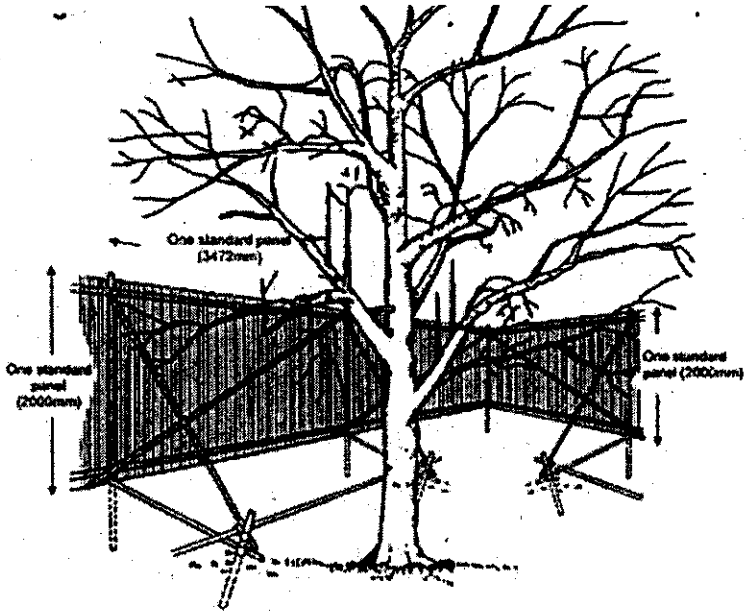
Tree No	Root protection Area (m2)	Circle Radius (m)
T1	8.9	1.68
T2	40.7	3.6
T3	55.4	4.2
T4	314.2	10
G1	6.5	1.44

1.4 Protective fencing shall normally be in accordance with industry best practice BS5837 2005 and placed in the locations that best protect the trees in relation to the planning proposals and tree constraints.

The informatives provided will be placed on the fencing to reiterate the reason for its presence, and placed at a height of approximately 1.5m on all sides of the fencing. Fencing is to be of the herras style and then secured in place by scaffold supports.

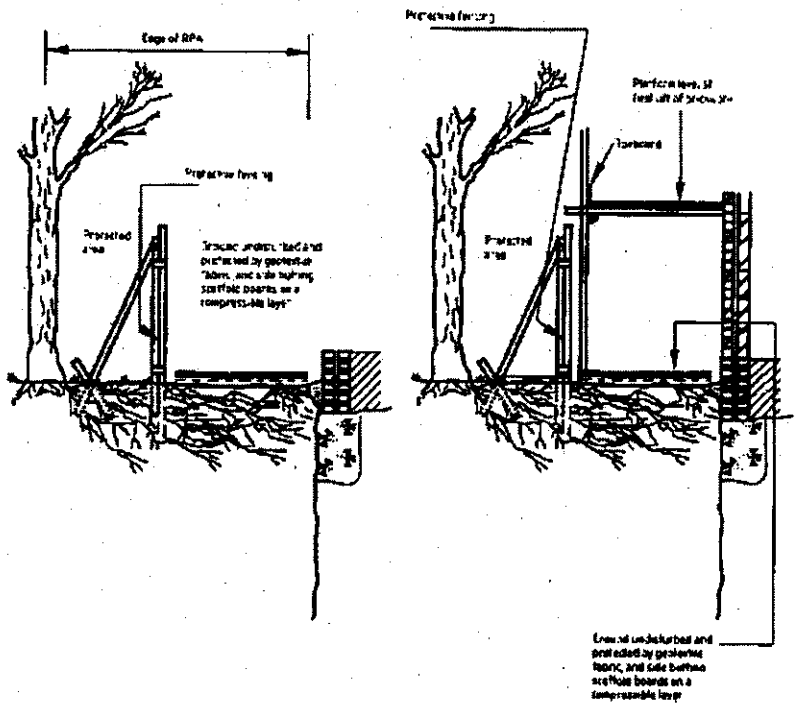
Diagram 1 following illustrates how the scaffold frame will be erected. Where space constraints are limited, the scaffold is to be incorporated as part of the protective fencing. This will be placed onto scaffold boards to prevent the poles from sinking into the soil and damaging any roots that might be present, see **Diagram 2** following.

Diagram 1



SCAFFOLD FRAMEWORK REQUIRED TO BRACE HERAS TYPE PANELS

Diagram 2



1.5 Within the root protection area the following activities will be prohibited, unless the local authority in writing grants specific permission:

No storage of chemicals or other substances likely to leach and cause harm to the trees to be stored.

No storage of heavy plant or materials likely to cause further soil compaction.

No ground disturbance works

No activities that could indirectly affect the trees such as bonfires etc.

1.6 Storage of chemicals will be placed in a sealed area, with no discharge allowed onto the ground or watercourses. The area containing these materials will have an impervious surface and stored if possible 10m away from the RPA. If accidental spillage of chemicals or other damage to the trees takes place the local authority is to be notified as soon as possible, an arborist is consulted as to the best actions to take to mitigate any damage that may have occurred as a result of the accident and these works to be undertaken to mitigate the situation as soon as possible.

1.7 The protected area is not to be breached at anytime, apart from where the existing drive runs across it, unless permission has been granted by the local authority and a qualified arborist has been consulted and supervises any work activities that need to take place.

1.8 Should the line of fencing need to be altered in any way or replaced by alternative materials then written permission is sought from the local authority, and a qualified arborist is to be consulted and the appropriate action taken in accordance with this advice.

1.9 Particular attention will be made to the type of materials to be stored and the type of machinery needed to move them, ensuring that sufficient protection measures in accordance with this method statement and space are provided to prevent damage to trees in close proximity. The site manager will provide the precise location of these areas. Prior to any changes to these locations an arborist will be consulted and the new locations agreed by the local authority.

1.10 All tree surgery works will be in accordance with BS3998 'Recommendations for Tree Works'.

1.11 Protective fencing will only be removed once all of the construction activities on the site have been completed and a qualified arborist has assessed the trees and any mitigation works deemed necessary have been carried out. If de-compaction of the soil with the RPA is required, this will be done by lightly forking the soil over by hand or via an air spade. Any laying of turf or other landscape works will be undertaken by hand using good quality top soil to ascertain levels if needed.