# WOLD ECOLOGY LTD

Chris Toohie
2 Redwood Gardens, Driffield,
East Riding of Yorkshire. YO25 6XA
01377 200242

Richard Baines
5 Coastguard Cottages, Flamborough,
East Riding of Yorkshire. YO15 1AW
01262 850937

www.woldecology.co.uk


## Arboricultural Assessment Report

Collum Avenue
Scunthorpe
North Lincolnshire

November 2017

| | Staff Member | Position |
|---|---|---|
| Arboricultural Survey : | Mark S Feather BSc M Arb (RFS) Tech Arbor A MICFor | Arboriculturalist |
| Report verified by : | Chris Toohie MSc MCIEEM | Project Manager |

# Table of Contents

## 1.0 INTRODUCTION

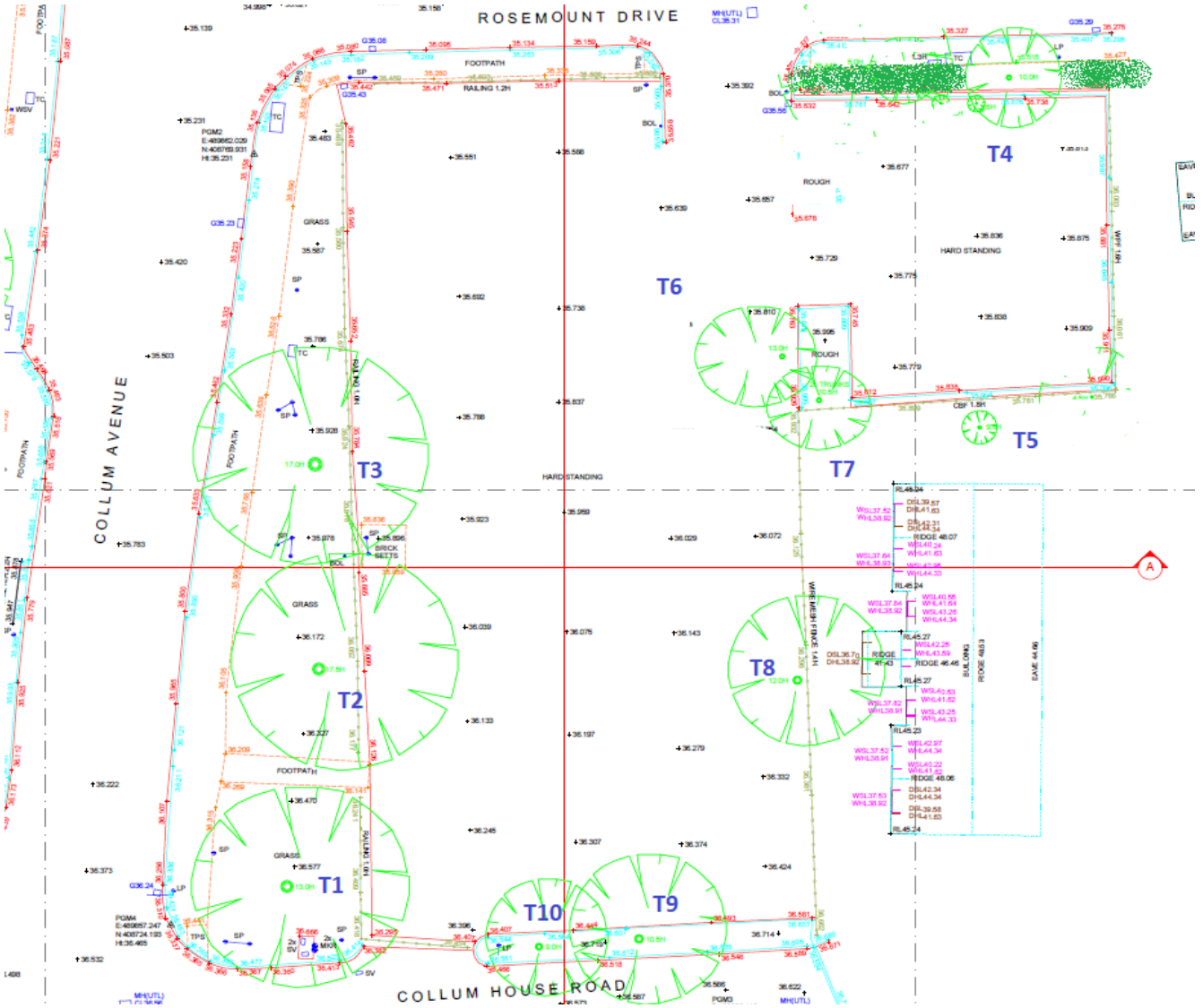
1.1 This report provides information in accordance with British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' for a proposed development at the junction of Collum Avenue and Rosemount Drive, Scunthorpe.

1.2 The aims of the survey are to undertake a survey of all trees and within and on the boundaries of the site.

1.3 The following information was requested as part of the brief:

- Designated tree number.
- Tree Species – the common name has been given followed by the Latin or scientific name.
- Height.
- Stem or base (multi stemmed trees) diameter and root protection area provided as a radius from the trunk.
- Crown clearance (height of the periphery of the crown spread above ground level).
- Branch spread (to N, S, E, and W).
- Age class. This is given as young (Y), middle age (MA), mature (M), and over mature (OM).
- Physiological condition - general comments given only, poor, fair, good.
- Tree structural condition - general comments given only, poor, fair, good.
- Useful life expectancy.
- Preliminary management recommendations (a full tree risk survey will not be undertaken at this stage).
- Tree category (U, A, B or C).

## 2.0 SITE SURVEY (Plan 1a)



## 3.0 SURVEY METHODOLOGY AND SCHEDULE

3.1 The survey was carried out to British Standard 5837:2012, using the categories explained below:

3.1.1 The trees were assessed visually from ground level. Where potential problems were identified, further inspection by tree climbing is recommended. No digging or drilling methods were employed during this survey.

3.1.2 The tree numbers within the schedules refer to the order in which the trees were recorded.

3.1.3 The approximate height of each tree is measured from ground level to top of canopy using a clinometer.

3.1.4 The approximate diameter of each tree is measured at 1.5m above ground level. Many trees are not measured due to inaccessibility. The root protection distance which has been expressed as a radius from the trunk of the tree has been given below the diameter measurement.

3.1.5 The age of each tree is based upon our experience.

3.1.6 The physiological condition of the trees is based upon our experience.

3.1.7 The structural condition and description is based upon our experience.

3.1.8 Both the approximate expected lifespan remaining and category/rating of each tree is based upon the surveyor's experience.

3.1.9 The retention category of each tree or group of trees is based upon the information detailed above using the following categories: -

U Trees to be removed for arboricultural reasons
A Trees of high quality and value
B Trees of moderate quality and value
C Trees of low quality and value

3.1.10 The following subcategories have been used in rating tree value: -
1 Mainly arboricultural value
2 Mainly landscape value
3 Mainly cultural values, including conservation

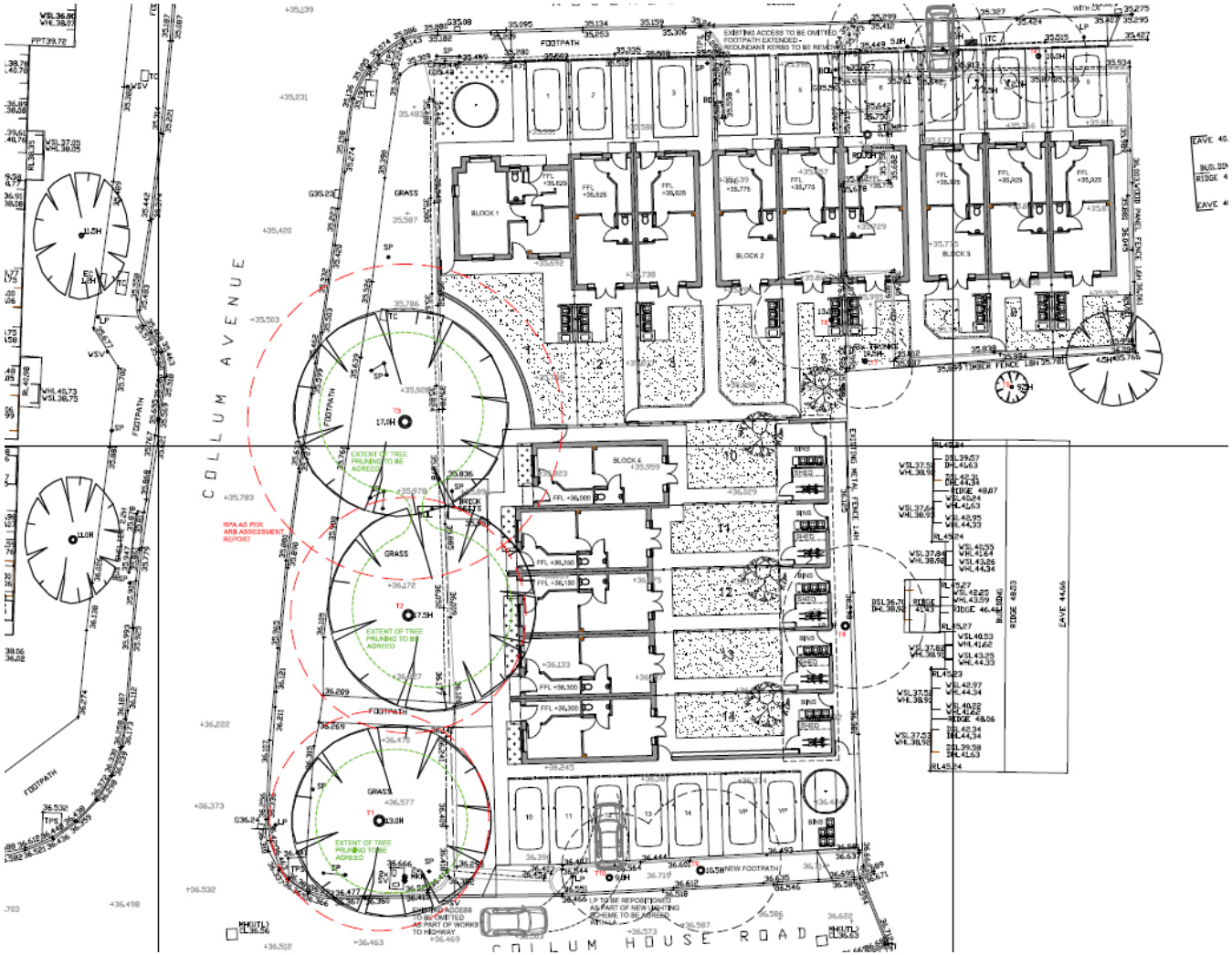
## 3.2 TREE SCHEDULE – (See Plan 1a)

| Tree No | Species | Height M | Stem Dia (RPA) | Branch Spread (m) | Height of crown clearance | Age Class | Physiological condition | Structural Condition | Preliminary Management Recommendations | Useful life expectancy | Category grading |
|---|---|---|---|---|---|---|---|---|---|---|---|
| T1 | Acacia | 16 | 580<br>6.9m | N 5<br>S 5<br>E 7<br>W 6 | 2m | M | Good | Good | No action<br>Tree on adjacent land | 30+ | B2 |
| T2 | Acacia | 20m | 620<br>7.4m | N 6<br>S 6<br>E 9<br>W 5 | 2m | M | Good | Good | No action<br>Tree on adjacent land | 30+ | B2 |
| T3 | Acacia | 18m | 830<br>9.9m | N 6<br>S 6<br>E 8<br>W 6 | 2m | M | ? | ? | Review in spring | - | - |
| T4 | Silver Birch | 11m | 280<br>3.4m | N 3<br>S 3<br>E 3<br>W 3 | 2m | M | Good | Good | No action<br>Tree on adjacent land | 30+ | C2 |
| T5 | Silver Birch | 14m | 300e<br>3.6m | N 2<br>S 2<br>E 2<br>W 2 | 3m | MA | Good | Good | No action<br>Tree on adjacent land | 30+ | C2 |
| T6 | Sycamore | 12m | 310<br>3.7m | N 3<br>S 3<br>E 3<br>W 3 | 6m | M | Fair | Fair | No action | 30+ | C2 |
| T7 | Cypress (2 stems) | 9m | 380 and 310<br>4.6m | N 3<br>S 3<br>E 3<br>W 3 | 2m | M | Good | Good | No action | 30+ | C2 |

| Tree No | Species | Height M | Stem Dia (RPA) | Branch Spread (m) | Height of crown clearance | Age Class | Physiological condition | Structural Condition | Preliminary Management Recommendations | Useful life expectancy | Category grading |
|---|---|---|---|---|---|---|---|---|---|---|---|
| T8 | Ash | 12m | 470<br>5.6m | N 4<br>S 4<br>E 4<br>W 4 | 3m | M | Good | Good | No action | - | C2 |
| T9 | Field Maple | 11m | 370<br>4.4m | N 4<br>S 4<br>E 4<br>W 4 | 2m | M | Good | Fair | No action | 30+ | C2 |
| T10 | Field Maple | 8m | 260<br>3.1m | N 4<br>S 4<br>E 4<br>W 4 | 2m | M | Good | Good | No action | 30+ | C2 |

## 4.0 ARBORICULTURAL IMPLICATIONS ASSESSMENT

### 4.1 Proposed Layout Plan 1A



## 4.2 Proposed Tree Removal

4.2.1 The proposal involves the removal of trees T4, T6, T7, T8, T9 and T10. None of the trees to be removed are particularly important specimens and the ash tree (T8) is close to the adjacent property.

## 4.3 Proximity to Trees

4.3.1 The 3 main acacia trees (T1, T2 and T3) are proposed to be retained. The condition of acacia tree T3 was difficult to assess at the time of inspection due to the time of the year and an early summer inspection is recommended. These trees will undoubtedly shade the plots 10 – 14. However, the rear gardens of these properties would be open and largely unaffected by the trees. Plot 1 would also suffer some shading but has an open southerly aspect for morning and late afternoon sun.

## 4.4 Root Protection

4.4.1 Due to the proximity of the acacia trees, mitigation would be required to minimise root disturbance. These are listed below and are detailed in the tree protection plan (Plan 3A) and appendix A, B and C.

- Tree Protection Fencing during construction work.
- The footpaths at the front of plots 10 – 14 utilising minimal ground excavations as illustrated in appendix C.
- Scaffold board ground protection during the construction of the boundary wall/fence to plot 1.
- Boundary Treatment to plot 1 – to avoid excavation for the foundations for a wall this boundary would be best with a substantial fence utilising individual posts. Further details are required for this feature as various construction techniques could be used to avoid a trench foundation.

## 4.5 Service Details

4.5.1 All services should be outside the root protection areas for trees T1, T2 and T3. Service details are therefore required to ensure that no further disturbance occurs at the frontage to plots 10 -14 and also plot 1.

## 5.0 ARBORICULTURAL METHOD STATEMENT (AMS)

### 5.1 General Site Management Constraints

- No soil stripping, compaction, excavation or removal is to take place.

### 5.2 Tree Protection

- Tree protection fencing to be erected as illustrated in plan 3A, appendix A and B.
- The footpaths for plots 10 – 14 to be constructed utilising a low invasive method of construction as highlighted in appendix C with the locations of the footpaths shown on plan 3A. The paths should be in place to base level before construction work commences.
- Further details to be shown of the boundary fencing/wall to plot 1.

### 5.3 Local Planning Authority Meeting

- The Local Planning Authority to be notified not less than 72 hours prior to commencement of works on site. Tree Protection to be in place ready for inspection by the Local Authority Officer.

### 5.4 Construction Work

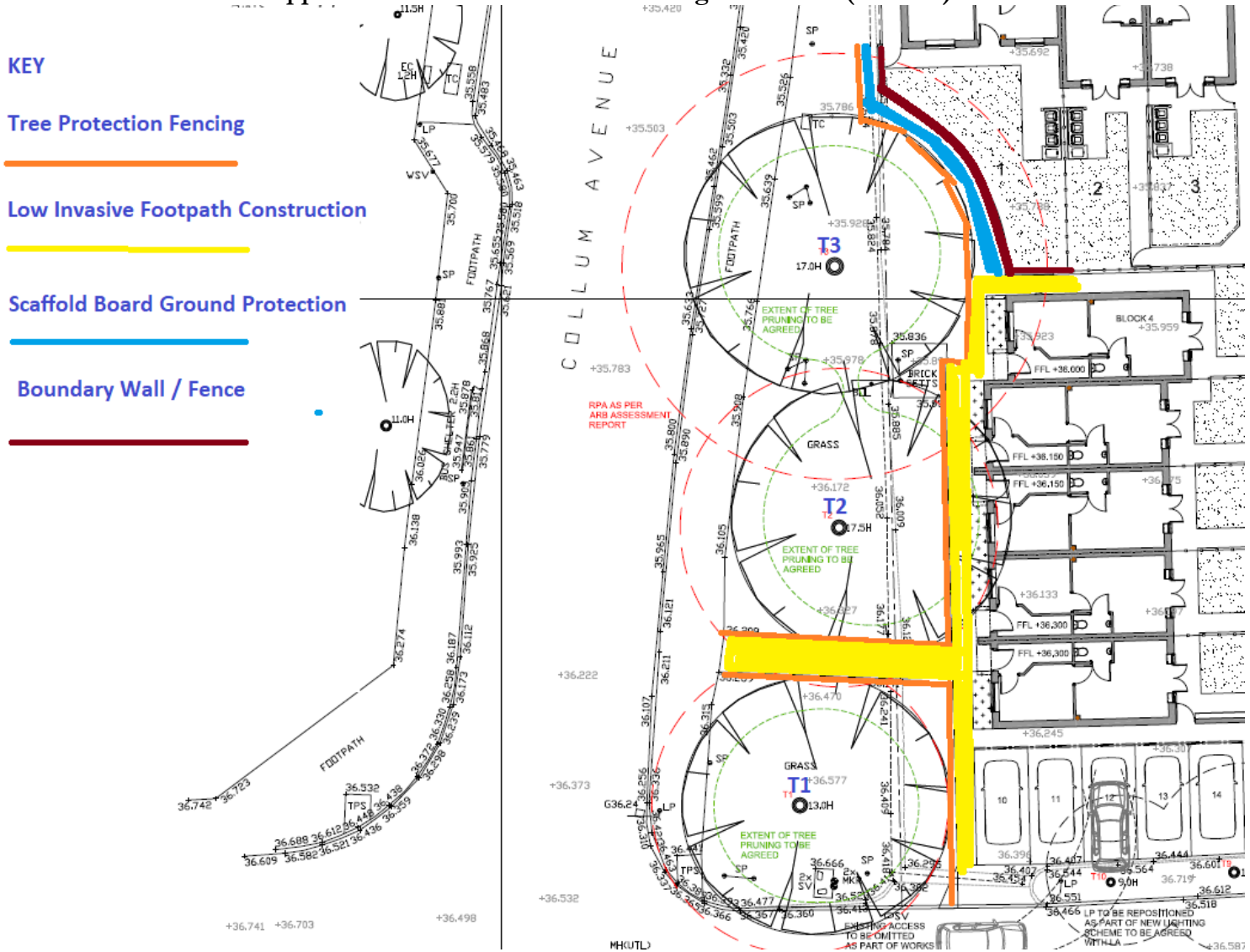
- With the tree protection in place, the construction work can commence.
- Services for the development are to be located as indicated on the plans with the service runs agreed with the architect and service providers before any excavation work commences.
- No site materials to be stored within the tree protection areas.

### 5.5 Completion of work.

- On completion of the construction work the tree protection fencing can be removed.
- Light cultivation of any bare ground may be required to enable seeding or turfing. Such light cultivation would not exceed 5cm and therefore have no impact on the existing trees.

## 6.0 APPENDICES

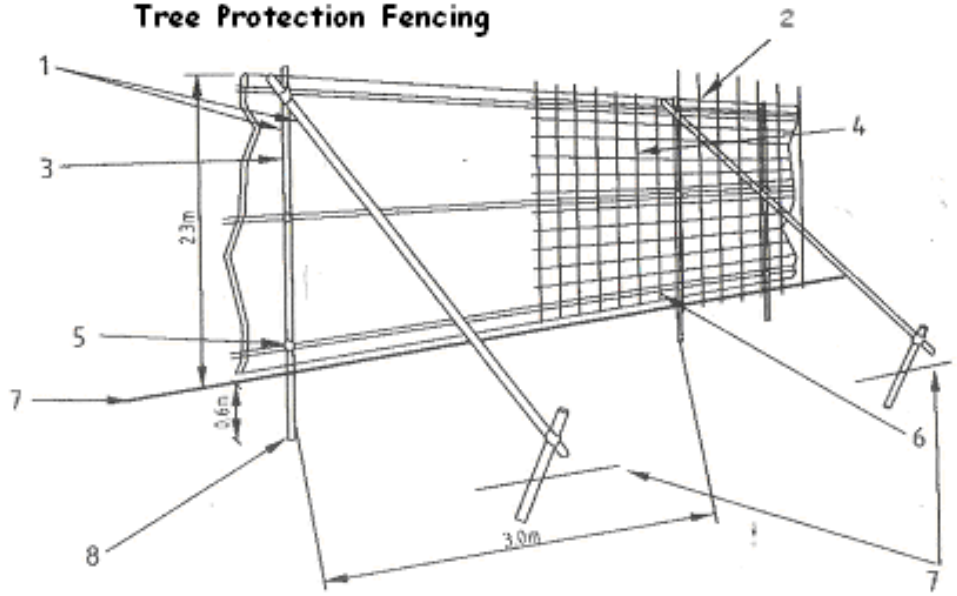
### Appendix A – Tree Protection Fencing – Location (Plan 3A)



## Appendix B – Tree Protection Details

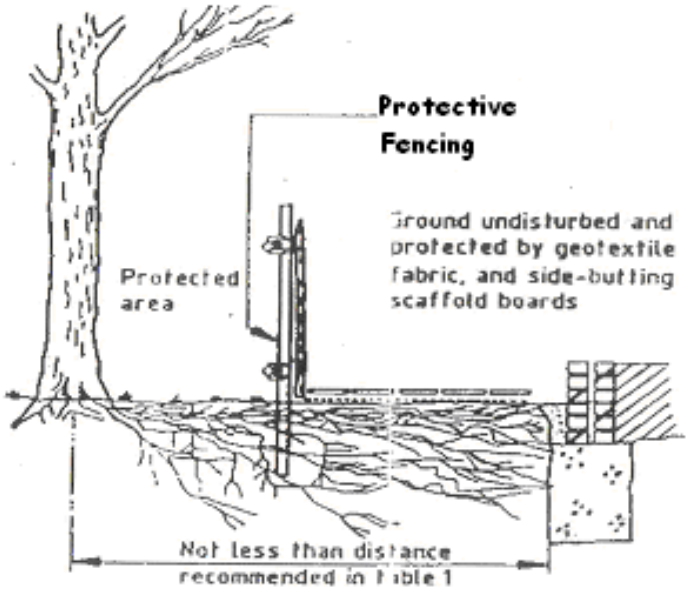
**Extract from BS5837**

**Tree Protection Fencing**



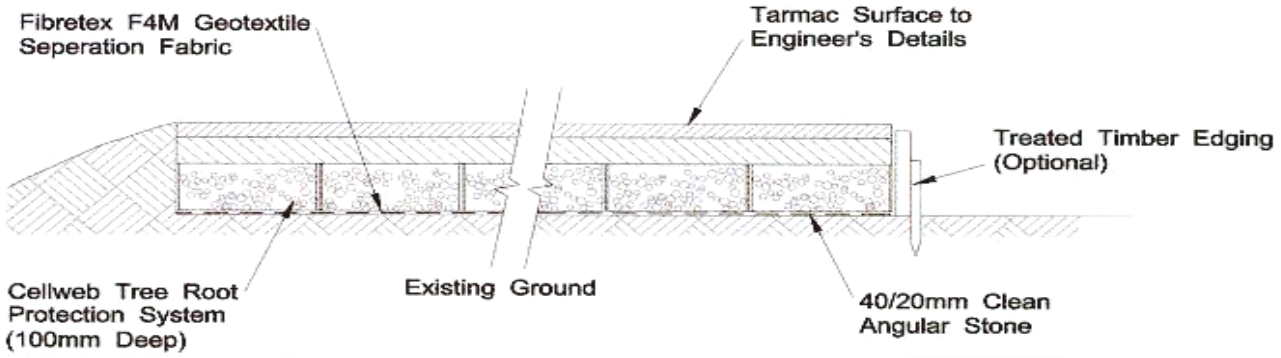

1) Standard Scaffold Poles 2) Uprights to be driven into the ground
3) Panels secured to uprights with wire ties 4) Weldmesh
5) Standard clamps 6) Wire twisted and secured on inside of fence
7) Ground level 8) Approx 0.6m into the ground

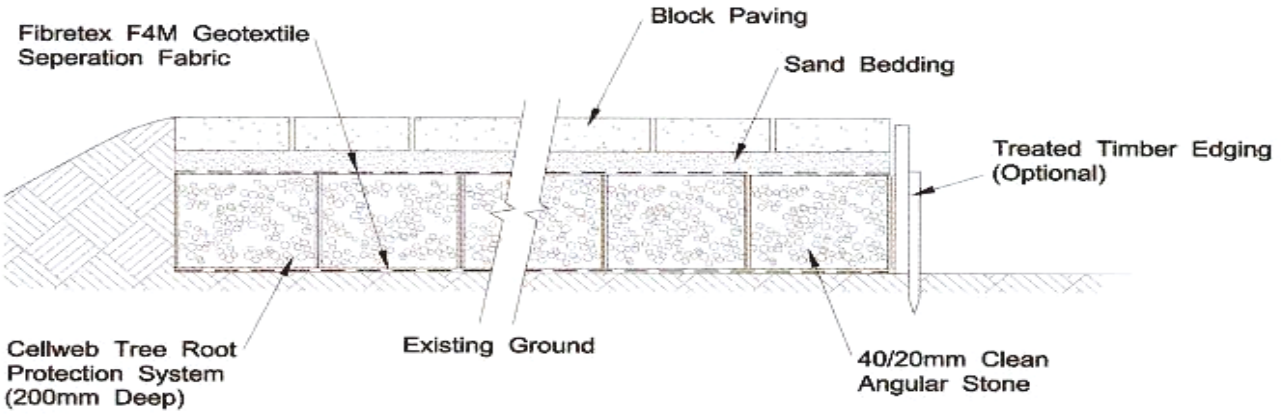
**Scaffold Board Ground Protection**



## Appendix C - Creation of Low - Invasive Pedestrian Access

The access footpath construction for plots 10 -14 should comply with **British Standard 5837:2012 'Trees in relation to construction'.** Low-invasive access in proximity to trees. One such product that is suitable is the CellWeb, tree root protection system that allows for a variety of surface materials although block paving in this instance would seem a suitable finished material. Examples of the CellWeb construction system are shown below. A 100mm deep construction depth would be sufficient for pedestrian access.



**Path Construction Method Statement**

- Surface vegetation and debris to be removed by cutting and lightly raking the surface.
- The surface of the existing ground to be raked to reduce compaction.
- Fill in any hollow with sharp sand.
- Lay a geotextile oil resistant membrane which conforms to TS65.
- Lay a Geogrid/cell web material (100mm depth).
- Construct roadway edging with treated boards and pegs.
- Fill Geogrid with 10/40mm clean angular stone. This must not be tipped on to the Geogrid but should be placed at one end and then pushed on to the geogrid so that any machinery used moves onto a spread sub base and not directly onto the unfilled grid or the ground on either side of the geogrid.
- A further geotextile membrane which conforms to TS20 Geotextile specification is to be placed on top of the filled geogrid.
- A layer of 30mm sharp sand is to be placed on top of the TS20 Geotextile.
- Final surfacing to be with block paving.