Mark S Feather BSc M Arb (RFS) Tech Arbor A MICFor

Arboricultural, Woodland and Landscape Consultant

10 Grosvenor Place, Beverley, East Yorkshire HU17 8LY (01482 871064)

Arboricultural Report (ver 2)

Additional Parking Courts
Vicarage Lane
Broughton
North Lincolnshire
DN20 0LE

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Client Contact

BSB Architecture
The Deep Business Centre,
Tower Street,
Kingston upon Hull,
HU1 4BG

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 on land at George Street, Broughton. The development proposals are for the construction of additional car parking spaces.

1.2 The arboricultural survey was commissioned by BSB Architecture and is linked to the design work undertaken by them as architects for the site. The aims of the survey were to undertake an assessment of all the existing trees within proximity of the proposed development, including trees on adjacent land.

1.3 The following information has been recorded in accordance with BS 5837:2012:-

- 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.
- 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), 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.
- Tree category (A, B, C or U).

2.0 SITE PLANS

2.1 Location Plan (Plan 1A)

2.2 Site Plan – (Plan 1B)

3.0 SURVEY METHODOLOGY AND SCHEDULE

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

3.2 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.

3.3 The trees were not given number tags.

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

3.5 The approximate diameter of each tree is measured at 1.5m above ground level. The root protection distance which has been expressed as a radius from the trunk of the tree has been given below the diameter measurement.

3.6 The age of each tree is based upon experience (Y= young. MA = middle aged. M= mature. OM=over mature).

3.7 The physiological condition of the trees is based upon experience (Good, Fair, Poor, Dead).

3.8 The structural condition and description is also based on experience (Good, Fair, Poor).

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

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

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

3.11 The following subcategories have been used in rating tree value

1 Mainly arboricultural qualities
2 Mainly landscape qualities
3 Mainly cultural values, including conservation

3.12 Tree and Hedge Schedule

Note - The root protection areas (RPA) are listed as a radius in metres, below the stem diameter in the schedule below.

Tree no	Species	Height	Stem Dia RPA	Branch Spread	Crown Height	Age Glass	Physiological Condition	Structural Condition	Preliminary Management Recommendations	Useful life Expectancy	Category Grading
T1	Rowan	7m	240 2.9m	3m	1m	M	Good	Good	No action	20+	C2
T2	Sycamore	22m	940 11,2m	6m	5m	M	Good	Good	No action	40+	B2

4.0 ARBORICULTURAL IMPLICATIONS ASSESSMENT

4.1 Proposed Development (Plan 2A)

4.1 General Comments

The proposals are for the creation of 2 new car parking courts to provide additional car parking on the estate which is no doubt also in locations more accessible to properties and with vehicles off the main highway.

Tree T1 Rowan

The car park layout encroaches very slightly into the root protection area for the tree, but not sufficient to have any significant impact on the health of the tree.

Tree T2 Sycamore

The access road and parking bays do encroach within the root protection areas for the mature sycamore tree (see adjacent photograph).

The proposal would be to utilise a low invasive method of construction for the parking bays, and access road. Whilst the root protection area does not extend over the whole of this area to avoid issues with different construction methods and levels it is considered easier to undertake the whole area. This would also taking in the potential for slightly more roots to be within the grassed area rather than beneath the highway which might have a reduce root activity.

Details are provided in appendix B together with a method statement.

5.0 TREE PROTECTION MEASURES (Plan 3A)

6.0 ARBORICULTURAL METHOD STATEMENT (AMS)

6.1 General Site Management Constraints

- No soil stripping, compaction, excavation or removal is to take place other than for the foundations, surfacing, services and drainage for the proposed car parking bays.

6.2 Local Planning Authority Meeting

- The Local Planning Authority to be notified not less than 72 hours prior to commencement of works on site.

6.3 Tree Removal and Site Clearance

- No trees to be removed.

6.4 Erection of Tree Protection Fencing

- Tree Protection Fencing, if required, to be erected as indicated on the Tree Protection Plan (plan 3A) and as detailed in Appendix A. Notices to be erected on the fencing at 5m intervals stating 'Tree Protection Fencing - Do not remove'.

6.5 Construction Work

- Once the tree protection measures are in place then construction work can commence.
- Details for the low invasive method of construction are provided within appendix B.
- 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 services to be located within the root protection areas of the trees.
- No site materials to be stored within the fenced tree protection areas.

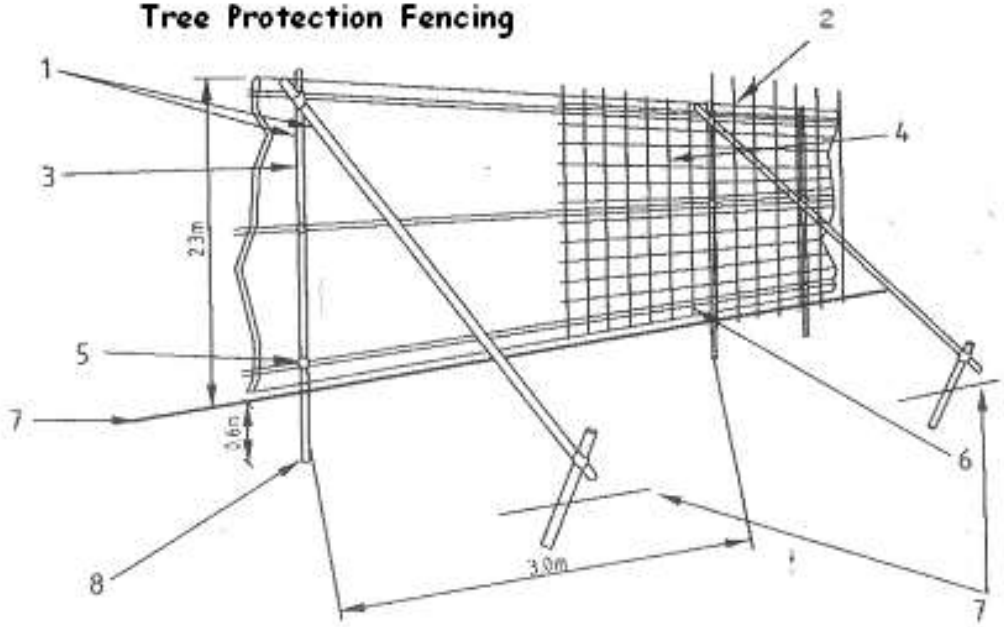
6.6 Completion of work.

- On completion of the construction work the tree protective can be removed.

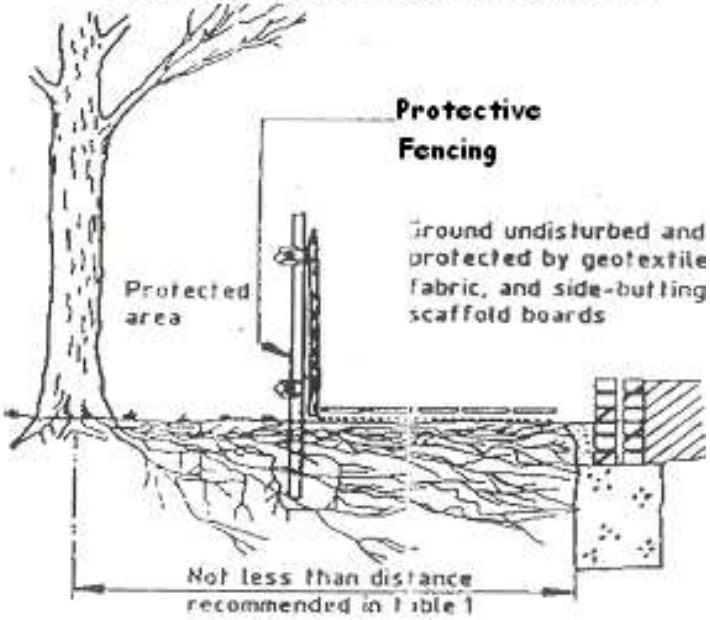
7.0 Appendix A – Tree Protection Details

Extract from BS5837

Tree Protection Fencing



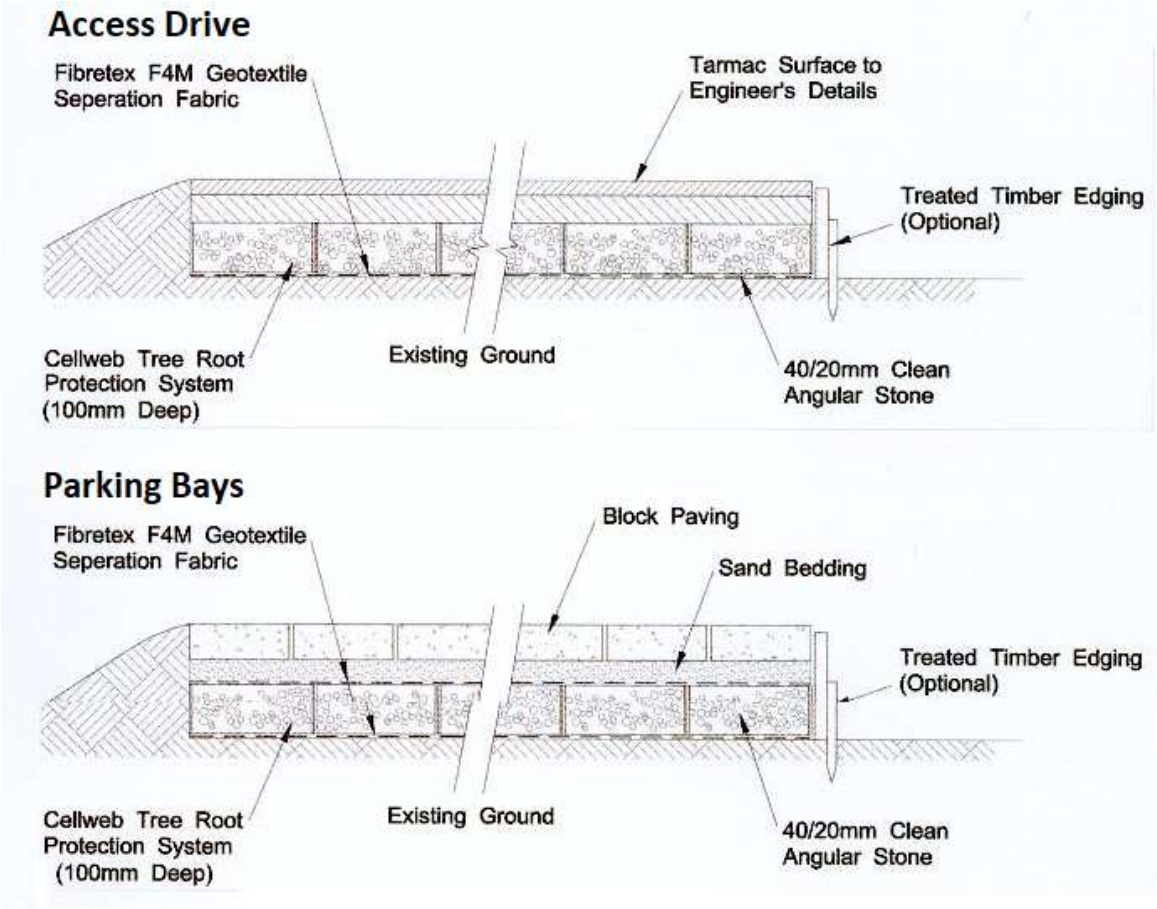
Scaffold Board Ground Protection



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

Appendix B - Creation of Low - Invasive Vehicular Access and Parking

The access drive and parking area construction to comply with **British Standard 5837:2012 'Trees in relation to construction'.** Low-invasive vehicular 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. **As the proposal is for parking a 100mm deep construction depth should be sufficient but the depth of the cell web protection system to be checked with the manufactures to ensure it meets the requirements of the site and suitable for ground conditions.**



Driveway 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 (200mm 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.