Tree Constraints Plan

For

Bancyfelin

Prepared By

TDA
Environment | Landscape | Design

Ref: TDA/2995/TCP/RhC/08.24)

August 2024

Tree Constraints Plan

For

Bancyfelin

On behalf of

Sterling Construction

Prepared by

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Document Approval

This document has been prepared and checked in accordance with Tirlun Design Associates' quality control system

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1.0 Supporting Information

1.1 INTRODUCTION

1.11 Generally

Trees are of vital importance to the landscape and are essential for enhancing the rural and urban environment. They provide scenic character, visual amenity and are vital habitats for dependent wildlife populations.

The retention of existing trees not only benefits a site and its surroundings but also raises the overall quality of an area and enhances property value.

Trees which are damaged, or their immediate environment significantly changed may subsequently decline and die resulting in all positive benefits being lost.

1.12 Purpose of Tree Constraints Plan

Following the completion of a Pre-Development Tree Survey and Assessment of land at the Bancyfelin, Tirlun Design Associates were instructed by Sterling Construction to prepare a Tree Constraints Plan for the site.

The purpose of this plan is to provide the client with an accurate record of above and below ground constraints presented by the existing retained trees.

These constraints are illustrated by drawing no. TDA.2995.02 which shows the locations and assessed category of retained trees together with their crown spread and root protection areas (RPA).

1.2 METHODOLOGY

1.21 Generally

The Pre-Development Tree Survey & Assessment of the Bancyfelin site was carried out during August 2024 by Tirlun Design Associates and information gathered during this survey was subsequently used to inform the Tree Constraints Plan.

1.22 Tree Categorisation

It is intended that the Tree Constraints Plan reduces the need for reference to the text within the Pre-Development Tree Survey & Assessment prepared by Tirlun Design Associates, document ref: TDA/2995/TS&A/RhC/08.24.

The user of the plan can clearly identify the merit of each tree from the drawings and, if required, refer to the specific notes in the Tree Survey Schedule included in the Pre-Development Tree Survey & Assessment.

The drawings identify the trees by number and category as follows:

Category A	High Quality and Value	Retention Most Desirable
Category B	Moderate Quality and Value	Retention Desirable
Category C	Low Quality and Value	Could Be Retained

1.23 Below Ground Constraints

To enable the successful retention of existing trees identified as categories A-C by the Pre-Development Tree Survey & Assessment it is essential that the rooting environments of these trees are not damaged.

In order to achieve this, Root Protection Areas (RPA) should be plotted around all category A, B and C trees. This is the minimum area, in square metres, which should be left undisturbed around each tree to be retained to ensure their successful retention.

The RPA's for retained trees at the Bancyfelin site have been calculated in accordance with Section 4.6 of BS5837:2012 – Root Protection Area. (See Appendix 1)

For single stem trees, this is equivalent to a circle with a radius 12 times the stem diameter (measured at 1.5m above ground level during the on-site survey).

Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection to the root system:

A) The morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus.

B) Topography and drainage.

C) The soil type and structure.

D) The likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

Stem diameters used to calculate the RPA's for existing retained trees at the Bancyfelin site can be seen in the Pre-Development Tree Survey and Assessment prepared by Tirlun Design Associates, document ref: TDA/2995/TS&A/RhC/08.24.

1.24 Above Ground Constraints

In addition to constraints below ground, the Tree Constraints Plan illustrates above ground constraints which comprises the extent of existing tree crowns.

The branch spread of each tree was based on topographical survey data and included in the Pre-Development Tree Survey and Assessment prepared by Tirlun Design Associates, document ref: TDA/2995/TS&A/RhC/08.24.

These measurements were used to create an accurate spread for each tree which has been plotted onto the Tree Constraints Plan and coloured according to Tree Categorisation.

2.0 Conclusion

2.1 SUMMARY OF TREE CONSTRAINTS PLAN

In order to identify the above and below ground constraints presented by existing retained trees at the Bancyfelin site, the locations, numbers and assessed category of these trees, together with their crown spread and root protection areas (RPA), have been summarised and plotted on to the Tree Constraints Plan, drawing no: TDA.2995.02. This drawing is included in Appendix 2.

As can be seen from the drawing, the development proposals will result in the loss of H1.

Whilst the loss of this hedgerow in unfortunate, it should be noted that this hedgerow is of low quality and value and is relatively short. Its loss can be adequately compensated with new native planting as part of the detailed landscape proposals for the site.

All trees on site will be retained and protected in accordance with BS5837:2012.

3.0 Appendix 1

Calculating The RPA

Root protection area (RPA)

4.6.1 For single stem trees, the RPA (see **3.7**) should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter. For trees with more than one stem, one of the two calculation methods below should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be determined from Annex D. The calculated RPA for each tree should be capped to 707 m^2.

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \ldots + (\text{stem diameter 5})^2}$$

b) For trees with more than five stems (not illustrated in Annex C), the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{ number of stems}}$$

4.0 Appendix 2

KEY :

Assessment of trees in accordance with BS 5837: 2012

- A. High Quality and Value
- B. Moderate Quality and Value
- C. Low Quality and Value
- Root Protection Area Based on BS5837.2012

NOTE :

Plan indicates average spread of tree crowns. (Refer to 'Pre Development Tree Survey & Assessment', document ref: TDA/2995/TS&A/RhC/08.24, for accurate dimensions.)

The exact location of each tree is to be verified on site.

See 'Pre-Development Tree Survey & Assessment', document ref: TDA/2995/TS&A/RhC/08.24, for identification of tree species, height and condition/characteristics.

The original of this drawing was produced in colour. A monochrome copy should not be relied upon.

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