

Tree Monitoring Report

**BS 5837:2012 Trees in Relation to Design,
Demolition and Construction-Recommendations**

**Tree Monitoring Report For
Car Park Construction Works Adjacent to Trees
At
Erddig Hall, Wrexham LL13 0YT
Report no 1**



For:

The National Trust

January 2019 ref 2973

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TREE MONITORING REPORT

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1.0 INTRODUCTION

This monitoring report is prepared to support the discharge of condition nos 6 in respect of the granted planning permission P/2018/0750 by Wrexham Council , for the construction of a car park at Erddig Hall, Erddig, Wrexham planning application and which requires a regular auditable monitoring of tree protection during site works together with a watching brief on construction activities in and around the RPAs. The approved Tree Protection Plan (TPP) and the Arboricultural Impact Assessment ref. Lingard Farrow Styles 2973 Dec 2015 Rev A informs this report.

2.0 EXISTING TREES

The existing trees, which are subject to this report, are located within an existing visitor car park tree and includes 78 no assessed and retained trees. The Tree Assessment was carried out in accordance with the methodology described in **BS 5837:2012: Trees in Relation to Construction, British Standards Institute.**

Further assessments of the existing trees were carried out by Lingard Farrow Styles in November 2018.

To ensure adequate supervision during construction works the services of arboriculture consultants Lingard Farrow Styles were retained by the National Trust to provide a watching brief. This service is undertaken by Peter Styles, a technical member of the Arboricultural Association.

3.0 SITE PROTOCOL FOR MONITORING

Monitoring includes the physical inspection of the approved and installed tree protection together with a watching brief on main construction activities as follows:

- Drainage works.
- Electrical ducting works.
- Geogrid and sub base.
- Hoggin pave to pedestrian area.
- Plane and lay asphalt access roads.

Monitoring and watching briefs are carried out jointly with the contractors site agent to ensure that any remedial work or corrective construction processes are actioned on the day of the inspection. A photographic record of the trees is maintained during each of the site inspections.

4.0 MONITORING OF CONSTRUCTION WORKS ADJACENT TO RPA

At the time of the site inspection on the 29 January 2019 drainage works had commenced on site. We were able to observe works to excavate the three main drainage trenches. To facilitate the construction processes the protective fencing was temporarily removed to allow small machine diggers to enter the RPAs. It was noted that there was no damage to the trees

Excavations to create the single line of service trenches were carried out in a west to east direction to an approx. depth of 600mm with a width of approx. 300mm.

Excavations were monitored closely by the banksman and Peter Styles. As a general guide all main lateral feeder tree roots were within the top 500mm of the soil.

The following detailed observations were noted:

T114 and T115 Fruit Trees

Within the RPA there were 2 no tree roots with a diameter of 10-15 mm exposed within the drainage trench. There were also minor tree roots with a diameter of less than 5mm. (photos nos1 and 2)

These roots can be classified as within the accepted tolerances to root damage. No major tree roots were uncovered. Existing topsoil was of good quality and consisted of silty loam with average stone content.

T13 Fruit Tree

Within the RPA there were no tree roots with a diameter of 10-15 mm or greater exposed within the drainage trench. There were minor tree roots exposed with a diameter of less than 5mm. (photo no 3)

These roots can be classified as within the accepted tolerances to root damage. No major tree roots were uncovered. Existing topsoil was of good quality and consisted of silty loam with average stone content.

T28 Fruit Tree

Within the RPA there were no tree roots with a diameter of 10-15 mm exposed within the drainage trench. There were minor tree roots with a diameter of less than 5mm. (photo no 4)

These roots can be classified as within the accepted tolerances to root damage. No major tree roots were uncovered. Existing topsoil was of good quality and consisted of silty loam with average stone content.

T56 Fruit Tree

Within the RPA there was 1 no tree roots with a diameter of 10-15 mm exposed within the drainage trench. There were also minor tree roots with a diameter of less than 5mm. (photo no 5)

These roots can be classified as within the accepted tolerances to root damage. No major tree roots were uncovered. Existing topsoil was of good quality and consisted of silty loam with average stone content.

5.0 MONITORING OF TREE PROTECTION DURING SITE WORKS

The retained trees are protected with Heras fencing, in accordance with BS 5837:2012 and in accordance with Lingard Farrow Styles Arboricultural Impact Assessment (AIA) and Tree Protection Plan (TPP) dated January 2019.

It is confirmed that the protective fencing scheme has been retained as specified together with the fixing of all-weather exclusion notices. Agreed site operations outside and within the RPAs have been conducted in accordance with the AIA. Where drainage works occur on the edge of the RPAs the protective fencing has been temporarily removed to allow limited access during operations. It is confirmed that as soon as agreed works have been completed the fencing is immediately restored to its agreed position.

An inspection of all the tree protection was carried out and it is confirmed that there is no damage to the root systems, stems or tree canopies and all retained trees are in good condition. The current condition of the protective fencing is recorded in photos 6-12 inclusive.

6.0 PRUNING

The pruning of the existing retained trees has been undertaken by qualified National Trust horticultural staff under the direction of Glyn Smith the Erddig Head Gardener and as specified. This has included:

- Reduction of extensive mistletoe growth to reduce canopy weight and improve tree vigour. It is considered essential to retain a percentage of mistletoe for harvesting, wildlife value and visitor interest.
- Removal of dead, diseased and damaged wood.

- Reduction in overcrowded growth and thinning out of canopies to selected trees including specimens with inclined form.
- Continued management to specimen Hazels by coppicing.
- Lifting canopies of specimen trees nos T108 and T75 to 2.5 m above ground to facilitate safe movement of pedestrians.
- Removal of existing trees which will facilitate replacement tree planting.

The restorative pruning has been in accordance with the requirements given in the British Standard for Tree Works BS.39998:2010.

7.0 INSTRUCTIONS TO MAIN CONTRATOR

At the time of the inspection instructions were left with the main contractor to carry out the following remedial work:

- Prune off damaged roots under 50 mm diameter with a sharp hand tool.to the exposed roots within the excavated drainage trenches
- Restore temporarily removed protective fencing.
- Backfill drainage trenches as soon as practicable with a suitable non limestone material. Drainage runs within soft landscape to be backfilled with subsoil and topsoil taken from onsite stock piles.
- If tree roots are encountered during excavation protect them with damp hessian during the construction works. Remove hessian prior to backfilling.

8.0 PHOTOGRAPHIC RECORD



Photo 1. T114 drainage trench



Photo 2. Small exposed roots to T114



Photo 3. T13 drainage trench



Photo 4. T28 drainage trench



Photo 5. T56 drainage trench



Photo 6. T98-T101 tree protection



Photo 7. T98 tree protection



Photo 8. T98-T101 tree protection



Photo 9. T56-T64 tree protection



Photo 10. T78 tree protection



Photo 11. T111 tree protection



Photo 12. T05 tree protection