

Arboricultural Decay detection report

For trees at
**Go Ape Rivington,
Rivington Lane,
Horwich, Bolton,
BL6 7SB**

completed by;

Chris Jones

BSc Arb (Hons) MArborA

Senior Tree Officer



GoApe! Banana HQ, Fornham St Martin,
Bury St Edmunds, Suffolk.
IP31 1SL

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1.0 Introduction

- 1.1 Following the 2021 annual site inspection last year several tree 428 a mature Beech used as site 5 zip launch tree was highlighted with minor basal decay and sparse crown with minor dieback.
- 1.2 This survey and report has been completed to monitor the extent of decay and to make further management prescriptions based on these findings.

2.0 Methodology

- 2.1 The author holds a BSc Arboriculture and Tree Management degree, and LANTRA Professional Tree Inspector qualification. He has worked in the arboricultural industry for 12 years as an arborist and arboricultural consultant.
- 2.2 The visual inspection of the trees was carried out as per the recognised systematic approach, known as VTA (Visual Tree Assessment) as conceived by Mattheck & Breloer and subsequently popularised by Dr David Lonsdale et al. This may include the use of simple tools, such as a soft mallet/sounding hammer & metal probe, to detect areas of potential decay or wood dysfunction.
- 2.3 All trees were inspected from ground level with the use of the Resi PD400, where decay was found the Picus 3 was used to further map the decay. All scans are taken as near to ground level as possible or at the height of the most significant defect when that is not at ground level.
- 2.5 Further investigations have been undertaken using an IML PD400 Resi micro drill. The Resi micro drill measures the relative density of wood by drilling into the tree with a flexible 3mm diameter drill, 400mm in length. The Resi is capable of measuring wood quality and the presence of internal defects such as included bark or decay-altered wood. In simple terms, the higher the quality of the wood encountered, the greater the resistance offered to the drilling force and a higher output is recorded on the graph. Although a highly accurate precision tool, the Resi is only capable of interpreting the quality of wood within a very small area subject to the drilling. This tool does not measure wood quality beyond the area of testing. However, multiple testing points can be made in order to map potential defects.

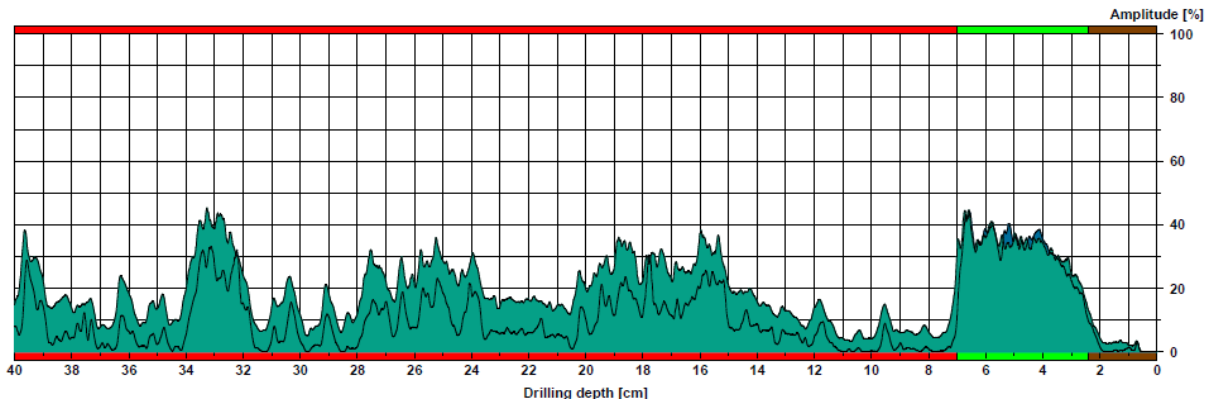
3.0 Findings

3.1 T428 Beech Site 5 Zip Launch

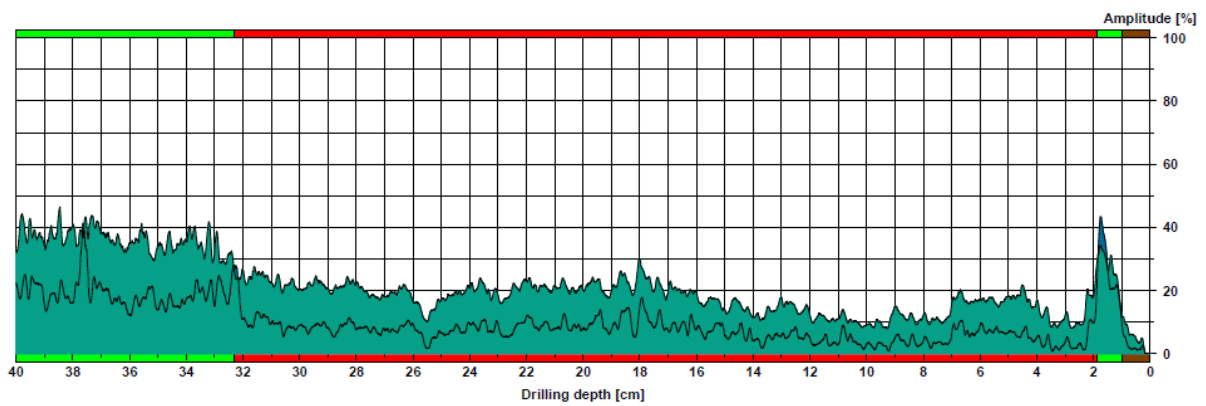
- 3.1.1 This Beech tree has a diameter at breast height (DBH) of 75cm and is 20 -30m tall. It is used as part of the TTC course.
- 3.1.2 Since the last inspection in September 2021 the basal decay has rapidly increased. From an initial visual inspection using a rubber mallet it was clear that the south side of the tree had extensive surface decay. A Picus scan would not be possible due to the large area of surface decay. Included in the south side of the tree are two large buttress roots that were also significantly decayed with one being so decayed there was areas of 'mushy' wood.
- 3.1.3 The Resi drill was used in several locations, the results are included below. The results all show areas of decay mainly in the south part of the trunk but also spreading around to the east and North east side.

3.1.4 The decay has rapidly increased due to the low vitality of the tree. The crown condition hasn't greatly changed however is very poor. As trees generate it's own energy with the reduced leaf area this tree has not being able to generate enough energy to defend the advances of the decay fungus.

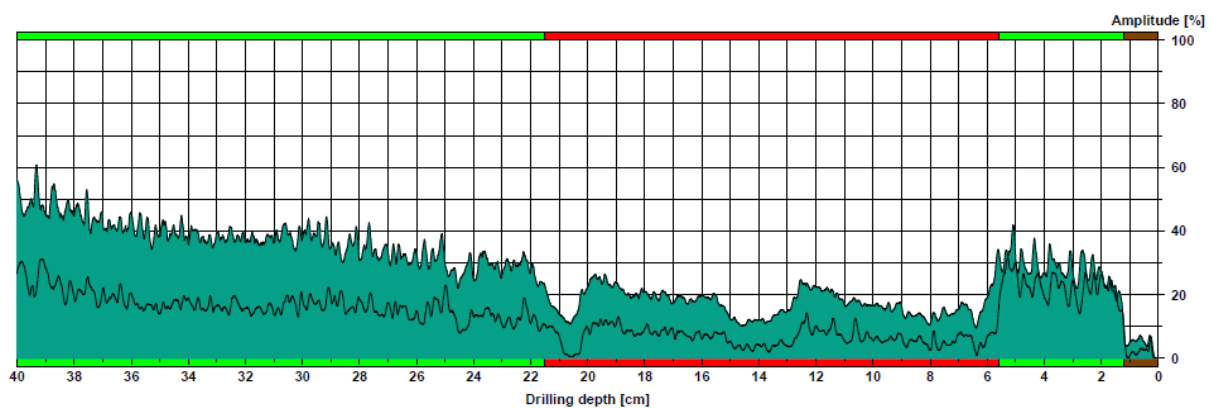
3.1.5 The total area of decay is estimated between 50 – 60%. Due to it's location off centre towards the south side and decayed buttress roots it's significance is greater compared with central decay.



Resi drill result from south buttress root



Resi drill result from South east side



Resi drill result from North east side

4.0 Recommendations

- 4.0.1 T428 has a large area of advanced decay off centre around the south side of the trunk. Ganoderma and Honey fungus are present. The risk of whole tree failure is high. It is recommended that the course is removed from this tree and the tree felled within the next 3 months of the date of this report.

5.0 Bibliography

1. Lonsdale D. (1999). Principles of Tree Hazard Assessment and Management. 2007 Reprint. Office of the Deputy Prime Minister, London
2. Roberts J Jackson N & Smith M (2006). Tree Roots in the Built Environment. Office of the Deputy Prime Minister. London
3. Strouts. G. R & Winter. G. T. (2005). Diagnosis of Ill-health in Trees. Office of the Deputy Prime Minister. London