Sheffield Tree Care Ltd

T. 0114 2583632
M. 07830352994
E. nick@sheffieldtreecare.com
www.sheffieldtreecare.com

Arboricultural Report:

Ash Dieback Survey and Risk Assessment

Location:

Various Sheffield University Sites

Prepared for: Steven Walton, The University of Sheffield

Date of Survey:
13 - 20 July 2022

Weather Conditions: Mostly clear skies

Completed by:
Tashi Fletcher Dip Arb L4 (ABC)
Sheffield Tree Care Ltd.

1. Summary of report

This report presents the results of a survey of ash tree for the purpose of monitoring of Ash Dieback and acting to remove specific dangerous trees, undertaken across various sites managed by the University of Sheffield.

As well as a full Tree Schedule the report includes a Schedule of work, Tree Location Plans and various photographs. These will serve as the basis for comparison with future surveys. For practical reasons, the photos are provided in a separate document: *TUoS Ash Dieback Survey 2022 Tree Photos Comparison Table*; Tree location plans are included a separate document for each site.

217 trees and groups were assessed and recorded. The report identifies the physical location of each along with a score based on remaining canopy coverage and other factors which inform the risks presented by each tree.

2 trees are recommended for felling withing 6 months of this report. Further details are given in the Survey Methodology and Discussion below. It will be necessary to repeat this survey every summer in order to adequately monitor the progress of Ash Dieback in the tree population.

2. Scope of survey

This survey acts as a system for monitoring the progression of Ash Dieback across all sites belonging to The University of Sheffield. Its primary function is to assess the level of canopy loss in each ash tree and to determine an Action Category based on the risks of damage or harm that the tree poses. This will form a basis for comparison in future surveys to determine the rate of canopy loss. Where necessary, the survey will also make recommendations for remedial work. The survey did not consider in any detail the impact of tree roots on soils and structures.

3. Site Description and General Risk Assessment

The sites consist of university campus buildings and halls of residence. The campus buildings are located in and near the centre of Sheffield with arterial traffic routes and high pedestrian activity. The residences are generally set away from main traffic routes, but they also have high pedestrian activity and heavily used recreational facilities. This gives the university sites high target profiles and reaffirms the need for a robust and consistent tree management scheme.

4. Legal status of trees on site

Many of the sites covered by this survey lie within conservation areas. This can be confirmed by consulting the Sheffield Council website (https://www.sheffield.gov.uk/home/planning-development/protected-trees). The removal or pruning of any tree in a conservation is required to be notified to the Local Planning Authority, leaving them 6 weeks to either approve the work or place protection on the tree.

5. Survey Methodology

The methodology for this survey has been developed in line with guidance from the Tree Council's publication, *Ash Dieback: an Action Plan Toolkit*, 2019. It has also drawn on guidance from Sheffield City Council and on the experience of Sheffield Tree Care Ltd in dealing with ash trees safely and effectively.

The survey asked the following questions:

1. Percentage of live crown remaining
2. Access and Removal Method
3. Tree Height
4. Target Area Risk Profile (Likelihood of impacting a target and Consequences of Failure)
5. Mitigating Factors
6. Action Category - Based on Score
7. Additional Comments
8. Recommendations

Questions 1 – 5 each carry a score, the sum of which is used to determine 6. Action Category.

Question 1 informs the level of infection. While saplings and young trees display specific visual defects associated with ash dieback, these symptoms are often absent in infected mature trees. For mature trees, the best way the determine the presence and progress of Ash Dieback is to assess canopy cover. For ease of use and consistency across different sites and systems, it is recommended to categorize trees according to their remaining canopy cover. The tree council sites *Roloff 2001* for providing 4 Ash Health Classes (AHC):

- AHC1 (100% - 75% remaining canopy)
- AHC2 (75% - 50% remaining canopy)
- AHC3 (50% - 25% remaining canopy)
- AHC4 (25% - 0% remaining canopy)

This determines the level of infection and informs the risk of failure presented by each tree, since trees with less remaining canopy cover are more likely to shed limbs.

Question 2 informs what access is possible and thereby the level of risk that would be involved in felling the tree. Importantly, industry best practice advises not to climb any tree with AHC3 or AHC4. This means that any tree which can only be accessed by climbing rather than a MEWP, Crane or neighbouring tree, must be felled before it reaches AHC3.

Questions 3, 4 and 5 inform the level of risk of damage or harm that would be caused by tree failure. This further informs the urgency of the work.

Questions 1 – 5 each carry a score, the sum of which is used to determine 6. Action Category.

Action Categories based on score:

- > 7 – Very High Priority, Consider for Immediate Removal
- 7 – High Priority, Review Carefully, fell or frequent inspection
- 5 or 6 – Moderate Priority, Plan for removal after next leaf flush
- <5 – Low Priority, Review Annually

The action category is the main basis for decision making. However, the survey also leaves room for additional comments. Finally, any recommendations are made along with a work priority.

The survey also involves a photograph of each tree, which can be used for visual comparison in future surveys.

6. Discussion

It is expected that the vast majority of Ash trees will succumb to Ash Dieback in the coming years. Those trees which pose a risk of harm or damage will need to be safely removed. But due to the scale of this operation, it is worthwhile to instate regular monitoring to allow for systematic planning of such operations. Based on the experience of other parts of the country, it is anticipated that most ash trees will start to show increasing levels of canopy loss and poor vitality. The rate of this decline can be derived from regular inspection and comparison with previous year's data.

Across the university sites there are a total of 217 ash trees. They fall into the following action categories:

- High Priority: 2 trees, both recommended for felling within 6 months
- Moderate Priority: 85 trees.
- Low Priority: 130 trees.

Another factor that has been considered is what removal method is possible for each tree. Most trees on the campus can be accessed with a MEWP or can be felled from ground level. This is the safest method for removal. 23 trees will need to be accessed either from a neighbouring tree or with the aid of a crane. This method carries more risk but is still tolerable. 1 tree can only be accessed by climbing the tree itself. Industry best practice states that we should not attempt to

climb any tree with less than 50% canopy coverage as this would entail too much risk to the climber. However, the one tree which can only be accessed by climbing is in so low a target area, that the best management strategy is merely to let it fall apart where it stands.

7. Presentation of data

Each tree or group was tagged with a number that correlates with the Tree Schedule, within which the survey findings are recorded. There is Schedule of Work, which includes all the trees which have recommendations for remedial work. Each entry contains a map reference which corresponds with the Site Plans which are provided as separate documents. Each tree or group has been photographed. These photographs are shown in separate document, titled: *TUoS Ash Dieback Survey 2021 Tree Photos Comparison Table*. The document shows photos from the 2020 survey which can be directly compared with photos from the current survey.

8. Schedule of Work

Site Location / Map Reference	Tree ID	Percentage of live crown remaining	Access and Removal Method	Tree Height	Target Area Risk Profile (Likelihood of impacting a target and Consequences of Failure)	Mitigating Factors, score reduction (max 2)? Specify	Total Score	Action Category - Based on Score	Additional Comments	Recommendations	Work Priority
Ra26 Northumberland	T0638	AHC3 (50-25%) - 3	MEWP Accessible or Fellable from Ground Level - 0	>12 - 2	High (eg. public highway with frequent to constant occupancy) - 2		7	7 - High Priority - Review Carefully, fell or frequent inspection	Moderate deadwood	Fell to ground level	6 months
Ra26 Northumberland	T0634	AHC3 (50-25%) - 3	MEWP Accessible or Fellable from Ground Level - 0	>12 - 2	High (eg. public highway with frequent to constant occupancy) - 2		7	7 - High Priority - Review Carefully, fell or frequent inspection	Moderate deadwood	Fell to ground level	6 months