



Tree Inspection University of Reading - Ginkgo
Client University of Reading, Rupert Taylor



8th August 2022



Ref Climbing Inspection/cable bracing feasibility study of Ginkgo at London Road Campus

1. Client brief

1.1 I received your instruction requesting me to carry out a climbing inspection of the Ginkgo at the London Road Campus and comment on the trees suitability for installing flexible cables to support the weak included unions.

1.2 The reason for your instruction is that it during our initial meeting, we discussed the fact that it is a big tree situated between 2 classrooms, close to a well used covered walkway and there are large included unions with visible signs of significant reaction growth at these unions. We both agreed that these unions present a likely failure point. It was decided that I would carry out a climbing inspection to investigate whether installing cabling could be a good solution to reduce the likelihood of any future failure within the trees canopy.

2. Site visit

2.1 I visited your site climbed and inspected the tree.

3. Species

3.1 Ginkgo

4 Location

4.1 University of Reading, London Road Campus, London Road, Reading

4.2 The tree is located between buildings L04 Art Workshop and L10 Science, close to carpark on the boundary with Redlands Road

5 Target Area should the tree or section of tree fall

5.1 If a section of tree failed at the included unions it could land in/on, both buildings, the covered walkway, the landscaped area between the buildings, the grass area and the carpark.

5.2 Use of target area

The target area is clearly well used during term

5.3 Likelihood to cause harm

Any failure could lead to significant injury and/or damage to property.

5.4 I would classify that the target area as medium use.

6 Investigation

6.1 Description

The tree in Ginkgo terms is a big tree at approximately 1m stem diameter and approximately 20m tall. It is a stand out tree in the local area.



6.2 Defects within the structure of the tree.

6.2.1 There have been numerous branches removed on the West side of the tree. I am unable to say if these were storm damaged or just pruned off.

6.2.2 There are small branches with significant damaged sections growing towards the South.

6.2.3 The large branch that extends east towards the house has damage on the top side.

6.2.4 The tree has multiple leaders that create a big spreading canopy which is unusual for the species. The canopy extends out 5m plus, from the stem.

6.2.5 There are lots of smaller dead branches throughout the canopy.

7 Conclusions

7.1 This tree is in relatively healthy given its age and size.

7.2 The tree is a significant landmark tree on a historic site.

7.3 The defects present a significant risk of failure in the future.

7.4 The likelihood of damage to property and possible harm to individuals is high due to the trees location.

7.5 Reducing the height & spread of the crown and installing flexible dynamic cables would reduce the risk of failure, whilst retaining the visual amenity provided by the tree.

7.6 Felling should be considered to remove the risk entirely.

8 Future management

In terms of future management of this tree as I see it you have 3 options.

A. No nothing accept the risk as is and deal with any failure when it happens.

B. Remove the small damaged branches to the South .

Reduce the larger branch to East by approximately 2m.

Reduce the loading on the weak included unions by pruning the tree and installing dynamic cable braces to reduce the risk of failure.

C. Fell the tree.

7.7.1 I recommend the option B

7.12 Whichever option you decide to take I strongly suggest you plant a replacement now for future generations to enjoy, as this is a mature tree and in the later stages of its lifespan.

9 Recommendations

9.1 Crown reduce by approximately 25% of leaf area (this equates to the removal of approximately 1.5m-2m of the crown spread and the removal of approximately 2-3m of the height), see photo for approx. crown outline after the reduction (please note this image is only a rough guide), leaving tree with natural crown shape for species in line with BS3998. The trees dimensions after pruning will be approximately Radial Crown spread 5m Height 17-18m

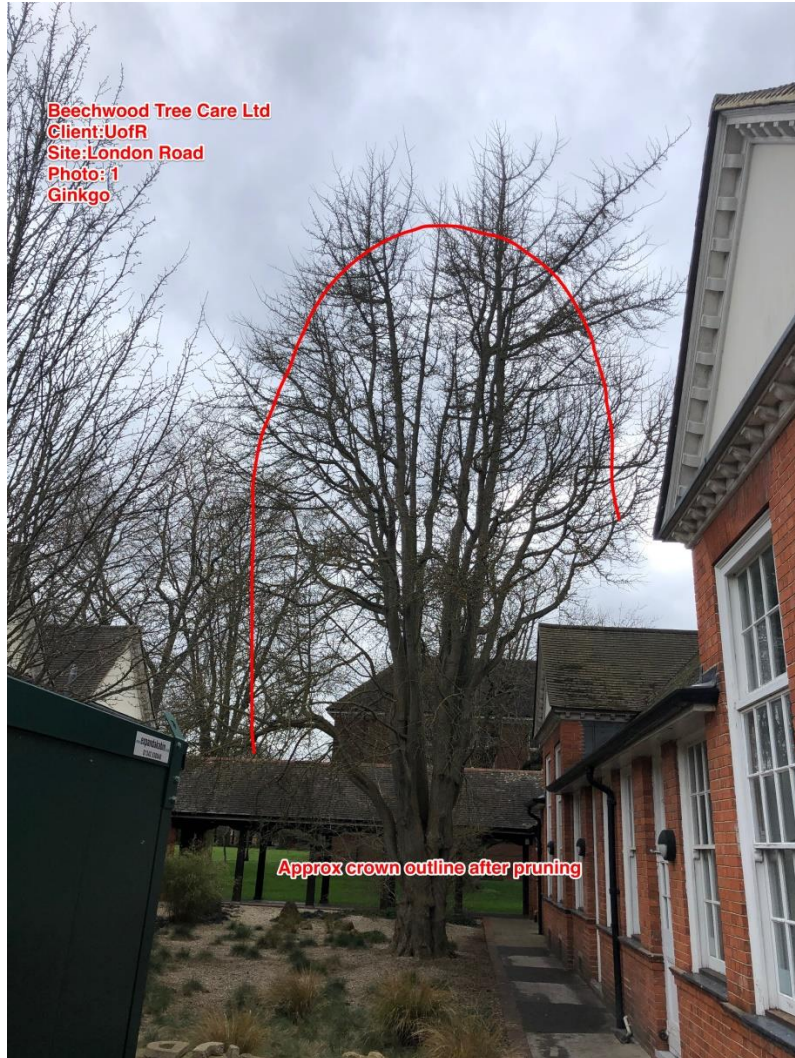


Photo of the tree with pruning line.

Install 3 dynamic non- invasive cable braces between the 3 main stems at $\frac{2}{3}$ - $\frac{3}{4}$ of the height of the included unions to the top of the crown, after reduction pruning.

Install 1 dynamic non- invasive cable braces between the 2 secondary stems on NE main stem at $\frac{2}{3}$ - $\frac{3}{4}$ of the height of the included union to the top of the crown, after reduction pruning.

The braces should be installed to be just under load but not tight, so as to take up the load as the tree naturally moves.

10 Timescale

10.1 The works should be carried out within 13 weeks.

10.2 The timescale was calculated using the 'JFL Threats System' (tree hazard risk evaluation and treatment system).



11 Re inspection

11.1

The braces should be re inspected from ground level every 12mths and after storms (force 10+)

The braces should be closely inspected by climbing the tree every 36mths.

The braces should be replaced in line with manufacturer's recommendations.

In my opinion this tree should be re inspected every 18mths and after storms (force 10+)

Limitations

- No decay detection was undertaken.
- Trees are living organisms as well as self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors.
- Trees have the potential to fail structurally, without prior manifestation of any reasonably observable symptoms. It is therefore not possible to categorically state that any tree is 'safe'.