

This is a summary of activities carried out by KLTC Technical Team during JAN/FEB 2024 in an effort to re-open The Brow footpath using a cost-effective approach that is low risk and safe for Public access.

Monthly Report No.3 – 06FEB24 was presented to Kirkby Lonsdale Town Council at the monthly Council meeting on 14FEB24.

The Technical Team continued to make progress through JAN / FEB 2024, concentrating on Monitoring Surveys and Tree Management.

Stage 1a. considers tree management and vegetation clearance on the embankment. Arbtech Consulting Ltd carried out a Tree Hazard Risk Evaluation and Treatment System (THREATS) Survey mid JAN24 in freezing snow conditions.

The objective of the inspection was to evaluate the risk of harm/damage arising from tree/component (e.g., branch) failure. A total of 3No. individual trees and 2No. groups of trees were surveyed. Details for each are provided in Arbtech Tree Safety Report of 30JAN2024. The report is attached to Technical Report No.3 – FEB 2024.

In summary, no major cropping or felling of trees is required, only general pruning of large branches overhanging the footpath and in danger of falling. Ivy has become very intrusive along the footpath and around trees, therefore it is recommended to sever ivy to aid future inspections and fell dead ash trees (victims of ash dieback) to a safe height adjacent to path.



Advise from Arbtech Ltd is not to cut back mature trees in an attempt to reduce wind loading on the Brow embankment. Trees establish a deep root system as large as the canopy spread itself. Trees move and deflect in strong winds and the roots adapt to stormy weather growing stronger in their ground conditions and surroundings.

This proves a huge saving for the Brow Project because no major work is required... only minimal pruning of branches overhanging the path.

Risk score	Threat Cat.	Priority Code	Mitigation	Observations
56	2	3Y	General pruning; Reinspection (Remove significant deadwood above 40mm diameter wherever present over paths - reinspect group within 18 months to ascertain presence or absence of ash dieback)	Group comprised of several trees, located on a bank ranging from 60 to 15 degrees from vertical; recorded dimensions denote the maximum for the group; unable to fully inspect the group due to the slope; species include ash, oak, holly and pine; epicormic growth in the crown of individual ash trees denoting possible ash dieback inoculation.
480	4	13W	General pruning; Reinspection; Tree removal; Sever ivy (Remove significant deadwood above 40mm diameter wherever present over paths - fell ash trees with ash dieback adjacent to the path - sever ivy to aid in future reinspection)	Group comprised of several trees, located on a bank 15 degrees from vertical; recorded dimensions denote the maximum for the group; unable to fully inspect the group due to the slope; species include ash, beech and holly; epicormic growth in the crown of individual ash trees denoting ash dieback inoculation.
224	3	A	Localised pruning; Sever ivy (Remove failed limb at 12m on southern canopy - sever ivy to aid in future reinspection.)	Large tree located on a step back approximately 60 degrees from vertical; historically failed limb in the southern crown; ivy cladding from base to apex.
120	2	3Y	Localised pruning; Sever ivy (Sever ivy to aid in future reinspection - remove significant deadwood above 40mm diameter wherever present above path.)	Large tree located on a step back approximately 15 degrees from vertical - unable to thoroughly inspect the stem and base due to the slope; naturally occurring deadwood in the canopy; ivy cladding from base to apex.
120	2	3Y	Tree removal (Fell to safe height)	Standing deadwood

Stage 1b – Survey Monitoring on The Brow will provide evidence of movement or no movement to the footpath and surrounding areas. Malcolm Hughes Land Surveyors Ltd (MHL) are appointed to carry out the monthly survey monitoring on The Brow.

Monthly survey No.2 of 6 was completed early FEB24. Data will not be reported until at least four months of results have been analysed.



Further surveys will be required at the top of the embankment to check the condition of footpath support (existing gabions and concrete edge beams). It is likely that part of the footpath is ‘undercut’ because of drainage issues washing away ‘fines’ in the stone support.

Planned work for the coming weeks includes a non-intrusive Drainage survey along the footpath and behind the stone retaining wall using Ground Penetration Radar (GPR shown) techniques shown below. This will prove the flow of rainwater over The Brow and into the River Lune. The concern is that surface water is percolating under the footpath and washing away fine soils supporting the edge of footpath.



Craig Bradshaw and Team have done a fine job clearing intrusive ivy, debris and litter from the Brow footpath. This will be followed by power washing the moss surface, returning the path to its normal state. This allows a detailed condition survey to record the state of gabions and concrete edge beams supporting the outer edge of path.



Before – intrusive ivy on the stone retaining wall



After – Ivy cleared for better 3D laser survey of stone wall

We have contacted Stakeholders including Underley Estates and Westmorland & Furness Council to connect with KLTC and the Friends of Ruskins View in a collaborative effort to re-open The Brow as soon as is practicably possible.

All efforts are ongoing.

Kind regards

Malcolm

Malcolm Perrin
KLTC Technical Team Lead

Kirkby Lonsdale Town Council

07917 075086