

The Froghall winding drum in 1904.

The intervening years have seen much degradation of all four lines, and so, in 2024, the Society for the Protection and Conservation of the Caldon Low Tramroads was formed in order to safeguard their future. It is hoped that historic England will grant Ancient Monument status to all four lines, thus assuring that these world-class features will guarantee their proper protection for the future.

Can you help us to look after these valuable historic tramroads? You can get in touch with us by Emailing Dave Cooper at [dave.r.cooper@btinternet.com](mailto:dave.r.cooper@btinternet.com), or write to him at Moorside Farm, Cauldon Lowe, Staffordshire Moorlands ST10 3ET.

We hold regular monthly meetings at The Yew Tree Inn, Cauldon, on the second Wednesday of the month at 7.30pm (except December). You are all welcome.

## A Tramroads walk from Froghall Wharf (OS grid ref. SK027477).

From the car park (1 on map), face Hetty's Tea Room and turn right, walking up the slope, noting the twin blocks that supported a winding drum at the top. The open building in front to the right is the bottom winding house for the Great Froghall Plane; however, for now we proceed past it and straight up the track in front. This is James Trubshaw's 1849 railway. When the ground drops to the left, go down the path to the left to a tunnel. Go under it and continue up and around on the 1783 reconstructed line.

When you eventually emerge into a field (2 on map), turn right, and walk uphill to a stile into a narrow field. Continue ahead to two stiles to the right of Sycamore Farm. Veer right (blue route) and follow the path down to another field with a wall on your right, then on your left, and then on your right again when you join the 1804 tramroad route coming in from the left. Continue ahead, past an old chapel on your left, to the main road at Whiston ((4).

Cross over and follow the obvious trackbed ahead and around to the right, recrossing the road (watch out for fast traffic!), along the track opposite to the top winding house on the Great Froghall Plane. Go through it and follow the path downhill, going up and down where the bridge has been dismantled (5) and back to the bottom winding house. You will note that the plane had three rails (see front cover picture), widening to four where the trucks crossed at the halfway point. Return to the car park down to the left.

*Copyright Society for the Protection and Conservation of Caldon Low Tramroads, 2024.*



# The Caldon Low Tramroads STAFFORDSHIRE

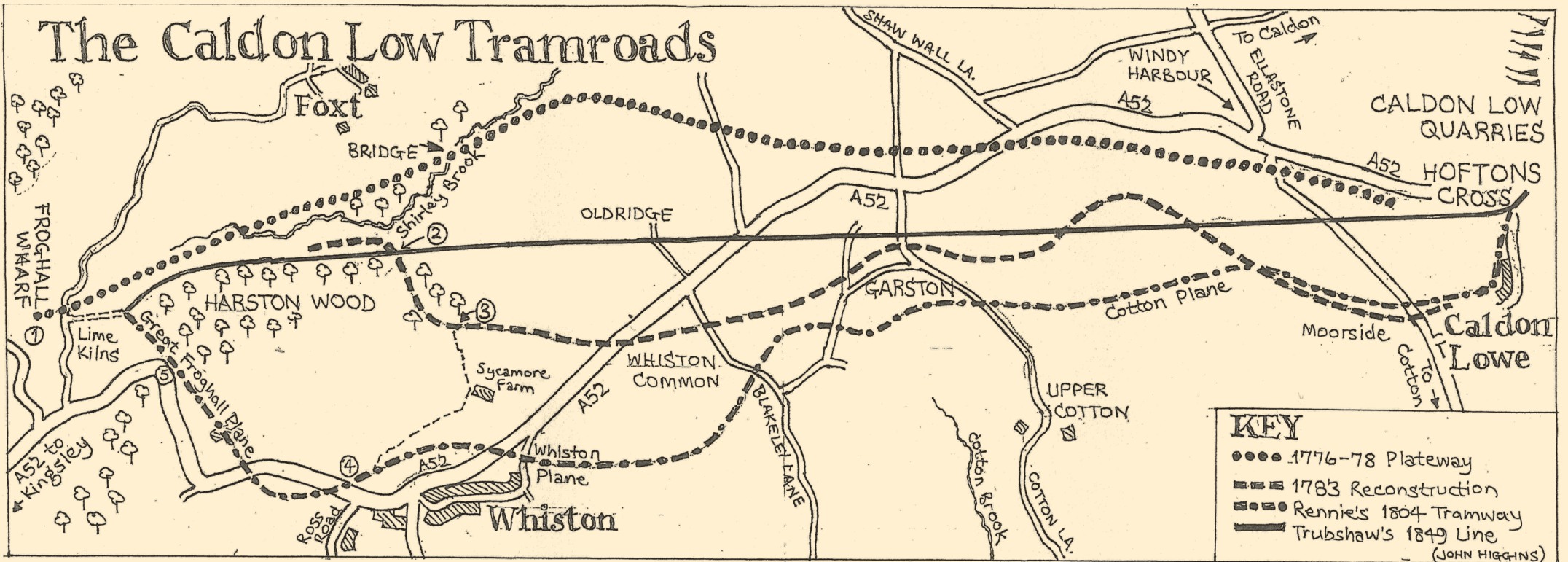


Probably the best place in the world to compare the technological development of early railways (1777-1849).

## A brief history and short walk



# The Caldon Low Tramroads



The Caldon Canal is an arm of the main Trent and Mersey system; it was constructed primarily to access the limestone from the Caldon Low quarries; however, the problem is that water does not flow uphill, and so the nearest that the canal could get to the quarries was Froghall. A different system of transportation was needed to travel the next three miles and proceed seven hundred feet higher up. The four different methods of obtaining this goal illustrate the technological improvements achieved from the granting of the first plateway in 1776 to James Trubshaw's rack railway of 1849. Nowhere else in the world can boast four completely different 'railways', running over four different terrains with four different systems, yet all starting and finishing in the same places.

Parliament in 1776 was the planning authority for the whole of the country, and the act passed was for a

metalled horse-drawn plateway connecting the two points. This was a world-first; in other words, no other official metal-clad railway had ever been built anywhere. Former problems with wooden rails, which suffered from wear by iron wheels and ingress by water, had thus been solved by nailing iron sheets to the top of the rails. The route followed the Shirley Brook to then pull steeply up out of the valley. Iron wheels on iron rails are prone to slip (as we now know), and so often the operator was sitting permanently on the brake on the downward journey with fully laden wagons threatening otherwise to overtake the horse- not an ideal situation!

In 1783 some of the worst problems were bypassed by a new reconstructed line, which ironed out many of the steepest gradients.

However, when John Rennie surveyed the route in 1797, he found that problems still persisted, His solution was to build a completely new tramway using horizontal sections interspersed with steep inclined planes. These had stationery steam engines which would haul the wagons up and down with associated winding gear. Both winding houses on the Great Froghall Plane and (although now much altered) the top house of the Cotton Plane are still extant. In 1804 the route opened and sufficed until, by 1849, new technologies meant that a completely new system of rack railway built in a virtual straight line and with a constant gradient was engineered and opened by James Trubshaw.