

The Gloucester and Cheltenham Tramroad (1811-1861)



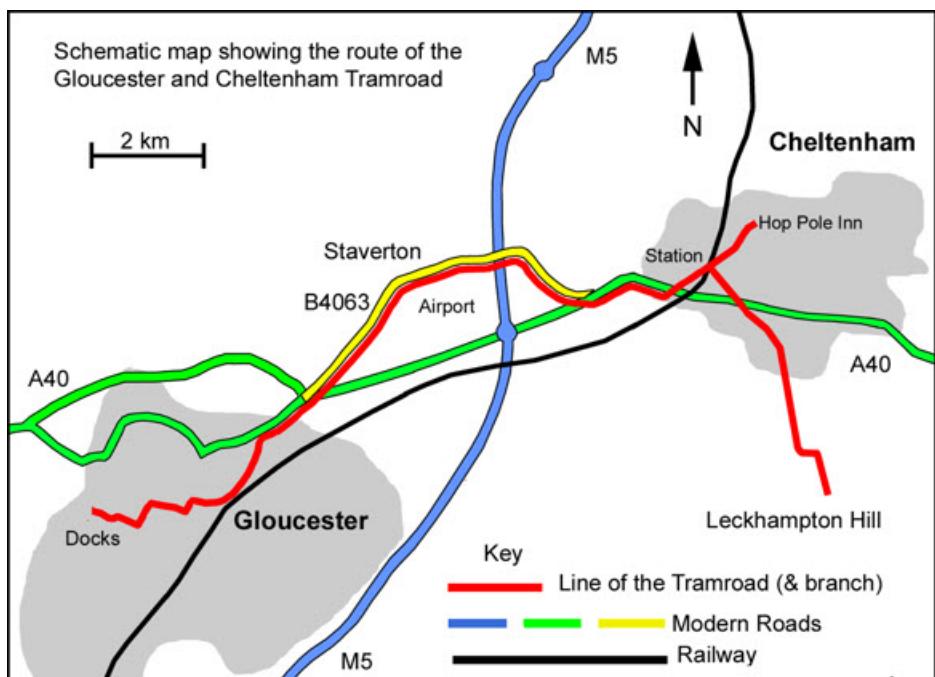
Gloucestershire Society for Industrial Archaeology

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GSIA was formed in 1963 to study and record the history and physical remains of Gloucestershire industries. The Society has more than 200 members who receive regular newsletters, an annual journal and enjoy a programme of talks, walks and outings. There are plenty of opportunities to carry out field work and research. GSIA welcomes anyone with an interest in the subject at all levels (beginners most welcome). Details of all these activities may be found on the Society website www.gsia.org.uk

GSIA has had an active interest in the tramroad for a long time. Some years ago the Society marked the two ends of the main line with commemorative plaques on the Hop Pole Inn in Cheltenham and at Gloucester Docks. Fieldwork was undertaken in 1983 which uncovered blocks from a siding at the Barge Arm at Gloucester Docks. A report of the excavation, together with many other articles on industrial archaeology in Gloucestershire, can be found in the GSIA Annual Journals. These can be freely downloaded from our website at www.gsia.org.uk/reprints.

On 4th June 2011 - 200 years to the day - GSIA organised a ceremony at Gloucester Docks to celebrate the opening of the tramroad.



The Gloucester and Cheltenham Tramroad

Introduction

This short history of the tramroad, an early form of horse drawn railway, has been produced by the Gloucestershire Society for Industrial Archaeology (GSIA) to mark the bi-centenary of the opening of the tramroad on 4th June 1811. It was built for transporting goods between Gloucester Docks and the rapidly developing spa town of Cheltenham. It also has the distinction of being the first railway in Gloucestershire to be authorised by Act of Parliament (Royal Assent 28th April 1809) although there were other tramroads in the County that were operating slightly earlier. This account draws heavily on a detailed history of the tramroad which may be found in:- *The Gloucester and Cheltenham Railway and the Leckhampton Quarry Tramroads* by the late David Bick, second edition, published by Oakwood Press in 1987.

In 2010, as part of the interpretation of the heritage of Gloucester Docks, two replica wagons (sometimes referred to as trams) were installed on the original line of the tramroad near the entrance to the docks off Southgate Street (see cover). The wagons are mounted on cast-iron rails on stone sleeper blocks, both of which had been recovered from other parts of the line some years ago in the hope that they would eventually be on public display. The rails had recently been in the care of the Waterways Museum at Gloucester. The commemoration of the tramroad using replica wagons was first proposed by David Bick as long ago as 1991. However, the recent developments in the docks prompted Dr Ray Wilson, with the full backing of GSIA, to resurrect the scheme and seek the necessary funding which has come from the South West of England Regional Development Agency. The wagons were built by Dorothea Restorations of Bristol, to a design by David McDougall based on early photographs of wagons in use on the Leckhampton section of the tramroad.



Tramroad entrance to Gloucester Docks from Southgate Street in 2011 - looking east following restoration in 2009

The Need for the Tramroad

The rural market town of Cheltenham began developing as a health spa in the late 18th century, bringing prosperity to the town. The upsurge in building at this time meant that stone and other building materials were much in demand. Leckhampton quarries provided one source of good building stone and by 1800 a tramroad had been constructed to carry stone off the hill towards Cheltenham.

The town particularly required coal along with various other goods. These could be carried on the River Severn to Gloucester, but then had to be brought the eight miles to Cheltenham on horse drawn wagons on roads that were reported as being in a very poor state. The Coombe Hill Canal, built in 1796, carried goods from the Severn at Wainlodes to the terminal basin at Coombe Hill which lies just off the present A38 between Gloucester and Tewkesbury. However, it was still a further five miles to Cheltenham by horse and wagon on poor roads. Clearly a more efficient means of transport from the river would have been very welcome.

It is therefore not surprising that a proposal was made in 1806 to construct a tramroad for horse drawn wagons from Gloucester Docks direct to Cheltenham, with a link to connect the tramroad system serving the Leckhampton quarries. This led to the formation of the Gloucester and Cheltenham Railway Company to build and then operate the tramroad. The subscribers put up £26,100 of which the biggest contribution was £10,000 from Lord Sherborne of Sherborne Park. There was some strong opposition to the scheme, not least, from the owners of the Coombe Hill Canal who saw the new tramroad as a threat to their trade. However, after much discussion and a revised route surveyed by Daniel Trinder in 1808 the opposition was overcome and in the following year the scheme was duly authorised by Act of Parliament.

Building the line

The wagons ran on cast iron rails which had an 'L' section so that the vertical part of the rails guided the flangeless wheels. This is the opposite of today where railway wheels have flanges and run on edge rails. The rails were 3ft long and the distance between their inner faces was 3ft 6in. They were supported by heavy stone sleeper blocks (160 lb minimum) and secured at each end by iron spikes driven into timber plugs set in holes drilled in the blocks. A layer of crushed stone surrounded the blocks to help retain their position and a final layer of gravel was put on top of the crushed stone that when grassed over made a suitable track for the horse to walk on.

The cost of the nine mile long main line was estimated to be £19,005. This covered the purchase of land, stone sleeper blocks and rails, all earthworks, drainage and formation of the trackbed and finally laying the rails. The single track line was initially provided with four passing places per mile but this was increased in later years.

The route is described in detail at www.gsia.org.uk/gct as only a brief outline is possible here, together with the general location map on the inside front cover. On leaving Gloucester Docks [SO828181] the line crossed Southgate Street and went along Albion



Reused stone blocks and cast iron rails under the replica tramroad wagons in Gloucester Docks

Street, Old Tramroad, Park Road and Trier Way to Horton Road (Tramway Crossing [SO842182]). It continued to Armscroft Road and along Elmbridge Road to follow the eastern side of what is now the B4063 road from Gloucester through Staverton to Arle Court [SO911217] on the outskirts of Cheltenham. The final two mile stretch followed what are now the A40 and B4633 sections of Gloucester Road as far the terminus and depot by the

present Hope Pole Inn near the Tewkesbury Road [SO941229]. The Leckhampton quarry branch left the main line immediately to the north of the present Lansdown railway station. It then ran along Queens Road, Andover Road, Norwood Street and past the Norwood Arms public house into Leckhampton Road continuing past the Malvern Inn to the depot where it met the Leckhampton quarry system [SO949185]. The route had an average 1:180 ascent from the docks to the edge of Gloucester before levelling out and then a slow ascent into Cheltenham.

The grand opening of the tramroad was celebrated on 4th June 1811 by a large gathering followed by a grand dinner for the promoters and other dignitaries at the George Hotel in Cheltenham.

Operation and Traffic

A typical return trip between Gloucester and Cheltenham was around 18 miles and would have been considered to be a day's work, especially with 16 public houses along the way. As a rule, two laden trams, each possibly carrying about 2 tons, were the maximum for one horse. This limit was imposed by the ascent from Staverton Bridge to Cheltenham which at its steepest had a gradient of 1 in a 100. Anybody with a suitable wagon and horse could use the tramroad, paying the appropriate tolls for the right to carry the goods. Indeed, most coal and other traders regularly using the line had their own horses, wagons and drivers.

Different types of goods had different toll rates. Manure and stone for the repair of roads was charged at 8½d per ton, while coal, stone and beer were charged at 2s, 2s 1d and 2s 6d a ton, respectively. Manufactured goods attracted a toll of 3s a ton [note: 1d=0.4p, 1s=5p]. Weighing machines were fitted at Gloucester Docks, Cheltenham and at the foot of Leckhampton Hill. The company established depots at Park Road in

Gloucester and at the Cheltenham terminus in Gloucester Road. In 1824 the Barge Arm was opened off the main basin at Gloucester Docks. This was served by no less than 18 sidings from the tramroad.

The ‘L’ shaped design of rails needed to be kept clean to prevent derailing of wagons. Replacement of broken cast iron rails was frequently necessary; this may have been aggravated by the desire to carry loads in excess of the weight capacity of the rails. It was reported that poor and unstable ground also contributed to the difficulties of keeping the permanent way open.

At its peak operating period, the tramroad must have been very busy with up to 60 journeys each day carrying over 35,000 tons of general materials and 20,000 tons of stone from the Leckhampton quarries in a single year. Despite competition from the railways and the Coombe Hill Canal, coal from the Forest of Dean was the main material transported along the tramroad, being preferred to Midlands coal and cheaper to purchase. Many different commodities were carried, from stone water pipes from the Guiting Power Stone Pipe Company between 1812-1815, to iron from Horsley in the West Midlands for the new Cheltenham gas lighting project in 1819.

The Decline of the Tramroad

The opening of the tramroad was followed within 30 years by an age of railway expansion. New railways to Gloucester proposed by the Cheltenham and Great Western Union (CGWU) and Birmingham and Gloucester Railway (B&G) companies threatened serious competition to the tramroad. However, neither company had access to the docks and so the tramroad was seen as a desirable acquisition.

In 1836, the CGWU purchased the tramroad for £35,000 beating a bid of £30,000 from the B&G; however the companies then combined to complete the purchase. The B&G started building the Birmingham line to Lansdown station, Cheltenham, in 1838 and the link to Gloucester opened in 1840. At the same time the CGWU got into financial difficulties, allowing the B&G to gain control of the tramroad. The transfer of goods from the tramroad to the main line trains was expensive and various options to improve the link between the docks and the Gloucester station were proposed, including overlaying the tramroad route with both standard and broad gauge lines.

In 1844, standard gauge rails were also laid along the tramroad route between the docks and Gloucester station, avoiding the need for transhipment at Gloucester station. However the tramroad continued to operate along the same route. This arrangement was not very satisfactory, and so a new railway was built from Gloucester station to High Orchard with a branch to the docks, opened in 1848. This was completed by the Midland Railway Co which had absorbed the B&G.

The tramroad struggled on for a number of years in serious financial difficulty. In 1859 an Act of Abandonment was granted and in 1861 the tramroad was sold off, the cast iron



THE PORT OF GLOUCESTER
THE GLOUCESTER AND
CHELTENHAM TRAMROAD
(1811 – 1861)

THROUGH THIS GATEWAY, THE NINE MILE LONG TRAMROAD ENTERED THE DOCKS. WAGONS CARRYING GOODS AND MINERALS WERE PULLED BY HORSES ALONG CAST-IRON RAILS HAVING A GAUGE OF 3FT. 6IN. (1.1M). IT WAS THE FIRST RAILWAY IN THE COUNTY AUTHORISED BY ACT OF PARLIAMENT. THE STEAM LOCOMOTIVE ROYAL WILLIAM WAS TRIED IN 1831 OR 1832 BUT ITS WEIGHT BROKE THE RAILS.

THIS PLAQUE WAS ERECTED IN 1991 BY GLOUCESTER CIVIC TRUST AND THE GLOUCESTERSHIRE SOCIETY FOR INDUSTRIAL ARCHAEOLOGY.

Commemorative plaque erected at Gloucester Docks by GSIA and Gloucester Civic Trust on one of the surviving piers of the tramroad entrance off Southgate Street

tracks being sold as scrap. The sale of the Cheltenham and Gloucester depots followed shortly afterwards.

The Leckhampton Quarries Branch

Charles Brandon Trye inherited the quarries on Leckhampton Hill in 1793 and quickly started to develop them. As a result, an extensive network of tramroads and inclined planes was constructed on the hill and was in use for more than 120 years. The earliest incline created the landmark known as the Devils Chimney (see cover). In addition to limited quantities of good quality building stone for Cheltenham, large amounts of stone for garden walls, rockeries, rubble, roads and limestone were obtained from the hill. The connection to the tramroad company's line was made at the foot of the lowest incline off the hill in what is now Leckhampton Road.

The quarry workings were leased to various tenants over the years who were responsible for maintaining the tramroads and the inclined planes on the hill. With the demise of the main line of the tramroad, transporting stone became a serious problem and whilst a concession was agreed allowing the quarry owners to purchase the weighbridge and a section of track from the lower incline to Leckhampton road near to the Malvern Inn, this was the beginning of the end of the quarries. Various attempts to revive the workings were made over the next 60 years, however none were successful and eventually quarrying ceased in 1926.

A plaque on the old Railway Inn and circular engraved stones set in the road at the Norwood Triangle in 2010 tell the story of the Leckhampton to Cheltenham branch.
[SO944213].

Steam on the Line

The movement of materials over long distances by horse drawn wagons was a relatively slow and inefficient process. Therefore the development of steam locomotives from the early 1800s meant that proposals for the use of steam on the tramroad were inevitable. However, the only confirmed trials were those that took place during the winter of 1831-32. The engine was built by the Neath Abbey Ironworks. And named “The Royal William”. What exactly happened at the trial runs is not well recorded; however it appears that the first trial was halted due to rails breaking and the engine becoming stuck. A second trial is reported which seemed to start in a more successful manner; however after travelling only a short distance the boiler exploded, after which the “The Royal William” was abandoned and left to rust in a siding.

What Remains Today

The large scale development both in and between Cheltenham and Gloucester during the last 200 years has resulted in most of the line of the old tramroad disappearing under new roads and buildings.

The Southgate Street tramroad entrance into the docks with its brick piers (see photo), rails, replica wagons and, information panels is a good starting point. A short walk across Southgate Street reveals the route into Albion Street and “Old Tramway Road” as the street name still shows. At Park Street some of the depot site is still an open yard. Tramway crossing (of the main line railway) is readily identified at Horton Road.

The substantial earth embankment which took the line across the valley of the Wotton Brook is the only major engineering feature still readily visible. It lies on the south edge of Armscroft Park. [SO847182] In Gloucester Road, where the line crossed the River Chelt - the original bridge is likely to lie under the modern road. However nothing remains of the depot at the terminus near the Hop Pole Inn. More information on the remains is given at www.gsia.org.uk.

Leckhampton Hill with its quarries, tramroad routes and inclines may be explored from the car park in Daisybank Road where an information panel will be found.

Conclusion

Now 150 years on from its closure, the tramroad is all but forgotten. The Gloucestershire Society for Industrial Archaeology hopes that this brief history and the replica wagons at Gloucester Docks will serve as a lasting reminder of a pioneering enterprise, which 200 years ago contributed so significantly to the development of Cheltenham and Gloucester.

Cover illustrations.

- Top: Sketch by Henry Lamb (c. 1830) of the tramroad incline near the Devils Chimney, Leckhampton Hill
- Bottom: Replica tramroad wagons by Albion Cottages in Gloucester Docks
[A R Burton]