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# The Tram Roads of the Manchester Bolton & Bury Canal

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## Abstract:

The 15 ¼ mile Manchester Bolton & Bury Canal was effectively extended by 6 ½ miles as a transport system by numerous tram roads. Evidence for them is primarily from historic maps, plus limited documentary and archaeological evidence.

## Key words:

Manchester Bolton & Bury Canal. Tram Roads.

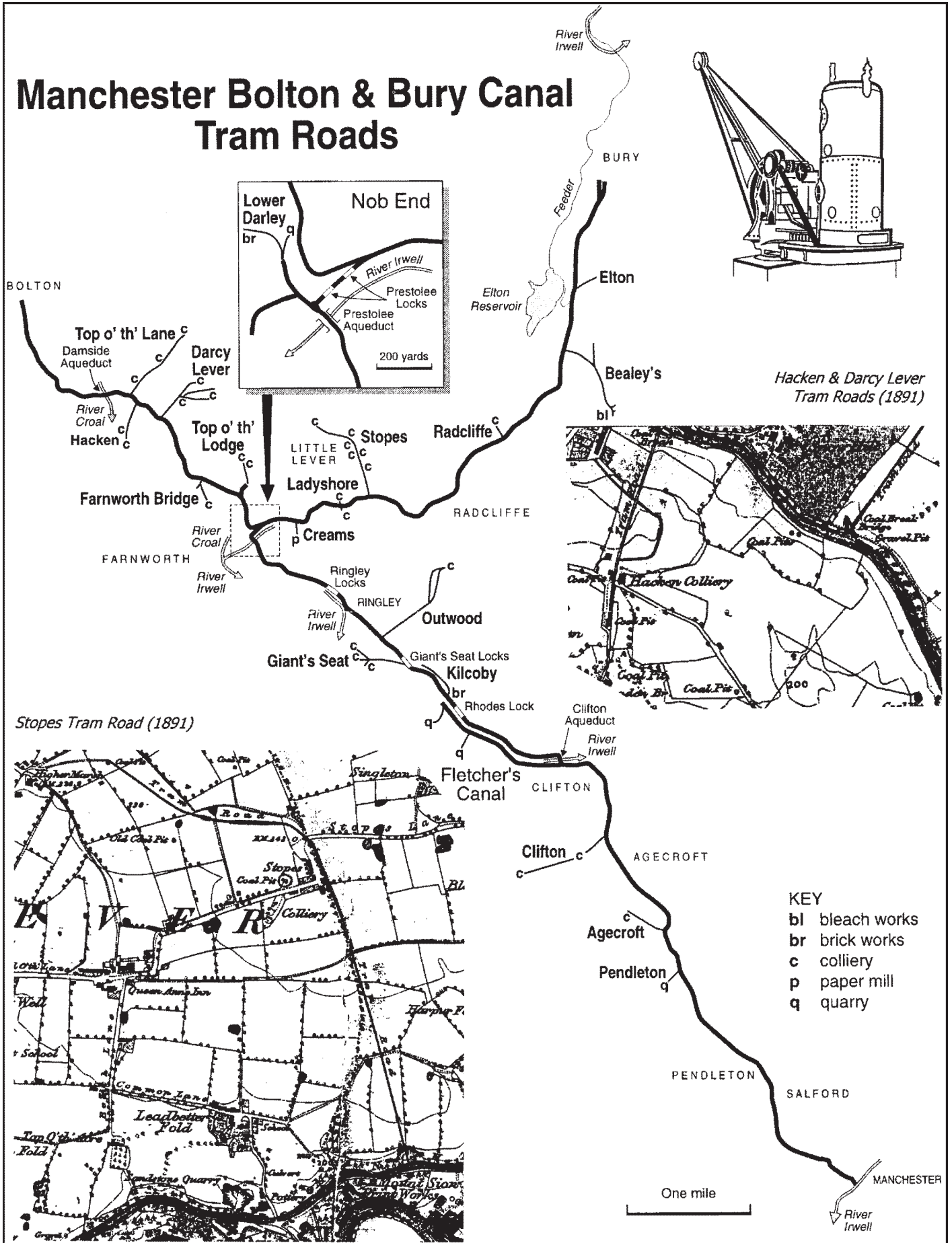
The Manchester Bolton & Bury Canal was authorised by Act of Parliament in 1791, and opened from Oldfield Road in Salford to Bolton and Bury by 1797; it was connected to the River Irwell in Salford in 1809. It had a total length of 15¼ miles, but it was effectively extended as a transport system by a further 6½ miles by the creation of numerous tram roads.

The canal was essentially a coal-carrying canal; many coal pits were sunk alongside the canal, whilst other pits were linked to it by road. Yet others were linked to the canal by tram roads; in practical terms these lines were part of the canal transport system, and are thus an important part of its operational history. Tram roads were a vital part of the transport system before the coming of the railways; many of these short lines, especially those serving canals, survived in use into the twentieth century.

There were three different types of line, not always easily distinguishable: tubways (using the 7cwt tubs used in the mines) tram roads, and light railways. They were built to a variety of gauges and were operated by men, horses, rope, chain or steam engines; all were privately owned. Most of the coal was loaded into wooden containers which were craned into canal boats.

The evidence for these lines is difficult to obtain, as such minor features of the industrial landscape were poorly recorded when in use, and have long since been disused. There appear to be no contemporary photographs of any of the lines. Substantial earthworks and structures remain for two of the lines; but most have left little or no trace. However better evidence comes from various maps, including the first edition of the Ordnance Survey 6" (c. 1845), the canal's own detailed maps (1881-2), and the first three editions of the Ordnance Survey 25" (c. 1891, 1907, 1927). The two volumes of *The Industrial Railways of Bolton, Bury and the Manchester Coalfield* also provided much useful information. Two of the tram roads were described in an article by Reg Schofield and John Smethurst. Finally, Richard Dean's historical map of the *Canals of Manchester* shows most of the lines, and Richard provided further detailed information. All the tram roads are shown on the map below.

# Manchester Bolton & Bury Canal Tram Roads



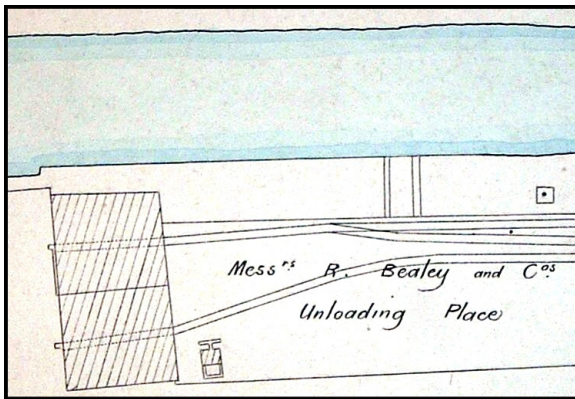
## Bury arm

### Elton

The 25" map for 1908 shows a short tram road leading from a crane alongside the canal, across the River Irwell; part of its embankment remains. Its purpose is unknown.

### Bealey's

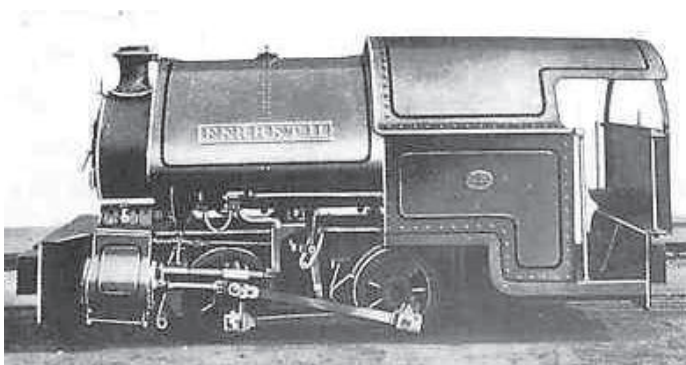
The Bealey family had come to Radcliffe in 1732 as 'whitsters' or bleachers, and they made sulphuric acid from 1791. Bealey's Wharf is opposite milestone 11¼, and the chemicals were unloaded by steam crane, and carried by a ¾-mile single-track light railway to the bleachworks on Dumers Lane. The line had a gauge of 2' 6". It would be logical to assume that the tram road predated the East Lancashire Railway (built in 1846), but oddly it was not built until about 1870, meaning that the canal was still a preferred means of transport at that time, despite the existence of the railway.



*Bealey's Unloading Place (1881)*

The line tunnelled under the main line railway; the tunnel was so small that special steam engines had to be built, appropriately named Ferret and Ferret II.

Near the tunnel was Hagside Colliery, but it was not connected to the light railway. There was a branch running



*Ferret II*

north to a tip. The line appears on the 1881 and 1891 maps; the works and line were closed in 1910. Little now remains; the site of the wharf is still clear, and the abutments of bridges over Hutchinson's and Bealey's Goits [channels taking water to the two works] can still be seen.

### Radcliffe

The 1881 plan shows a short tram road running north from the Town Wharf perhaps to Hampson Meadow Colliery.

### Stopes

Just west of the Mount Sion steam crane a widening of the canal marks the site of a staithe and tram road to Stopes Collieries; massive stone walls are still visible alongside the canal. The 1845 map shows the line extending for over three-quarters of a mile to Higher Marsh Farm, serving Stopes Colliery and several other coal pits. In the 1880s the line was shortened to half a mile, and turned into a tubway operated by a continuous chain. The 1881 canal plan shows additional lines running a short distance west from the staithe to a 'Dockyard'.

The pits were all closed by 1907, though the line is still shown on the 1908 map. The auction details mention a 'strongly built double deck canal wharf landing stage', 80 canal boats and 550 28cwt container boxes. There seems to have been an attempt to re-open the colliery in 1913, as it was agreed at that time that the canal company would dredge the embayment to allow access to a reconstructed landing stage.

The line can be traced immediately north of the canal, climbing the overgrown incline and then in a shallow depression across the first field towards the remains of two of the pits.



*Stopes tram road*

### *Ladyshore*

A short tubway linked Ladyshore with Victoria Pit (situated just across the canal) via canal bridge number 67. The 1881 plan shows the bridge, but no tram road. Technically this is not a canal tram road as it simply linked the two pits.

### *Creams*

The 1881 plan shows a double-track tram road leading from the canal about 35 yards east of Bailey Bridge down to Creams Paper Mill. It may have had two cars connected by a rope, taking coal down to the mill. The incline is still visible, now providing a route for several pipes. The mill closed only in 2004.

### **Bolton arm**

#### *Top o' th' Lane*

A tram road is shown on early O. S. sketches leading from the canal just west of Smithy Bridge, in Darcy Lever to Top o' th' Lane Colliery. The line continued for another half mile to pits near Crompton Fold. Part of the line was lifted by 1844, and it is not shown on published O. S. maps.

### *Hacken*

The 1845 map shows a quarter-mile tram road leading down from the canal south of Smithy Bridge; it served Hacken Colliery and two other pits. Hacken Colliery was closed in 1860 and its site is now a sewage works; the line of the route has been landscaped.

### *Darcy Lever*

The 1845 map shows a tram road running for three-eighths of a mile to Darcy Lever Colliery, with a short branch to another pit further east (the latter closed in 1847). When the pit was put up for auction in 1858 there were 25 coal boats and 169 boxes. During the 1870s the line was converted into a two-thirds of a mile tubway running to Victoria, Croftside and Davenport Pits; a 2' 9" gauge locomotive was delivered to Darcy Lever Colliery in 1894. All these pits were closed by 1901.

### *Fogg's Colliery*

The 1881 map shows a tram road going from Fogg's Colliery, across the canal, and down to Hall Lane; this is not technically a canal tram road as it led from the colliery to the road.

### *Farnworth Bridge*

The 1881 and 1891 maps show a tram road from the canalside Farnworth Bridge Colliery down to the River Croal, near the present-day red footbridge at Rock Hall. An embankment marks the lower end of the line.

### *Top o' th' Lodge*

The 1881 and 1891 maps show a tubway leading from Top o' th' Lodge to New Riven Colliery (closed in 1896). William Thornley of Little Lever advertised for a 2' 6" gauge locomotive in 1875, but it is not known where it was intended to be used.

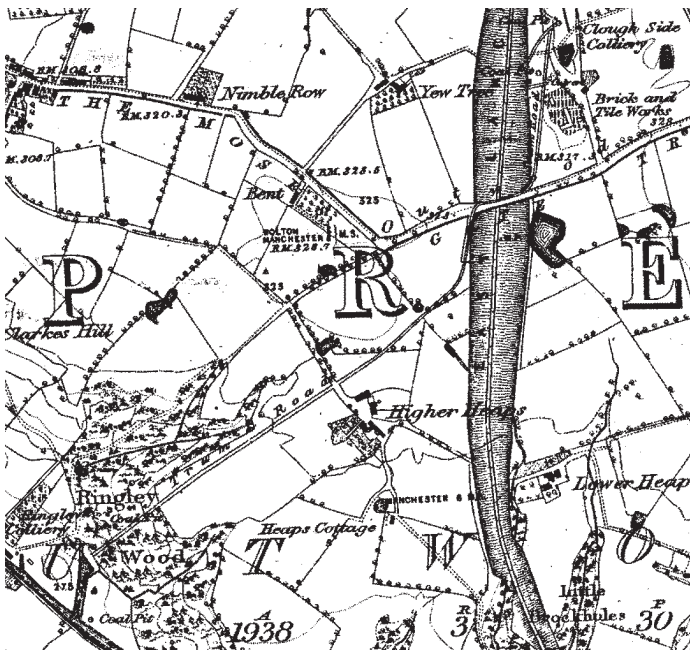
### **Salford arm**

#### *Lower Darley*

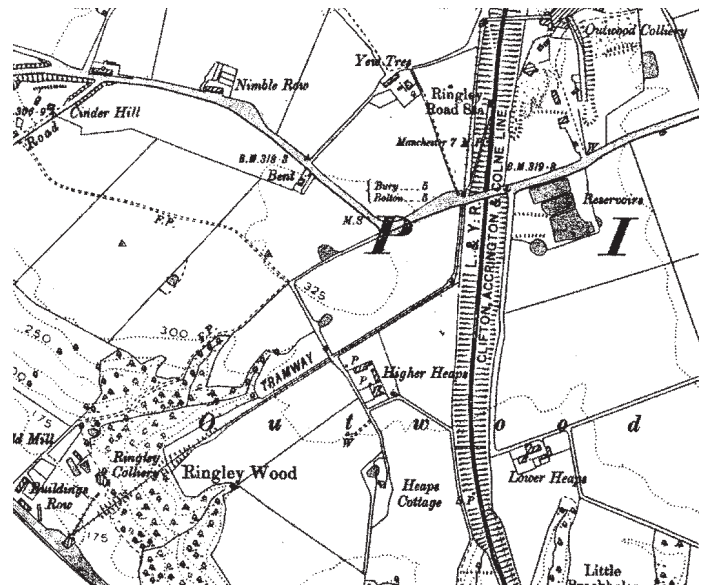
At the bottom of Prestolee Locks two lines led from the northern branch of the canal, one to a quarry, the other across Oakes Bridge, crossing the River Croal to the Croal Brick and Tile Works. These lines appear only on the 1908 25" map, and are not shown on the 1927 map; the bridge collapsed in the 1940s and was finally demolished in 1987.

### *Clough Side / Outwood*

A mile-long tram road led from Clough Side Colliery through Ringley Wood to the canal at Ringley Colliery. Before the East Lancashire Railway was built this was the easiest route from the colliery to the canal, being downhill for most of the way. The tram road may have been built as early as 1830. When the ELR was built the tram road crossed the new cutting via Ringley Road bridge; a fragment of the original line can be seen going south-west from the colliery on the 1845 map. This map was almost certainly surveyed during the excavation of the cutting at Ringley. The level sections of the tram road were probably worked by horses, though the incline down to the canal may have been rope-worked. The line ended at a short canal arm at Ringley Colliery. It probably had a gauge of 4' 2", as that was the gauge of 14 coal wagons put up for auction at Ringley Colliery in 1858. There were also 12 narrow canal boats, 63ft long by 6ft wide.



Clough Side tram road (1845)



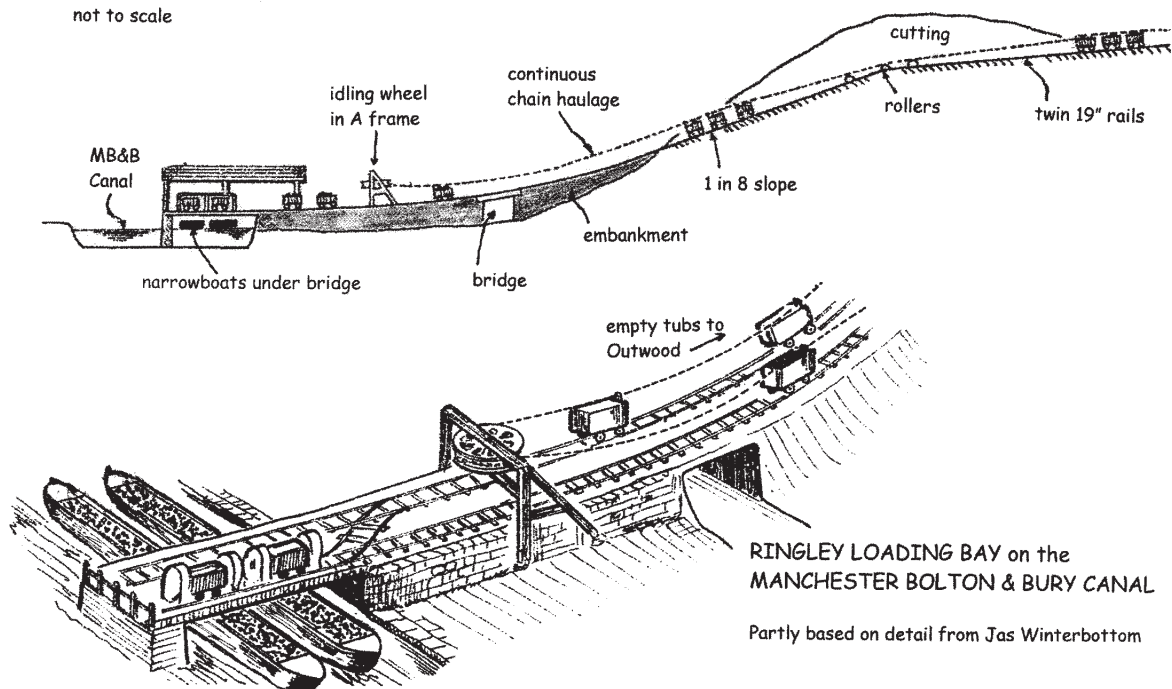
Outwood tramway (1891)

Clough Side was renamed as Outwood Colliery, and, surprisingly, the tram road was reconstructed in about 1870-4, despite the fact that the colliery had its own railway sidings. Even more surprisingly, a stationary steam engine was installed near Higher Heaps, and the whole system was worked by an endless chain. The line was redesigned to consist of three straight lengths, suitable for chain working; it was a double-track system with a gauge of either 19" or 24". From the colliery the tram road crossed the railway further north via its own wooden bridge, and was then taken in a tunnel under Ringley Road. The engine

house was at the Higher Heaps turning, and the line then proceeded directly to Ringley Colliery, going under a farm track (which still has a distinct hump), through a 40ft deep cutting, and down a 1 in 8 incline on an embankment which is up to 15ft high. At Ringley the canal arm was filled in, and the tramway was extended to the canal where there was an overhead loading gantry so that coal could be put directly from the wagons into boats. A short tram road was built from Ringley Colliery to the canal. Ringley Colliery closed in 1893 and Outwood in 1931. The tram road was abandoned in about 1910.

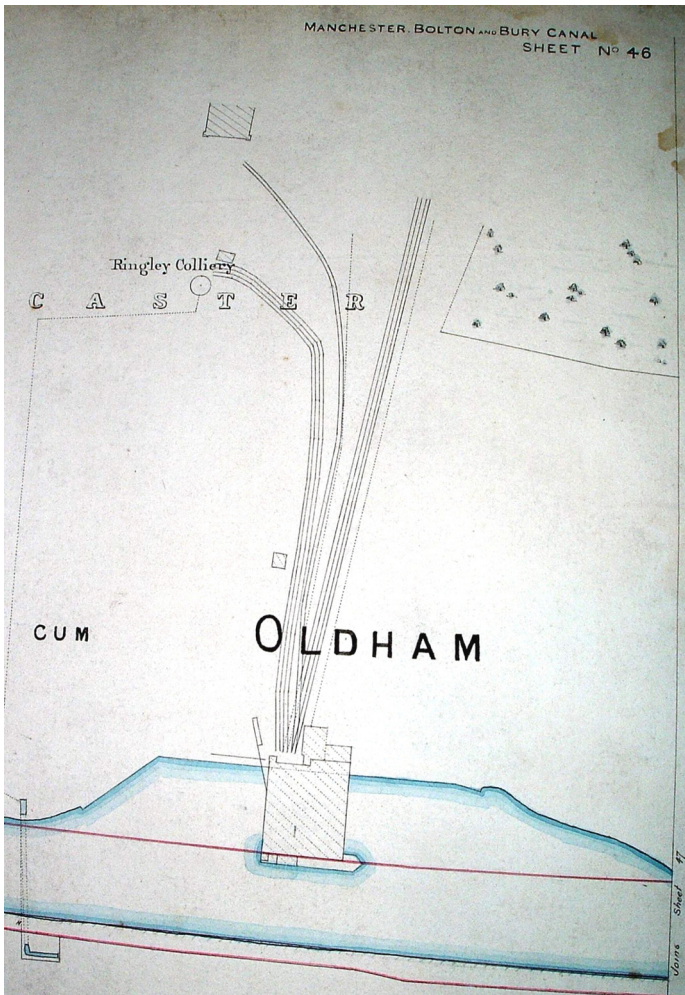
### RINGLEY INCLINE

not to scale



RINGLEY LOADING BAY on the MANCHESTER BOLTON & BURY CANAL

Partly based on detail from Jas Winterbottom



*The terminus of the Outwood tramway at Ringley Colliery (1882)*



*Ringley cutting*



*Ringley embankment*

The remains of the incline, embankment and cutting through Ringley Woods are still particularly impressive.

### *Ringley Fold*

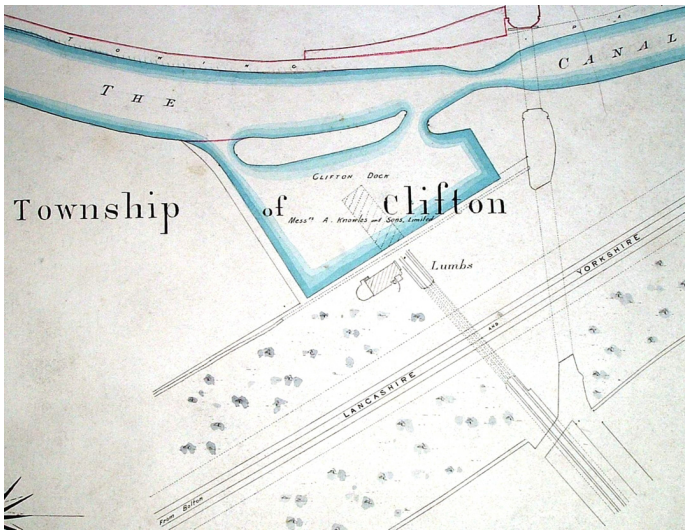
A tram road is shown on the 1845 map leading from three coal pits along the River Irwell (including Ringley Fold Colliery) to the canal at Giants Seat Locks. The length was about half a mile, with 3 branches. The collieries closed between 1866 and 1891; the tram road is not shown on the 1881 or 1891 maps. Ringley Sewage Works now covers much of this area.

### *Kilcoby*

A tramway led from a clay pit (near Giants Seat House) to Kilcoby Brick Works; although alongside the canal technically this was not a canal tram road. It is shown only on the 1907 map.

### *Clifton*

Next to the now-demolished Lumbs Aqueduct was a large loading dock connected to Clifton Hall Colliery via a ¼-mile tramway. Massive stone walls of the dock still survive; the tramway went under the railway, and its track is still visible beyond, alongside the track which goes under the railway. The colliery was probably operating in 1820, and the tramway is shown on a parliamentary plan of 1830 and the 1845 map. Beyond, another (later) tram road led to Pendlebury Colliery, a further half-mile away. The horse-worked tram road was replaced by a tubway in the 1870s; Clifton Hall Colliery closed in 1929.



*Clifton Dock (1882)*

### *Agecroft*

South of Agecroft Bridge the derelict loading dock is still clearly visible. It once served Agecroft Colliery by means of a one-third of a mile tubway along an embankment and over the railway. Wagons could be run out over the loading dock and emptied through bottom doors into boats underneath. The mine was probably opened by 1844, but it is not shown on the 1845 map. The 1891 map shows the colliery disused, with no rails shown on the tubway embankment. The colliery was redeveloped in the 1890s, and both it and the tubway were closed in 1932. The colliery re-opened in 1960, and finally closed in 1990; the site has been landscaped, and is home to industrial units. However, the incline between the canal and the railway is still visible, as are four iron columns which formerly supported the end of the line above the dock.



*Agecroft dock*

### *Pendleton*

A parliamentary plan of the Manchester & Southport Railway (1847) shows an 'Old Quarry Tramway' close to the original (1823) site of Agecroft Colliery; it is not shown on the 1845 map. In 1894 a tramway bridge was built across the canal here to link Pendleton Colliery to its plant on the opposite side of the canal.

### **Conclusion**

The tram roads built to link the Manchester Bolton & Bury Canal to collieries and other works effectively extended the length of the canal as a transport system by over 40%. At various dates almost thirty collieries were linked to the canal by tram road; most were above the canal, enabling a gravity system to be used. In addition a dozen collieries were sunk directly alongside the canal, and other collieries used road transport to get their coal to the canal. The use of containers meant that that transhipment was simplified; the containers were simply lifted in and out of the barges (known as 'starvationers' due to their bare-ribbed appearance when empty).

Coal was taken to wharves at Bolton, Bury, Radcliffe and Salford, as well across the Irwell to Manchester. As late as 1905 over half a million tons of coal a year was still being carried. There was a price to be paid for the carriage of so much coal; many lengths subsided due to under-mining; the 1881-2 maps show areas of coal beneath the canal bought by the canal company in order to safeguard it from subsidence. Many of the collieries closed around the start of the twentieth century, and the tramroads were closed too. The canal progressively became disused from 1924; it was finally closed in 1961, though coal was still carried for a short distance in Bury until 1966. A canal restoration society was founded in 1987 (<http://www.mbbcs.org.uk>), and restoration was announced by British Waterways in 2002; whether any of the tram roads will ever be restored is doubtful, though the massive remains at Ringley have already survived over a hundred years since they were last in use.



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This article is a revised version of one which first appeared in the *Manchester Bolton & Bury Canal Society magazine*, 62 (2004) 9-18. The paper was given as a lecture to the Society on 1st February 2005.

Extracts of the 1881-2 maps of the canal are reproduced by courtesy of Bolton Archives and John & Margaret Fletcher.

Photographs: Paul Hindle.