

# TRANSPORT

## Horse-drawn Tramway

For at least 2000 years, planks were placed into wheel-ruts, to prevent wagon wheels from getting stuck in the mud. The term 'Tramway' was originally applied to wagons running on wooden pathways. Around 1517, these tracks then came to be known as gangways; literally "going road". The alternative terms are "Wagonway", Wainway and Waggonway).

Ultimately, the wheels would cause grooves in the wood, which would help to guide the wagon. In time, the timber was reinforced with an iron strip. This developed into the use of "L"-shaped steel strips (or plates). The track then came to be known as a 'plateway'. The vertical flange on the plate guided the wheels, in contrast to 'edgeways', where flanges on the wheels guided it along the track. Since these plateway rails were raised above the ground, they were less likely to be blocked by debris, but they did obstruct other traffic. This became the forerunner of the modern railway.

The origin of the word 'railway' is uncertain, but Benjamin Outram was referring to his lines as 'railways' in the early 19th Century. These lines were built for horse-drawn vehicles, and were made to fit them. Thus, 4ft 8½in (1,435 mm) became the standard gauge in use today.

The lines were for the transport of minerals from quarries and mines to canal wharves. These materials were very heavy and needed to be transported over long distances. Other goods like farm produce were lighter and typically did not need to be carried very far.



### Horse Power

A horse or mule could carry about 250lb in panniers over its back.

A horse could pull about 1ton of load in a cart for short distances. 4 horses could pull 1ton over 12 miles on poor roads and 1.5tons over 18 miles on good roads.

In an 1805 test, on a tram road, twelve wagons were loaded with stones, each weighing threehorse was able to pull the wagons for six miles, in two hours. Generally, a load of 10-12 tons was more usual.

1 horse could tow 25-30 tons in a canal barge over 24 miles. (40 times more than a cart on a road- and twice the distance)

4 horses could tow 100tons in a canal barge over 24 miles.

The horses were rarely shire horses. Mostly, they were *regular* horses, ponies and mules.

The typical speed of any of these forms of transport was a walking pace of 2-5 miles per hour.

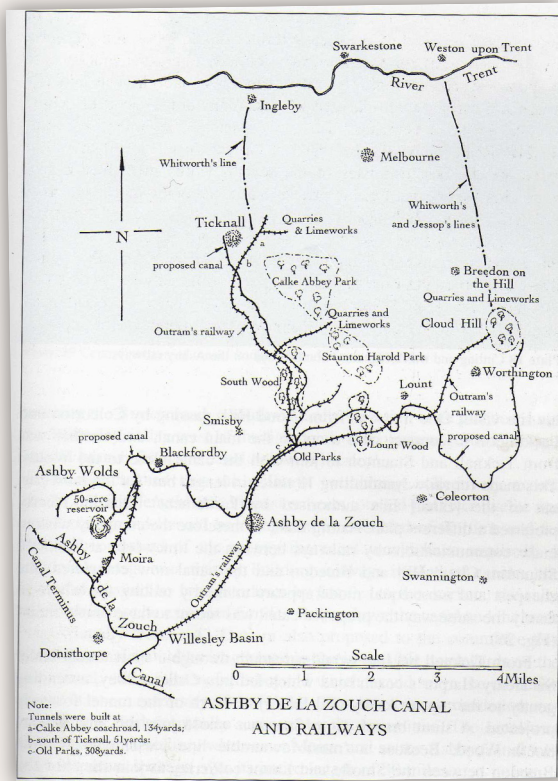
Because of the increased efficiency (and lower cost), of the earlier forms of carriage, it is easy to see why canals assumed such strategic importance. Where canals could not be built, either because of the problems in raising finance or difficult terrain, tram roads were constructed.

**Benjamin Outram's Little Eaton Gangway in July 1908 with the last train of loaded coal wagons arriving.**

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## 1792 Proposed canal around Newbold

With the industrial revolution in the mid 18th century, canals were becoming cheaper, for the movement of coal and much later of other bulky goods. In August 1792 a meeting of NW leicestershire coalmine and quarry owners was held. They were aware that the Ashby Canal was to be built, running from the Coventry Canal, at Marston junction, to Ashby Woulds. This would be 30 miles in length, and would have no locks.



In the meeting, the possibility of the construction of a branch canal, off this Ashby Canal was discussed. This branch canal would run from Moira, skirting Ashby de la Zouch (via a tunnel at Old Parks, north of Ashby) Lount and Newbold, and ending at Cloud Hill near Worthington.

The Ashby canal was duly started in 1794 (eventually completed in 1804). However, it was soon apparent that the cost of building the Ashby canal was going to be £100,000-four times the original estimate. Thus the cost of the Newbold part was also expected to be high. To the misfortune of Newbold, it was therefore decided not to build the branch canal from Moira to Newbold. Instead, the local coalmine and quarry owners decided to construct a horse-drawn tramway, from the Ashby Canal at Willesley basin (south of Ashby) along the same route as the originally proposed branch canal to link-up to Newbold.

Benjamin Outram was awarded a contract to build this tramway which opened for use in 1802, two years before the Ashby Canal was completed. The cost of building this tramway, including a further branch to Ticknall, and Stanton Harold Quarries and Limeworks, was £30,000.

The 31 mile Ashby Canal was opened in 1804. It connected the Coventry Canal from Bedworth to the mines around Moira in Leicestershire.

### The Development of the Railway

At the Moira end of the Ashby Canal, several tramways were constructed to inter-connect local limestone and coal mines as branch canals were too expensive to build.

One of these double-track tramways was built by Derbyshire engineer Benjamin Outram. It ran north-east through Ashby-de-la-Zouch, then entered a tunnel of 447 yards at Old Parks before splitting into single-track branches - one continuing on to Cloud Hill via Lount whilst the other reached Ticknall. These connected local brickyards and lime quarries with the canal at Willesley Basin, taking the form of a 4 feet 2 inch gauge plateway with angle iron rails set on stone sleepers. Many of these still remain over its 12½-mile length. The wagons - which also carried coal and other goods - were hauled by horses.