

## Butterley Gangroad Project

# Study of early maps of the Fritchley Tunnel

January 2013

Project file 1030

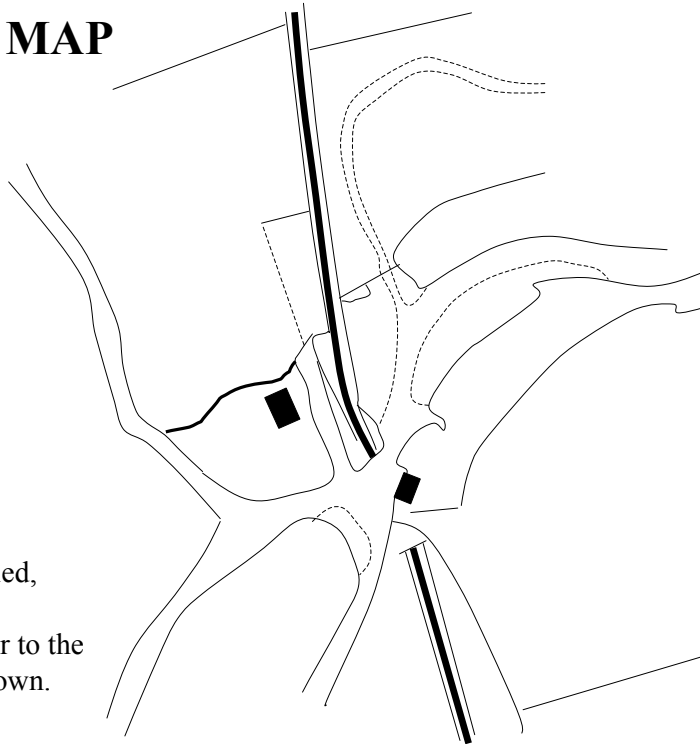


Early small scale maps that show the Butterley Gangroad (Greenwood 1826, Sanderson 1835 and OS 1839) suggest that there were then two road crossings of the railway in Fritchley. The northern one could have been a level crossing the southern one seems very short and might in fact be a bridge, as mentioned by Farey in 1817. Inside the tunnel there is a definite “kink” and the alignment curves, the southernmost section looks to be of different construction. Was this originally a bridge that was extended to the north as a cut and cover tunnel when the road layout was altered?

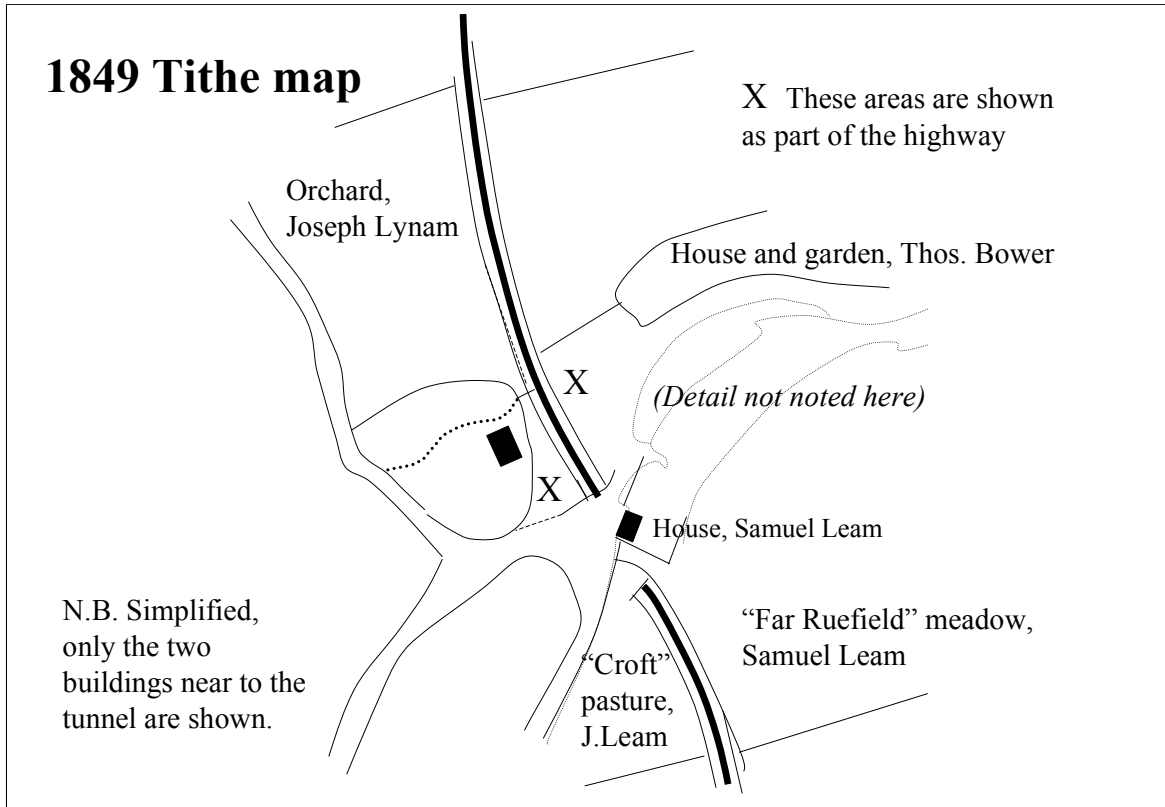
This exercise was made in order to test this possibility.

## 1880 OS MAP

N.B. Simplified,  
only the two  
buildings near to the  
tunnel are shown.

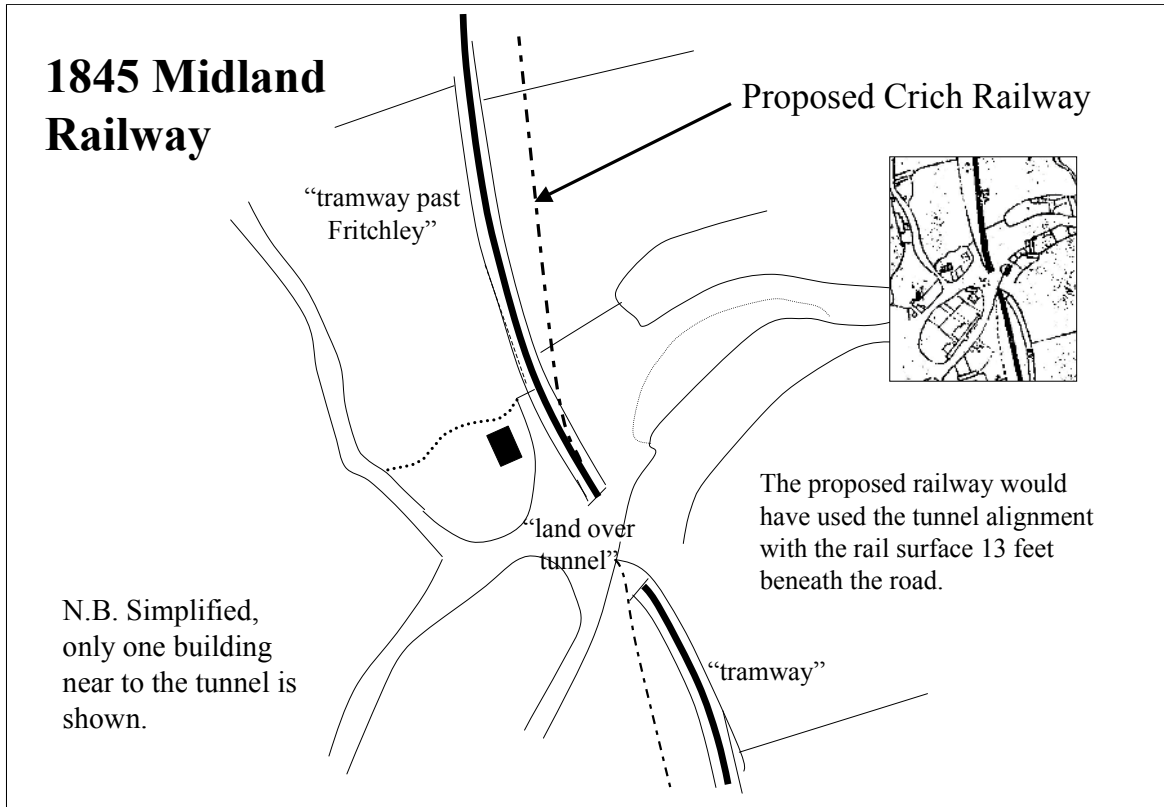


The base map is a plan of the area made by tracing the first large scale OS 25 inches to 1 mile map of 1880. The relationship of the railway and the tunnel to the road remains the same today. An important feature is that one can see that the line must curve inside the tunnel. The drive to Riverside Cottage is shown as a road and the road to the east of the line is a large area with unfenced roadways crossing it. Note also that the southern portal of the tunnel is away from the roadside, so if the south end of the tunnel was originally a bridge then the road would have to have moved north to its present alignment.

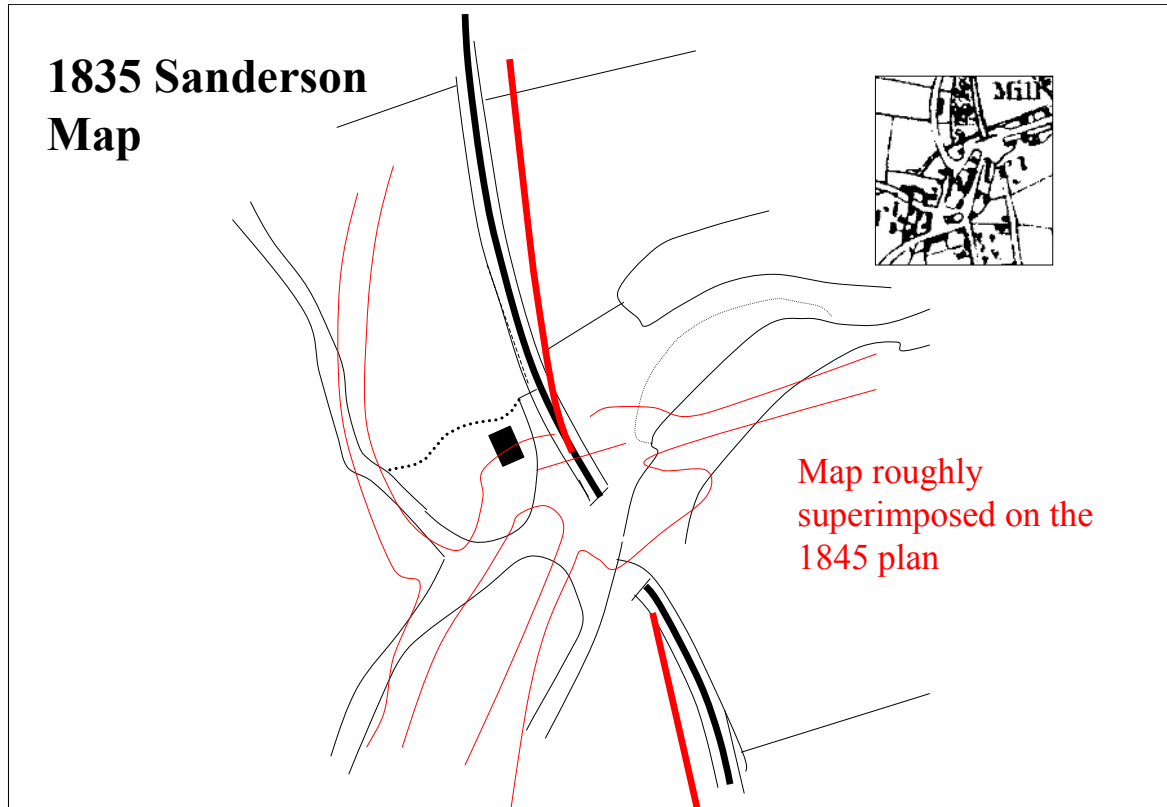


The 1849 Tithe map showed the old alignment. The tunnel is still in the same position but the line is straight (my tracing is not perfect here!). Of interest is the fact that the Drying Ground and the drive to Riverside Cottage are shown as highway.

It shows that some time after 1849 the railway has been re-aligned and the tunnel modified.



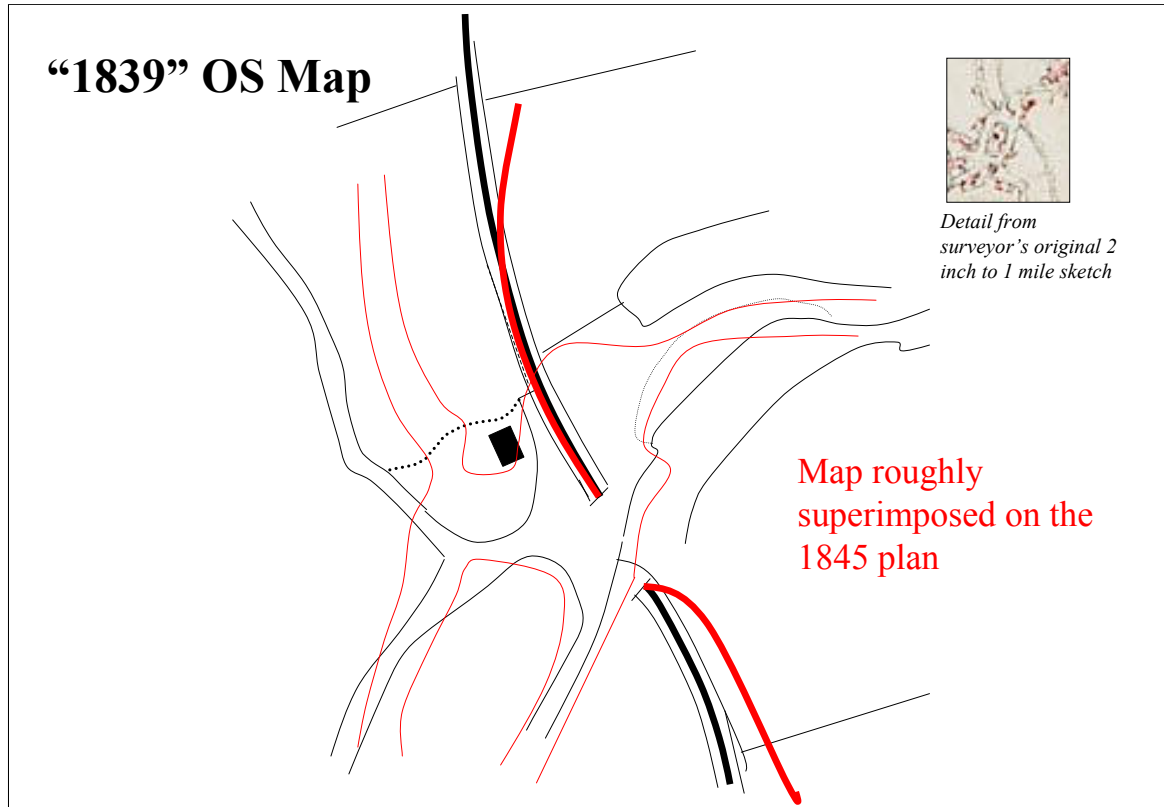
The plan for the proposed Crich branch prepared by the Midland Railway shows the layout as on the Tithe Map (see inset). It can be seen that the Gangroad has taken the route of the MR proposal later. The MR proposal would perhaps have involved the tunnel being replaced by a bridge, whereas what actually happened was that the tunnel was curved so that the Gangroad could pick up this alignment.



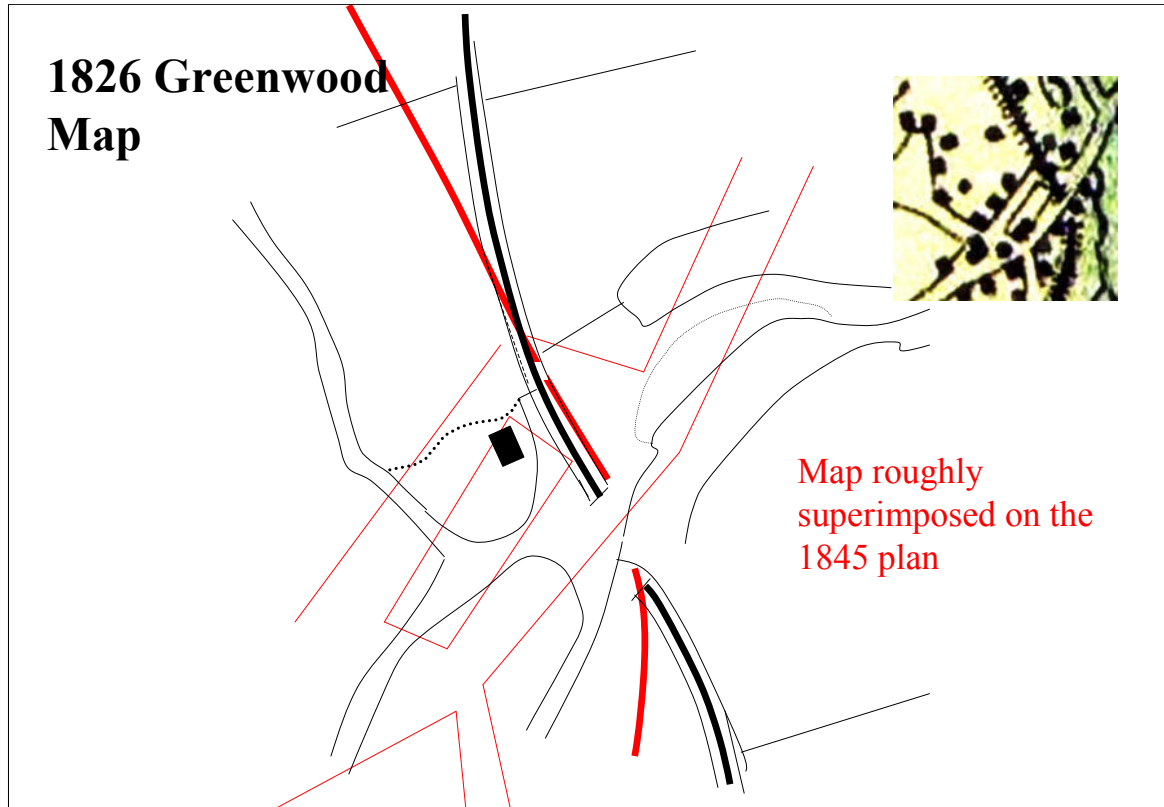
The earlier maps were all drawn to a very small scale and unlike later maps that were reduced from large scale plans on used a rudimentary form of surveying. Only key points were fixed and the topography between was literally sketched in by eye. So one cannot expect the positions of roads etc. to match very well at this level of detail.

The early maps have been enlarged and then superimposed on our base map.

The Sanderson map (inset) if anything shows the tunnel longer than it should be and the road layout is a reasonable match.



The first one inch OS map shows the tunnel at the present length when superimposed and the position of roads is a reasonable match. I have used the surveyor's sketch (inset) rather than the map itself. This survey drawing was made in 1837. So by enlarging the early map to this scale one can see that there is no evidence for the tunnel having been a bridge at this time.



The 1826 Greenwood map is much more sketchy but still shows the same layout of roads. Perhaps of most significance is the fact that he shows the southern end of the tunnel emerging clear of the road.

On this basis the tunnel was where it is now in 1826. It has been altered, but only at its southern end to take up the present alignment which follows the route proposed for the MR Crich branch. This happened sometime after 1849.

Examination of the Enclosure Map and Award and local land sales and lease agreements may give evidence of the history of the tunnel prior to 1826.