

Cowbridge & Aberthaw
Board of Trade Inspection
Report R8084

2 Sept 1882

Sir,

I have the honour to report, for the information of the Board of Trade, that, in accordance with your minute of 19th of August, I have inspected the new railway between Cowbridge and Aberthaw. The line commences at a junction with the Cowbridge Branch of the Taff Vale Railway outside the existing Cowbridge Station and terminates at the new station at Aberthaw. The total length being 6m 5ch. The line is single throughout but there is a passing loop at St Mary Church Road which however is not to be used by passenger trains. Sufficient land has been purchased for the doubling of the line whenever necessary - and all ^{the} overbridges and one of the underbridges have been constructed for a double line; the width of the formation level averages 17' in the cuttings and 18' on embankments. The permanent way consists of steel rails weighing 82 lb/yd and 41 lb ordinary chairs and 46 lb joint chairs. There are eleven sleepers to each 30' length of rail and the chairs are secured to the sleepers by iron fang bolts. The road is well ballasted with the appropriate stone and is substantial.

The gradients as a whole are not severe; there is one length of 10 chains on a gradient of 1 in 60.9 and another of 15 chains on a gradient of 1 in 66. These are the steepest gradients on the line. The sharpest curve has a radius of 12 chains which extends for a distance of 16½ chains. The cuttings and embankments appear to be standing well, and the drainage to be sufficient. There are 11 underbridges

The underbridges 4 are constructed of wooden beams resting on masonry abutments; the spans vary from 7' to 13' including the two 'viaducts' have brick arches and masonry abutments. Two have wrought iron girders resting on similar supports. The so-called viaducts consist in each case of single spans of 12 ft and 20 ft respectively, and the girder bridges also consist of single spans of 30 ft and 66 ft on the skew. Eight of the overbridges are constructed of brick arches and the remainder of wrought iron girders, in all respects resting on masonry abutments. There are also 6 small abutments constructed of stout masonry. The whole of the above works all appear to be of substantial character. The wrought iron bridges are of sufficient theoretical strength and give modest deflections under test. The timber bridges must be frequently examined as otherwise decay might occur without detection.

The only points which came to my attention during the inspection were:

1/ there is not quite sufficient clearance between the abutments at 0 m 47 ch and the side of a railway carriage

2/ that a stout handrail be fixed on both sides of the viaduct or bridge at 5 m 26 ch

I was informed that both of these matters should be put right at once.

There are twelve crossings of the line in all cases by private or occupation roads, but there are two others shown on the returns submitted by the railway company, which however will probably be abandoned. In two cases, viz at 1 m 13½ ch and 5 m 41 ch the gates open so as to be capable of opening towards the railway. This is contrary to the Act of Parliament and the gates should be altered so that they can be opened only towards the fields and not towards the line.

There are four stations on the line viz Cowbridge, St Mary Church Road, St Athan Road and Aberthaw.

Cowbridge station is a single sided station with a platform 224 ft long and 2' 9" high, situated close to the junction of the new line with the Taff Vale line. There is only one line of rails through it and no sidings. It is intended that this station should replace the existing terminal station of the Taff Vale line, which has been retained for goods traffic only. The accommodation at present provided on the new platform consists of a general waiting room, a ladies waiting room and W.C., and the usual conveniences for men. These all appeared satisfactory but there is no booking office or road approach to the station at present. Passengers must obtain their tickets at the old station and then walk 100 yards in the open to the new station in order to reach the trains. I was informed that this is purely a temporary arrangement and a new booking office is to be shortly constructed. I recommend that the company be required to provide an assurance that the road approach and booking office be commenced at once and brought into use before the end of the year.

St Mary Church Road, situated about $2\frac{1}{2}$ mile from Cowbridge, is also a single sided station with platform 210 ft long. There is only one running line but there is a loop for goods traffic and some sidings. Provisioning includes a booking office, waiting room, ladies waiting room, and the usual conveniences for men.

St Athan Road is similar to St Mary Church but there is no loop line here. The siding connections are worked by a two lever ground frame, which is locked by a key on the train-staff.

Aberthaw Station is similar to St Athan Road in that there is only a single line running through it. The passenger line terminates here but by the side of the station there is a loop to enable the engine to run around its train, and also some sidings. The passenger line is separated from the station by trap points operated by a key attached to the train staff.

With the exception of Cowbridge which requires a booking office all stations are satisfactory and convenient.

Signalling. The signalling arrangements are as follows:
At Cowbridge station a new cabin has been built containing twelve levers of which ten are in use. Interlocking is correct but the signals have not yet been connected to the levers working them, nor are all ^{the} signals fixed in their proper positions.

At St Mary Church Road a cabin has been built which contains 18 levers of which 16 are in use, and the interlocking was correct.

At St Athan Road and Aberthaw stations there are no signals, the interconnections at these two places being, as has been already stated, locked by the key attached to the train staff.

Mode of working. It will be necessary for the Taff Vale Railway Company, who we understand are to work the line, to give an undertaking as to the mode of working to be adopted. This undertaking should be endorsed by the company owning the line.

Owing to the absence of all signals at St Athan Road and Aberthaw it is necessary that an engine only, in steam, or two or more coupled together should be allowed on any section of the line at the same time. Such engine

time as the train is travelling.

Owing to the absence of turntables (sic) all trains should stop at all stations (sic). The undertaking by the company of the mode of operation should cover these points.

The following points have been mentioned before, and are listed merely for convenience of reference:

1/ clearance on bridge at 0m 47c

2/ stout handrail on bridge at 5m 26c

3/ gate openings at 1m 13½c & 5m 31c to be ~~for~~ properly hung, as required by the Act of Parliament.

4/ Booking Office and Approach Road at Conbridge Station to be put in hand at once.

5/ Undertaking to be given by both working and owning companies as to the mode of working

To the above may be added

6/ Closets require to be fixed at all stations and signal cabins

7/ The trap siding at Abertthaw Station to be extended and properly finished off with a proper dead end or with a buffer stop.

The points and signals to be properly connected with the levers working them.

Subject to these requirements being immediately complied with, I recommend the Board of Trade to sanction this new line between Conbridge and Abertthaw

Signed

H. A. Yorke Major R.E.

(You're lucky, Major Yorke was new and junior at this time and was therefore writing full reports: all my Penarth (so far) have been by Col. F. E. Riche and cover a lot fewer sides!)

B. Stephens

21 July 75