

Dec. 1837.

THIRD

ANNUAL REPORT.

OF

W. MILNOR ROBERTS,

CHIEF ENGINEER

OF THE

Cumberland Valley Rail Road Company,

made to the Board on the 26th,

December, 1837.

To the President and Managers of the

CUMBERLAND VALLEY RAIL ROAD COMPANY,

GENTLEMEN,

In presenting my third report upon the condition of this improvement, I cannot refrain from congratulating the Board and Stockholders upon the signal success which has thus far attended this important undertaking. It is not two years since the work was commenced, and yet, we have already finished a complete line of Railway 50 miles in length, between Chambersburg and the River Susquehanna.

It is not only completed, but in regular use, carrying Passengers & Merchandise in each direction, daily twice a day. The successful accomplishment of this work, under many serious difficulties, within so short a period, is mainly to be attributed to the bold and liberal course adopted by your President and Board of Managers.

Soon after the commencement of the present year, when nearly all our available funds were exhausted, this Company in common with others, experienced the pecuniary pressure which pervaded the Country. Strong fears were then entertained and expressed by many friends of this improvement that we should be compelled to yield to the difficulties of the times, and suspend our operations. But, at this most trying crisis, the President and Managers—determined that the work should proceed under any circumstances, pledged their individual fortunes in behalf of the improvement, and thus secured for the Company the funds and credit which enabled us to prosecute the work to a point so near completion.—Under a less generous and political proceeding on the part of the Board, your Engineer would have been denied the present opportunity of making a favourable report of your affairs.

The Road is now graded for a double track, with a single track of Railway laid down, together with the necessary turnouts, water stations, Engine Depot, Passenger house and Ware-house. The principal water stations and turnouts are at Chambersburg, Shippenburg, Newville, Carlisle, Mechanicsburg and the present Eastern termination, at the River.

The only work of consequence remaining unfinished is the large Bridge across the Susquehanna River, and Section No. 1. passing through Harrisburg to the junction with the Harrisburg and Lancaster Rail Road, and the Pennsylvania State Canal.

It was deemed advisable to employ most of the company's funds towards the completion of a single track of Railway superstructure to Chambersburg:—In consequence of this arrangement, the framing of the Bridge was entirely suspended, & the attention of the Contractors

directed towards the Masonry alone. The abutments and 5 Piers are finished; and all the Piers are raised above high water mark. About one third of the Timber for the superstructure is on the ground, and a large proportion of the balance is provided and in readiness to be sent to the Bridge upon the opening of the River navigation.

The Piers can at any time readily be finished in advance of the Superstructure.

The Section through Harrisburg can also be completed in good season.

If sufficient funds are provided, the Susquehanna Bridge can be ready for the passage of Locomotives over it during next summer. There will then be an *uninterrupted Railway* communication between Chambersburg and Philadelphia.

The annexed Statements marked *A. B. C. D. E.* and *F.* shew in detail, the manner in which the funds entrusted to the Chief Engineer have been applied.

The following summary exhibits all the expenditures incident to construction—including Graduation, Superstructure, Depot Buildings, Locomotives, materials, &c. to Nov. 30th, 1837 Inclusive. Viz.

Graduation,	\$197 320 33
Bridges and Culverts (Including Susqh. Bridge,)	36 540 05
Railway Superstructure,	38 247 03
Timber, (Including Bridge Timber delivered,)	69 716 32
Depot Buildings, Locomotives, Cars, & miscellaneous objects,	41 007 67
Engineer department,	24 000 10
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	\$406 831 47

The following is the present estimated cost of the Rail Road, including cost of 8 Locomotives and 50 Cars. Viz.

Graduation,	\$214 000 00
Bridges and Culverts, (Exclusive of Susqh. Bridge,)	9 800 00
Susquehanna Bridge complete.	98 000 00
Timber for Railway Superstructure.	62 000 00
Fencing and Land damages,	35 000 00
Depots, Water stations, turnouts &c.	12 000 00
Engineering expenses, salaries of other Officers and incidental expenses of Company,	30 000 00
Locomotive, Engines and Cars,	65 000 00
Railway Superstructures,	54 000 00
Rail Road Iron, delivered on the road,	101 000 00
Contingencies,	10 000 00

Total Estimated Cost. \$690 800 00

Included in my first report to the Board is an estimate of the probable amount of *local* and *through* trade which might be anticipated upon the entire completion of the road—making the aggregate receipts, \$254 617 50. This sum is below the estimate of many gentlemen well acquainted with the country that will be tributary to the Road.

My estimate, made at the same time, of the probable cost of *working the road* to yield that revenue, I have since ascertained to have been much too liberal. The whole amount of Tonnage there estimated was as follows, viz: 51950 Tons carried an average distance of 30 miles and 35000 Tons carried 49 miles. Assuming these together, as equivalent to 65000 Tons carried 50 miles (a near approximation) it would give 90 Tons per day (for 365 days) in *each direction*, allowing only 30 Tons per trip to each Locomotive, it would require 3 Engines to transport the *freight*, and 2 Engines to accommodate the passengers. Upon the above data the following is submitted as the estimated expense of working and managing the whole road for one year. viz:

Yearly interest on cost of 8 Locomotives,	\$3000 00
Nett expense of running 5 Engines,	20 896 25
12 water station men a \$20 pr. month,	2 880 00
Yearly expense of running Cars,	9 200 00
Machine shop, including repairs of Engines,	12 000 00
Repairing Railway,	13 140 00
Renewal of Locomotives,	6 400 00
Renewal of Railway	5 000 00
Pay of Officers, Superintendents, Collectors &c.	11 000 00
Contingent expenses,	10 000 00
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	93 516 25

Admitting that the estimated amount of receipts from Tolls is one fourth too high, there would still be left a balance of \$97 446 99. Equal to 14 per cent upon \$690 800 00, the whole required investment.

The result shewn by these calculations may surprise those who have not entered into a close examination of the subject. It must however be considered that the Cumberland Valley Rail Road is located in its whole extent, through—(not *one* of the richest valleys,) but *the* richest limestone valley in Pennsylvania,—that it is a great connecting link between the commerce of our Eastern cities and the trade of the boundless West—that in the construction there have been no physical difficulties to encounter, no high mountains or deep valleys to overcome—that it is remarkably straight, and free from long

heavy grades—and, finally, that it has cost less per mile than almost any other Rail Road of equal importance in the world.

The utility of this Road is just beginning to be appreciated by the publick, but ere long, its favourable situation in the great chain of intercommunication between the Sea Board and the fertile valley of the Mississippi, will place it prominently before them. It will not defy, but it may challenge, competition in the struggle for the trade of the West and South west.

Even now, before the connection with Philadelphia by way of the Harrisburg, Lancaster, and Columbia Rail Roads is completed, business men, trading between Philadelphia and Pittsburg, are making arrangements to carry goods over this road, during the ensuing months of January, February, March and April.

We shall not perhaps, (owing to the want of a *continuous* Railway,) obtain a *very large* amount of trade at this time, but there will be sufficient to establish the decided advantage enjoyed by this *route*.

It is expected that during the ensuing summer, the Franklin Rail Road will be finished and in active operation. This work, extending about 20 miles from Chambersburg will at once connect with the Great National Road leading to Wheeling, and thus open an additional winter communication with the Ohio.

Another project, highly interesting to this company, has been in agitation for several years, which, owing to various causes has not yet reached maturity. It is the continuation of the Cumberland Valley Rail Road by a direct route through Bedford, Somerset Westmorland & Allegheny Counties to Pittsburg; Either by a Rail Road, a Mac Adamized road, or a combination of both. No Instrumental examination of the Country with a view to such improvement has ever been made, although the importance of the object to be attained, would seem imperatively to demand it.

Many gentlemen who are familiar with the most difficult portion of the Country—(that lying between Chambersburg and the vicinity of Laughlinstown,) are of opinion, that a *Continuous* Railway, without Inclined Planes, is practicable. My anticipations are not quite so sanguine; but a careful exploration with Instruments will settle that question. And, whether a Continuous Railway, a Mac Adamized road, or a Combination of both, be adopted, the *extension*, by either mode, to the City of Pittsburg, is of vital consequence, not only to this Company, but to all the Southern counties of Pennsylvania.

It is clear, that with the present Turnpike from Pittsburg to Chambersburg, and a continuous Railway thence to Philadelphia, this route, during the winter months, offers more facilities to trade and passengers, than any other. This is, nearly, the *present* state of things. The spirit of improvement, aided by the strong lever of competition, will soon require a change west of Chambersburg.

My observation has taught me that enterprizing men, embarking in works of publick utility, have ever been prone, (however unwittingly) to exaggerate expected advantages. And it is not my intention to assert that the Cumberland Valley Rail Road is a solitary exception amongst works of this character. I have therefore deemed it expedient and proper to refer briefly to the preceding plain facts in support of what might, upon merely a casual glance, appear a delusive estimate of your prospects.

I learn from the Treasurer that the receipts from Tolls to the first of Dec. amounted to about \$2500. The expenditure upon the use of road, up to the same period was about \$800. This is certainly a favourable beginning,---although it is scarcely the commencement of the Company's business.

Very respectfully Submitted,

W. MILLNOR ROBERTS,
ENGINEER.

Chambersburg, Dec. 28th, 1837.