

may direct, provided such instalments be not called for at a shorter period than 30 days from each other, and in case of non-payment shares to be forfeited.

Sec. 6. That the President and Directors of said company be authorised and invested with all the rights and powers necessary and expedient to survey, lay out and construct a rail road or lateral roads, from one or more suitable place or places, in the village of Morristown, to intersect one or more place or places in the rail road known by the name of "The New-Jersey Rail Road and Transportation Company," at Newark or at Elizabethtown, in the county of Essex, or between those places, not exceeding sixty six feet wide, with as many sets of tracks and rails as they may deem necessary. 6th section further empowers the President and Directors, their agents, &c. to enter at all times upon lands and water for the purpose of exploring, surveying, laying out said road, &c.

Sec. 7 and 8. Prescribe the manner of proceeding, in case the company and land-holders cannot agree as to price.

Sec. 9. Prohibits the obstruction of other roads.

Sec. 10. Authorises the President and Directors to purchase and to place on the rail road, all machines, wagons, carriages, &c. for the transportation of passengers and property, and prescribes also the rates of passage and transportation. *Sec. 11.* Time when annual dividends of proceeds are to be made. *Sec. 12.* Penalty for injuring rail roads.

Sec. 13. Authorises company to hold real estate at the commencement and termination of the road.

Sec. 14. Road declared a public highway.

Sec. 15. Statement of costs of road to be made and filed in the office of the Secretary of State.

Sec. 16. That at any time after 50 years from the completion of the road the Legislature of the State may cause an appraisement of the road to be made, and the State may, if thought proper, take the road, paying the company for the same. *Sec. 17.* Road to be completed in ten years from 4th July, 1836, or the charter to be void. *Sec. 18.* Legislature has the right to subscribe for stock to the amount of \$50,000.

Sec. 19. Act declared a public act.

Sec. 20. Funds of the company not to be used for Banking purposes.

[Passed January 29, 1835.]

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MORRIS AND ESSEX
RAIL-ROAD:
Its Prospects, Expenses, &c.

BY THE DIRECTORS.

SEPT. 10, 1835.

THE Directors of the Morris and Essex Rail Road Company submit to the public, the following statement, in relation to this important public work, for which a Charter was granted last winter by the New-Jersey Legislature.

When subscriptions were received by the Commissioners for the stock in March last, their principal object and duty was accomplished, when enough was subscribed to authorize the appointment of Directors. Accordingly the Commissioners convened the stockholders, who elected nine Directors on the 23d of March, and they immediately took the management of the Company's affairs into their own hands. They deemed it prudent, before spending much time in filling the subscription, to satisfy themselves and the public, upon the two following important points, viz:

1st. Is it practicable to construct a Rail Road from Morristown, to some point or points in Essex county, contiguous to the tide waters near the harbor of New-York, in such manner, as greatly to facilitate the intercourse between the country and the city?

2d. Can such a road be constructed at such expense, as that the transportation of passengers, the production of the country, and merchandise, may offer a fair and reasonable remuneration to those who may embark in it?

The Board proceeded forthwith to make inquiry for a competent Engineer, to explore and survey the country, in order to ascertain the first point. Benjamin Wright, Esq. of New-York, one of the most experienced and able Engineers in the U. S. was selected for this duty and engaged to perform it. He chose Major Ephraim Beach for his associate, who had long been connected with Judge Wright, in professional business, and who is personally conversant with the whole route and its localities. The intermediate country has been thoroughly explored—surveys of the routes are completed: the maps, profiles and estimates, are finished, and now in the hands of the Directors, and ready for public inspection by all who feel an interest in the success of the undertaking. It is ascertained that a good road, of easy elevation, either for horse or steam power, can be constructed and in readiness for the car, at an average expense of about \$9,000 per mile, including a Bridge across the Passaic river, which, with its embankments and walls, if built in the most durable manner, will cost about \$20,000. The highest elevation, will be about 70 feet per mile, on the east slope of the Short Hills, for about three miles, and will not exceed 60 feet per mile, on any other part of the route. The distance between Morristown and Newark by either route, will be about 23 miles, and if extended *through* Newark to the Passaic river, about 24 miles.

With a locomotive engine, the traveller may leave Morristown at 6 in the morning, and arrive at Newark 1-4 before 8, and reach New-York at 20 minutes past 8, A. M.

With regard to the amount of transportation on this road, which forms the 2d point of inquiry, we have ascertained from stage proprietors, from merchants and manufacturers, the average number of passengers now travelling by stages on this route, as well as the sums paid for cartage of goods and produce of various kinds by traders and manufacturers who keep accounts of such expenditures. From these sources alone, we believe, that after deducting all costs and charge of transportation, and repairs of the road; including also the salaries for officers and hands in the employ of the Company, a dividend may be afforded the stockholders, exceeding 6 per cent, on the capital invested. We invite examination by all who feel interested in the success of the road, that they may satisfy themselves of the fairness and correctness of the calculations and statements.

Besides the conveyance of stage passengers, and the freight known to be paid by store-keepers and others for goods and wares as before stated,—there are multitudes of travellers in private carriages as well as of farmers carrying to Newark, New-York, &c. their pork, beef, grain, flour, hay, wood, rails, lumber, butter, iron, lime, charcoal, &c. &c., in their own private wagons, the precise amount of which cannot be known,—we think however it may be equal in amount to the receipts from the two sources above mentioned. The estimated price for transportation by the rail road, as we have put it down, is about 20 per cent less than is now paid for stage fare and cartage. The reduced price, with the quick passage, will ultimately ensure the custom to the Rail Road; and we have no doubt that when the road shall be finished and in operation, that the transportation of passengers and of goods and products, will be increased at a rate exceeding 10 per cent per annum, for the first 10 years.

The following is the official Report of Judge Wright:

*“ To the President and Directors of the
Morris and Essex Rail Road :*

GENTLEMEN,—In company with Mr. Beach, I have traversed the routes as surveyed by him for the contemplated Rail Road from the town of Newark to Morristown. I have examined critically, all the difficult points, and particularly as to the manner of passing the Short Hills and the Passaic river—these being the places where the skill of an Engineer was required: and am of opinion, that not only in these cases, but throughout the whole extent of the line, the location as made by him, is judicious and economical, and equal to, if not the *best*, which can be made at this time.

The ground, with the exception of the Short Hills, is tolerably fair grades, and the soil, fair excavation, with very little appearance of rock; and should any be found, it would no doubt be available in the construction of the work.

I have also examined his maps and profiles, and from them perceive that the curves are very easy, and such as any locomotive can pass without any difficulty.

Mr. Beach's estimate for constructing the road with a single track and turn-out to each mile, I can say is very liberal, and such as will no doubt build the road. It is stated by Mr. Beach, at \$217,345 73 by the Southern route, and at \$219,193 54 by the Orange route.

My opinions correspond in every respect with Mr. Beach's views as to the superstructure, as the best adapted to the purposes of this Road: and I cannot suggest any thing different from his plans which I believe useful, except reducing the number of Turn-outs, to one for each village, and extending the length according to the importance of the place to be accommodated; and also, to increase the size of the wooden rails, to 6 by 6, instead of 5 by 6 inches.

The grades, in passing the Short Hills, are steeper than could be desired. They are generally very direct, without bad curvatures, and I am well informed, that Locomotives, carrying passengers, pass daily on the Baltimore and Ohio Rail Road, much steeper grades, than any proposed on the line of this road.

During a personal acquaintance and association with Mr. Beach for 15 or 16 years, on canals and rail roads, I have had every opportunity to test his judgment and skill in locating public works and estimating their cost: and I should place as much confidence in his judgment in the location, and fairness in estimating the cost, as any other Engineer of my acquaintance.

Respectfully submitted,

BENJ. WRIGHT, *Civil Engineer.*

Newark, July 21st, 1835."

The Report of Mr. Beach referred to by Judge Wright, is minute in its details, and it is deemed unnecessary in this publication, to give to the public, more than is contained in the following abstract.

"In executing this survey, (says Major Beach,) it was necessary, in order to avoid steep grades, (the country being hilly,) to increase the distance beyond that of the common road, by curving around some of the hills, and surmounting others by ascending their slopes diagonally. And considering the bold and prominent features of the country, a more favorable location is obtained, than could be expected by a cursory view."

"No grade need be encountered which is objectionable for the Locomotive."

"From Passaic river eastward, the route ascends the Short Hills at a grade of 60 feet per mile for 2 1-3 miles,—thence, 30 feet per mile, for half a mile, to the summit;—thence, descending 3 1-4 miles to Millville, near Springfield,

according to the survey, at 75 feet per mile. This grade may without any doubt, be reduced to 65 and probably to 60 feet, upon a review. The residue of the route is undulating, without any long levels, or curves of less radius than 1000 feet, and those where the grade is easy, or the route level. I therefore express the most implicit confidence and belief, in the successful and advantageous use of steam power upon this road, throughout its whole line from Morristown to Newark."

"In this hilly region, there will be some deep excavations, and embankments. In most cases, they are near together, and the excavated earth will be used to raise the embankment."

"There is *no rock* in the way, and the work in general will be easy."

"This route presents facilities for branch roads, for the accommodation of important districts of country. From the manufacturing establishments of Whippany, of printing paper and writing paper, coach springs, cotton goods, &c.: and where there is a never failing water power of great extent, a road may be graded over a country almost level, intersecting this road at Madison, distant about 4 miles. Another branch from Baskingridge, through New-Providence, may intersect at the west side of Short Hills. From Somerville, through Boundbrook and Scotch Plains, another branch can intersect near Springfield—all of which will augment the travelling of passengers and transportation of goods and produce, to and from Newark and New-York to the interior of the country.

The graded surface of the road, is calculated to be 15 feet wide. The estimate I believe to be a liberal one, and have no doubt that it is fully adequate to complete the work, upon the plan proposed. I have divided the whole line into 3 Sections, viz:

1st. The Western, extending from Morristown to Chatham, 7 miles.

2d. The middle, from Chatham across the Short Hills to Millville, 7 miles; and

3d. The Eastern, from Millville, by Orange, to Newark, 10 miles.

Estimates for each Section are subjoined, including the grading and superstructure. The superstructure proposed, is the same as that of the New-Jersey Rail Road, between

Jersey City and Newark, which experience has found preferable to any other, both for economy and utility. It is proposed to take the timber of the country (oak and chestnut) for mud sills and ties, and Norway pine, for rails, and plate or bar iron, 2 1-4 by 5-8 for the track, with an allowance of 300 feet per mile of double track for Turnouts.

ESTIMATE FOR ONE MILE OF SUPERSTRUCTURE.

11,200 feet of Mud-sills, at 5 cents per foot,	\$560
1,860 Ties, at 15 cents, each 8 feet,	280
28,000 feet Rails at \$24 per m.,	672
4,000 Wedges at 1 cent,	40
24 tons Iron. 2 1 4 by 5-8 at \$45,	1,080
1-2 ton Spikes,	100
600 Splicing Plates at 10 cts.	60
Labor putting down,	640
Team work, say	68
Total cost of one mile of Superstructure,	\$3,500

ESTIMATE FOR GRADING THE ROAD.

1st Section, viz: from Morristown to Chatham, 7 miles.

26,341 cubic yards of excavation, at 10 cents,	\$2634 10
41,310 " " " 12 1-2 cents,	5163 75
\$1,048 " embankment 10 "	\$104 80
35,210 " " 12 1-2 "	4401 50
14,787 " " 20 "	2937 40
703 1-3 perches of wall, at three dollars,	2110 00
Grubbing,	456 00
7 miles of superstructure, at 3500,	24500 00—45327 55

2nd Section, viz: from Chatham to Millville, 7 miles.

\$1433 cubic yards of excavation, at 10 cents,	8143 30
\$5672 " " " 15 "	5350 80
\$9344 " embankment 20 "	17868 80
69696 " " 12 1-2 cents,	8712 00
4980 " " 10 "	498 00
2000 perches of wall, at five dollars,	10,000 00
540 do. at four dollars,	2160 00
495 do. at three dollars,	1485 00
Grubbing,	925 00
7 miles of superstructure, at 3500,	24500 00—79642 90

3d Section, viz: from Millville by Orange, to Newark 10 miles.

59990 cubic yards of excavation, at 12 1-2 cents,	7498 75
6760 " " 10 "	676 00

67656 " embankment 12 1-2 "	8457 00
18452 " " 15 "	2767 80
12440 " " 20 "	2488 00
690 perches of wall, at three dollars,	2070 00
Bridges,	2250 00
Extra for grading streets in Newark,	2000 00
Grubbing and drains,	1100 00
Superstructure for 10 miles, at 3500,	35500 00—64807 55

Grading and superstructure for 24 miles of Road,	\$189,778 00
Unforeseen contingencies, 10 per cent.	\$18977 80
For Engineering, Superintendance, &c., 5 per cent.	10437 79
	29,415 59

Total expense of Road from Morristown to Newark,	\$219,193 59
Averaging \$9,166 66 per each mile of Road.	

THE ESTIMATED RECEIPTS ON THE CONTEMPLATED MORRIS AND ESSEX RAIL-ROAD, ARE AS FOLLOWS:

At Morristown there are four lines of daily Stages conveying at a low estimate on an average 7 passengers each, is 28 per day each way, making 17,528 per year, at 75 cents,	\$13,146 00
Add one quarter of this amount for persons travelling by private conveyances,	\$286 00
From Dover, Rockaway and vicinity, a Stage makes three trips per week at an average of 7 passengers per day, 2184 per year at 75 cents,	1,638 00
Add one quarter for private conveyance,	409 00
	\$18,479 00

1390 Tons goods and merchandise at \$1,44,	\$2,001 00
975 " " from Whippany, at 1,44,	1,404 00
	\$3,405 00

Four wagons daily conveying the produce of the country, such as flour, grain, coal, &c. &c., 2496 tons at \$1,44,	3,594 00
Add one quarter for goods taken back by these teams to the country west of Morristown,	898 00
	7,897 00
	\$26,376 00

At Madison there are three passengers per day each way, 1878 per year at 62 1-2 cents,	1178 00
100 Tons merchandise at 1,44,	144 00
	1,322 00

At Chatham, the average of passengers is supposed to be five per day for both ways, making 1500 per year at 50 cents,	750 00
2880 Tons produce, &c. at 1,00,	2,880 00
	3,630 00

At New-Providence seven passengers per day for both ways 2,100 per year at 50 cents,	1,050 00
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3200 Tons merchandise, &c. at 1,00,	3,200 00	4,250 00
At Springfield 15 passengers per day for both ways, is 4695 per year at 37 cents,	1,787 00	
8586 Tons merchandise at 50 cents,	4,293 00	6,030 00
		\$41,608 00
At Orange 10,000 Tons merchandise, &c. at 25 cts.	2,500 00	
28,000 passengers, at 20 cents,	5,600 00	8,100 00
		*\$49,708 00

COST OF ROAD, CARS, ENGINES, &c.

Cost of Road as per Engineer's Report,	\$219,000 00
Four Cars at \$750 each,	3,000 00
Four Engines, &c. at \$5,000,	20,000 00
	\$242,000 00

ANNUAL EXPENSES OF THE ROAD.

10 per cent on the cost of superstructure, except the iron rails, which is 24 miles at \$2300 per mile,	\$55,200 00
Off 10 per cent,	\$5,520 00
20 per cent on the cost of Cars, Engines, &c. which amount is \$23,000, 1-5th off is	4,600 00
Other expenses of the company for Fuel, Salary, Office Rent, and all other incidental expenses,	10,000 00
Deduct this amount from estimated Receipts,	*\$20,120 00
	\$29,588 00
Leaving the sum of Twenty Nine Thousand Five Hundred and Eighty Eight Dollars, to be divided among the Stockholders of the Company, which is an income of about 12 per cent on the amount of capital invested.	

P. S. This estimate is based upon a calculation of the business *now done*, consequently it will be perceived that no allowance has been made for the probable *increase* of business.

CALCULATION

Shewing the difference between the sums <i>now paid</i> for the transportation of goods and passengers between Morristown and Newark; and what <i>will be</i> <i>paid</i> should a Rail Road between the two places be constructed.	
At Morristown 17,528 passengers per year at \$1,00	\$17,528 00
From Dover, Rockaway, &c. 2184 at 1,00	2,184 00
	\$19,712 00
Add one quarter for private conveyances,	4,928 00
	24,640 00

1350 Tons merchandise at 2,50,	\$3,475 00	
975 do. from Whippany 2,50,	2,437 00	
2496 Tons Coal, Grain, Flour, &c. by farm wagons, &c. at 2,50,	7,240 00	
624 Tons taken back by same teams, 2,50,	1,560 00	14,712 00
		\$9,352 00
Cost of same by Rail Road,		26,376 00
Amount saved,		\$12,976 00
Madison 1878 passengers at 75 cents,	1,408 00	
100 Tons merchandise at \$2	200 00	
		1,608 00
Amount by Rail Road,		1,322 00
Amount saved,		286 00
At Chatham 1500 passengers at 62 1-2 cents,	937 00	
2380 Tons produce, at 1,50,	4,320 00	
		5,457 00
Cost by Rail Road,		3,630 00
Amount saved,		1,827 00
At New-Providence, 2100 passengers at 62 1-2 cents,	1,312 00	
3200 Tons produce, &c. at 1,50,	4,000 00	
		5,312 00
Cost by Rail Road,		4,250 00
Amount saved,		1,062 00
At Springfield, 4695 passengers at 50 cents is	2,347 00	
8586 Tons merchandise at 1,00,	8,586 00	
		10,933 00
Cost by Rail Road,		6,030 00
Amount saved,		4,903 00
At Orange, 10,000 Tons merchandise &c. at 1,00,	10,000 00	
28,000 passengers at 25 cents,	7,000 00	
		8,100 00
Cost by Rail Road,		8,100 00
Amount saved,		8,900 00
Amount now paid at Morristown,	\$89,352	
paid by Rail Road,	26,376	Amount saved, \$12,976

Recapitulation.

Madison, Amount now paid,	1608 00		
by Rail Road,	1322 00	"	286
Chatham, Amount now paid,	5,457		
by Rail Road,	3,630	"	1,827
New Providence, Amount now paid,	5,312		
by Rail Road,	4,250	"	1,062
Springfield, now pays,	10,939		
by Rail Road,	6,030	"	4,909
Orange, Now pays,	17,000		
by Rail Road,	8,100	"	8 900
Amount saved annually, in the transportation of goods and passengers, from Newark to Morristown, and places intermediate,			29 954

	Amounts now paid,	by Rail Road, will be paid.
Morristown,	\$39,352	\$26,376
Madison,	1,608	1,322
Chatham,	5,457	3,630
New Providence,	5,312	4,250
Springfield,	10 933	6,030
Orange,	17,000	8,100
	79 662	49,708
	49,708	
	29,954	Amount saved by Rail Road.

A sufficient amount of the Capital stock has been subscribed to insure the completion of the road, and the Board of Directors are now taking measures to place the line between Newark and Orange under contract. The work will commence in a short time, with the expectation that Cars will run from Newark through Orange to Springfield, or near that village, within a year from this time. The route across the Short Hills and over the Passaic river will require more time, but the whole work it is believed, may be finished in 18 or 20 months, if laborers can be obtained.

Proposals are now in the hands of the Directors, and contracts can be immediately made to complete the whole road, at an average expense of \$9,166 for each mile, including bridges, culverts and tracks, in perfect readiness for the Cars.

From the township line dividing Orange from Newark, the citizens of the North end of Newark, besides subscribing \$100,000 to the capital stock, have given a free pass-

age to the road, through a beautiful avenue of 80 feet in width to Broad-street, and thence through the town to the Rail Road bridge over the Passaic river. The owners of land through Orange, and thence to Morris, will find their interest promoted by giving the soil freely.

The experience of the country in road making, and the facilities for this work, justify a belief, that this can be finished at a rate so low, when compared with other roads, as to benefit the country through which it runs, and amply remunerate the proprietors.

AN ABSTRACT OF THE CHARTER OF THE MORRIS AND ESSEX RAIL ROAD COMPANY.

Sec. 1. Be it enacted, That James Cook, Wm. N. Wood, Wm. Brittin, Jephthah B. Munn, Israel D. Condict, John J. Bryant, Isaac Baldwin and such other persons as may hereafter be associated with them, shall be, and are hereby ordained, constituted and declared, to be a body corporate in fact and in name., by the name of "The Morris and Essex Rail Road Company," and by that name, they and their successors and assigns shall and may have continual succession, and shall be persons in law capable of suing and being sued, pleading and being impleaded, answering and being answered unto, defending and being defended in all courts and places whatsoever, and shall have power to make and use a common seal, and the same at pleasure to alter: and they and their successors, by the same name and style, shall be capable of purchasing, holding and conveying any lands, tenements, goods and chattels whatsoever, necessary and expedient to the objects of this incorporation..

Sec. 2. That the capital stock shall be three hundred thousand dollars, with liberty to increase the same to five hundred thousand dollars, and shall be divided into shares of \$50 each, which shall be deemed personal property.

Sec. 3. Prescribes the manner of opening the Books for Subscriptions, and the manner of choosing Directors, who shall out of their number choose a President.

Sec. 4. Corporation not to be dissolved for failure to elect on the day prescribed.

Sec. 5. That the Directors shall have power to call in the capital stock of said corporation by such instalments not exceeding \$5 on each share at one time, at such times as they