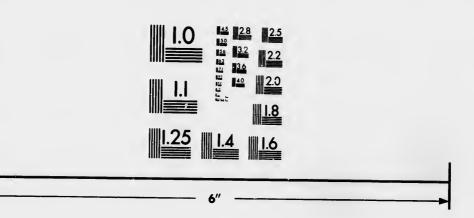
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NORTH SHORE RAILWAY.

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SUPPLEMENTAL REPORT

OF THE

CHIEF ENGINEER

UPON THE LOCATION OF THE LINE WITHIN AND NEAR THE CITY OF QUEBEC.

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OFFICE OF THE ENGINEER IN CHIEF,

Quebec, July 9th, 1874.

MR. PRESIDENT.

I have the honor to submit herewith, for the consideration of the Board of Directors, maps and profiles of the different lines examined within the City, and in the immediate vicinity of Quebec.

On the 10th of October 1872, I had the honor of submitting to the Board, a Report accompanied by maps and profiles, upon the location of the entire Main Line of the Road, from Quebec to Montreal. In which Report it was stated generally.

"That the starting or Initial point of the line has been fixed near St. Pauls Market, in the City of Quebec. After leaving this point, the line enters King street, near its intersection with St. Rochs street, and follows the center of King street westerly to its intersection with St. Ours street, at the western limits of the City of Quebec. Thence it crosses, in a direct line, the grounds of the General Hospital, and also the blocks lying between Bedard, Parent, and St. Valier streets, to the easterly end of Massue street, which it follows to the intersection of Bayard street, where it enters Ste. Gertrude street (a prolongation of Massue street) which it follows to the western limits of St. Sauveur. Thence it follows up the valley, upon the south side of St. Charles River, a distance of about 7 miles in a direct line, to a point near Ancient Lorette "&c., &c.

That portion of the line as above described, which lies within the limits of the City of Quebec, and the Parish of St. Sauveur, is indicated upon the accompanying maps by a dotted line.

Since the date of the Report above referred to, facts have come to my knowledge, with reference to this portion of the line, which induce me to recommend its abandonment by the Company The following are some of the reasons that may be mentioned.

1st. The authorities of the Church of St. Sauveur, which is located on Massue street, have earnestly protested against its adoption, as interfering with their rights of worship.

2nd. The long distance which the line would run through the narrow streets, and thickly populated portions of the City of Quebec and St. Sauveur, would render the right of way very expensive: cause serious delay as well as danger, in the passage of trains to and from the terminal Passenger and Freight stations within the City; and render it very difficult and expensive to remove and dispose of the snow during the winter months. 3rd. There are no localities contiguous to this line, that could be procured at a reasonable cost, which would afford the necessary area of ground required for the construction of shops and the standing room for cars.

4th. It is regarded as quite important, that the shops required for the construction and repairs of machinery, rolling-stock, &c., should be located near the navigable water, so that the large supplies of iron, coal, timber, and other heavy material required, may be delivered upon the ground by vessels, without being subjected to charges of cartage, extra handling &c.; and as the law requires that these shops shall be located "within the municipal limits of the City of Quebec," this object cannot be accomplished upon this line, without passing branch lines through several intervening blocks and streets, which would cause great present expense, and future inconvenience.

It will be seen by an examination of the accompanying maps, that Prince Edward street is the only one within the city limits that affords the important facilities above referred to, while at the same time it affords all the facilities required in other respects for a convenient departure from, and approach to the terminal point near St. Paul's Market, which is situated in St. Peter's ward, where the law requires the chief terminus of the Railway to be located.

A line has therefore been traced from St. Paul's Market westward, which, after crossing the inland portion of Palace Harbor, and then deflecting slightly to the southward, enters Prince Edward street at a point situated between Grant and Craig streets, and continues thence along the northerly boundary of Prince Edward street to a point marked "C" upon the map, situated about midway between Anne and Crown streets.

I have indicated upon the maps, by colors, and the letters A, B and C, the grounds that will be required for right of way, depot purposes, standing room for cars, work shops, &c.; and I have no hesitation in recommending this portion of the line for the approval of the Board of Directors at once.

From point "C" westward, three separate lines have been examined, each of which is laid down upon the map. The most northerly line, marked "D" deflects slightly to the southward, from point "C," crosses the St. Charles River, near the Marine Hospital, re-crosses it at a point about two miles further westward, and intersects the Main Line as described in my Report of October 10, 1872, at the point marked "H."

The middle line, marked "E," continues in Prince Edward street, to a point near Dorchester street, whence it deflects slightly to the northward, passing along the margin of the St. Charles River, in the rear of the General Hospital, thence deflecting slightly to the southward, it intersects the Main Line above referred to, at the point marked "G."

The most southerly line marked "F," also continues in Prince Edward street to a point near Dorchester street, whence it deflects slightly to the southward, passing in front of the General Hospital, upon a course which strikes the southerly side of St. Louis street, in the parish of St. Sauveur, which street and direction it follows to an intersection with the Main Line above referred to, at the point marked "I."

In considering the relative value of these respective lines to the Company, with a view to the future operating of the Railway, it would be proper to refer to their relative length, curvature, gradients, and the facilities afforded by each for

the passage of your trains, to and from your terminal passenger and freight stations in the city.

The question of cost of construction would also, under ordinary circumstances, enter into the comparison; but as this is to be borne by the Contractor, it will not be considered at this time, further than to state generally, that taking the most southerly line marked "F," as a minimum or standard of comparison, the construction of this middle line, marked "E," will cost more by about \$12,000, and the construction of the northerly line, marked "D," will cost more by about \$33,000.

The question of the cost of the right of way for the respective lines, may however under existing circumstances, prove to be one in which the Railway Company has at least a direct or contingent interest, and I therefore regret exceedingly that I am unable at the present time, to lay before you any reliable information upon that branch of the subject. I have no doubt however, that it may be safely assumed, that the cost of right of way will be somewhat cheaper upon the most northerly line, marked "D," than upon the middle line, marked "E," and that either of these lines will be very much cheaper than the most southerly line, marked "F."

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I do not consider that there is a sufficient difference in the respective lines, as regards length, curvature, and gradients, upon which to base an argument in favor of either, that should have any considerable influence in the decision of the question as to its adoption or rejection; and I will therefore assume that they are substantially equal in these respects, for all practical purposes.

The principal, if not controlling consideration which in my opinion should influence the minds of the Directors in deciding upon the location of this portion of the line, is the facility as well as safety with which passenger and freight trains can be allowed to pass for all time, to and from the terminal stations in the City.

In this respect there can be no doubt that the most southerly line, marked "F," will be found much more objectionable than either of the others, for the reason that it passes a much greater distance through and across thickly populated streets in the parish of St. Sauveur; and on that account all trains would be required to slacken their speed over that portion of the line, thus creating great delay in departing from, and arriving at the Depots in the City of Quebec. It would also be found necessary to station watchmen or guardians at all the street crossings, in order to avoid accidents. Great difficulty would also be experienced during the winter months, in disposing of the snow that would accumulate in the narrow streets through which the Railway would pass. The difficulties above referred to would all be substantially avoided, so far as the Parish of St. Sauveur is concerned, by the adoption of either of the lines, marked "D" and "E," for the reason that they depart from the populated portion of the City at a point much nearer the terminal stations that the line marked "F."

The principal objections that can be urged against the most northerly line, marked "D," are its greater present cost of construction, and the two bridge crossings of the River St. Charles, the lower one of which must necessarily be a draw-bridge.

During the winter months the draw would, as a matter of course, remain constantly closed; but during the season of navigation the business of the road might be subjected to frequent and very annoying interruptions by reason of the draw-bridge; and during this time there would always be more or less danger to the trains from that source. The cost of watching and maintaining these bridges would also be a perpetual charge against the Company.

Inasmuch therefore as the middle line, marked "E," is free from nearly all of the disadvantages above referred to, as pertaining to the southerly line, marked "F," and at it possesses nearly all of the practical advantages pertaining to the northerly-line, marked "D," without being subjected to the disadvantages of crossing and re-crossing it at River St. Charles, I would respectfully recommend its enproval and adoption by the Board of Directors.

In making the above recommendation, I have assumed that the right of way can be procured upon this line at relatively as reasonable rates as it can be procured upon either of the other lines; and also, that the Municipal Authorities of the City of Quebec and St. Sauveur, will grant the free right to occupy the public streets along or across which the Railway is to pass.

Should that portion of the line first described, be adopted, extending from St. Paul's Market to point "C," it will be necessary to obtain the assent of the proper authorities to the appropriation of a portion of the Palace Harbor or slip, as indicated upon the map; and should the line marked "E," be adopted, it will probably be necessary to obtain the assent of the Dominion Government to the occupancy of a small portion of the river St. Charles, in the rear of the General Hospital.

The extent of grounds indicated upon the map as being required for purposes of right of way, depots, shops, sidings, &c., is as small or even smaller than, in my opinion, will be found absolutely necessary for the purposes of the Company, before the expiration of five years from the date of opening the Railway for business.

In order to show you the extent of grounds that will be required for turn-table, engine house, work shops, &c., alone, at this end of the road, I hand you also a separate map of the block at point "C," which has been indicated for these purposes, with the general outline of such buildings located thereon, as will be found necessary for the accommodation of the road.

Respectfully submitted,

SILAS SEYMOUR,

Engineer in Chief.

J. B. RENAUD, Esq,

Vice President of the

North Shore Railway Company,

Quebec.

