Please read and send in as full discussion as possible at earliest date

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THE LITTLE SALMON RIVER VIADUCT. NATIONAL TRANSCONTINENTAL RAILWAY.

By R. F. UNIACKE, M. Can. Soc. C.E.

The Act of Parliament, authorizing the construction by Commission, of the Eastern Division of the National Transcontinen Railway, provides for a location from its eastern terminus (Moneton) through the central part of the Province of New Brunswick, and through the Province of Quebec by the shortest available route to the city of Quebec. At the time of the inception of the Intercolonial Railway the Province of New Brunswick had been thoroughly explored before the final location was adopted, and the controversy of the routes has been fought out over both these great public undertakings. Three routes were located for the Intercolonial Railway, known at that time as the Frontier, the Central, and the Baie des Chaleurs routes, and of these, on the recommendation of the Chief Engineer, and owing to Imperial considerations, since a subsidy aid had been granted by the Home Government, the Baie des Chaleurs route was adopted.

The Engineers of the Transcontinental Railway had located two lines, one known as the River route, following the St. John River, north from Fredericton, and the other the Central Foute; the latter was adopted as fulfilling more closely the provisions of the Act. That a line of railway has now been constructed along this route having a ruling point four compensated grade, with a maximum curvature of six degrees, is owing in a large measure to the advance in modern bridge and high viaduct construction. The valley of the Little Salmon River, 185 miles from Moncton, presented one of the obstacles to be overcome, as the grade development showed a crossing over 4,000 feet long, with a height of 200 feet above the