

# The Canadian Engineer

A weekly paper for engineers and engineering-contractors

## BURRARD INLET BRIDGE, VANCOUVER

SOME IMPORTANT DETAILS OF THE PROPOSED DESIGN—TO BE THE LONGEST SWING SPAN IN EXISTENCE—UNFORTUNATE DELAYS IN AWARDING CONTRACT.

THE Corporation of North Vancouver has long been in need of closer connection with the City of Vancouver, from which it is separated by Burrard Inlet. The desired thoroughfare would afford access not only to the railway, but to the business and commercial district of the city. It has only been of recent date, however, that any activity has been commenced.

ners, with whom is associated in Vancouver the firm of Cleveland and Cameron, as consulting engineers to the Board of Directors of the Burrard Inlet Tunnel and Bridge Company.

According to the official design, the length of the swing span will be 581½ ft. between centres of the end bearings. This length exceeds the longest present swing

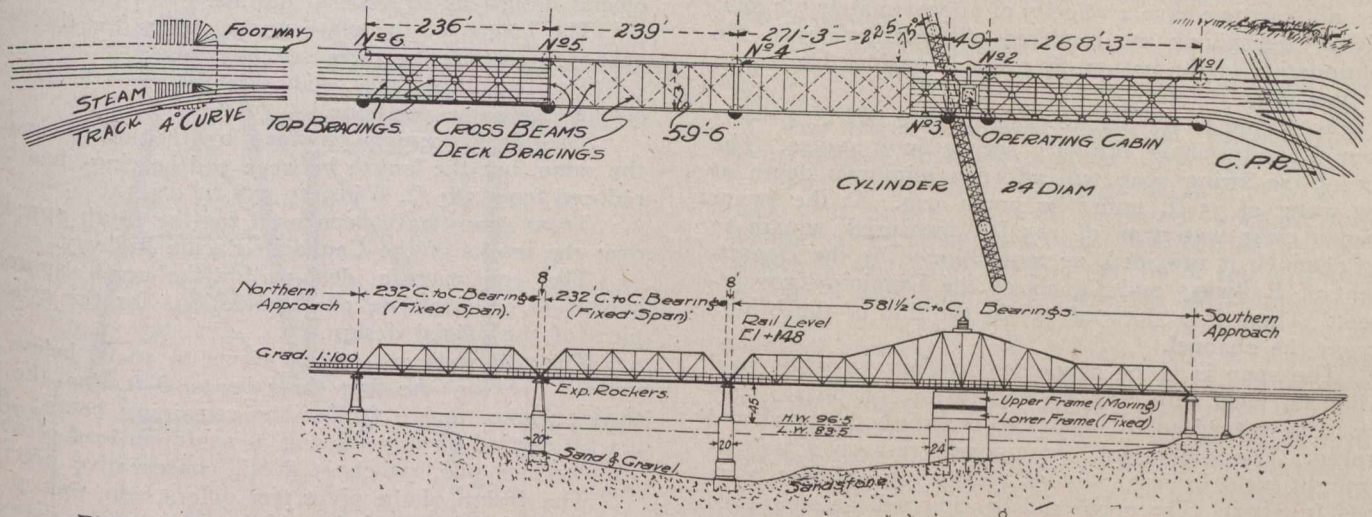


Fig. 1.—Sketch of Plans for the Second Narrows Bridge, Prepared by Sir John Wolfe-Barry, Lyster & Company, England.

Large increases of traffic, together with the advent into North Vancouver of a branch of the Grand Trunk Pacific, known as the Pacific Great Eastern Railway, has emphasized the importance to both communities of a direct connection. In addition to the access which the proposed bridge will give the Pacific Great Eastern Railway into Vancouver from the North, an electric interurban car line, together with ample driven and pedestrian traffic, is being afforded accommodation in the design under contemplation.

The location that has been chosen is over a section of the Inlet known as the Second Narrows, three miles in distance from the First Narrows, or entrance to the Inlet.

The design itself is for a complete structure to span the Inlet. The approach at the Vancouver side requires considerable embankment and cutting, while on the north side there will be quite a length of trestle work and embankment, chiefly on the railway right-of-way.

**The Official Design.**—An important feature of the contemplated structure lies in the dimensions of the swing span. The official design was prepared by the English firm of Sir John Wolfe Barry, Lyster and Part-

span by 62 ft. In width the structure will be 59½ ft., providing, as stated, for railway, highway, street car and pedestrian traffic accommodation. There will also be two fixed spans 232 ft. in length from centre to centre of bearings. These three Warren type spans; i.e., the single swing and the two fixed spans, approximately cross the entire width of the river at low water, its width at this stage being 1,030 ft. at the proposed site of the bridge. In flood stage, however, it has attained a width of 3,248 ft., the additional flooding occurring for the most part over the north bank of the Inlet. The bridge approach over this low ground consists of a plate girder viaduct, with tower spans of 29 ft. and intermediate spans of 43 ft. 6 in. The highway portion of the approach is 25 ft. 10 in. in width and is carried on vertical posts. The railway portion will rest on posts battered 1:4½. All trestles and posts will be supported by concrete foundations.

The approach to the bridge on the Vancouver side crosses the tracks of the Canadian Pacific Railway by means of two skew bridges, side by side, one to carry the steam traffic of the Pacific Great Eastern Railway and the other the roadway and electric car tracks. The