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MAIN STREET SUBWAY, MONCTON, N.B.

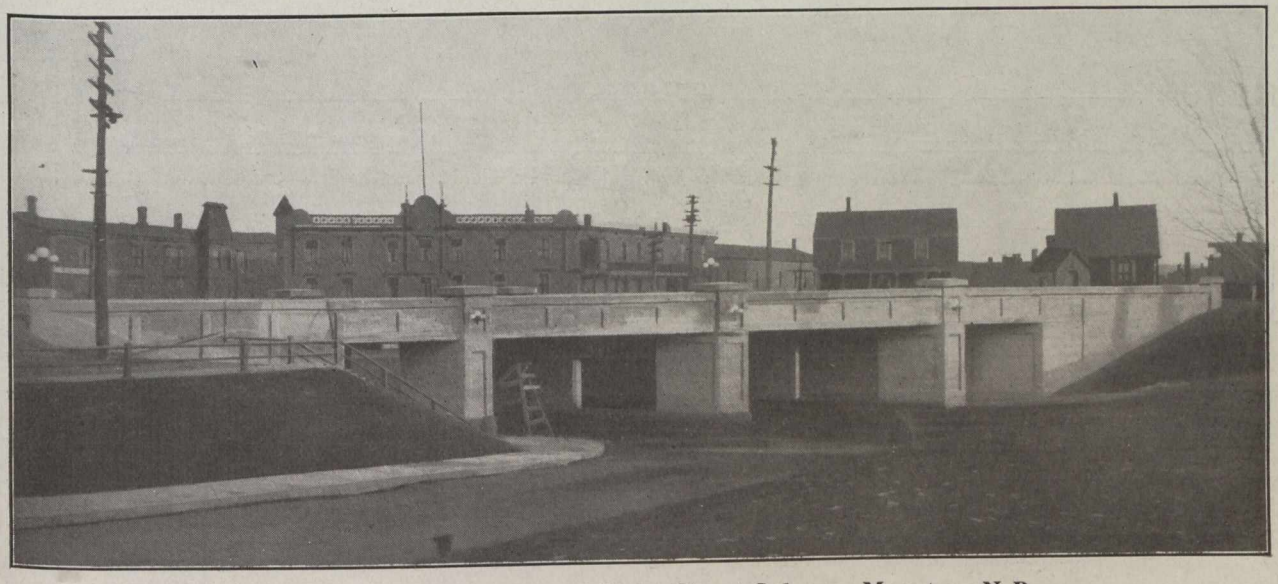
NOTABLE IMPROVEMENT RECENTLY COMPLETED BY CANADIAN GOVERNMENT RAILWAYS ON THE INTERCOLONIAL RAILWAY IN THE CITY OF MONCTON—NOTES ON ITS DESIGN AND CONSTRUCTION.

THE Canadian Government Railways have recently completed the construction of a subway to carry the tracks of the Intercolonial Railway over Main Street in Moncton, N.B. This crossing was previously of a dangerous character owing to the busy traffic on both railway and street. The intersection had become a particularly annoying one in recent years, so, in the summer of 1914 the Government Railways decided to eliminate the level crossing by constructing, with the consent of the ratepayers, a steel and concrete subway. The improvement is an important one for the city of Moncton, affecting not only Main Street, but Archibald and Foundry Streets, as the accompanying layout diagram illustrates.

Preliminary operations were commenced in December, 1914. They comprised a considerable amount of excavation and a diversion of the water, sewerage and gas mains. This work was carried on during winter months and dynamite was sometimes resorted to by the contractors in excavating through some three feet of frost. Excavation was completed early in March, 1915. Directly in the centre the ground was excavated to a depth of 13 feet, while the tracks were raised some 5 feet and graded accordingly on both ends. The excavated material, amounting to about 15,000 cubic yards, was removed with a 28-ton Marion revolving shovel and transported from the site in 6-yard dump cars drawn by a Dinkey engine.

A temporary trestle was erected on the north side of Main Street and was in use for a period of about six months or during regular construction operations, and little inconvenience was caused to pedestrian traffic. Vehicular traffic was diverted to other convenient streets.

The structure is of steel encased in concrete and with reinforced concrete abutments. As illustrated by the views from points on Main and Archibald Streets, it presents a well-balanced appearance, the design being artistic, yet practical, and the finished work giving a pleasing effect. The subway is 80 feet in width and is spanned by a bridge 115 feet in length. The latter has a reinforced concrete waterproof floor and carries three tracks and two walkways for railway employees. Both upper and lower floors are provided with adequate drainage facilities. The general features of the structure are indicated in the drawings shown herewith.



View from Archibald Street of Main Street Subway, Moncton, N.B.

The subway is lighted on the exterior with cluster lights, as shown, and underneath with ceiling lights, which are located in the openings of the piers.

The improvement included laying wood block paving for a short distance on either side of the subway. The foundation for this work was prepared first by a six-inch layer of cinders rolled with a 16-ton roller. Over this was spread concrete to the thickness of 6 inches, which was covered by a finished paving composed of 3-inch creosoted