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DON SECTION, BLOOR STREET VIADUCT, TORONTO

SOME NOTES ON THE PRELIMINARY WORK ATTENDING THE WHOLE PROJECT—FOUNDATION TESTS—FEATURES OF DESIGN OF DON RIVER SECTION.

THE rapid development during recent years of the northeastern section of the city of Toronto has produced an acute need for better transportation facilities across the Don river. While the business and residential sections of the city lie almost entirely west of this river and the ravines adjacent to it, annexation and development has resulted in a large and increasing population which is served by two thoroughfares; *viz.*, the Queen St. bridge, accommodating practically all

able route, taking all necessary levels, cross-sections, etc., to enable the Department to prepare plans and specifications for the proposed viaduct. In addition to information regarding the physical condition of the site, it was necessary to collect and arrange a great deal of information relative to the growing demand of city traffic, both surface and underground. In January, 1913, a by-law was passed by the ratepayers authorizing the sum of \$2,500,000 to be expended on the enterprise. Since that

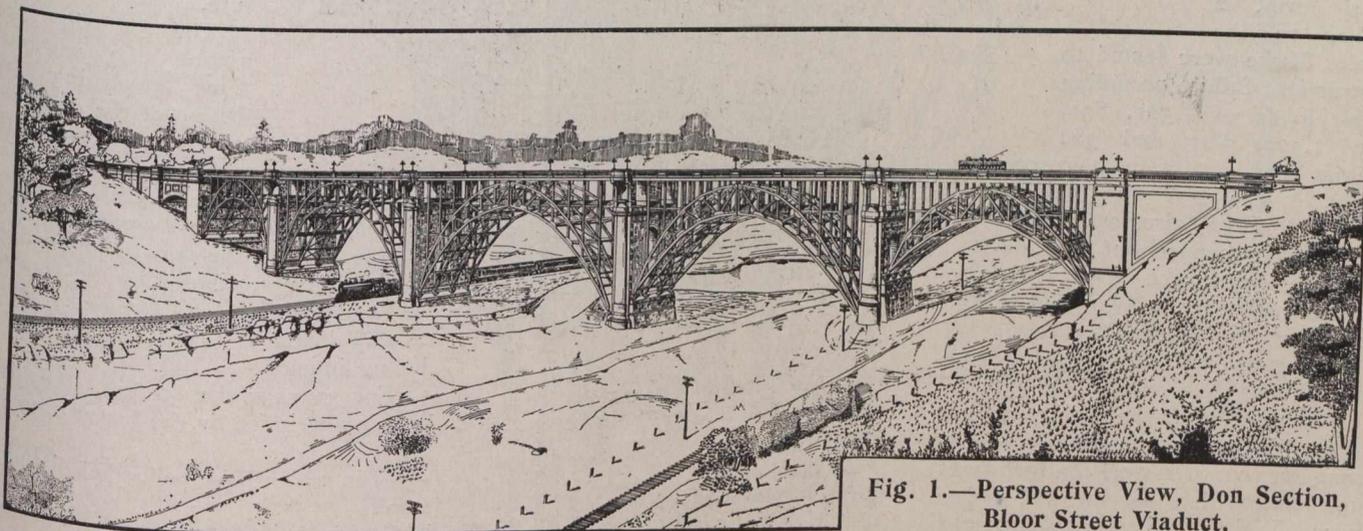


Fig. 1.—Perspective View, Don Section, Bloor Street Viaduct.

downtown traffic over the Don, and the Gerrard St. bridge. These thoroughfares are both relatively near the waterfront, and necessitate considerable deviation of traffic that rightly belongs to the northern portion of the city, together with an excessive congestion at busy periods of the day, along the present avenues of communication.

With the development of the Danforth Avenue section of the city and the establishment of a civic car line to convey traffic between the extreme eastern section of the city and the bank of the river (where communication with the business section of the city is effected by transfer to a south-bound car service) it became more and more obvious that a viaduct to span the Don river and Rosedale ravine, thereby affording direct transport to and from Bloor Street and the central portion of the city, was required, to dispense with the handicap which had so long prevailed both to freight and passenger traffic.

During the summer of 1912 the Department of Works of the city, under the direction of Commissioner of Works R. C. Harris, made a thorough survey of the best avail-

time the investigations have been carried on to the most minute detail and have just recently been completed. At the present time tenders for the Don section of the viaduct are under consideration, and it is probable that tenders will be solicited for the Rosedale section in a short time.

The surveys for the whole of the viaduct consist in general of its alignment, together with that of the adjacent streets and properties likely to be affected; the taking of levels for a distance of 100 ft. from the centre line on either side, at 10-ft. intervals, the results therefrom giving cross-sections for every 10 ft. between Sherbourne Street on the west and Broadview Avenue on the east side of the site. These cross-sections were necessarily very extensive at certain places, particularly between Sherbourne Street and Edgedale Road, in the Rosedale Valley between Parliament Street and Castle Frank Road, and also on the east side of the Don Valley. To facilitate measurements during the process of construction, permanent monuments were set and their location and elevation carefully determined.