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# The Role of Independent Engineer in the Design and Construction of Long Span Bridges in Canada

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## ABSTRACT

This paper describes the role of Independent Engineer (IE) in the design and construction of the newly constructed New Bridge over the Saint Lawrence (NBSL) River, also known as the New Champlain Bridge, in Montreal, Canada. The \$3.2B Public-Private Partnership (P3) project includes a 2.1 mile long new bridge with a 790-foot cable-stayed main span. It also includes 19 bridge overpasses, and more than 3 miles of highway improvements. The new bridge has two three-lane corridors for vehicular traffic and a two-lane light rail transit system, as well as a multi-use path for pedestrians and cyclists. This new bridge has a 125-year design life and was open to highway traffic in both directions on July 1, 2019. The construction is ongoing on the bridge to install the light rail transit system which is expected to open in the spring of 2023. Various monitoring mechanisms have been set out to ensure that the Private Partner delivers the project in compliance with stipulated performance criteria. The Stantec and Ramboll team was selected by the Private Partner and the Government of Canada to be the Independent Engineer, whose mandate involves, examining, at various stages, the design documents, supervision plans and the management and quality control system provided by the Private Partner (PP), performing design reviews at various stages of the design, monitoring all work for the purpose of compliance with the Project Agreement (PA), and issuing certification of the completion of the work at Substantial and Final completion stages

**Keywords:** Bridge, Champlain, Independent Engineer, Long Span, Construction, Stantec