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## Gordie Howe International Bridge: Project Overview and Design Features

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### ABSTRACT

The Gordie Howe International Bridge, crossing the Detroit River between Windsor (Canada) and Detroit (USA), will be the longest main span cable stayed bridge in North America with an 853 m / 2800 feet main span and the longest main span cable stayed composite deck bridge in the world. This paper provides a general overview and design features including foundation, tower, piers and superstructure and erection. It will highlight design challenges including aerodynamics, stay cable design, redundancy and durability.

**Keywords:** Gordie, Howe, International, Bridge, Cable, Stay

### 1 INTRODUCTION

Planning for the Gordie Howe International Bridge Project began in 2000 for a new international trade and border crossing bridge and infrastructure facility to be constructed across the Detroit River, that would link the cities of Windsor, Ontario in Canada and Detroit, Michigan in the United States of America. The route would provide uninterrupted traffic flow between major interstates and highways, as opposed to the current crossing at the nearby Ambassador Bridge, which connects to city streets on the Canadian side. This critical infrastructure project will handle over 28% of the commercial traffic between Canada and USA. The project development advanced through the subsequent years to include environmental studies, geotechnical analyses, preliminary land acquisitions, site preparation work, and permitting.