



Izmit Bay Suspension Bridge – Overview of the Project

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Summary

The scale of the bridge and the tight schedule in the EPC contract requires the state of the art, suitable design, well proven construction method adopted challenging technics, and financial success for the project. The paper deals with the project overview including design, construction update, and schedule.

Keywords: suspension bridge, large bridge construction; design development; Schedule

1. Introduction

The Izmit Bay Suspension Bridge will carry the new Gebze-Orhangazi-Izmir motorway across the Sea of Marmara at the Bay of Izmit in northern Turkey as shown in Figure-1.

The new Gebze-Orhangazi-Izmir motorway was contracted between OTOYOL YATIRIM VE ISLETME A.S formed by Nurol, Ozaltin, Makyol, Astaldi, Yusel and Gocay and a General Directorate of Highways, Turkey as Build-Operate-Transfer (BOT) project for 22 years and 4 months in September, 2010. The NOMAYG joint venture formed by the same six companies as for OTOYOL, as single EPC implementing body to construct a 420 kilometer road including the Izmit Bay Suspension Bridge. The Izmit Bay Suspension Bridge was contracted to the IHI Infrastructure System (IHI) in July 2011 by NOMAYG.



Figure-1 Project map

Scope of IHI's works is Engineering-Procurement-Construction (EPC) of the IZMIT Bay Suspension Bridge including transition span at both ends. Under the IHI's scope, several subcontract was signed with unique entities, such as Design for COWI (Denmark), IDC for Halcrow (UK) and TY-Lyn(USA), Soil investigation for Fugro (USA), Substructure Works for STFA (Turkey), Cable manufacturing for Tokyo Rope (Japan), Cable Saddle manufacturing for Cividale (Italy), Steel fabrication of Tower and suspended Deck for Cimtas (Turkey), Steel shaft for TGE (Turkey), Transition Deck for Cimolai (Italy), Electrical products for Siemens (Turkey), etc..