

Mini seminar – Bridge Construction Methods

Wednesday 31st October 2017, 15:00-19:00

Fjordforbindelsen byggeplads, Marbækvej 56A, 3600 Frederikssund



Frederikssund Fjord Link

The seminar will present two of the ongoing large bridge projects in Denmark – The Storstrøm Bridge and the Frederikssund Fjord Link. The aim is to give a very technical introduction to the Contractors considerations and approach to detailed design and construction methodology.

The seminar will include a site visit on the Frederikssund Fjord Link construction site.

Please note the presentations will be in English.

Programme

- 15:00-15:15 Welcome and Introduction to IABSE
Erik Stoklund Larsen, IABSE Denmark
- 15:15-15:55 Frederikssund Fjord Link
Xavier Debruche, Project Manager – Besix (RBAI JV)
- 16:00-17:00 Site Visit (Please bring PPE)
- 17:00-17:45 Innovative Construction Methods in the design of the New Storstrøm Bridge
Mario de Miranda, Partner of DMA
– de Miranda Associati Consulting Engineers
- 17:45 – 18:00 Closing remarks
Erik Stoklund Larsen, IABSE Denmark
- 18:00 – 19:00 Drinks and snacks

Registration

Please register before
October 24th 2018 by e-mail to:
mah@femern.dk

Please include name, affiliation
and whether you are a personal
member of IABSE.

Registration fee

The mini seminar is free for
personal members of IABSE,
DSBy, NVF and for students.

There is a registration fee of 500
DKK for all other participants.

Payment

Please transfer the fee at the time of
registration to the following account:

**Dansk Forening for Brobygning og
Bærende Konstruktioner**

Branch: Danske Bank
Reg. number: 1551
Account number: 7020694

Mark:

Please mark transfer with your name
and “Mini seminar”.

Participants from Norway, Sweden
and Finland:

IBAN: DK84 3000 0007 0206 94
SWIFT – BIC: DABADKKK

The project:

Frederikssund Fjord Link

The project consists of the design and construction of an approx. 8 km-long 4-lane dual carriageway, including a 1.4 km-long high bridge and several smaller civil structures (e.g. fauna overpasses and cycle lanes).

The new link highway will reduce traffic congestion in the town of Frederikssund and provide an alternative route to the only bridge that currently crosses Roskilde Fjord.

The design phase started in October 2016 and the project is scheduled to finish at the end of October 2019.

The contractor: RBAI JV

The Danish Road Directorate (Vejdirektoratet) has awarded to RBAI JV I/S the contract for the Frederikssund Link highway.

RBAI JV I/S is a fully integrated joint venture formed by the three large international entrepreneur companies Rizzani De Eccher (Italy), Besix (Belgium) and Acciona Infraestructuras (Spain).

Presentation: Construction methodology of Frederikssund Fjord Link high bridge

- Short general description of the project
- Design and construction methodology of the High Bridge
 - » Dimensions and construction planning
 - » Geotechnics and foundations
 - » Off shore pile caps and piers
 - » Prefabrication and installation of the deck segments



Innovative Construction Methods in the design of the New Storstrøm Bridge

Presented by Mario de Miranda, Partner of DMA – de Miranda Associati Consulting Engineers, and Design Manager for the new Storstrøm Bridge

The new 4km-long Storstrøm Bridge in Denmark, the detailed design of which is now under way by consultant De Miranda Associati, is now under construction.

The double-deck bridge will replace the existing crossing and will carry two highway lanes and two railway tracks. It will link the island of Falster with the main island of Zealand.

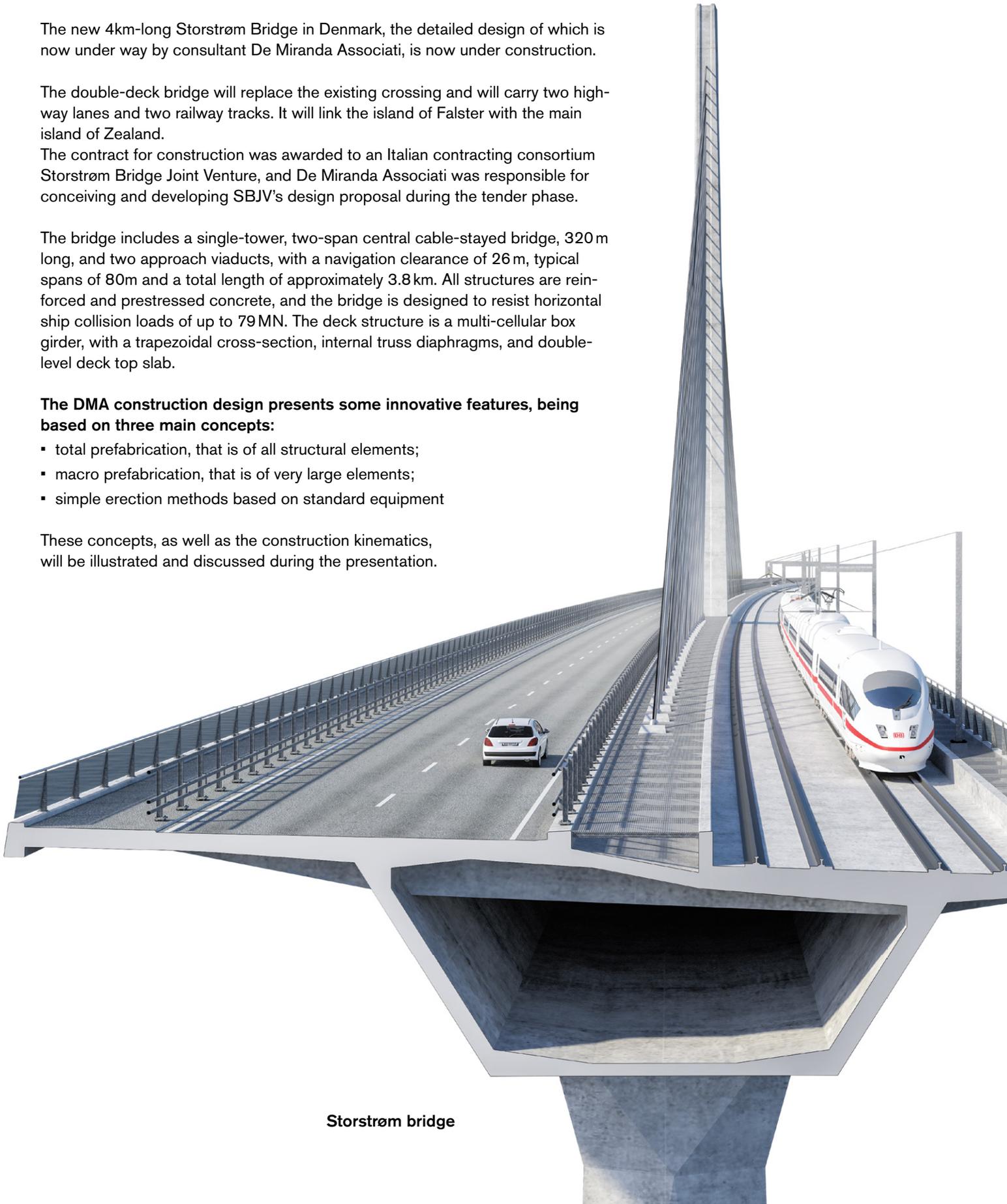
The contract for construction was awarded to an Italian contracting consortium Storstrøm Bridge Joint Venture, and De Miranda Associati was responsible for conceiving and developing SBJV's design proposal during the tender phase.

The bridge includes a single-tower, two-span central cable-stayed bridge, 320 m long, and two approach viaducts, with a navigation clearance of 26 m, typical spans of 80m and a total length of approximately 3.8 km. All structures are reinforced and prestressed concrete, and the bridge is designed to resist horizontal ship collision loads of up to 79 MN. The deck structure is a multi-cellular box girder, with a trapezoidal cross-section, internal truss diaphragms, and double-level deck top slab.

The DMA construction design presents some innovative features, being based on three main concepts:

- total prefabrication, that is of all structural elements;
- macro prefabrication, that is of very large elements;
- simple erection methods based on standard equipment

These concepts, as well as the construction kinematics, will be illustrated and discussed during the presentation.



Storstrøm bridge