

DISSING+WEITLING architecture Designs the World's Longest Floating Bridge

The process of designing and constructing a new five-kilometre floating bridge has begun. Towards 2020 DISSING+WEITLING architecture will be part of the winning team designing and advising on the most advantageous bridge solution extending motorway E39 across Bjørnafjorden in Hordaland, Norway.

The concept development phase will be conducted on behalf of the Norwegian Public Roads Administration and will include design and documentation of four possible solutions for a bridge connecting Bergen, Stord, Haugesund and Stavanger. Finally, the Norwegian Public Roads Administration will select a solution based on the concept investigation.

The bridge will replace the current ferry and thus reduce the travel time from a 40-minute ferry ride to an 11-minute drive. The bridge will also be equipped with a cycle and footbridge.

A joint press release on the new ground-breaking and challenging task states:

- In a project such as this one there is no standard solution. We have put together an expert group with special skills within transportation and bridges, offshore and other marine projects. This is an exciting task that will require developing new technology. (...)

And according to Project Manager of the project design group Svein Erik Jakobsen from the engineering firm Aas-Jakobsen:

- This may just be the most challenging cross-disciplinary project in Norway in modern times.

DISSING+WEITLING architecture has been selected as the project's architectural firm based on its extensive expertise in bridge design in many parts of the world and in challenging terrain. Jesper Henriksen, Head Designer on the project at DISSING+WEITLING architecture, says about the firm's visions for the bridge:

- Due to its size alone the bridge will be a marked presence in the landscape, and we are therefore working on a simple and logical design that takes as its starting point the challenges found in the beautiful Norwegian countryside. You can say that we care that the bridge's construction is explainable and visually understandable through its local structure. Our design of the world's longest floating bridge contains a lot of new technical breakthroughs and exciting challenges – the bridge's static function alone is challenging and presents us with technical as well as aesthetic opportunities.

Innovative and Ground-Breaking

Bjørnafjorden is five kilometres wide and almost 600 metres deep, which in itself places demands on the application of new bridge technology – a technology the Norwegian Public Roads Administration has been working on since 2009 in cooperation with the best Norwegian and foreign engineers.

- The bridge's visual character is always important – the way it meets the water and landscape – and not least the proportioning of the pylons and pillars. We assign value to and focus especially on the north side with the beautiful coastal landscape. Bridges like this one have – through optimal cooperation between architects and engineers – the potential of becoming an icon and landmark – in this case of the technological development and Norway's position within bridge-building, Architect Jesper Henriksen concludes.

The team that will be working on the new floating bridge across Bjørnafjorden comprises: Aas-Jakobsen, COWI, DISSING+WEITLING architecture, Multiconsult, Aker Solutions, the Norwegian Geotechnical Institute (NGI) and Moss Maritime.