



The New City Bridge in Drammen, Norway. Designing a new urban landmark for an extreme environment.

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Abstract

Following a competitive tender in 2018, the City of Drammen, Norway, has commissioned a new bridge, which will replace the city bridge (Bybrua), an ageing structure across the river Drammenselva. Located at the heart of Drammen, the bridge will be a pivotal link in the local infrastructure network, improving connectivity for public transportation (bus lanes) and cycle networks while providing a safe and enjoyable route for pedestrians. Once finished, the bridge will significantly improve the quality of the public realm, providing direct access to the platforms of the local main station as well as tying into two new urban plazas at both ends of the bridge including the barrier free access to the re-developed riverbank. The design stage faced several technical challenges, including the spanning of a 170m-wide river with poor bedding conditions as well as the construction above live railway of the Drammen Station. Concerns over ice loading, temperature extremes and the impact of a marine climate had to be addressed and new concepts for pedestrian and road safety on deck were developed. Located in a prominent spot, great diligence has been given to developing a modern architectural language that is both elegant and functional and defines the bridge as a new landmark for the city. The paper explores the development of the design from concept to tender stage and discusses the technical and architectural challenges and how they have been addressed by the interdisciplinary team of engineers, architects, landscape architects and designers.

Keywords: Aesthetics, Architecture, Urban Design, Rail, River, Ice, Pedestrian, Cyclist, Composite, Steel.