



## Kolbaeck Cable-stayed Bridge, Sweden

**Contract Period**  
1998-2000

**Completion**  
2000

**Construction cost**  
NOK 190 mill

**Services rendered**  
Detailed design, construction engineering and shop drawings in a "design and build" contract for PEAB.

**Client**  
Swedish Public Roads Dept.

**Contractor**  
PEAB

The Kolbaeck Bridge spans across the Ume River and carries a new link of highway E4 around the city of Umeaa in Northern Sweden. The bridge has a main span of 130 m suspended from one pylon, and is designed also to provide a landmark in the flat landscape in the outskirts of the city.

The bridge deck is designed for two traffic lanes with wide shoulders and a wide pedestrian and bicycle path. It is designed with twin, triangular steel boxes in composite with a concrete slab cast in-situe. Integrated steel cross beams are provided at stay anchors and at the pylon support.

The pylon is a skew frame designed in cast in-situe concrete. Steel boxes are provided in the anchor zones. The triangular shape is repeated in the outer surfaces of the pylon legs, which have varying dimensions.

### Key data

Concrete quality: C45  
Steel quality: S460ML, S420ML, S355J2G3, S355N  
Stay cables: 150 mm<sup>2</sup> monostrands st.  
1670/1870 type VSL

