



Computer image

## Stord Bridge

**Contract Period**  
1996-2001

**Completion**  
2001

**Construction cost**  
NOK 340 mill

**Services rendered**

- Preliminary Design
- Complete tender design
- Complete detailed design
- Construction follow up and supervision

**Client**  
Norwegian Public Roads  
Administration

Stord Bridge is an element of the Triangle Link project, which is located South of Bergen at the West Coast of Norway. The bridge together with a deep sub-sea rock tunnel provides mainland connection southwards for the island of Stord. The suspension bridge is of a design traditional to Norway, i.e. concrete pylons, a narrow aerodynamic steel box girder in the main span with two traffic lanes and one pedestrian lane. Approach bridges are partly concrete, partly composite viaducts; thus the main cables in these areas are backstays, i.e. without hangers. The main cables are rock- anchored. The bridge is set in unspoiled natural surroundings requiring special attention to architectural and environmental considerations.





Pylon saddle during installation



Pylon during construction

## Stord Bridge, cont'd

### Materials:

Concrete pylons:	C45/C55
Steel box girder:	S355
Cable wire:	1570 MPa

### Geometry:

Main span:	677 m
Total length:	1078 m
Pylon height:	97 m
Ship Channel:	H x B = 200 x 18 m

Bridge girder vertical radius: 11460 m

Bridge girder width: 13.5 m

Bridge girder height: 2.7 m

Main span sag/span ratio: 1:10

Side span gradients: 1:2.37/1:2.65

Cable diameter: 323 mm

Tender documents were prepared for two separate cable alternatives, i.e. a locked coil alternative and an air spun alternative. This meant that it was required to develop two sets of concepts in areas such as hanger clamps, saddles and anchorage details.