

Raftsundet Bridge

C4-24
Reference
Project



OWNER/CLIENT: Norwegian Road Authorities, Nordland
CONSULTANT: Dr. Ing Aas-Jakobsen
CONTRACTOR: AS Anlegg
ARCHITECT: Boarch Arkitekter A/S
MAIN SPANS: 202 + 298 m
SIDE SPANS: 86 + 125 m
CONCRETE VOLUME: LC60: 2400 m³ / C45: 1600 m³ / C65: 10700 m³
 Built 1998

kg pr. m ³	LC60
Cement	430
Microsilica	25
Water	175
Sand	745
Stalite LWA 2-16	550
Super, SP40	4.0
Plastiziser	2.5
Air, LM	0.5

The Raftsundet bridge, with a main span of 298 m and a total length of 711 m, was the longest concrete cantilevered span in the world when the cantilevers were joined on June 24th, 1998. The structure is exposed to a severe wind climate with a designated gust wind speed of nearly 60 m/s. The surrounding alpine topography with high mountains rising up to 1000 m above sea level, creates fluctuating wind forces of large magnitude against the bridge. The dynamic wind climate severely affects the slender columns and the bridge beam. The main span is built in high-strength lightweight aggregate (LWA) concrete LC60, and the side spans and piers in normal density (ND) concrete C65. The bridge is high level, providing a ship channel of 45 x 180 m.