NordHordland Bridge

WEB ADDRESS: www.aasjakobsen.no/Bridges/References/Nordhordland

High Bridge: (kg/m³)
- Cement, HS 65: 430
- Silica: 35
- P, BW-40: 1.5 litre: 55.5 litre
- L, Siika AER: 1.9 litre
- Sand 0-5mm: 630
- Leca 4.8mm: 295
- Leca 8.12mm: 275
- Water total: 195

Nominal: w/(c+2s) = 0.39
Effective: w/(c+2s) = 0.31
(7.5% absorption)

Floating Bridge: (kg/m³)
- Cement P30-4A/HS 65: 410
- Silica fume: 33
- Sand 0-5mm: 675
- Liapor 8 4-8 mm: 270
- Liapor 8 4-16 mm: 325
- Scancem P: 40% 2.33
- Scancem SP-40: 40% 6.75
- Scancem L(T): 1.9 0.5-1.5
- Scancem R-20: 20% 0.3

Water (ex. Absorption): 150
w/(c+2s) ≤ 0.35 +/−0.02

Owner/Client: The Public Roads Administration, Hordaland
Consultants: Dr. ing Aas-Jakobsen A/S / Instanes A/S / Savik & Kloster A/S (+ Consulting Eng. A.R. Reinertsen, for the floating bridge)
Contractors: Selmer A/S (high bridge) / AF Salhus Flytebruk (UV: Kvaerner Eureka a.s, Norwegian Contractors a.s and A/S Veidekke)
Architects: Lund & Slattø, Lund & Lovseth, Hindhammar Sundt - Thomassen

Nordhordland bridge consists of a high cable stayed bridge and a floating bridge

High Bridge:
- Single tower reaching 98 m above sea level.
- The main span (163 m) in LWC, ND-concrete grade C45 in rest of structure.

Floating Bridge:
- A continuous 1246 m high grade steel box girder supported by 10 pontoons (42x20.5x7.2-8.9 m) made of LWA-concrete. The pontoons were built in a dock near Fredrikstad.

Concrete Volume:
- High bridge: LC55: 1150 m³ <1900 kg/m³
- Floating bridge: LC55: 8500 m³ 1950 +0/-50 kg/m³
- Shore attachments: 10400 m³ ND

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