

JiangSu Province, China

SuTong Bridge Construction Support

Ben C. Gerwick, Inc. was retained by COWI A/S to provide construction consulting for the JiangSu Province SuTong Bridge Construction Commanding Department for the construction of the new cable-stayed SuTong Bridge across the Yangtze River in China. Gerwick provided foundation engineering services for the design and installation of large diameter drilled shafts for the bridge foundations, including recommendations on:

- Steel casing installation, including installation sequence and position tolerance.
- Contingency plans for damage to casings.
- Drilling sequence and pile capacities.
- Drilling slurry and slurry properties.
- Stand-up time prior to concreting.
- Methods for reducing filter cake.
- Testing.
- Steel Reinforcement cages, including spacing of vertical reinforcing steel, weldability, concrete cover, and lengths of Individual cage segments.
- Tremie concrete mix, including flowability measurements, slump, retardation periods, water-to-cement ratio, fly ash and aggregate content.
- Tremie concrete placement, and placement rates.
- Post grouting of pile tips, grout mix, and monitoring of grout pressures and flow rates.



Visualization of SuTong Bridge crossing.



Drill bit.

Services Performed:

- Expert Assistance
- Foundation Engineering
- Drilled Shafts
- Tremie Concrete
- Concrete Technology



Drilled shaft casing.

Year of Completion: 2003

Construction Cost:

Client: JiangSu Province SuTong
Bridge Construction Commanding
Department