TUNNEL MELLAT (NIAYESH-SADR)

Preliminary design

Country: Iran
Client: D2 Consult International Ltd.
Year: 2009

Project description:

The tunnel Niayesh-Sadr is situated in north part of Tehran in Iran. The road tunnel will connect main highways (highway Niayesh and highway Sadr) with ramps by the highway Kordestan (west) and the highway Modares (east). The tunnel has two driven tubes connected by cross-passages, cut and cover parts and many adjacent ramps (in areas Niayesh, Kordestan, Modares and Sadr). Central access adit and shaft are also part of the project.

Both tunnel tubes have three lanes 3.5 m wide, one emergency lane 2.5 m wide and two footways 1 m wide. The main tube excavation is 18.0 m wide and 12.6 m high, its area is 185 m², the area is larger in tunnel bifurections. The North tube length is 2.2 km, the South tube length is 2.8 km. The tunnel will be excavated by NATM in alluviums (mixture of sands and gravels) with the maximum cover 40 m.

Project Contribution:

D2 Consult Prague realised part of preliminary design documentation and supervised detail design documentation.

Services provided:

♦ Drawings (excavation procedure, support classes, cross-sections, etc.)
♦ Preliminary static evaluation of all important cross-sections
♦ Supervision of all static calculations of the detail design