

Tunneling and geotechnics

Markovec tunnel

Project type

two-pipe two-way tunnel

Location

Koper, Slovenia

Investment value

120.000.000,00 €

Year(s)

2004 - 2006

Services

building permit design,
tender design,
architecture,
landscape architecture.

Investor

DARS d.d.



Elea iC won the project in a joint venture partnership having approx. 40 % of the total design fee. Highway H5 Koper - Lucija is passing under the habited area of Markovec. The entrance portal of the tunnel is located at coastal cliff area, made of flysch. The tunnel runs under a densely inhabited area, with a considerable part of the tunnel in a low overburden area. The structure has two tubes with two lanes. The tubes are placed paralel. The total length of a single tube is 2230m, without 10 cross passages taken in consideration. The east portal is located at the foot of a steep cliff, where rockfall had to be considered in the portal facilities design. The alignment of the tunnel crosses flysch series containinhg Eocene clastic sediments, marls, siltstones, limestones and sandstones. Our design services include the review and improvement of the geological model, the definition and dimensioning of the inner lining with all auxiliary and safety elements and structures, architectural design of the tunnel portals, the design of dewatering, landscape arrangements. Along the project we also designed the 110 kW power line duct placed under the roadway.