

# Highway Tunnel

## Agios Ilias Tunnel

### Paraionian Road

Western Greece

#### Project

Highway tunnel

#### Construction Cost

Total cost: approx. € 16 m.

#### Project Schedule

Design: 2000-2003

Construction: 2000-2005

#### Project Description

Road tunnel

Total length: 623m

Cross section: 113m<sup>2</sup>

#### Method of tunnel excavation

NATM — Drilling and blasting with occasionally mechanical excavation

#### Final Lining

Reinforced concrete C20/25

#### Geology

Marls, clays, gravels, evaporites, limestones

Ground water

Max. overburden: 75m

#### Our Services

- Detailed geotechnical & structural design
- Structural design jointly elaborated by OMIKRON KAPPA CONSULTING & EDR GmbH, Munich

#### Construction Details

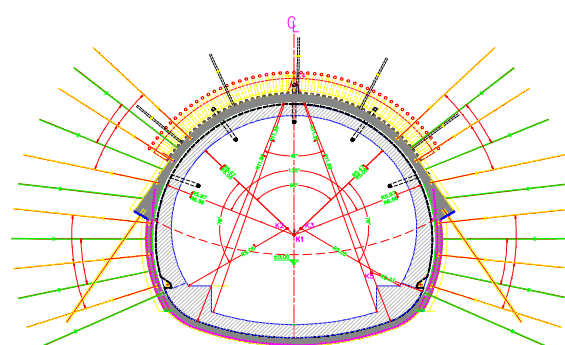
- Use of spiles
- Stiff concrete lining

#### Client

EFKLIDIS S.A.



Entrance portal



Tunnel cross section



Cut & Cover structure in the exit portal

# Cut & Cover Structure

## East Portal Cut & Cover of Agios Ilias Tunnel

### Paraionian Road

West Greece

#### Project

Cut & Cover

#### Construction Cost

Total cost: approx. € 3,5 m.

#### Project Schedule

Design: 2003  
Construction: 2003-2005

#### Project Description

Cut & Cover  
Total Length: 120m  
Cross section of horseshoe type

#### Geology

Marls, clays, gravels  
Landslide materials  
Groundwater

#### Our Services

- Detailed geotechnical & structural design
- Design jointly elaborated by OMIKRON KAPPA CONSULTING & EDR GmbH, Munich

#### Construction Details

- Construction of two rows of piles connected with cap beams
- Connection of the Cut & Cover crown with the cap beams
- Formation of the portal walls in curved surface with the use of metal formwork
- Construction of portal walls with the use of metal formwork of 8m length

#### Client

EFKLIDIS S.A.



Cut & Cover crown Concreting works



Cut & Cover base reinforcement and lateral walls construction



Cut & Cover crest