OmikronKappa Consulting

METRO PROJECT

THESSALONIKI

General and Detailed Final Designs

Thessaloniki Metro Extension to Kalamaria for two (2) single track TBM tunnels, one (1) station and one (1) forestation Thessaloniki, Greece.

THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

General Final Designs and Detailed Final Designs for two (2) single track TBM tunnels, one (1) station and one (1) forestation of the project: “Design, Construction and Commissioning of Thessaloniki Metro Extension to Kalamaria", Greece

THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Project Description

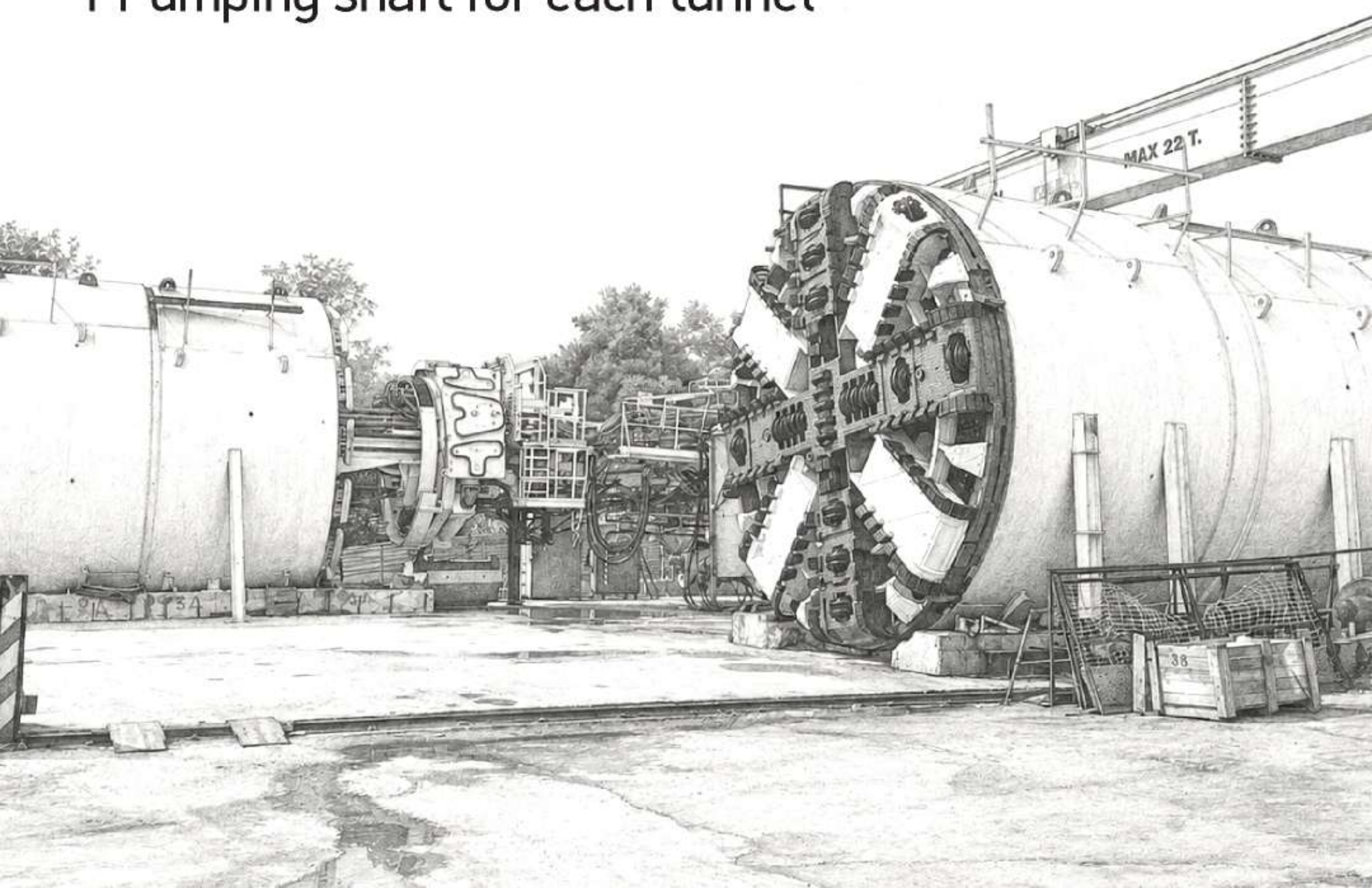
Two (2) single track TBM tunnels

Total length: ~ 7km

Cross section: 30.20m²

Effect. cross section: 22.10m²

1 Pumping shaft for each tunnel



THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Mikra Station

Length: ~ 320m (including crossovers)
Width: 16.60m - 23.80m
Depth: 18.70m - 21.90m
4 final levels: Foundation level / Platform level / Concourse & EM level /Roof level
Two (2) tunnels for TBM start up: Length: ~36m

THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Mikra Forestation Tunnel

Length: ~360m

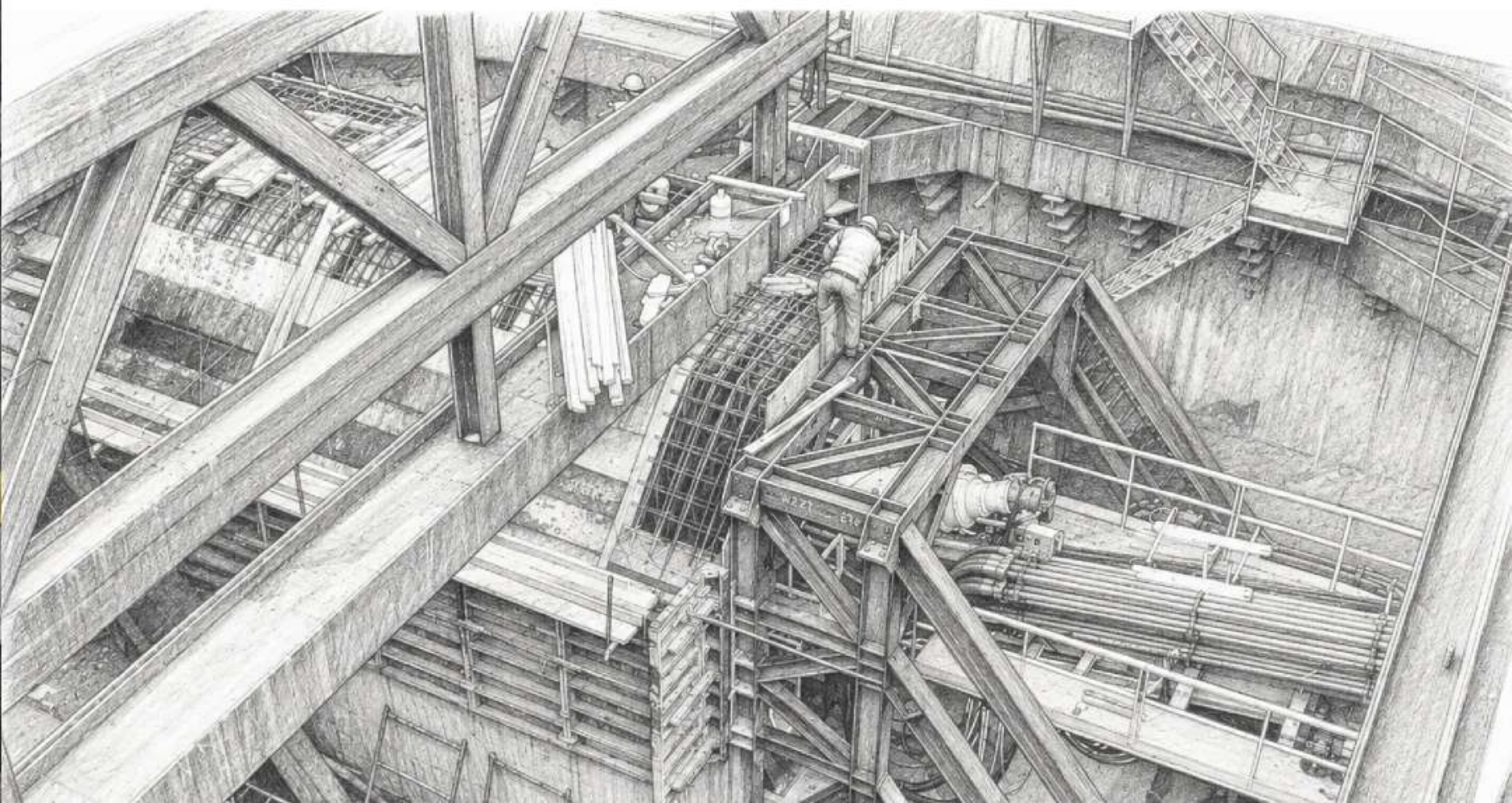
Width: 10.60m-28.50m

Depth: 13m-14.50m

2 final levels: Foundation level /Roof level

Terminal shaft: Length:8.00m, Width: 9.60m,

Depth: 9.60m



THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Construction Method

Two (2) single track TBM tunnels: Mechanical excavation with EPB - TBM (Earth Pressure Balance – Tunnel Boring Machine)

Mikra Station

Construction with Cut & Cover method reinforced concrete piles rows / Prestressed anchors/ Struts
Two (2) tunnels excavated with conventional means for TBM start up

Mikra Forestation

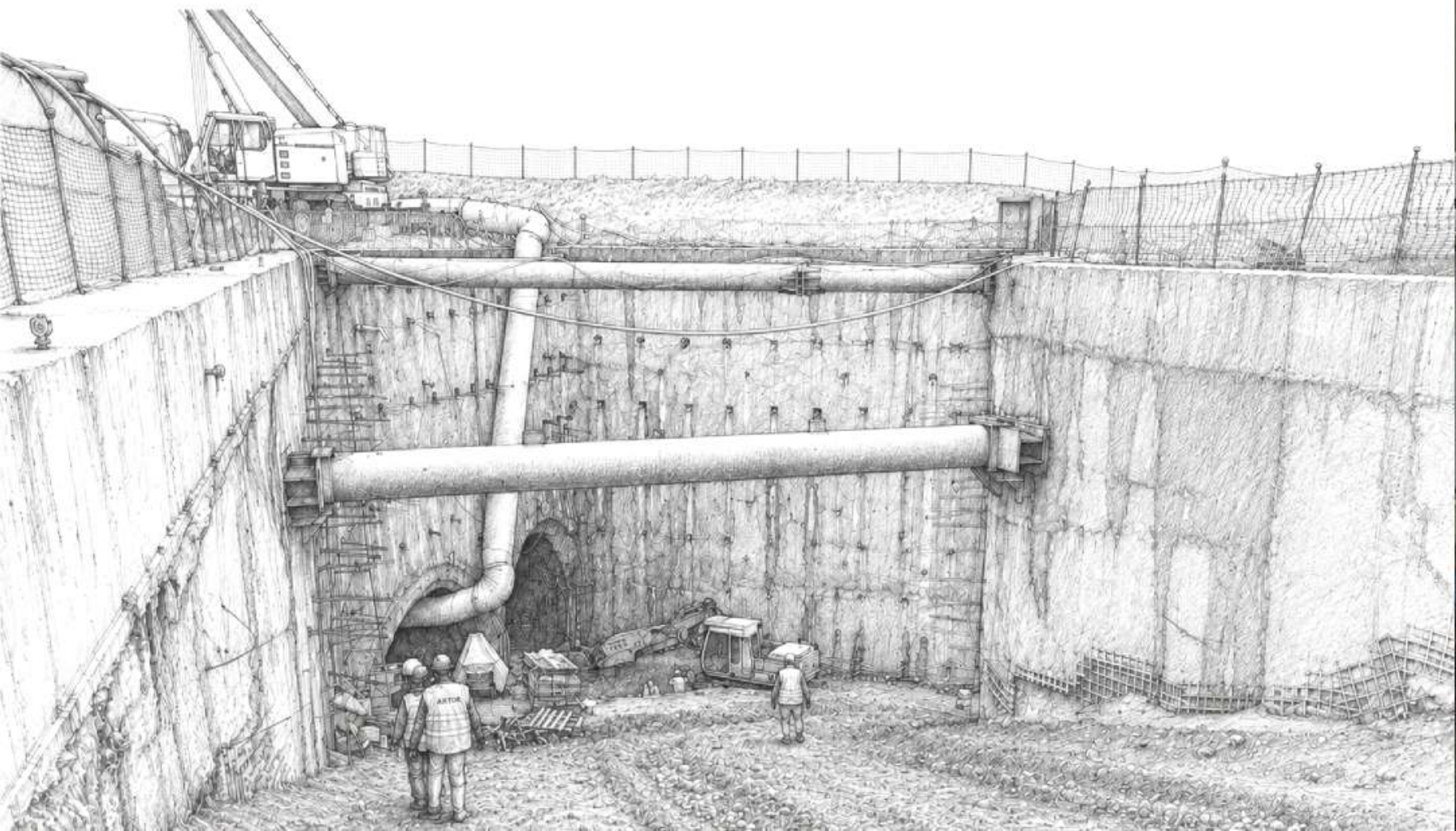
Construction with Cut & Cover method
Reinforced concrete piles rows / Prestressed anchors

THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Final Lining

- Concrete C40/50 for TBM tunnels' segments, Reinforcement B500c
- Concrete C30/37 for station's & forestation's permanent structures
- Reinforcement B500c



THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Geology

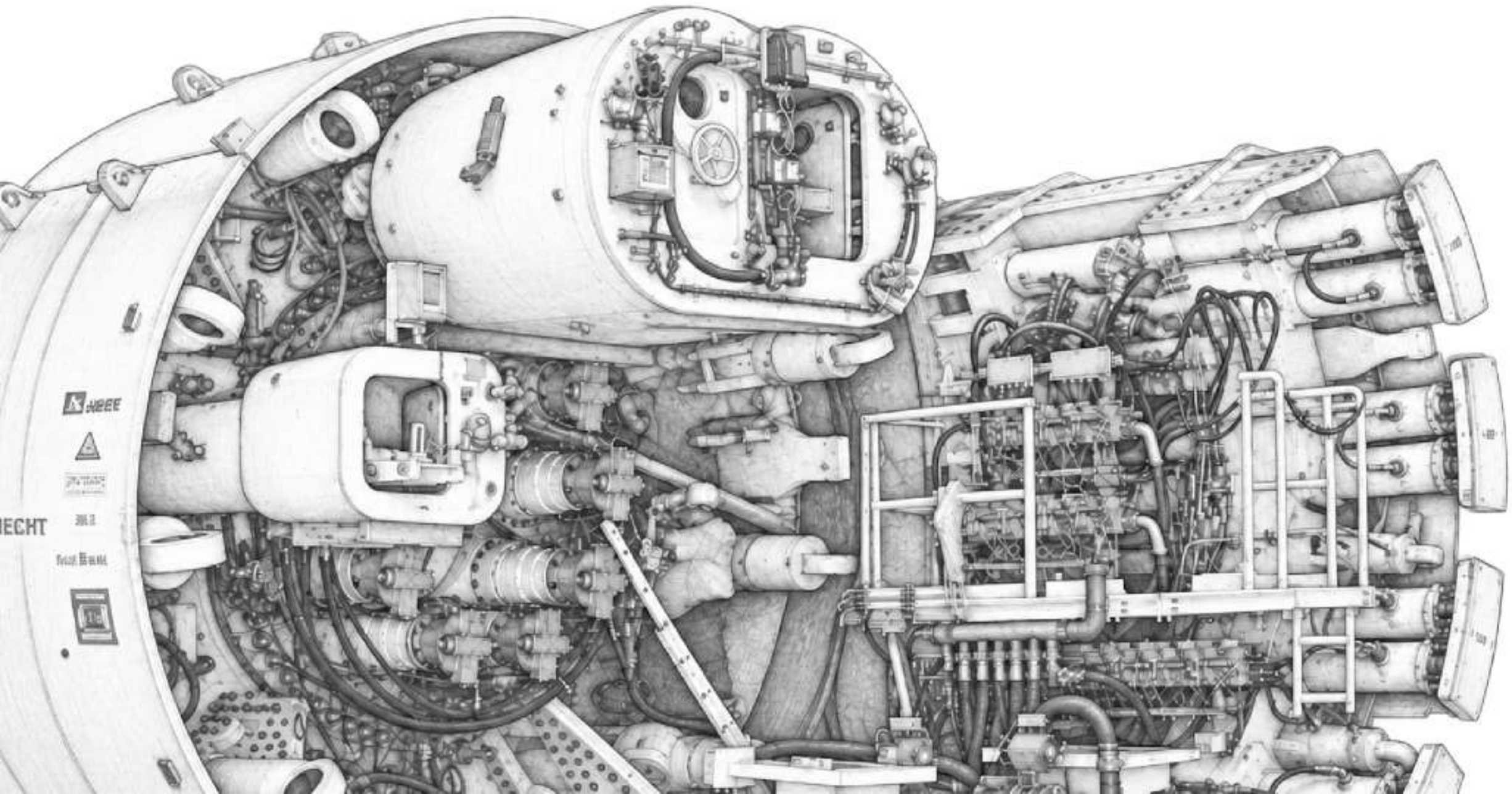
Neogene, quaternary deposits and recent superficial man made deposits, Overburden: 7 - 20m

THESSALONIKI METRO EXTENSION TO KALAMARIA

THE PROJECT

Our Services

- Geotechnical – structural evaluation
- Geotechnical and structural predesigns
- Geotechnical and structural General Final Designs
- Geotechnical and structural Detailed Final Designs



Omikron
Kappa
Consulting

Engineering Complex
Infrastructure with Precision