



# **VEIKOU TBM SHAFT**

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The construction percentage in VEIKOU TBM Shaft (excavation, temporary support, drainage) is now 64.5%. Moreover, connection and welding works of "NIKI" TBM systems have commenced. More precisely, the front/tail shield, the rotation system, the erector and the screw conveyor have been assembled.

At the same time, precast segment rings have been installed at the TBM bed to ensure driving of the back-up gantries No. 1 and 2 and connection with the remaining parts of the TBM.

In addition, the TBM advanced by the lower thrust cylinders and the construction of the starting frame commenced immediately.

A temporary conveyor belt was installed parallel to the TBM and a transverse feeding mechanism was also constructed.

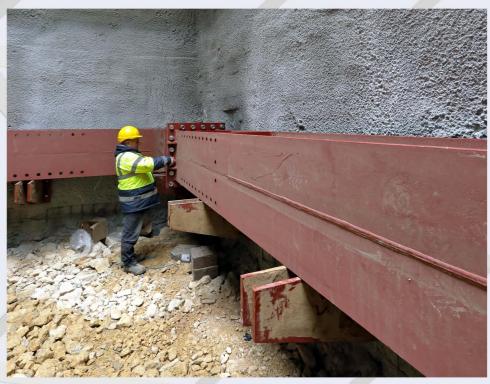


Electromechanical works and tests in TBM "NIKI".

# **EYDAP SHAFT**

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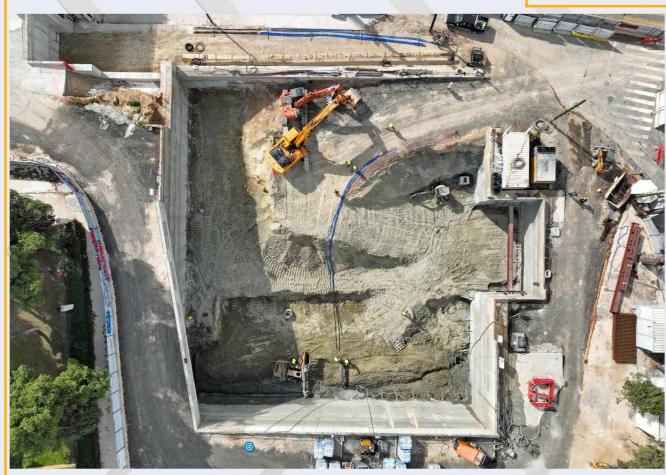
Excavation works continue in EYDAP Shaft through with a hydraulic hammer, which is currently at the 4th excavation level. Its construction percentage now reaches 45.20%. Moreover, steel struts have been installed at the 3rd excavation level.



<u>Installation of 3rd level struts at EYDAP shaft.</u>

# **DIKASTIRIA STATION**

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Drilling of anchors and excavation in DIKASTIRIA Station.

In DIKASTIRIA Station, excavation works at the 5th level have commenced at the east side of the trench while preparation works for the drilling of the 5th series of anchors are also in progress.

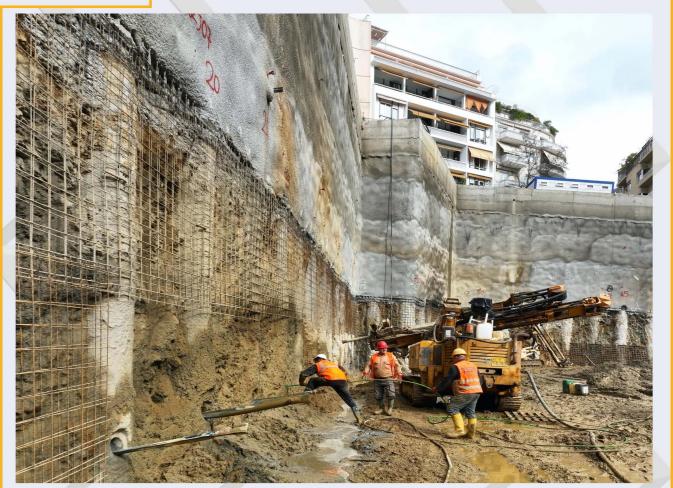
In February, the worksite offices were assembled and installed by the Contracting Joint Venture.



Worksite installation works in DIKASTIRIA Station.

# **KOLONAKI STATION**

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Drilling of 3rd level anchors in KOLONAKI Station.

In KOLONAKI Station, excavation works at the 3rd level is taking place, while preparatory works for the drilling of the 3rd row of anchors are in progress.

The completion percentage of the anchors of the central excavation of the station now reaches 24.66%.



Excavation in KOLONAKI Station.

#### **AKADIMIA STATION**

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**AKADIMIA Station.** 

In AKADIMIA Station, the works for the construction of the piles of the north entrance and the central trench of the station have been completed.

The excavation of the 1st level of the central trench commenced immediately and 41 out of the 61 anchors of the 1st row have been constructed. The overall completion percentage of the prestressed anchors of the central trench of the Station reaches 12.06%.

### **DIKAIOSYNIS SHAFT**

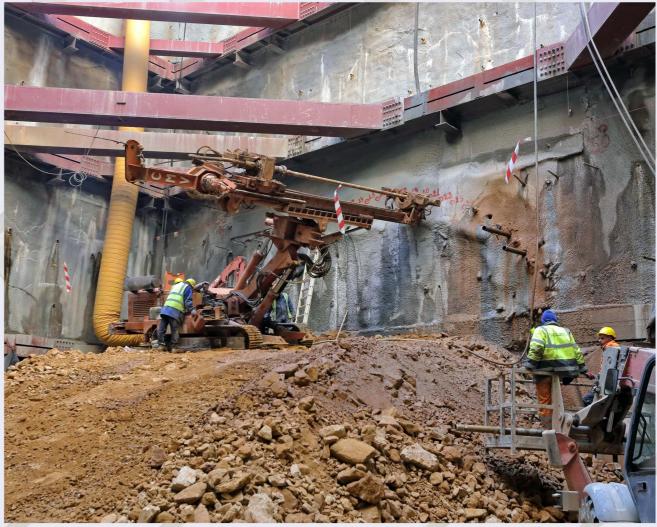


Concreting of the east side of the pile cap beam in DIKAIOSYNIS Shaft.

The works for the construction of the pile cap beam at the first ventilation shaft that the TBM "ATHENA" encounters have been completed, and the works for the excavation of the shaft shall commence immediately.

#### **GNA SHAFT**

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Forepoling works - GNA shaft.

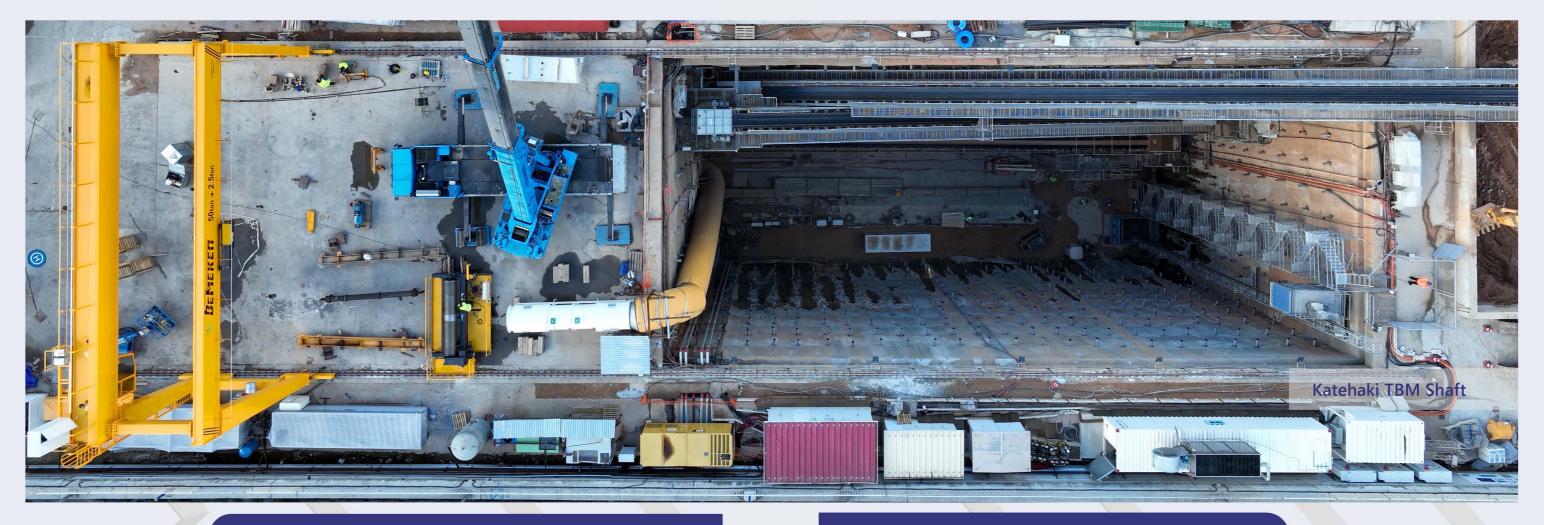


<u>Installation of frame at the connecting gallery – GNA shaft.</u>

In GNA Shaft, the works for the excavation of the connecting tunnel have commenced through the boring of forepoles.

This connecting tunnel shall connect GNA Shaft with the forestation tunnel (area for the stabling of new trains, their cleaning and maintenance).

Until now, the 6th frame of the connecting tunnel has been installed and 5.5m out of the 17.95m have been bored.



# KATEHAKI TBM SHAFT - TBM "ATHENA"



Tower crane assembly works – TBM Katehaki shaft.

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In TBM Katehaki Shaft, TBM "ATHENA" continues its journey having bored 73.14m out of the 762.66m of the 2nd Interstation (Dikaiosynis Shaft – Goudi Station) with the excavation progress percentage reaching 9.59%.

Moreover, the procedure related to the assembly of the overhead crane has been completed and its use commenced immediately.

### KATEHAKI TBM SHAFT - TBM "ATHENA"

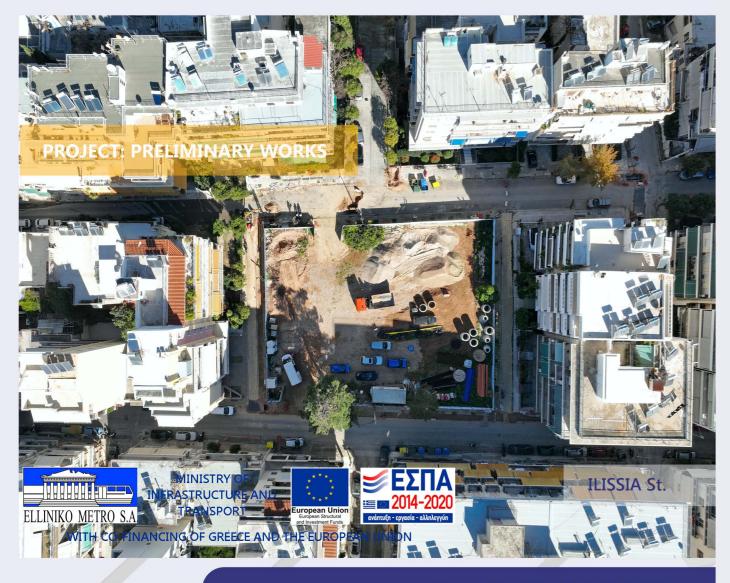
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A hyperbaric intervention was implemented at the excavation chamber for ensuring the inspection of the face, the cutting tools and the necessary recording of the cutterhead wear.

During this process, at least 30 discs were replaced.
The overall distance to be covered by TBM "ATHENA" from Katehaki Shaft to Evangelismos Trumpet shaft, where the TBM will be disassembled, is: 5091.67m.
The excavation progress of the journey of TBM "ATHENA" reaches 16.49%.



Disposal of TBM excavation spoil – TBM Katehaki Shaft.



#### **RELOCATION OF NETWORKS**

In ALSOS VEIKOU Station, works for the diversion of the sewage, DEDDIE and OTE networks are in progress.

In KIPSELI Station, works for the diversion of DEDDIE, OTE, Natural Gas and OSY networks are in progress, while works for the construction of the new underground substation of DEDDIE are being continued.

In ALEXANDRAS Station, works for the diversion of DEDDIE, EYDAP and OTE networks are being implemented.

In Evangelismos trumpet shaft the works for the diversion of PUO networks have been completed. Finally, in KESSARIANI Station, works for the relocation of DEDDIE, EYDAP and

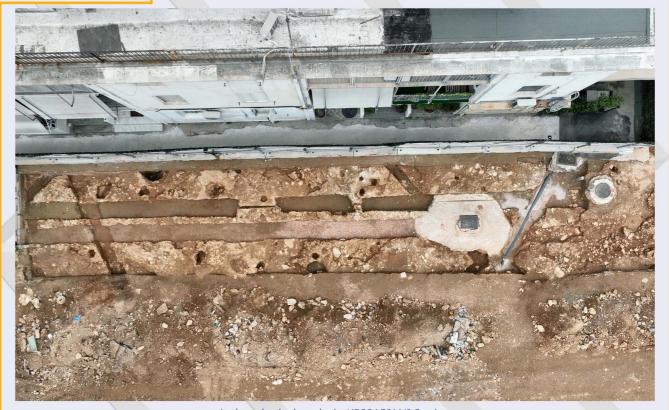
telecommunications networks are being carried out, while at ILISSIA Station in progress are works for the diversion of Natural Gas, OTE and EYDAP networks.



Network diversion works at ILISSIA Station.

#### **ARCHAEOLOGICAL WORKS**

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Archaeological works in KESSARIANI Station.

Archaeological works in KIPSELI, EXARCHIA, AKADIMIA (Palamas Street), KESSARIANI, PANEPISTIMIOUPOLI and ZOGRAFOU Stations and in Aghios Therapontas ventilation shaft adjacent to ZOGRAFOU Station are in progress.



Archaeological works in AKADIMIA Station.



Archaeological works in ZOGRAFOU Station.

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MINISTRY OF INFRASTRUCTURE AND TRANSPORT

<sup>\*\*</sup>Cover page photo: Lowering of precast concrete segments in TBM Veikou Shaft