



LINE 4_A

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MINISTRY OF
INFRASTRUCTURE
AND TRANSPORT

PROJECT: PRELIMINARY WORKS

ALEXANDRAS Station



MINISTRY OF
INFRASTRUCTURE AND
TRANSPORT



WITH CO-FINANCING OF GREECE AND THE EUROPEAN UNION

RELOCATION OF NETWORKS

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Network relocation works in ALEXANDRAS Station.

In ALSOS VEIKOU station, the works for the diversion of DEDDIE, EYDAP, Natural Gas and Sewage networks continue.

Moreover, in DIKASTIRIA and GALATSI Stations, the works for the diversion of PUO networks have been completed.

In ALEXANDRAS Station, the works for the diversion of the sewage network as well as the works for the diversion of EYDAP and Natural Gas networks have commenced.

Moreover, in AKADEMIA Station, the works for the diversion of OTE and DEDDIE networks have been completed.

At the same time, in the area of Formionos Shaft the diversion of PUO networks continues and a new underground DEDDIE substation is under construction, while in the area of Dikaioynis Shaft the relocation of the storm water network has commenced.

ARCHAEOLOGICAL WORKS

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Archaeological works through investigation trenches continue in ELIKONOS, KYPSELI, EXARCHIA, KOLONAKI, KESSARIANI, ZOGRAFOU and PANEPISTIMIOUPOLI Stations.

Moreover, in GALATSI Station, and more specifically at Ippokratous Street, an archaeological investigation commenced in June.



Archaeological works in KESSARIANI Station.

REPLANTING WORKS

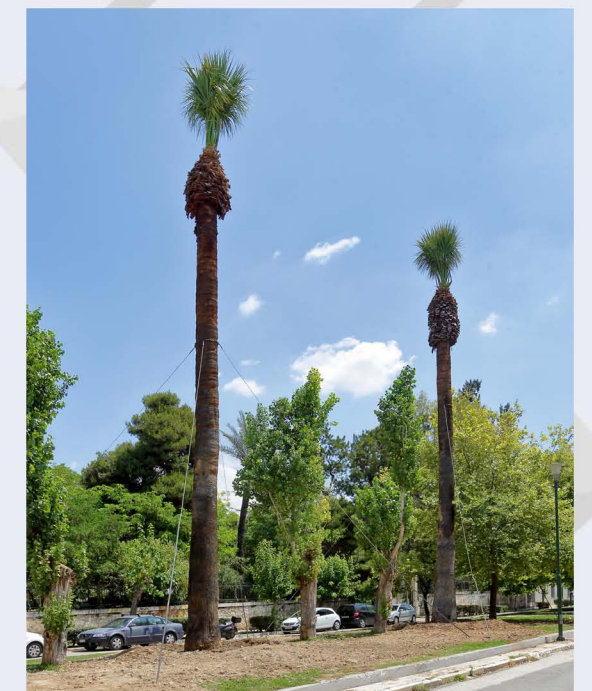


Transfer of an olive tree from AKADEMIA Station to be re-planted.

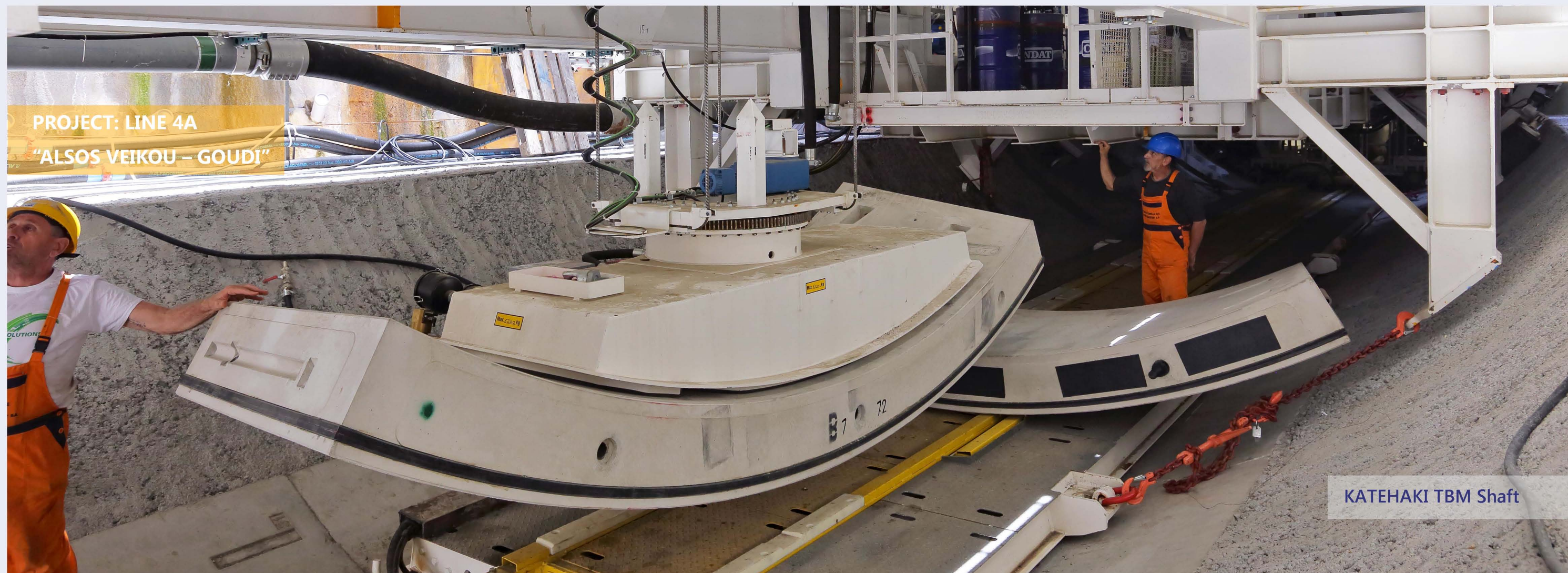


Installation and re-planting of an olive tree at the beginning of Syngrou Ave.

Replanting works continue in the framework of the construction of the Project. More specifically, two palm trees and one olive tree have been transferred from AKADEMIA Station to areas indicated by the Greenery Division of the Municipality of Athens.



Replantation of palm trees at Patission and Tositsa streets.



VEIKOU TBM SHAFT & EYDAP SHAFT

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Excavation in progress at Veikou TBM Shaft.

At the south part of Veikou TBM Shaft, the excavation of the 3rd level is in progress between piles П52-П93-П100-П142; the progress of works now reaches 85%.

At the same time, the total of the constructed anchors of the 3rd level on the south side is 72/105.

At the north section of the trench, the progress of the excavation of the 1st level now reaches 45%, while the total of the constructed anchors of the 1st row is 21/92.

At the same time, works for the foundation of the travelling crane are in progress.

In the area of EYDAP shaft on Veikou Avenue, the 2nd excavation level is in progress, while the total progress of excavation works now reaches 23.99%.

GNA SHAFT

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In GNA Shaft, the excavation of the 6th level of the shaft using the hydraulic hammer has been completed. The excavation percentage of the shaft now reaches 75%.

Moreover, steel struts have been installed at the 5th excavation level, while drilling works and works for the installation of supports for the 6th excavation level were executed.



Excavation in progress at GNA Shaft.

KATEHAKI TBM SHAFT

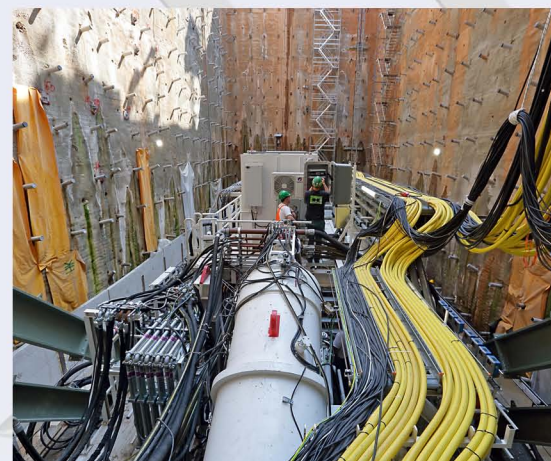
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Lined tunnel through "Athena" TBM machine.



Part of the TBM steering chamber.



Electrical connections of the gantries.

In May, the necessary assembly works of the two TBM gantries, as well as their (electrical, hydraulic) connections with the TBM shield were executed.

"Athena" commenced its drive towards the center of Athens by placing the first tunnel rings. One constructed tunnel ring, 1.5m long, consists of six identical precast segments and a smaller one, the "key segment".

The first location that the TBM will reach is Dikaosynis Shaft situated near the Gendarmerie School Park at the intersection of Trikalon and Aigiou streets, in the Municipality of Athens. The progress of excavation works of this 1st interstation now reaches 4% and the first 30m of tunnel have been bored.

Moreover, works for the installation of the conveyor belt which assists in the removal of TBM excavation spoil are in progress.

KOLONAKI STATION

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In the area of KOLONAKI station, drilling works, works for the installation of steel reinforcement and pile concreting works are executed for the construction of the Station outline.

By the end of June, the percentage of completion of pile related works at the perimeter of the Station trench was 66.34%, while 67 out of the 101 piles have already been constructed.



Drilling of poles – KOLONAKI Station.

TECHNICAL VISITS AT TBM "ATHENA"



Visit of post graduate students from Imperial College.



Visit of WTC 2023 participants at Katehaki TBM shaft.

On the occasion of the construction of this landmark project, the interest expressed in the progress of works and the know-how of the TBM operation, is undisputable. In this framework, educational visits of students are being carried out. This time, Katehaki TBM Shaft was visited by Soil Mechanics and Engineering Seismology post-graduate students of Imperial College London, by students of the Faculty of Civil Engineers of Aristotle University of Thessaloniki and of Metsovio National Technical University. Moreover, a technical visit was also made by the Officers – Engineers of the General Army Staff of the Ministry of National Defense.

Finally, on the occasion of the World Tunnel Congress (WTC 2023) held in Athens (May 12th – 18th), scientists and professionals of the relevant field participating at the subject congress had the opportunity to visit "Athena" TBM machine.

ELLINIKO METRO S.A.



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CONTRIBUTORS

- EDITING

Despoina Papastamatiou, Mania Benissi

- LINE 4A PHOTOS

Savvas Spyridonos

*All photos used have been taken from the archives of ELLINIKO METRO S.A. (unless stated otherwise).

**Cover page photo: Shotcrete at the west side of GNA Shaft.

Contact us on: 210-6792032, 210-6792060, 210-6792082 | **E-mail:** info@emetrometro.gr



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