



A significant infrastructure project within the urban environment of Athens: The case of Attica Tollway

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Summary

Attica Tollway is a successful project and has exceeded forecast expectations of demand. Attica Tollway has been designated by the European Union to be part of the Trans European Network, extending along 65 km, enabling quicker access to areas which, until recently, were either unapproachable or required a great amount of travel time. A road axis connecting the 30 municipalities of the Attica basin and meeting the transportation needs of millions of people, on an annual basis. But the development of Attica Tollway faced significant difficulties mainly because of the pioneer character of the project but also due to the complexity of a project needed to be developed in a highly densed urban area.

Keywords: Urban, Environment, Tollway, Athens, Attica.

1. Introduction

Attica Tollway is the first PPP project in the road sector in Greece. The development of Attica Tollway faced significant difficulties mainly because of the pioneer character of the project but also due to the complexity of a project needed to be developed in a highly densed urban area.

2. Description, scope and the realisation of Attica Tollway

Attica Tollway has been designated by the European Union to be part of the Trans European Network, extending along 65 km, enabling quicker access to areas which, until recently, were either unapproachable or required a great amount of travel time. A road axis connecting the 30 municipalities of the Attica basin and meeting the transportation needs of millions of people, on an annual basis. The project's scope was to become the Athens ring road, which should relieve the congestion in the center of Athens and in the main arteries that were saturated. The idea of building a freeway dates back to 1963 from Wilber Smith. Since the 60's, decades passed by without any real attempts to get the road going. The project real advancement began in 1985 when it became part of the official transportation infrastructure plans for metropolitan Athens. It was in the early 90's that the Greek Ministry of Public Works adopted the method of co-financing the road through a Build-Operate-Transfer contract.

3. The main obstacles during construction

The project had to overcome many challenges and obstacles related to delivering a project of considerable size and complexity in a built-up urban environment. The main obstacles faced during construction were: archaeology, diversion of public utilities networks, interfaces with other projects, such as the suburban railway, variation orders issued by the State, interfaces with surrounding municipalities and right of way issues.

4. The development within the urban area of Attica

4.1 Reinstatement and upgrade of the urban tissue

A section of a significant length of the motorway was constructed in lower level aiming to minimize the noise pollution and facilitate the connection of the motorway with the surrounding road network. The overall design of the project ensured the minimum visual intrusion.

4.2 Protection of cultural patrimony

Wherever the respective public authorities reckoned as necessary special studies were carried out for the presentation and preservation of the findings.

4.3 Protection of and upgrade of the nature

Special field studies for the local fauna were carried for each geographic section separately. These studies aimed to cover with plants all the provided spaces along the motorway, but also for areas along the local roads close to the motorway.

4.4 Flood protection

The morphology of the foregoing areas with few remaining natural receptors, the rapid land use development and all manners of human activities resulted in the construction of major and extensive flood protection works, which have greatly added to the efficient drainage of the entire city of Athens and its surroundings.

4.5 Noise protection

Protection from noise pollution was empowered significantly thanks to noise barriers with a length exceeding 18 km, slopes with plantation and acoustical zones.

4.6 Access to the public transport

For all the intersections and overpasses where the motorway is on border with stations of suburban railway, special provisions for direct connection with the stations were created.

4.7 Restoration of inactive quarries

Attica Tollway produced large quantities of excavation by-products from the various construction sites and in co-operation with the relevant Public Authorities instigated an effort to restore the damaged landscape in the old quarry areas of the Region.

4.8 Friendly Landscaping

Landscaping and environmental engineering techniques are used whenever possible to ensure the stability of slopes, instead of artificial constructions.

5. The success of Attica Tollway

Attica Tollway played a critical role to the development of urban and land use planning requirements of the metropolitan area of Athens. The presence of Attica Tollway impelled significantly the development of Mesogeia (east boroughs of the metropolitan area) since it provided a direct link to these areas with the centre of Athens.