María de Molina Tunnel

The María de Molina Tunnel which joins Paseo de la Castellana and Velázquez Street with the N-II highway (Madrid to Barcelona) is the largest municipal underground works fulfilled in Spain. The tunnel is 1,171m long and will absorb the out-going traffic which numbers around 30,000 vehicles daily.

The initial part of the tunnel was designed with false tunnels made with foundation diaphragm walls and slabs.

The concrete was cast on grade and the tunnel was subsequently excavated so minimizing the effects of the works upon traffic flow. Once a sufficient depth had been reached, two different construction systems were employed, determined by the conditions encountered in each case.

As a whole, the project was subject to a series of punctual problems which required the need of a number of specialized structural solutions.

Spain /2003

Project data

Structural type:
False tunnel and tunnel
Location:
Connection of Maria de Molina Street with N-II Highway in Madrid. Madrid
Opening date:
9 May 2003
Proprietor:
Ayuntamiento de Madrid
Main Consultant:
PROINTEC
Geotechnical adviser:
Carlos Oteo Manso and Ángel Arcones Torrejón
Construction:
ACS Projectos y Obras Ferrovial Agroman
Scope of Works:
Structures and Tunnels Construction Project