

Bilbao Metro (Spain) Underground Line Works Jet Grouting



Project: Bilbao Metro Development. Arenas - Lamiako
Scope: Truck line undercovering
Property: Gobierno Autonomo Vasco
Client: ABC UTE
Year: 1994-1995

Description:

The work involved the execution of a waterproof bottom slab with Jet-grouting columns, along the future track path situated between diaphragm walls performed for the excavation. Once the columns were tested, we proceeded to design the required distribution and type sections.

The average thickness of the cap varied from 2.00 to 3.50 ml at a maximum depth of 12 m. The distance between screens ranged between 8 and 15m.

Summary of site characteristics

- 2-3,5 m maximum length
- 12 m depth
- 80.000 m drilling
- 23.000 m jet grouting columns

