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ULTRASONIC CROSSHOLE TESTING OF DEEP FOUNDATIONS

The reference standard for these tests is:

- ASTM D6760-08 "Standard Test Method for Integrity Testing of Concrete Deep Foundations by Ultrasonic Crosshole Testing";

The instrumentation we can provide is a fully automated computerized double ultrasonic transmitter / receiver probes.

Cross-hole sonic logging (CSL) is a NDT method which involves ultrasonic signal transmission through the shaft between two parallel water filled access tubes. The access tubes are often tied to the rebar cage and cast permanently into the shaft. The total number of access tubes typically depends on the diameter of the shaft. A transmitter probe and a receiver probe are lowered to the bottom of the shaft in separate access tubes.

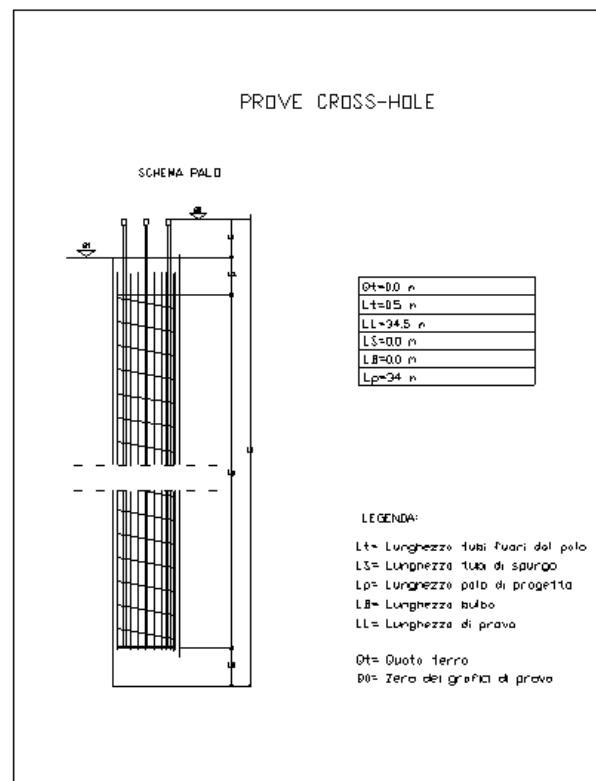


Fig. 1: Crossohole testing typical scheme

From signal recording you get a diagram which is commonly called sonic profile

Any variations of homogeneity that can meet along the pile axis produce variations in transit time of the ultrasonic wave through the concrete; increases in time are usually caused by a deterioration in concrete quality.

