Metro collects 1.7k soil samples

Priority Stretch Of 52Km To Link Madhavaram & Sholinganallur

Chennai: Construction of a portion of metro rail's phase-2 is set to begin before the year end and soil samples from as many as 1,700 locations will be key in planning the alignment, machines and methodology to be adopted.

The 52km priority corridor, which is expected to begin by December, will link Madhavaram to Sholinganallur spanning more than 35km, and a portion of the corridor will run through Anna Salai. Officials said, "Our consultant is in the process of surveying the alignment. We will be getting the alignment of the corridor from the consultant."

The corridor was divided into smaller stretches and tenders were awarded for soil investigations. Soil tests have been completed in most of the locations and we have already started receiving final reports," a Chennai Metro Rail Limited (CMRL) official said.

Unlike phase-1, where soil samples were collected every 100m, those for phase-2 are collected for every 50m. The soil collected will be studied for its properties and will help decide the type of machines and methodology for construction. The type of soil will also decide the deadline for construction.

During phase-2, soil investigations made contractors realize they were tunnelling near Central Metro through loose soil on top and rocky soil below. With the risk of sinkholes forming on the road and damaging heritage structures near the tunnel, boring machines were operated below the average speed of 10.8km a day. Bo-ring a 500m long tunnel between high court and government hospital took nearly a year.

In phase-1, the soil investigation was cited as a reason for the Russian tunneling contractor abandoning work at Anna Salai. It was alleged that soil condition on Anna Salai was rocky, but it did not reflect in the soil investigation report.

"Because soil samples were collected for every 100m, the stress in between were unpredictable. This time, we have collected for every 50m. So, there would be no way of contractors running into unpredictable soil condition during construction," an official said.

Boring rigs drill 300m diameter holes and soil samples are collected up to a depth of 400m. Samples are then sent to a laboratory for analysis and a report is prepared. CMRL is expected to float tenders for construction by June. "We also let the construction contractors conduct their own soil investigation before they start operations, as they plan their work accordingly," an official said.