

Metro boring over in SoBo heritage precinct sans harm

OLD BUILDINGS UNSCATHED

Vaitarna-1, one of the TBMs on the Colaba-Bandra-Seepz corridor (**Metro-3**), has completed its longest downline tunnel drive



It was launched on Dec 4, 2017

3.8 km
Bored from Azad Maidan to Mumbai Central



32 persons, including engineers and workers, were involved in the operations

Fire temple

Mumbai Central

Grant Road

Girgaon

JSS Marg

Kranti Nagar

Kalbadevi

Azad Maidan

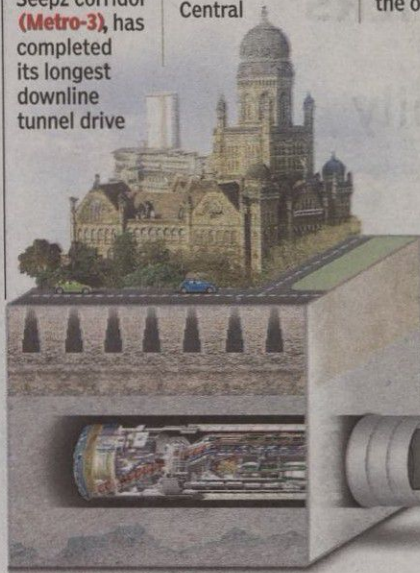
Buildings removed for Metro work

WHY IT WAS CHALLENGING

The TBM went past many heritage, old and dilapidated buildings. Metro engineers had to tunnel in a way that no harm came to 169 sensitive structures including 14 highrises and 28 heritage buildings

SPECIAL MEASURES

- A geological survey was conducted
- A structural survey was carried out in a 30m influence zone on either side of the alignment



Metro-3 Line

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Mumbai: A milestone has been achieved in Metro tunneling work. Boring has been completed on the sensitive CSMT-Kalbadevi stretch, which is 3.82km long and is dotted with heritage buildings as well as old and dilapidated structures. Before tunneling began on this stretch, there were apprehensions about damage to these structures, which finally have escaped unharmed. Near Gir-

gaon, a cluster of 30 structures that were hurdles, had to be removed.

This phase of Metro tunnelling was the most challenging as the tunnel boring machine (TBM) passed through one of the most densely populated areas along the Metro's alignment. MMRC's managing director Ashwini Bhide tweeted, "This was not a small feat. Tunneling incessantly for 20 months to drill almost 4km long tunnel beneath close to 200 severely dilapidated

buildings + heritage buildings + high rise buildings + religious structures was not an easy task. Team #MMRC, #MAPLE GC and #HCCMMS did it."

The boring average was 190 meters every month with 2,720 rings, said Mumbai Metro Rail Corporation's (MMRC) spokesperson. The TBM, Vaitarna-1, made its way through hard basalt and breccia rock mass with some pockets of very low strength shale bands at average depths of 20 meters from road level.