

# The Statesman

## DMRC completes first twin tunnels breakthrough under Phase-IV construction

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The Delhi Metro Rail Corporation (DMRC), on Wednesday, successfully completed the first twin tunnels breakthrough under Phase-IV construction.

The two tunnel boring machines (TBMs), Bhoomi and Srishti, emerged concurrently at Pulbangash Metro Station, marking the completion of the 3 km twin tunnels connecting Derawal Nagar to Pulbangash on the Janakpuri West – R K Ashram corridor (Magenta line Extension).

The event was graced by the presence of Dharmendra, Chief Secretary of Delhi and Dr. Vikas Kumar, MD, DMRC.

“This is one of those rare occasions when two TBMs have emerged simultaneously after boring parallel tunnels. It is a major tunnelling feat as the engineers have to meticulously monitor the movement of two parallel machines,” a DMRC spokesperson said.

“Both TBMs were successfully retrieved at Pulbangash Metro Station today, in just over 14 months, covering a length of approx. 2997 metres, at an average rate of 8.2 metres per tunnel per day. This is also the longest

tunnelling drive (almost 3 km) in DMRC Phase IV works,” the spokesperson said.

The tunnels were built at a depth of around 14-15 metres below the ground, passing through densely populated areas, including Rana Pratap Bagh and Punjabi Basti Colony. They also passed beneath the Najafgarh drain, a sensitive section due to the uncertain structural condition of the drain. Despite tunnelling in submerged water conditions, no damage was caused to any existing structures.

The TBMs also had to bore through the under construction Ghanta Ghar station as retrieving them at that location was not feasible.

The tunnels have an internal finish diameter of 5.8 metres, and a total of six cross passages are being constructed to connect the two tunnels for passenger safety. The contractor for this civil package is M/s Afcons.

This breakthrough follows another major achievement on August 21, when DMRC completed a TBM breakthrough at the Chhatarpur Mandir site on the Delhi Aerocity- Tughlakabad Corridor.

With this twin tunnel breakthrough at Pulbangash, the DMRC has built on the success of its earlier tunnelling achievements.

The tunnelling work on this stretch had begun with the deployment of TBM Bhoomi on June 18, 2023, followed by Srishti on August 19, 2023.