

Metro rail to cut land use by half for phase-2 work

B A Ratu

years later.

■ When will construction begin for phase-2?

We have issued notices for land acquisition in the 52km and 10km corridor 4 and have also noted objections from owners. We are negotiating directly with the people. The state has given the nod for the 52km priority corridor, so tenders for construction from Madhavaram to Sholinganallur and Madhavaram to CMBT will be floated in June. Construction will begin before the end of this year. Simultaneously, we will also begin work for the remaining 66km. Priority corridor will be ready by 2024-25.

WE HAVE REDUCED OVERALL CONSTRUCTION COST BY 7% TO 8%

Pankaj Kumar | CMRL MD



The lessons learnt while building phase-1 will help Chennai Metro build phase-2 faster and cheaper, Chennai Metro Rail Limited Managing Director Pankaj Kumar Bansal tells U Tejonmayam

■ How did Metro Rail cut the cost of phase-2 from around Rs85,000 crore to Rs69,000 crore?

Without compromising on passenger comfort, we have changed several features in phase-2 to reduce cost. One is changing certain stretches from underground to elevated, which can be built faster and cheaper. For instance, the stretch from Anna Nagar West to Sholinganallur, which was earlier underground, has now become completely elevated. So stations like CMBT, Kalamman Koil Street, Porur, Kathipara, Madipakkam and Sholinganallur will be elevated. There's no point in going elevated if we don't have road space. Also, the charm of the city would be lost if we go elevated in arterial Anna Salai, Central or high court. However, several portions of other parts of the city already have flyovers.

So, considering all these factors, from Madhavaram, Moolakadi, Perumbur Railway sta-

tion, Aynavaram, Puraisaiwalkam, KMC, Nungambakkam High Road, Sterling Road junction, Haddows Road, Kodambakkam High Road, Light-house, Royapettah High Road, Radhakrishnan Salai, Luz, Adyar depot, Thiruvanniyur, we are going underground as it is core city. From Tidal park, it is elevated. In corridor-4, Light-house to Meenakshi College is underground, Meenakshi College to Poonamallee is elevated. In Puraisaiwalkam, where traders protested, we have reduced 80% of land requirement by reducing the size of the stations. Now only three or four shops are getting affected and definitely not the small shops. Government land is our priority in acquisition and then comes vacant private land.

■ The construction of phase-1 was delayed due to several reasons. What steps are you taking to prevent delays in phase-2?

When we started, Delhi metro rail was our consultant. We have learnt a lot and have now gained experience. In phase-2, though the project is not sanctioned by Government of India, we have already started land acquisition, soil investigation and detailed design. This process otherwise happens only after approval. We are also preparing construction tender documents. So, with all this we now have a three-year advantage. In phase-1 extension too, the project was approved in 2016 and in less than three years we have completed 75% of the work. That was not the case

when we started phase-1. After the project approval in 2009, it took around 3 years to award contracts.

■ What are the other changes you are introducing in phase-2 to cut cost and time of construction?

We are doing a lot of re-engineering in the system and have reduced overall construction cost by 7% to 8% and land requirement by 50%. Stations will be compact. We have brought down the length of underground stations from 240m to 140-150m and width from 24m to 18m. By doing this, we are saving 20-30% of the construction cost. With experience from phase-1, we now know where to re-engineer or combine systems without compromising on capacity and capability. Elevated stations will reduce land requirement. We are acquiring land only for parking and station entry/exit.

■ Apart from the project cost, how will you manage operation and maintenance (O&M) cost?

In phase-2, we are bringing down O&M cost by 50% (for 35km, O&M cost is Rs120cr a year) by using three-car trains. Platforms will, however, be designed for six coaches. In phase-1, we are operating four coaches. In phase-2, we will operate only three coaches. So, the AC and the lights will be only for 50% of the area. The rest of the platform will be covered. It'll be extended in the future, which may happen 20 to 30

■ JICA has recently approved loan for the 52km priority corridor? Could you explain the cost breakup? Are you procuring systems from Japan in return?

From around Rs85,000 crore, we brought down the project cost to Rs69,000crore. In that 60% will be loan and the rest will be shared equally by the state and the Centre. JICA has sanctioned nearly Rs20,000crore for the 52km priority corridor. Yes, it will be a tied loan, where material worth around 30% of the loan will be purchased from Japan. We will be procuring rolling stock (trains), signal systems, lifts etc. Our cost will go up by 15% due to the procurement. For the rest of the 66km, we have approached ADB, NDB, AIB and World Bank. As we proceed with the project, we will continue to pursue with the Centre for approval. If Centre gives only half of its share, the state is open to bearing the rest.

■ With the 45km phase-1 operational, when are you likely to reach your projected ridership?

We will soon touch one lakh ridership. Soon phase-1 extension will also be complete. That's the line that is going to give real connectivity to North Chennai. The interiors of that side of the city will connect to Central, Egmore, CMBT and the airport. People could also travel to the heart of the city like AG-DMS and Mount Road without any hassle. As the network expands, growth will also take place. In about four to five years, we should reach 2.5 lakh ridership.