

'Our work has to continue in monsoon, we have to ensure there is no flooding'

Almost two years since the construction of the underground Colaba-Bandra-SEEPZ corridor began, work has gathered pace and, by July, 17 Tunnel Boring Machines (TBMs) will be in action deep underground. In an interview with **BENITA CHACKO**, Mumbai Metro Rail Corporation (MMRC) MD **ASHWINI BHIDE** lists the issues and challenges being faced while constructing the country's longest underground Metro.



MONDAY
Q & A

It is going to be almost two years since MMRC began construction of the Metro 3 corridor. What is the status of the project now?

It has been around a year-and-a-half since we began work. We started work in October 2016 and, in the first three to four months, our energy was spent on initial work like geotechnical investigations and utility identifications, which is a very important and integral part of this activity. So far, all work fronts have been tackled, except Kalbadevi and Depot station. Depot station work will start after we get permission for tree-cutting. The financial progress of our work is at 21.5 per cent and the physical progress is also roughly the same at around 21 per cent. It is complex work with so many aspects and elements but if you roughly take some features, for example, piling we have completed around 75 per cent so far, excavation for stations around 24 per cent and tunneling at 6.5 per cent having completed roughly 3,350 metres. At the moment every week we complete 350 metres and that will increase substantially. So far, we have got eight Tunnel Boring Machines (TBMs) and in June we will get four more. Four more launching shafts will be activated - Cuffe Parade, Science Museum, Siddhivinayak and BKC. Another five machines will come in July making it 17. We have also completed 15 per cent of decking and 75 per cent of plunge columns, which is a prerequisite of decking. As of now there is no delay. The delay which was caused by tree-cutting permissions and other issues was already factored in and, accordingly, we have said Phase I will be completed by July 2021 and Phase II by December 2021 and we are heading towards that.

The Mayor recently said if the city floods this year it will be because of Metro construction. What measures have been taken by MMRC?

First of all, that statement is not



Ashwini Bhide at her office. Karma Sonam Bhutia

true. Mumbai has almost 2,000 km of road network and that much stormwater drain network. Of this Metro 3 will be traversing only on 33.5 km. In that also, we are intervening only in certain locations, say every one km, in a patch of 300-metre length. So if you see the city's overall road and stormwater network, Mumbai Metro 3 will be intervening in a minuscule stretch. So, naturally, only Mumbai Metro 3 cannot cause flooding. Nevertheless, we have taken all precautions. There is a set system to tackle underground construction during monsoon, which is followed across the globe and India. We also follow the same methodology. We have kept the entire stormwater drain network surrounding our work area clean and desilted. At some locations like Mumbai Central we had to shift the drains, or support it, or create a new drain and divert it. In fact, at every 1 km, our experts and machinery will be there. So if there is excessive rainfall and the municipal corporation has to take extraordinary measures, we will be there to cooperate with them. There is very good coordination between officials of the corporation, MMRDA and us. We have taken joint meetings and done joint site visits almost two months before the monsoon. Additional pumps have been provided. All outlets for pumping out water have been identified and cleaned. In fact, even outside our area, up to 50 metres all stormwater drains have been cleaned. Our people will be sitting in MMRDA's control room. Most importantly, our work also has to continue dur-

ing the monsoon, so we have to ensure there is no flooding.

After a recent meeting with the transport secretary, MMRC announced noise mitigation measures at construction sites.

We have already taken several measures. Now there was a particular litigation which said Metro 3 is not able to follow noise regulations. So the transport secretary took a meeting and we explained that our noise levels are not exceeding the noise regulations in isolation. The overall noise levels in the city are already higher than the stipulated noise rules. So only Metro 3 work should not be blamed for that and only Metro 3 should not be expected to work within it as the ambient noise levels are higher than the stipulated levels. So that point was put across. However, we also said that to the extent possible wherever we have gone above the existing noise levels we can make attempts to reduce it. The noise problem is going to be temporary because maximum noise is created during piling and almost 75 per cent of it is done. Noise due to piling should be over around October to December. And when we are constructing station entry-exit, only a small number of piles will be needed but that will not take so much time and not create so much noise. Also, once we go below five to six metres then the sidewalls will act as noise barriers. In areas where we have done decking they also act as noise barriers. There are places like Shitladevi, Dadar, Worli and Acharya

Atre Chowk where there is a possibility to put concrete barriers. So we are looking at site-specific solutions and doing whatever possible to control the noise problem.

What is the status of the Girgaum Kalbadevi Redevelopment Plan? Has the delay in shifting PAPs affected the pace of construction?

Right now we are in the stage of acquiring land. It is very complicated as it involves a lot of stakeholders. Before we acquire land we have to get the tenants' list and the area certified by MHADA and that takes a lot of time. We have been working on that for the last seven to eight months and so far we have got some seven to eight NOCs from MHADA while the rest are in progress. All these are old buildings, more than 100 years old, so documentation is not easily available. Neither the tenants nor owners have the documents. Even the property cards do not reflect a change in ownership. The Collector's office, MHADA and valuation office are helping us sort these out. We have already taken possession of three properties and more than 300 tenants have signed agreements for alternative rental accommodation. We have almost got them vacated. Looking at the complexity of the matter there was no other way to solve this than the way we are doing. It is not impinging on the overall progress as of now. By the end of the monsoon we will try to finish the land acquisition process and shifting of tenants. As of now we are on track.

Two more buildings have been included in the redevelopment plan to speed up construction. Is commercial development under consideration?

It is not only to speed up work. Earlier, there was a redevelopment proposal and the developer had promised he would give us space for entry/exit. However, that proposal has not moved at all. So by now we need that space for entry and exit. Because until we fix the entry/exit we cannot finalise the station box. And while we were looking for another place for entry/exit then these two buildings came. The advantage of these buildings is, they are adjacent to another property which we are in the process of acquiring, so with the addition of these two buildings it becomes a single large plot

which helps us optimise our station design, minimise station length and footprint on road too goes down. We are obviously looking at commercial development there. It is a normal redevelopment scheme. First priority is to give houses and commercial spaces to the tenants and then whatever additional FSI we get will be used by us. There are certain inherent limitations there to speed up construction.

While MMRC has maintained there is no stay by the National Green Tribunal on construction of the car depot in Aarey, a recent hearing by the tribunal has upheld the 2015 order and asked MMRC to stop work.

The work has not stopped. The NGT has reiterated that there should not be debris dumping, reclamation and tree-cutting. Our entire depot work does not include debris dumping at all and reclamation, and trees will not be cut until we get permission. So there is nothing new and we are following the order. We are only waiting for the tree authority's permission, once we get it we will apprise the NGT. Our work does not include reclamation, we are not constructing in the sea. We cannot dump debris there because we need a proper land parcel... we do not dump debris. We are not flouting any orders.

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