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# maha-metro CONNECT

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#### In This Issue

- MD, Maha Metro briefs Union MoS (Finance)
  Dr. Karad about the status of Aurangabad
  Project
- District Collector (Nagpur), Shri Vipin Itankar Rides Metro Train
- European Investment Bank (EIB) Officials
  Visit Nagpur Metro Rail Project
- Metro Ridership Touches 85,000 Mark
- Main Attraction at Sitabuldi Interchange
  800 sq.ft Rangoli
- Events at Nagpur Metro
- Pune Metro completes erection of last segment for Reach 1 Viaduct
- Events at Pune Metro
- Progress Update

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Dr. Karad about the status of Aurangabad Project

Maha Metro MD Dr Dixit met Union Minister of State for Finance Dr Bhagwat Karad at New Delhi, on 27<sup>th</sup> Sept, 2022. Dr Dixit briefed the Union Minister about the Detailed Project Report (DPR) being prepared for the Aurangabad Project.

Dr Dixit gave presentation on the status of the proposed DPR. The Union Minister promised to look into the matter and assured all the necessary support for executing the project. After successfully implementing Metro Rail Projects in Nagpur & Pune and having prepared DPR for similar projects in the cities of Nasik, Thane and Warangal, Maha Metro is now working on similar projects in the city of Aurangabad.

As part of the proposed project for which DPR is being prepared, two Metro sections – Waluj to Shendra MIDC and Bidkin to Harsul are proposed to be constructed. In fact, given Maha Metro's expertise in implementing infrastructure projects like RoB, RuB, other than Metro Rail Project, the organization has also been asked to prepare plan for Fly-over, which will run parallel to Metro Track, as has been executed in Nagpur. Metro via-duct and fly-over will run parallel from Waluj to Shendra MIDC of Aurangabad. A comprehensive DPR will be prepared for fly-over and two lines.

In that regard, a meeting was held at Aurangabad in January 2022 and was chaired by Dr Karad. The meeting was then attended by Aurangabad Municipal Corporation and senior officials from other local & civic departments, besides Maha Metro officers.

The double decker at Aurangabad will be constructed on the lines of similar project in Nagpur. Maha Metro has executed Multi-Layer Transportation Project on Wardha Road and is in the process of doing so on Kamptee Road. Three-layer transportation project has been implemented on Wardha Road with existing road at the bottom, fly-over over it and Metro route at the top of all.

Similar project is also being implemented Kamptee Road, Nagpur which also includes the unique four-layer transportation structure Gaddigodam, which has existing road and Railway track as the first two levels, followed by Fly-over and Metro via-duct at a height of 24 meters. Multi-Layer Transportation Project on Wardha Road was inaugurated on 13th November 2020.

## District Collector (Nagpur), Shri Vipin Itankar Rides Metro Train

The Nagpur District Collector Shri Vipin Itankar had a Metro Ride on 9th October. Shri Itankar travelled to and fro Lokmanya Nagar Metro Station and Sitabuldi Interchange. The District Collector was given a warm welcome at Sitabuldi Interchange by Nagpur Metro officials.



During the Metro Ride, the District Collector was briefed about the various aspects of the Nagpur Metro Project. The progress achieved by the project since its initiation, the current status, the proposed expansion plans and other details of the project were explained to him by the officials during the Metro Ride.

Shri Itankar also sought to know certain information about the project. He was appreciative of the progress achieved by the Nagpur Metro. He urged the citizens to use Metro for their day-to-day routine to prevent vehicular pollution and congestion on the city roads. A good infrastructure project has come up in the city, he observed.

The District Collector also interacted with the officials of the Nagpur Metro. The Metro Train fares are too less, he said and urged people to take advantage of this low-cost yet comfortable journey provided by Nagpur Metro. He offered his best wishes to Nagpur Metro team for the future.





Bank (EIB)

Officials Visit Nagpur Metro Rail Project





The team discussed the Nagpur Metro Project at length with Maha Metro MD Dr Brijesh Dixit and also reviewed the proposed Second Phase. The European Investment Bank is the European Union's (EU) investment bank and is owned by the EU Member States. It is one of the largest supranational lenders in the world. The team was briefed about the various aspects of the Nagpur Metro Rail Project and was given a detailed presentation.

The team of officials visited Khapri and Lokmanya Nagar Metro Stations. The officials inspected Ticket Counter, Parking Areas, Multi-Modal Integration (MMI), Emergency Services, Bio-Digester, and Water Recycling Plant. They also sought information about Digital Ticketing and Feeder Services. The EIB officials were also briefed about the several steps regarding the Property Development (PD) taken by Maha Metro.





The team visited Metro Bhavan and saw the various initiatives like Exhibition Centre, Experience Centre and Operational Control Centre (OCC) taken by Maha Metro. The team was given a presentation about the various aspects of the Nagpur Project. The Director (Project) Shri Mahesh Kumar, Director (Rolling Stock, System and Operations) Shri Sunil Mathur, Director (Strategic Planning) Shri Anil Kokate and Director (Finance) Shri Harinder Pandey were present occasion.





# Metro Ridership Touches 85,000 Mark

Nagpur Metro registered a ridership of 83,876 on 5<sup>th</sup> October as Dussehra and Dhamma Chakra Pravartin Din were celebrated in the city. Maha Metro had registered a ridership of 90,758 on 15<sup>th</sup> August this year, followed by 80,794 on the occasion of match between India and Australia at Jamtha, VCA on 23<sup>rd</sup> September.

But that's not all. Sensing the need for extending Metro services timings, Maha Metro extended its services till 11 pm on Wednesday, beyond the regular 10 pm deadline. This was done to accommodate the devotees who had gathered for the event at Deeksha Bhoomi or were celebrating Dussehra. Metro services are operational from 6.15 am to 10 pm on regular days.

Many events were organised in the city on this occasion. A large number of followers had assembled at Deeksha Bhoomi. The rush was evident as commuters thronged Metro Stations and trains. The metro stations were crowded with passengers and Maha Metro had made all the necessary arrangements in anticipation of this.

The rush was also experienced almost throughout the day. In fact, given the trend for some time now, Maha Metro ridership has been continuously on the rise and considering these factors and anticipating this commuter rush, Maha Metro had deployed additional staff at all levels to handle the increased commuters.





# Main Attraction at Sitabuldi Interchange - 800 sq.ft Rangoli





While the festival of lights is being celebrated everywhere, Nagpur Metro has also made up exhaustive measures to welcome the festival of Diwali. A glimpse of these measures can be seen at not just metro stations but also on metro trains. The measures have been taken to give a feel of Diwali celebrations to Nagpur Metro passengers.

An important part of these preparations for this festival is the huge Rangoli on display at Sitabuldi Interchange. A team of 6 women took around 5 hours to create this Rangoli, which is spread over an area of around 800 square feet. About 20 kg of 12 types of different colors were used to make this Rangoli.

Passengers at the Metro station thronged to see this Rangoli while it was being made and even after it was completed. Traditional `diyas' and other auspicious symbols – which are part of Diwali celebrations, are displayed through the Rangoli.

Apart from this 800-sq ft Rangoli, Maha Metro the employees of have prepared Rangolis at other metro stations. The big Rangoli at Sitabuldi Interchange and other stations gave a feel of Diwali to Nagpurians.



### Cleanliness Drive

Cleanliness drive was organised by Maha Metro in collaboration with an NGO named Warriors Foundation on 2<sup>nd</sup> October 2022 at Ambazari Lake.







#### Daan Utsav

Daan Utsav is celebrated every year from  $2^{nd}$  to  $8^{th}$  of October. It is known as India's biggest festival of donation. People from all walks of life donate their time, money or materials to support any cause of their choice. Nagpur Metro had organised Daan Utsav from  $2^{nd}$  of October 2022 to  $9^{th}$  of October 2022 and also from  $16^{th}$  of October to  $22^{nd}$  of October.

Metro commuters and Maha Metro staff were requested to donate Books, Clothes, Footwear and Winterwear at prominent Metro Stations. This activity also received great response and donations were received in sizeable number. All the collected material was handed over to an named 'Aastha Shelter' which is being looked after by Nagpur Municipal Corporation.

#### **Blood Donation Camp**

Through this program, Blood Donation camp was held at Sitabuldi Interchange Metro Station on 2<sup>nd</sup> October 2022. This camp got a very good response from Metro Commuters as well as from Maha Metro staff. Blood Donation Camp was also organised at ED (Operations) office on 3<sup>rd</sup> of October 2022. Maha Metro staff actively participated in this camp also.







# Breast Cancer Awareness Camp

October is known as Breast Cancer Awareness Month and is marked annually in countries across the world to help raise awareness of the need to fight this disease. On account of this, Maha Metro Nagpur has organised Breast Cancer awareness camp on 31<sup>st</sup> October 2022. Renowned Oncologist from National Cancer Institute addressed on various topics like myths and facts about Cancer, various advances in treatment of Cancer etc. Staff had actively participated and got their several doubts cleared during this session.







-By Gautam Birhade, Executive Director/Viaduct R1&R2

Last Segment for Reach 1 Viaduct was erected on 31<sup>st</sup> October 2022 and with this a major milestone was accomplished by Reach 1 Viaduct team of Pune Metro.

Reach-1 Viaduct of Pune Metro consists of Elevated Viaduct from PCMC to Range Hills (12.064 KM) on the North-South Corridor. Elevated viaduct consists of 451 spans out of which 426 are PSC segmental box girder spans and 25 are composite steel girders of various spans at obligatory locations such as Railway and River crossing, traffic junctions, BRTS bus stop, CD works etc.

The viaduct is generally laid on the simply supported PSC segmental box girder span varying from 13m to 34m. It rests on elastomeric bearings at both the ends. Maximum length of PSC segmental box girder span is 34m. PSC segmental box girder spans which are 426 in numbers are of varying span lengths as under: -

- **Viaduct Spans:** 4nos of 34m, 92nos of 31m spans, 182nos of 28m spans, 38nos of 25m spans, 20nos of 22m spans.
- Stations Spans: 40nos of 17m and 50nos of 13m.

Each PSC segmental Box girder is made up using 3 to 10 nos of 3 m long intermediate segments and 2m long piers segment on either end of each span. Total 3934 nos of segments are used to complete all Span.

A dedicated casting yard for Reach-1, Viaduct is set up at Nashik Phata which was started in June 2017. About 73 acres of land is allocated for the Pre-Casting yard. In general, these are divided into different functional areas, such as the segment casting area, the stacking area, the site office, the store, the electrical office, the EHS-Environmental Health & Safety office, and the DG room.

The total scope of segments for Reach1 viaduct is 3934. To achieve the target of casting 3934 nos of precast segments, we used 6 long beds and 6 short beds. Furthermore, 2 batching plants and 6 nos of Over Head Gantry cranes are also available to support casting work. We have a stacking yard with a capacity of 600 no's segments stacked at a time. Approximate 62230 m3 of Concrete and 9810 Mt steel are used to complete all segments. 1st segment casted on 29th Aug 2017

The Obligatory spans are comprising of composite Steel Girders with span length varying from 25m to 47m. Maximum length of obligatory span is 79m Open Web Girder (South Khadki) over Central Railway double line tracks near Khadki Railway Station. Next longer span is of 47m which is placed over Bopodi Road Junction.





For erection of 426 nos of PSC segmental box girders, we used 5 Launching Girders, 3 GLS (Ground Supported System), 2 Heavy duty crane (200/220Mt), 10 Low bed Trailors, 40Mt cranes, 23Mt Hydras and multiple mechanical equipment's (Hydraulic Jacks, Power pack). Approximate 1500Mt HT strand, 120Mt Glue material, 5880 Nos Anchor Head and 98016 Nos Wedges are used to complete all span erection.

The first segment was erected for the span P348-P349 on 14.12.2017. The erection of the last segment of this elevated viaduct was completed on 31.10.2022. The launching operation of superstructure with launching girders was started after the 1st Launching girder erection started on 26.01.2018 from span P347-P348 and erection operation commenced on 28.02.2018.

Erection of 426 nos of Segmental PSC Box girders spans on Reach-1 elevated viaduct completed with different set of LG's and GLS as follows:

1. By LG1: 109 Spans 3. By LG3: 53 Spans 5. By LG5: 41 Spans 2. By LG2: 113 Spans 4. By LG4: 33 Spans 6. By GLS: 77 Spans

# Major hurdle overcome during work execution:

Many hurdles were overcome to complete this 12.064 KM elevated route. The biggest difficulty was getting the Defence land for construction of Viaduct from Pier no 174 to Pier no 158 along the old Mumbai-Pune Highway for the length of about 615m. Here the metro alignment is along the edge of existing road. There is PMC's proposal road widening for which the land is required from defence and metro alignment will finally come along the road median of future widened road. Even though Ministry of Defence has given approval of land on equal value of land basis to be handed over to Pune Metro in May 2022, there existed old lease given by local military authorities on the stretch of about 180m affecting 5 metro piers (P162 to P166). We could begin the work on remaining locations of this affected stretch in coordination with local military authorities except these 5 piers due to non clearance from these lease holders. Finally, we could get the clearance from these lease holders in first week of July 2022 and work of Viaduct on 5 piers could be commenced only after that. In the record time of 4 months the viaduct work starting from foundation till erection of PSC segmental box girders was completed for the stretch of these 5 piers.

It needs to be taken into account that work for systems contract and Stations on remaining section of Reach 1 is already going on in full swing and the section after Phugewadi till Civil Court Metro Station is closely monitored by Pune Metro for completion on priority.











Rangoli & Khadi Mahatsov – Station Brand Ambassador – Khadi Stall







# **Awareness & Ridership**

### Enhance Programs through the Citizen's Engagement

The team MMI progressed ahead along with the city of Pune into the festival month of October with one of the important National Event on October 02, 2022 being the 'Gandhi Jayanti' then followed by largest festivals in India: 'Diwali' on-board the Metro Station.

We had continued to invite the Educational Institutions right from the first day of the month to ensure this segment of citizens are enlightened and educated on the Pune Metro Project through the Metro Samvad at the stations along with an experiential train ride and as well at the institute campuses. We had close to 2200 students from various colleges and schools from Pune city and few from nearby town like Karad & Samgamner for the Metro Samvad along with about 1700 citizens from various walks of life for the Metro Samvad at the Metro Stations including the train ride with Return Journey Tickets issued from the first metro station to the last and back.

Some of the interesting metro Samvad along with few cultural programs had with different segments of the society.

School Students' visited Pune Metro: Gems'n'Pearls School Ajmera – Group of 100 students and teachers together. Global Talent School – Group of 300 students and teachers together both on-board the station and at the campus. Pandit Deen Dayal School English School – Group of 200 students and teachers together with cultural program.





## Celebrations on Wheels'

Dandiya on-board the station & Blood Donation – Organized by our Station Brand Ambassador Mr. Abhay Bhor - Group of 150 citizens had taken part. Celebrations on Wheels' – Birthday. 'Celebrations on Wheels' - Senior Citizens – Woman's Organization - Amol Deshpande – Group of 80 senior citizens celebrated their event on-board the station and the train too. 'Celebrations on Wheels' - Bhimrao Mahadu Jawalkar Vikas Sanstha (Dandiya by Ladies group) – 300 ladies.







# Undergraduate Student visits at Pune Metro:

Cusrow Wadia Institute of Technology, Pune (Underground Section Visit) – Group of 65 students and faculty together. Amrutvahini College of Engineering, Sangamner and PCET'S Nutan College of Engineering & Research – Group of 130 Civil Engineering students and faculty for the Metro Samvad onboard the metro station followed by the visit to the Underground





#### Vidula Psychological Consultancy, Pune

Free Health Camp and Counselling for about 500 passengers.



#### **Workshop on Art'**

Kala Mehfil 7.0 by MIT WPU School of Visual Arts, Kothrud – Group of 100 students participated.



# Metro Integrated Walkathon

Rotary – BIS – 350 citizens took part.



#### **PROGRESS**

#### **UPDATE**

As on 31st October, 2022



NAGPUR METRO			
Sr.No.	Stretch	Progress	
1	Khapri to Sitabuldi	100%	
2	Lokmanya Nagar to Sitabuldi	100%	
3	Sitabuldi to Kasturchand Park	100%	
4	Kasturchand Park to Automotive Sq.	99.96%	
5	Sitabuldi to Prajapati Sq.	99.96%	

Pune METRO			
Sr.No.	Stretch	Progress	
1	Reach 1 (PCMC to Phugewadi) (Priority Section – 1) (E)	100%	
2	Reach 2 (Vanaz to Garware) (Priority Section – 2) (E)	100%	
3	Reach 1 (Phugewadi to Civil Court) (E & UG)	80%	
4	Reach 2 (Garware to Civil Court) (E)	88%	
5	Reach 3 (Civil Court to Ramwadi) (E)	85%	
6	Reach 4 (Civil Court to Swargate (UG)	50%	

#### **METRO NEW JOINEES**

31st October, 2022



#### **PUNE METRO**



Milind Chavankay AM (Safety, Train. & Co.)



Kalyanrao Vidhate Assist. Manager (Security)

#### **NAGPUR METRO**



Shri Mohan Thakur DGM (Stores)

# Citizens Zove **Maha Metro!**

Social media engagement of Pune & nagpur Metro far exceeds its other counterparts in the country.

Pure testimony of 'Maazi Metro'

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महा मेट्रो

NAGPUR METRO

**NAGPUR METRO** 

Average acquisition of FB followers per month

7,731

7,00,849 1,837,019 VIEWS 18,300 FOLLOWERS

18,200 FOLLOWERS



**PUNE METRO** 

Average acquisition of FB followers per month

8,450

6,08,359 3,247,652 17,394

36,800

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For contribution & suggestions, plese write to cs@mahametro.org

<sup>1</sup> 'Metro Bhawan', VIP Road, Near Dikshabhumi, Ramdaspeth, Nagpur - 440 010

1st Floor, The Orion, Koregaon Park Road, Opp. Don Bosco, Pune - 411 001