



# MAHARAIL Newsletter



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### *MD Speaks*

**F**ormed with a vision to meet the growing demands for new projects and to expedite ongoing infra projects in the state of Maharashtra, MRIDC promises to address infrastructural demands by providing critical connectivity and capacity enhancement. With a vision, to close the level crossings (LC), MRIDC, within one and half year of its functioning has started construction of Road Over Bridges (ROBs), Road Under Bridges (RUBs) and Limited Height Subways (LHS) at 44 sites in Maharashtra. In the first phase, we plan to construct 69 ROBs across the state. Physical construction of ROBs has already started at various LCs in Nanded, Mumbai, Dondaicha, Pune, Karad, Nagpur etc.

To embark our journey in the rail line project works, MahaRail has started Gauge Conversion work of Itwari-Nagbhid Rail Line (116 km) in December 2019. The narrow-gauge line between Itwari to Nagbhid shall now be converted into Broad Gauge line in 21 months' time. Alongside rolling out Broad Gauge line, the route will be electrified thereby ensuring faster movement of goods as well as passenger trains on the route. Once completed the Itwari-Nagbhid section would ease congestion on the Wardha-Sewagram-Nagpur route as it has become over saturated.

Other significant projects in pipeline are the Semi High Speed Greenfield Double line between Pune-Nashik and laying of 3rd & 4th Line between Igatpuri – Manmad. This new Pune-Nashik route will bring Pune, Nashik, Ahmednagar and Mumbai even closer.

Today, high-density rail corridors are facing severe capacity constraints. There is a definite need for capacity enhancement, upgradation, creation of new passenger and freight corridors. Keeping these growing demands into consideration, MahaRail with all its capabilities will contribute in constructing rail infrastructure for the state of Maharashtra thereby fulfilling citizens demands and boost economic growth.

With boundless spirit, passion and enthusiasm, team MRIDC is all set to create a benchmark in implementation and maintenance of Rail Infrastructural projects in the state of Maharashtra. Year 2020 will be a year of accomplishments and landmarks. This New Year, MRIDC promises to fulfil the impending needs of the citizens by implementing more prospective projects.



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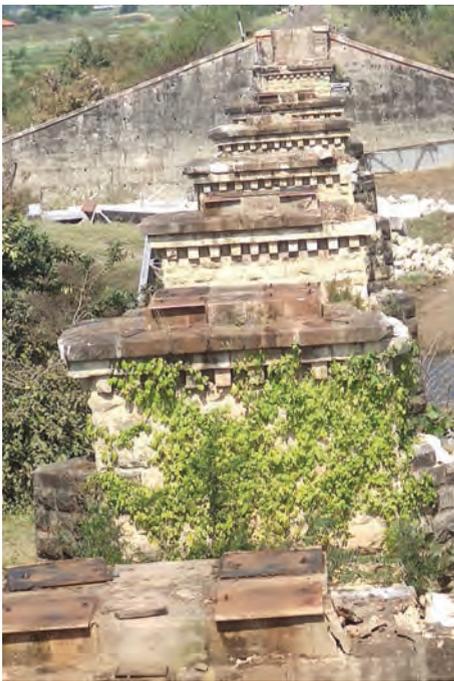


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Out of the 628 km narrow gauge network under Nagpur division of SECR, only Itwari - Nagbhid is pending for conversion



## Itwari- Nagbhid Railway Line For Broader and Faster Development



### Conversion from Narrow Gauge Line to Broad Gauge Line

The long pending demand for the conversion of last remaining narrow-gauge line between Itwari and Nagbhid (116 km) into a broad-gauge line shall now be implemented by MRIDC. The main aim of this project is to expedite the coal movement from the coal mines and reduce congestion on the existing route.

Itwari and Nagbhid are directly linked by a narrow-gauge Railway network via Umrer and by two broad gauge Railway networks via Wardha and Gondia. However, Nagpur – Wardha and Nagpur-Gondia

routes are saturated and over utilized. Out of the 628 km narrow gauge network under Nagpur division of SECR, only Itwari-Nagbhid is pending for conversion.

To start the work on this route, MRIDC has closed the entire section from Nagpur to Nagbhid for traffic movement in November 2019. All the clearances have been taken and designs are ready. We also plan to connect the line to coal mines in Umred. The line will be alternative to passenger trains as well as direct link to north south bound freight trains.

### Project Specifications:

Specifications	Proposed Features
Length	116 Km
No. of Stations	19
Crossing Stations	6
Terminal Stations	2
Passenger Halts	11
Total No. of Major Bridges	10 (9 + 1 between Umrer to Coal Mines Line)

# Significance of the project

- Converted Broad Gauge Line will be operational for goods as well as passenger trains with lot of environmental and financial benefit.
- It will reduce the Coal rake movement time from present 22 hrs to 4 hrs from Umrer to Koradi Thermal Power Plant.
- It will facilitate decongestion of Nagpur, Kalumna, Itwari, Ajni and Wardha Railway yards. Thus, facilitating running of shuttle passenger trains in and around Nagpur.
- The movement of coal rake from captive mines of MAHAGENCO at Chandrapur to Koradi will also be facilitated by reduction in travel time.
- Conversion of existing narrow gauge to broad gauge shall reduce the congestion in these routes and enable faster movement of cargo supply in this region.
- The proposed project will be of immense benefit to MAHAGENCO in procurement of coal from Western Coalfields Limited (WCL) mines located in Umred & Chandrapur district in the state of Maharashtra near Nagpur, which is in close proximity to various Thermal Power Plants in the region of Nagpur. The other major plants which will be benefited are Koradi Thermal Power Station (KTPS), Khaperkheda Thermal Power Station (KPKD), Adani Power Maharashtra Ltd, Tirora (APML, Tirora), Mauda Super Thermal Power Station or NTPC Mauda.
- Alongside rolling out BG line, the route would also be electrified thereby ensuring faster movement of goods as well as passenger trains on the route.
- Once completed the Itwari-Nagbhid section would ease congestion on the Wardha-Sewagram-Nagpur route as it has become over saturated.

## List of Stations:

The Itwari-Nagbhid section has 06 crossing stations, 02 Terminal stations and 11 passenger halt stations.

Stations	Type of Station
Nagbhir	Terminal Station
Kotgaon	Passenger Halt
Mangli	Passenger Halt
Tempa	Crossing Station
Bhuyar	Passenger Halt
Pauni Road	Passenger Halt
Bhiwapur	Crossing Station
Kargaon	Passenger Halt
Thana	Passenger Halt
Umrer	Crossing Station
Bamhani	Crossing Station
Mohardara	Passenger Halt
Kuhi	Crossing Station
Mahuli	Passenger Halt
Titur	Passenger Halt
Kempalsad	Passenger Halt
Dighori Bu.	Crossing Station
Bhandewadi	Passenger Halt
Itwari	Terminal Station

## Project Specifications:

Specifications	Proposed Features
Total No. of Minor Bridges	91
ROBs	6
RUBs	39
Longest Bridge	Br. No.15 Over Mahu River (12x12.2m) at CH: 76877
Speed Potential	Passenger Train – 160 Kmph
	Goods Train – 100 Kmph





# Phase-wise Gauge Conversion Work



**1**  
**Bridge Work**  
(Construction of  
ROB, RUB & LHS)



**2**  
**Earth Work in  
Embankment**



**3**  
**Ballast**  
Construction of  
initial ballast bed



**4**  
**Track Laying /  
Linking**



**5**  
**Construction  
of Station &  
Service Building**



**6**  
**Over-Head  
Equipment**



**7**  
**Signaling  
&  
Telecommunication**



# Mission 2020

## MRIDC to eliminate 69 Level Crossing in Phase I in Maharashtra

**G**overnment of Maharashtra has signed a Memorandum of Understanding (MoU) with MRIDC for implementation of all Road Over Bridges in Maharashtra state. There are total 308 ROBs/ RUBs to be implemented. MRIDC has devised a plan to develop these ROBs in 3 phases.



Phase I – 69  
Phase II – 82  
Phase III – 156

MahaRail would be looking after the development, establishment, operation and maintenance of all type of railway infrastructure and facilities in Maharashtra. Road Over Bridge (ROB) and Road Under Bridge (RUB) are being constructed for hassle free movement of road & rail traffic and also to improve safety at level crossings. Elimination of Level Crossings by construction of ROB/RUB & LHS (Limited Height Subway) is vital for critical road connectivity and capacity enhancement.



MRIDC has expertise in construction of ROBs/ RUBs and LHS. It has adopted an advance methodology to complete the work on fast track, each ROB would be constructed in the time frame of 200 to 300 days from the date of start of work at site.



The work of 69 ROB in Phase I is in progress with cost sharing basis with railways. ROB are being constructed along with LHS to close the level crossings. These ROB fall under various railway zones in Maharashtra. The following table illustrate the work of the 69 ROB:

Sr. No.	Railway	No. of ROB	No. of ROB with LHS	GADs Prepared
1	Central Railway	51	37	51
2	Western Railway	06	04	06
3	South Central Railway	06	04	06
4	South Eastern Central Railway	06	05	06
<b>Total</b>		<b>69</b>	<b>50</b>	<b>69</b>

In Phase II, there are 82 ROB. All the ROB are in cost sharing basis with Railways. These ROB fall under various railway zones in Maharashtra. The table illustrate the work of the 82 ROB.

Sr. No.	Railway	No. of ROB	GADs Prepared
1	Central Railway	66	46
2	Western Railway	03	03
3	South Central Railway	13	11
<b>Total</b>		<b>82</b>	<b>60</b>

In Phase III, railway crossings on “Golden Quadrilateral” are to be closed. The total identified level crossings in the state of Maharashtra are 156 nos.



# Journey 2019



Year 2019 was a magnificent year for MahaRail as many long pending projects sanctioned in the Pink Book have started taking pace. The Detailed Project Report (DPR) of many significant projects have been finalized and now are at an advanced stage of approval. These initiatives by the Corporation would generate more integrated, efficient, economical and environmentally benign solutions for the world's rapidly growing urban population.

- Sanction has been accorded by Railway Board for Nagpur – Nagbhid Gauge Conversion project in October 2019. The narrow-gauge line between Itwari to Nagbhid shall now be converted into broad gauge line.
- The DPR for the Greenfield Semi High Speed Double line from Pune to Nashik has been completed. After finding the potential investor in this project it has been process for sanction and fast track implementation. The operational speed will be 200 Kmph with a travel time of only 2.00 Hrs.
- The DPR of Igatpuri - Manmad for laying of 3rd and 4th railway line has been submitted for approval.
- The DPR for a new line from Gadchandur to Adilabad is under preparation.
- MCGM in co-ordination with Central and Western Railway has handed over rebuilding of 11 ROBs and 1 RUB in Mumbai suburban area.
- MMRDA has signed an MoU for construction of 2 ROBs in Mumbai region.
- PWD has handover 69 ROBs in Maharashtra.
- Out of the 69 ROBs proposed in the Phase one, MRIDC has started construction of 44 ROBs in Nagpur, Nanded, Pune, Bhuwasal, Mumbai, Dondaicha etc.

Employee Engagements

**In-House drawing and design professionals to expedite GAD/design approvals**

MRIDC has in-house design and drawing team, having these teams is an asset for MRIDC as they are responsible to develop Digital Surface Model (DSM) and Digital Elevation Model (DEM) to know the exact site feature and ground level to avoid Topographical survey. For each ROB, MRIDC conducts drone Survey and videography of level crossing along with track and road covering about 5 Sq. Km area. The General Alignment Drawing (GAD) is superimposed with ROB alignment having finalized alignment of DSM; it is ensured that the land acquisition is avoided. MRIDC prepares 3-D model inhouse for better visualization and in cooperating all finer details like parapet,

divider, footpath, horticulture, electric illumination, signages, construction joints and other aesthetic appearance related items. All ROB works i.e. Preparation of Drawings, Design, Tender, Contract and Supervision are done by inhouse teams of MRIDC





**INDIAN RAILWAYS INSTITUTE OF CIVIL ENGINEERING, PUNE**

**Session No. 19511 Special Course For MRIDC Engineers**

**15/07/2019 to 19/07/2019**





**Training at IRICEN, Pune**

Left to Right

**Sitting Row** Shri : Amol Lokhande *Manager-Civil*, Anshul Chopda *Asst. Manager-Civil*, N. K. Mishra *Prof. Tr. 1*, A. Sivakumar *Prof. Works*, Anil Choudhary *Sr. Prof. Tr. Machine*, C. M. Gupta *Sr. Prof. Br. 2*, Santosh A. Bobade *Dy. GM/CR*, Ramesh Pinjani *Dean*, R. N. Gupta *Prof. Tr. Machine*, C. S. Sharma *Sr. Prof. Tr. 1*, M. B. Dekate *Prof. Proc.*, R. K. Shekhawat *Sr. Prof. Project*, Howshik Manivannan *Dy. GM*, Hemant Sharma *Jt. GM*, R. K. Kathal *Asso. Prof. Tr.*

**1st. Standing Row Smt/Shri** : Saurabh Tiwari *Executive-Civil*, Kumar Tatta *Dy. GM*, Sanjay Birajdar *Asst. Manager-Civil*, G. P. Jadhav *Sr. Executive-Civil*, Suraj K. Gahule *Sr. Executive-Civil*, Mangesh L. Dhoran *Manager-Civil*, Akshay Rameshwar Bele *Sr. Executive-Civil*, Ajay M. Hanwate *Dy. GM*, K. S. Mandlik *Sr. Executive-Civil*, Pranay Dnyaneshwar Gaikwad *Executive-Civil*, Akshay Thakre *Site Manager-Civil*.

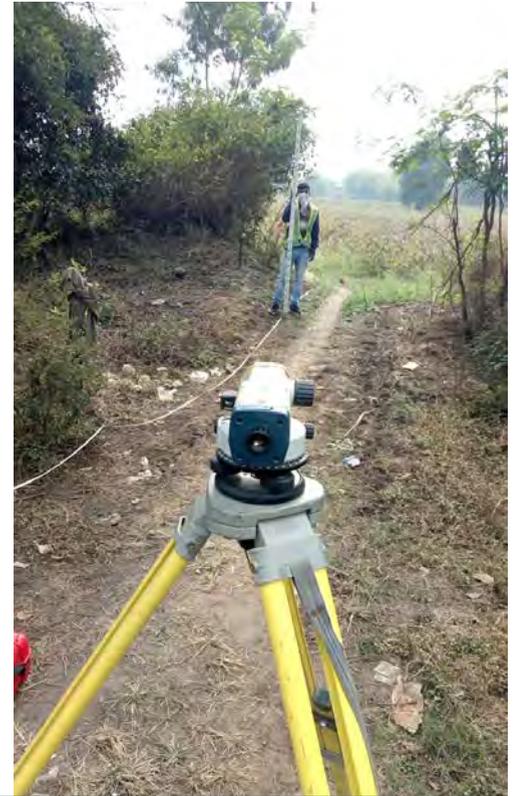
**2nd. Standing Row** Shri : Sanjeev Singh Panwar *Sr. Executive-Civil*, Mohit Milan *Sr. Manager*, Saurabh Pramod Chaudhari *Site Engineer-Civil*.

Indian Railway Institute of Civil Engineers (IRICEN) conducted a special training program 'Session 19511' for MRIDC Civil Engineers in the month of August and September 2019.

## Geo-technical survey in progress at various sites



LC No. 47  
Route: Connecting Wathar City  
Section: Pune - Kolhapur section  
Station Names: Wathar-Palsi Stations



LC No. 290B  
Route: Road joining Khadalla to SH 248  
Section: Nagpur to Amla  
Station Names: Bharatwada & Kalmeshwar stations



LC No. 290  
Route: Road joining Dahegaon village  
Section: Nagpur to Amla  
Station Names: Bharatwada & Kalmeshwar stations



LC No. 69A  
Route: Chandur Village Road  
Section: Badnera - Wardha section  
Station Names: Malkhed - Chandur stations



LC No. 293  
Route: Road joining Brahmapur to SH 248  
Section: Nagpur to Amla  
Station Names: Tadali and Ghuggus Stations

## Steel Girder Fabrication Works at various workshops



**ROB : Work in Progress**

**Mumbai**



Route: Sion – Panvel Highway  
 Station Names: Between Mankhurd and Govandi Railway Stations  
 Division: Mumbai



Route : Juinagar - Turbhe Road  
 Station Names : Between Juinagar and Turbhe Railway Stations  
 Division : Mumbai



2



3

1. Pier cap reinforcement work
2. Girder Casting in casting yard
3. Pier reinforcement work



**Mumbai Division  
 Western Railway**

Piling work and reinforcement of pile cap work in progress

LC No. 105  
 Route: Dondaicha City road  
 Section: Udhana Jalgaon Section  
 Station Names: Dondaicha and Vikhran Stations

**Pune**



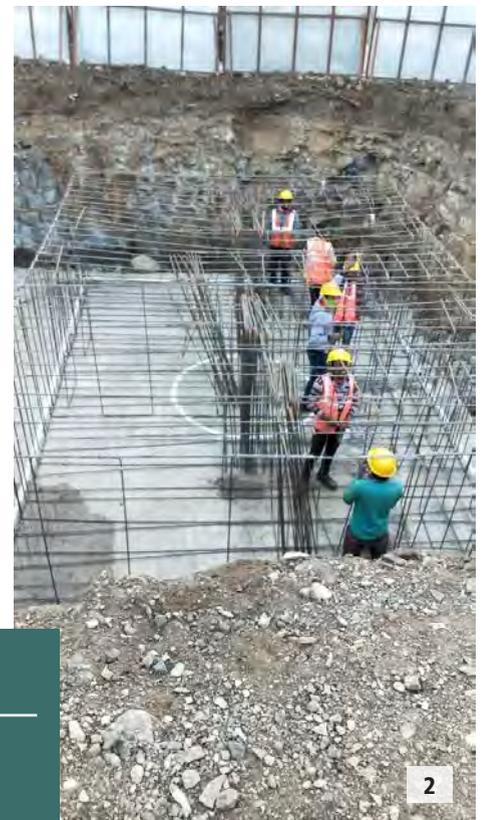
Pile concreting work in progress

LC No. 117  
 Route: Connecting Sangli Bhilavadi town  
 Section: Pune – Miraj  
 Station Names: Bhilvadi and Nandre Stations

Piling work in progress  
 LC No. 81  
 Route: Connecting Rahimatpur town  
 Section: Pune Kolhapur Section  
 Station Names: Rahimatpur and Targaon Stations



## Nanded



1. Concreting of Girder
2. Cage Lowering work

LC No. 115  
Route: Near Washim city  
Section: Akola – Purna Section  
Station Names: Between Washim and Kekatumarg



1. Girder curing in progress
2. Footing concrete in progress

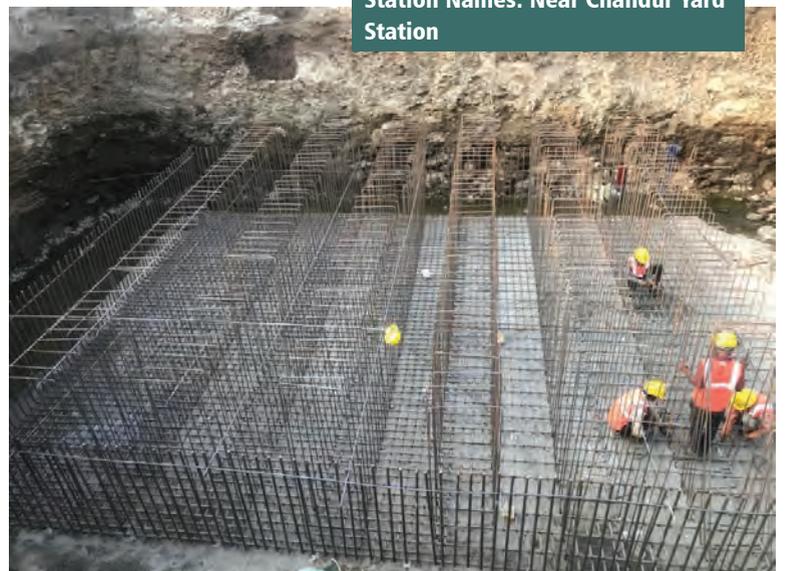
LC No. 144B  
Route: Hingoli - Deccan, Dhamini Road  
Section: Akola – Purna Section  
Station Names: Hingoli Deccan and Dhamani Stations

## Nagpur

LC No. 43A/143A  
Section: Wardha - Ballharshah Section  
Route: Near Babupeth, Chandrapur City  
Station Names: Between Chandrapur and Babupeth Stations

Reinforcement work in progress

LC No. 70  
Section: Wardha - Badnera Section  
Route: Near Chandrapur City  
Station Names: Near Chandur Yard Station







# About MRIDC

Maharashtra Rail Infrastructure Development Corporation Ltd (MRIDC) is a Joint Venture of "Government of Maharashtra" and "Ministry of Railways" on 50:50 basis with an objective to provide a boost to the Rail Infrastructure Projects in the State of Maharashtra by providing critical connectivity and capacity enhancement. The aim of setting up this Joint Venture Govt. Corporation is to provide a boost to the Rail Infrastructure Projects in the Maharashtra State on the principle of cooperative federalism.

MRIDC also aim to identify the traffic potential of different regions of the state including rail connectivity to the neighbouring states and find out economically viable projects and implement them with fast track construction and commissioning. The objective of corporation is to identify traffic potential of different regions within the state of Maharashtra including Rail connectivity to neighbouring states and to address long pending demands for construction of new Railway lines.

## RAILWAY MAP OF MAHARASHTRA

AUGUST 2018. SCALE : NOT TO SCALE



**STATE ROUTE KILOMETRES**

B.G.	M.G.	N.G.	TOTAL
1.676 m			
5686.02	105.00	407.61	6198.63

**RAILWAY DIVISION WISE ROUTE KILOMETRES**

DIVISION	COLOUR	B.G.	M.G.	N.G.	TOTAL
MUMBAI (CR)		192.25	—	20.29	212.54
MUMBAI (WR)		351.89	—	—	351.89
PUNE		531.15	—	—	531.15
SOLAPUR		968.57	—	—	968.57
BHUSAVAL		800.46	—	243.90	1044.36
NAGPUR (CR)		958.70	—	34.42	993.12
NAGPUR (SEC)		512.00	—	109.00	621.00
NANDED		810.00	105.00	—	915.00
SECUNDERABAD		132.00	—	—	132.00
HYDERABAD		55.00	—	—	55.00
KONKAN RAILWAY		374.00	—	—	374.00

**LEGENDS :-**

- NEW LINES IN PROGRESS
- DOUBLING IN PROGRESS
- 3rd / 4th LINE IN PROGRESS
- GAUGE CONVERSION IN PROGRESS
- QUADRUPLE LINE
- DOUBLE LINE (B.G.)
- SINGLE LINE (B.G.)
- NARROW GAUGE
- B.G. ELECTRIFIED LINE

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