Face-To-Face

Hyderabad Metro Is Not Just A Metro, But An Effort To Transform Hyderabad Into A Competitive Global City

With about 30 years of managerial and administrative experience in Government of India, Government of AP and Public Sector Undertakings, Mr. N.V.S. Reddy held several senior Government positions. During his varied and important assignments, he contributed to systemic improvements in Indian Railways and won many awards. He is known for his financial acumen, managerial ingenuity, open minded approach and leadership qualities. He is an expert in Rail Transportation & Power sectors, Finance, Urban Transportation, Urban Governance, Project Structuring & Project Management and PPPs. He has been associated with implementation of many important projects including the mega Konkan Rail project on the west coast of India. He has varied interests and lectures on a variety of topics in prestigious engineering and management institutes/fora in India and abroad.

Presently as the Managing Director of Hyderabad Metro Rail Limited, he is heading the mega Hyderabad Metro Rail project (71 km). Implementation of this project with an estimated cost of about US $3.2 billion (`14,132 crore) under public private partnership (PPP) with innovative financial engineering and project structuring is his bold initiative in mass transit systems and urban infrastructure development. HMR is the largest Metro rail project in the world being implemented in PPP mode. In an interview with CE&CR, Mr. Reddy throws light on the key features of the Hyderabad Metro Project.

***CE&CR:** Please give us an overview of Hyderabad Metro Project?*

N.V.S.R.: Based on a number of traffic and transportation studies conducted by various agencies, Government of Andhra Pradesh (GoAP) approved development of Hyderabad Metro Rail (MRTS) project in three high density traffic corridors of the city spanning over 71 km in phase-I on DBFOT (Design, Build, Finance, Operate & Transfer) basis in PPP mode. Detailed Project Reports (DPRs), Traffic Survey Reports, and other related reports were prepared by Delhi Metro Rail Corporation (DMRC) for the project. The Project is awarded to L&T, a $10 billion (Rs. 45,000 Cr) conglomerate and one of the most respected among India's corporates. The Hyderabad Metro is not just a Metro, but an urban rejuvenation and redesign effort to transform Hyderabad into a competitive global city.

Salient Features of Hyderabad Metro Rail:

- Lower energy consumption (1/5th of road vehicles) & significant reduction in air and noise pollution
- Substantial reduction in travel time with a maximum speed of 80 kmph and an average speed of 34 kmph (3 times the road speed)
- 'Seamless travel' facility through integration with rail terminals, bus depots, MMTS (local train) stations and "Merry-go-round" feeder buses to nearby colonies and business areas/offices
- Frequency of 3 to 5 min during peak hours with cost-effective price slabs to suit common man's pocket (Rs 8 to Rs 19 in 2014)
- Eco-friendly stations with natural ventilation, sky-walks, ramps, escalators & a host of commuter-friendly facilities
- Promotion of gender equality and women's empowerment
- Easy commute for women, children, elderly and differently-abled
- Creation of 50,000 jobs and generation of many ancillary industries in & around Hyderabad
- Each coach has a capacity to carry 300 people. In one direction it can carry up to 60,000 passengers per hour.
- State-of-art signaling system to ensure high safety standards
- Video cameras in coaches and CCTVs in stations for better security
- Elegant, lightweight and air-conditioned coaches with automatic door movement
- Sophisticated Entry & Exit gates-access through Contactless Smart Cards

CE&CR: Please lead us through the route map for the project?

N.V.S.R.: The three corridors spanning a length of approximately 71.16 km to be taken up in phase-I are as under.

(i) Miyapur - LB Nagar (28.87 km; 27 stations) within 45 min (1hr 45 min by road)
Miyapur - JNTU College - KPHB Colony - Kukatpally - Balanagar - Moosapet - Bharat Nagar - Erragadda - ESI Hospital - S.R.Nagar - Ameerpet* - Punjagutta - Irrum Manzil - Khairtabad - Lakdi-Ka-Pul - Assembly - Nampally - Gandhi Bhavan - Osmania Medical College - MGBS* - Malakpet - New Market - Moosarambagh - Dilsukhnagar - Chaitanyapuri - Victoria Memorial - L.B.Nagar.

(ii) Secunderabad - Falaknuma (14.78 km; 16 stations) within 22 min (1 hr 10 min by road)
JBS - Parade Grounds* - Secunderabad - Gandhi Hospital - Musheerabad - RTC 'X' Roads - Chikkadpally - Narayanguda - Sultan Bazaar - MGBS* - Salarjung Museum - Charminar - Shalibanda - Shamsheergunj - Jangammet - Falaknuma

(iii) Nagole - Shilparamam (27.51 km; 23 stations) within 39 min (1 hr 10 min by road)
Nagole - Uppal - NGRI - Habsiguda - Tarnaka - Lallaguda - Mettuguda - Secunderabad - Parade Grounds* - Paradise - Rasoolpura - Prakash Nagar - Begumpet - Ameerpet* - Madhura Nagar - Yousufguda - Jubliee Hills Rd.No.5 - J.H.Check Post - Peddamma Temple - Madhapur - COD-Hitec City - Shilparamam (*Interchange Stations)

CE&CR: What steps is HMR taking to integrate metro with other transport systems in the city?

N.V.S.R.: 'Seamless travel' facility through integration with rail terminals, bus depots, MMTS (local train) stations, elevated walk ways & "Merry - go -round" feeder buses to nearby colonies and business areas/offices will be provided for. Intercity and Intracity connectivity. Commuters can rent bi-cycles at nearby Metro Rail stations.

- MMTS (local train) Integration: Bharat Nagar, Begumpet, Khairathabad, Lakdikapul, Malakpet & Falaknuma.
- MRTS Interchange: Ameerpet, Parade Grounds & MGBS.
- Railway Integration: Nampally, Secunderabad & Begumpet.
- Bus Depot Integration: MGBS & Jubilee Bus station.
- Intra city bus integration: Miyapur, Kukatpally, koti, Dilsukh Nagar, Uppal, Rathifile, Falaknuma.

CE&CR: Please give us an idea of how the completion of project has been scheduled?

N.V.S.R.: The schedule for completion of the Project is five years. Topographical surveys, geotechnical investigations have been completed and engineering and design works are nearing completion. Ground works at Nagole depot (one of the two major depots) have already commenced and the first section is expected to be ready for operation by 2014.

CE&CR: What civil structures will be constructed for the metro?

N.V.S.R.: Piers & Viaduct, state-of-the-art Metro Rail stations, M&E workshop depots, Operations Control Center (OCC), Stabling yard, Parking & Circulation lots, Simulation Center, Training Centers, Washing Plant, Architectural finishes, Landscaping, Depot & related services etc. will be contributed for the project.

CE&CR: What steps is HMR taking to ensure safety at work sites?

N.V.S.R.: During the entire period of construction stage hoardings, barricades, gates & signage will be maintained. Provision of guided traffic signs, road markings, safety barriers, pedestrian railings, raised pavement markers (CAT's eye) will be ensured. Retro reflective sheeting are to be used on the road signs. The messages will be either in screen printing or cut outs. Color scheme for facility information sign & parking signs will conform to the standard specification. Road side safety barriers & median safety barriers will be used. All obstructions which are not to remain on the site after the completion of works will be removed. All the project personnel will be provided with safety equipments & safety jackets throughout the period of the Project.

Most Of The Construction Work Is Done Off Site And At Nights In Order To Minimise The Impact On City Commuters

CE&CR: What steps is HMR taking to reduce the impact of construction on the environment of the city?

N.V.S.R.: During the construction, a maximum of 8 metre road width will be barricaded duly leaving at least provision for 2-lanes of traffic on either side. Wherever such provision is not feasible, efforts will be made to regulate the traffic through alternate routes. Care is being taken to carry out the construction work only in nights so as to have minimum disturbance in movement of vehicles. 70% of the construction work is done off site at the casting yards. We are using precast segmental construction where the components of the viaduct are pre-fabricated at casting yards and at night they are brought to site and assembled. Only construction of piers will be done at site. At depots construction sites, care will be taken to plant trees in large numbers, so as to complement the construction activity. It will be ensured to have effective Traffic Management Plan so as to reduce the movement of vehicles along the construction route & alternate routes will be strengthened to take additional loads of traffic.

CE&CR: What steps are being taken by HMR to keep Hyderabad citizens updated of work in progress and other latest happenings with respect to the project?

N.V.S.R.: Day-to-Day activities & the construction schedule in stretches will be posted on HMR website. Citizens will be alerted for taking alternate routes at congested locations well in advance through GPS system, Electronic media, Radio, guided messages on barricaded sheets, etc., Latest happenings with respect to project will be posted on HMR website.

CE&CR: What steps are you taking to give local touch to the metro?

N.V.S.R.: Each of the metro rail station will be designed as state-of-the-art stations where in the local heritage will get reflected inside and outside the stations. In between stations, local heritage will be embossed on the pier location and guideway wherever the situation warrants. We want to make use of this project for urban rejuvenation and redesign of Hyderabad. We have identified 25 P&C area location on various Govt. Lands, where wholesome family entertainment centers would be developed with lots of facilities for each category of people right from kids to senior citizens. We will also be beautifying the areas with lot of greenery and flower beds. We will develop our metro stations as family oriented, catering to the needs of all categories.

CE&CR: What help are you taking from DMRC?

N.V.S.R.: Detailed Project Reports (DPRs), Traffic Survey Reports, and other related reports were prepared by Delhi Metro Rail Corporation (DMRC) for the project. Inputs in preparation of Manual of Standards and Specification is taken from DMRC. As per the requirement, technical advice can be taken during the construction stage wherever necessary. There is an extensive mechanism developed by HMR for technical scrutiny and vetting of the designs & drawings prepared by L&TMRHL through their EPC contractor M/s.ECC duly proof checked by M/s AECOM, General consultants of L&T. M/s Louis Berger Consulting Pvt. Ltd., are the Independent Engineer of the Project who review comments on the design and drawings of the Project. Apart from this, there is a team of 9 technical experts from Railway Engineering background engaged by HMR for their expert opinion and advice on technical issues.