Construction of Metro Rail pillars which started in April 2012 got completed with the erection of the last pillar (2599th pier) near MGBS Metro station a couple of days ago, declared MD, HMRL Mr.NVS Reddy. Bhoomi Puja for the first pillar (Pier No.19 near Genpact in Uppal) was done on 19th of April 2012 and due to the turmoil prevalent at that time, no political dignitary was present and only some senior officers like the then Chief Secretary Mr.Pankaj Dwivedi and HMRL MD Mr.NVS Reddy; and L&TMRHL officials participated in it.

The MD has stated that except the 6 km stretch in the Old City, all the pillars for the 66 km phase-I Metro project have been completed and that a new world record has been created by construction of so many Metro pillars by a single company L&T in this manner. The pace of construction is also very significant and on an average one Metro pillar was constructed per day.

Depending upon the technical requirement and locational constraints, different shapes have been adopted for the Metro pillars. Of the 2599 pillars, while 1569 are normal pillars, 224 are cantilever pillars, 602 are station pillars, 51 are hammer head pillars and 153 are portal pillars, he stated.

**Hyderabad Metro Rail Piers (Pillars)**

<table>
<thead>
<tr>
<th>Pier Type</th>
<th>Total Piers (nos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Piers</td>
<td>1,569</td>
</tr>
<tr>
<td>Cantilever Piers</td>
<td>224</td>
</tr>
<tr>
<td>Station Piers</td>
<td>602</td>
</tr>
<tr>
<td>Hammer Head Piers</td>
<td>51</td>
</tr>
<tr>
<td>Portal Piers</td>
<td>153</td>
</tr>
<tr>
<td><strong>Total (nos)</strong></td>
<td><strong>2599</strong></td>
</tr>
</tbody>
</table>

Describing the construction of such a large number of pillars by barricading about 30 feet in the middle of the congested roads of Hyderabad as an engineering and logistics challenge, Mr.NVS Reddy has highlighted the
following as some of the major hurdles and milestones in this mammoth construction activity:

- Getting permissions from the National Highways (which took 3 years), Defence (4 years), Railways (4 years) and innumerable other government organisations;
- Acquisition of about 3,000 properties by amicably solving thousands of disputes through patient negotiations; and by winning over 370 cases in the High Court;
- Shifting of 200 kms of HT and LT electric cables in about 380 locations; relaying of 25 kms of sewer lines, water lines and storm water drains; and shifting of about 5,000 electrical poles;
- Skilfull handling of agitations, protests and other volatile incidents;
- Deft handling of religious sentiments, heritage and other sensitive issues;
- Translocation of about 2,100 trees and removal of about 3,000 trees with compensatory plantation of about 6 lakh saplings;
- Straightening of curved road at Miyapur for construction of station;
- Creation of bypass roads circumventing temples at Hydernagar and Nizampet;
- Relocation of a temple at JNTU;
- Relocation of statues at KPHB and Moosapet;
- Widening of the narrow road (from 50 feet to 140 feet) at IDL Dargah;
- Relocation of a religious structure at IDL cheruvu road;
- Laying of service road at Balanagar;
- Widening the carriage way at Moosapet RTC depot with innovative engineering in diversion of storm water drain and removal of rocky terrain;
- Relocation of a big vegetable market at Bharat Nagar for station and viaduct construction;
- Widening the carriage way at Sunder Nagar colony near ESI Hospital and laying of the road overnight;
- Widening the carriage way at Vijayalakshmi Temple, ESI Hospital;
- Widening the carriage way at Maqbara, SR Nagar (existing 50 feet to 140 feet) and laying of the road overnight;
- Widening the Ameerpet causeway for accommodating one of Asia’s biggest elevated interchange Metro stations;
Facilitation of station construction at Khairatabad “7 Temples” location by creating a bypass & circumventing the “7 Temples”;
Facilitation of pier construction at Khairatabad KGN Xerox by circumventing the existing temple and creation of bypass road;
Refinement of Metro Rail Alignment from Ravindra Bharati jn to Police Control Room without affecting the view of the Assembly building and Telangana Martyrs’ Memorial;
Construction of pier foundations between Public Gardens and Exhibition Grounds by navigating the old Elephant Nala constructed during the Nizam regime;
Construction of double elevated corridor for accommodating the pier foundations between Putlibowli jn and Rang Mahal jn;
Construction of Asia’s biggest MGBS interchange Station by relocation of RTC workshop and relocation of Dhobi ghat;
Construction of viaduct over the existing Malakpet bridge without any widening of the bridge but maneuvering the existing traffic;
Construction of pier foundations at Nalgonda X road without affecting the religious structure;
Construction of pier foundations at Dilsukh Nagar without affecting the religious structure;
Widening of existing culvert at Chaitanyapuri to facilitate pier foundations;
Shifting of 132 kv / 66 kv cables at Secunderabad Clock Tower to facilitate pier foundations;
Facilitation of pier foundations through Secunderabad Tamil Church open space;
Convincing traders to facilitate Metro construction in Sultan Bazar and Badichowdi;
Convincing and winning in the High Court regarding Metro alignment from Greenlands jn to Jubilee Hills Check Post;
Creation of an alternate road and revival of abandoned nala to connect the colonies for facilitation of Uppal depot;
Widening of the existing culverts at several locations to facilitate widening of the carriage way and construction of pier foundations;
Relocation of Kanchelamma Temple at Uppal;
Relocation of a sensitive religious site and bypassing of church at Mettuguda;
✓ Construction of viaduct over oliphanta and other Railway bridges and flyovers – an engineering marvel;
✓ Alignment through ISKON Temple open space and Padmahamsa Apartments for facilitation of pier foundations;
✓ Widening the existing carriage way by dismantling the long pending Jabbar building and relocation of religious structure;
✓ Construction of pier foundations between Varun Tower building and White House building in Begumpet;
✓ Construction of pier foundations from Greenland jn and Jubilee Hills without compulsory acquisition of properties;
✓ Revival of defunct storm water drains between Greenlands jn and Hitec City by desilting of the existing drains, construction of new drains, construction of cross drains etc;
✓ Maneuvering of alignment at sharp curve locations between Madhura Nagar and Hitec City etc., etc.

Stating that a large number of eminent engineers and officers struggled hard over the last 7 years to cross all these hurdles, Mr.NVS Reddy specifically complimented L&TMRHL Engineering Heads Mr.M.P.Naidu, Mr.Shanker Lingam and Mr. K.M. Rao; and HMRL senior engineers and officers Mr.Mohd Ziauddin, Mr.M.Vishnu Vardhan Reddy, Mr.B.N.Rajeswar and Mr.A.Balakrishna for constructing Hyderabad Metro with least inconvenience to the public.

Chief Public Relations Officer
Hyderabad Metro Rail Ltd
Laying PCC Bed for Foundation

Pier Construction Stage

Boom Placer

Transit Mixer
Security Barricade

Shuttering

Road Barricading and Pier Shuttering
Metro Station Construction-Piers
Row of well shaped piers (pillars)