



## Integral Construction for Elevated Road over Barapullah Nalla from Sarai Kale Khan to Jawahar Lal Nehru Stadium

**Prof Mahesh TANDON**,  
Managing Director  
Tandon, Consultants Pvt  
Ltd

[tandon@tcpl.com](mailto:tandon@tcpl.com)

Prof. Mahesh Tandon is an international expert in the field of Structural Engineering. He received the “Structural Engineer of the Year 2006” award from Archidesign. He has been appointed Distinguished Visiting Professor at the Indian Institute of Technologies at Kanpur and Roorkee by the Indian National Academy of Engineering (INAE) and the All India Council for Technical Education (AICTE).

**Sarvagya SRIVASTAVA**,  
Chief Engineer (Flyover  
Projects Zone), PWD, Delhi  
[sarvagyas@hotmail.com](mailto:sarvagyas@hotmail.com)

Sarvagya Kr.Srivastava is Chief Engineer with Public Works Department, Govt. of Delhi responsible for execution of flyover, elevated road and other road infrastructure projects all over Delhi. He is an officer of Central Engineering Service of 1980 batch (79 ES Exam.) and has spent over three decades in CPWD in developing and maintaining infrastructure in diverse fields and terrains in different parts of the country

**Ashish SRIVASTAVA**,  
Dy. Principal Consultant,  
Tandon Consultants Pvt Ltd  
[ashish.srivastava@tcpl.com](mailto:ashish.srivastava@tcpl.com)

Ashish Srivastava is a structural engineer with expertise in designing of infrastructure projects including bridges, viaduct, flyovers, underground structures and metro projects. He has been associated with design works of several prestigious and challenging projects, many of which have received appreciation and awards for innovation, aesthetics and use of design concepts suiting to project requirements.

### Summary

For Commonwealth Games-2010 held in Delhi, Barapulla Elevated road was conceived as an arterial route to provide seamless connectivity from games village to Venue. This project was completed within very tight time constraint. The construction involved integral structures at entry to the entry road as well as major road/railway crossings. Present paper details the various aspects of the project including the design innovations which resulted in construction to be completed within time.

The project entailed construction of elevated road over Barapulla Nallah starting from Sarai Kale Khan to Jawahar Lal Nehru Stadium.

The alignment crosses over Ring Road, Railway Tracks, Jangpura Road to Nizamuddin Railway Station & Monumental Bridge over Nallah, Mathura Road and Lala Lajpat Rai Marg.

Barapulla project is one of the most fast track project taken in India entailing construction of fully elevated road with deck area of ~80000 sq.m. (4.1 km, dual carriageway, each carriageway of 9.0 m) constructed in 20 months. This translates to construction of 400m of viaduct per month.

Several integral structures were provided in Barapulla elevated road. Due to similar span arrangement and repletion of structures and the limited time available, precast segmental construction with balanced cantilevering was successfully employed. By efficient planning with several design innovations to its credit, it was possible to execute the work within the constrained time frame made available for construction. Construction of seven nos. of integral continuous span with 20 months is a remarkable achievement.