

# New Indian bypass

A new two-lane road has been built in Meghalaya, India, providing a challenging project for the construction team

**T**he new road lies at a comparatively high altitude and provides a bypass around Shillong, the capital of Meghalaya and which is one of the smallest states in India.

Shillong is located 1,496m above sea level, with the highest point being Shillong Peak at almost 2,000m, and the area has a much cooler climate than the rest of tropical India. Shillong is also only 55km away from Mawsynram, which is officially the world's wettest place.

The Shillong bypass connects the top of the main NH-40 highway starting at Umiam in Ri-Bhoi district to the bottom of the NH-44 highway at Mawryngknend in the East Khasi Hills district. It included building about 500km of road for two-lane traffic as well as a 2.5m shoulder on each side. The National Highway Authority of India (NHAI) awarded the project to Shillong Expressway, which then contracted out the work to infrastructure company, InfraProjects.

The total project cost an estimated US\$39.8 million (2,510 million Rupees) and was completed in spring 2014, two years after the project commenced. The work was finished before its scheduled completion date and has raised the expectation of more road construction in the region. Two major high level steel girder bridges were also constructed, 45m long by 30m high, as well as five minor bridges, an underpass, four bypasses, two major junctions, 64 small junctions and seven bus bays.

GR Infra Projects used excavators from Volvo CE throughout the project, including five 14tonne class EC140BLCs and two 20tonne EC210B-Series models to dig and remove overburden. These were supplied and supported by local Volvo CE dealer, Esdee Solutech.

Because of the mountainous terrain, a lot of cut and fill was required,



Volvo CE machines worked successfully on the Shillong bypass project in India

resulting in a huge amount of earthmoving in order to keep to schedule. For day-to-day operations the company also used other Volvo CE machines including, four DD100 asphalt compactors, two SD110 soil compactors, G930 graders, L120 wheeled loaders and an ABG7820 asphalt paver.

GR Infra Projects specialises in building highways and bridges across India, employing about 130 civil engineers. The company has successfully delivered over 150 road projects, including 3,200km in Rajasthan, Haryana, UP, Bihar, Jharkhand and the North-East, almost always being finished ahead of the completion date. GR Infra Projects commented that it is a first for the north-east region in that a highway of this magnitude has been completed ahead of schedule. ■

## Productive breaking for granite quarry

**Hydraulic breakers and compressors from Chicago Pneumatic are proving productive in India's expanding granite building stone industry.**

The Kerala-based granite quarry, National Granite and Hollow Bricks, is successfully using CP1150 and RX22 hydraulic breakers as well as a CPP60E portable air compressor for its key breaking and drilling operations.

Located in the Kannur district of Kerala, in



Based in Kerala, India, National granite is using Chicago Pneumatic hydraulic hammers for secondary breaking of its granite production

southern India, National Granite and Hollow Bricks currently employs 40 people and is a leading producer of granite. Resistant to wear and tear as well as weathering, this material is currently in demand across the construction industry, with India being one of the largest exporters of granite worldwide. As part of the quarrying process, the granite rocks resulting from primary blasting require secondary breaking to fit into the jaw crushers.

National Granite opted to use equipment from Chicago Pneumatic. After a successful on-site demonstration, the company purchased its first CP1150 rig-mounted medium hydraulic breaker in 2006, followed by a RX22 a few years later. Having clocked 10,000 and 5,000 hours respectively, the firm's CP1150 and RX22 are helping to increase the quarry's overall productivity with low maintenance costs. Chicago Pneumatic's medium breaker range features dust wipers and ventilation ports for better dust protection, suiting them to use in quarrying applications.



The Chicago Pneumatic compressor is being used to power drilling equipment at the quarry

Chicago Pneumatic equipment is also helping National Granite with its primary drilling operations, which precede the blasting phase. In order to effectively power its drills to drill holes in the rocks, the quarry is currently relying on a CPP60E portable air compressor, which has already clocked 5,000 hours of reliable service. ■

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