

80M

**HEIGHT OF
REINFORCEMENT WALL
BENEATH THE RUNWAY**

SIKKIM GREENFIELD AIRPORT

Sikkim's first Greenfield airport project in Pakyong will provide air connectivity to this land-locked state with the rest of India. Pakyong airport, 30-km south of Gangtok, the capital city of Sikkim, is one of the most challenging construction sites as it is located at an altitude of 4,700 ft with deep valleys at both ends of the runway. Difficult topography and hostile weather conditions make this project extremely challenging. The entire airport, including the runway, has to be constructed on a landing area, which is created by building up an embankment as high as 80.38 meters in deep valleys. Composite reinforced soil technology was used to retain the high embankments by reinforced soil walls. A total of 1,514 meters long reinforced earth walls with height varying from 32 to 80.38m are being created on the project. Beneath the runway, one of the tallest reinforced soil structures in the world is currently being constructed. Designed with specific geogrids at certain spacings within the slope, the structures accurately balance the cut and fill volumes. This eliminates the need for import or export of construction fill materials and polluting truck movements in this region. Two types of fascia are being provided for these reinforced soil walls on the project. When completed the highest reinforcement wall on the project will stand as high as 80.38 meters, one of the tallest reinforcement walls in the world. With 1700-meter long runway and two parking bays, Pakyong airport will be operational for ATR 72 type of aircraft in fair weather condition. The terminal building would be able to handle 100 passengers (50 arriving and 50 departing) at a time.

Project Details

Construction company:
Punj Lloyd

Capacity: 100 passengers at a time

Current status: Under construction

Location: Pakyong, Sikkim

Impact: Will prove to be a boon to the tourism industry