



New Integrated Passenger Terminal at Chandigarh Airport

Location	: Chandigarh
Site Area	: 1,38,562 m ²
Built up Area	: 39,600 m ²
Air-conditioned Area	: 36,039 m ²
Non Air- conditioned Area	: 3400 m ²
Energy Consumption Reduction:	58% reduction in energy consumption compared to GRIHA benchmark
EPI	: 188/m ² /year
Renewable Energy	: Rated capacity of solar PV installed on site is 5MWp
GRIHA provisional rating	: 4 Stars
Year of completion	: 2015

The following strategies were adopted to reduce the building impact on the natural environment:

📍 Sustainable Site Planning:

- The terminal building has been oriented along North and South, for optimum orientation. Most of the glazing is on North & South façade and almost no glazing is provided in east and west.
- Shading has been designed such that the south façade remains shaded most of the time to minimize heat-gain.
- Hard paving has been minimized on site.

📍 Reducing water consumption:

- Reduction of 67% has been demonstrated in the building water consumption compared to GRIHA base case scenario by installing low flow fixtures.
- Project has achieved a 39% reduction in the landscape water requirement over GRIHA base case.

📍 Reducing energy consumption (compared to TERI GRIHA benchmarks) while maintaining occupant comfort:

- » The glass area is limited to 58% of the façade area and the roof is well insulated.
- » The building envelope has been designed efficiently. The curtain wall is doubly glazed with an SHGC of 0.23.
- » The central air-conditioning of this building is controlled by variable frequency drive (VFD) and advanced building management system (BMS) for high efficiency.

📍 Renewable energy technologies installed on site:

- 5 MWp rated capacity solar photo-voltaic panels have been installed.

📍 Use of low energy materials:

- Fly-ash bricks have been used for construction.
- Metal and Gypsum false ceiling with recycled content have been used.
- Low energy flooring materials like vitrified tiles with recycled content have been used for flooring work.

Integrated Design Team:

Client	: Airport Authority of India
Project Coordinator	: Airport Authority of India
Principal Architect	: Sikka Associates Architects
Landscape Architect	: Design Cell
Structural Consultant	: Mehro Consultants
Electrical Consultant	: Engineering Services Consultants
Plumbing & Fire	: MKG Consultants
HVAC	: Abid Hussain Consultants