JIPMER International School of Public Health (JISPH)

Location : Puducherry
Site Area : 12,826 m²
Built-up Area : 11,934 m²
Energy Consumption Reduction : 71% reduction in Energy Consumption compared to GRIHA benchmark
EPI : 47.75 kWh/ m²/year
GRIHA Provisional Rating : 4 Star Rating (Version: 3.1)
Year of Completion : 2019

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

蕖 Sustainable Site Planning:
• Out of 69 existing mature trees, 26 trees were cut and 550 new trees were planted.
• Air pollution control measures such as site barricading, covering of fine aggregates with fabric and other appropriate measures were strictly adhered to during construction.
• The shadow from the building does not obstruct the solar access to neighboring buildings.
• Project has been designed such that all the transportation and service corridors have been minimized. Utility corridors have been aggregated and consolidated to minimize site disruption.

蕖 Water Management:
• Reduction of 72.19% from the GRIHA base case has been demonstrated in the building water demand by installing water efficient fixtures.
• Reduction of 52.5% from the GRIHA base case has been demonstrated in the landscape water demand.
• Gunny bags was used for curing of columns and ponding technique was used for curing of slabs.

蕖 Energy Optimization and Occupant Comfort:
• For achieving visual comfort:
  » 28% of the total living area is day-lit and meets the daylight factor as prescribed by NBC 2005.
  » Digital timer control has been provided for 100% of the outdoor lighting system.
• For achieving thermal comfort:
  » EPI reduction of 71% from the GRIHA base case has been demonstrated through the integration of high performance systems.
  » Window to wall ratio has been limited to 14.1% in the project.

蕖 Renewable Energy Technology installed on site:
• Rooftop solar photovoltaic system of capacity 5 kWp has been installed on-site for complying with the mandatory clause.

蕖 Sustainable Building Materials:
• Pozzolana Portland cement with 30% fly-ash content by weight has been used in plaster and masonry mortar.
• Ceramic tiles with recycled content, vitrified tiles, granite and IPS flooring have been used as a flooring material in the project.
• 75% of the products used for doors, windows and frames are low-energy.
• 100% of paints, adhesives and sealants are low VOC.

蕖 Waste Management:
• Multi-colored bins have been provided at every floor to collect and segregate waste at source.
• Segregated waste is transported to resource recovery park within the JIPMER campus from where non-biodegradable waste is sent to waste recyclers. Bio-medical waste is managed as per Bio-medical waste management rules, 2016.

Integrated Design Team:

Client : Dr. K C Premarajan
Principal Architect : Mr. S. Krishnamoorthy, EDRC, L&T Constructions
Landscape Architect : Mr. Arun KH, EDRC, L&T Constructions
Structural Consultant : Dr. Justin S., EDRC, L&T Construction
Electrical Consultant : Mr. Ramesh Ramasubramanian, EDRC, L&T Construction
Green Building Design and Certification : Mr. Ebenezer G.R