

આરોગ્ય અને પરિવાર કલ્યાણ વિભાગ, ગુજરાત સરકાર



U. N. Mehta Institute of Cardiology & Research Centre (Paediatric Cardiac Hospital Building)

Location	: Ahmedabad
Site Area	: 20,992 m ²
Built-up Area	: 25,801m ²
Typology	: Hospital building
Energy Consumption Reduction	: 68.61% reduction in Energy Consumption compared to GRIHA benchmark
EPI	: 141.27 kWh/ m ² /year
GRIHA Provisional Rating	: 4 Star Rating (Version: 3.1)
Year of Completion	: 2021

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

🕒 Sustainable Site Planning:

- Air pollution control measures such as site barricading, wheel washing facility and other appropriate measures were strictly adhered to during construction.
- Out of 19 existing mature trees, 16 trees were cut and 124 new trees were planted.
- 596.8 m³ top soil was preserved within the site and was reused for landscaping.

🚰 Water Management:

- Reduction of 55% from the GRIHA base case has been demonstrated in the building water demand by installing water efficient fixtures.
- Reduction of 72.89% from the GRIHA base case has been demonstrated in the landscape water demand.
- Hessian cloth was used for curing of columns and ponding technique was used for curing of slabs.

🔋 Energy Optimization and Occupant Comfort:

- For achieving visual comfort:
 - » 44.41% of the regularly occupied spaces are day-lit and meet the daylight factor as prescribed by NBC Code 2005.
 - » Astronomical timer control has been provided for 100% of the outdoor lighting system.
- For achieving thermal comfort:
 - » EPI reduction of 68.6% from the GRIHA base case has been demonstrated through the integration of high performance systems.

🌞 Renewable Energy Technology installed on site:

- Solar photovoltaic system of capacity 80 kWp has been installed.

🏠 Sustainable Building Materials:

- Fly ash bricks have been used for walling in the project.
- Kota stone, granite and vitrified tiles have been used as flooring materials in the project.

♻️ Waste Management:

- Multi-colored bins have been provided segregation of dry and wet waste.
- Waste collection area has been provided for storage of segregated waste on site.

Integrated Design Team:

Client	: M/s. U N Mehta Institute of Cardiology & Research Center
Principal Architect	: M/s Helix Healthcare Architecture
Landscape Architect	: M/s Helix Healthcare Architecture
Structural Consultant	: Peekay Structural Consultant
Electrical Consultant	: ACROBAT ENGINEERS PVT. LTD.
Green Building Design and Certification	: GODREJ & BOYCE MFG. CO. LTD