ODISHA ADARSHA VIDYALAYA- CENTER OF EXCELLENCE AT ANDHARUA, BHUBANESWAR





Location	: Andharua, Odisha.
Site Area	: 49078.51sqm
Built up area	: 30096 sqm
GRIHA Rating	: 3 star

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

- **Sustainable Site Planning:**
  - This project has been designed and constructed complying to all local statutory norms and land development plan.
  - Most of the basic amenities like hotel, petrol pump, convenience store, pharmacy, ATM etc. are in close proximity to the site.
  - The building architecture has been modified to adopt best possible low impact design features like - orientation of the longer facades of the building, arrangement of the internal buffer space to avoid heat, roof insulation, shading design on windows, high performance glazing and high SRI paint on roof.
  - UHIE has been managed at this site by usage of grass pavers, green cover on building podium, high
  - SRI paint on surface parking and some preserved landscape area to balance the micro-climate.
  - The project has provided dedicated toilets for service staff, differently-able and gender neutral also within the office premise.

- **Reducing water consumption:**
  - Use of low-flow plumbing fixtures and faucets reduces the building water demand by 40.64% as compared to GRIHA base case.
  - The project has reduced its landscape water demand by 92.39% as compared to the GRIHA base case.

- **Reducing energy consumption while maintaining occupant comfort:**
  - The building is showing higher level of energy efficiency due to the adoption of energy efficient building envelope, efficient lighting and air-conditioning system. All electro-mechanical systems are compliant to ECBC norms.
  - 440 kWp solar photovoltaic panels have been installed on the roof of the building.
  - All air-conditioners and fans installed in the residence are BEE 5 star rated.
  - The circulation area inside the shopping floor are getting adequate daylight of over 74.30% of the public movement area.

- **Use of low energy materials:**
  - Use of low-VOC and lead free paints has been used to maintain good indoor air quality.
  - The project has demonstrated a reduction in embodied energy in embodied energy by using fly-ash bricks, PPC cement, autoclaved aerated concrete (AAC) blocks and local sand stones on external structural wall.

Integrated Design Team

Client	: Odisha Bridge & Construction Corporation Limited
Contractor	: B. C. Bhuyan Constructions Pvt. Ltd
GRIHA Consultant	: Sustainable Buildings & Habitat

SBH SUSTAINABLE BUILDINGS & HABITAT