

Divisional Commissioner Office, Nashik Division



Location	: Nashik, Maharashtra
Site Area	: 10,305 sqm.
Built up Area	: 6,191 sqm.
Typology	: Office
Rating Category	: GRIHA for Existing Buildings (EB)
Version	:1
Date of Award	: 30th May, 2019
Client	: Government of Maharashtra
Integrated Design Team	: Public Works Department (PWD) Maharashtra
Green Building Consultant	: Beratung Consultants Pvt. Ltd.

The following strategies were adopted by the project team to reduce the impact of the existing building on the environment:

GRIHA EB

4 STAR

Site Parameters:

- Amenities such as bus stop, bank, gym, community center and park were available within 500 meters of walking distance from the main entrance of the project.
- Preferred parking for electric vehicles and bicycles were provided.
- Strategies such as soft landscape area, hard paved area with vegetation, green roof, solar panels and hard paved area with SRI>50% were implemented over 8,650 sqm. of site area to reduce the Urban Heat Island Effect.

Energy:

- Replacement of old lighting fixtures with LEDs, installation of efficient fans has reduced the annual energy consumption from 51,544 kWh/year to 38,841 kWh/year achieving a percentage reduction of 24.6%.
- Solar photovoltaic system of 20 kWp was proposed to generate 31,193 kWh of renewable energy.

Water Efficiency:

- Building water consumption was reduced from 2,025.24 kiloliters/year to 1,243.85 kiloliters/year achieving a percentage reduction of 38.6%.
- Landscape water consumption was reduced from 798.92 kiloliters/year to 672.57 kiloliters/year achieving a percentage reduction of 91.6%.

Human Health and Comfort:

Indoor comfort conditions measured in summer months;
Dry bulb temperature= 26 – 26.7°C, Relative humidity= 35% – 36%,
Daylight levels= 198 - 229 lux, and Indoor noise levels: 41 - 42 dB; were compliant with benchmarks of the Indian Model for Adaptive comfort and SP 41.

Total energy offset by renewables = 80.3% Total reduction in building water demand = **38.6%**

TOTAL CARBON OFFSET BY THE PROJECT:

By planting native saplings & preserving existing trees: 1.17 ton/year

By conservation of conventional energy: 47.8 ton/year