



COLLECTOR OFFICE, Dhule Nashik Division



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

Site Parameters:

- Trees were preserved on site in the ratio of 1 tree per 80 sqm.
- Availability of amenities such as bus stop, bank, pharmacy, restaurant and grocery store within 500 meters of walking distance from the main entrance of the project.
- Strategies were implemented over 5,907 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 59,037 kWh/year to 58,142 kWh/year.
- Solar photovoltaic system of 8 KWp was proposed to generate 12,432 kWh of renewable energy.

Water Efficiency:

- Building water consumption was reduced from 642.9 kL/year to 358.3 kL/year demonstrating a reduction of 44.27% from the GRIHA base case.

Human Health and Comfort:

- Indoor comfort conditions measured in summer months;
Dry bulb temperature= 28.7 - 29°C, Relative humidity= 32.3% - 34%,
Daylight levels= 162 - 189 lux, Artificial lighting levels= 332 - 392 lux and
Indoor noise levels: 38 - 39 dB; were compliant with benchmarks of the Indian Model for Adaptive comfort, SP41 and NBC 2005.

Location	: Dhule, Nashik District, Maharashtra
Site Area	: 5,148.6 sqm.
Built up Area	: 3,156 sqm.
Typology	: Commercial
Rating Category	: GRIHA for Existing Buildings (EB)
Version	: 1
Date of Award	: 4th October, 2019
Client	: Government of Maharashtra
Integrated Design Team	: Public Works Department (PWD), Maharashtra
Green Building Consultant	: Beratung Consultants Private Limited

Total energy offset
by renewables
= **21.4%**

Total reduction in
building water demand
= **44.27%**

TOTAL CARBON OFFSET BY THE PROJECT:

By planting native saplings & preserving existing trees: 3.37 ton/year
By conservation of conventional energy: 14.51 ton/year