



# REST HOUSE, Badnera Amravati Division



<b>Location</b>	: Badnera, Amravati District, Maharashtra
<b>Site Area</b>	: 5148.6 sq.m.
<b>Built up Area</b>	: 300 sqm.
<b>Typology</b>	: Hospitality
<b>Rating Category</b>	: GRIHA for Existing Buildings (EB)
<b>Version</b>	: 1
<b>Date of Award</b>	: 31 March 2019
<b>Client</b>	: Government of Maharashtra
<b>Integrated Design Team</b>	: Public Works Department (PWD) Maharashtra
<b>Green Building Consultant</b>	: Shashwat Green Building Consultancy

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

### Site Parameters:

- Trees preserved on site in the ratio of 1 tree per 80 sqm.
- Preferred parking provided for electric vehicles, pooled vehicles and bicycle rental.
- Strategies such as soft landscape area, hard paved area with vegetation, green roof, solar panels and china mosaic were implemented for over 4198.4 sqm. of site area to reduce the Urban Heat Island Effect.

### Energy:

- Energy efficiency measures like replacement of old lighting fixtures with LEDs, installation of efficient fans has reduced the annual energy consumption from 11,678 kWh/year to 10,492 kWh/year.
- Solar photovoltaic system of 2 kWp was proposed to generate 3017 kWh of renewable energy.

### Water Efficiency:

- Building water consumption reduced from 417 kiloliters/year to 276 kiloliters/year.
- The total sewage water generated on site is 8.3 kiloliters/day.

### Human Health and Comfort:

- Indoor comfort conditions measured in summer months; Dry bulb temperature= 28 - 32°C, Relative humidity= 64% – 59%, Daylight levels= 320 - 475 lux, Artificial lighting levels= 210 - 375 lux and Indoor noise levels 38 – 40 dB; were compliant with benchmarks of the Indian model for Adaptive comfort, SP 41 and NBC 2005.

Total energy offset  
by renewables  
= **28.8%**

Total reduction in  
building water demand  
= **33.8%**

### TOTAL CARBON OFFSET BY THE PROJECT:

**By planting native saplings & preserving existing trees: 2.99 ton/year**

**By conservation of conventional energy: 4.58 ton/year**