



# RURAL HOSPITAL, Karkamb Pune Division



<b>Location</b>	: Karkamb, Solapur District, Maharashtra
<b>Site Area</b>	: 3,000 sq.m.
<b>Built up Area</b>	: 901.3 sq.m.
<b>Typology</b>	: Healthcare
<b>Rating Category</b>	: GRIHA for Existing Buildings (EB)
<b>Version</b>	: 1
<b>Date of Award</b>	: 30th April, 2019
<b>Client</b>	: Government of Maharashtra
<b>Integrated Design Team</b>	: Public Works Department (PWD), Maharashtra
<b>Green Building Consultant</b>	: Gadin Consultancy & Co.

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

### Site Parameters:

- Availability of amenities such as bus stop, bank, pharmacy, restaurant and grocery shop within 500 meters of walking distance from the main entrance of the project.
- Preferred parking is provided for electric vehicles .
- Strategies were implemented over 1,611 sq.m. of site area to reduce the Urban Heat Island Effect.

### Energy:

- Replacement of old lighting fixtures with LEDs, installations of efficient fans have reduced the annual energy consumption from 19,266 kWh/year to 14,050 kWh/year demonstrating a reduction of 27% from the total energy consumption.
- Solar photovoltaic system proposed of 5 kWp was proposed to generate 14,060 kWh of renewable energy.

### Water Efficiency:

- Provision of rainwater harvesting system to cater to 100% of the catchment area on site.

### Human Health and Comfort:

- Indoor comfort conditions measured in summer months;  
Dry bulb temperature= 28 - 32°C, Relative humidity= 38% - 40%,  
Daylight levels= 163 – 242 lux, Artificial lighting levels= 300 - 330 lux and Indoor noise levels: 38 – 40 dB; were compliant with benchmarks of the Indian Model for Adaptive comfort, SP41 and NBC 2005.

Total energy offset  
by renewables  
= **100.07%**

Total reduction in  
building water demand  
= **5.15%**

### TOTAL CARBON OFFSET BY THE PROJECT:

**By planting native saplings & preserving existing trees: 0.22 ton/year**

**By conservation of conventional energy: 20.99 ton/year**