



**SUB DIVISIONAL ENGINEER, P.W. SUB DIV.
NO.1,2 AND CONSTRUCTION, Amravati
Amravati division**

GRIHA EB



3 STAR



The following strategies were adopted by the project teams 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 store within 500 meters walking distance from the main entrance of the project.

Energy:

- Replacing the old lighting fixtures with LEDs, installation of efficient fans has reduced the annual energy consumption from 22550 kWh/year to 18665 kWh/year.
- Solar photovoltaic system proposed of 4 kWp to generate 6,120 kWh of renewable energy.

Water Efficiency:

- Building water consumption reduced from 389.2 kiloliters/year to 258.7 kiloliters/year
- The total sewage water generated on site is 0.97 kiloliters/day.

Human Health and Comfort:

- Indoor comfort conditions measured in summer months; Dry bulb temperature= 28 - 31°C, Relative humidity= 46% – 48% and Daylight levels= 323 - 487 lux were compliant with benchmarks of the Indian Model for Adaptive comfort and SP41.

Location	: Amravati district, Maharashtra
Site Area	: 3,663.3 sq.m.
Built up Area	: 561 sq.m.
Typology	: Commercial
Rating Category	: GRIHA for Existing Buildings (EB)
Version	: 1
Date of Award	: 3 June 2019
Client	: Government of Maharashtra
Integrated Design Team	: Public Works Department (PWD) Maharashtra
Green Building Consultant	: Shashwat Green Building Consultancy

Total energy offset
by renewables
= **32.8%**

Total reduction in
building water demand
= **33.5%**

TOTAL CARBON OFFSET BY THE PROJECT:

By planting native saplings & preserving existing trees: 0.83 ton/year

By conservation of conventional energy: 10.89 ton/year