



## Woodsville Phase I

<b>Location</b>	: Borhadewadi, Moshi, Pune
<b>Site Area</b>	: 30,460.90 m <sup>2</sup>
<b>Built up Area</b>	: 26,336.00 m <sup>2</sup>
<b>Air-conditioned Area</b>	: 0 m <sup>2</sup>
<b>Non Air- conditioned Area</b>	: 26,336.00 m <sup>2</sup>
<b>Typology</b>	: Residential
<b>Energy Performance Index (EPI)</b>	: 31.72 KWh/m <sup>2</sup> /year
<b>Renewable Energy</b>	: Renewable energy system was not installed
<b>GRIHA provisional rating</b>	: 3 Stars
<b>Year of completion</b>	: 2016

The following strategies were adopted to reduce the building impact on the natural environment:

### 📍 Sustainable Site Planning:

- Measures were adopted for soil erosion control, preservation of fertile top soil, protection and preservation of existing mature trees on site.
- The services have been planned to cause minimum site disturbance.

### 📍 Water management:

- Reduction of 42.42% from the GRIHA base case has been demonstrated in landscape water demand through drip irrigation and native and naturalized plant species.
- Reduction of 51.64% from the GRIHA base case has been demonstrated in building water demand through provision of low-flow plumbing fixtures and use of STP treated water for flushing through dual plumbing system.
- 100% storm water run-off from roof is being recharged into the ground through recharge pits.

### 📍 Energy Optimization:

- The Energy Performance Index of the project has been reduced by 69.66% below the GRIHA base case through envelope optimization, and integrating high performance systems.

### • Visual comfort:

- » Landscaped spaces are provided amidst the buildings to provide visual connectivity and ample daylight in the interior spaces. Adequate day lighting has been ensured inside more than 85% habitable spaces.

### • Thermal comfort:

- » Terraces, balconies, horizontal shading devices along with appropriate glazing have been provided to reduce 45% of direct solar heat gain.
- » Fly ash bricks have been used for building envelope construction.

### 📍 Renewable energy:

- Solar hot water system to suffice 100% hot water requirement has been installed, thus reducing the consumption of energy generated from non-renewable sources.

### 📍 Sustainable building materials:

- 16.29% and 33% of cement is replaced with fly ash by weight in structural and plaster/masonry work respectively.
- Fly ash bricks have been used for wall construction.
- Steel having recycled content has been used.
- Materials such as wooden flush doors, Aluminum window frames and vitrified tiles having recycled content, low-VOC paints, adhesives and sealants have been used in interiors.

### Integrated Design Team:

<b>Client</b>	: Pharande Promoters and Builders
<b>Principal Architect</b>	: Landmark Design Group
<b>Landscape Architect</b>	: Ar. Kshitija Kolhatkar
<b>Project Management Consultant</b>	: Gensys Technology Private Limited
<b>Structural Consultant</b>	: Gensys Technology Private Limited
<b>Electrical Consultant</b>	: Zopate Electrical Consultants Pvt. Ltd.
<b>Green Building Design and Certification</b>	: VK:e environmental LLP

Building performance as per audit report

### Energy

- Final EPI achieved - 17.73 kWh/sqm/year.
- Reduction in EPI from proposed case – 82.27%.
- Thermal comfort is met as per NBC 2005.
- Lighting lux levels are met as recommended by NBC 2005.

### Water and waste:

- Water test report indicates conformity to IS codes.
- Reduction of 56.74% in building water consumption from the GRIHA base case.

### Noise level

- Outdoor noise levels are within acceptable limits as per CPCB.
- Indoor noise levels are within acceptable limits as per NBC 2005.