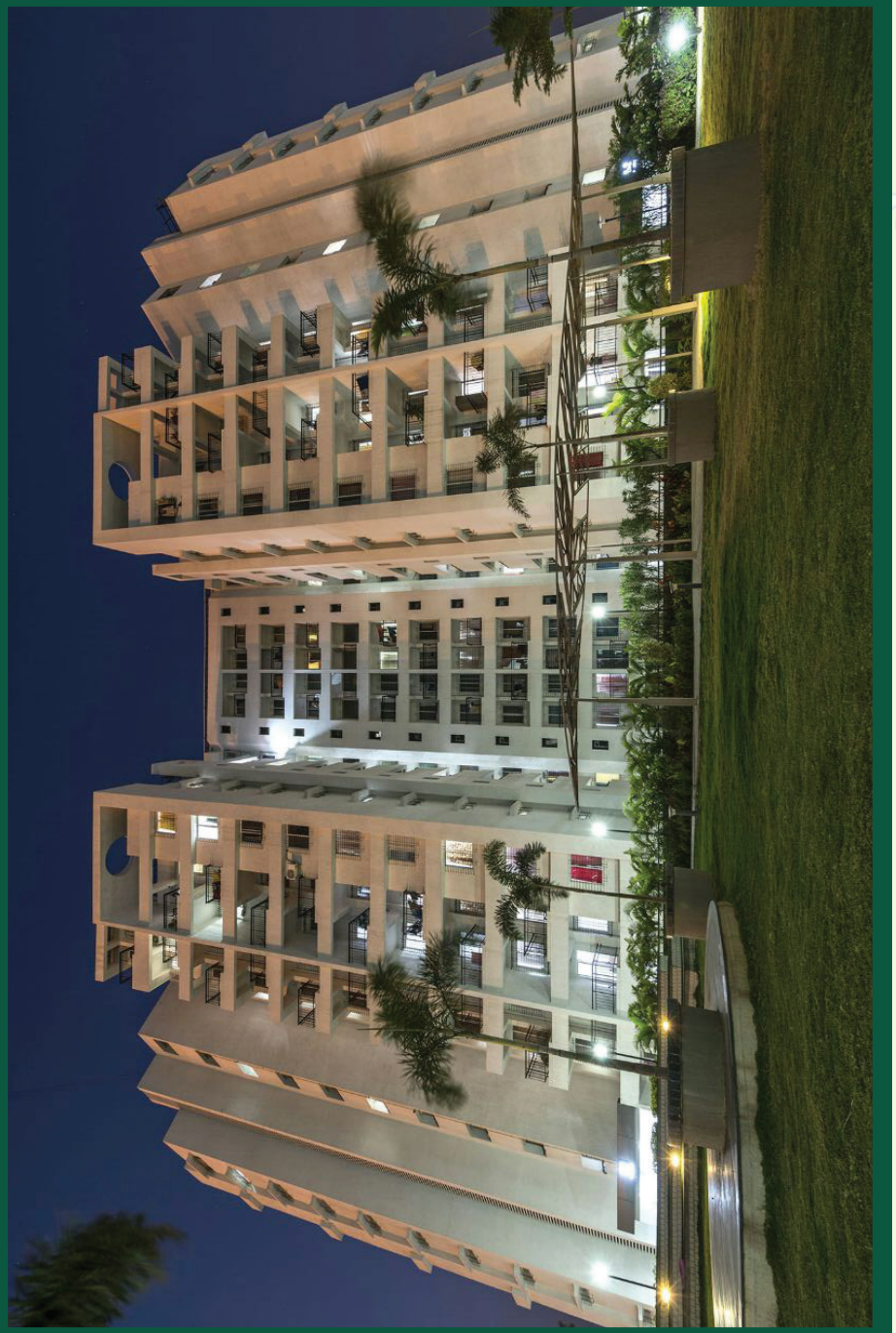

## Saarrthi Sovereign

| | | |
|---|---|---|
| **Location** | : | Phase 2, Hinjewadi, Pune, Maharashtra |
| **Site Area** | : | 18,030 $m^2$ |
| **Built up Area** | : | 33,235.72 $m^2$ |
| **Air-conditioned Area** | : | Nil |
| **Non Air- conditioned Area** | : | 33,235.72 $m^2$ |
| **Typology** | : | Residential |
| **Energy Performance Index (EPI)** | : | 28.80 kWh/$m^2$/year |
| **Renewable Energy installation** | : | None |
| **GRIHA provisional rating** | : | 3 Stars |
| **Year of completion** | : | 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 42.34% from the GRIHA base case has been demonstrated in landscape water demand through drip irrigation and planting native/ naturalized species.
- Reduction of 57.73% 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 71.20% 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 77.62% habitable spaces.
- **Thermal comfort:**
  - » Terraces, balconies, horizontal shading devices along with appropriate glazing have been provided to reduce 47.11% of direct solar heat gain.

**Renewable energy:**

- Solar hot water system has been installed to offset 63.23% hot water requirement. Thus, reducing the consumption of energy generated from non-renewable sources.

**Sustainable building materials:**

- 18.18% and 32.3% 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:

| | | |
|---|---|---|
| **Client** | : | Swapnil Shende |
| **Principal Architect** | : | Shirish Morey |
| **Landscape Architect** | : | Vikas Labba–partner–Design Terra |
| **Structural Consultant** | : | Hansal parikh, 020-66802600 |
| **Electrical Consultant** | : | Narendra Chavan |
| **Green Building Design and Certification** | : | SPROUT |