

SDB 7&8, Infosys Limited, Chennai

Location : Chennai Site Area : 33599 SqM **Total Built up Area** : 59134 SqM Air-conditioned Area : 42950 SqM Non Air-conditioned Area : 16880 SaM **Energy Consumption Reduction** : 64% reduction from GRIHA benchmark Water consumption reduction : 73.1% reduction from GRIHA benchmark EPI : 40.80 kWh/SqM/year **Occupancy hours** : 8.5 hrs/day Renewable energy installed on site :51.45 KWp **GRIHA Provisional rating** : 5 Stars

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

Sustainable Site Planning:

- Existing trees were preserved and native trees were planted on site
- Excavation and construction started after the monsoon season to prevent soil erosion and soil run off from
 the site
- Top soil was preserved and re-used during the construction period for landscaping
- Construction activities were confined to pre-designated areas

Reduction in water consumption (compared to GRIHA benchmark):

- Reduction in building water consumption by use of low-flow fixtures : 73.1%
- Water recycled and reused within the complex : 78%
- Reduction in landscape water consumption by planting native species of trees and shrubs and by using efficient irrigation systems : 60%

Passive architectural design strategies adopted in the building:

- Recessed windows to cut direct sun rays and glare inside the building
- 45.62% of living areas are day-lit and window to wall ratio restricted to less than 60% to reduce solar heat gain inside the building
 - Natural ventilation induced in the building

Reduction in energy consumption (compared to GRIHA benchmark) while maintaining occupant comfort:

- · For achieving visual comfort
 - Energy efficient artificial lighting design is compliant with ECBC recommendations
 - Occupancy sensors in rooms to reduce energy consumption
 - External shading and efficient glazing to reduce solar heat gain and have glare-free daylight have been installed.
- For achieving thermal comfort
 - Building envelope is ECBC compliant, which helps reduce cooling loads in AC spaces and meets thermal
 comfort levels in non AC spaces.
 - External shading and light shelves to cut glare and reduce solar heat gain

Renewable energy technologies installed on site:

Installed capacity of wind energy : 51.45 KWp

Use of low-energy/green materials:

- Use of ceramic tiles and regionally available granite stone
- Use of low energy material for internal partitions, paneling, false ceiling and in-built furniture
- Use of Post-Tensioned slabs in the building structure

Integrated Team:

Project Owner Project Head Infrastructure Principal Architect Landscape Architect Civil Contractors Structural Consultant Electrical Consultant HVAC consultant Green Facilitation:

- : Infosys Limited. : Rohan.M.Parikh
- : M/s C.R.Narayana Rao Architects & Engineers
- : M/s MASTERPLAN Landscape Architects
- : Sobha Developers Ltd.
- : TRC Engineering (I) Pvt. Ltd.
- : Sobha Developers Ltd.
- : ARCO
- Environmental Design Solutions