



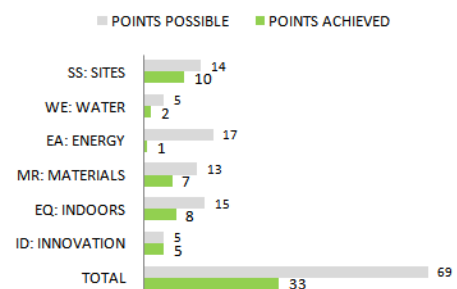
CASE STUDY: RANE INSTITUTE OF EMPLOYEE DEVELOPMENT



KEY PARAMETERS

Occupancy Type	Educational workspace
Built up area	15,000 sq. ft
Completed	April, 2007
Location	Kandanchavadi, Chennai
Owner	RANE GROUPS
Green consultant	En3 Sustainability Solutions
Rating System	LEED NC
Rating Achieved	SILVER

LEED SCORES



The Rane Institute for Employee Development (RIED) aims at strengthening the quality of the company's workforce and to promote an environment of learning and continuous development to drive professional satisfaction and business success. En3 has worked very closely with RANE to achieve LEED silver certification by incorporating energy, water and materials efficiency measures in addition to providing a superior indoor air quality and overall environment for all its employees.



SITE SUSTAINABILITY FEATURES

- Stacking and protection of top soil onsite and reusing the same for landscaping.
- Detention basins for storm water Channel.
- Bicycle stall with showers endorsing the use alternate vehicles.
- Effective storm water runoff management is done by stipulating rain water harvesting.
- Provision of bus lines to all the employees.
- 71.34% of paved areas contributing in the reduction of urban heat island effects.

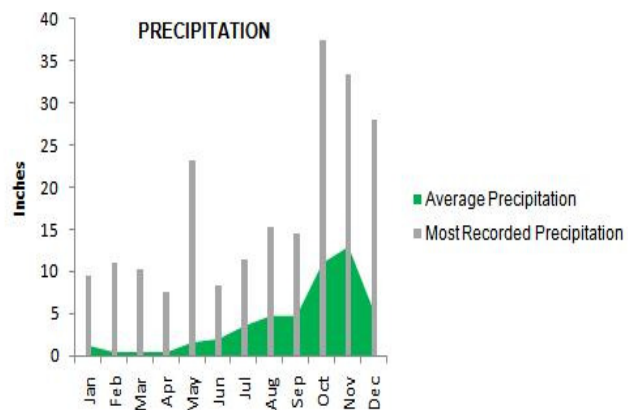
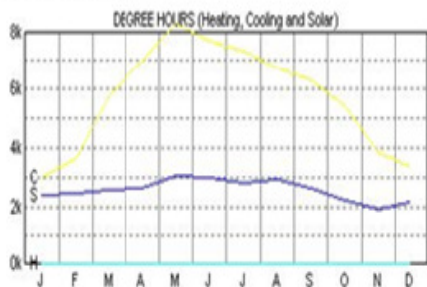
WATER EFFICIENCY

- Water efficiency is an integral part of the sustainability initiatives.
- Special efforts have been taken to minimize water use by installing water efficient fixtures and effective rainwater harvesting.
- The entire rain water on-site is captured and stored in huge rain water harvesting ponds.
- Low flow dual-flush toilets, sensor based urinals and other low flow fixtures have been installed to reduce potable water consumption by over 49.1%.

ENERGISING THE BUILDING

- A detailed energy analysis and modeling has been done to ascertain various options for energy savings with cost-benefit/payback analysis including high performance glazing, low u-value walls and roof, energy efficient HVAC systems and CFL, T5 and LED based low energy lighting systems.

NAME: Chennai-Madras LATITUDE: 13.0"
 LOCATION: IND LONGITUDE: 80.2"
 DESIGN SKY: not available TIME ZONE: +5.5hrs
 ALTITUDE: 16.0m





RESOURCE MANAGEMENT

- The project has ensured up to 97.34% of total construction waste of debris has been recycled or reused thereby diverting them from landfills.
- The project has achieved a combined recyclable content value of 20.46% and renewable material value of 4.609% of total material by cost thereby reducing virgin material exploitation.
- About 76.07% of the total material cost was manufactured and extracted regionally thereby reducing the pollution due to transportation

INDOOR ENVIRONMENTAL QUALITY

- In order to support enhanced IAQ and long-term well-being of all occupants, adequate fresh air has been planned in line with international ASHRAE standards
- The entire building interior is a non-smoking space thereby ensuring the health and safety of all its occupants
- Adhesives, sealants, paints and coatings used in the building are low VOC (volatile organic compounds) thereby having minimum organic emissions that are harmful to humans
- The composite wood products used have been purchased to ensure that they do not contain urea formaldehyde that can be potentially harmful for occupant health
- Majority of the occupants of the building will have control over their lighting and air conditioning set points thereby giving them the flexibility to control their own environment
- The entire building has 95.631% of space has direct access view of outdoors providing connection to the exteriors

NOVELTIES

The project achievement exceeds the threshold of 97.34% for exemplary performance in Construction Waste Management. 76.07% of the total project's materials, based on cost, were manufactured regionally. The project Achievement is higher than the next incremental percentage threshold of 40%. Implementation Green house keeping program promotes green techniques. The building has been designed by En3 to showcase various green and sustainability measures and practices and the effort is to use this building to create greater awareness on green concepts and sustainability to all its visitors and occupants & spearhead the green movement in the state and the country.

En3 would be glad to answer any queries or questions you have on any green or sustainability related topics. Feel free to contact us at info@en3online.com and for more information visit us at www.en3online.com.