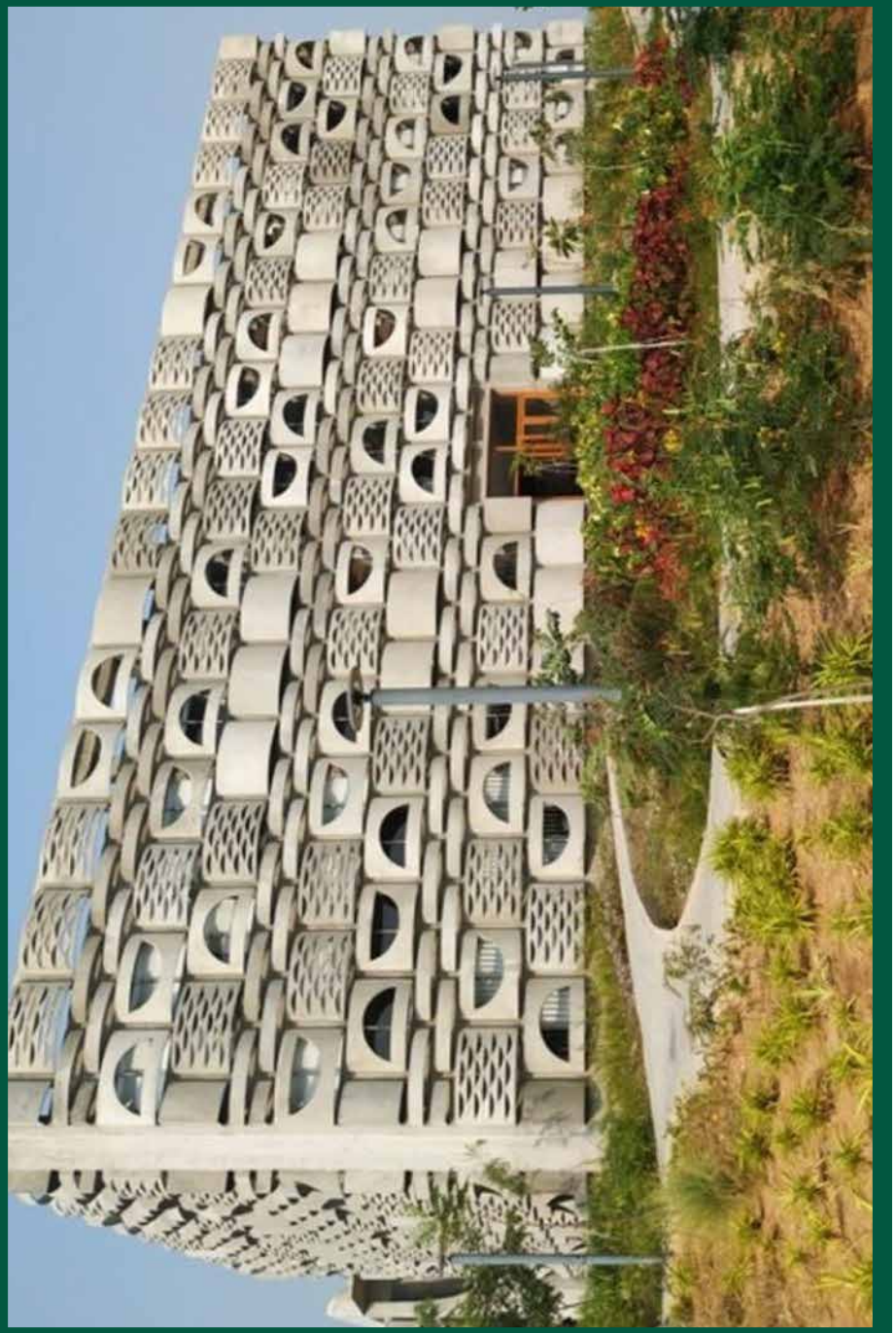

Raksha Shakti University, Gandhinagar, Gujrat

Location	:	Gandhinagar, Gujrat
Site Area	:	7,28,791.3 m^2
Built-up Area	:	26,440 m^2
Energy Consumption Reduction	:	45% reduction in energy consumption compared to GRIHA LD base case.
Water Consumption Reduction	:	38% reduction in water consumption compared to GRIHA LD base case.
GRIHA LD Master Plan Rating	:	5 Star Rating (Version 1)

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

Site Planning:

- Hard paving has been reduced and landscape has been interspersed between the building clusters to reduce the increase in outdoor ambient air temperature.
- Storm water management has been planned to reduce peak run-off quantity, and post development run-off is lesser than predevelopment stage.
- The project will preserve 71.26% of their existing site features.
- There are 185 mature existing trees out of which 39 have been uprooted while 146 are retained. In addition, project will plant 5,648 new trees on site.

Energy Optimization:

- The buildings are designed to be 58.71% more energy efficient than GRIHA LD base case.
- Street lighting is designed to be 53.52% more energy efficient than the GRIHA LD base case.Street lights to be designed to meet minimum lighting requirements and to be installed with automatic switches.
- Solar photovoltaic panels of 150 MWp shall be installed on site.

Water Management:

- Project shall reduce its annual water demand on the municipal supply lines by 38.36% through reuse of treated waste water and captured rainwater.
- STP based on MBBR technology will be installed for treating waste water.
- Low-flow fixtures will be installed in the project.

Solid Waste Management:

- The project plans to convert majority of the organic waste into biogas using plant of 1000 kg/day capacity while the rest of the organic waste will be transferred to vermicomposting facility of 180 kg/day.
- All waste from campus will be segregated and sent for recycling through authorized recyclers.
- The project will treat 66% of organic waste generated on site.

Efficient Transport:

- Site planning has been done to improve walkability of the campus through continuous and universally accessible footpaths.
- Footpaths, cycle tracks, parking and benches will be provided to facilitate pedestrians and encourage walking/cycling within the campus.
- Separate pathways for different modes of transport such as motorized and non- motorized vehicles are designed within the campus. Motorized transport has been restricted to the residential and service areas only.

Social:

- All construction workers will have access to clean drinking water, toilets and accommodation.
- All construction workers to have proper safety gear and PPE equipment.
- Environmental awareness signboards shall be provided at various locations within the campus.
- Curb ramps, tactile pavers and parking shall be provided on site to allow hindrance free movement to the physically challenged individuals.

Integrated Design Team:

Client	:	Raksha Shakti University
Principal Architect	:	Vastu Shilpa Consultants
Landscape Architect	:	Earthscapes Consultancy Pvt Ltd
Green Building Design and Certification	:	Pec Solutions Designs Pvt Ltd