Panedas Residence

Location	:	Guatemala City
Site Area	:	1907.87 sq.m.
Built up area	:	473.6 sq.m.
Typology	:	Residential
SVA GRIHA rating	:	4 star

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

Landscape

- Over 59% of the total open area on site is soft paved and/or shaded under trees.
- 5 new trees, of native species, have been planted on site.

Energy

- Over 83% of total living area falls under daylit zone.
- Lighting power density is 2.19 W/sq.m which is lower than the ASHRAE 90.1 specified LPD limit of 7.8 W/sq.m.
- Solar photovoltaic panels of size 2 kWp and solar water heater of 600 lpd capacity have been installed on the roof of the residence.
- As the local climatic conditions provide good indoor thermal comfort, therefore the house has no air-conditioning or fans installed.

Water and waste

- Use of low-flow fixtures reduces the building water demand by almost 56% compared to SVAGRIHA base case.
- Rainwater storage tank of 12000 litre capacity has been installed on site to capture and utilize rainwater.
- The project has planned to compost the organic waste on site.

Materials

- Use of low-VOC paints have been used to maintain good indoor air quality.

Lifestyle

- A dedicated bedroom and toilet facility has been provided for the service staff.
- The built up area per capita is 47.36 sq.m, which lies within the prescribed limits.
- A book on the green measures of the project is being published to create more awareness on green buildings.
- Waste water generated from the project is being recycled and reused.

Integrated Design Team:

Client	:	Mr. Daniel Panedas, Guatemala
Architect	:	Mr. Geoffrey Hess, Guatemala
Green Building Design and Certification	:	Ambiente arquitectura sostenible, Guatemala