



5 Masters' Residences, near Foothouse, Doon School

Location	: Dehradun, Uttarakhand
Site Area	: 614.05 Sq.m.
Built up Area	: 190.15 sq m
Typology	: Residential
SVA GRIHA rating	: 4 Stars

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



Landscape

- Almost 60% of the total open area on site is soft paved and/or shaded under trees.
- No trees were cut during the construction of the residences. Additional native trees were planted on site.



Energy

- Dense vegetation around the residences helps in moderating the micro-climate.
- Thin floor plates and ample fenestrations facilitate natural ventilation.
- Almost 98% of total living area falls under daylight zone.
- Fenestration design of the residence reduces the direct incident heat penetration by about 60%, compared to SVAGRIHA base case for Dehradun.
- Lighting power density is 2.29 W/sq.m and thermal efficiency of the project is 399.73 sq.ft./TR (37.14 sqm/TR), which is 31% more efficient than the SVAGRIHA base case for Dehradun.
- All fans and geysers installed in the building are BEE 5-star and BEE 4-star rated, respectively.



Water and waste

- Use of low-flow fixtures reduces the building water demand by almost 67% compared to SVAGRIHA base case.
- Dense cover of native trees reduces the landscape water requirement by almost 80% compared to SVAGRIHA base case.
- Organic Kitchen waste is converted into manure through vermicomposting.



Materials

- All Ordinary Portland Cement (OPC) in the project was replaced by Pozzolona Portland Cement (PPC).
- Use of low-VOC and lead free paints helps in maintaining good indoor air quality.
- Over 70% of interior finishes are low-energy like kotastone, plywood etc.



Lifestyle

- Basic amenities like grocery store, pharmacy etc. are located in the vicinity of the site.
- At the campus, level, dedicated resting areas and toilets are provided for the service staff.
- Each residence has a organic kitchen garden.

Integrated Design Team:

Client	: Doon School
Architect	: Grup. Ism P. Ltd.