JURY CITATIONS FOR

11th SIA ARCHITECTURAL DESIGN AWARD 2011

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JURY CITATIONS BY SIA ADA JURY
Architect’s statements and jury citations compiled by Tan Szue Hann
HONOURABLE MENTION

SOLARIS

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CLIENT
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JURY CITATION

The project is commendable in the way the architect approached the design to comprehensively introduce greenery in the building. Conceptually, the greenery starts at the ground and literally winds its way up over more than a kilometre to the green roof. One of the ideas is that the green "spiral" (which could be accessed on foot all the way up if security and privacy concerns can be overcome) would be a land bridge for fauna.

The building also features a naturally ventilated atrium and a wind and light "tunnel" that is meant to serve deeper areas of the building. The jury is quite impressed with the effort and appreciates that the building is a very relevant case study for sustainable-centred building designs.
ARCHITECT’S STATEMENT BY
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Green Design Features of Solaris:
Roof Gardens and Corner Sky Terraces

Vertical landscaping acts as a thermal buffer and creates areas for relaxation, as well as event spaces. These extensive gardens allow building occupants to interact with nature, and offer opportunities to experience the external environment and enjoy views of the treetops of the adjacent one-north park. Upon completion, the sum of its vegetated areas will exceed the footprint of the site on which the building sits. A dramatic vision of the possibilities inherent in skyscraper greenery design, 95 percent of the project’s total landscaped area is above ground level.

The Spiral Ramp

The key architectural element is a continuous perimeter landscaped ramp—an unbroken 1.5-kilometre-long ecological armature connects the adjacent one-north park at ground level and the basement eco-cell with the cascading sequence of roof gardens at the building’s highest levels. The continuity of the landscaping is a key component of the project’s ecological design concept. It allows for fluid movement of organisms and plant species between all vegetated areas within the building, enhancing biodiversity and contributing to the overall health of these ecosystems.

Horizontal Exterior Sunshades

The project’s climate-responsive façade design originated with analysis of the local sun path. A second “cloak of wide louvres” protects the external glazed facade from the tropical sun, while functioning as light shelves that reflect indirect light deep into the building. The combined linear length of the building’s sunshade louvres exceeds 10 kilometres. These louvres are lifted at strategic locations to reveal high-volume entrances and sky terrace activity areas.

Natural Ventilation

All efforts were made to encourage full or partial natural ventilation at the common areas, such as the first storey public atrium, stairs, skybridges, and toilets. Computational Fluid Dynamics (CFD) simulations carried out for the atrium resulted in proposed actuatable skylight louvres at the top and ramair screen facade on the ground level, allowing stack effect ventilation during hot days to improve cross-ventilation air flow and enhance comfort levels.

Light Shaft

There is a “light shaft” punctuating through the largest floor plate that allows light into the core of the tower. The final effect is the creation of refreshingly new high-rise office interiors overlooking trees and fauna from the spiral green ramp, and with ambient move lighting that is always changing with the play of sunlight and shadow.

Rainwater Harvesting

The building’s landscaped areas are extensively irrigated via a large-scale rainwater recycling system. With a combined storage capacity of up to five times the average daily consumption (water in the tanks are located below the eco-cell and at the rooftop), the building’s vegetated areas can almost be exclusively irrigated via the harvested rainwater.