The Importance of Sustainable Building

Pavitra Sriprakash (**PS**), chief designer and director of The Global Design Studio of Shilpa Architects Planners Designers Pvt. Ltd., talks to ELEVATOR WORLD India (**EWI**) about the trend toward building green and how elevators fit into the equation.

by Kanika Goswami

Pavitra Sriprakash's work has been India-focused since 2008. She has designed projects across India and delivered projects in the U.S., Norway, Japan, China and Kuwait as part of Shilpa's International Urban Design Studio. She is director of Nirmana Realty Investments, a global hedge fund that has investments in emerging markets' infrastructure and early-stage Silicon Valley technology companies. An expert on sustainability, she has completed research at Columbia University on sustainable programmatic landscapes and the interface between architecture and landscape design in planning urban spaces. She holds a master's degree in Architecture and Urban Design from Columbia and is head of the Chennai chapter of the Columbia University Alumni Association.

EWI: Shilpa has always had a focus on green and sustainable architecture and has been a steering member of the Indian Green Building Council (IGBC). Tell us about the green-building initiative in India.

Continued

Practicing what it preaches: Shilpa Architects' headquarters in Chennai is itself Leadership in Energy and Environmental Design Platinum certified.


Sriprakash

PS: The IGBC was established by the Confederation of Indian Industries in 2001. Exhibitions, seminars and educational programs are organized to spread awareness about sustainability and environment protection. As part of Shilpa's commitment to sustainability, we were among the Indian delegation to USGBC Greenbuild in Chicago in 2007.

Today, sustainability goes beyond ratings. There are many options for certification from bodies such as the U.S. Green Building Council, the IGBC and Green Rating for Integrated Habitat Council. At Shilpa, our focus is on holistic sustainability -- the concept of having sustainable practices for energy efficiency, as well as the human quotient -- with socioeconomic sustainability in all the environments we design and build.

EWI: How much value do architects place on elevatoring a building?

PS: Our cities are growing due to rapid urbanization, which is driving the need for denser developments and taller buildings. There are many studies showing that density in urban environments is more sustainable than urban sprawl, which leads to wasted infrastructure resources. In the not-so-distant future, elevators will replace lengthy roads and cul-de-sacs. Now, an elevator is a standard part of any commercial or residential building that is two floors or taller. It finds usage apart from transporting people and helping them access different levels of the building, such as the early stages of construction for transporting materials and freight.

In residential buildings, there is a trend toward "higher is better," so people automatically opt for a higher floor, which drives the need for an elevator. Buildings with elevators usually have longer-term value, where the elevators are an added feature; hence, architects place importance on the design and placement of elevators. However, location and intended usage of elevators usually determine the design of their interiors and exteriors.

EWI: Do you think India has an adequate green-building initiative? What do you think needs to be done in that regard?

PS: The primary goal of various green initiatives is to help our planet survive! As we consider the growth of the Indian real-estate and construction sector, the number of certified/to-be-certified buildings is trivial. The public sector, central and state governments are the biggest builders of infrastructure. They are engaging actively with green initiatives to make India more sustainable, but there are other areas green initiatives can encompass. For example, some rating systems exclude "points" for using local artisans and local materials, thereby neglecting the largely unorganized sector which represents a large segment of our population and workforce.

> *"In the not-so-distant future, elevators will replace lengthy roads and cul-de-sacs."*

EWI: Can you share some experiences of the challenges you have faced when working on green buildings?

PS: Almost all clients now request a green building, with the possibility of applying for a rating for their efforts. The advantage is that people understand that they have to be careful and cognizant while designing or choosing materials for their building to ensure the features and materials contribute to points for the desired rating. Yes, there is an initial capital investment required for a green-rated building, but the payoff in the long run is definitely worth it. It becomes a challenge if the client is only focused on the short term and not willing to wait for long-term returns.

EWI: As far as elevators are concerned, what do you, as an architect, look for in a project? Do you plan the building with an adequate emphasis on safe elevators and escalators?

PS: Comfort and safety of a building's occupants are the first aspects we consider. We design and choose products and materials that will help ensure the wellbeing of the people who use the space. This obviously extends to elevators and escalators. We also look at the utility of elevators and escalators before selecting and allotting space for them. Most elevators in the market today are equipped with safety features to help ensure zero accidents. Features like multiple steel cables, which can individually hold the total weight that the elevator can carry, are becoming increasingly available. Elevators are programmed to perform automatic safety checks, with alarms and signals sent to the control room to check any problems.

> *"Yes, there is an initial capital investment required for a green-rated building, but the payoff in the long run is definitely worth it."*

Energy efficiency is also a parameter we consider when specifying elevators, including methods to generate power from the mechanical movement.

EWI: How do you design for elevators in smaller spaces such as homes, boutique offices and retail stores?

PS: First, a detailed usage study needs to be conducted to determine an elevator's final use before starting to design and incorporate one. In residential projects, especially single-family homes, elevator retrofits are becoming more common. Since the lift car is a small, confined space, strategies to make the lift car look bigger are always preferred. Choosing lighter-colored flooring or installing mirrors on the sides are strategies commonly employed by designers.

Elevators in retail stores are very useful areas for further branding. In such boutique applications, a glass elevator that is transparent and, therefore, less visually intrusive, is always preferred.