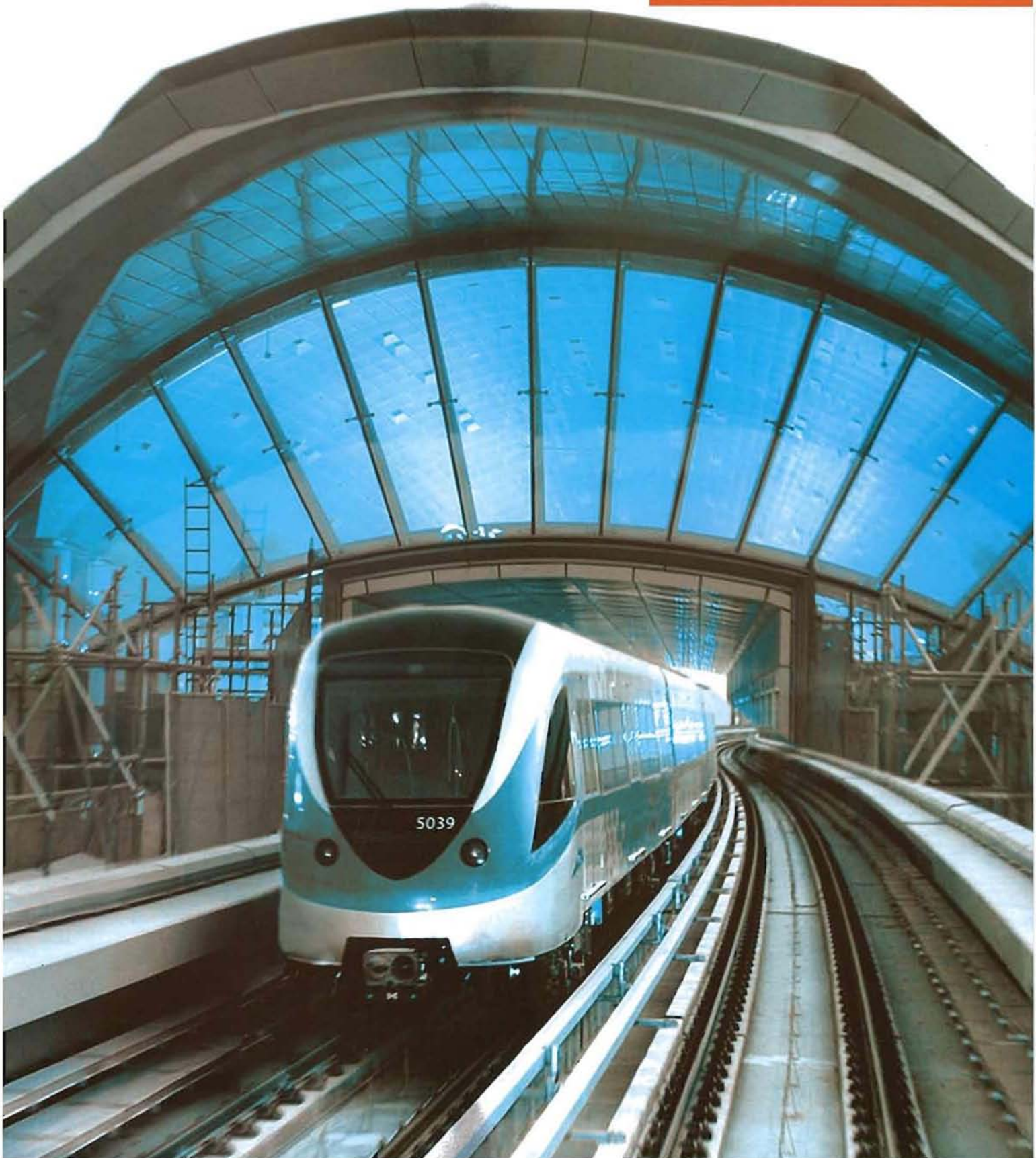


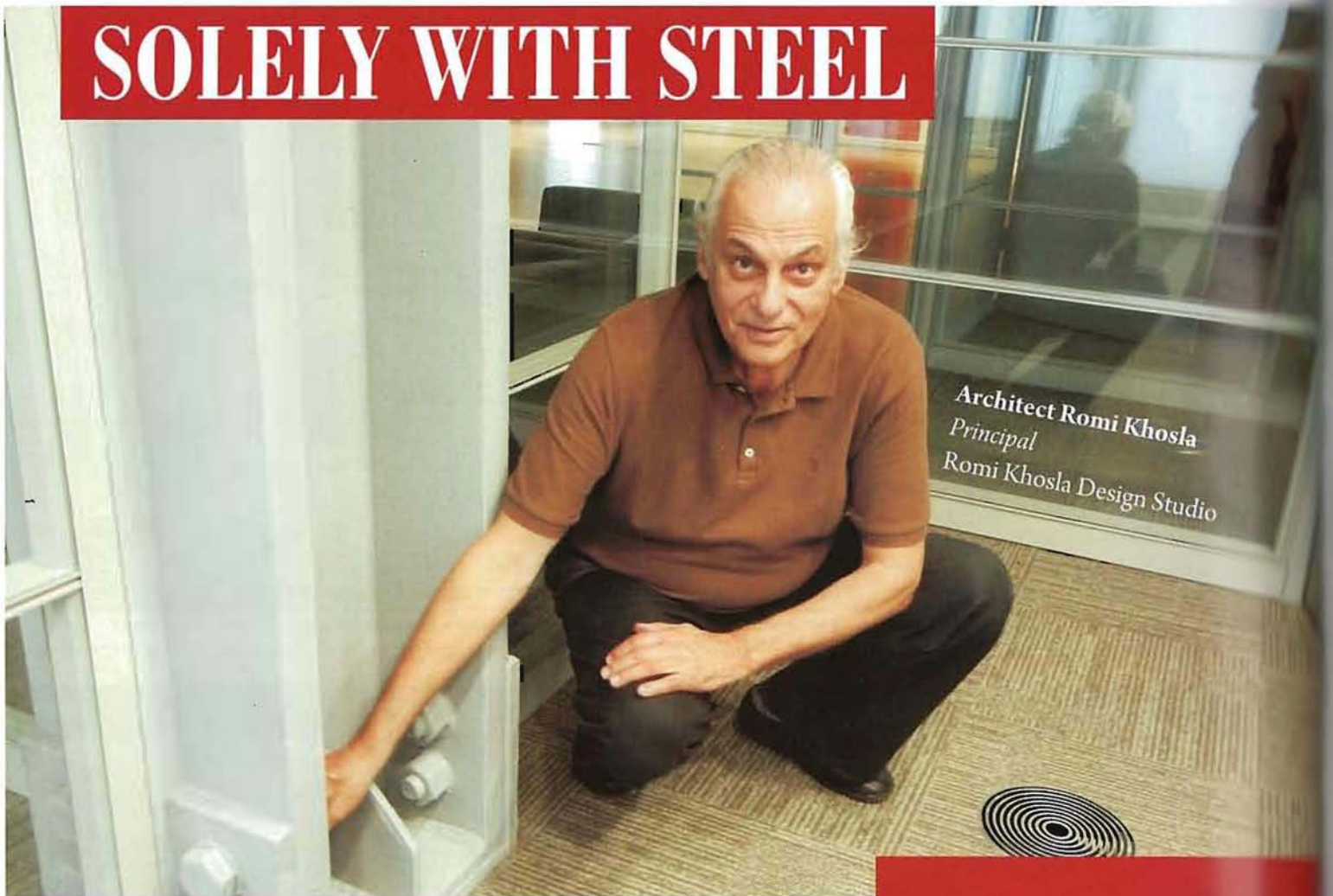
STEEL IN METRO: thriving for an elated ride

STEEL
STRUCTURES
& METAL
BUILDINGS



IDEALLY WE'D BUILD

SOLELY WITH STEEL



Q What is the RKDS' approach and design philosophy?

A Our design approach and philosophy are influenced by the context of the India in which we build. Our greatest challenge is to achieve international standards for our buildings. Our greatest failure has been to persuade many of our clients and our contractors to accept this challenge. In our search for solutions, we need the support and encouragement of both, our clients and contractors. Where we have had this support, our buildings have enabled our aspirations to be realized, as was the case in the Eicher-Volvo building and the MHouse in Himachal. Ideally, we would like to build solely with steel, for platinum LEED or GRIHA rating in our buildings. One day we will succeed because there is no question of giving up on this aspiration.

Q Which are the recent steel Intensive projects executed by Romi Khosla Design Studios?

A Much of our work shows our preference for structural steel. Obviously, in an industrial project needing large spans this is easy to understand. However, in projects that have residential or commercial use, there is always a struggle to justify the use of steel. Conventional materials are generally preferred by clients who have been conditioned to think about concrete having some sort of 'pucca' status. Builders immediately shy away from steel.

A single house client is however more flexible, in which case we are free to do the superstructure and the roof in steel. We have completed designs and construction of a steel building with the highest Green ratings for the Eicher-Volvo Commercial Vehicle Corporate office. Apart from the

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two parking basements, this entire building and all its solar protection devices have been made in steel this makes it one of the few unique corporate offices in India.



Q How was your experience with the Volvo Eicher Corporate Building in Gurgaon?

A The board of Volvo Eicher Commercial Vehicles takes its global responsibilities for sustainable environments very seriously. Their commitment to make their corporate building to the highest Platinum rated LEED standard also guided the design of the building. As you know, this rating system is computed through a point accumulation method. Major points were earned by constructing the entire building in steel because steel can get recycled after use, unlike concrete which is non-recyclable. The entire building has been designed to the highest global standards for sustainability.

Even the furniture inside the building has been mostly made from recycled packing crate wood which was taken from the discarded boxes in which imported components from Europe come to the plant. We have used discarded railway sleepers in the building also and the terraces have been planted. A unique feature of the building is the design of special louvers fixed to pre-determined positions based on screening solar penetration by intricate calculations and modeling for each façade.

We custom crafted these louvers after detailed modeling and full scale mock-ups. By taking this approach towards custom crafting the building components, we were able to avoid the use of ready made vendor components which could not provide for the special needs of this building. Steel has enormous advantages for the use of special components in India because we can design custom made facades which would be very expensive to do in Europe.

Q Why do you think we have not been able to use more of steel in the projects where it could have been used to produce better results?

A There are some constraints which, I believe, may take another decade or so to be removed. The first constraint is in the erection process. Currently, the fabricators are used to erecting structural steel for industrial buildings where the exposed finish to the steel work is not critical. In architectural work, where, for instance in our designs, we like to expose the steel work externally and internally, the quality of

workmanship of the fabricator can be extremely poor.

The second constraint comes from the engineering design side. We need more sensitive, structural designers who share our passion for steel. Most designers are well versed in concrete and tend to over design their steel structures as precaution against poor workmanship and lack of construction detailing. The third constraint that I have experienced comes from the Project Managers who do not have sufficient experience to plan and supervise steel construction. The fourth constraint comes from the reluctance of builders to use steel because they have an impression that it costs more. It may well do in the current situation, but its long term benefits of re-cycling outweigh initial costs.

Q How would one go about bringing this big change in the mindset of the developers for delivering more steel projects considering the long term benefits it provides?

A Very few developers realize that steel is 100 per cent recyclable and that unlike concrete, steel acts like a fixed deposit. In ten or twenty years time you could dismantle the building and sell the steel at a profit. However, since many developers use the sell and scoot approach to their buildings, the long term benefits of steel are irrelevant to them. They will begin to use steel when it becomes cheaper than concrete, when time constraints have costs attached to them and they see some really beautiful examples of steel buildings which some pioneers are now beginning to do.

Q According to you, what role could be played by the government in urging the green building concept in India?

A The greening of buildings is only part of the overall challenge of making India sustainable. If one considers this overall challenge, the concept of sustainability is much larger than the component of green. This larger concept includes the entire socio-economic domain that has within it both challenges of the natural environment and the man made environment. The natural environment too has to be made sustainable through major programmes for preservation and re-generation.

In the case of the built or manmade environment, sustainability can be addressed through other major programmes which include the greening of buildings, the self sufficiency of power and water for each settlement and town as well as regional self sufficiency in food production. To achieve this, a major contribution can be made by green buildings. According to me the Government has the responsibility to initiate and mandate all buildings in every city to be green buildings.

Q There are many international architects working on Indian projects. When can we see Indian architecture and design going global? What does it need to take things to the next level?

A The architectural profession as a whole needs to work with more dedication to international standards. There are too few design offices who get time to work to international standards in their design approach and delivery. A designer has to be original and not derivative to be taken seriously in the international world of architecture. Despite these constraints, there are some Indian designers who are building abroad and some of them are the recipients of International awards. We too have been lucky with projects in Holland and Uzbekistan.

Q What message do you have to give to our young brigade of architects in India?

A Continue to be creative. Defend your designs and continue to be fearless about it. Continue to be original and produce buildings nobody has ever seen before. It is a very competitive world out there and as the west declines their super-designers are knocking at our gates for work. Just be better than them. ■