



INTERARCH BUILDING PRODUCTS NEWSLETTER

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Possibilities of Pre-Engineered Steel buildings in Low Rise Residential, Villas & Resorts:

Interarch LIFE, a lifestyle concept for developing modern & elegant infrastructure in steel. Interarch LIFE is focused on enhancing the lifestyle, and creating state-of-the-art facilities & amenities in steel construction. Interarch LIFE uses the latest technology for turnkey construction of steel buildings in rural and urban development in India.



Possibilities in the Low-Rise Steel Buildings in the Residential Sector

- Residential Apartments
- G+3 Residential blocks
- Retail Shops
- Banquets Halls
- Club Houses
- Play Schools
- Small Market complex
- Dispensaries



Future Demand in the Housing Sector in India

Affordable housing schemes for the middle- and lower-income groups are on a serious growth curve in 2018, with huge demand in both segments now also being met with increasing supply. Many private builders and developers are collaborating with the Government under a public-private partnership (PPP) model to make 'Housing for All by 2022' a reality. Affordable housing is an attractive proposition for both developers and consumers as the demand is huge and largely not fulfilled. The high focus of the central government has resulted in the availability of more funding options for the developers such as ECB (External Commercial Borrowing), FDI and debt financing from national financial institutions at highly competitive rates.



Notwithstanding the short-term glitches on account of RERA and GST implementation, the housing loan growth is expected to be healthy at 16-18% per cent for FY2018, aiding the housing credit growth is expected to grow faster in the affordable housing segment.

As per estimates, by 2022 India will need more than 18 million affordable housing in urban areas. The affordable housing segment is now growing at a very rapid pace, in double digits annually.

Know your Pre-Engineered Multi-Storey Building: Are Low-Rise Steel Buildings safer during earthquake

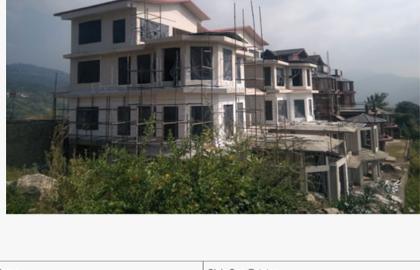
When the weight of a building is reduced then the force caused by the Earthquake affecting the building will also be reduced. Generally Interarch steel buildings are much lighter than reinforced concrete buildings thereby reducing the Earthquake effect on the buildings in the same ratio.



Also steel is ductile material and can take 18 times more deformation than concrete. This ductile property of steel enables it to absorb the forces and it can take in deformation to a greater extent beyond their flexibility behavior. Under repeated exposure to loads reinforced concrete's single direction and limited energy absorption ability diminishes and falls after each exposure and breaks appear without any deformation. In steel buildings on the other hand, when elastic boundaries are exceeded, or when the building is exposed to loads more than expected, steel construction members first deform thanks to their high capacity of deformation. Energy is absorbed during deformation and the building remains erected; to ensure this deformation of building members, loads are distributed among beams and columns. It is carefully considered that beam-column connections have the sufficient moment capacity to transfer loads in steel constructions.

Project Spotlight: Club One Estates

Interarch a pioneer in Pre-Engineered Steel Construction Solution provider in India with integrated facilities for design, manufacture, logistics, supply and project execution capabilities for pre-engineered steel buildings delivered a G+4 Low-Rise Steel Residential building in Shimla.



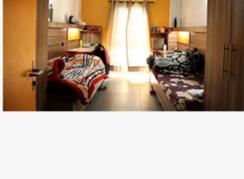
Project Spotlight:

Project Name	Club One Estates
Project Location	Naldehra, Shimla
Building Usage	Residential (G+4 Building)
Project Area	8570 Sq.Ft
No of Building	1
Length	23 M C/C of steel column
Width	11.9 M C/C of steel column
Height	3.4 M from FFL to top of RCC slab(for GF, FF, SF, TF and fourth Floor)+ 2.8 M from Fifth floor FFF till ridge of the building
Live Load	0.57 Kn/m2
Seismic Zone	IV
Roofing Profile	Single Skin with 0.5 mm TCT Tracdek Hi-Rib Roof SDP Galvalume steel panel of 550 MPa yield strength.
Wall Cladding Profile	Full Height for LGFS Wall with external double layer cement board and plank



Advantages of using Interarch LIFE for Low-Rise Residential Development

- Steel structure is faster to erect, as compared to RCC frames being lighter in weight & offers speed in construction and time saving resulting in an overall cost saving
- Flexibility in construction and aesthetic look
- Occupies less space and can be designed for larger span/column free spaces, resulting greater coverage, which helps in large open spaces and large auditoriums and halls
- Steel construction takes reduced time at the site & plant and labour causing little disruption to normal life of the community, unlike the wet concrete construction process
- Low lifetime maintenance cost and durability
- Easily expandable for the growing need with the time
- High strength to weight ratio, they result in very much reduced load on foundations resulting less cost of foundation as well as time saving
- Reduced project time results in early occupancy, results in economic advantage to the investor/owner



Interarch Industry Spokesperson - Ar. Rohit Krishan Gulati (Incubis Consultants)

The Incubis is one of India's foremost multi-disciplinary design consultancies, offering a complete suite of solutions encompassing, Master Planning, Built Environments, Engineering Services (Structural / MEP Services – Plumbing, Sewerage, HVAC, Electrical) along with Interior & Landscape Design.



Incubis work in varied sectors / typologies such as Residential– Townships, Apartments and Villas, IT & Office Buildings, Retail and Commercial Malls, Hotels, Resorts and Premium Residences, Stadiums, Industrial Plants, Logistic Centers and Warehouses and Urban Infrastructure

Mr Rohit feels in the long term, housing is a major need as urbanization is increasing at a rapid rate. Availability of good quality dwelling at affordable pricing will always be in demand.

Mr Rohit feels that the grid size of a low-rise building is dependent on the concept and other parameters such as basement / still parking. A grid module approx. 8.4 m x 6.2 m is quite flexible and cost effective. To provide fire safety in the buildings, the solutions can be divided into two types, non-reactive, of which the most common types are boards and sprays and reactive, of which thin film intumescent coatings are the best example. Deck slabs with RCC are also used regularly. As per him for structural systems in India, we see a hybrid approach being followed by usage of both RCC and Steel for structural system for low-rise building. Prefabrication will increase to ensure better quality and predictable timelines in the future



As per him in today's time the architect should design the building in accordance to the IGBC norms and follow a passive environmental design, optimum facade / fenestration layouts, along with energy use limitation (active and passive) and waste reduction and recycling are some of the factors that are important for Green building certification.

As per him the advantages of using Steel buildings are that it provides an opportunity to give a modern aesthetic while ensuring timely execution while reducing costs of the foundation system. Moreover a standard RCC G+4 structure without basement can be completed in about 4 to 5 months. This can be reduced by at-least 1.5 to 2 months by use of a prefab steel structure.

Projects Delivered for Low-Rise Buildings Delivered By Interarch

Interarch caters to some of the most diverse steel building construction projects in India ranging from clients like Thapar University, GMR Group, Reliance Industries Ltd, Pioneer Urban, ASB International and many more. Interarch has emerged into a large EPC player providing critical Project Management Consultancy to its clients



S.No.	Project Name	Building Usage	Location
1	Thapar University	Residential Hostel	Patiala
2	Reliance Industries Ltd	Office Building	Navi Mumbai
3	Pioneer Urban	Residential & Commercial	Gurgaon
4	HAL	Residential Block	Nashik
5	GMR Infrastructure Ltd	Residential Block	Chamba
6	Delhi Cargo Service Centre	Cargo Terminal	New Delhi
7	Centurion University	Residential	Bhubaneswar
8	ASB International	Residential	Bhubaneswar



Customer Testimonial - Thapar University

Interarch Building Products executed Pre-Engineered Building project of our Lab Building of Thapar University at Patiala in Punjab. We are satisfied with the work & happy with the timely completion of the project.



We wish Interarch very best in all their future endeavors



Project Won

- Godrej & Boyce Manufacturing Co. Ltd in Maharashtra
- Tata Motors Limited in Jamshedpur
- Oboroi Flight Services in Maharashtra
- The Madras Pharmaceuticals in Tamil Nadu
- Scovic Engineering India Pvt Ltd in Gujarat

Project Completed

- Hindustan Unilever Ltd in Karnataka
- Titanium Logistics and Industrial Park Ltd in Gujarat
- Codane Minerals LLP in Gujarat
- Pinkcity Jewel House Pvt Ltd in Rajasthan
- Ajay (India) Ltd. in Rajasthan

Training at Interarch

Interarch organized training for the Supervisor's team in Kichha plant on 05 February '18 & for Painting team in Pantnagar plant on 14 February '18.



Why Steel is Obvious Choice: High Line 23

HL23 was constructed on a very compact 12x30 m (40x100 ft) site. The volume of the building increases as it rises up. It is a concrete and steel frame structure with diagonal perimeter bracing was used, that allows less columns inside the floor area and more open and usable space for the occupants

Architectural requirements played a large part in the final structural design. The use of structural steel was driven by 3 primary reasons - reducing the overall weight of the structure, requirement to provide a clear and columns less space inside, and providing the perimeter diagonal architectural expression.

Building Usage	Residential
Structure Frame	Steel
Height	54.9 m
Floors	14

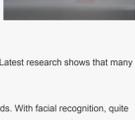
The spandrel-free north and south curtain walls consist of some of the largest single-pane windows ever used in residential high-rise construction. Facade window panels are over eleven feet high by six feet wide, creating soaring floor to ceiling visual spaces and infinite panoramas north and south from each unit.



New Trends - Fintech Renaissance Look for Biometrics

A biometric is a form of identity based on a physiological (fingerprint, face, eye iris or retina) or behavior (speech or signature) characteristic.

Biometrics and behavioral biometrics are going to become the most common forms of identifying users. Biometrics are key strategy for solving the issue of friction in payments. The customers are comfortable using it as there's no special training required for a consumer to use them and the concerns around security and fraud are also sustaining consumer for the use of biometrics.



The use of biometrics behavioral, offers intriguing opportunities not just in payments, but more broadly across financial services. Latest research shows that many consumers are still attached to the multi-stage or password system as it makes the process 'feel' more secure.

It is potentially a far more secure way of identifying a customer; it also solves the problem of forgotten PIN numbers and passwords. With facial recognition, quite a lot of data can be pulled beyond that needed for the authentication of a transaction. Detecting the mood of customers and whether they are satisfied with a transaction or identifying signs of potential illnesses with the information.

