



This special section covers an out-of-the-box design with steel as an essential element of the design. The main aim of this section is to showcase how steel can be innovatively used in today's world of architecture.

ACUBE ARCHITECTS introduce a dome to break away from the mundane & rising above uniformity...

FACT FILE

Client: Arihant SuperStructures
Developer: Mr. Ashok Chhajer
Architect: Acube Architects
Structural Consultant: SACPL (Sanghvi and Associates Consultants Private Ltd.)
Fabricator: Mccoy



ARIHANT ASPIRE CLUB HOUSE, NAVI MUMBAI



architect's interpretation

We needed to create the same ambiance seen in the old palaces of Rajasthan where you have large domes with stained glass panels casting beautiful shadows on the floor in a contemporary setting. We have achieved the same result with a large dome steel structure and digitally ceramic-printed glass panels which create the same grandeur with contemporary construction materials at a minimal cost.

AR. ALI ABBASI, Principal Architect, *Acube Architects*

PROJECT BRIEF

The clients had a pre-envisioned idea about a defined communal hub that would serve as the clubhouse. This clubhouse is a part of Arihant Aspire located in Panvel. Arihant Aspire as a project consists of eight buildings. The outline of deliverables included a dynamic structure that would interrupt the mundaneness of a regular building, making the entire project interesting and thus successful.

INSPIRATION & INNOVATION

To achieve that break in uniformity, a dome design was introduced amidst green spaces as a comprehensive architectural composition. A team of highly qualified structural engineers and steel consultants was a part of the team. The notion that serves as the formulated thought of the clubhouse revolves around garnering ideas weaving through various aspects of design and technology to serve seamless functions. As a studio, multiple thoughts and ideas were generated by different team members at various levels to synchronize client requirements and achieve a multidisciplinary design. After a detailed identification of the site, the project began in the year 2021 with fundamental conceptualization, aiming to design an expression of dynamism and heightened expression.

ARCHITECTURAL FEATURES

The clubhouse assists as the identification feature of the buildup area. Located at the entrance of the site, viewed from the national highway as well as the internal roads on the site, entry to the clubhouse reveals the 3-storey high reception lobby featuring an approximately 13 meters wide elegant dome skylight.

The lobby embraces the dome to give an elaborate characterization of the spatial setting. The dome has been visualized as a space that is enclosed, yet has enough openness to allow it to be naturally lit. It serves as an ultimate focal point attracting all the residents.

Various amenities surround the enclosed glass dome atrium such as games, gym, yoga, theater, games and banquet hall. These amenities have access from the corridors that overlook the central space enclosed by the glass dome. The usage of scales in transitional spaces helps in creating alternations as well as a holistic design by creating a hierarchy.

MATERIAL USED

The materials of the modern world such as steel, glass and cement have been used along with the design principles of symmetry and repetition to create a balance within and allow unrestricted movement. To articulate the desired well-defined form, steel has been used as the main structural material.

Steel is essentially used to achieve significant height as well as longer spans. As a material, steel is extremely reliable and helps create an architectural statement due to its robustness and ductility properties. Another important aspect of steel is its affordability which makes it a viable option compared to other materials and it can be molded in any desired shape whilst lasting for a longer period.

Structural steel can be built faster and is beneficial to achieve intricate and complex design details by pushing the boundaries of the conventional design intention. Steel also has an upper hand on

flexibility and adaptability which is again a comfort for complicated design strategy and execution challenges. Steel as a material is a considerably lighter material and implements less waste.

Glass has been used as the principal material due to its durability and workability. It creates a predominant central space that helps intertwine multiple activities in the clubhouse. The intricate patterned design with a prevalence of natural and rounded shapes can be seen on the glass. The stained glass used in the dome brings vibrancy and warmth that emits from natural light and enlightens the internal spaces creating an integrated dialogue with the environment. The play of light from the stained glass radiates an ambiance of exuberance and creates a visual delight by determining the volume of the space. The stained glass dome with numerous colorful patterns is an attempt at a dialogue between engineering and art.

SOFTWARE USED

Software used to originate the project included 3D Max and AutoCAD.

IN CONCLUSION

A stark contrast can be seen on the terrace between the jogging track, green landscape and the glass dome. It is a visual delight when viewed from a certain height. The landscape helps in highlighting the building and creating an equilibrium. These green spaces help in creating an informal zone around the great dome and improve the quality of living for the residents by enhancing biodiversity. ■

