The Altair tower, the tallest residential building in Sri Lanka, Colombo

General description

The Altair tower is an impressive structure located in the heart of Colombo, Sri Lanka. It is the tallest residential building in the country, standing at 240 meters tall, and is considered an architectural marvel. The tower is a joint venture between Sri Lanka's leading property developer, Indocean Developers, and the South City Projects from India.

The Altair tower is a twin-tower structure, consisting of two towers of 63 and 68 floors respectively, which are connected by a unique 63-meter-long sky bridge. The design of the towers is inspired by the letter 'A,' with the buildings leaning towards each other to form a striking triangle shape. The design not only provides a unique visual impact but also allows for more efficient use of space, with each apartment enjoying panoramic views of the Indian Ocean and the city of Colombo.

The Altair tower is built with state-of-the-art technology, ensuring that it meets the highest standards of quality and safety. The tower's foundation is designed to withstand seismic activity and is supported by 104 piles that are driven 40 meters into the ground. The towers' structure is made up of reinforced concrete, with each floor designed to support a load of 200kg per square meter. The building also features a curtain wall system, with high-performance glazing used to minimize solar heat gain and provide natural light.

The Altair tower features 400 luxurious apartments, with a mix of two, three, and four-bedroom units available. The apartments are designed to offer residents maximum comfort, with high ceilings, spacious living areas, and high-quality fittings and finishes. Each apartment features floor-to-ceiling windows, which not only provide breathtaking views but also allow for natural ventilation and lighting.

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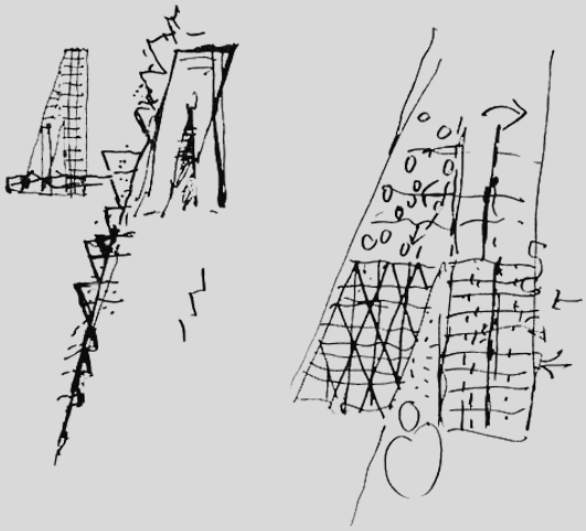
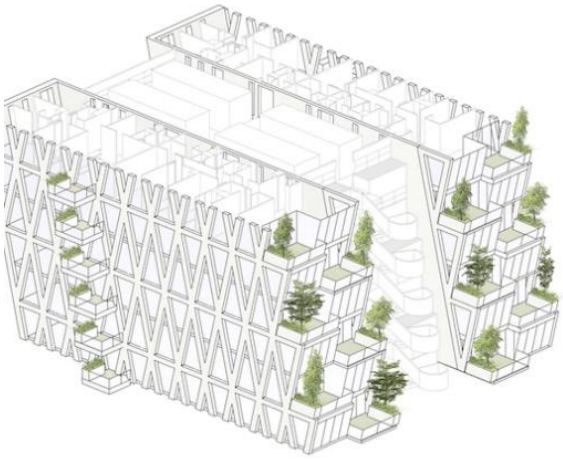
Some historical facts



Picture source: safdiearchitects.com

The project was designed by Moshe Safdie, a renowned architect and urban planner who has made significant contributions to the field of modern architecture. Safdie's design for the Altair tower was inspired by the natural beauty and urban context of Colombo. The building's triangular form, which tapers as it rises, is intended to evoke the sails of a ship and to symbolize Sri Lanka's maritime history. The unique stepped form of the building, which includes a 63-meter-long sky bridge connecting the two towers, is designed to maximize views of the ocean and the city while minimizing wind loads and creating a more stable structure. The design also incorporates numerous sustainable features, such as the use of high-performance glazing and energy-efficient HVAC systems, to reduce the building's energy consumption and carbon footprint. Altair opened in March 2021.

Engineering systems and building constructions



Picture source: safdiearchitects.com

The engineering systems used in the construction of the Altair tower are state-of-the-art and designed to be energy-efficient and sustainable. The tower uses a high-performance curtain wall system, which minimizes solar heat gain and maximizes natural light, reducing the need for artificial lighting and cooling. The tower's heating, ventilation, and air conditioning (HVAC) system is designed to be energy-efficient, with a variable refrigerant flow system that uses inverter technology to regulate the amount of refrigerant flowing to each indoor unit based on the cooling or heating requirements. This ensures that the HVAC system only operates at the required capacity, reducing energy consumption and costs.

The Altair tower's staggered stepped form not only provides a unique aesthetic appeal but also serves a functional purpose. The stepped design helps to reduce wind loads and minimize the effects of wind-induced vibrations, which can be particularly problematic

in tall buildings. The design of the building helps to reduce the building's overall wind resistance, making it more stable and secure during high winds. In addition, the stepped form of the building provides more space for outdoor terraces and balconies, enhancing the living experience for residents.

The stepped form of the Altair tower also helps to optimize the use of space within the building. The triangular shape of the building allows for a greater number of apartments with panoramic views, as each unit enjoys an uninterrupted view of the ocean and the city. The stepped design of the building also provides more space for common areas, such as the rooftop infinity pool, the gym, and the library, all of which offer stunning views of the surrounding area.

Structured Cable system installation

In this project, more than 366,000m of cable is installed, which covers more than 130 floors of the building (both towers), covering 404 luxury apartments. Each apartment has 12 – 20 data points catering for the various smart home services.

Premium-Line Solutions:

- Category 6 Solution
- Over 6000 Data Points
- Cat.6 UTP LSOH 4P 23AWG Installation cables & Accessories
- More than 366,000m
- Covering all 130 floors (both towers)
- 404 apartments
- 12 – 20 Data points per apartment

The main project distributor and the organization of supplies –DCL Engineering Private Limited, www.dcleng.biz.

All ELV installations were implemented by Maxaire (Pvt) Ltd, www.maxaire.net.

Premium-Line is extremely pleased to congratulate its renowned partners - the companies – **DCL Engineering Private Limited** and **Maxiare (Pvt) Ltd** on the successful implementation of this future proofed installation in this new remarkable landmark of Colombo and wishes them further success and development.