



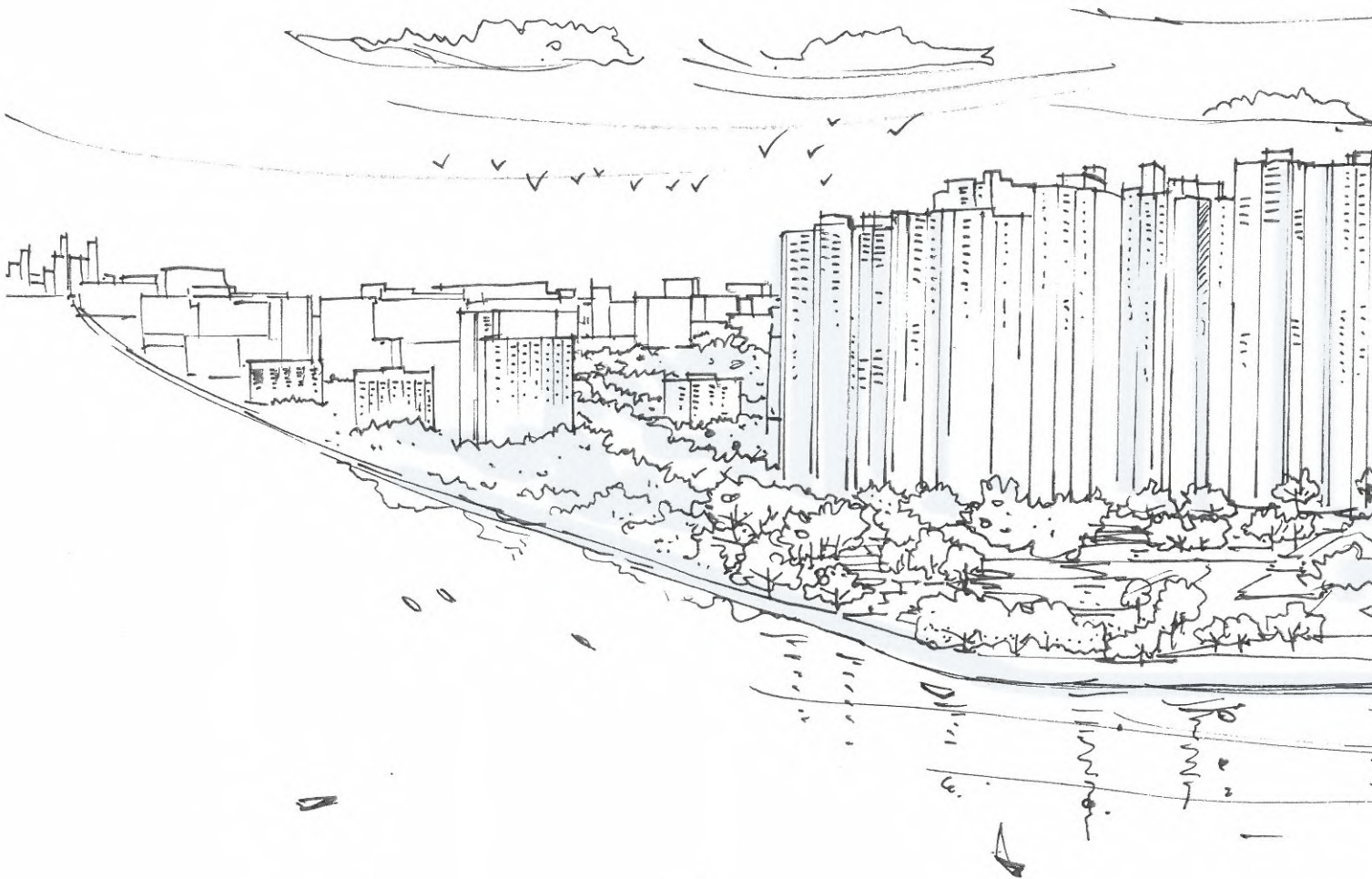
Vincom Landmark 81

CASE STUDY

The Landmark 81 tower will be Vingroup's centrepiece for their Central Park Development in Ho Chi Minh City, Vietnam. Atkins won the project in the winter of 2014 and a year later completed Design Development stage. Construction has already started on site with completion set for 2017. Many of the apartments have already been sold, even before the construction emerges from the ground.

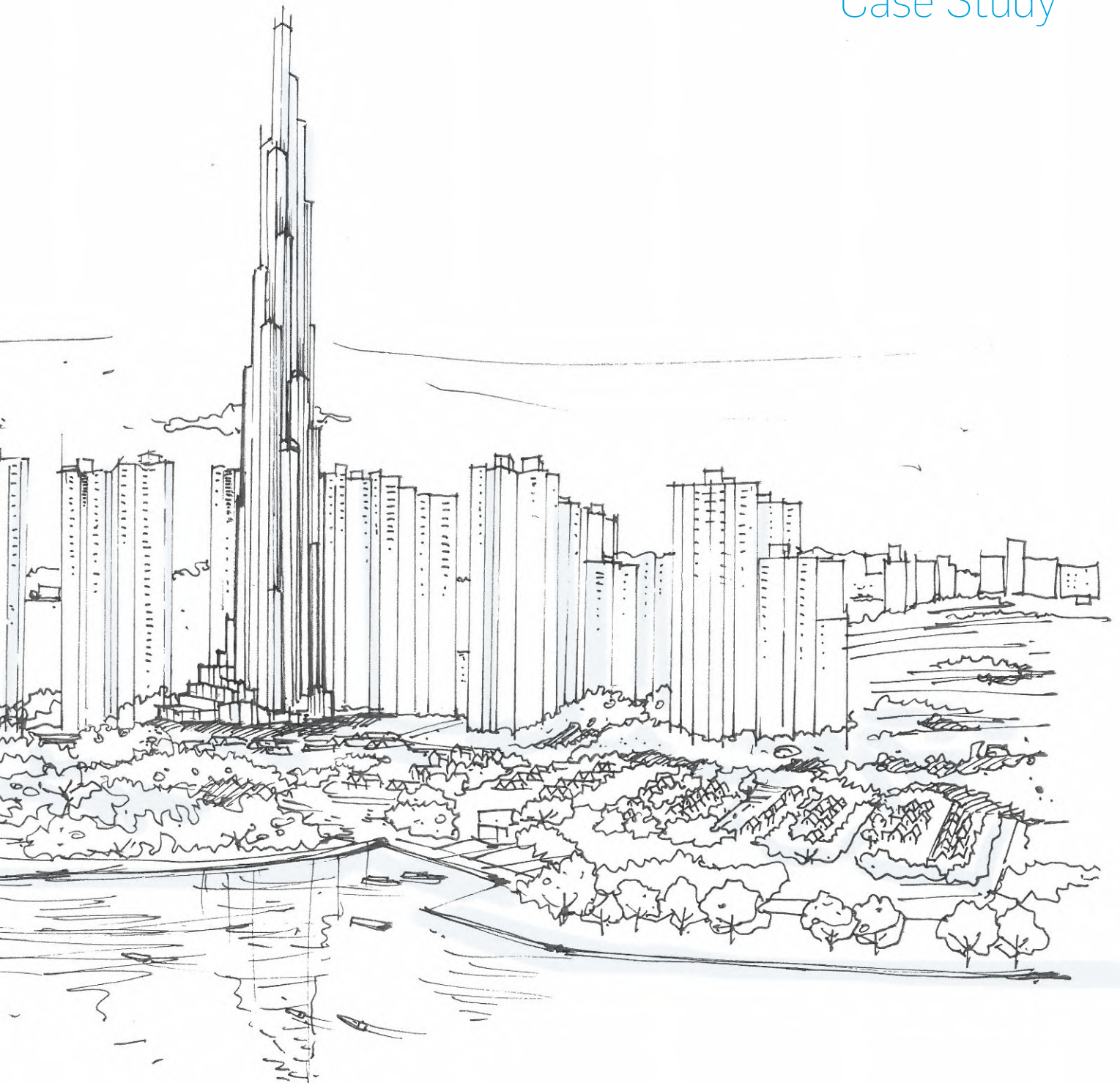
"It is a rare privilege to design the tallest building in a city, even more so a country. It is also rare to find a client with such a clear vision of what they wish to achieve. In developing our design we have looked towards the essence of the skyscraper and to Vietnamese cultural ideas."

Ian Milne (Atkins Senior Design Director, Asia Pacific)



Vincom Landmark 81

Case Study



The Essence of a Skyscraper

While towers globally are getting taller, in so many cases they have lost much of the drama of their original ancestors from 1930's New York. While much shorter than today's super high-rise mega-structures, the forms of these earlier towers are truly spectacular in their verticality and triumphal in their silhouette. Their forms were powerful enough at the time to conjure that most evocative of terms that all towers have since aspired to – *Skyscraper*.



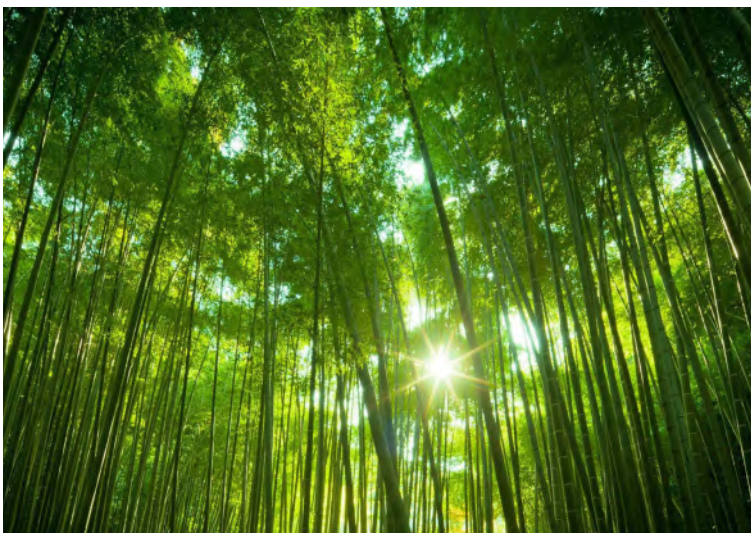
A Bamboo Cluster

a Vietnamese metaphor for strength

There is a saying that is often used in Vietnam that 'while one stick can be strong, a bundle of sticks will always be much stronger'.

This is used to conjure team spirit and family values often using humble chopsticks to demonstrate the idea. It is an idea of collaboration that the Vingroup's many divisions, from Vinhomes to Vincom and on to Vinpearl, epitomise perfectly.

The same logic was historically also applied to vernacular construction, but here the bundle of chopsticks is replaced by Bamboo. Today as we look at towers that reach hundreds of metres into the air and bamboo is replaced by steel and concrete, our engineers still employ the same principles. The core of the tower is strengthened by layers of bracing structure.





An Iconic Landmark

for 21st Century Vietnam





Evolution from the box to the Skyscraper

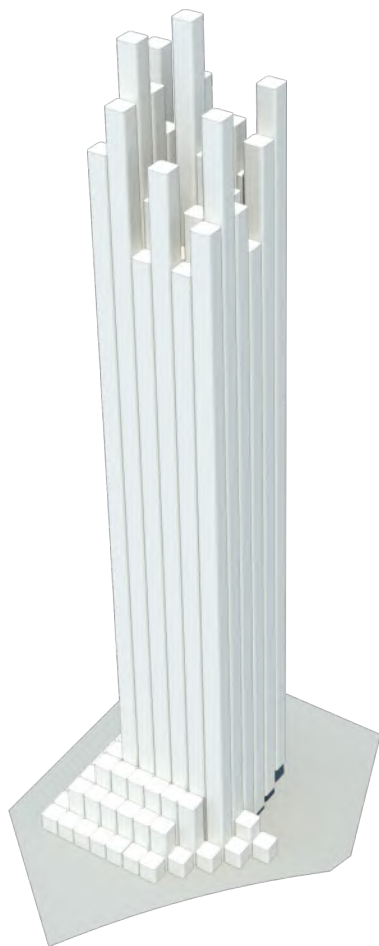
The tower's form originates from the most pragmatic of tower diagrams. A square centre core tower enclosed by a six by six grid of bays each of nine metres square.

These have then been sculpted to respond to pragmatic issues, such as the reducing core size as sets of lifts are progressively no longer required, but also this permits the progressive formation of the desired dramatic spire like profile.



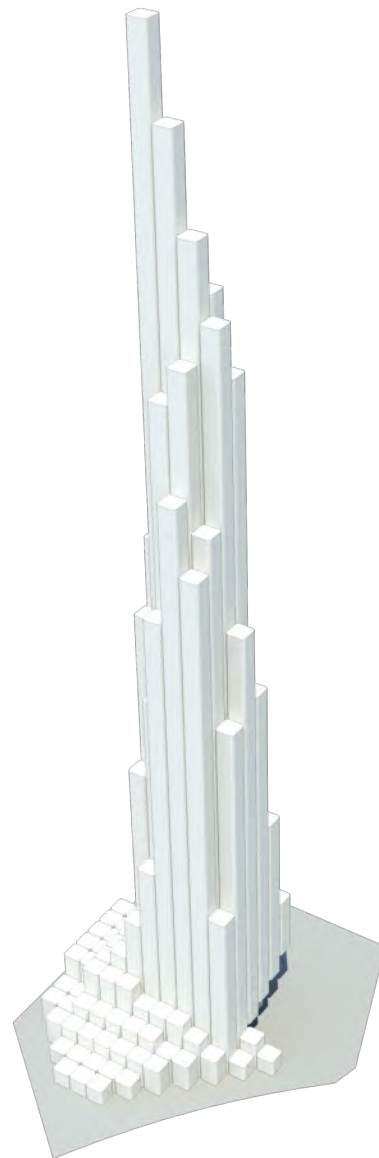
1 STEP 1

Equal divisions based on the planning grid.



2 STEP 2

Sculpting the tower with height variations responding to different function zones.



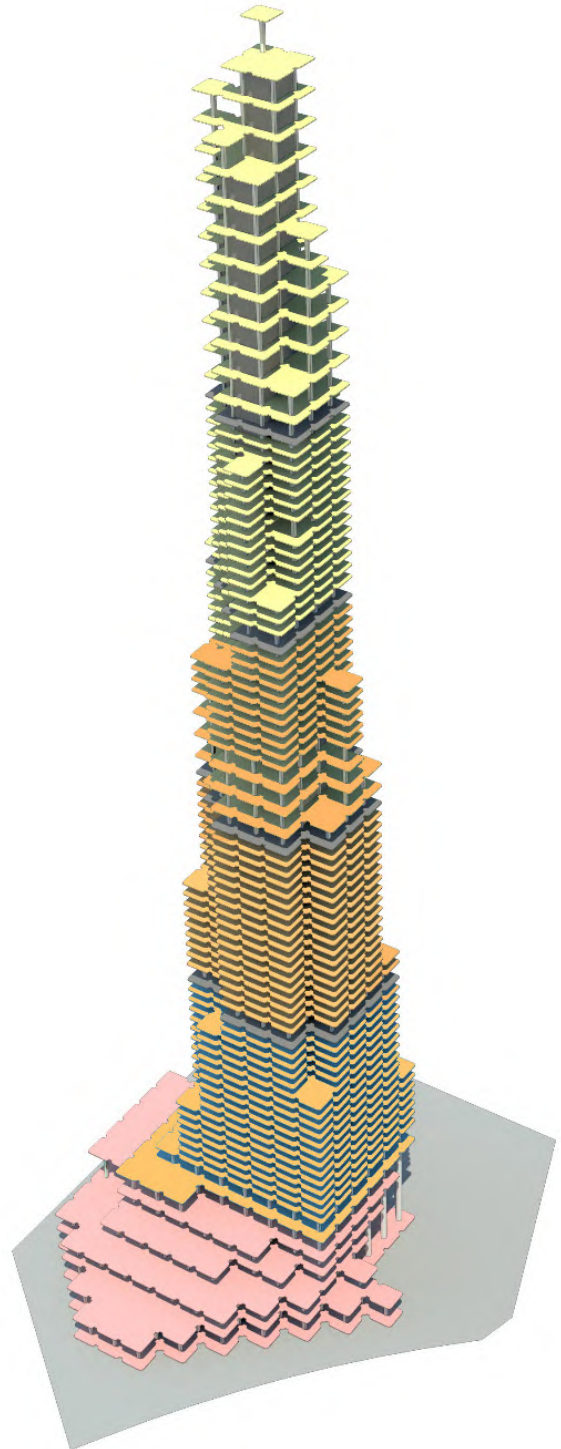
3 STEP 3

Final sculpted form of the 400m high tower including the podium.

The Tower's Functions

The tower will contain primarily residential apartments from levels 6 to 45. Above which is a hotel and at the slender peak of the tower is a number of public floors offering an observation deck and exhibition space.

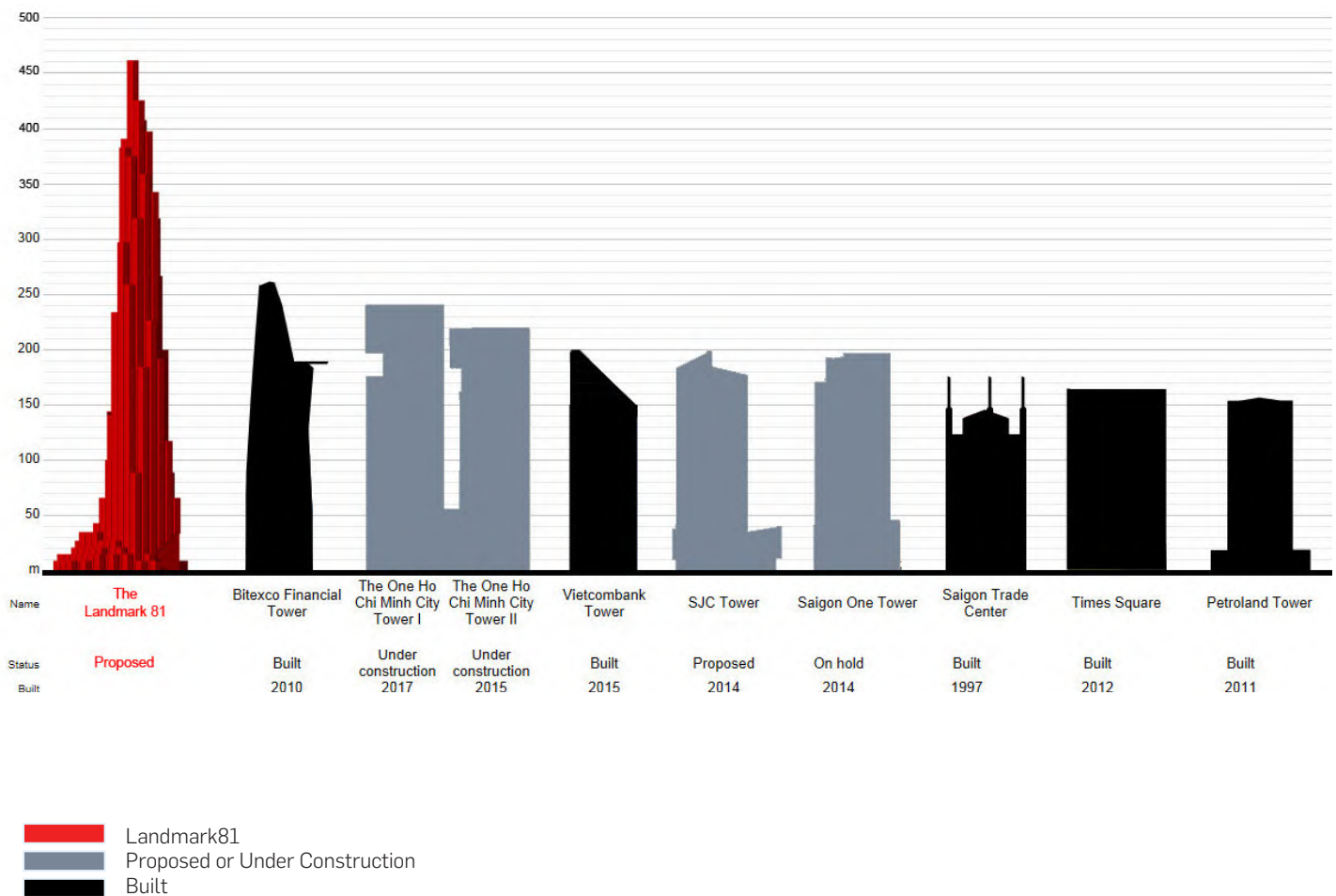
The setbacks will offer many of these spaces spectacular roof terraces.

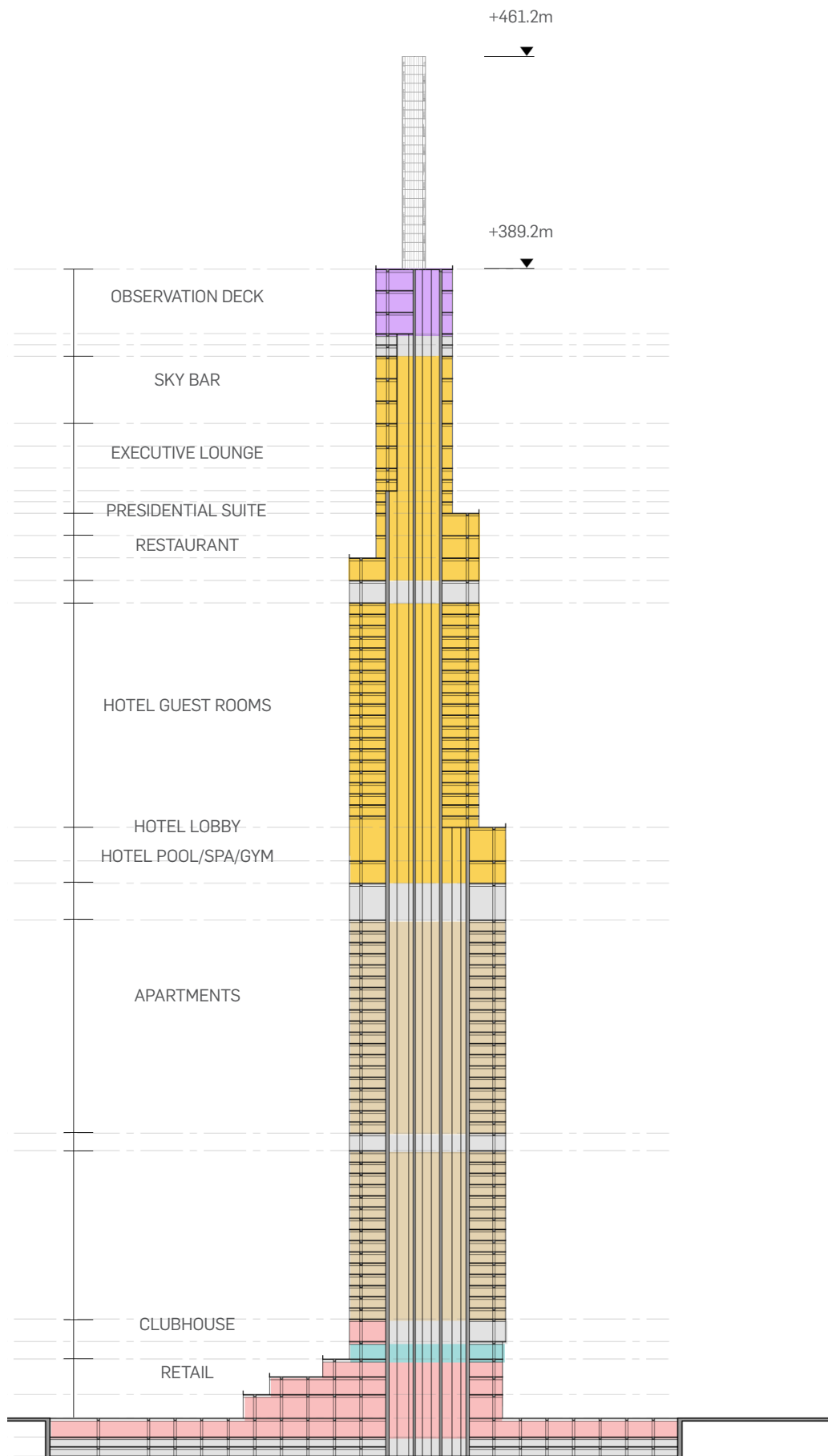




The Tower's Height

The 81st floor of the tower is at just under 389m, while the peak of its spire extends to just over 461m. At the time of writing this will make it the tallest tower in Ho Chi Minh City by a significant margin. Indeed it will be taller than the Petronas Towers in Kuala Lumpur, currently the tallest tower in South East Asia at (451m to its top and 379m to its roof).





Residential Experiences





A New Residential Community in the Sky

Unusually for such a tall tower, the main function of the tower will be as a residence. Up to 1,600 people will live in its 491 luxury apartments. These range in sizes from 50 sq.m bachelor units to 300 sq.m mega penthouses. All have balconies, while the larger units will also enjoy the unique luxury roof terraces, providing broad panoramic views.





A PLACE WHERE RESIDENTS CAN LIVE EVERY DAY IN A RESORT

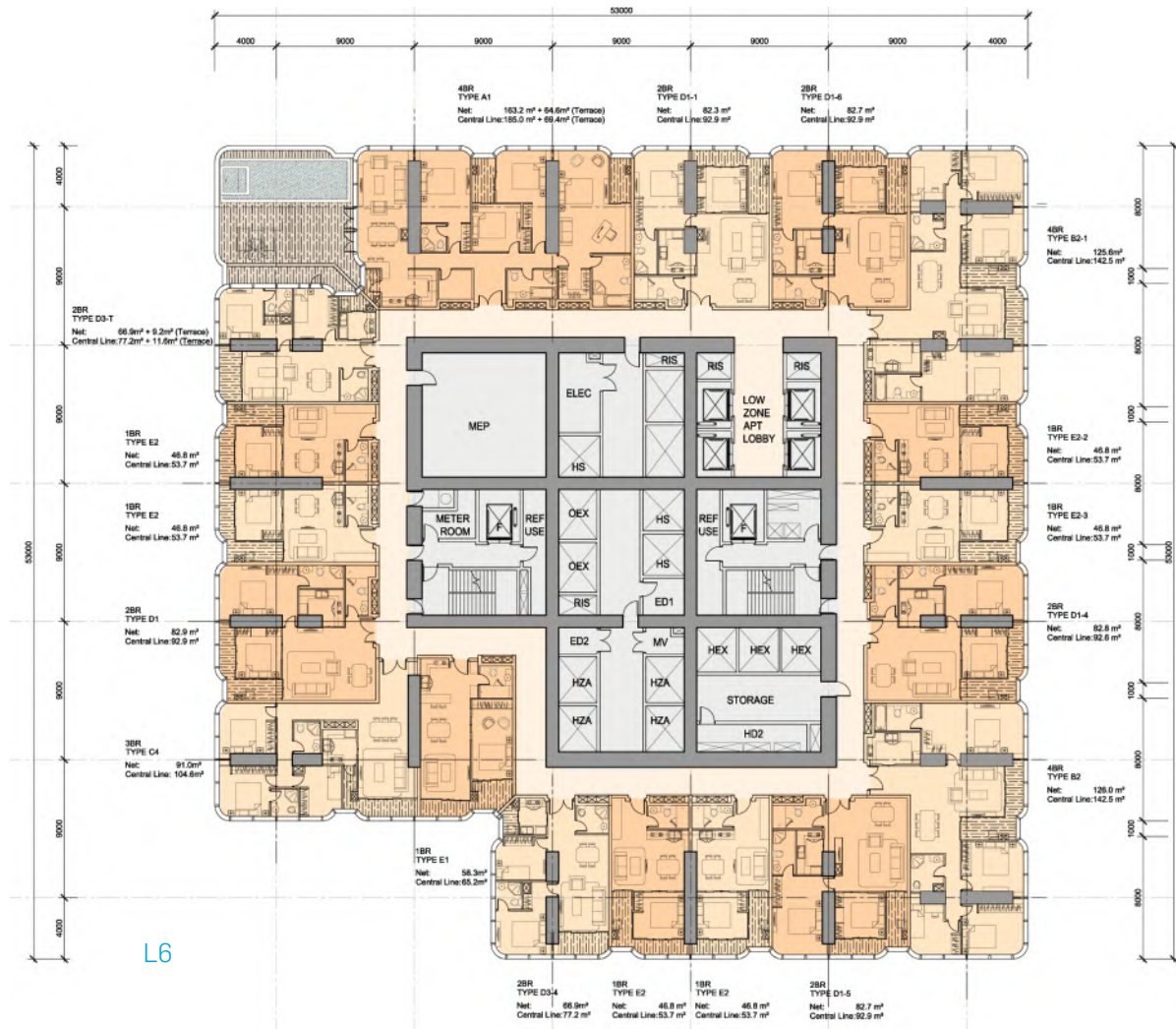
At the base of the tower, on the roof of the podium will sit a dramatic terrace complete with expansive infinity pools overlooking the Saigon River. Next to these within the tower will be an elegant club house.



The Residential Plans

The towers setbacks are not arbitrary or simply a matter of aesthetic form. They closely follow the progressively reducing core. In the residential levels this is critical as excessive dimensions between core and façade would result in spaces that were too deep and dark to be used for apartments.

The larger apartments and penthouses cannot be located at the top of the tower as this occupied by the hotel. So instead they are located at each set back, so that they can each enjoy the luxury of a nine by nine metre square private roof garden.



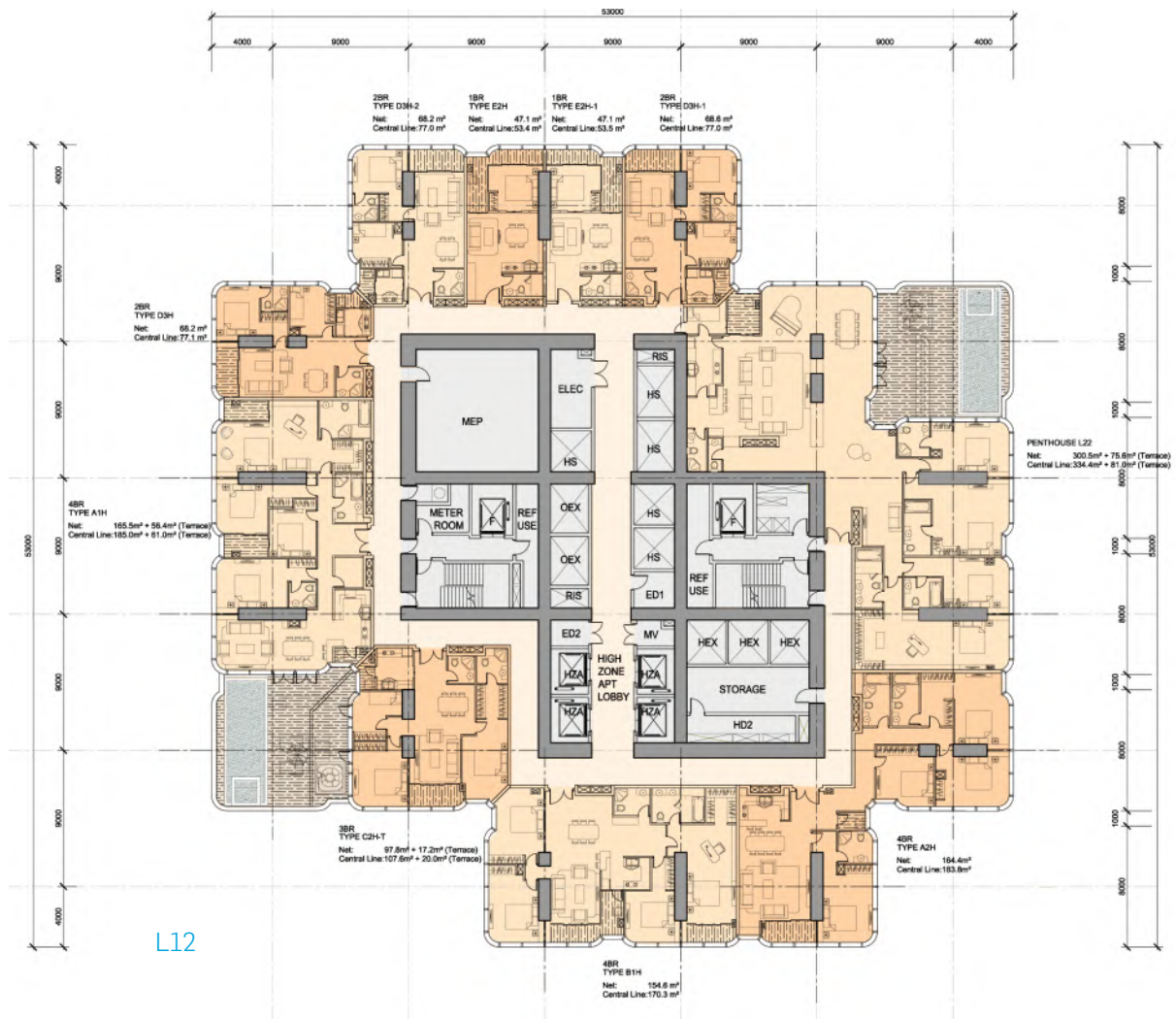
L11



L15



L18



L12



L27



L28




L32

Retail Experiences





An aerial architectural rendering of a residential development. In the foreground, a rooftop terrace with a wooden deck is populated with people sitting at tables and walking. Large white umbrellas provide shade. The terrace overlooks a landscaped area with a winding path, lush green trees, and a small pond. In the background, a row of houses with terracotta-tiled roofs is visible, followed by a wide river and a distant city skyline across the water.

The roof of the podium will be a series of lively roof terraces. Some will belong to the private clubhouse for the residents while others will serve the restaurants, bars and galleries of the retail podium. All will enjoy views over the adjacent 'Central Park' and the river beyond.

From an urban perspective this also means that the landscape appears to flow over the podium. This reduces the visual impact of the podium and permits the tower to appear to sit harmoniously in the landscape.

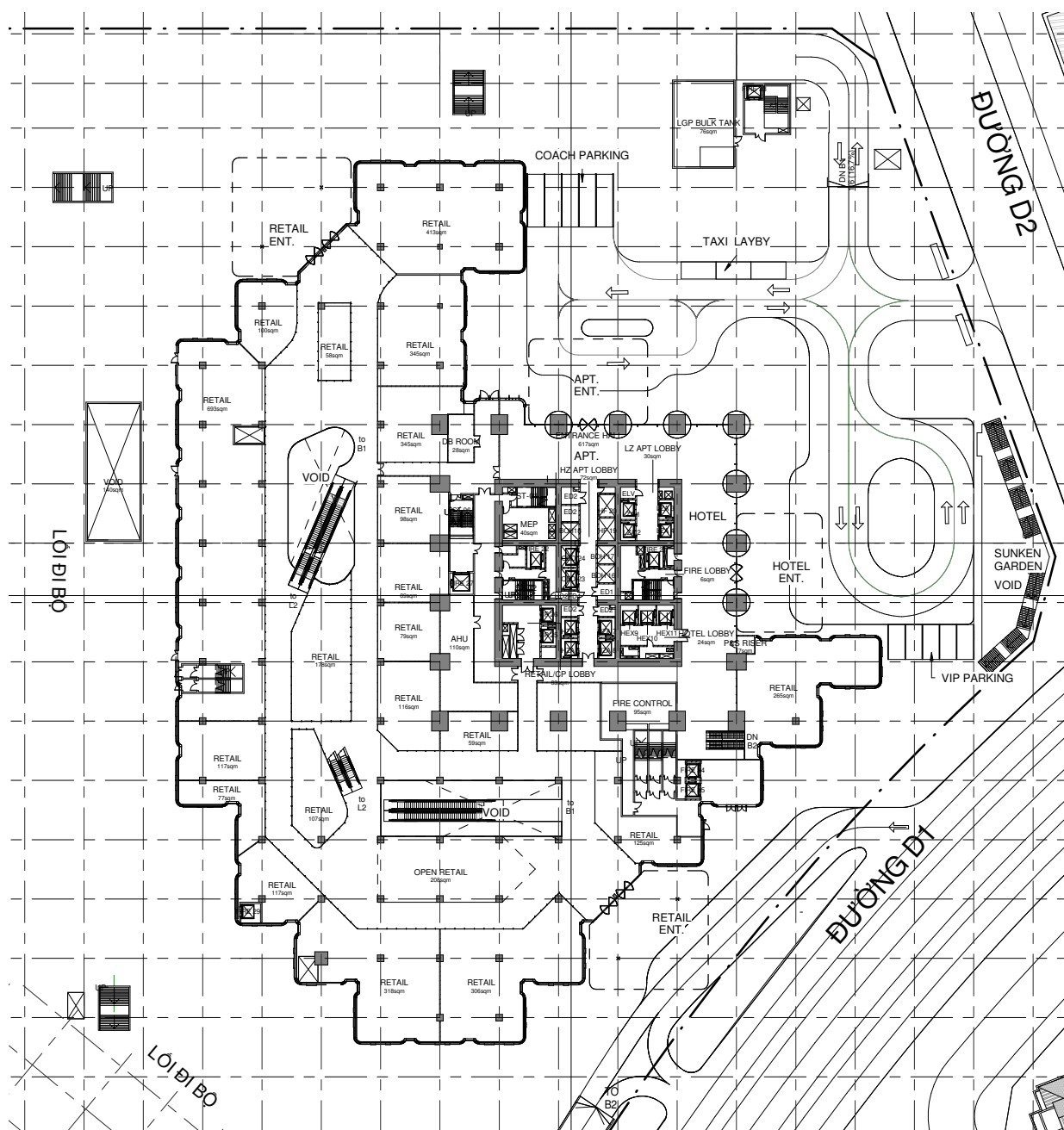


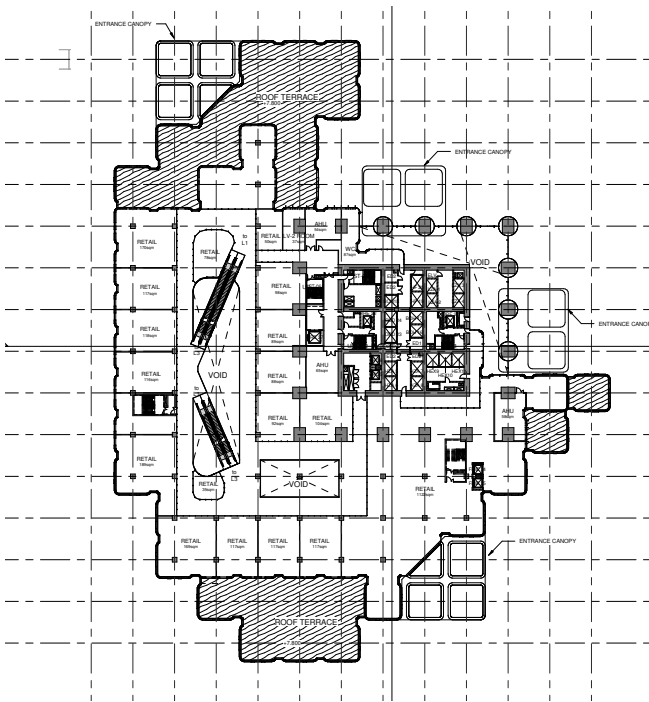
Retail Floor Plans

The retail podium is spread over three levels and links down to a large basement retail floor. All are linked via an atrium mall space. The modular nature of the tower's plan is extended to the podium. This provides an interesting set of shop fronts, many of which are corner shops. Many ground level shops are accessed both from the internal mall and from the landscaped plaza. Retail units at upper levels enjoy access to roof terraces,

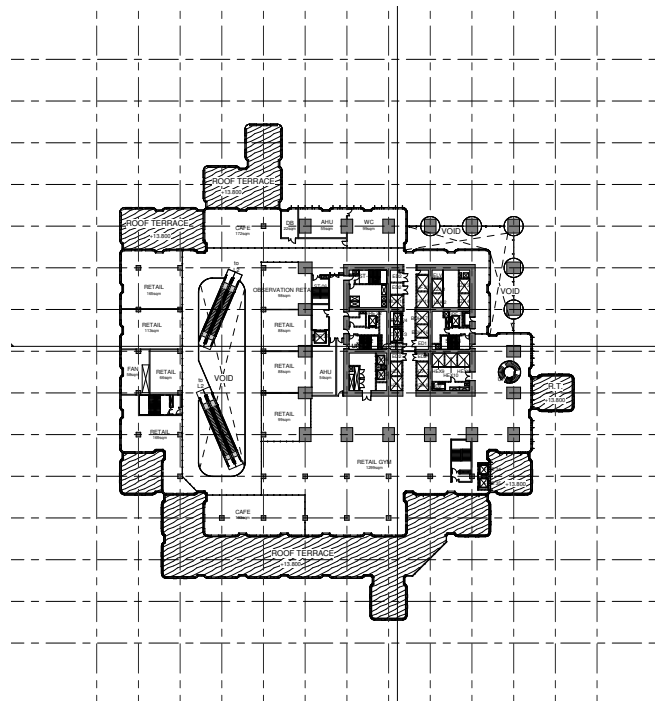
permitting customers to restaurants and cafes to enjoy views of the park and river.

The hotel and apartments have independent separate access from the retail directly into the base of the tower.

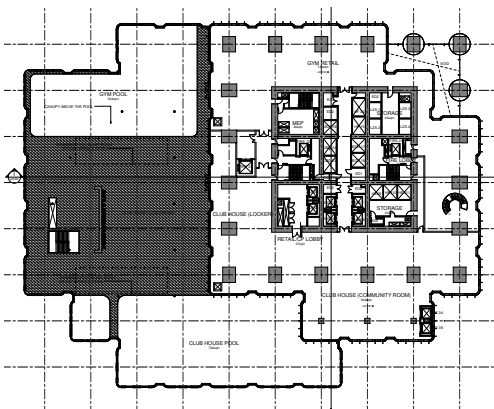




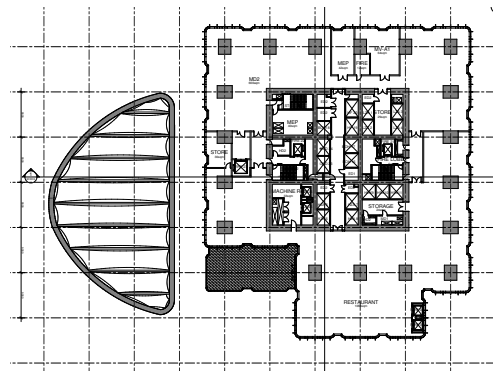
L2



L3



L4



L5



The shopping mall will be a pleasant light filled spacious volume that extends down into the basement. Various areas will be zoned for different types of retail, serving local residents as well as tourists and visitors to the tower's five star hotel.

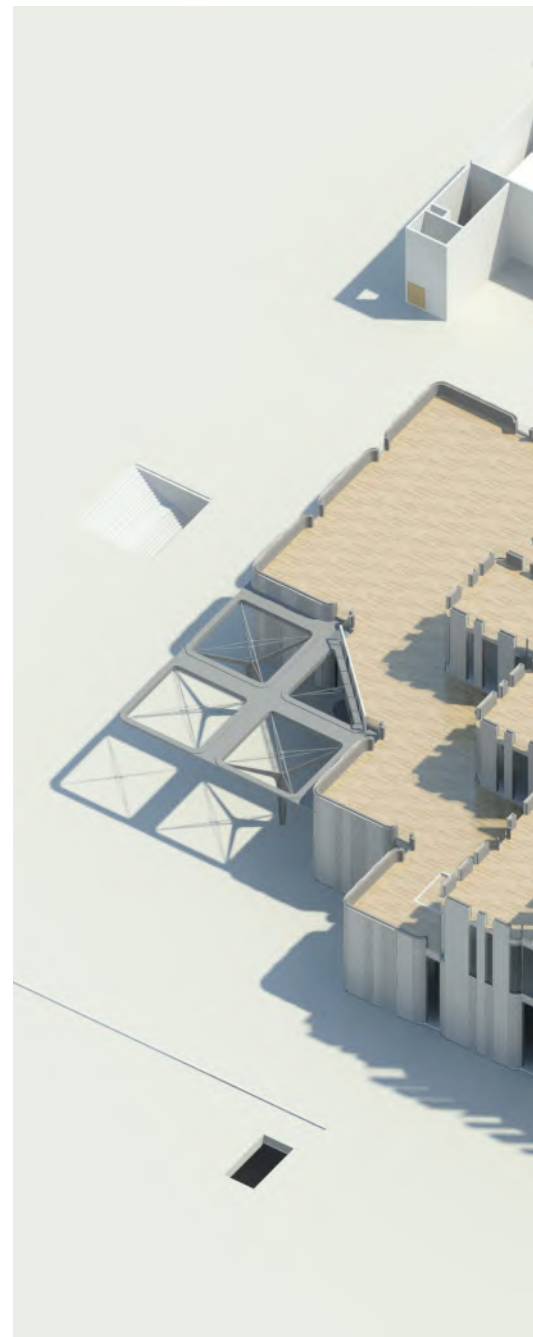


Retail Methodology

The façade of the podium will exploit the modular nature of the façade to suggest a series of highly decorated gift boxes around the base of the tower. Each will be different, but will be based on the same materiality and underlying cladding system.



- > Brushed Stainless Steel
- > Textured Stainless Metal Panels





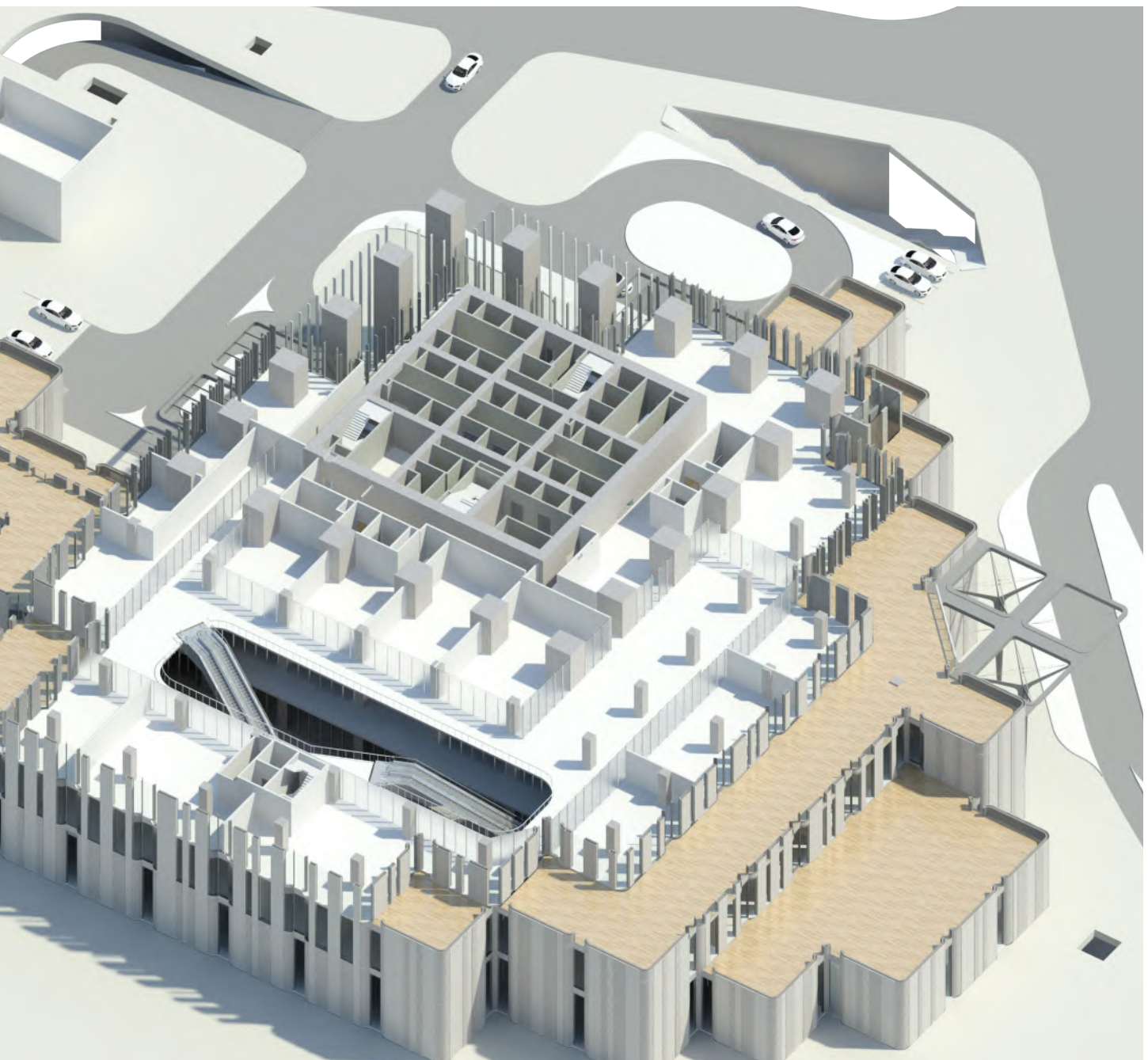
- > Perforated Metal Panel
- > Textured Stainless Metal Panels



- > Brushed Stainless Steel
- > Brushed Metal Panel



- > Laser Cut Metal Cladding
- > Brushed Metal Panel

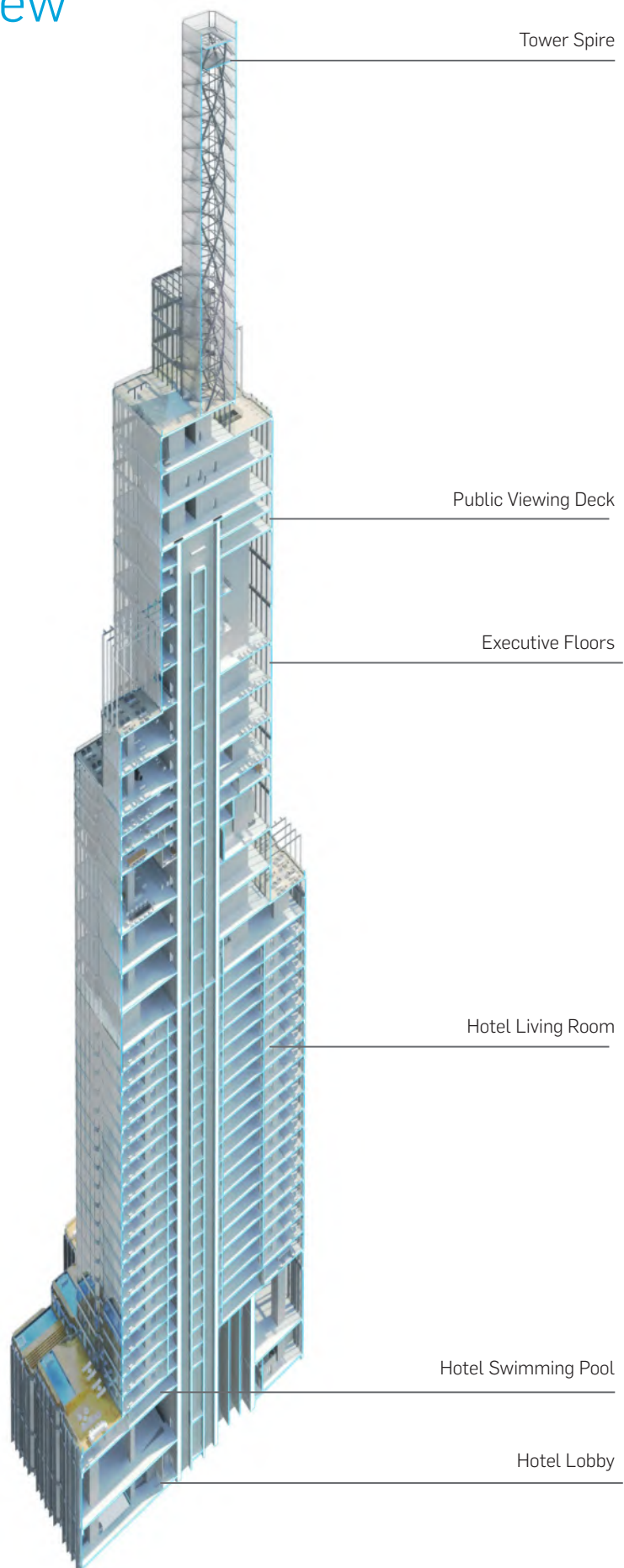


Hotel Experiences



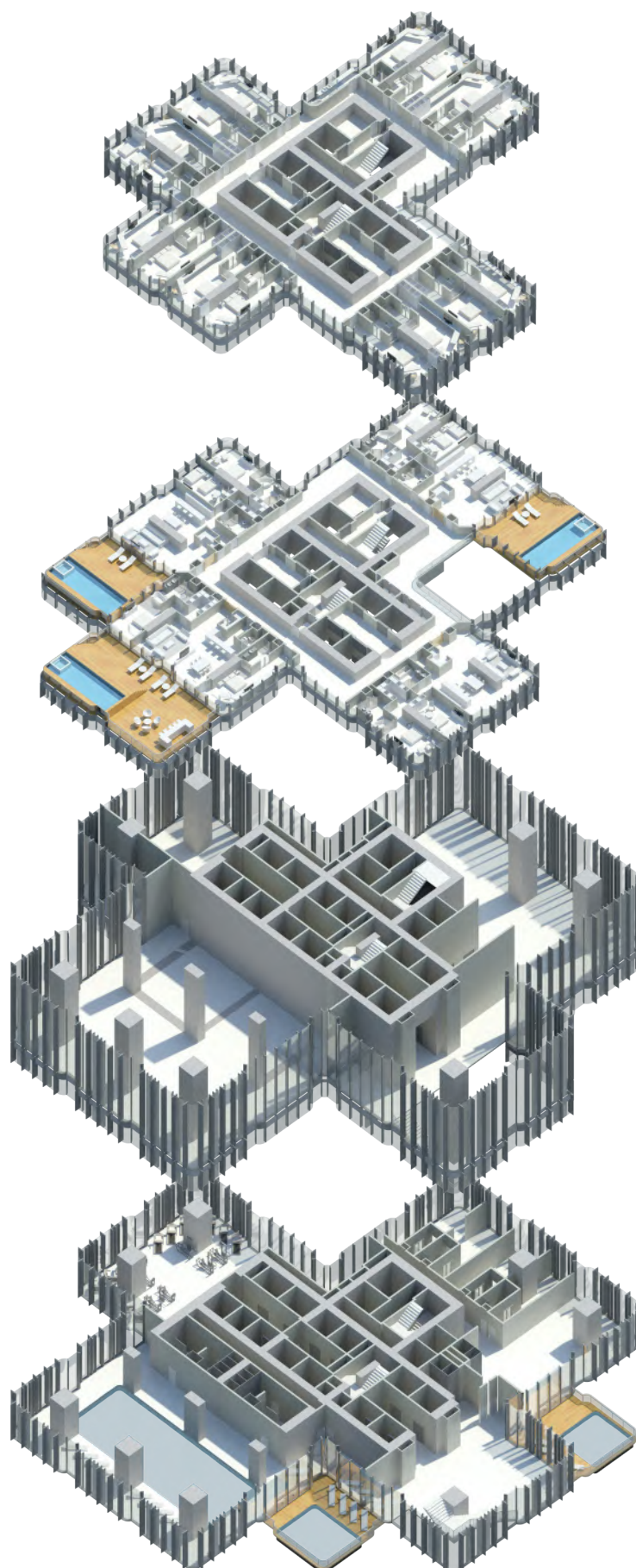



3D Sectional View



The upper third of the tower will contain one of Vingroup's flagship Vinpearl Hotels.

The lobby lounge and all-day dining room will occupy the larger levels at 66 and 67. Above these will be the guestroom levels. Towards the top of the tower, from levels 71 to 77 will be a series of lounges, bars, speciality restaurants and the presidential suite. Due to the slenderness of the tower at this point these spaces will benefit from expansive panoramic views. At the top of the tower on levels 79 to 81 will be a public viewing deck and exhibition gallery.

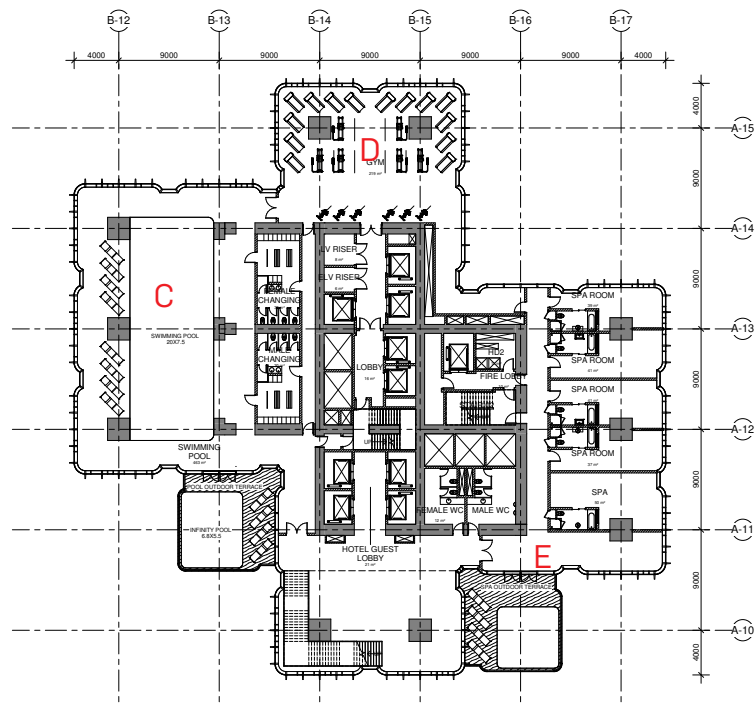




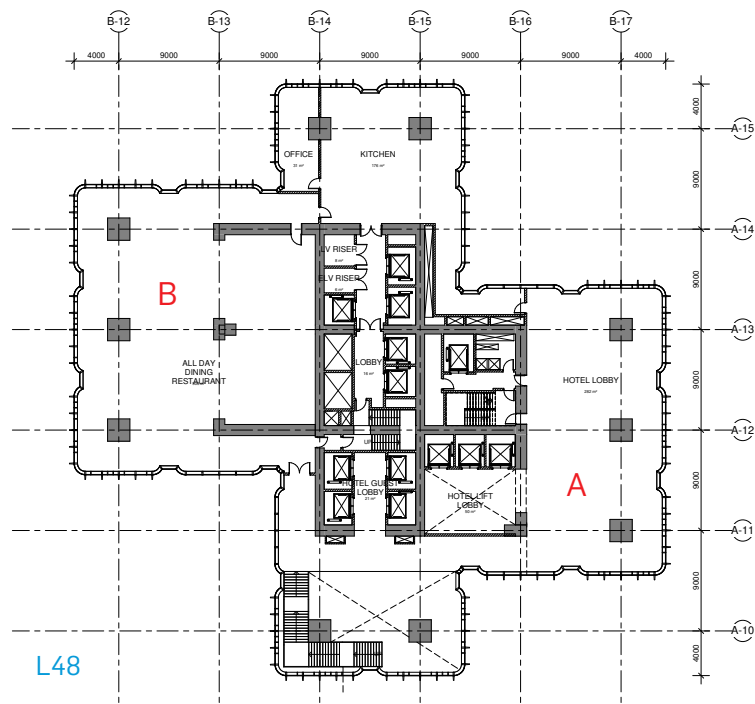
The lobby will be a tall space with views looking out over the city. At this height guests will already be well above the general skyline.



There is a considerable contrast between the large floor plates used for the lobby, all-day dining and pool, and the smaller floors of the uppermost floors containing lounges, spas, bars and speciality restaurants. Kitchens are generally located on the northern façade so that they can all link back to the basement back-of-house areas, via dedicated service lifts.



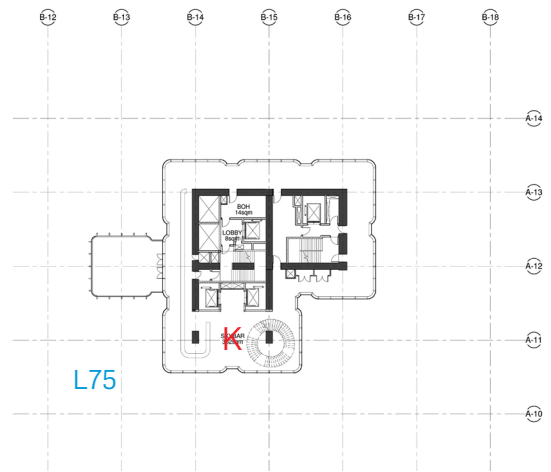
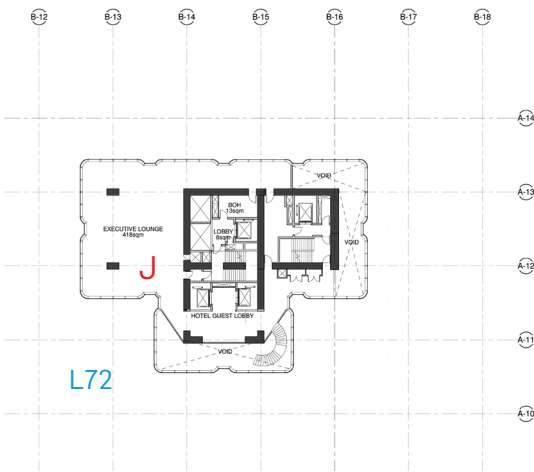
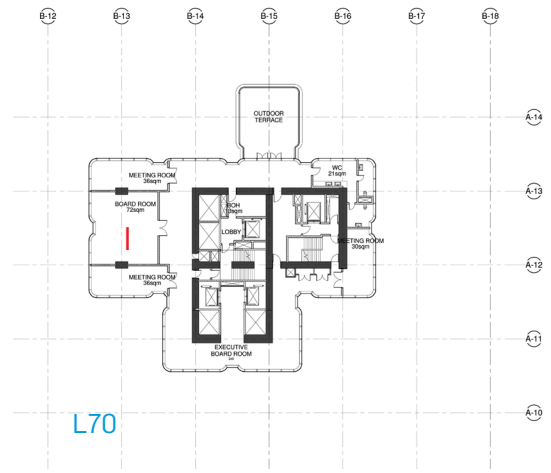
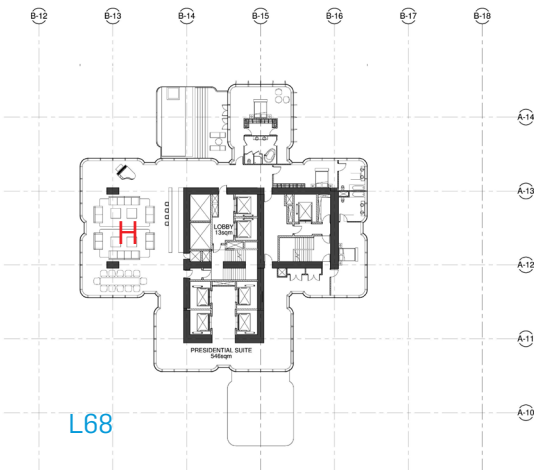
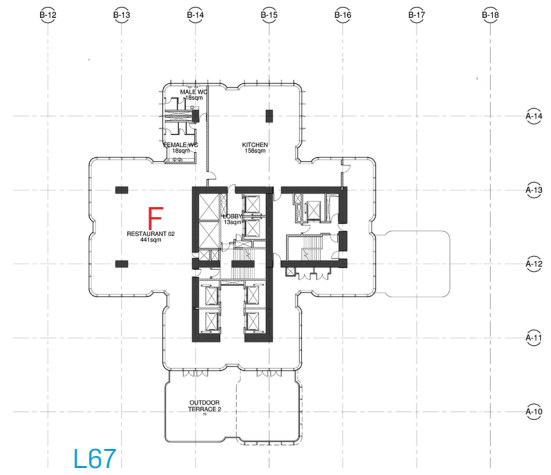
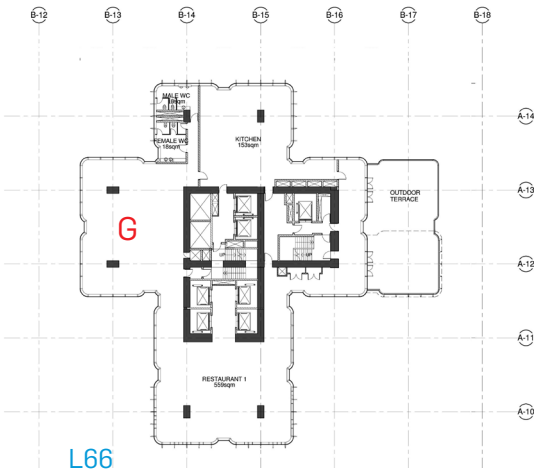
L47




L48

Key

- A – Lobby Lounge
- B – All-day dining Room
- C – Pool
- D – Gym
- E – Spa
- F – Speciality Restaurant
- G – Signature Restaurant
- H – Presidential Suite
- I – Board Room
- J – Executive Lounge
- K – Skybar



A photograph of a modern, curved corner bedroom. The room features floor-to-ceiling glass walls that wrap around the corner, providing a panoramic view of a city skyline at night. The city lights are visible through the glass, and the room's interior is dimly lit. In the foreground, there is a long, low wooden platform or bench. On the left side of this platform, there are two small, square glass tables. The floor is made of dark wood. A portion of a white sofa is visible in the bottom right corner. The overall atmosphere is sophisticated and luxurious.

Many of the bedrooms are corner modules. This means that even standard sized rooms will have a spectacular dual aspect over the city far below.



As the core sets back above the hotel lobby it results in a number of roof terraces. These will be provided to executive suites as spectacular outdoor spaces with private pools. The other floors have a range of standard sized rooms. Due to the form of the building fifty percent of these are corner rooms which have special feature bathrooms.

Care will be taken in the design of the façade and in some areas fixed screens that will permit views out, but obstruct diagonal overlooking from room to room. In other cases, suites are located, so that the unit's living room and bedroom will overlook each other and not unit overlooking another.



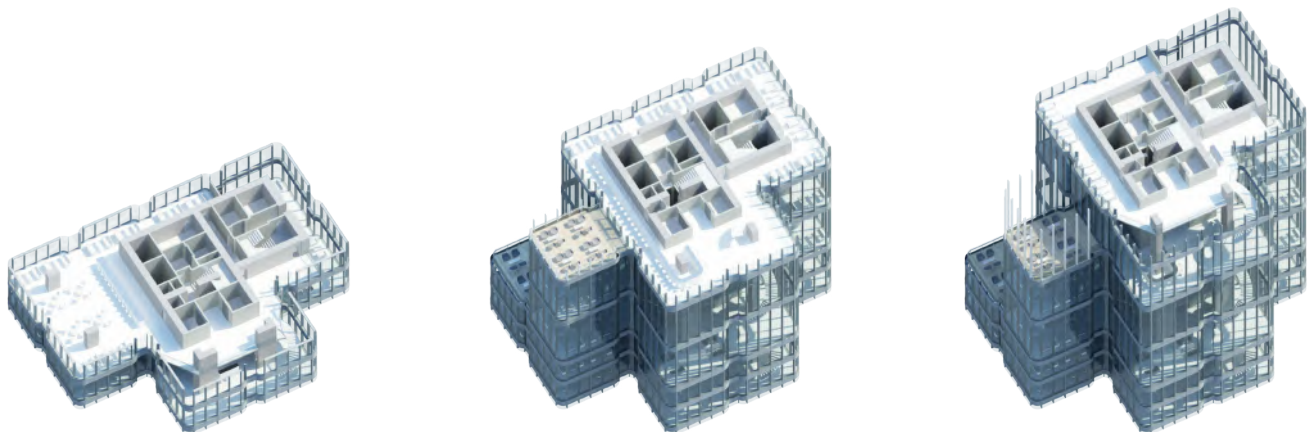
L45

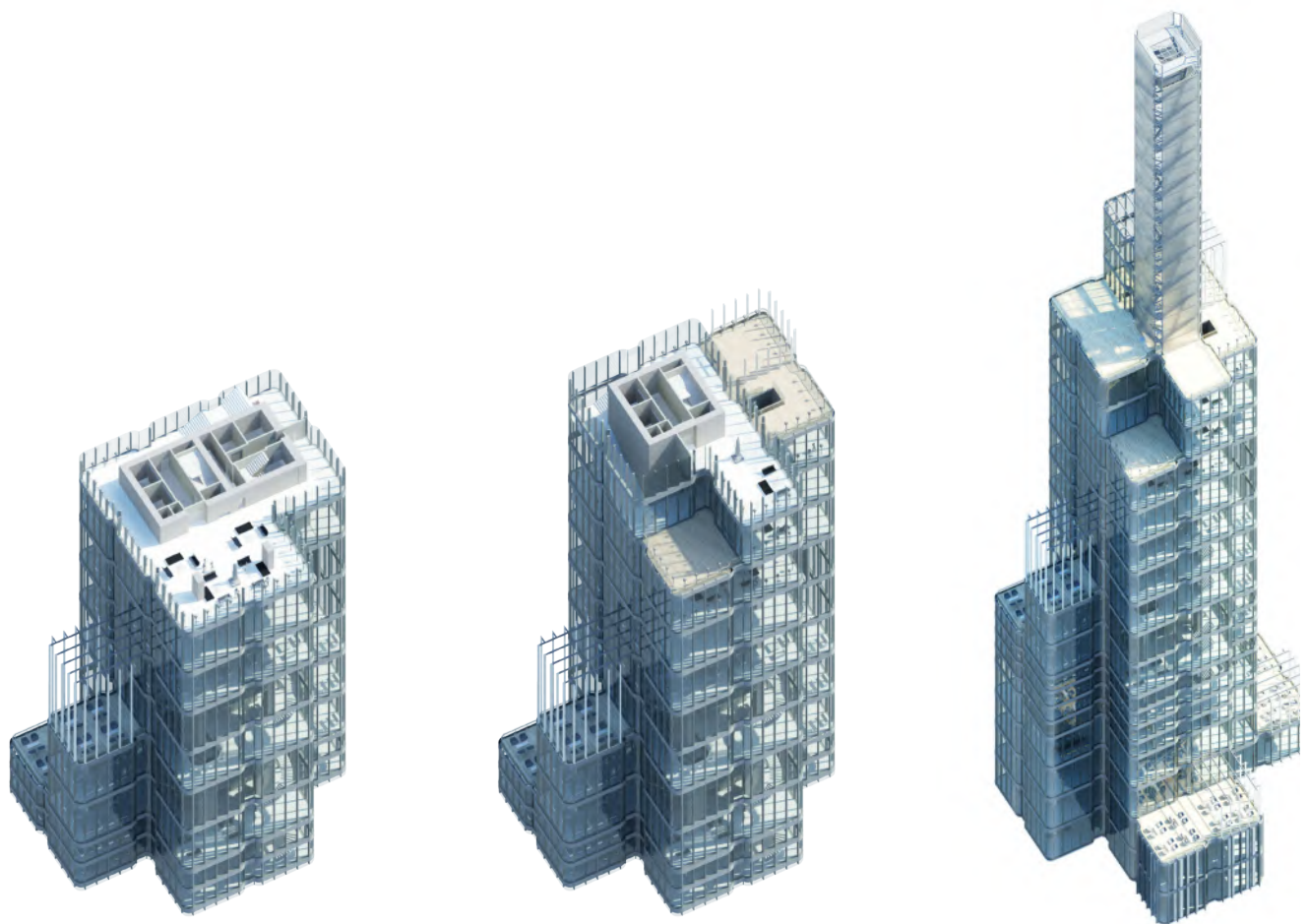


Viewing Experience

The top of the tower will be capped by a public exhibition gallery and viewing deck. This will be spread over three floors and will be accessed independently from the podium via its own dedicated express lifts.

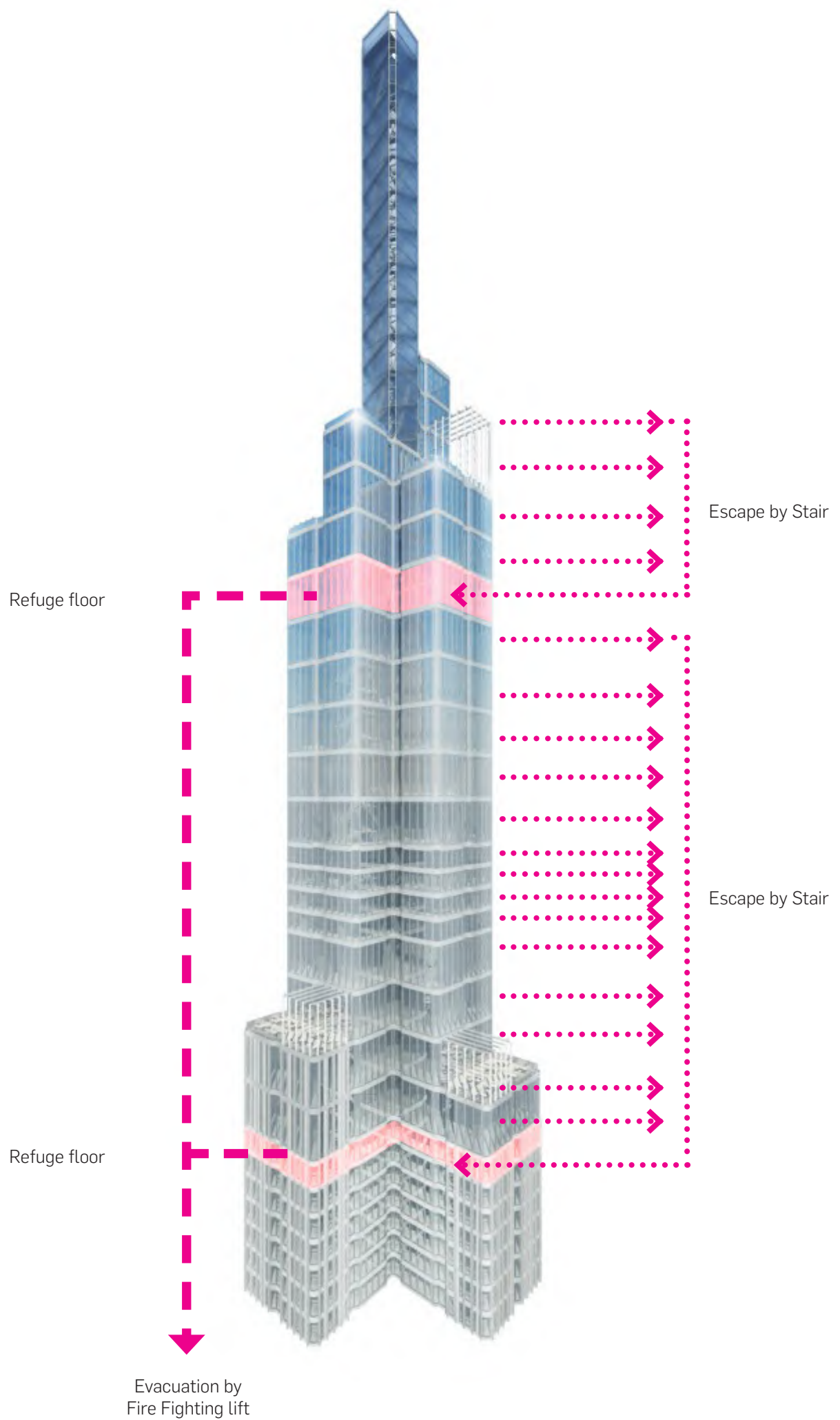
The spire at the top of the tower will be a beacon at night that will mark the tower across the city.





The tower is designed to the highest standards for fire escape using the latest NFPA 5000 standards which have been upgraded based on events at the World Trade Centre in New York. For this tower, Vingroup have chosen to go even beyond these standards in some areas related to fire and life safety. One example providing fire escape from upper floors via specially designed lifts in addition to conventional stairs. This innovative approach will significantly speed up the time that it takes to evacuate all occupants from every floor of the tower. While an innovative solution, it uses tried and tested systems and components.

As normal in any modern tower, conventional fire fighting lifts will bring firefighters and their equipment quickly to the floors affected by a fire. But in addition to these, the lifts that are normally used as express lifts to the observation deck will also be designed to the same high standards of fire protection. So occupants will only need to walk down a relatively small number of floors to the nearest refuge floors located below the observation deck and below the hotel lobby floors. People will be able to wait in safety in this location until they are able to use one of these dedicated high-capacity fire protected lifts to escape.



Landscape Experience

The tower sits within a plaza, whose landscape design extends the modularity of the façade out into its paving and features. Trees and canopies will provide shade and protection from wind and rain.

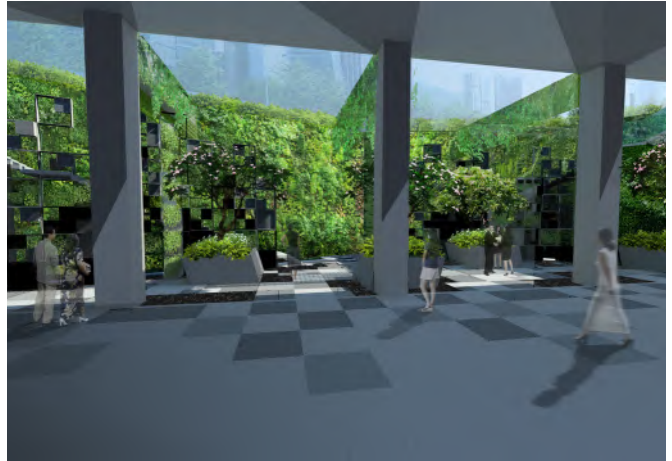




A PLACE FOR PEOPLE

The Public Realm around the tower accommodates a range of spaces for residents, shoppers and arriving hotel guests. Various interactive water features will catch the attention and provide a sense of place. The lush and random layout of trees in combination with the sound of water, will create a pleasant and calm atmosphere within downtown Ho Chi Minh City.

The overall landscape program provides a diverse range of spaces and facilities, complementing the architectural form and gives the development a distinct identity.





VINCOM

Client



VINPEARL

Hotel Operator



SNC • LAVALIN

ATKINS

Member of the SNC-Lavalin Group

- Architecture
- Landscape Design
- Interior Design (Pre-concept Images)

ARUP

Structural Engineering

aurecon

M+E, Lighting and Façade Engineering



Local Architects

mace

Construction Managers

This case study is based primarily on the design at the end of Scheme Design. Certain aspects of the design have since been developed by Atkins in conjunction with Vingroup.

**Hong Kong**

19/F, The Gateway Tower 1,
Harbour City, Tsim Sha Tsui,
Kowloon, Hong Kong
Tel : (852) 2972 1188

Singapore

8 Cross Street,
#24-01, PWC Building,
Singapore 048424
Tel : (65) 6227 6433

Kuala Lumpur

Suite 8.01, Level 8,
Menara Binjai, No 2 Jalan Binjai,
50450 Kuala Lumpur, Malaysia
Tel: (603) 2386 7858

Ho Chi Minh City

Deutsches Haus, 11th Floor,
33 Le Duan Boulevard
District 1, Ho Chi Minh City
Vietnam
Tel: (84-28) 3554 2500
Fax: (84-28) 3554 2501

Delhi

18/F & 19/F, Tower C,
DLF Cyber Greens, DLF Cyber City,
DLF Phase – III, Gurgaon,
Haryana – 122 002, India
Tel: (91) 124 384 7199

Bangalore

10/F Safina Towers
3 Ali Asker Road,
Bangalore,
560052 India,
Tel: (91) 80 4019 9199

Sydney

Suite 12.02 Level 12,
50 Berry Street,
North Sydney NSW,
2060 Sydney, Australia
Tel : (61) 2 8002 0300

Beijing

10/F Tower A,
Gemdale Plaza,
No. 91 Jianguo Road,
Chaoyang District,
Beijing 100022, China
Tel : (852) 2972 1188

Shanghai

22/F Ciro's Plaza
Office Tower No. 388,
West Nanjing Road,
Shanghai 200003, China
Tel : (852) 2972 1188

Email: contactus@atkinsglobal.com

www.atkinsglobal.com

www.atkinsarchitecture.com