

Table of contents

5 Collective project abstract and propositions

7 About the site and type Hotel Pennsylvania

Pennsylvania Station Hotel building type Expert conversations

39 *About* The Hotel Hotel ownership

Operational diagram Hotel segments

Programmatic description

Site information Building information

51 About The Metropolitan Core and structure

Elevators Elevations

63 About One Hotel Sections

Accommodations Amenities Services

Systems Afterlife

99 Individual contribution Contribution abstract

Contribution propositions
Hotel segment drawing set

Precedent studies and references

Collective project abstract and propositions

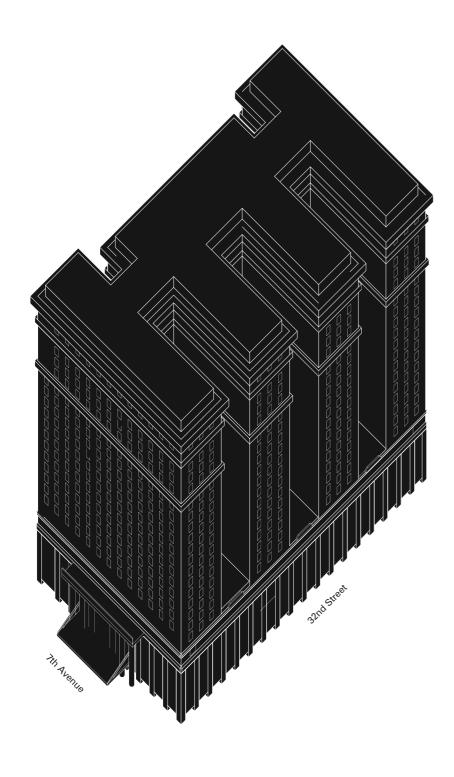
The Hotel is a collective project that studies the hotel, both as a building type and as a place of hospitality, through a collection of fourteen individual contributions inside one skyscraper. The project imagines hospitality as a realm of exchange that condenses the diversity of the city through an assortment of guests, staff, and the broader public.

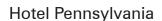
The hotel is a function of temporality and hospitality. The study questions the requirements for an architecture of hospitality to welcome, host, and entertain. As an architecture of temporality—an architecture that is dynamic and ever-changing, embodying a sense of transience and constant activity—the hotel allows for experimentation, while anticipating adaptation to meet the changing demands of its temporary residents. The hotel, as type, is understood beyond its curated front. It is, instead, a place of anonymity and exchange, of served and serving, a place characterized by short stays in a lasting structure.

The skyscraper, as a formal and monumental object, appears to contrast the hotel's temporality. In its autonomy, the skyscraper is a landmark in the skyline. Located in Midtown Manhattan—on the former site of Hotel Pennsylvania and adjacent to Penn Station—this project is a reflection on the metropolis of New York City.

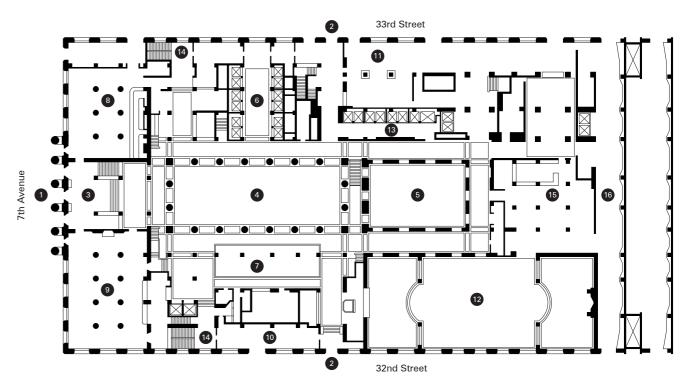
The Hotel consists of the design of the skyscraper as landmark—The Metropolitan—and the hotel as tenant—One Hotel.

- 1. *The Hotel* embraces the frenetic energy of New York City while opposing its outward expansion.
- 2. The Metropolitan will outlast One Hotel.
- 3. One Hotel accommodates fourteen types of guests, and its staff.
- 4. One Hotel shares accommodation, amenities, systems, and services with a 24/7 cycle.
- 5. *The Hotel* sets a standard for an architecture of hospitality.

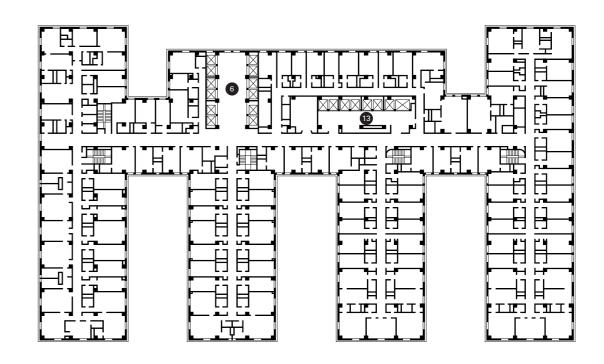




Hotel Pennsylvania was designed by the renowned firm of McKim, Mead & White. Consisting of 2,200 guest rooms over twenty-two floors, it was the largest hotel in the world at the time. Facing Seventh Avenue—and Pennsylvania Station—a portico greeted guests and led into the building through a sequence of spaces culminating in the hotel's lobby.



Ground Floor



Typical Accommodation Floor

1. Main entrance

2. Secondary entrances

3. Entrance vestibule

4. Lobby

5. Palm room 6. Guest elevators

7. Office 8. Soda room 14. Subway entrance

16. Service driveway

9

15. Pantry

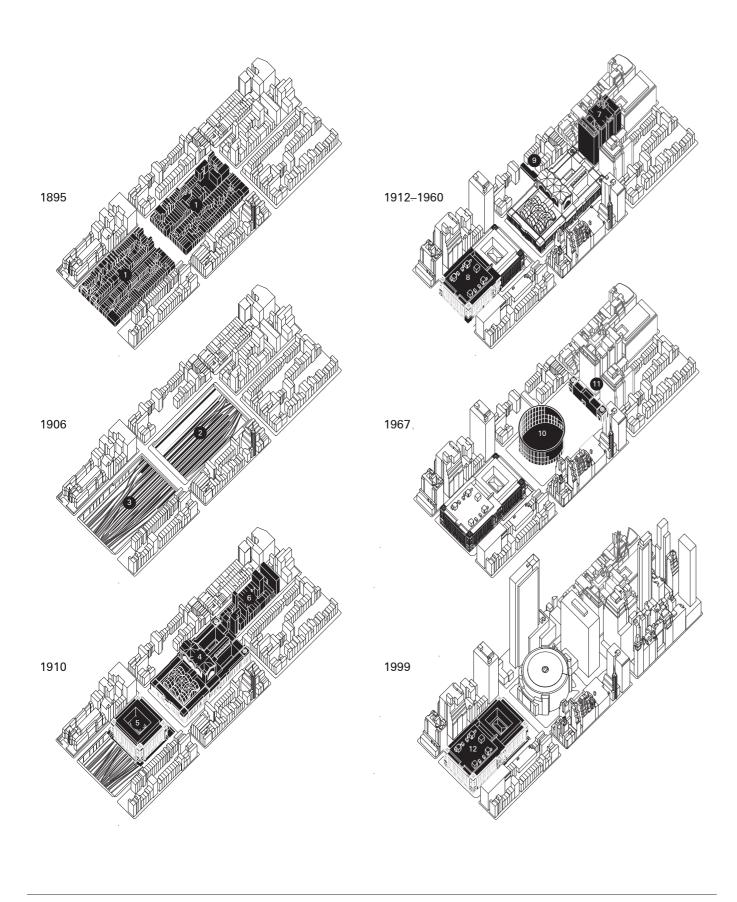
9. Mens' café

10. Shop

11. Drug store

12. Dining room

13. Service elevators



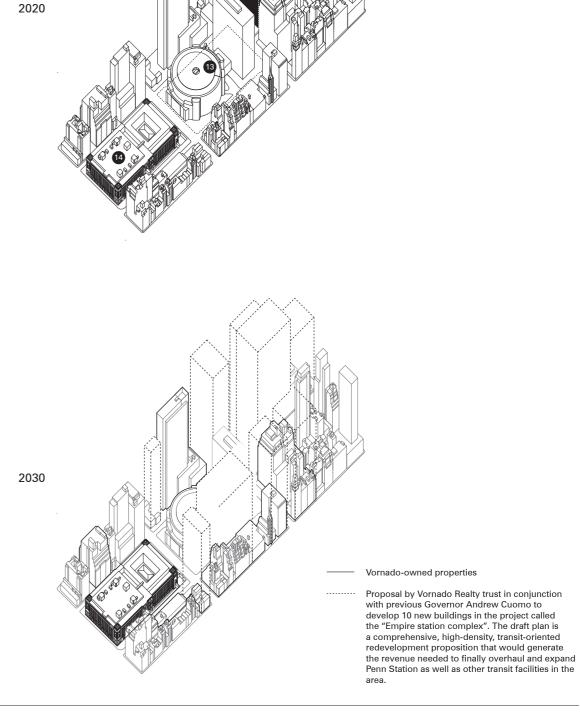
Pennsylvania Station

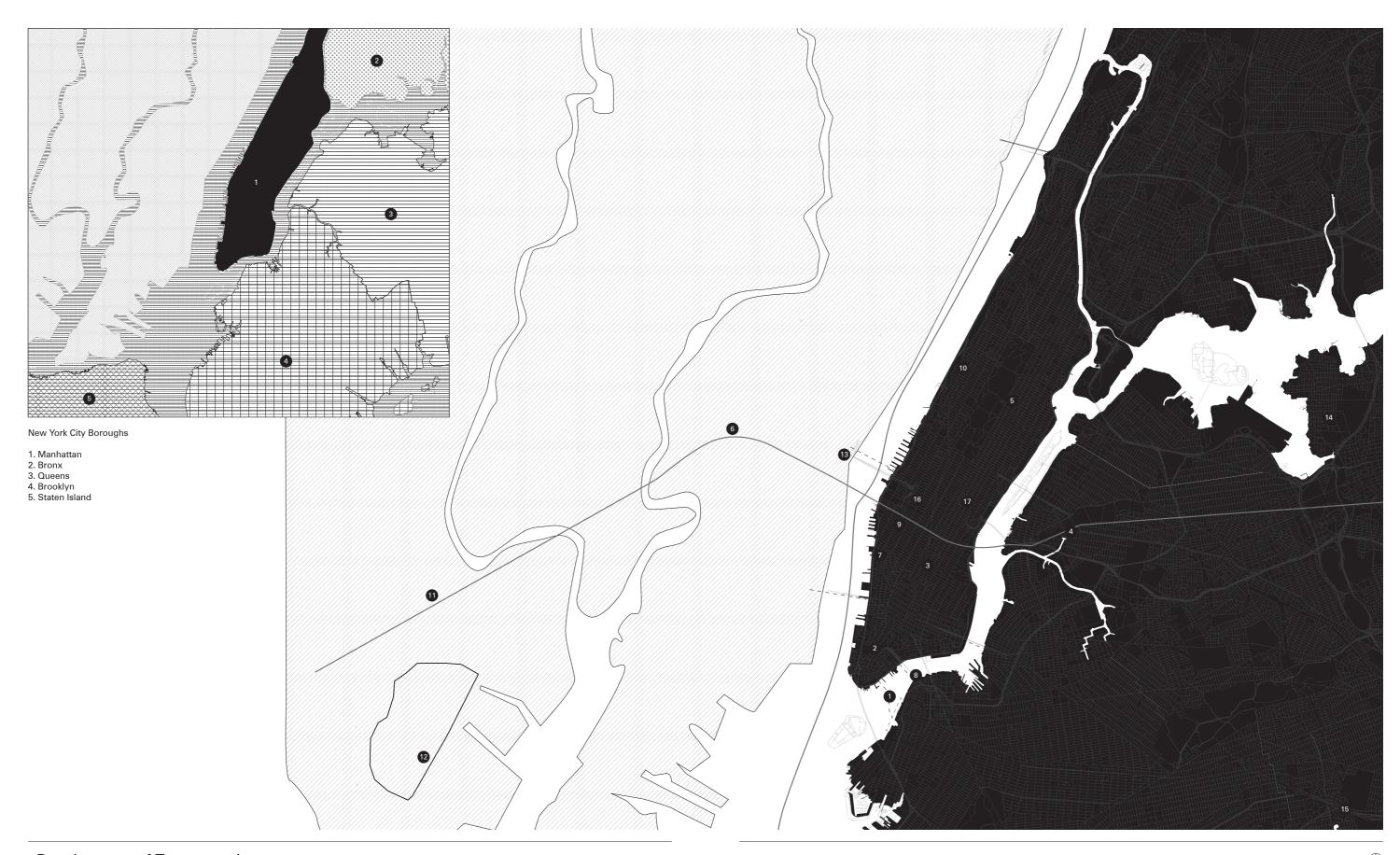
- 1. Pennsylvania Station stood on the former Tenderloin neighborhood, a lively district from 20th to 53rd Streets, Fifth to Seventh Avenues, evolving from the adjacent theater and hotel hub. 2. In 1901, the Pennsylvania Railroad unveiled a \$150 million plan to electrify and expand, connecting Pennsylvania and Long Island Railroads
- to Manhattan.
- 3. Pennsylvania Railroad tunnels span Manhattan
- and link Long Island Railroad at Hunter's Point. 4. Opened in 1910, the original Pennsylvania Station, with North River Tunnels, was a Beaux Arts masterpiece by McKim, Mead & White, spanning West 31st to West 33rd Streets.
- 5. During Penn Station's planning, the Pennsylvania Railroad proposed a nearby post office on 8th avenue for the United States Post Office
- 6. Six years after the opening of the station, PRR proposed a \$9 million, 1,000-room hotel on Seventh Avenue by McKim, Mead & White: Hotel Pennsylvania.
- 7. On January 25, 1919, the Hotel Pennsylvania was officially dedicated. With 2,200 rooms and baths, it claimed the title of the world's largest hotel. 8. The expansion of the Post Office Department was handled by McKim, Mead & White and
- occurred between 1932 and 1934. 9. In 1935, a new bus terminal opened, adding to the area's importance as the city's main transportation hub.
- 10. Madison Square Garden Corporation replaced Pennsylvania Station with a sports complex, citing benefits like tax revenues and construction boost. 11. The old structure was leveled but continued to operate underground as the Garden's skeleton rose

- 12. The expansion of Pennsylvania station into the Farley building begins, adding three underground levels along with the redesign of the first floor. 13. Today, Pennsylvania station functions below Madison square garden sports arena and Penn Plaza.
- 14. Moynihan Train Hall is an expansion of Pennsylvania Station, in the former post office

building, the James A. Farley Building. 15. Hotel Pennsylvania was demolished and in the now vacant plot, 15 Penn Plaza, also known as PENN15 and Vornado Tower, has been planned to be constructed by Vornado Realty Trust.

11



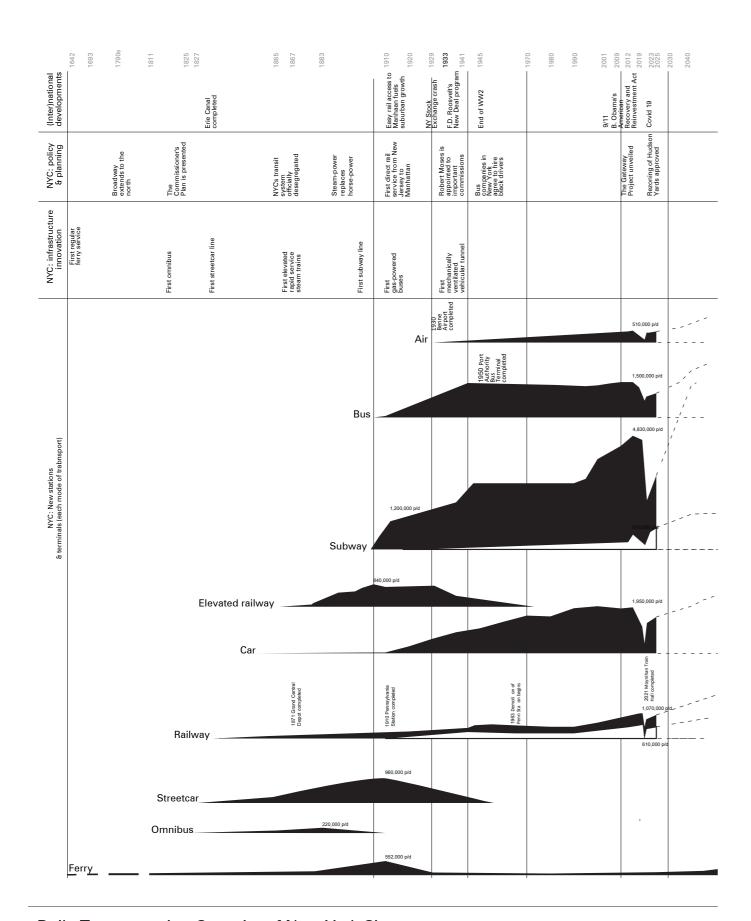


Development of Transportation

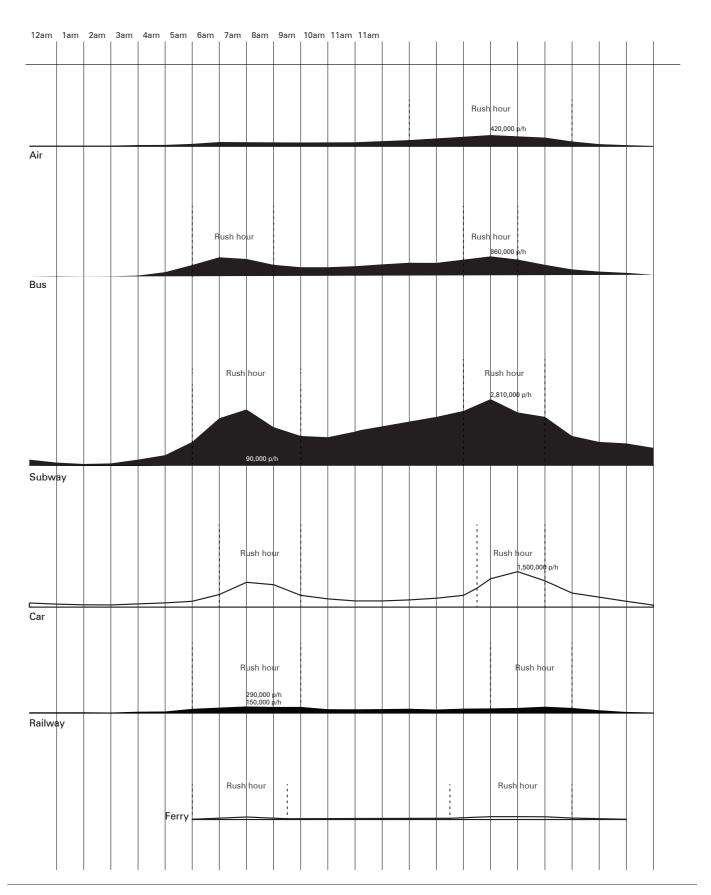
12

As the city expanded, the development of efficient modes of transport has allowed more people to cross greater distances more frequently across the densely knit island of Manhattan.

- 1. First regular ferry service starts in 1642
- 2. Broadway extends North in 1790s
- 3. First streetcar line opens in 1832
- 4. Railroad line to the East opens in 1850s
- 5. Railroad line to the North opens in 1850s
- 6. Railroad line to the West opens in 1850s
- 7. First elevated railroad opens in 1871
- 8. Brooklyn Bridge opens in 1883
- 9. Construction of Penn Station begins in 1903
- 10. First subway line opens in 1905
- 11. Hudson tunnels and Penn Station open in
- 1910 12. Newark Liberty Airport opens in 1928
- 13. Lincoln Tunnel opens in 1938
- 14. La Guardia Airfield opens in 1939 15. Idlewild International Airport -later renamed
- John F. Kennedy Airport- opens in 1948 16. Port Authority Bus Terminal opens in 1950
- 17. Grand Central Depot opens in 1971

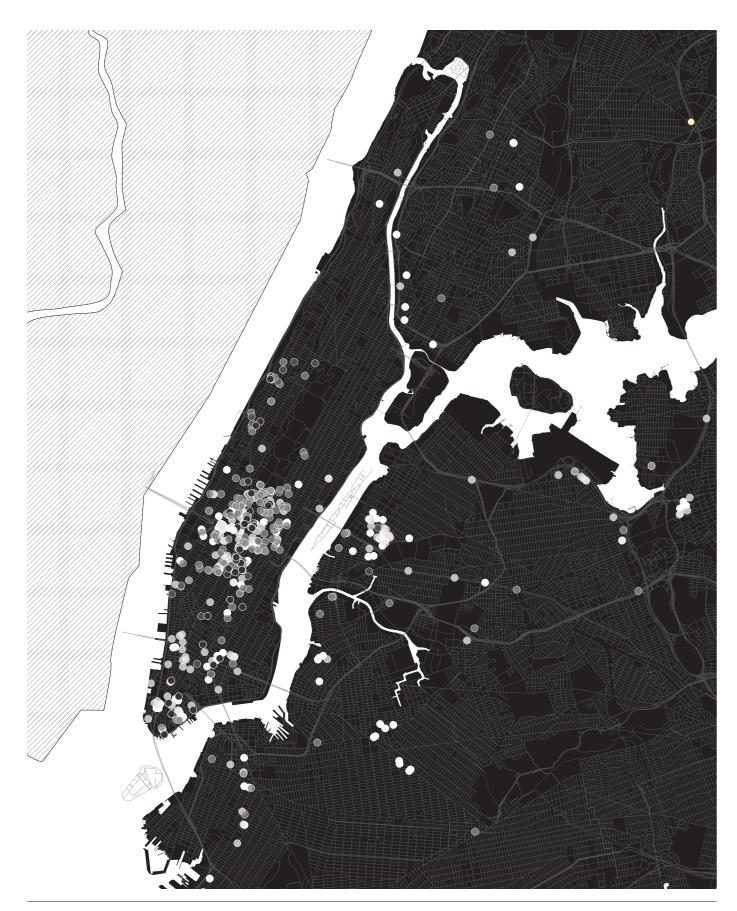


Daily Transportation Capacity of New York City



15

Peak Operating Hours



Development of Accommodation and Lodging

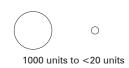
Historically, hotels were concentrated in Midtown Manhattan where most of the city's attractions were located.

Hotels by year of opening



Around 90% of public housing developments in New York City are situated within low-income neighborhoods, with about 21% found in areas undergoing gentrification.



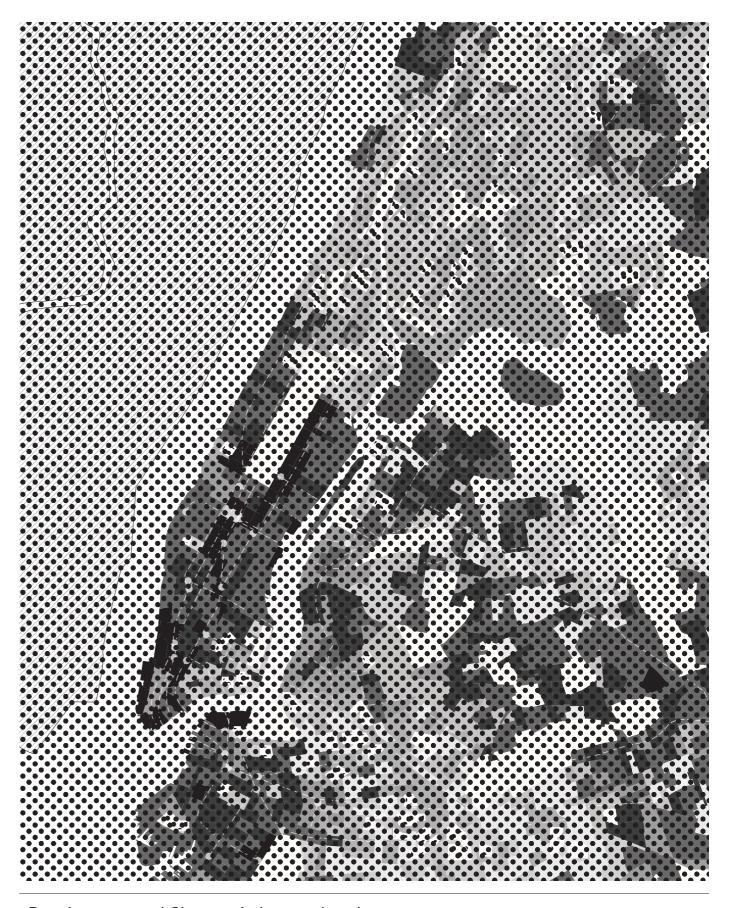




Development of Office Density

The majority of office buildings are in Midtown and Downtown Manhattan, with some smaller clusters in Brooklyn and Queens. Today, there are almost 9 million square meters of vacant office spaces in the city.

Office buildings



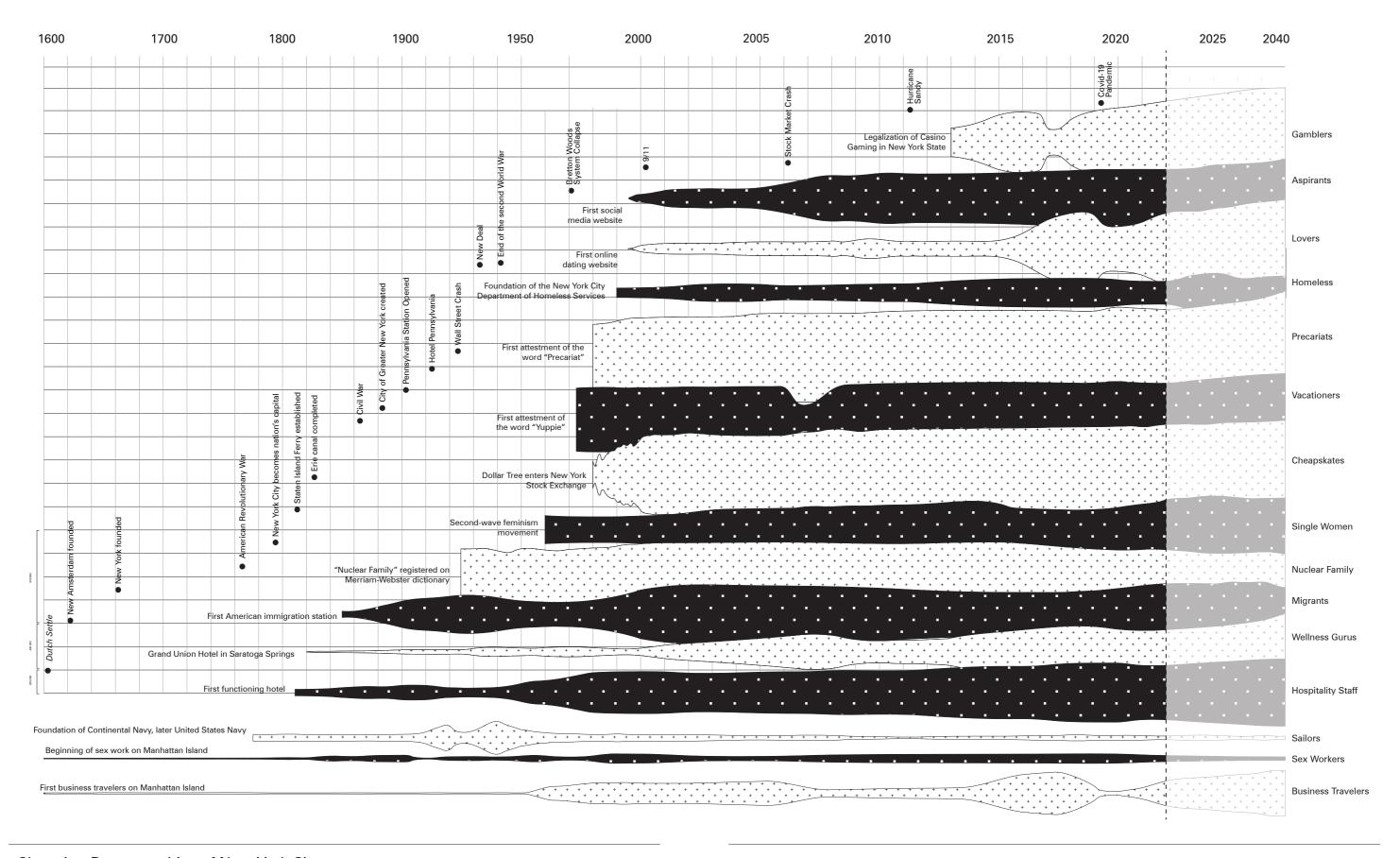
Development and Changes in Income Levels

Manhattan is one of the most expensive places to live, with an average of \$15,000—or EUR 14,000—per square meter. In the 515 census tracts of New York City today, 23% are situated in neighborhoods undergoing gentrification, while an additional 30% are in areas considered at risk of gentrification.

Degree of gentrification based on area median income

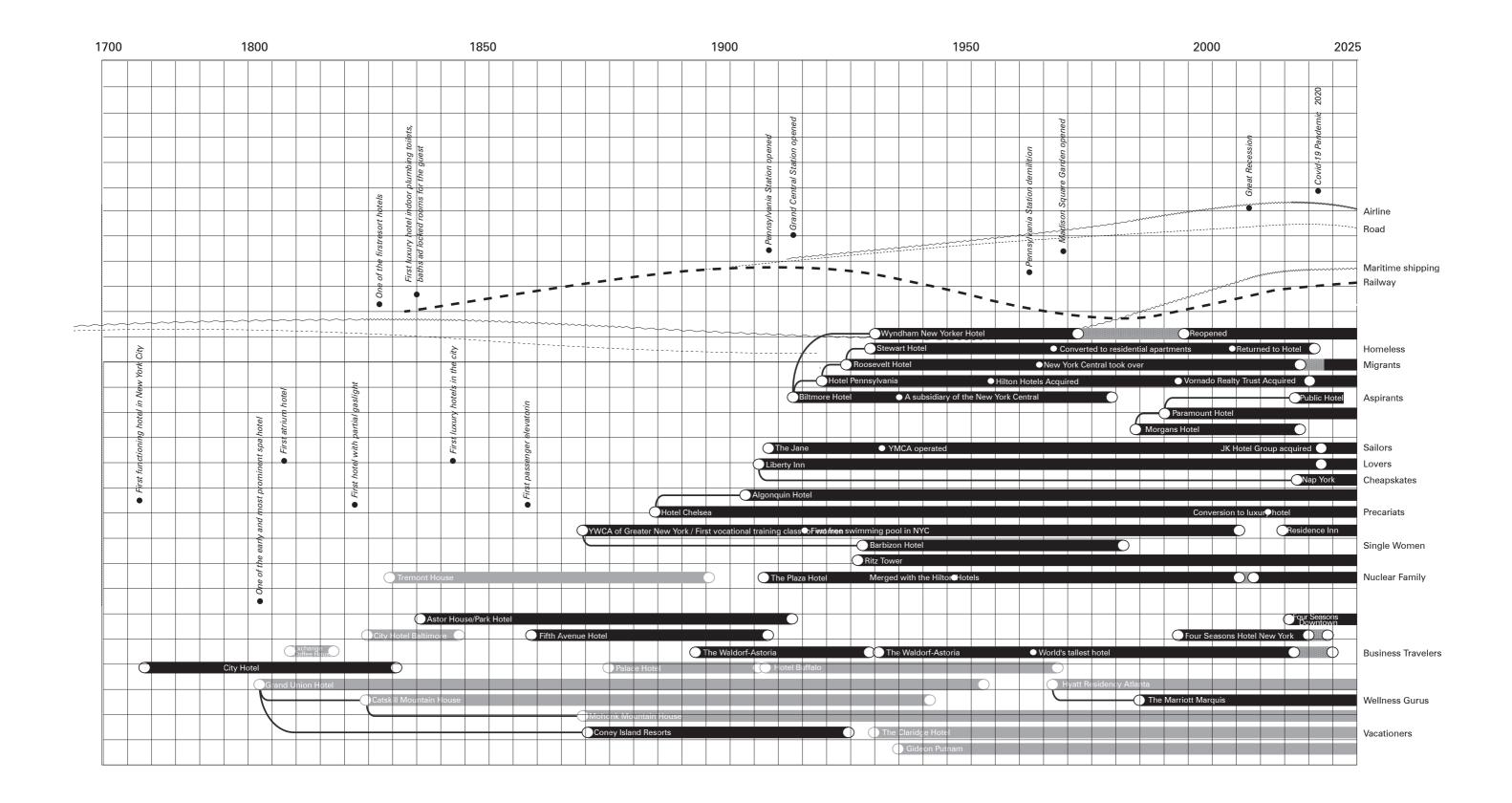
Current public housing stock

···· Metro lines



Changing Demographics of New York City

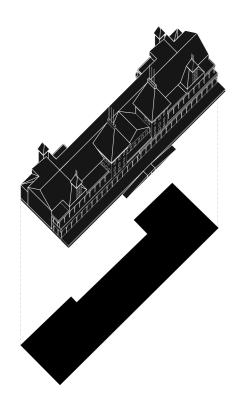
New York City has been the epicenter for immigration into the United States, especially from Europe, since the arrival of the Dutch in the seventeenth century. In recent times, various demographic groups have been introduced into the city's history, contributing to its diverse and dynamic tapestry. On top of this, as an economic and cultural center, New York hosts travelers for business and pleasure, welcoming many, along with their money.



Hotel Development in New York City

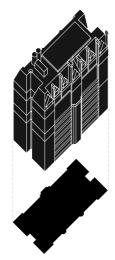
The beginning of the hotel as a building type dates to the late eighteenth century in the United States as a result of trade and commerce, and the development of new modes of transportation. In the first half of the twentieth century, hotels became the epitome of modernity—centers of mobility, temporality, and anonymity. With the increasing ease of traveling, hotel types expanded to meet the needs of new customers.

22





Brighton Beach Hotel opened in Coney Island in 1870, before it closed in 1924. The seaside resort was constructed near Manhattan, where it offered a place of residence and seclusion of 400 keys, while providing its guests with a highend amenity program.



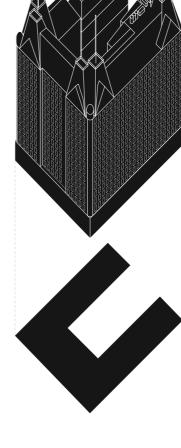
Hotel Chelsea 1884– Rooms: 250 Floors: 12 Case study for Precariats/Residential segment

The Hotel Chelsea opened in 1884. As one of the city's first private apartment cooperatives, it housed 250 keys before its renovation and reopening in 2022.



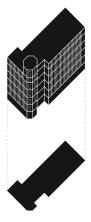
Liberty Inn 1906–2022 Rooms: 17 Floors: 3 Case study for Lovers/ Day segment

Built in 1906 by poultry wholesalers as the Strand Hotel, it was an old remnant of the Meatpacking District with a saloon on the ground floor that catered to sailors. It got its name in 1969, when it functioned as an afterhours sex club, shut down short after due to the AIDS scare. It continued to operate as an hourly hotel until 2022 when it was sold to Hyundai.



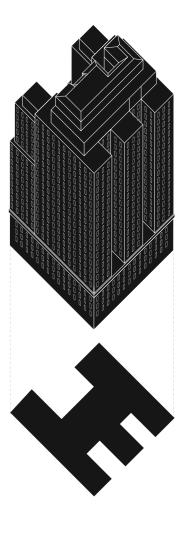
The Plaza 1907– Rooms: 463 Floors:18 Case study for Nuclear Family/Family segment

The luxurious hotel opened its doors in 1907 in Midtown Manhattan, next to Central Park. It continues to operate, offering a total of 463 keys, some of which are used as residences. Among the various room types, it offers a spacious family room. The hotel has often appeared in many movies, in which the main protagonist, a child, lived at The Plaza.



The Jane 1908– Rooms: 200 Floors: 6 Case study for Sailors/ Sailors' Boarding House segment

The Jane, a historic Sailors' Boarding House containing 200 rooms and cabins, opened in West Village in 1908 as the American Seaman's Friend Society Sailors' Home and Institute. It continues to offer accommodations to this day, now transformed into a boutique hotel with a maritime theme and vintage feel.

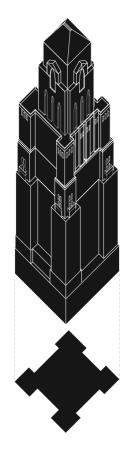


Roosevelt Hotel 1924– Rooms: 1025 Floors:19 Case study for Migrants/Migrant segment

The Roosevelt Hotel opened in Midtown Manhattan in 1924, with 1025 rooms. After its closure in 2020 due to the economic downturn of the covid pandemic, it reopened in 2023 as a shelter for asylum seekers.

Fourteen Case Studies

Hotels evolved to meet varying guest needs, resulting in a diversification of hotel types. Fourteen case studies from different time periods, all in New York City and each a different hotel type, are analized in their diverse spatial and functional characteristics, as well as in their relation to a specific guest.

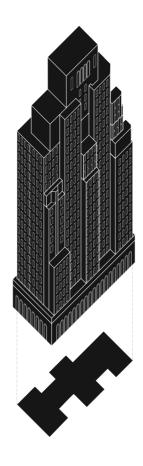




The Elk Hotel is a relic of Times Square's grungy past. It closed its doors in 2012, after almost a century of offering cheap short- and long-term accommodation to its guests.

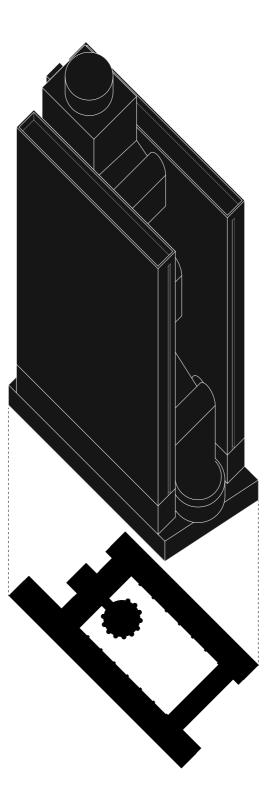


The Barbizon opened in Lenox Hill in 1927, housing 372 keys for women only. Before its renovation in 1981, it was a womenonly residential hotel, with a broad range of amenities to support women in all their needs.

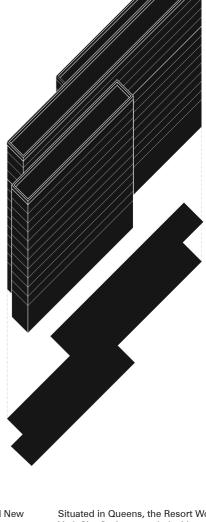


Stewart Hotel 1929– Rooms: 610 Floors: 28 Case study for Homeless/Homeless segment

The Stewart Hotel opened in Midtown in 1929. After several ownership changes, the hotel was converted in 2022 as a shelter for the homeless and/or asylum seekers with a total of 610 keys. Its primary focus is to provide care and compassion.



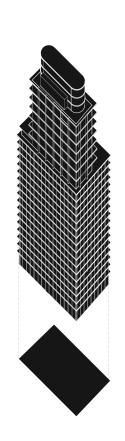
Marriott Marquis 1985– Rooms: 2023 Floors: 49 Case study for Business Travelers/Chain segment



Resorts World New York City 2012– Rooms: 400 Floors: 12 Case study for Gamblers/Casino segment Situated in Queens, the Resort World New York City Casino, coupled with an on-site Hyatt Regency hotel, operates as a racino. The distinction between a casino license and the current gaming infrastructure in the city lies in the authorization to offer table games such as poker or blackjack.

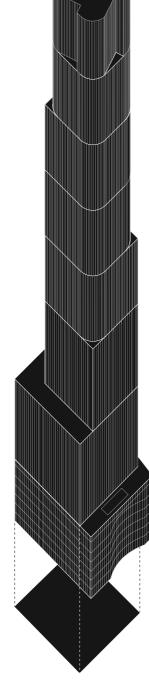
The Mariott Marquis, opened its doors on Broadway in 1985. With almost 2000 rooms, and over 100,000 m2 of convention spaces, it is

one of the biggest hotels in New York City.



Public Hotel 2017-Rooms: 367 Floors: 28 Case study for Aspirants/Boutique segment

The Public opened in Bowery in 2017 as part of lan Schragers' latest boutique hotel chain. Consisting of 367 keys, its aim is to make luxury accessible to all through comfortable accommodations and an extensive ray of private and public amenities.



Equinox Hotel 2019– Rooms: 212 Floors: 14 Case study for Wellness Gurus/Wellness Spa segment

The Equinox Hotel opened in Hudson Yards in 2019: a spa hotel launched by the Equinox fitness chain, comprising 212 keys and amenities focussed on fitness, relaxation, culture, and community. Office spaces and luxury housing are located at the bottom and top of the tower, respectively.

Nap York Central Park

Case study for Cheapskates/Capsule

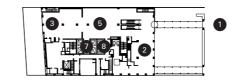
from the hustle of the city.

Nap York is a sleep station that offers sleeping

pods by the hour. It provides a tranquil environment for individuals seeking a brief rest

Rooms: 30 Floors: 3

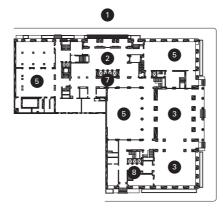
segment





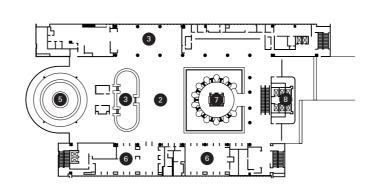
Public Hotel Rooms: 367

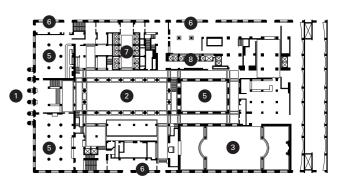
The Barbizon Rooms: 372



The Plaza Rooms: 463

Roosevelt Hotel Rooms: 1125





Marriott Marquis Rooms per floor: 2023 Hotel Pennsylvania Rooms per floor: 2200

Entrance Floor

As temporary accommodations, all hotels function according to the same fundamental principles: Guests are welcomed, guided to the entrance, and greeted at reception or check-in kiosk, receiving keys for access. After guests check in, they navigate to their accommodations and use a variety of amenities during their stay.



- 1. Street entrance
- 2. Lobby 3. Restaurant/Dining
- 4. Kitchen
- 5. Café/Bar/Lounge
- 6. Retail

7. Guest elevators 8. Service elevators

29





Liberty Inn Rooms per floor: 6

Hotel Chelsea Rooms per floor: 11



Equinox Hotel Rooms per floor: 18



Public Hotel Rooms per floor: 29



The Jane

4 m2

1.8 x 2.4 m

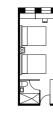
Elk Hotel 1.2 x 4 m 4.8 m2



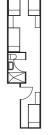
The Barbizon Public Hotel 2.8 x 3.6 m 3 x 6.5 m 10 m2 18 m2



Liberty Inn 3.4 x 6.5 m 22 m2



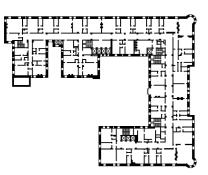
Stewart Hotel 3.2 x 7.5 m 24 m2



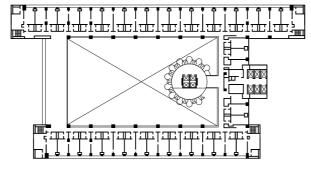
Nap York 2.7 x 11.5 m 27 m2



Roosevelt Hotel 4.2 x 9.6 m



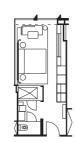
The Plaza Rooms per floor: 40



Marriott Marquis Rooms per floor: 50



Marriott Marquis 4.2 x 9.2 m 40 m2



tt Equinox Hotel is 4.2 x 10 m .2 m 42 m2



The Plaza 7.2 x 6.4 m 43 m2



Aria Rooms & Suits Las Vegas* 5.2 x 9.6 m

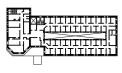


Four Seasons Orlando* 4.5 x 12.5 m 55 m2

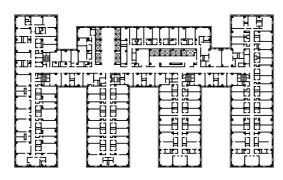


31

Chelsea Hotel 8.4 x 7.8 m 74 m2



The Jane Rooms per floor: 59



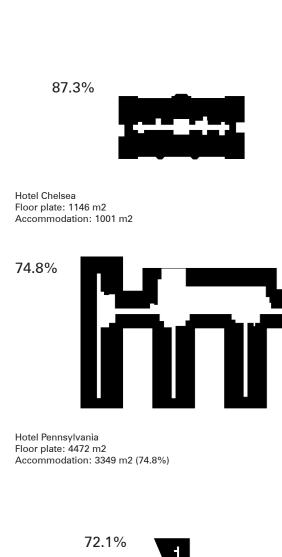
Hotel Pennsylvania Rooms per floor: 121



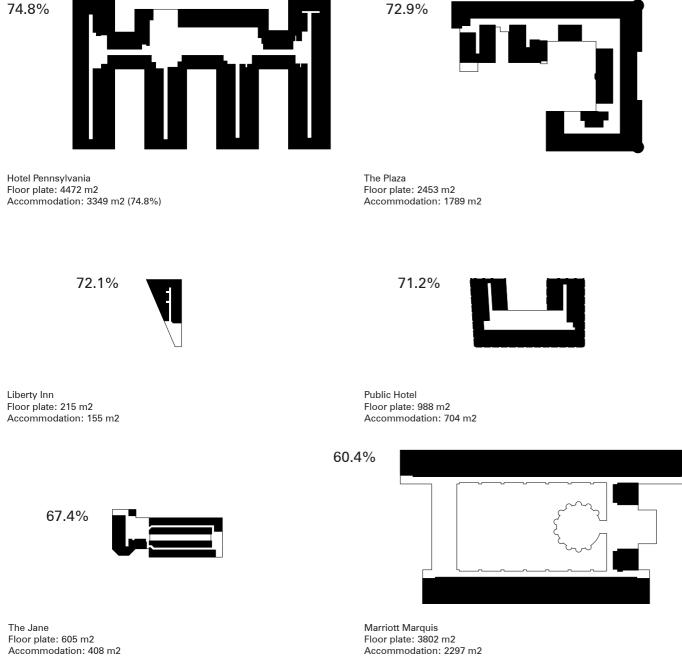


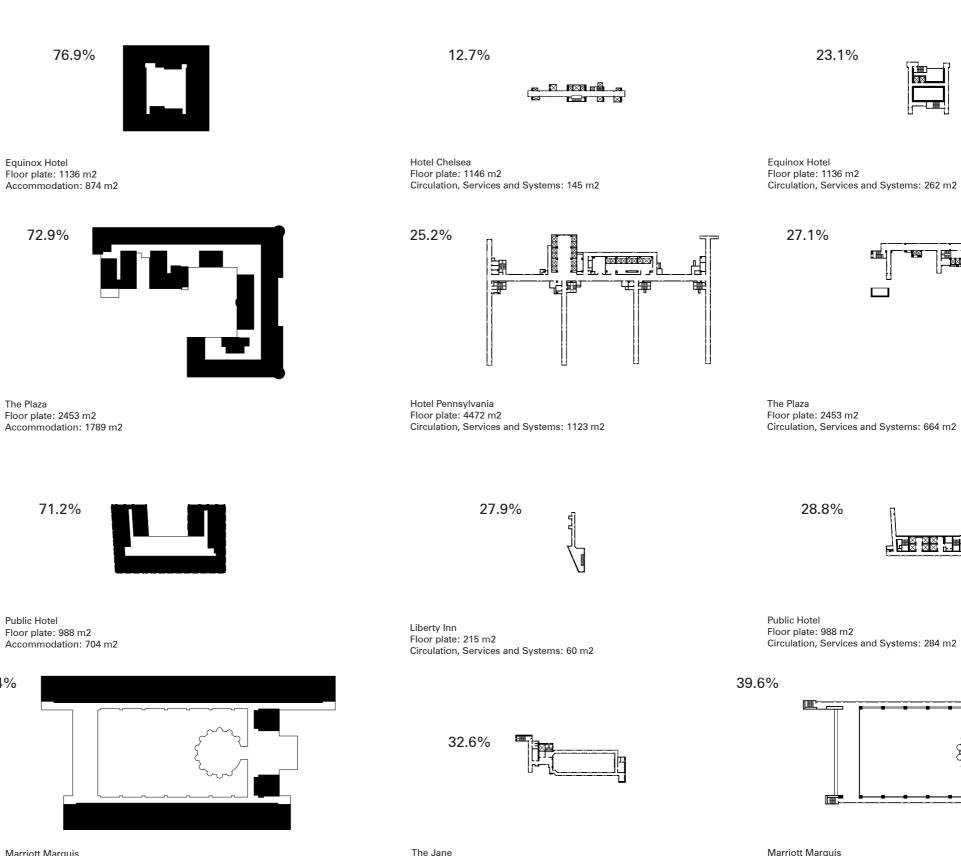
Fourteen Hotel Rooms

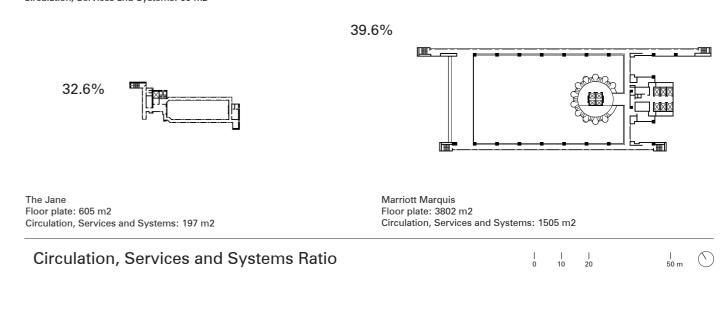
The characteristics of the hotel type and its targuet guest are reflected in the room's size, spatial configuration, furnishings and room amenities.



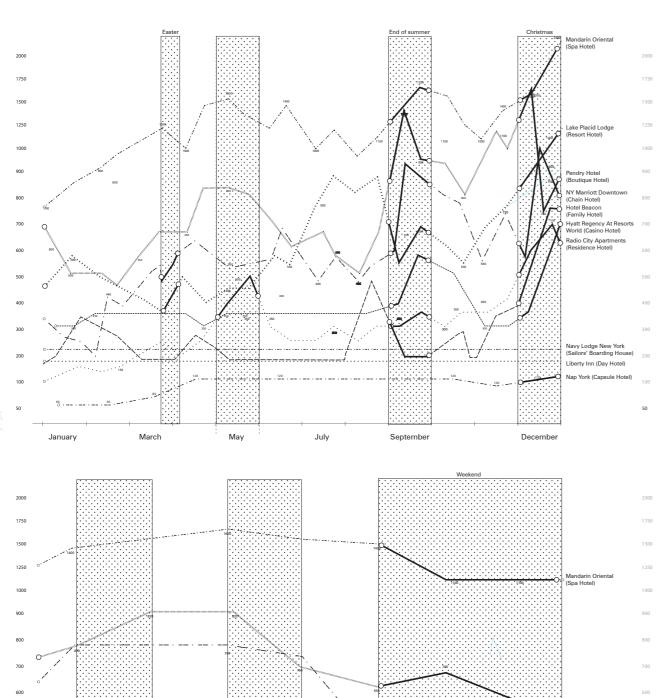
Accommodations Ratio

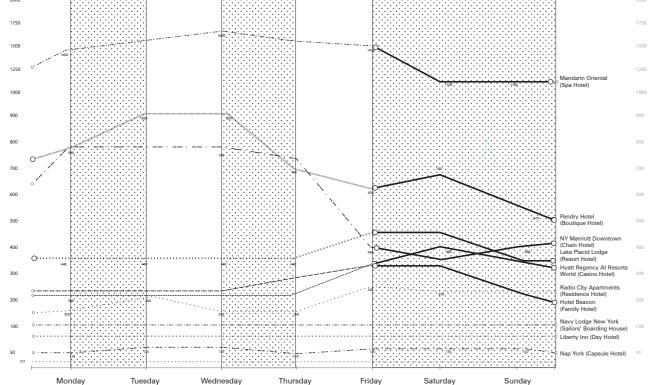






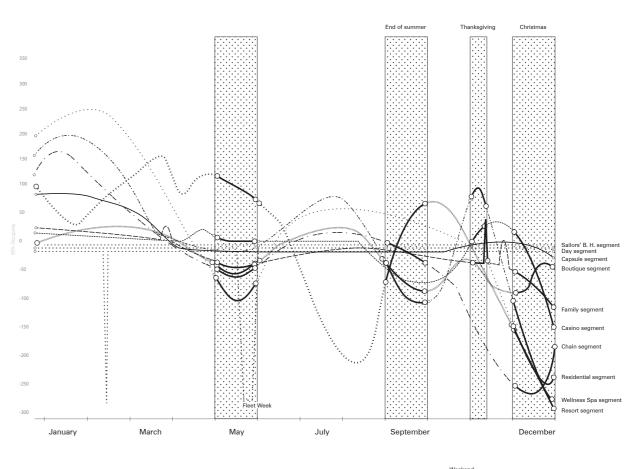
I 50 m

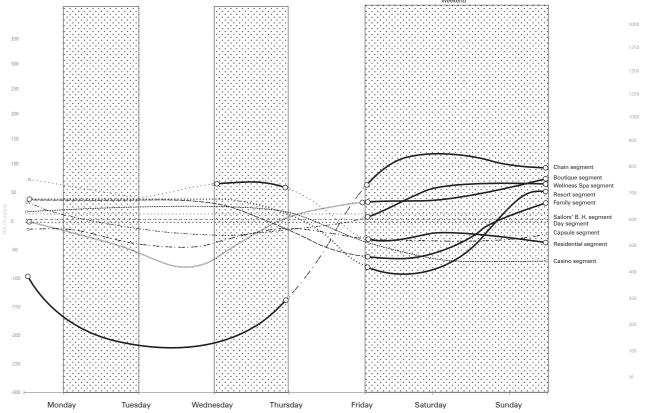




Yearly/Weekly Hotel Prices per Type

These diagrams map the yearly and weekly hotel price fluctuations based on different hotel-type precedents.





Projected Yearly/Weekly Room Availability per Type

A visualization of the projected occupancy and room availability of each hotel type throughout the year based on the size as a way to map potential seasonal occupancy compensations.

Skyscraper Museum

The Skyscraper Museum tour in NYC traced a timeline of significant skyscraper landmarks, spanning from the Landmarks Preservation Commission's inception in 1965 to the completion of the AT&T Building in 2018. Insight from the tour guides delved into city commission dynamics, exploring the impact of appointed mayors and diverse commissioner backgrounds. The evolution of landmark designations initially focused on Midtown and later downtown. Museum maps showcased designated skyscrapers, highlighting Manhattan schist's (bedrock) role and financial factors influencing locations.

A section spotlighted the Empire State Building's early 2000s restoration, addressing disrepair

and past modifications. Led by preservation architect Byran Linda Bell, the restoration, approved by the Landmarks Preservation Commission, involved replacing marble, restoring an Art Deco chandelier, and creating a new typeface. The guides pointed out the historical significance of the Bankers Trust Building, emphasizing the need for comprehensive designation reports to prevent loss to development. The AT&T Building, a 2018 landmark, exemplified adaptive preservation in a postmodern style.

Air rights and zoning emerged as crucial elements in NYC's preservation landscape, sparking public debates. The collaboration between the Landmarks Preservation Commission and building owners, fueled by federal historic preservation tax credits and tourism, played a pivotal role

in landmark decisions, underlining the intricate balance between preservation and development.

Skidmore, Owings & Merril

The meeting with the architecture firm began with a tour of the firm's 20th floor New York City office. The office values collaboration spaces, open areas, natural light, and acoustic solutions. The tour covered dedicated collaboration spaces, a double-height forum, material research, technology's role, flexible workspace usage, and overall comfort in the office environment.

Following the tour, a discussion on skyscrapers and hospitality took place, featuring two main projects. One project focused on a prominent super tall tower in Midtown, deemed a mega-project,

Saturday

documentation

The Barbizon

Four Seasons

The Ritz-Carlton

The Roosevelt

Hotel

Hotel

Sunday Monday Tuesday Site visit Remnants of Penn 7th Avenue and Station Museum 32nd Street and Tour with Justin demolition of Rivers Hotel Pennsylvania

Hotel Nap York Marriott Marguis Paramount Hotel

Vornado Realty Meeting with Barry Langer and Patrice Derrington

documentation: The Jane Liberty Inn

Archive visit New York City Municipal Library Skyscraper Tour, presentation and discussion

> Skidmore, Owings & Merrill (SOM) Tour, presentation and project

Wednesday

Guy Nordenson Associates Presentation and project discussion

Hotel documentation

Resort Worlds

Casino

Thursday

Columbia University Asset course on hospitality and real estate

> Hotel tour Equinox Hotel

Friday

documentation The Standard Hotel PUBLIC Hotel Hotel Chelsea The New Yorker Algonquin Hotel design and collaboration was emphasized, showcasing an office redesign project for health and wellness.

while the other highlighted low-

carbon skyscrapers. The impact

of the pandemic on workplace

The conversation delved into a research project centered on environmentally friendly, highperformance buildings. This included a manufacturing facility and research center dedicated to exploring low-carbon materials. Later, the focus turned to an indepth exploration of the Urban Sequoia project, aiming to design buildings that mimic trees and actively absorb carbon. The design featured an integrated construction approach, a concrete shell, a timber floor, and a cavity for air distribution to surpass netzero carbon emissions.

The presentation underscored the importance of flexibility in building design, incorporating technologies like solar glass, photovoltaics, and direct air capture for sustainability. The envisioned building network contributes to a forest-like system of structures for environmental benefits. The meeting concluded with a video presentation showcasing the Urban Sequoia project, addressing reduced embodied carbon, clean energy production, and an extended building lifespan.

Guy Nordenson Associates

The consultation with Guy Nordenson Associates aimed to gather expertise in designing the structure of a skyscraper featuring diverse hotel programs. The primary focus was on overcoming challenges related to core structure and fostering innovative design to shape a

distinctive communal space. The engineers emphasized

the resilience of reinforced masonry structures, spotlighting variations like cage-frame and skeleton frame constructions. The discourse also touched upon strategic material choices, including the use of timber with a height limit of 85 feet. Exploring the dichotomy between heavy and light structures, the conversation underscored the role of glass facades in light structures for optimal views. The engineers discussed the benefits of redundancy and reducing weight, proposing potential integration of masonry for infill or load-bearing functions, challenging conventional perceptions of skyscrapers as exclusively glass towers. Further discussions revolved around the relationship between structure and core, examining ad-hoc structures like the Seagram building and moment frames, alongside innovative concepts like outrigger trusses meeting the core. Superstructures were positioned as primary elements, complemented by adaptable and lighter secondary structures aligned with a Metabolism approach. Additional considerations included sitespecific factors such as bedrock presence, potential subway rails below, and the utilization of trusses for spanning tracks. The meeting concluded with insights into the significance of skylobbies, the flexibility of secondary structures, and considerations for spread footings contingent on-site conditions.

Remnants of Penn Station Tour

Justin Rivers, the enthusiastic tour guide, led a captivating

exploration of Penn Station, weaving personal anecdotes and historical insights. His roots in New York and a 25-year obsession with Penn Station, dating back to his Fordham University days, added a personal touch.

The two-hour tour delved into Penn Station's rich history, from its grand opening in 1910 to the controversial demolition and the subsequent construction of Moynihan Train Hall. Using images, Jason showcased the station's original grandeur, drawing parallels with Roman baths and European architecture. Exploring the station's layout, Rivers touched on challenges faced by non-vehicle travelers, navigating areas like Seventh Avenue. He detailed the original driveways, courtyards, and waiting rooms, which have long been replaced by retail and high-traffic concourses. The back area discussion covered baggage carousels, entryways, and historical lighting fixtures. Art installations, redevelopment plans, and controversial proposals were also addressed, emphasizing the significance of oftenoverlooked details.

Jason's narration extended beyond Penn Station to Hotel Pennsylvania, touching on its failed restoration plans and proposed redevelopment. He discussed the challenges of preserving historical landmarks, the potential relocation of Madison Square Garden, and the historical context of Gimbels Mall. Concluding with the latest Penn Station renderings, including art installations and the challenges faced during its original demolition, the tour provided an in-depth insight onto the complex history of renovation and development around Penn Station since the 1960s.

Expert Conversations

Ten-day schedule of fieldwork in New York City, along with summaries of conversations we had with experts from different fields.

Hotel visit

One Hotel

Hotel

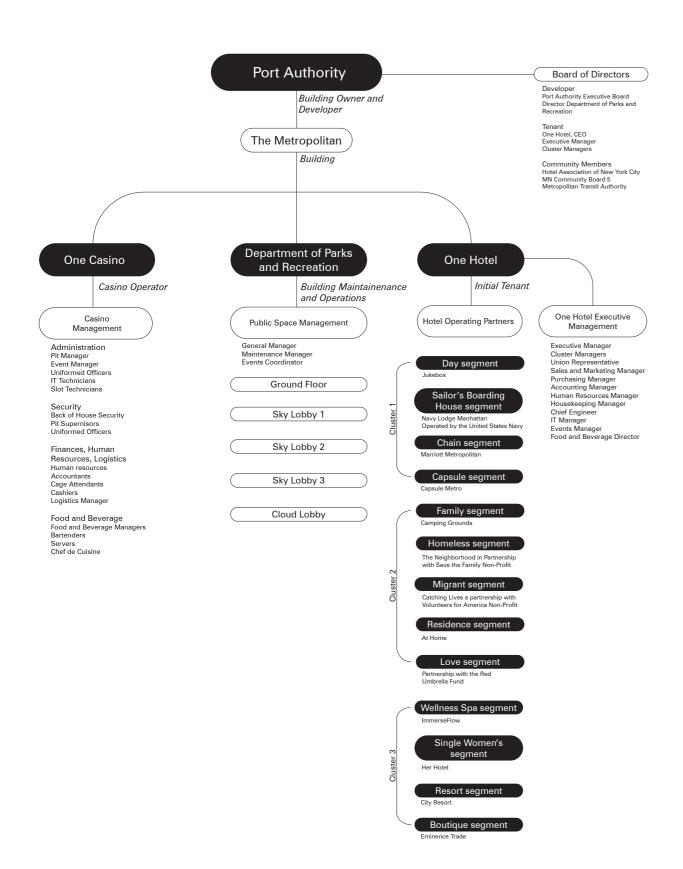
Brooklyn Bridge

documentation

Waldorf Astoria

Archive visit

New York City Municipal Library



A casino where gamblers are dealt a good time.

A boarding house that refreshes enlisted sailors.

A day hotel where lovers cross paths and share fleeting intimacies.

Capsules that treat cheapskates with a good deal.

A chain hotel that entices business travelers to extend their journey.

A family hotel that all members of the nuclear family can enjoy.

A homeless hotel that invests in children's better future.

A migrant hotel that shelters those on long-term relocation.

A residential hotel that is (almost) home to precariats on the move.

A love hotel where sex workers and customers can be intimate in a safe environment.

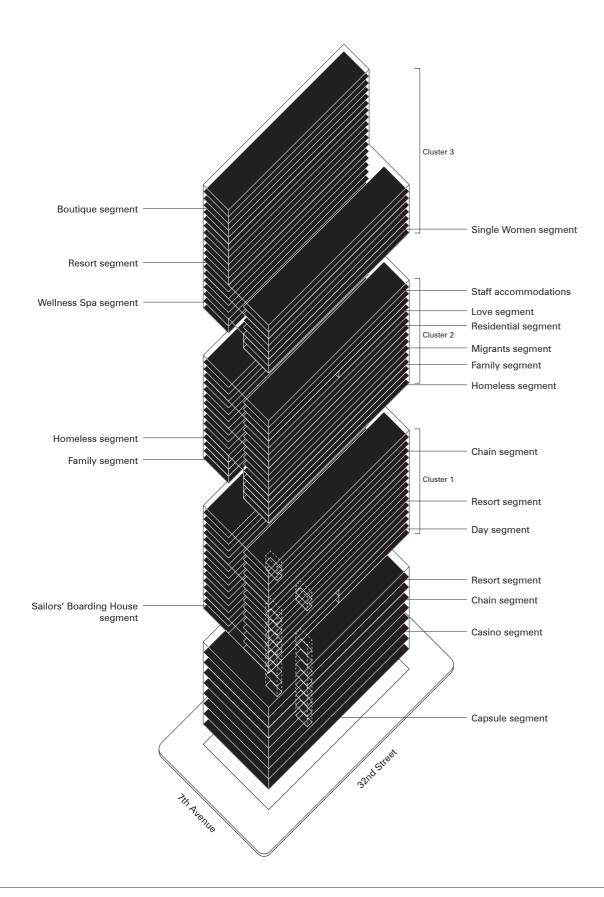
A wellness spa that blends sensory treatment with water-enhanced tranquility.

A resort that indulges vacationers in a manicured paradise.

A single women's hotel that supports women to live freely and confidently.

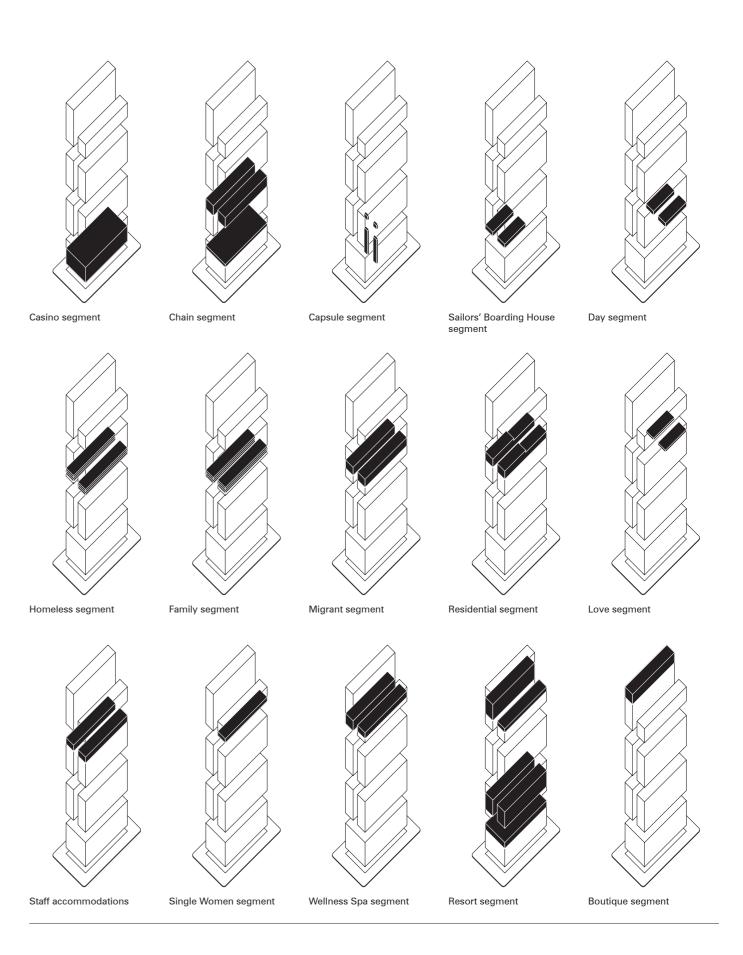
A boutique hotel that elevates aspirants' real life and online presence.

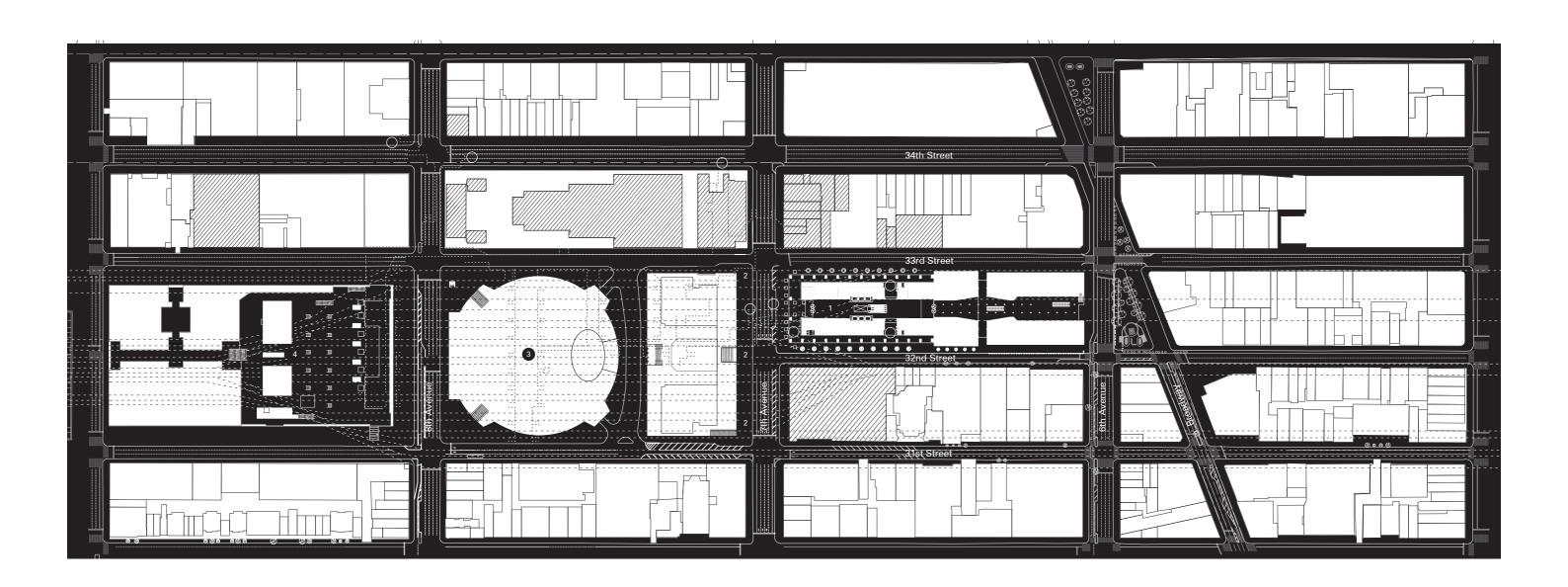
Hotel Ownership and Operation Diagram





The fourteen segments are arranged in clusters in the building. The first cluster has hotel accommodations and amenities intimately connected to the life of the city. The hotel types of the second cluster are associated with longer-stay accommodations and amenities. The accommodations in the third cluster are more private in nature. They are still connected to the city, but this connection occurs through views, rather than through the public invitation at the base of the building.





Site Plan

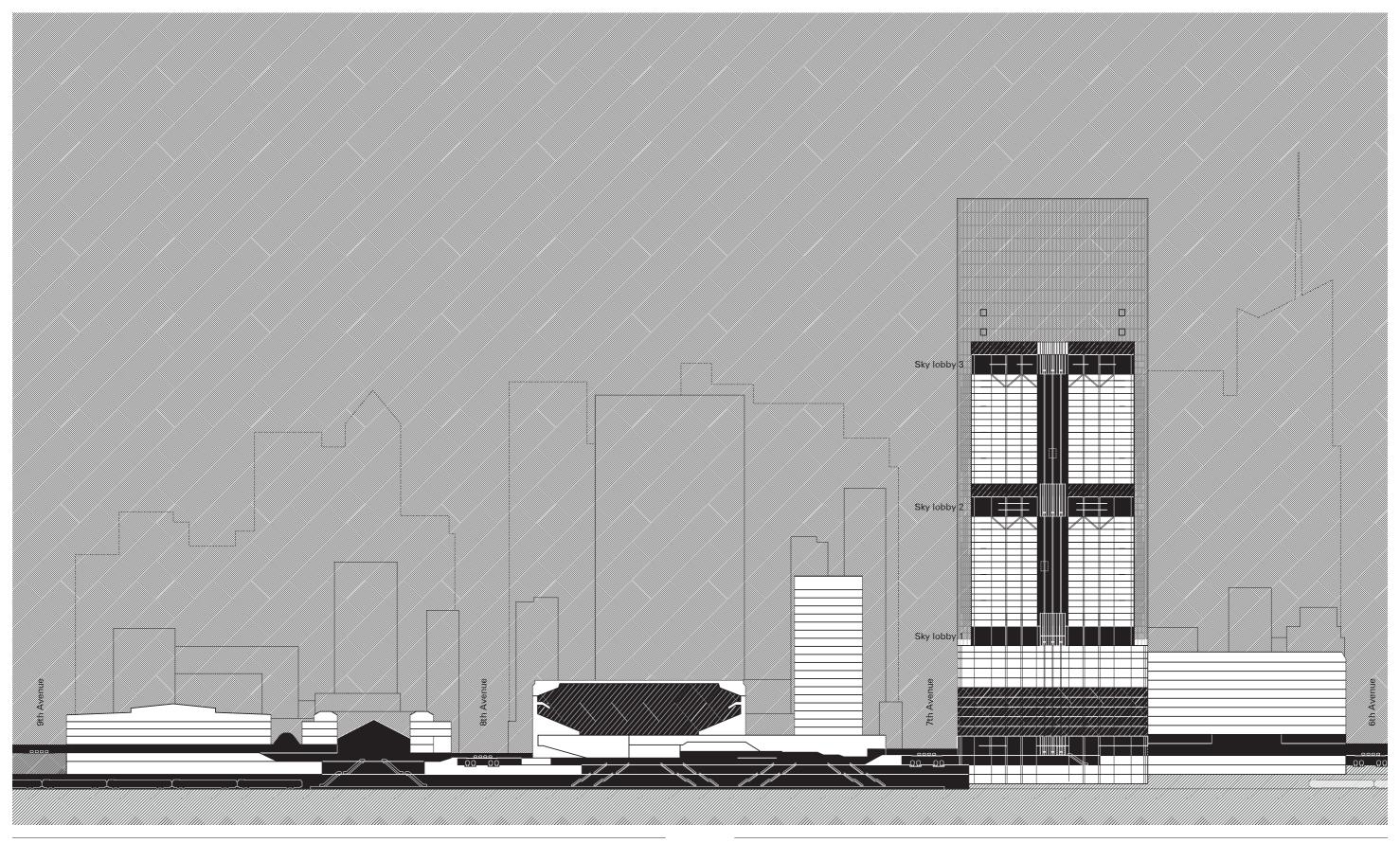
The Site of The Metropolitan is largely influenced by the Pennsylvania Station which runs below Madison Square Garden. The entrances to the station are at several points around the site thus leading to a complex underground network. The Moynihan Train Hall, redeveloped in 2020, is an above ground part of Pennsylvania Station and contributes to the commuter traffic. Besides the density of the site the details of ownership and real estate are important factors to note. The Vornado owned and development sites around The Metropolitan have a great influence on the design decisions that are taken for it. This would eventually modify the current nature of the site.



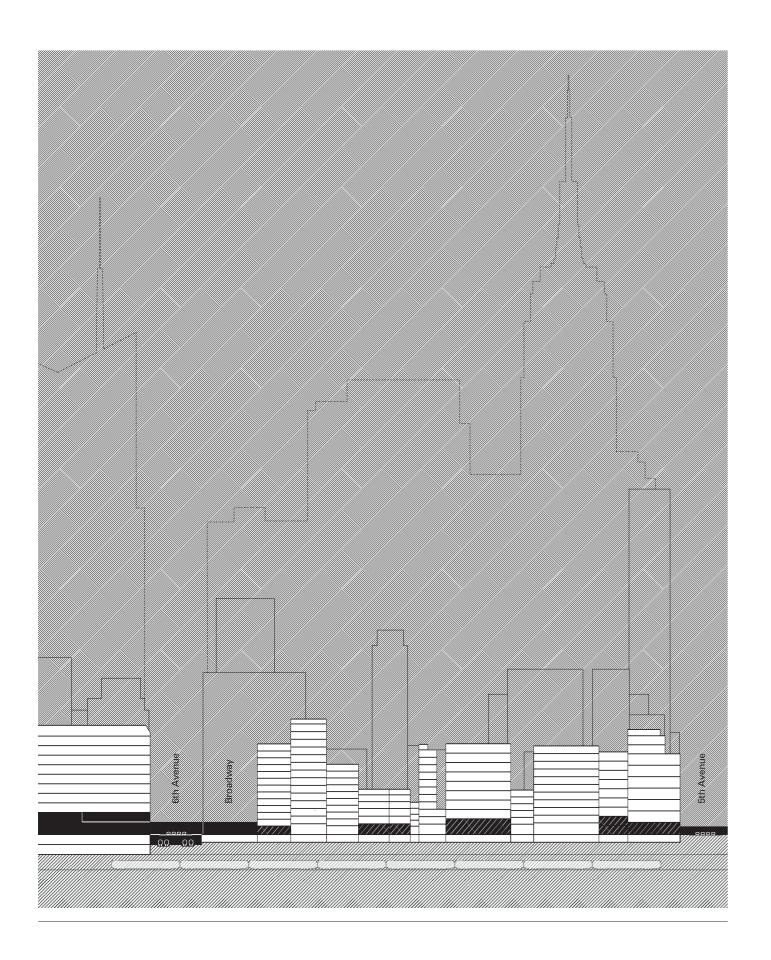
50

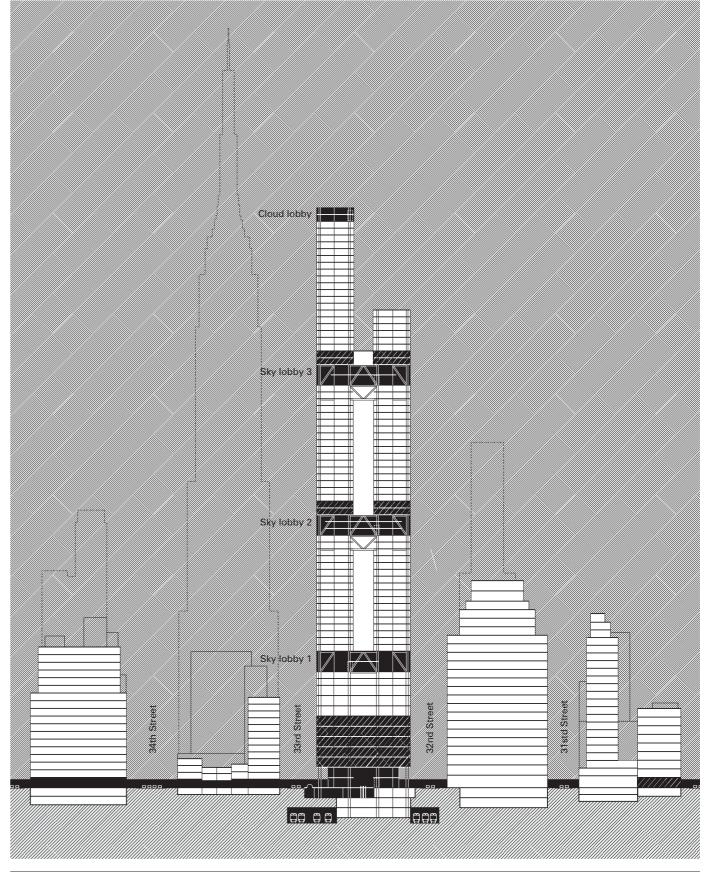
m ()

- The Metropolitan
 Access to Penn
- Station 3. Madison Square
- Garden
 4. Moynihan Train
 Hall
- Public space
 Subway exits
 Vornado property
- --- Penn Station tracks
 --- Lower level commute
- --- Lower level com

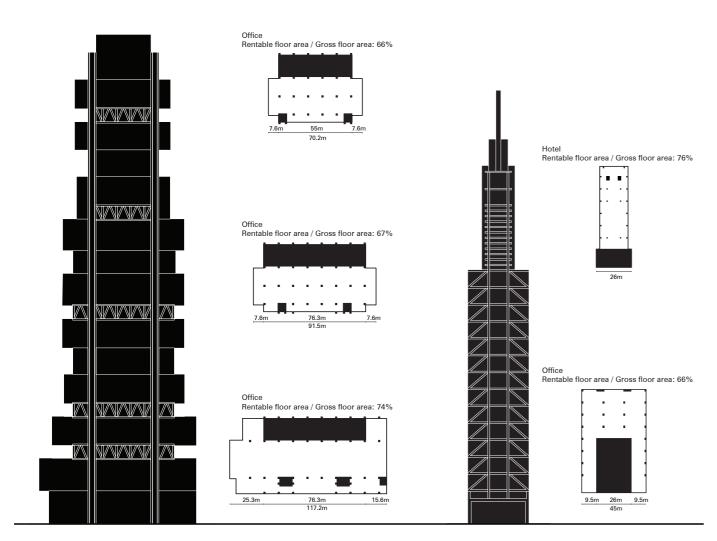


Context Section East-West





Context Section North-South



The peripheral core in PENN15 is designed to provide large office space to attract high-end tenants.

Off-set cores of different sizes at different heights in the Comcast Technology Centre give the office and hotel their own spatial flexibility.

Hotal
Rentable floor area / Gross floor area: 71%

Office
Rentable floor area / Gross floor area: 75%

Office
Rentable floor area / Gross floor area: 75%

Office
Rentable floor area / Gross floor area: 63%

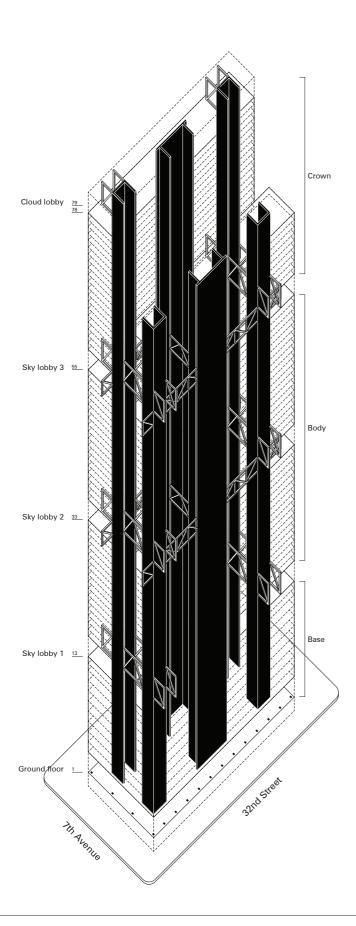
Office
Rentable floor area / Gross floor area: 63%

Office
Rentable floor area / Gross floor area: 63%

The decentralized cores of HSBC reduce the area ratio of the cores through a structural system enhanced by the association of multiple cores.

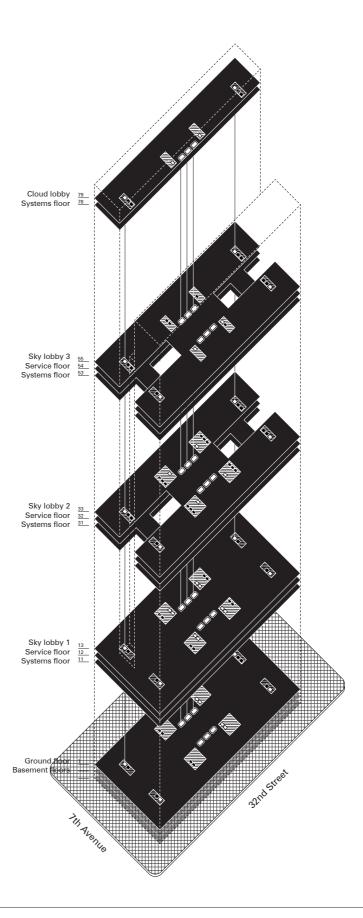
Kingkey 100 embodies the high potential of an outrigger structural system, and the core shrinks with increasing height and splits from the central core into two atrium cores.

Skyscraper Core and Structure Case Studies



Structure Axonometric

Symmetrical cores and trusses increase the structural efficiency, thus reducing core sizes. The cores are divided into three six smaller cores along the length of the building, leaving adaptable open spaces, and allowing for differing arrangements between hotel types across the floors. The lateral load is absorbed by an outrigger truss system that stiffens the building. Where the outrigger trusses are located, big open spaces with long spans become possible, which is desirable for public amenities.

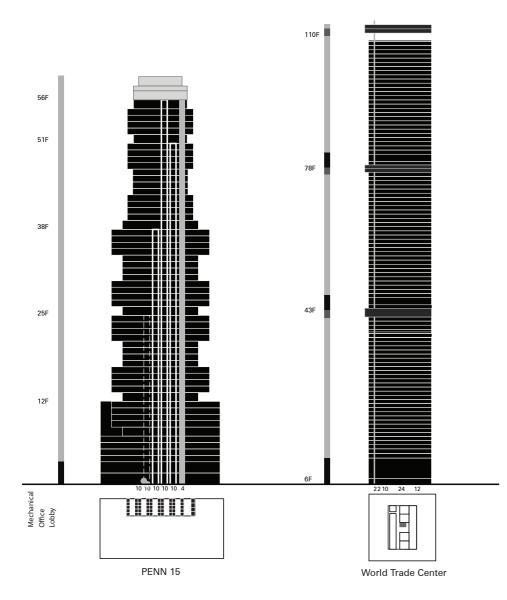


Vertical Circulation Axonometric

The vertical circulation is composed of three elevator systems: Metro Express, express, and local. The Metro Express connects with the subway, and stops on the ground floor, sky lobbies and observation deck. The express and local elevators are separated according to guest (central cores) and service use (corner cores). The express elevators stop at public and service floors, while the local elevators shuttle inside designated clusters.

Guest elevator core

Service elevator core



Office building high-rise like PENN 15 uses a straight-forward elevator scheme where the elevators connect the ground floor to a set of higher floors.

Sky lobby is a typical elevator scheme employed to reduce shaft space, and improve the efficiency of the elevator system. It acts as an intermediate interchange floor where people can change from an express elevator to a local elevator that stops at a subset of higher floors.

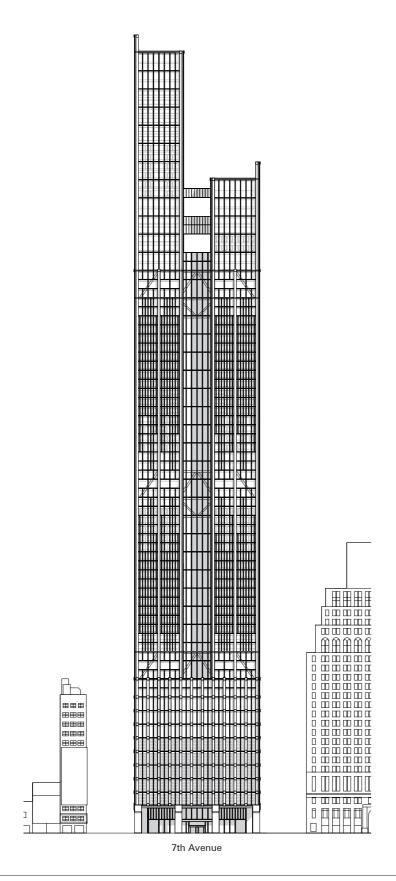
75F

Shenzhen Jingii Tower

In the case of a mixed-use skyscraper with office and hotel, Kingkey 100 has a more complex elevator system with different ground access, one sky lobby for its office space, one check-in lobby for hotel, and an observational deck.

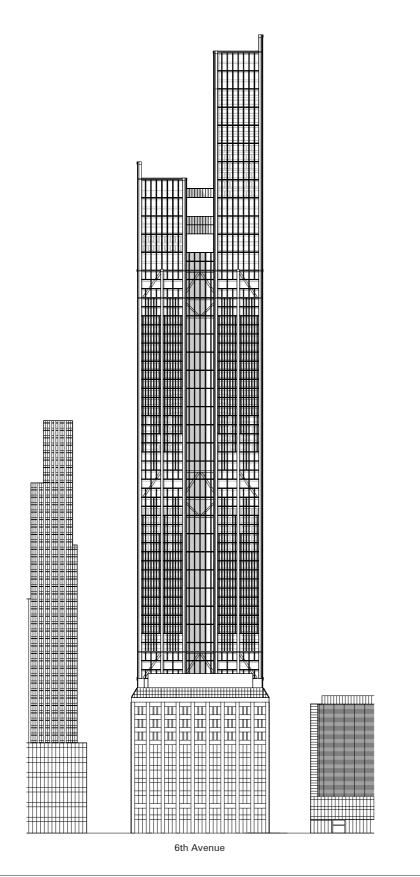
When envisioning a mixed-use highrise with office, residence, and hotel, the sharing of amenities floor is achieved through additional express elevators.

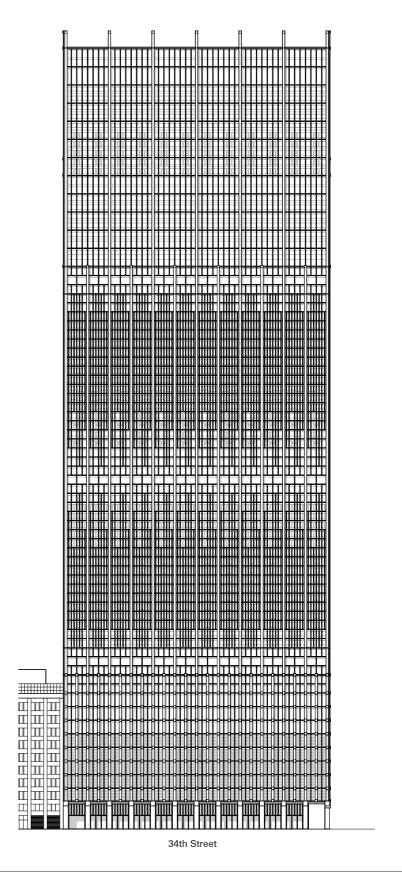
Skyscraper Elevator Case Studies

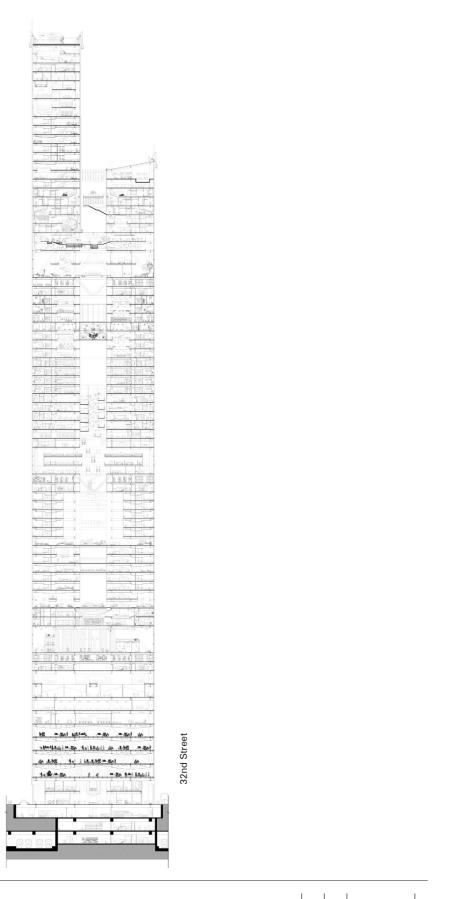


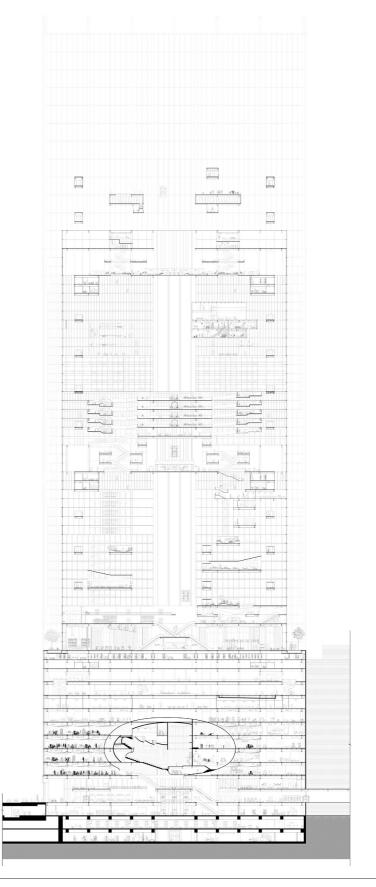
33rd Street

Tower Elevation - West Tower Elevation - South



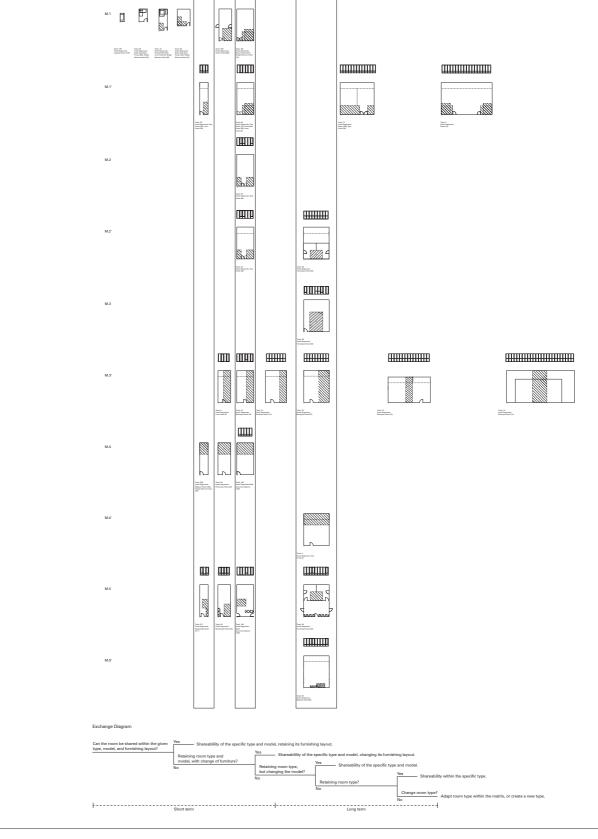






Tower Section North-South Tower Section West-East

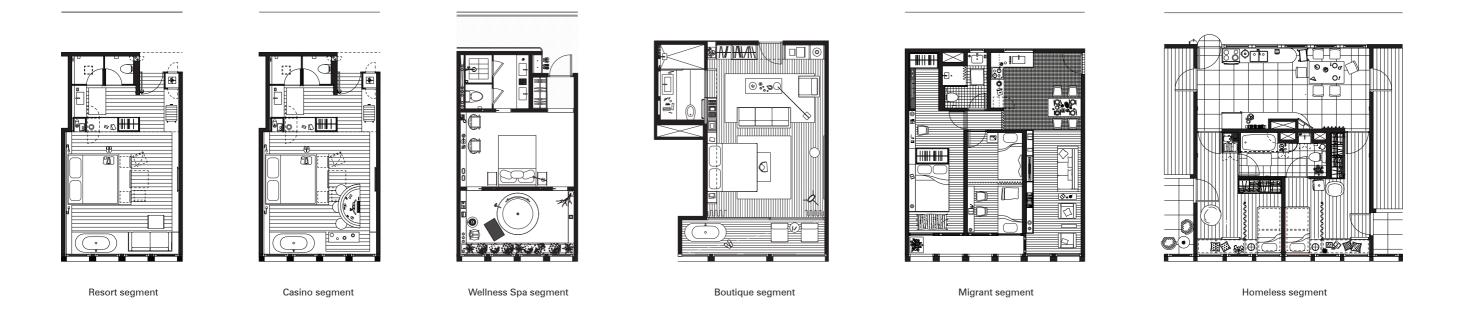
0 Casino segment 72 Day segment 100 Sailors' Boarding House segment 160 Capsule segment 300 Chain segment 112 Family segment 84 Homeless segment 264 Migrant segment 365 Residential segment 40 Love segment 130 Wellness Spa segment 112 Single Women's segment 508 Resort segment 70 Boutique segment 180 Staff Accommodation 2497 One Hotel Total Keys



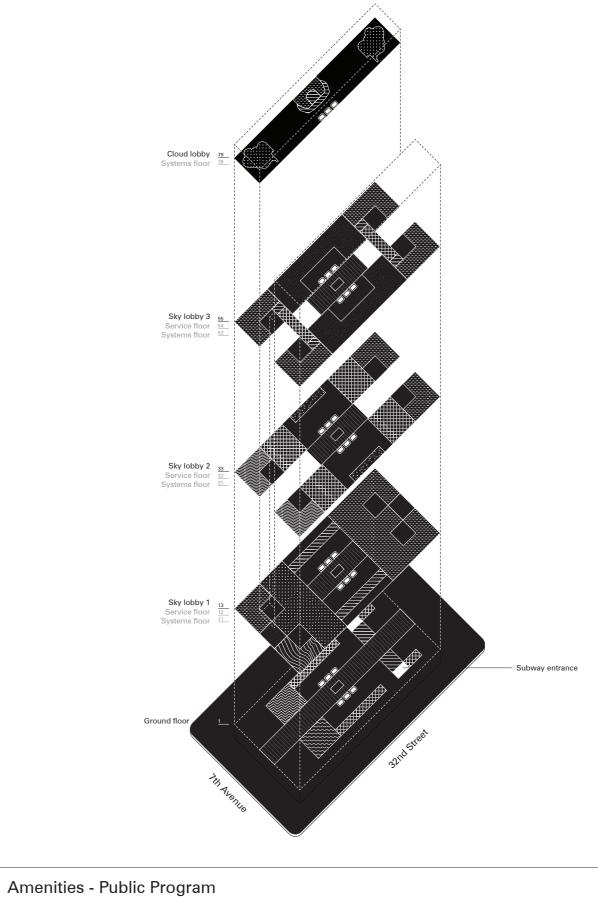
Accommodation Matrix

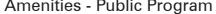
One Hotel Keys



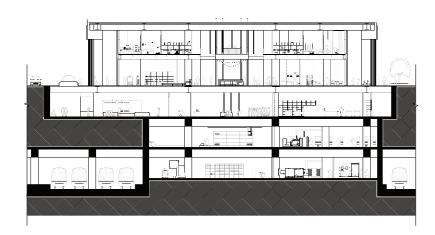


Typical Room







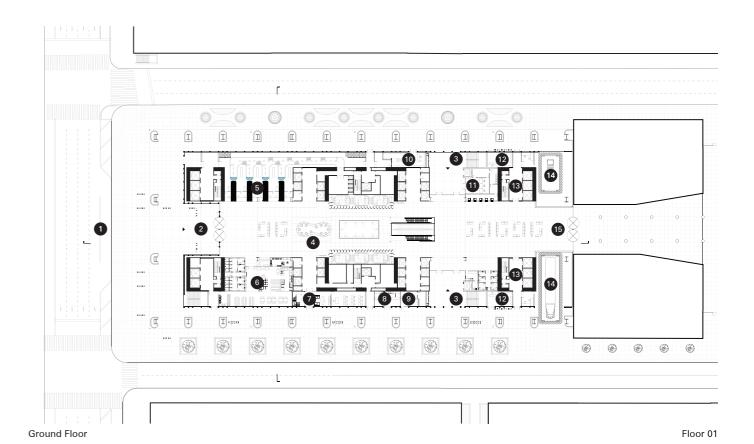


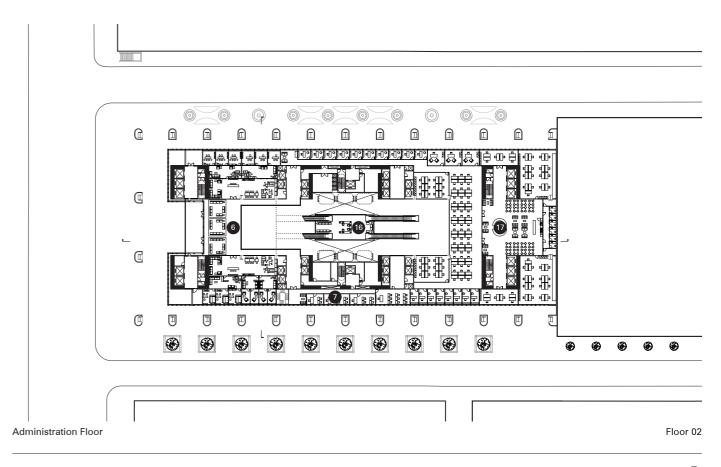
Cross Section of Basement and Ground Floor



Longitudinal Section of Basement and Ground Floor

Ground Floor





1. Motor lobby

4. Reception

facility

6. Migrant

2. Entry plaza 3. Subway entrance

5. Luggage drop-off

7. Language center

8. Coffee shop

9. Post office

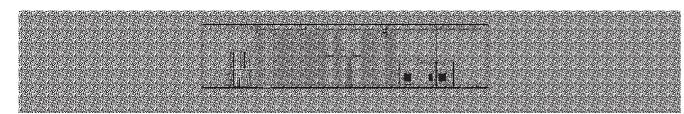
welcoming center

10. 24/7 convenience

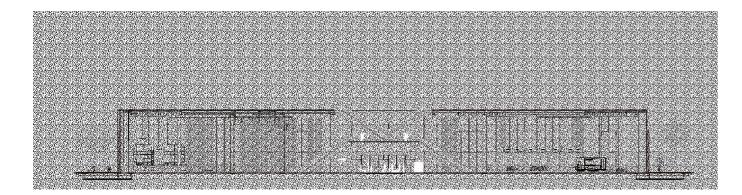
store 11. Bank 12. Flower shop 13. Staff entrance

14. Truck elevator to loading dock below

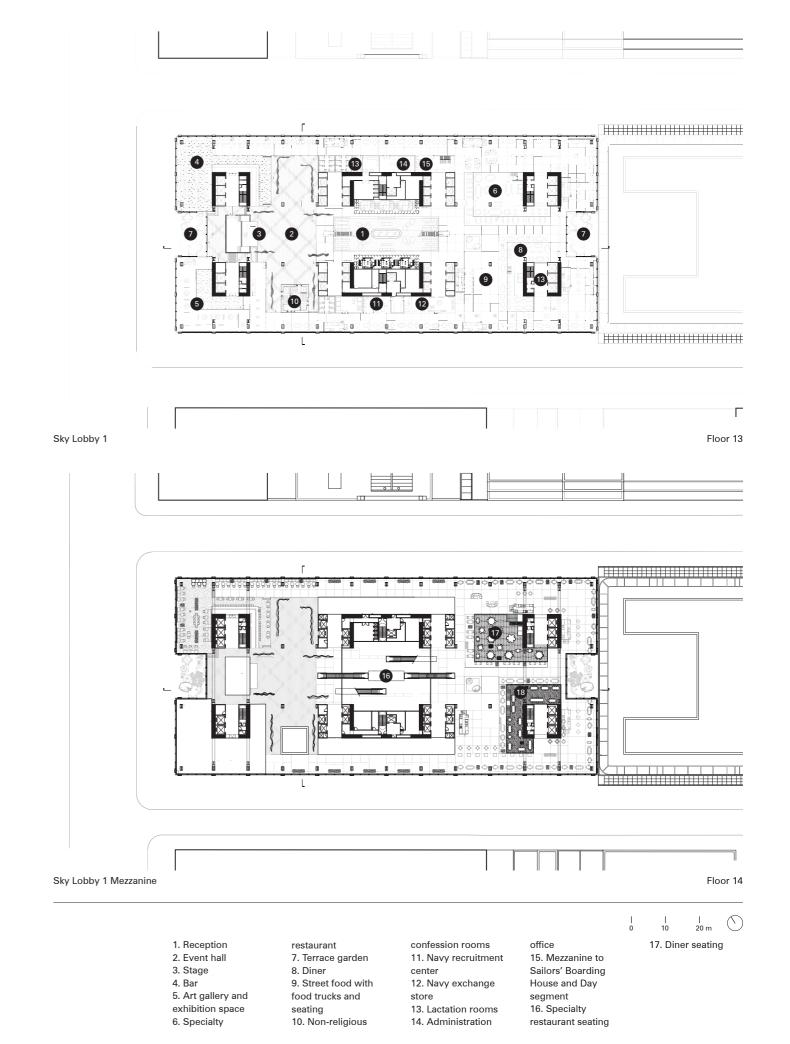
15. Link to Manhattan Mall 16. Casino security check-point 17. One Hotel administration offices

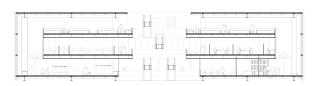


Cross Section of Sky Lobby 1

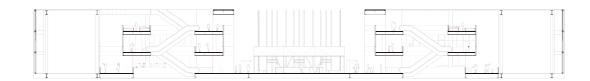


Longitudinal Section of Sky Lobby 1

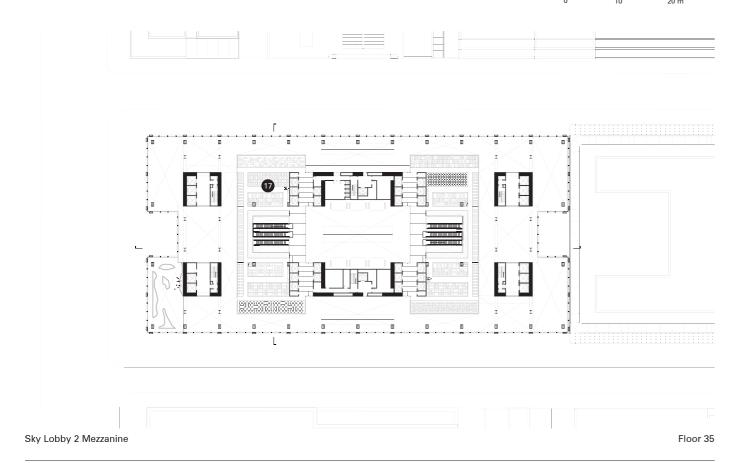




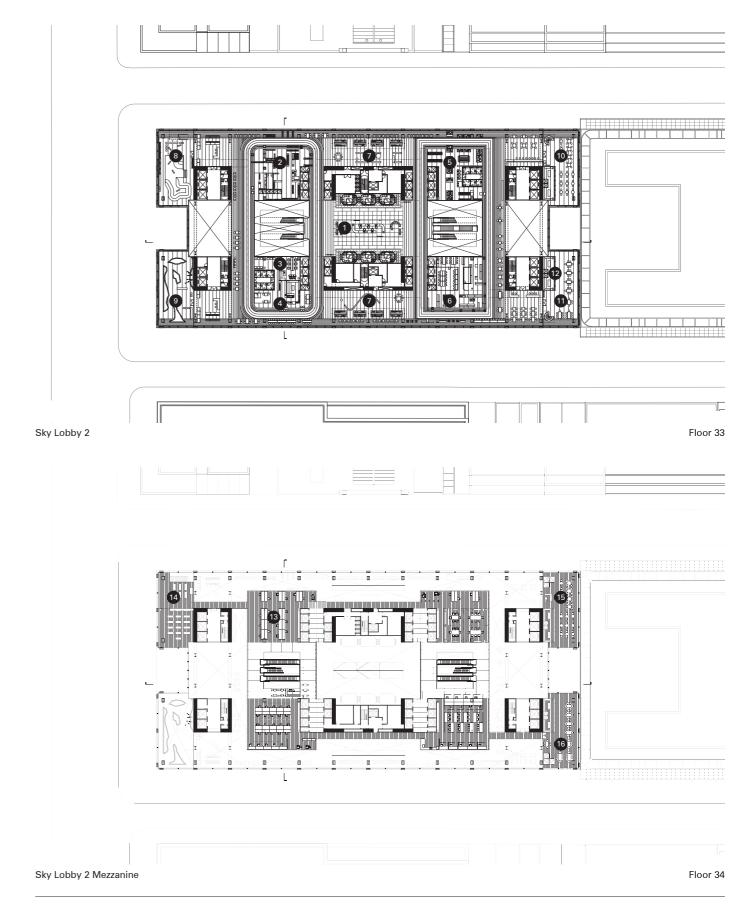
Cross Section of Sky Lobby 2



Longitudinal Section of Sky Lobby 2



Sky Lobby 2



Reception
 Thrift shop and tailor's shop

hop 9. Rock o

3. Barber shop

4. Bakery5. Convenience store

5. Convenience store restaurant
6. Library 11. All-day

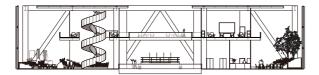
7. Street market8. Skatepark9. Rock climbing

gym space 10. Specialty 14. \

restaurant
12. Dumbwaiter
13. Co-working
spaces

14. Yoga studio
15. Specialty
restaurant seating

16. All-day restaurant seating 17. Indoor production garden

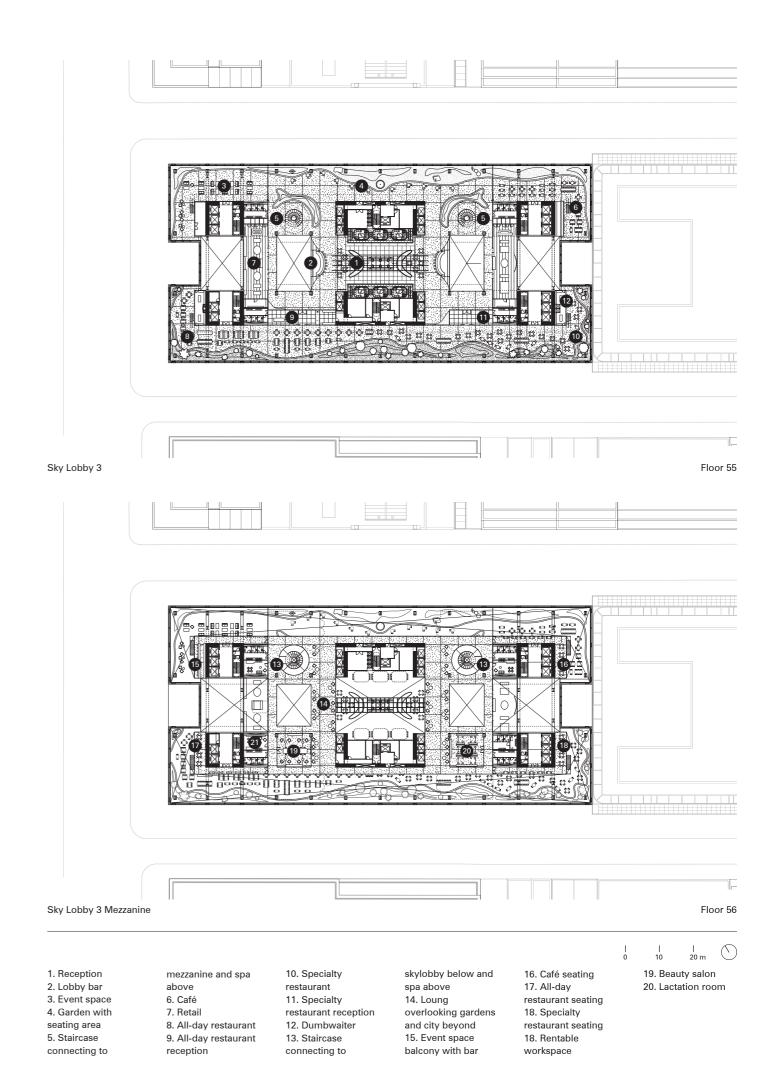


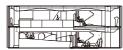
Cross Section of Sky Lobby 3



Longitudinal Section of Sky Lobby 3

Sky Lobby 3



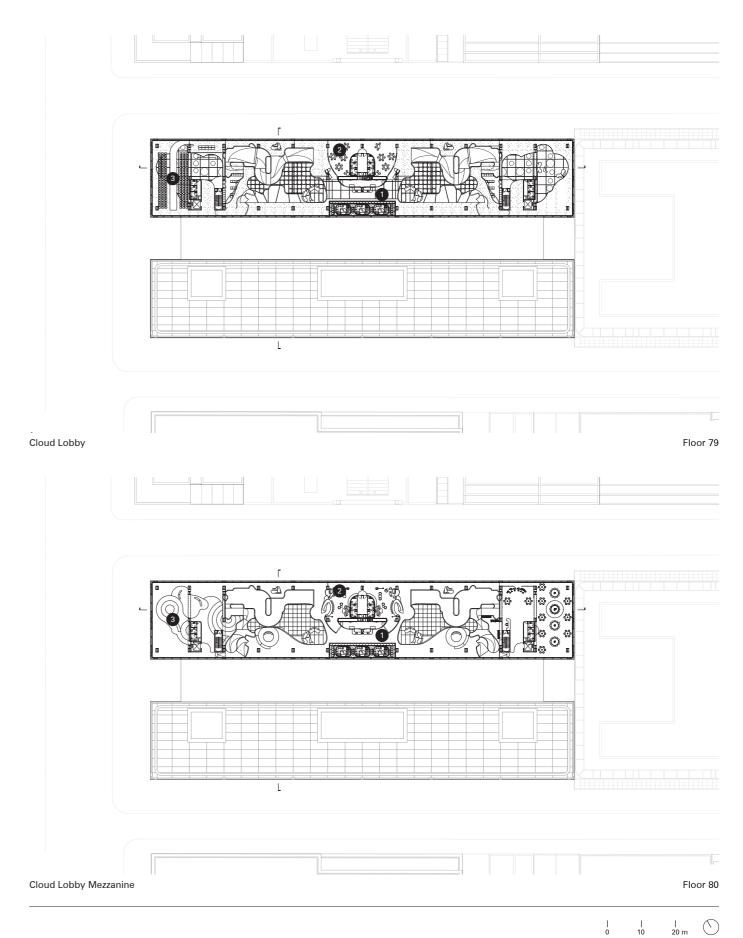


Cross Section of Cloud Lobby



Longitudinal Section of Cloud Lobby

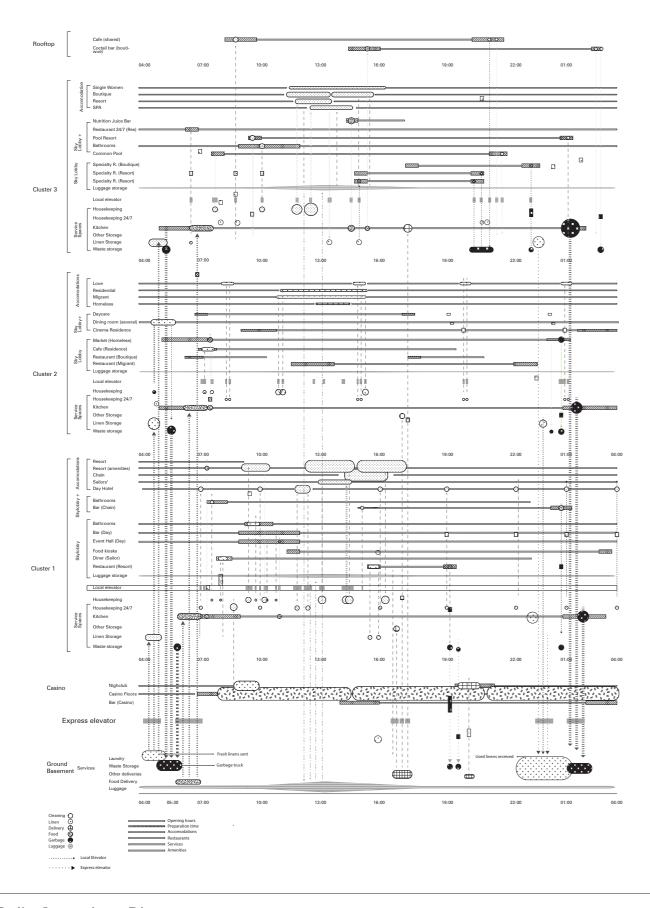




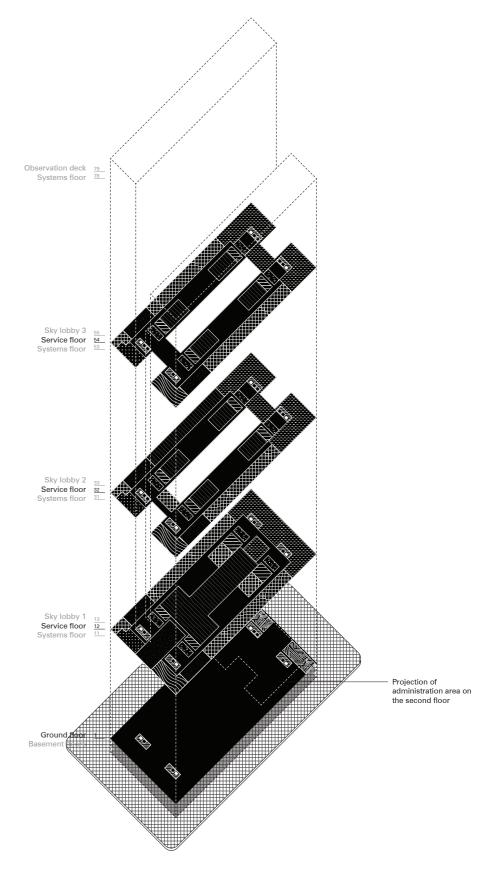
1. Reception

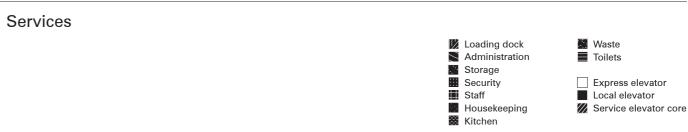
2. Café

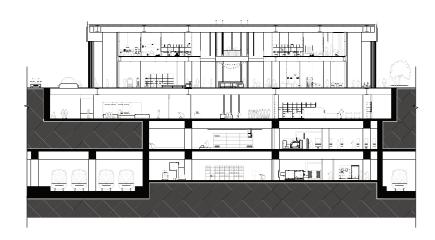
3. Event space



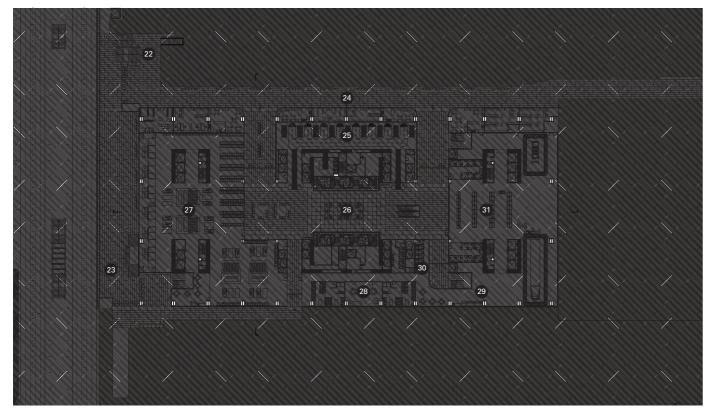
Daily Operations Diagram











Basement Floor -1

Basement Floors

- 1. Elevator maintenance and
- repair 2. General storage
- 3. Truck elevator
- 4. Casino vault
- 5. CCTV room
- 6. Water treatment room
- 7. Water tank room
- 8. HVAC room
- 9. Maintenance room 10. Smoke control
- 11. Sprinkler System room
 - 12. Fire pump room 13. Irrigation pump room
 - 14. Gas distribution 15. Access control
- 16. Luggage storage facility 17. Waste loading
- and sorting area connected to truck elevators
- 18. Track compactor
- 19. Backup generator 20. Uninterrupted

passage to Penn

- power supply room 21. Storage 22. Underground
- 23. 34th Street Penn Station subway platform

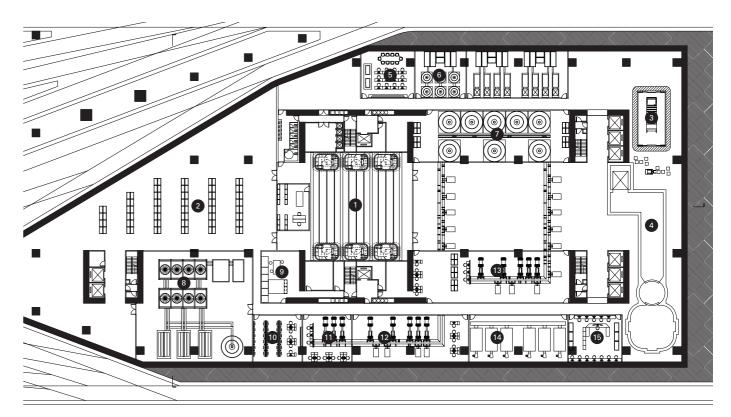
Station

24. Gimbel's passage and retail 25. Luggage drop-off facility 26. Reception 27. Central laundry

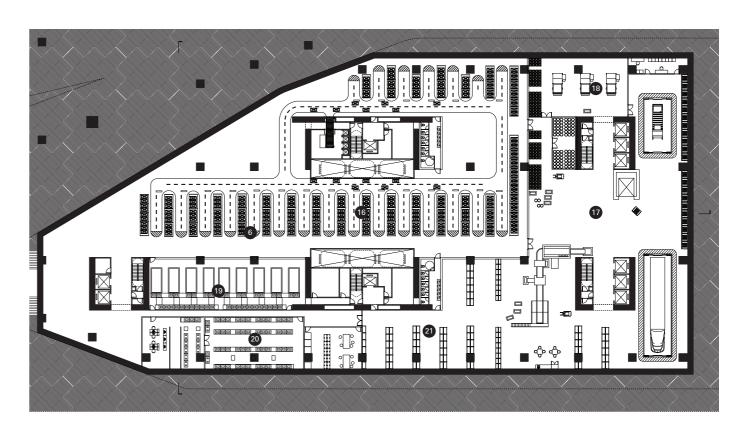
28. Employee uniform and changing areas 29. Employee

lunchroom 30. On-duty sleeping pods 31. Loading dock connected to truck elevators on the

floor above



Basement Floor -3



Basement Floor -2

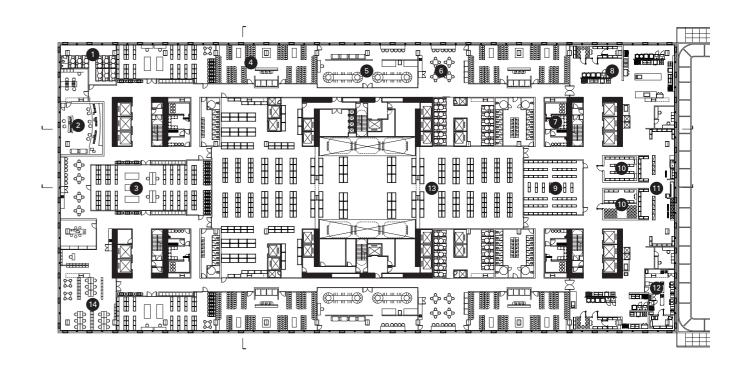


Service and Systems Floor Sections (Floors 11–12)

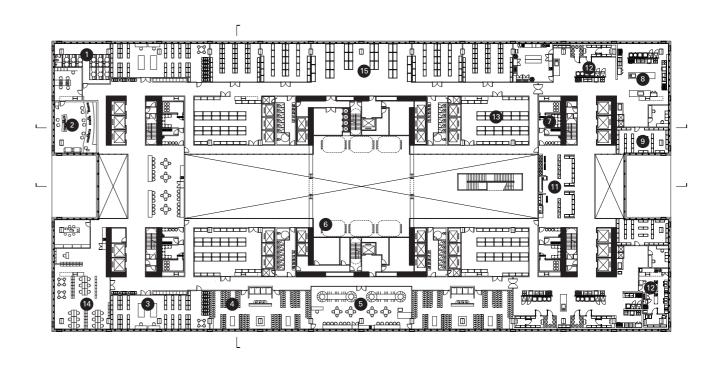


Service and Systems Floor Sections (Floors 31–32)

Service Floors



Service Floor Floor 12



Service Floor Floor 52

1. On-duty sleeping pod

CCTV control room
 Housekeeping

offices 4. Employee

room 8. Kitchen

room

changing room 5. Uniform room

6. Employee lunch

7. Waste collection

Dry storageCold storage

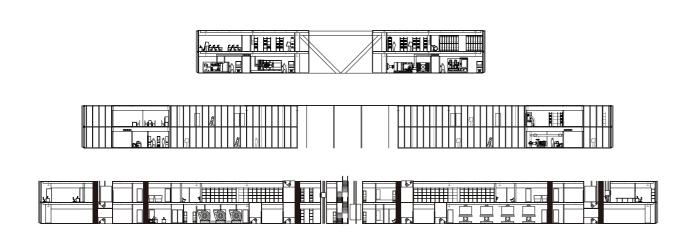
10. Cold storage 11. Dishwashing

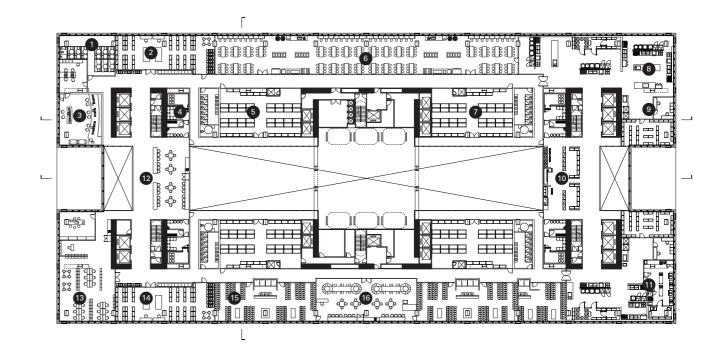
station 12. Pastry kitchen

13. General storage14. Cluster

management offices 15. Guest storage

87





Service and Systems Floor Sections (Floors 53–54) Service Floor Floor 54

Service Floors

pod 2. Housekeeping offices 3. CCTV control room 4. Waste

1. On-duty sleeping

5. Luggage storage 6. Employee dining 7. General storage

8. Kitchen

10. Dishwashing

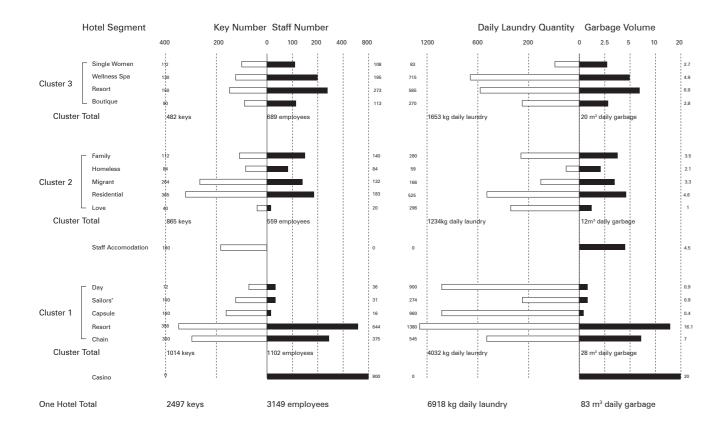
9. Dry storage

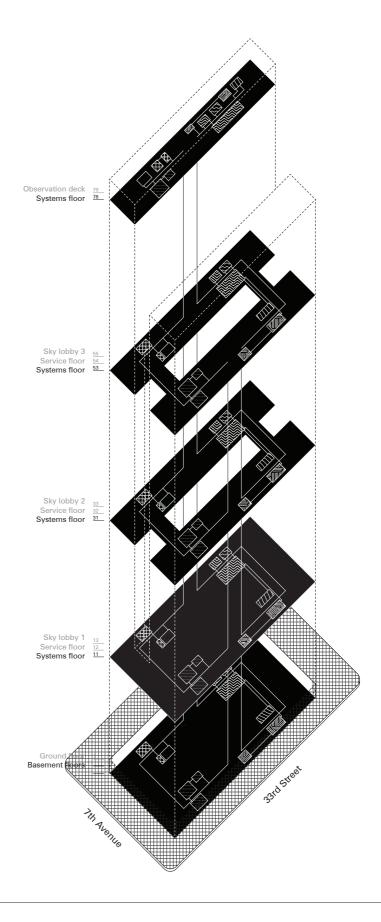
station 11. Pastry kitchen 12. Employee lunchroom

14. Housekeeping

13. Cluster management office

office 15. Employee changing room 16. Uniform room

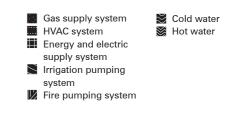




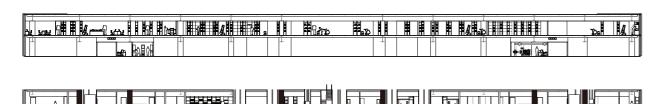
Hotel Calculations

Diagram comparing hotel segments through number of keys, calculations of number of elevators, number of staff, amount of laundry and waste.

Systems





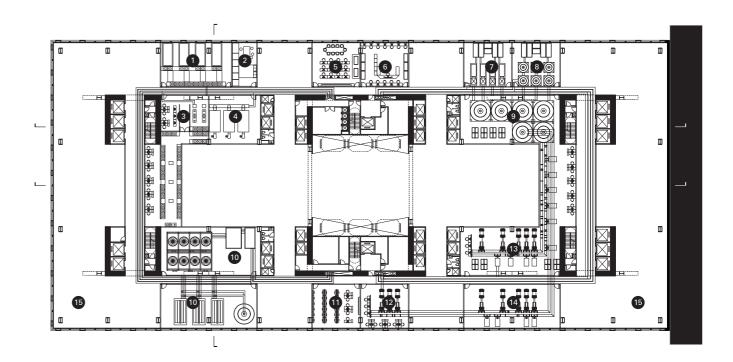


Service and Systems Floor Sections (Floors 11–12)

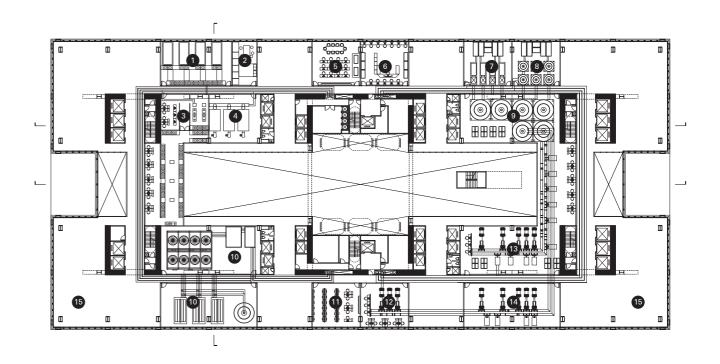


Service and Systems Floor Sections (Floors 31–32)

Systems Floors



Systems Floor Floor 11



Systems Floor Floor 31

room

room

Backup generator room

2. Maintenance

workshop
3. Uninterrupted
power supply room

4. Gas distribution

7. Water treatment room8. Hot water plant

5. CCTV room

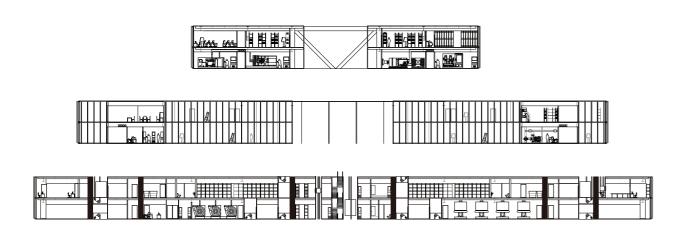
6. Access control

room
9. Intermediate water tank rooms
10. Central HVAC

13. Irrigation pump
HVAC room
14. Fire pump room

plant room 14. Fire pump room 11. Smoke control 15. Refuge area

12. Sprinkler system

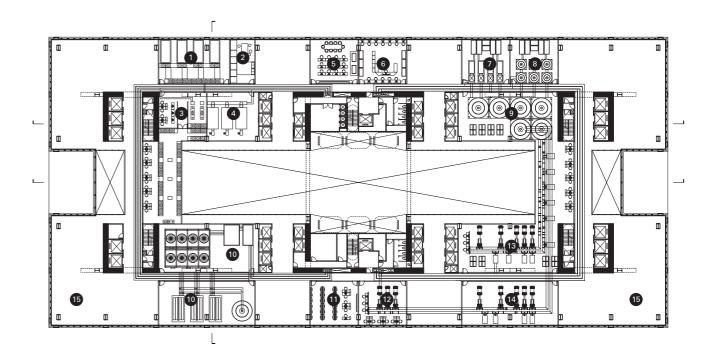


Service and Systems Floor Sections (Floors 53-54)

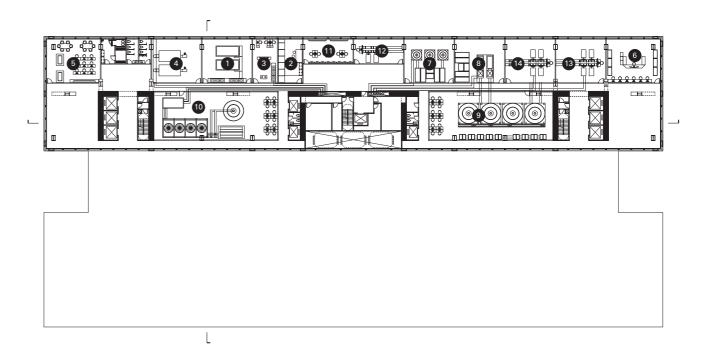


Systems Floor Cross Section

Systems Floors



Systems Floor Floor 53



Systems Floor Floor 78

room

room

1. Backup generator 2. Maintenance

workshop 3. Uninterrupted

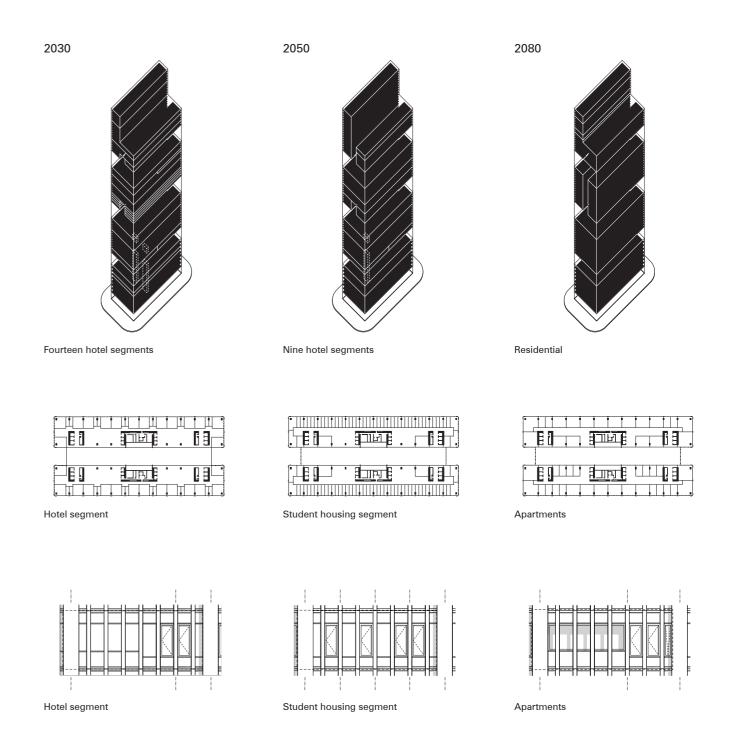
power supply room room 4. Gas distribution 8. Hot water plant

5. CCTV room 9. Intermediate water 6. Access control tank rooms 10. Central HVAC 7. Water treatment

room

plant room 11. Smoke control 12. Sprinkler system 13. Irrigation pump

room 14. Fire pump room 15. Refuge area



Afterlife

One Hotel may shift and change in response to changing demographics. A successful hotel segment may take over another. The hotel segments could move from thirteen, to eight, or twenty-three. As the program shifts, the facade's secondary elements will come and go. As will temporary walls and plumbing. Public spaces will host new tenants. Apartments could fill the floors once held by One Hotel. Regardless of the fluctuation inside, the Metropolitan will remain a landmark in the skyline of New York City.

Literary portrayals of the cheapskate abound, from Shylock in The Merchant of Venice to Harpagon in L'Avare, Grandet in The Human Comedy, and Plyushkin in Dead Souls. And while writers' artistry breathes each of these, and other, cheapskates to life, dramatic and specialized descriptions also mislead us: we imagine that the cheapskate's extreme frugality is far removed from our own lives. And yet, we all embody characteristics of the cheapskate to varying degrees. People demonstrate this inclination by stockpiling household items during department store sales, patiently awaiting the holiday discount season to acquire long-anticipated items even something like a cup of coffee can prompt the use of a stamp card to secure a free cup or discount. Being a cheapskate is not an absolute or an extreme; rather, it manifests as an attitude and a set of behaviors toward

The triggers for the emergence of "cheapskate"-like qualities are varied and can surely be traced back to different factors, including parental influences stemming from different cultural backgrounds, personal values shaped by distinct educational experiences, disparate family economic circumstances, fluctuations in personal assets arising from diverse life stages, and individual financial aspirations for the future. When we narrow our focus to New York City, a metropolis renowned for its abundance of office buildings and status as a major global financial and business hub, several specific cheapskate phenotypes arise.

For long-term residents and workers. commuting emerges as one of them. In the past two decades, nearly one million workers hailing from the other four boroughs—and more distant areas besides—have commuted daily to Manhattan, the primary destination of the workplace and the New York City borough that represents the largest share of job growth. This geographic segregation of workforce and workplace stems from the prohibitively high cost of land in Manhattan, which renders it unaffordable for a majority of people. Corporations, investors, and developers bring more jobs, but economic dynamism simultaneously brings land shortages and land-price growth. These phenomena, followed by gentrification and resultant

neighborhood transformation, have ultimately made Manhattan one of the most expensive places to live.

Within the short-term stay

population, the significant "cheapskate" phenotype is primarily prevalent among teenagers and other lowbudget travelers. Tourism is one of New York's most important industries. Even though a substantial decline in local tourism was observed during the COVID-19 pandemic, New York City has reemerged as the locus of global tourism and a key driver of the city's economic prospects during the post-COVID-19 period. Last year, New York reached 85 percent of its pre-pandemic volume, receiving 56.7 million visitors, with over 9 million coming from international destinations. This influx of tourists generated a large amount of tourist-oriented accommodations, further exacerbating the deterioration of land-resource allocation in New York, especially in Manhattan. In addition to the escalating costs of tourist accommodation, prices for ancillary tourism-related facilities have also risen. For a teenager with zero income or a low-budget tourist, a value-oriented trip is the only option. In addition to these distinct phenotypes, most individuals residing in New York City, whether for long-term or short-term stays, generally needs to contend with the high living costs brought by gentrification: to varying degrees New Yorkers are compelled to minimize unnecessary expenses and accumulate wealth for future needs. A reality TV show detailed the extreme example of an accountant living in New York who dressed as a homeless person to collect discarded household items from the street, found food from the garbage dump, and collected free toiletry samples by subscribing to the different mailing list and freebie sitesthis all as a way to save money. And yet, while this seems like an extreme case, we can also see that, in general, frugality arises from anxiety about life and the future.

Capsule hotels originated in Japan as a compact and efficient accommodation solution that optimizes space by stacking individual sleeping pods or capsules on top of each other. It is also affordable—the cost of staying in a capsule hotel is often lower compared to conventional hotels, making it appealing to budget-conscious individuals, overtime workers, and late-

night workers who are exhausted after long hours of work and looking for a simple and affordable place to rest. The basics in each capsule space are small but well considered: reading lights, electrical outlets to charge devices, a TV, and sometimes a small shelf or storage space for personal items. Capsule hotels in different regions have different specialties, but the general concept revolves around providing efficient and affordable sleeping accommodations in a compact and functional space.

When you type "Capsule Hotel NYC" into the search engine, what appeared on the first page were pod hotels whose internal arrangements were closer to that of a regular hostel—i.e., they were far from the traditional capsule hotel. Nap York is the closest hotel to a capsule concept in Manhattan. There, guests can book bath capsules, work capsules, and bed capsules depending on their needs. Since some of the rooms are located in the center of the building, with no daylight coming inside, they can only be used as temporary rest stops, and billed on an hourly basis. The hotel's proprietors have focused on providing a cost-effective rest stop that meets the basic needs of a diverse group of people in high-priced Manhattan.

Based on the capsule precedent, this segment sets up a better neighborship by arranging the space and circulation between the skyscraper's infrastructure and lodging near the core, creating an unwanted yet cozy temporary resting stop surrounded by cluttered service spaces. Thanks to the decentralization of the building's core structure and the express-local elevator system, the segment can occupy in the guest's elevator corridor on several accommodation floors.

Despite being adjacent to other segments with various statuses, this segment nests in the elevator corridor with a vertical arrangement. Unlike traditional capsule hotels, this segment designs the single capsule based on different physical postures and the minimum comfortable distances they produce. The study of the physiological and psychological comfort distance of various possible postures inside the capsule has three bases: in anthropometrics, ergonomics, and proxemics. Furthermore, by

considering the infrastructure, installation, and materialization, each capsule can be assembled on site from prefabricated panels, which mainly use high-density polyethylene blowmolded material with the interlayer filled with sound insulation cotton and wrapped with natural ash-tree veneer. The segment is also equipped with a comprehensive sprinkler system and HVAC facilities that ensure the safety of the enclosed space. The interior of the capsule is designed with a rounded shape—typically, curvilinear forms are felt to be more approachable than rectilinear ones, catering to the preferences of body sensations.

The segment features a total of 160 capsules, thoughtfully categorized into three different sizes to accommodate individuals with diverse body types: Small (S), Medium (M), and Large (L). The S-size capsules, located on the twentieth floor and numbering 16 in total, are suitable for individuals with a height of less than 162 centimeters. The M-size capsules, spanning from the fourth to nineteenth floors and totaling 132, cater to those with a height between 162 to 182 centimeters—likely the majority of the clientele. The L-size capsules, occupying the third floor and amounting to 12, are tailored to individuals taller than 182 centimeters. This meticulous sizing allocation ensures a comfortable experience for guests of varying stature.

After choosing the Capsule segment in One Hotel, the adventure commences on the first floor. The guest arrives and is eager to find respite. Having prebooked her capsule through the hotel application, she proceeds to the middle of the ground floor. There, she checks with an information machine and finds her elevator to the designated floor. Nestled at the end of the corridor, her capsule awaits. After using the QR code to unlock the sliding door, she steps inside, places her backpack on the floor, and settles on the low cabinet to change her shoes. This is a designated area thoughtfully designed for dressing, based on a meticulous consideration of the minimum range of the physical body through anthropometrics and ergonomics. The height of the space is extended by 45 centimeters, which maximizes physical and psychological comfort.

Changing into her pajamas, our guest moves to the bed area, unfolding

the foldable desk hanging on the wall and places her laptop on it. Despite the late hour, the unfinished tasks still stress her. In this area, the edge of the bed was designed to be slightly recessed inward, in order to offer enough leg space.

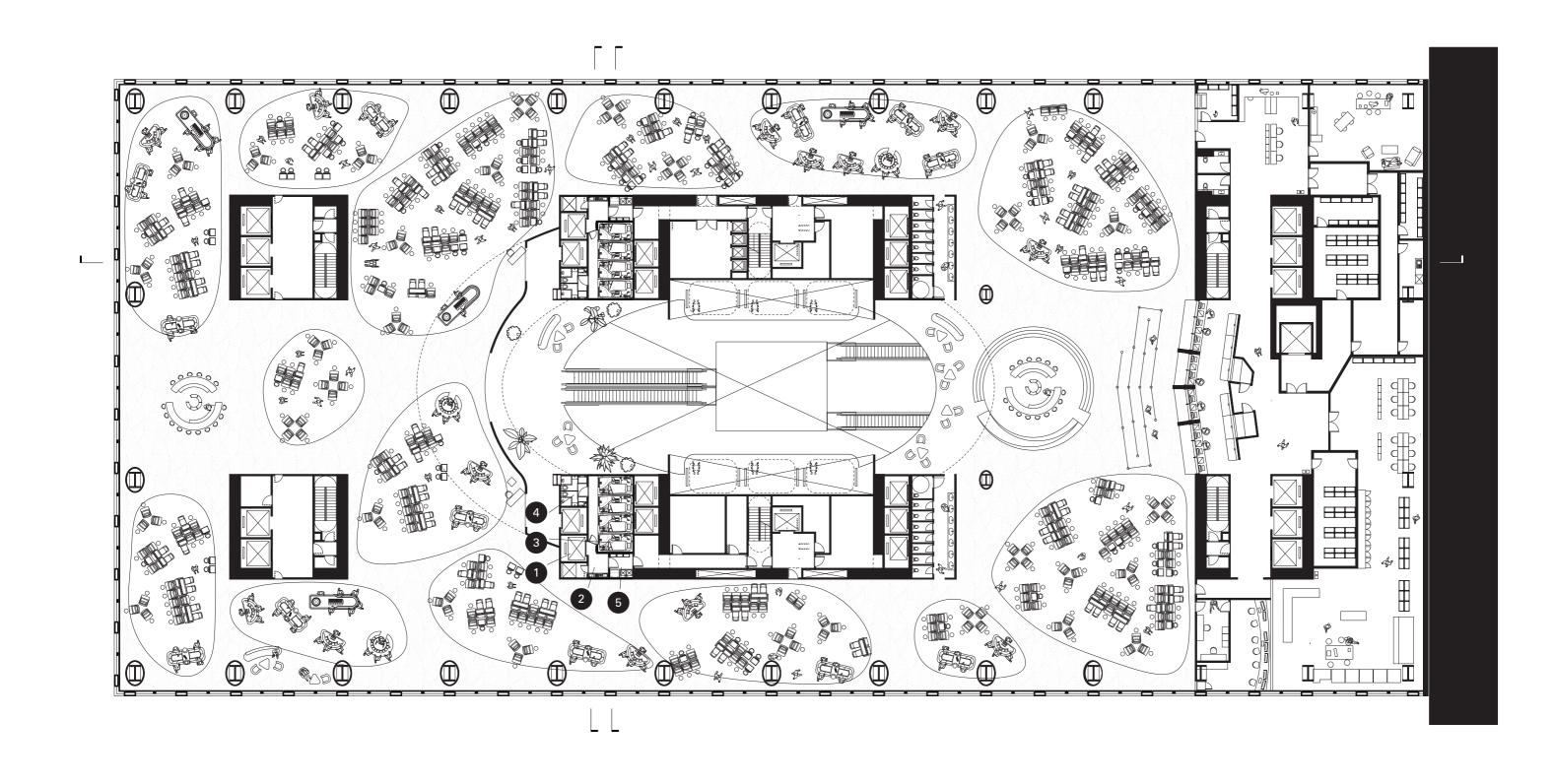
Before retiring for the night, our guest chooses to indulge in personal entertainment: she decides to watch a movie before bed and adjust the TV angle for optimal viewing. During movie time, she also curls up at the head of the bed and has a video call with her friends. The space above the mattress not only meets the erect sitting height but also, like the dressing space, extends outward an additional 45 centimeters to avoid any sense of oppression. Adjacent to the guest, a smart device panel offers control of the lighting, ventilation, room temperature, and a do-not-disturb mode. It also provides internet connections and charging sockets for the electronic devices.

Our guest finally decides to go to bed—the capsule is reserved by the hour, and she acknowledges that it limits her sleep duration to a maximum of seven hours. The shape of the bed is specially designed, considering anthropometrics, ergonomics, and proxemics. The sleeping space takes into account the movement of limbs and their physical sensation, and has been broadened and upgraded to accommodate various sleeping positions: the head area is curved to align with the arm length and movement, and the foot area follows the same design method but based on the length of the thighs and calves.

The segment provides an affordable option for temporary stays in New York City, alleviating financial burdens and enabling visitors to enjoy the metropolis's offerings. On an architectural scale, we may never fundamentally balance the extreme differences in labor-growth areas and employment-growth areas separated by the Hudson River. And we may not be able to ease every individual life's pressures through the composition of a small space. But at least during the precious hours that precede a return to reality, the Capsule segment could reserve private time and space in Manhattan free from the burdens of financial anxiety.

Propositions

- 1. The Capsule segment provides a temporary rest stop in the center of Manhattan, a simple and affordable space after long hours of work.
- 2. The Capsule segment arranges the space and circulation between the skyscraper's infrastructure and lodging near the core, creating a cozy temporary resting stop surrounded by cluttered service spaces.
- 3. The Capsule segment t formulates the physical space of the capsule by considering different postures and perceptions of minimum comfortable distances.
- 4. Despite being adjacent to other hotel segments with various statuses, the Capsule segment nests in the elevator corridor with a vertical arrangement, providing anonymity and indifferent contact with limited amenities.
- 5. The Capsule segment provides an affordable option for temporary stays in New York City, alleviating financial burdens and enabling visitors to enjoy what the metropolis offers.



105

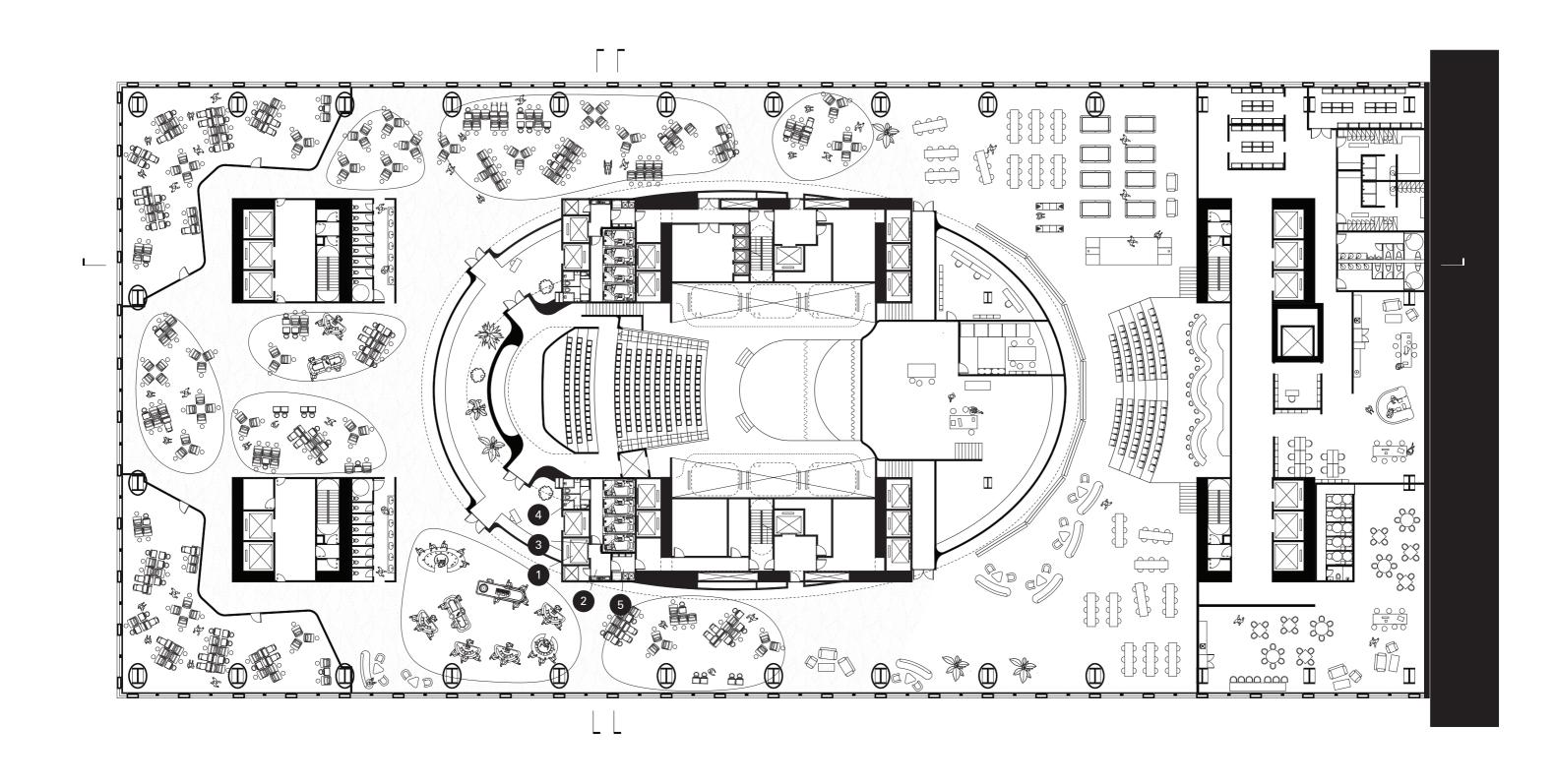
1. Guest elevator

2. Guest entry and common space

3. Large-size capsule (Type A1)

4. Bathroom

- 5. Service room and emergency exit route
- 104



1. Guest elevator

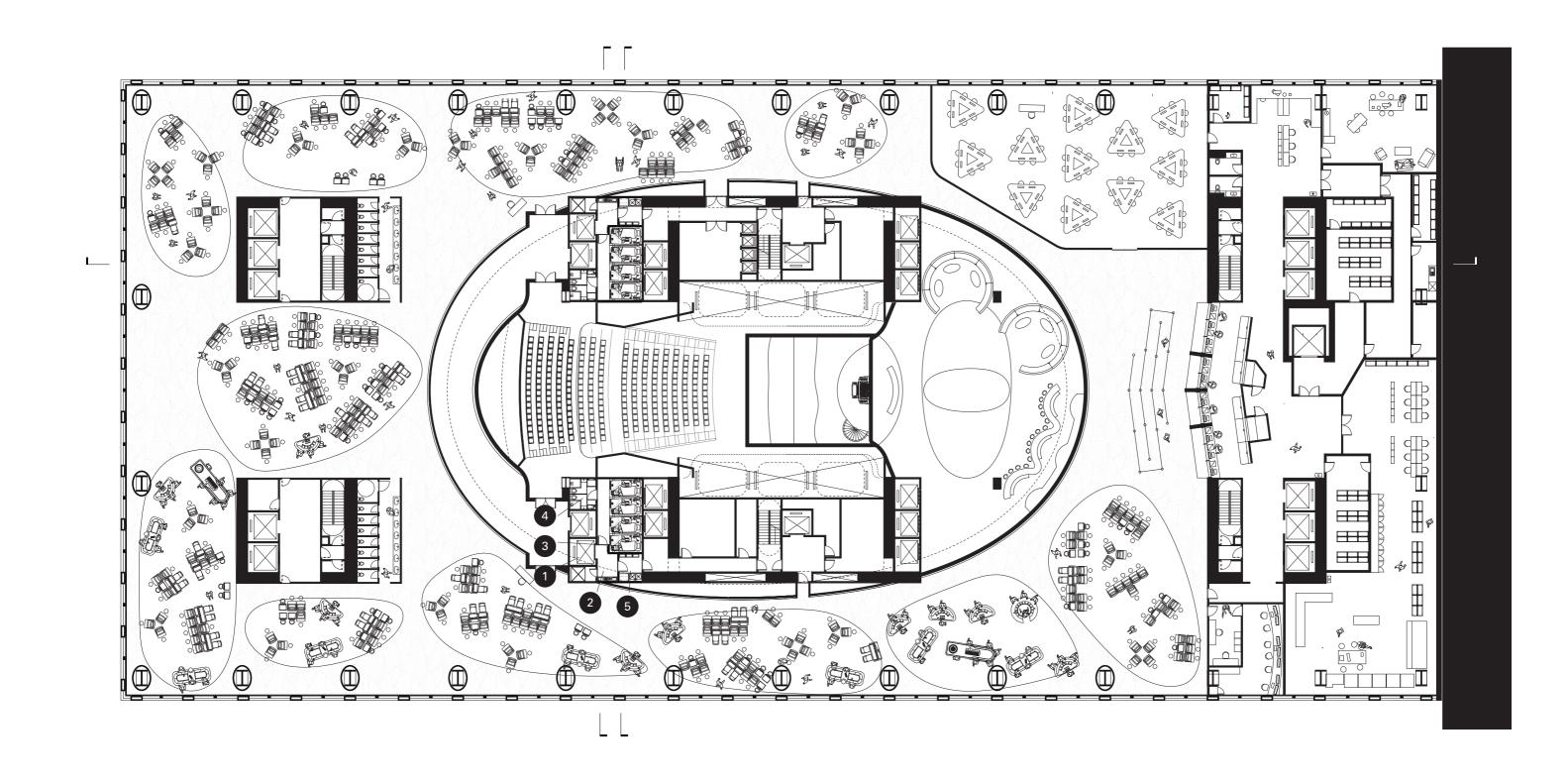
2. Guest entry and common space

3. Medium-size capsule (Type A1)

4. Bathroom

106

5. Service room and emergency exit route



109

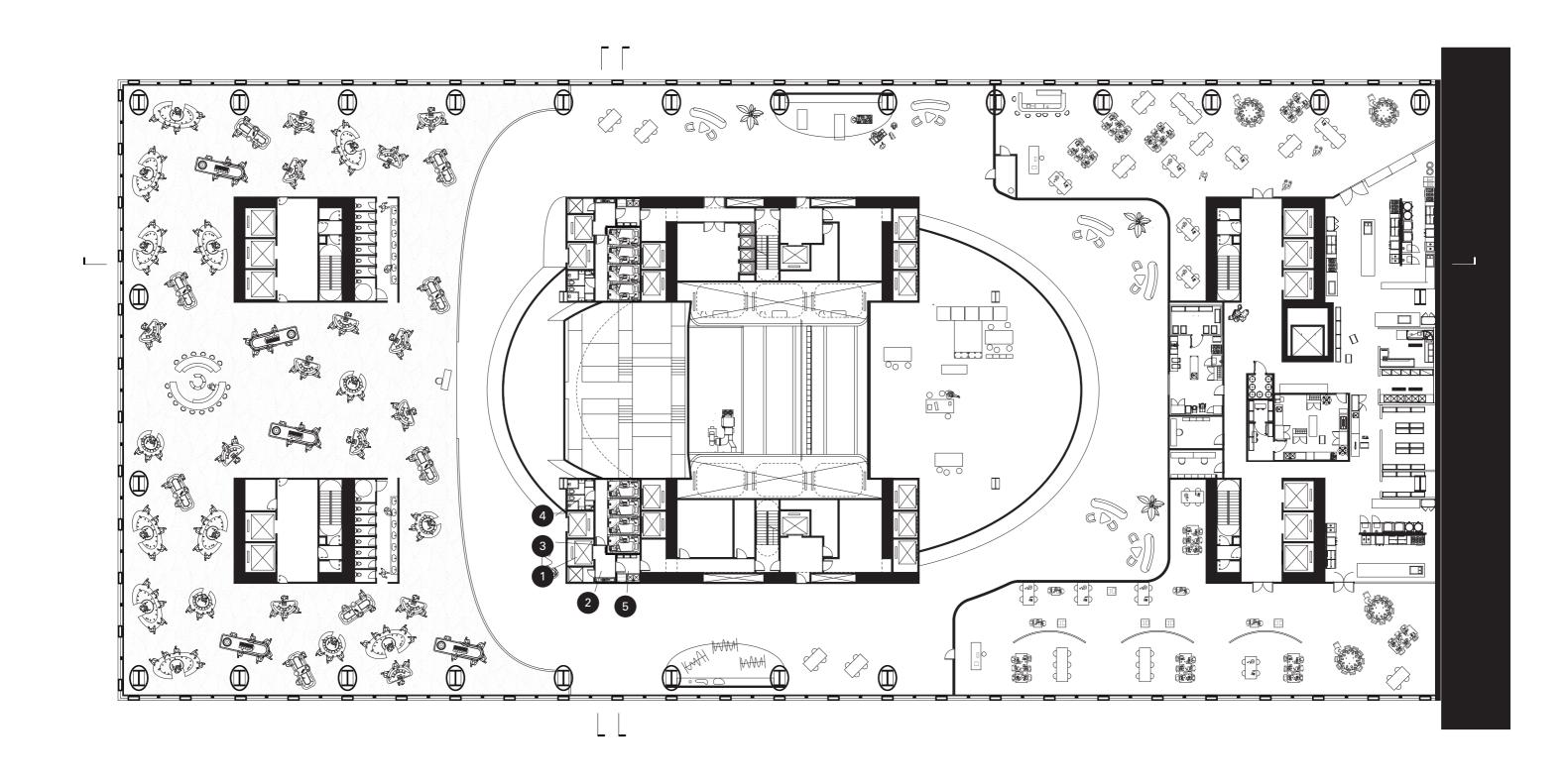
1. Guest elevator

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Guest elevator

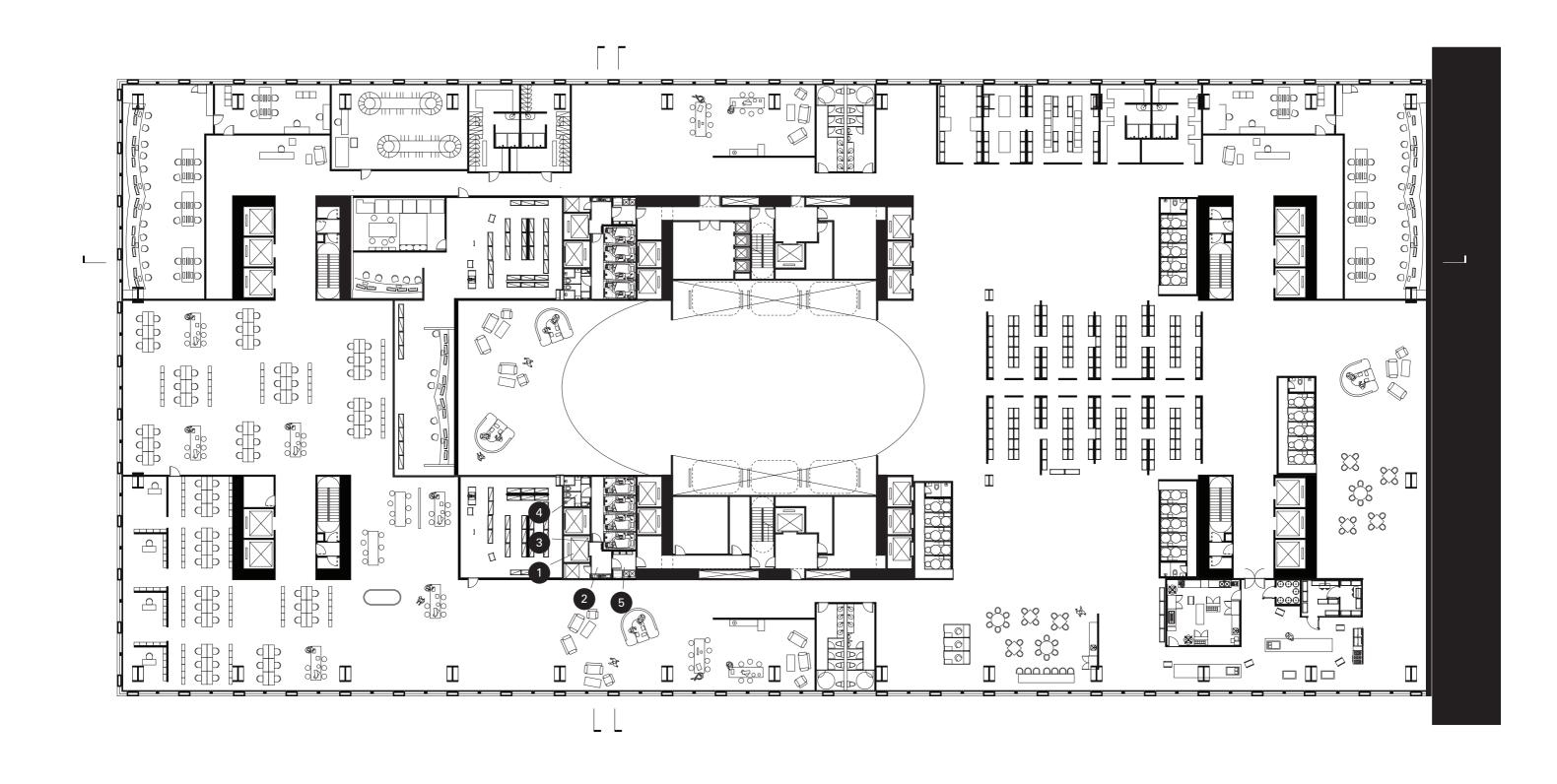
2. Guest entry and common space

3. Medium-size capsule (Type A1)

4. Bathroom

110

5. Service room and emergency exit route



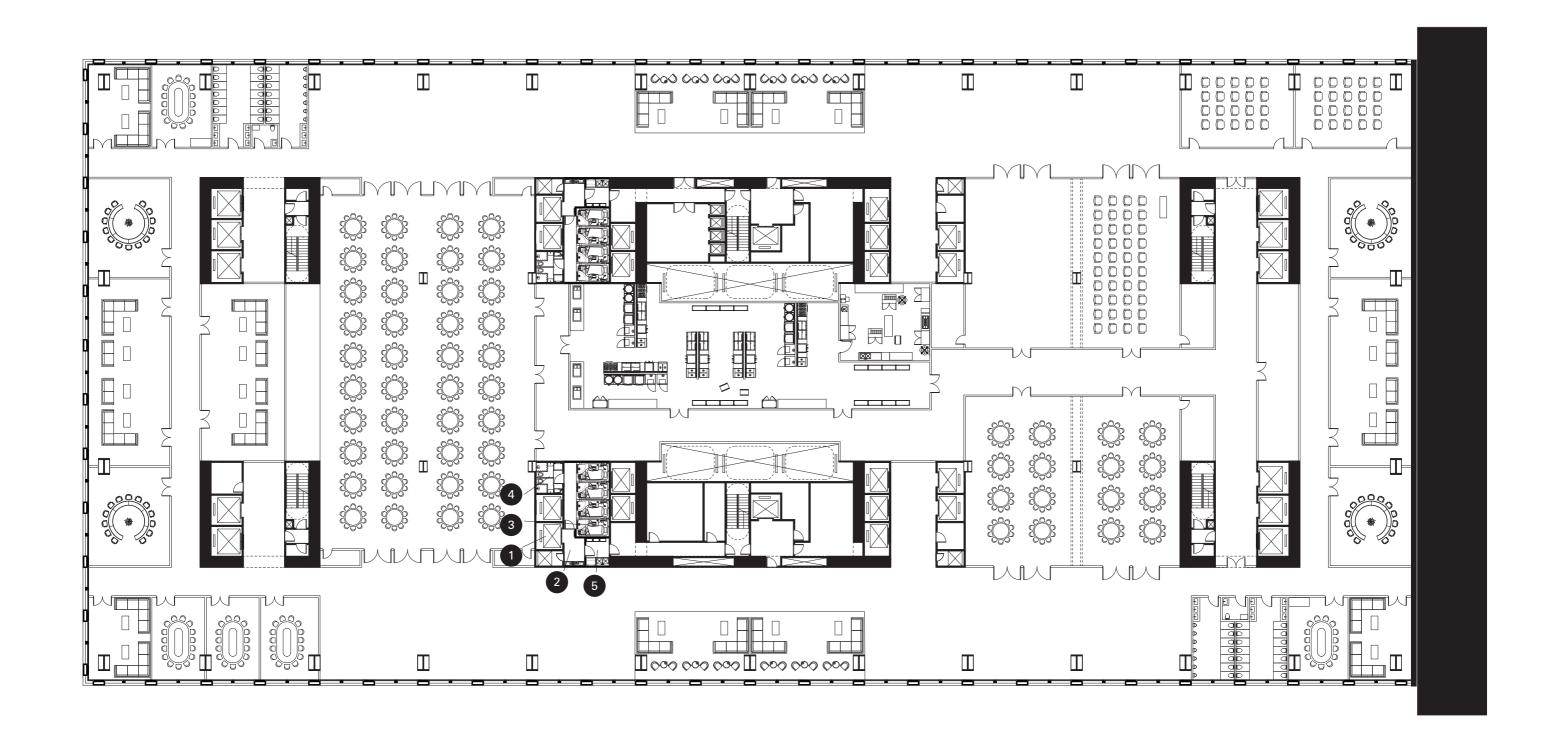
1. Guest elevator

2. Guest entry and common space

3. Medium-size capsule (Type A1)

4. Bathroom

5. Service room and emergency exit route



115

1. Guest elevator

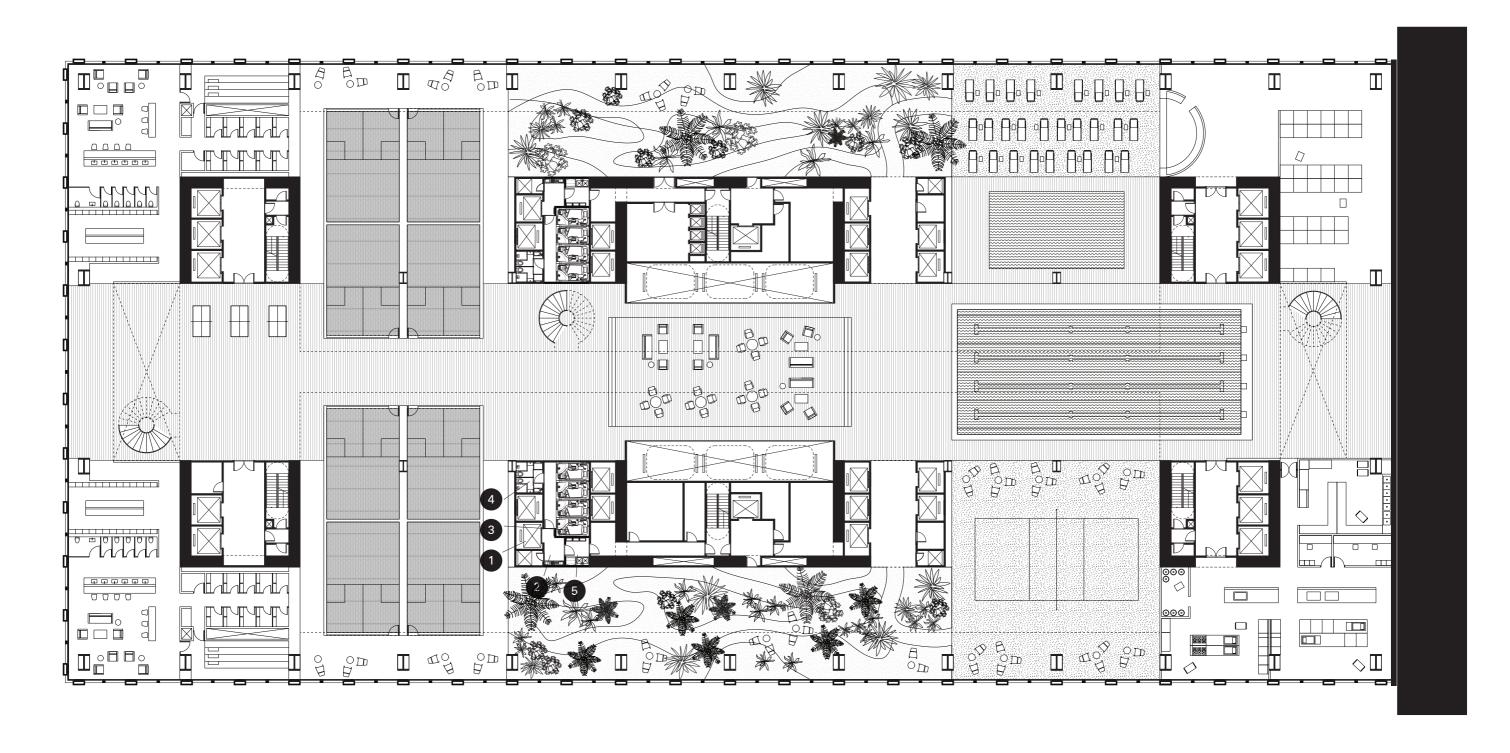
2. Guest entry and common space

3. Medium-size capsule (Type A1)

4. Bathroom

5. Service room and emergency exit route

e. .



Floor 9

117

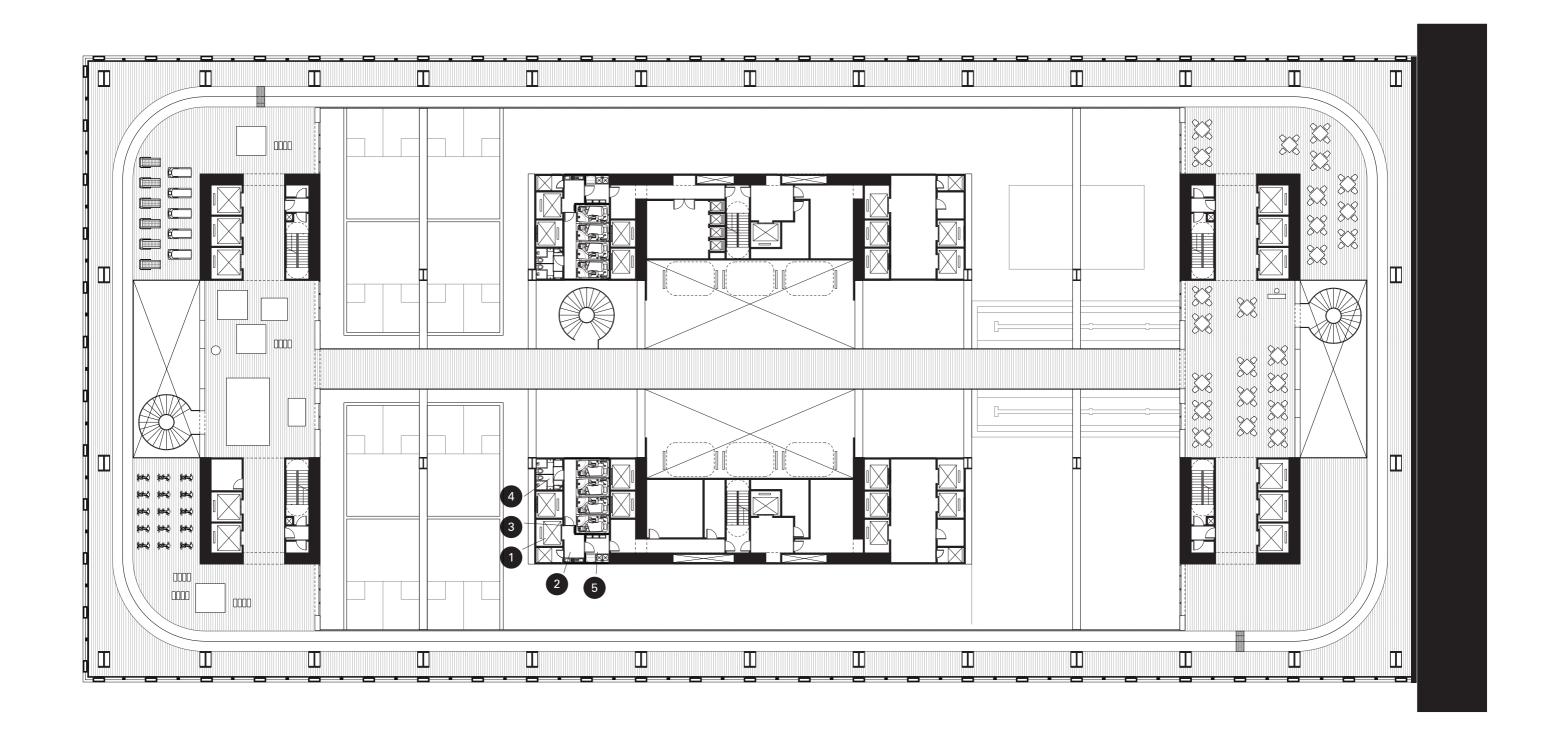
1. Guest elevator

2. Guest entry and common space

3. Medium-size capsule (Type A1)

4. Bathroom

5. Service room and emergency exit route



119

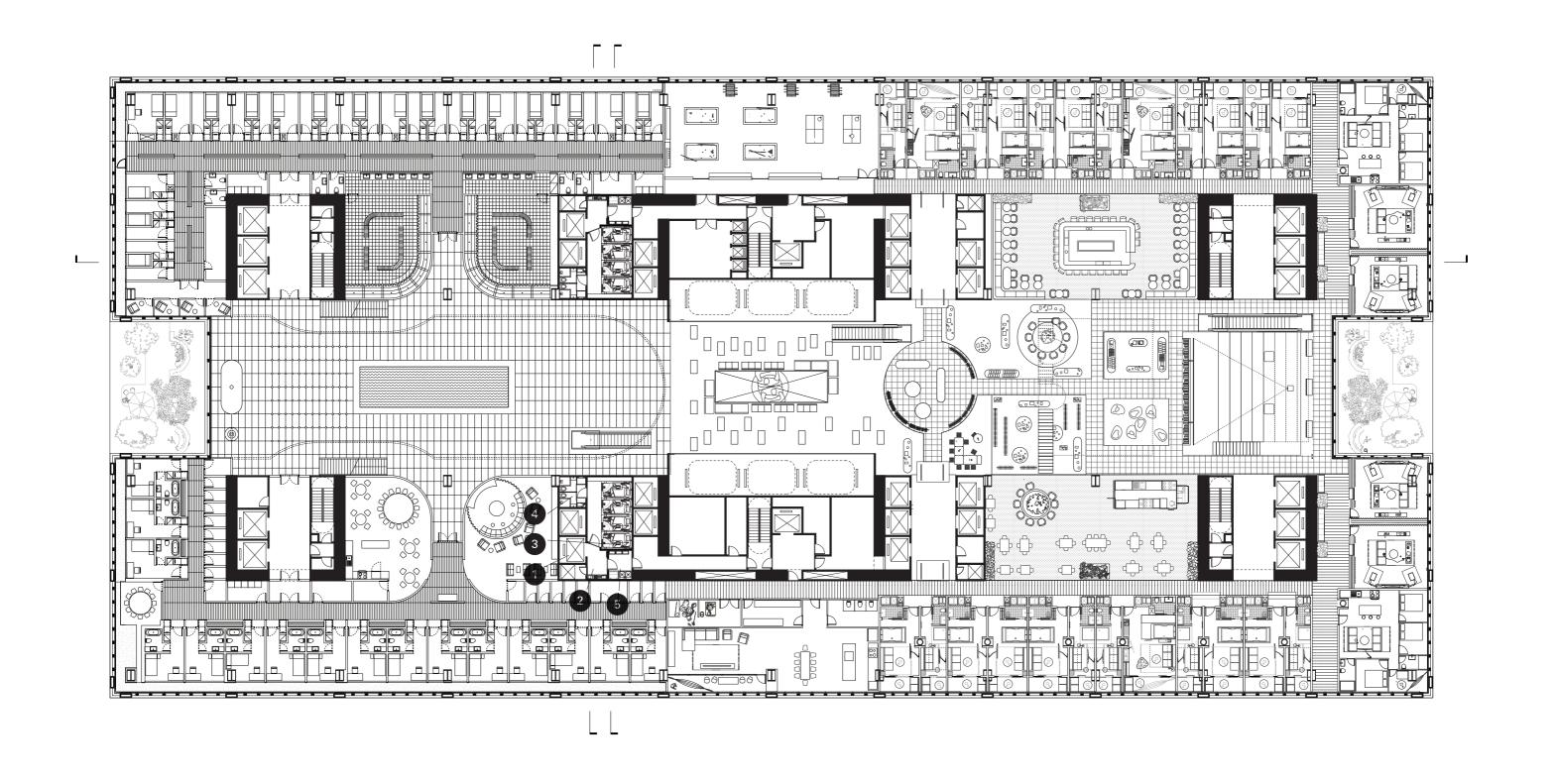
1. Guest elevator

2. Guest entry and common space

3. Medium-size capsule (Type A1)

4. Bathroom

5. Service room and emergency exit route



121

Guest elevator

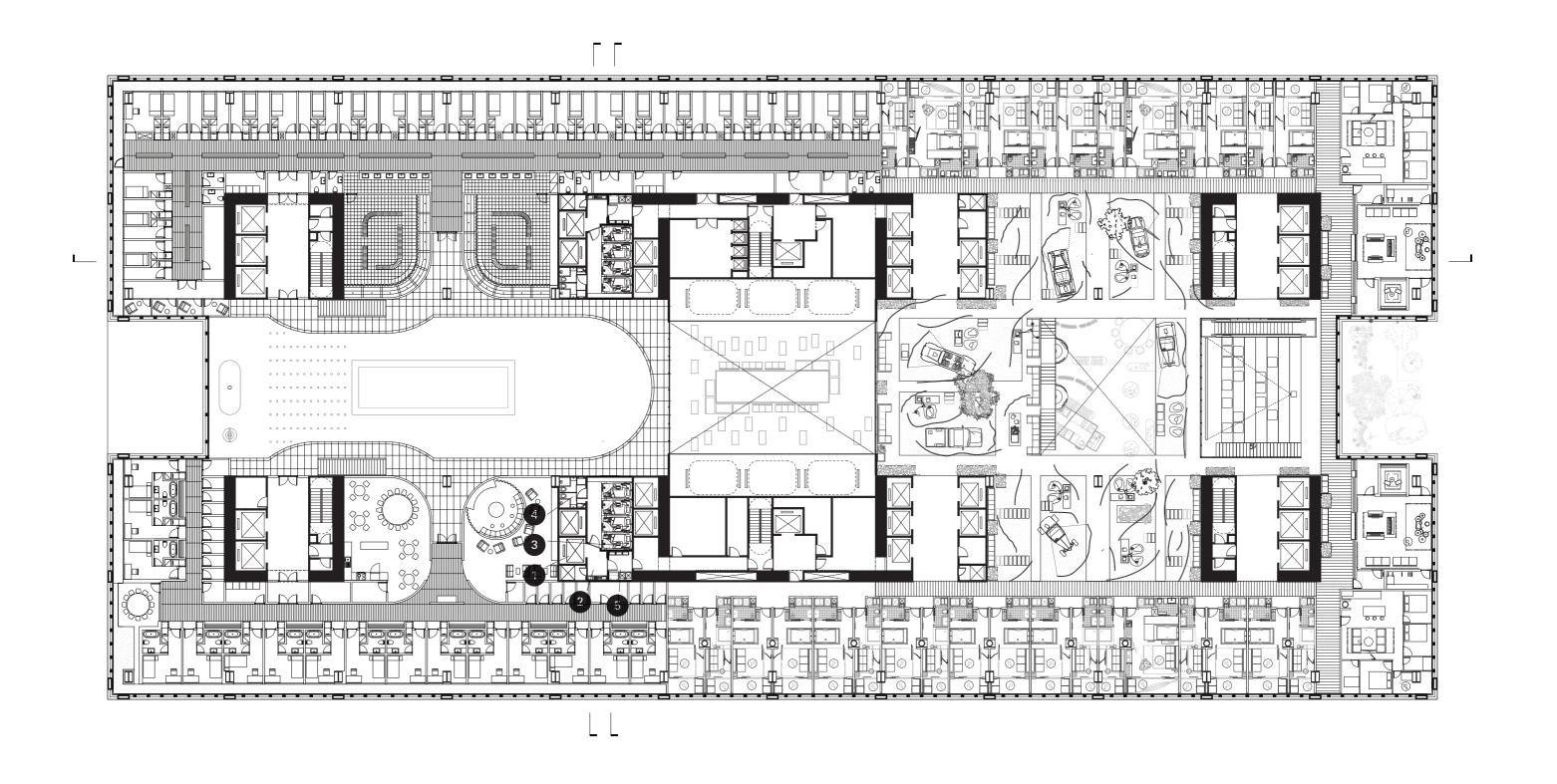
2. Guest entry and common space

3. Small-size capsule (Type A1)

4. Bathroom

120

5. Service room and emergency exit route



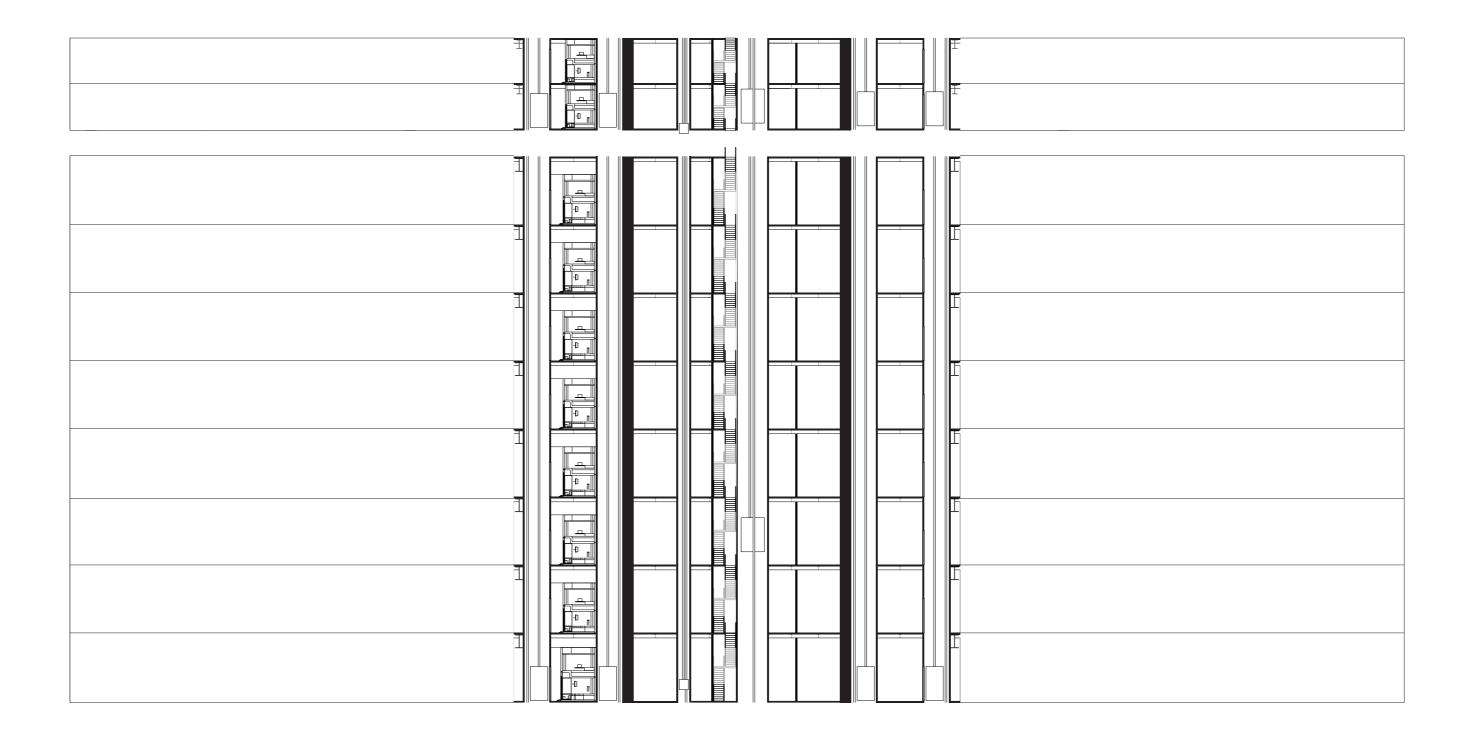
Guest elevator

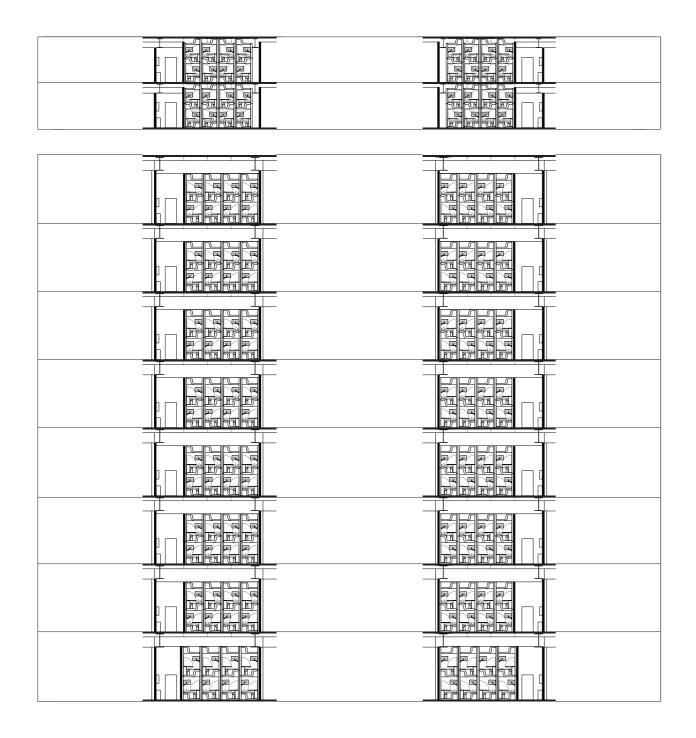
2. Guest entry and common space

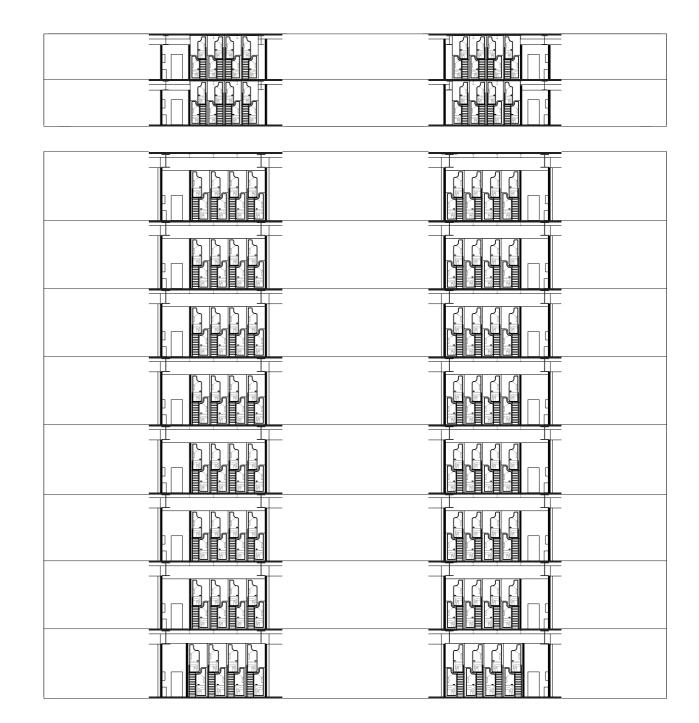
3. Small-size capsule (Type A1)

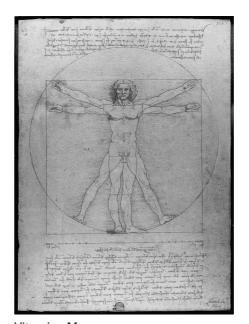
4. Bathroom

5. Service room and emergency exit route

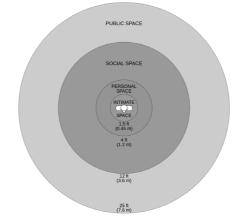




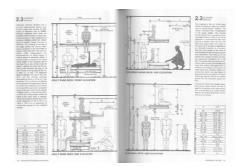




Vitruvian Man



Proxemics by Edward T. Hall



Human Dimension by Julius Panero

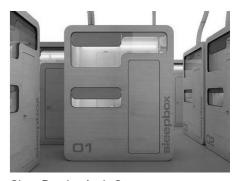
9 Hour - Retro capsule hotel by Jo NagasakaSchemata Architects, plans



9 Hour - Retro capsule hotel by Jo NagasakaSchemata Architects, section



CityHub by Studio Modijefsky



SleepBox by Arch Group



KINN Capsule Hotel by Higher Studio

The Hotel is a collective project that studies the hotel, both as a building type and as a place of hospitality, through a collection of fourteen individual contributions inside one skyscraper. The project imagines hospitality as a realm of exchange that condenses the diversity of the city through an assortment of guests, staff, and the broader public.

This contribution is a capsule hotel that treat cheapskates with a good deal.

The Berlage Center for Advanced Studies in Architecture and Urban Design

Faculty of Architecture and the Built Environment

Delft University of Technology

Thesis advisory team

Salomon Frausto Pavel Bouše Benjamin Groothuijse Michiel Riedijk

Thesis examination committee

Dick van Gameren Kees Kaan Daniel Rosbottom Paul Vermeulen Nathalie de Vries

Students

Nicolaos Charalambous (CY)
Chaomin Chen (CN)
Sneha Gireesh (IN)
Thomas Gkikas (GR)
Ujal Gorchu (AZ)
Eliott Moreau (FR)
Ana Nuño de Buen (MX)
Kelly Olinger (US)
Lenneke Slangen (NL)
Maria Stergiou (GR)
Yuhe Tan (CN)
Felix Verheyden (BE)
Han Yang (CN)
Nien-Heng Yang (TW)

Director of Studies

Salomon Frausto