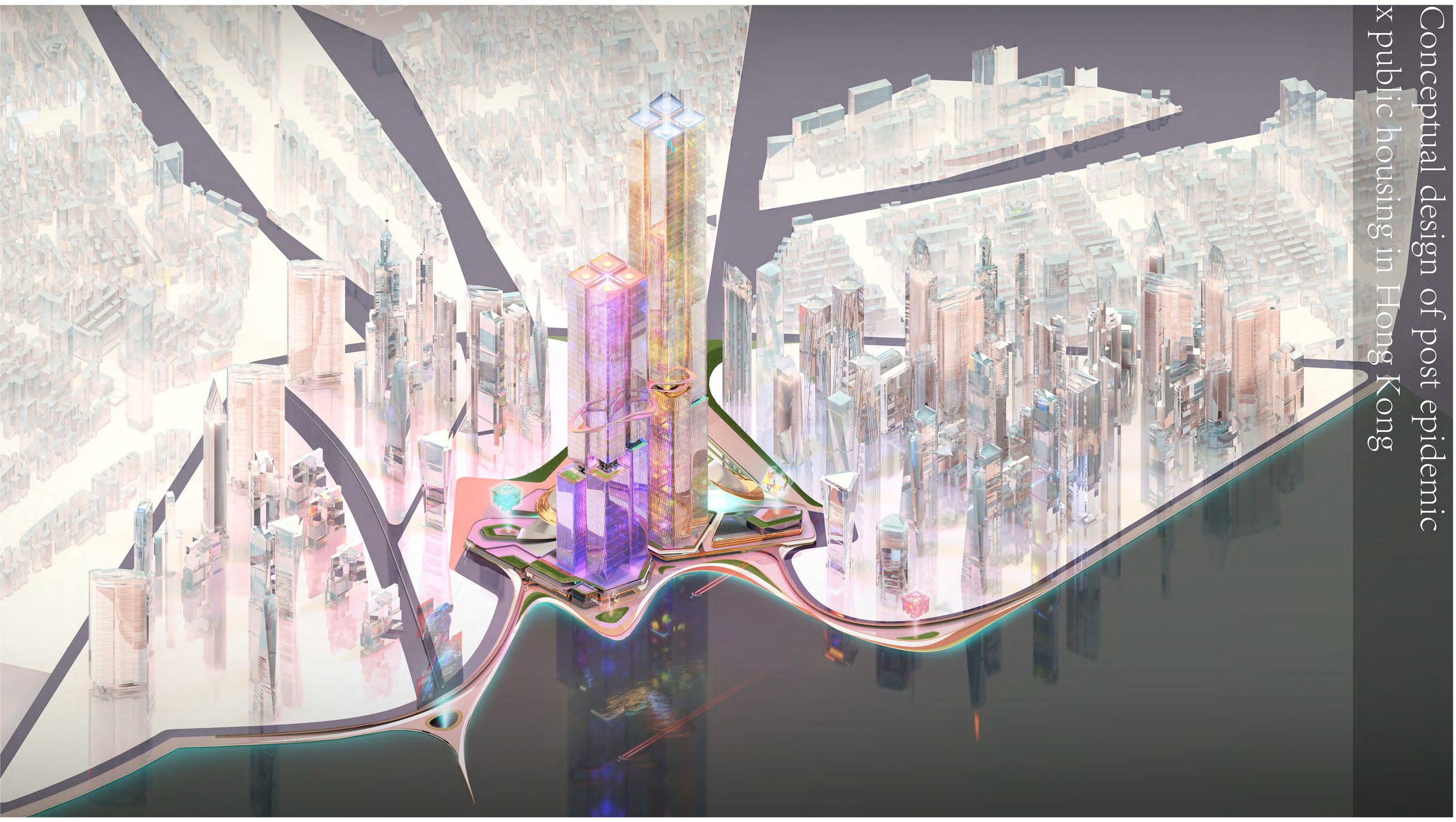
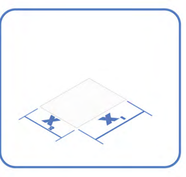
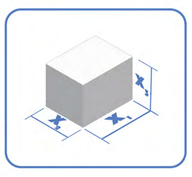
Conceptual design of post epidemic X public housing in Hong Kong





Xn means flexibility. Residents can lease unnecessary space according to their own needs in exchange for X points, which can be used in exchange for more space use volume in the future. On the contrary, others can rent this space to obtain temporary space expansion

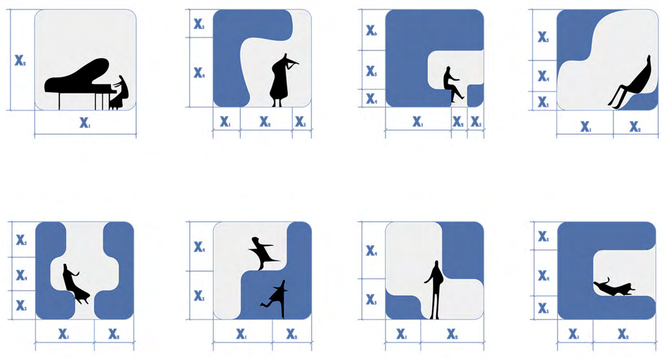


Now the living units on the market are calculated by planarization (M^2), and the living edge is very tough, which can not meet the personalized living requirements of residents and the requirements of efficient space use.

NECESSARY

UNNECESSARY

From flat to three-dimensional residence, residents no longer apply for the unit, but the right to use the space. Each successful applicant will obtain the right to use a certain volume (M^3) and a relative amount of wrapping equipment, regardless of form and location, as long as it is within the approved volume.



Design Description

X means possibility, unknowability, flexibility and variability. As an architect and ordinary people, the design result is only one of many possibilities. There is no eternal environment in life. Human beings can survive by virtue of ultra-high adaptability. This is also true of architecture and life.The flexible boundary can make the building adapt to the evolution of infectious diseases, and the undefined space can enable residents to provide unlimited possibilities for the building. The variable nature enables architecture to evolve with the development of society and residents.

Architecture is no longer a product of social isolation, standing upright in place. All things in the world are relative. There is no absolute right or wrong, and there is no absolute strong. The housing problem in Hong Kong is the product of history, geography, economy, humanities and other aspects. X public housing plays the role of social buffer. It does not seek to cure the problem instantly, but always adjusts the social contradictions, whether it is for housing or epidemic problems. His vague boundary is full of elasticity and cushioning. He is the public property of the whole Hong Kong society. The significance of his existence is no longer limited to the residents in the building. But through invisible borders to alleviate the epidemic, housing and other problems. Provide a buffer period for the whole society of Hong Kong to find other solutions.

The form and use of architecture are not stipulated by the architect from top to bottom. Personalized demand is the main factor to define the nature of architecture. The architect is more like a regulator and a promoter. A relatively reasonable framework of planning and design. Users can play freely on the premise of following the big rules. When the commonness of users in the building reaches a certain degree, they can even modify the rules formulated by architects, because only they know their own needs best.

What architects design is no longer a unique scheme, but a scheme for residents' reference, a possibility. Whether he is reasonable or not is only the product of the architect's objective and rational analysis, and his result comes from perceptual people and thoughts

Total Number of Large Hospitals Registered

43+13

Cumulative Number of COVID-19

308,594

Proportion of Public Hospital Services

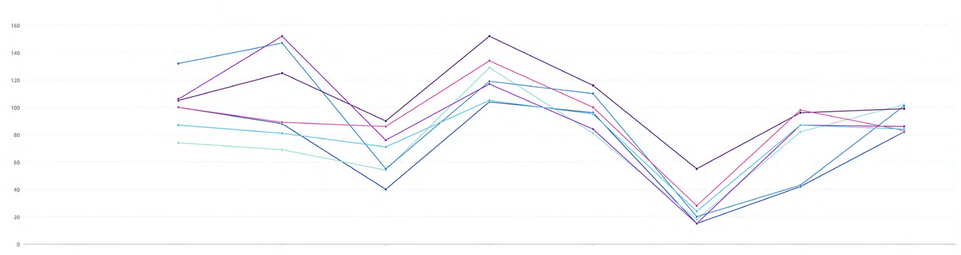
90%

Number of Registered Doctors in Hong Kong

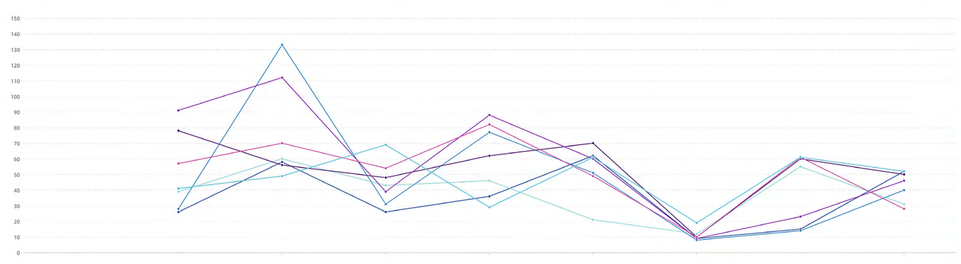
15,000+

Kowloon East | Kowloon Central | HK West | HK East | Kowloon West

NT East | NT West | Total Median 133



Median Waiting List for Specialist Clinics in Public Hospitals



Maximum Waiting Time for Specialist Clinics in Public Hospitals

Land issues in Hong Kong

1200 HM² Total Land

700 HM² Land for Infrastructure & Facilities

256 HM² Economic Land

230 HM² Residential

Forecast of Land Shortage in Hong Kong in The Next Decade

Total Land Area of Hong Kong

4.6 Recreation, government, institutions

75.7 Agricultural Land/ Wasteland/Forest/ Grassland

5.2 Railways, Roads & Airports

6.9 Residence

4.9 Other

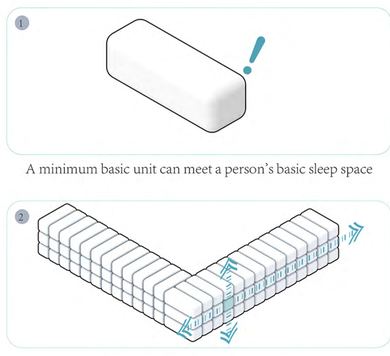
2.7 Industrial & Commercial Land & Warehouse

1. Due to historical and policy reasons, the ownership of a large number of land is in the hands of private enterprises. Among them, Henderson Zhaoye holds 4.26 million square meters, Sun Hung Kai holds 2.88 million square meters, new world holds 1.57 million square meters, and Chang real estate holds 840000 square meters.

2. Reasons for environmental and cultural relics protection. At present, more than 75% of the land use in Hong Kong belongs to undeveloped country parks. Country parks are public property for civilians and shared by the whole people. If they are developed arbitrarily, it will seriously affect the existing urban environment of Hong Kong, and reclamation will also have a negative environmental impact

3. Some people in Hong Kong believe that undeveloped land can become an invisible barrier. Once it is vigorously developed into residential areas, it will easily lead to the northeast New Territories and eventually become a "special zone of the special zone" that mainland people can enter without visas, which will bring greater pressure on domestic tourists and affect their quality of life.

Generation analysis

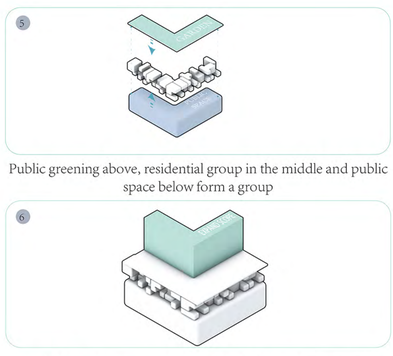


A minimum basic unit can meet a person's basic sleep space

Ordered replication of basic units

Remove some units and make space as elastic space

Dislocation, multi-dimensional to free up the elastic space, the elements are deformed and combined with each other to form a new unit, and the form of single line is diversified

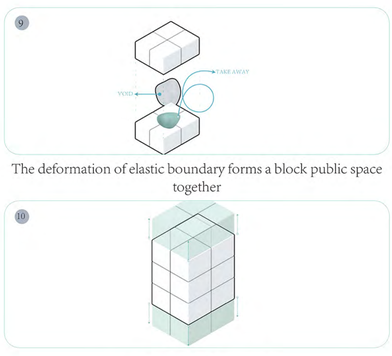


Public greening above, residential group in the middle and public space below form a group

Implant elastic expansion space [range] for placing expansion

Elastic cluster boundary wrapping cluster

Horizontal reproduction of group units, and multiple group maps form a small block unit

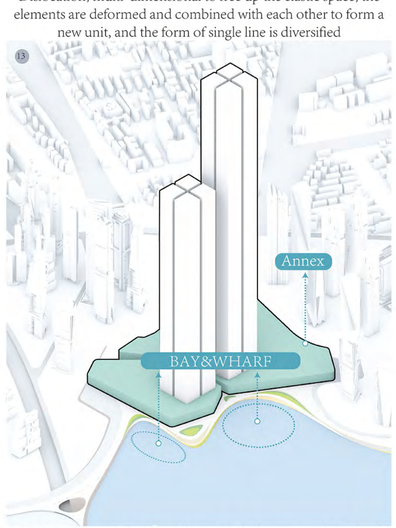


The deformation of elastic boundary forms a block public space together

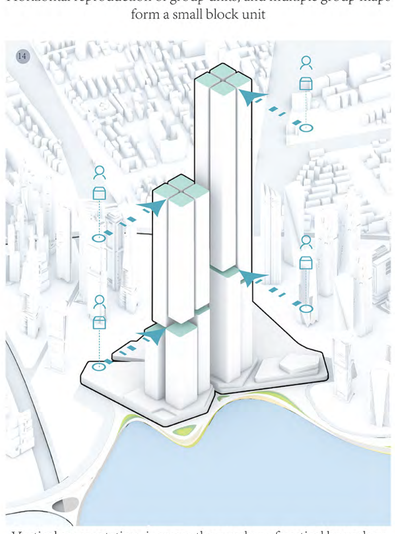
Vertical copy of block unit

Public greening above, residential group in the middle and public space below form a group

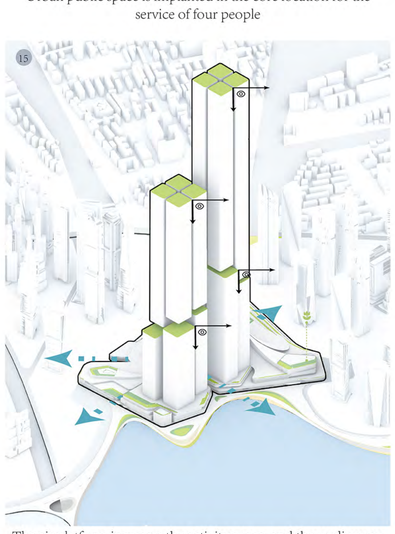
Urban public space is implanted in the core location for the service of four people



The form of double towers is formed, the bottom floor is placed into podium, and the landscape is curved to form wharf and harbor

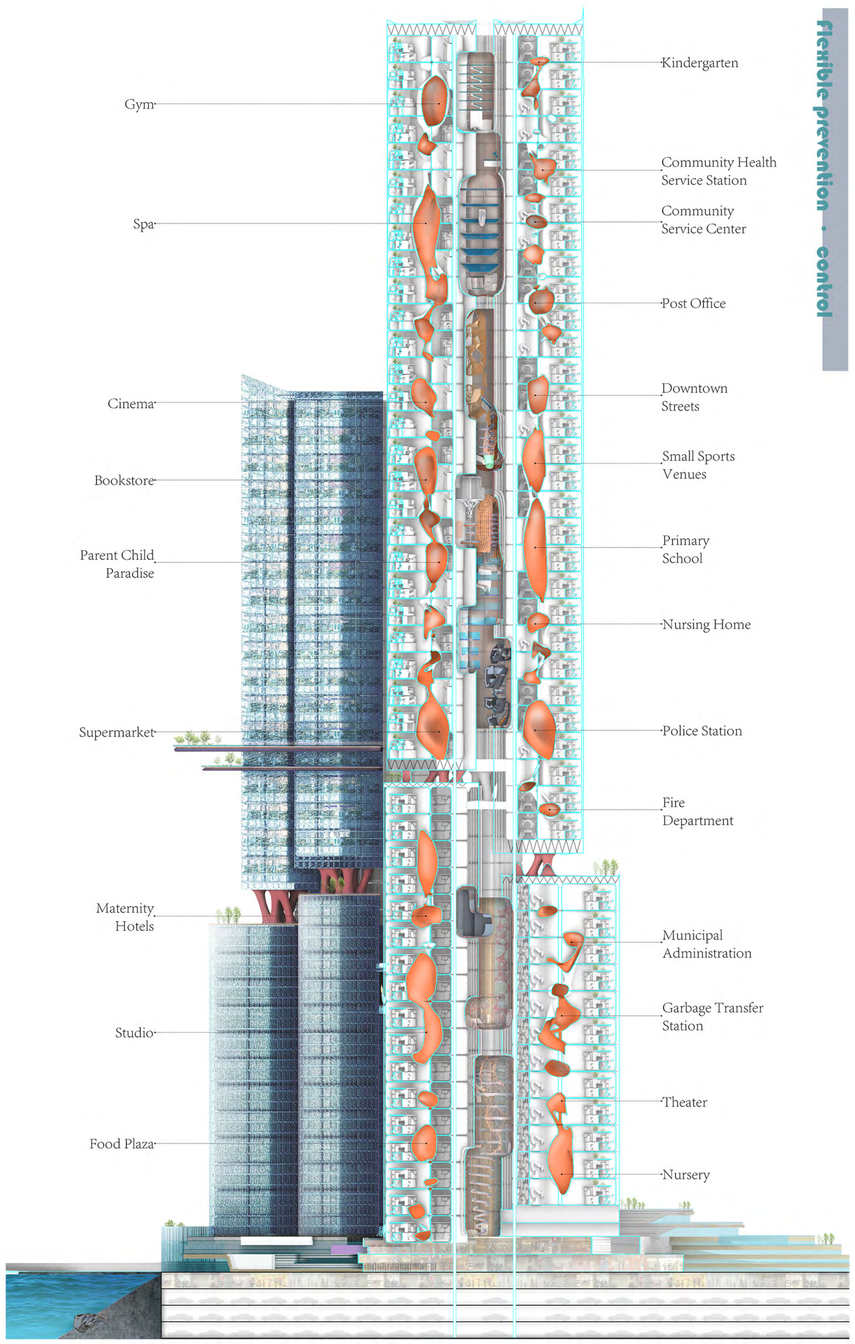


Vertical segmentation, increase the number of vertical boundary segmentation, and personnel and materials can enter the building through the fracture



The air platform increases the activity space, and the podium on the ground floor is cut according to the urban texture to form an urban pedestrian square

Flexible prevention · control



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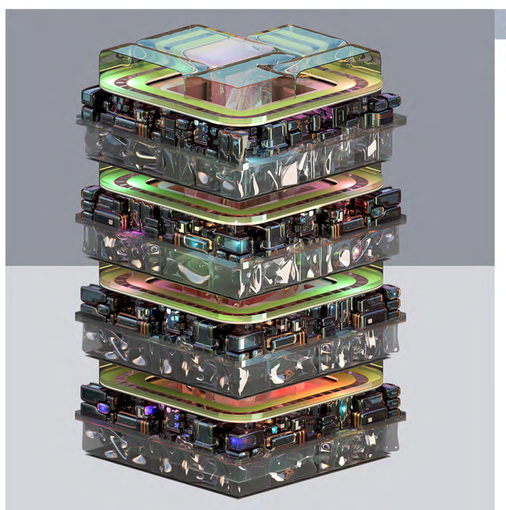


1Person | Accounting for 19.5% | Basic distribution 4.5 ~ 5.5M²

The basic allocation base of 1-person household is based on meeting sleep, so the space of 1-person household is a capsule sleeping ²bin

2Persons | Accounting for 28.7% | Basic distribution 5.5 ~ 17.5M²

The basic distribution base of 2-person households meets the basic conditions of sleep. Independent living space is specially provided for special groups, with double capsules and living rooms on this basis as the distribution scope

3Persons | Accounting for23.8% | Basic distribution 10.5 ~ 41.6M²

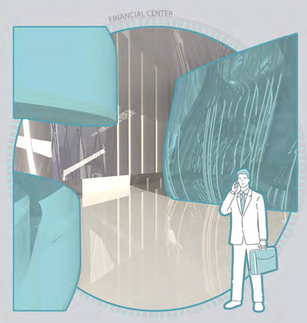
The family structure of a three person household is generally a family of three, so if two private sleeping spaces are needed, an independent living space is specially provided for special people, which is based on double Capsule plus single capsule and living room on this basis

4Persons | Accounting for17.5% | Basic distribution 12 ~ 52M²

The family structure of 4-person households is generally two generations living together, so if two private sleeping spaces are needed, an independent living space is specially provided for special people, based on two double capsules and a living room on this basis

5Persons | Accounting for10.5% | Basic distribution 12 ~ 52M²

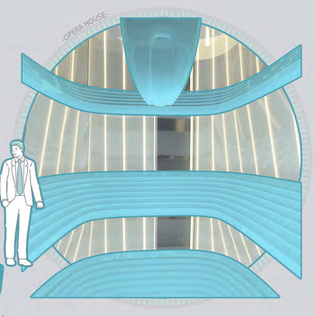
The family structure of 5-person households is generally three generations in the same house, so if three private sleeping spaces are needed, an independent living space is specially provided for special people, which is based on two double capsules and one single capsule and living room on this basis



Financial Center

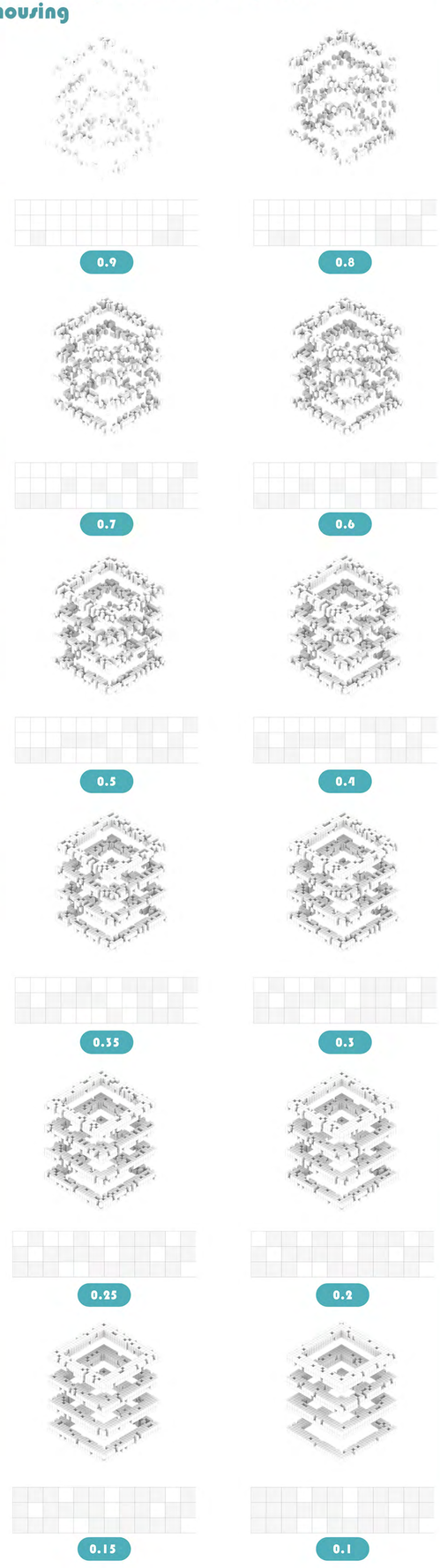
Fitness Center

Shopping Center



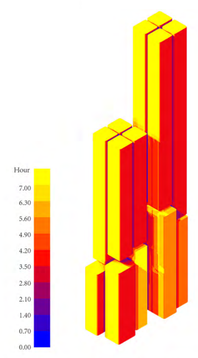
Theatre

X elasticity coefficient of public housing

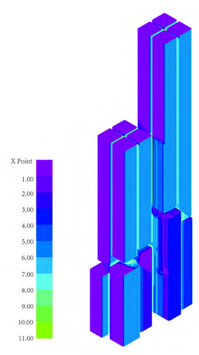


The elasticity coefficient indicates the expansion potential of basic living space. For example, the elasticity coefficient of 0.9 indicates that there is 9 expansion potential per cubic meter. Elasticity coefficient = 1 - space utilization

Disadvantage Compensation



Sunshine Duration Analysis Chart



Relationship between x-integral compensation and position

Since several pieces of land and high-density residence will inevitably bring sunshine to some areas of X public housing, this problem is solved through the x-point compensation method, that is, if the resident chooses to live in a sunny and pleasant location, the resident will receive less x-point compensation or even no compensation. On the contrary, if a resident lives in a place with poor sunshine, the more x-point compensation he can get [x-point can be used to expand his living volume in the later stage, for details, please refer to the Public Housing Ordinance]

AIR RESIDENTIAL AREA

346511
Number of Reasonable Users

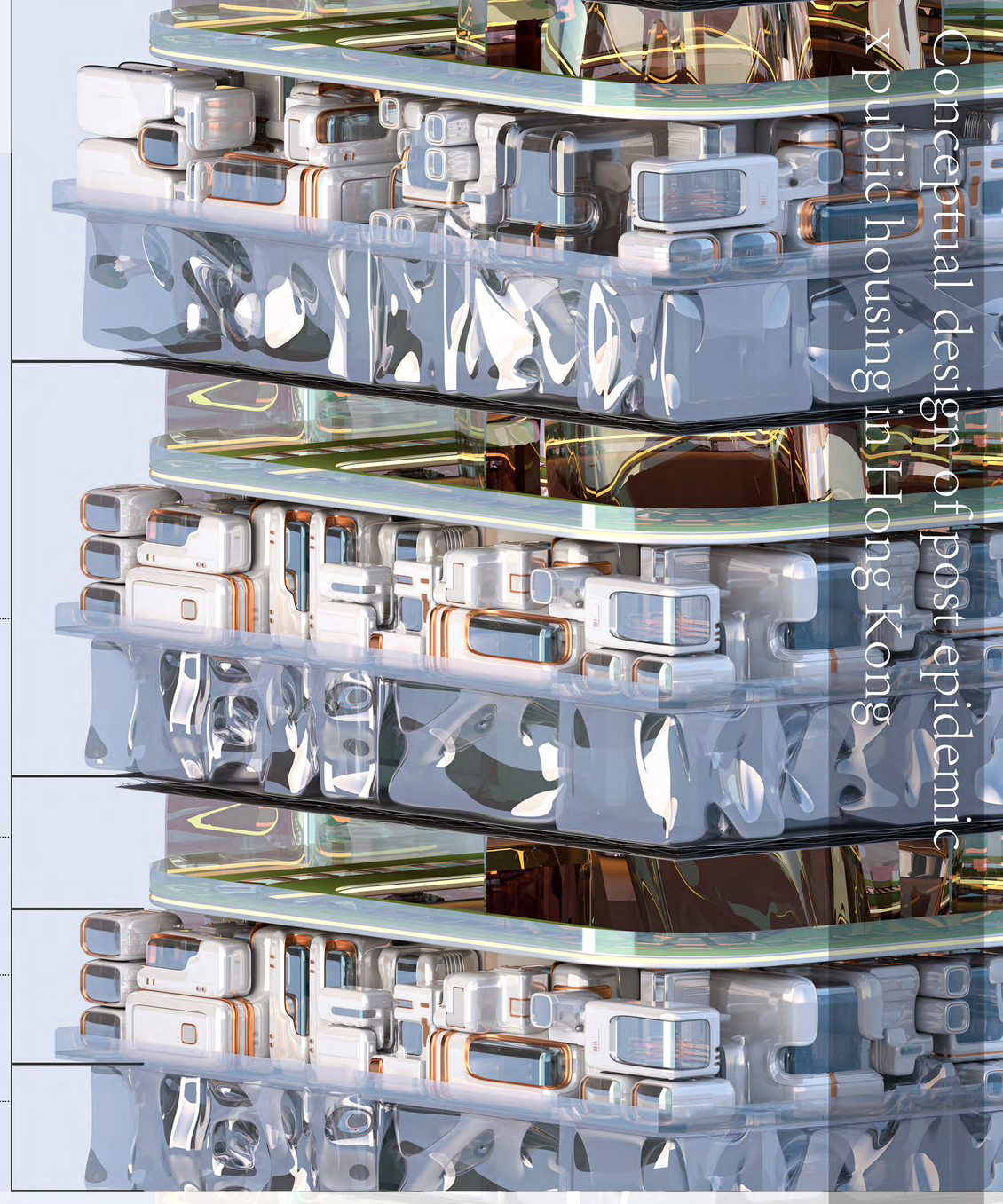
0.2
Elastic Coefficient

Air Group — A block integrates leisure, residential, commercial and other functions, and the supporting facilities are perfect

Garden — As a public green space integrating refuge, standby and leisure

Residential Space — Main residential area of residents

Publice Space — This part of public space belongs to block level supporting facilities

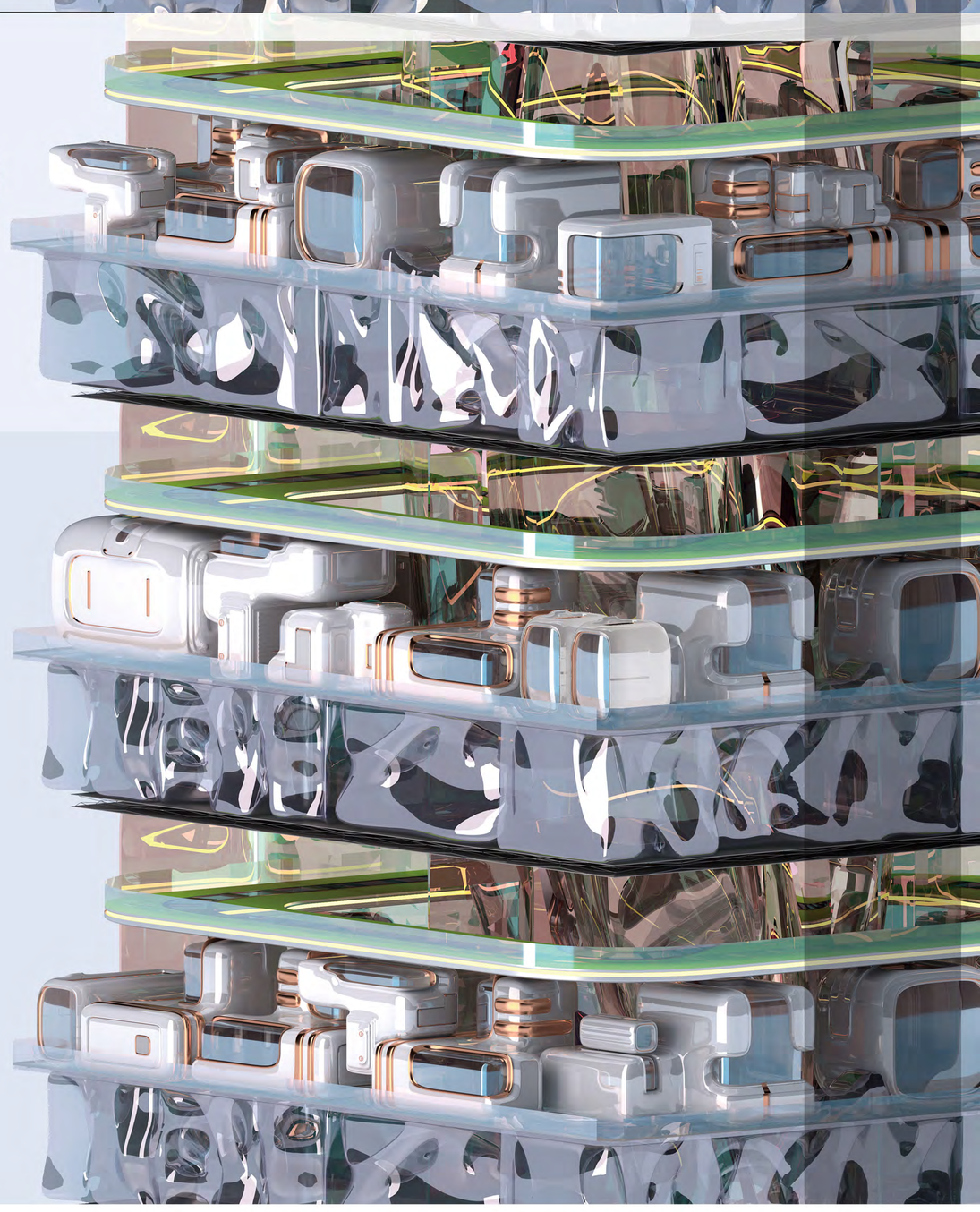


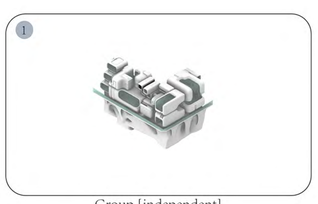
HEDONIC LIVING MODE

In the future, when Hong Kong's land and housing problems are effectively solved, Hong Kong's land is fully developed and utilized, and Hong Kong people's demand for public housing is extremely low, X public housing will adopt the extreme living mode, with the number of households being 1% of the limit state. All residents will be allocated according to the extremely high living standards, which can greatly increase the space quota. The huge living space can not only meet the basic sleep requirements of residents, It can even bring community functional rooms into private space [i.e. cinemas, gyms, medical rooms, etc. will appear in each household]

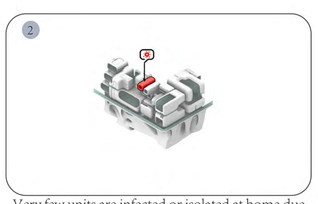
63693
Occupancy

9
Elastic Coefficient

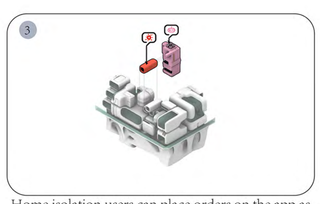




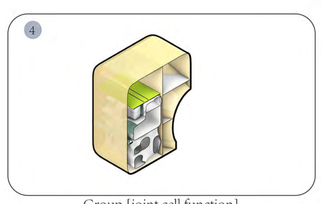
1 Group [independent]



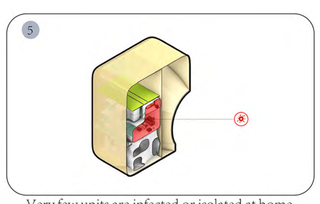
2 Very few units are infected or isolated at home due to policy needs



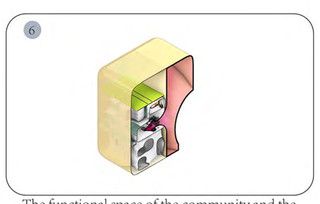
3 Home isolation users can place orders on the app as needed to connect the expansion space units



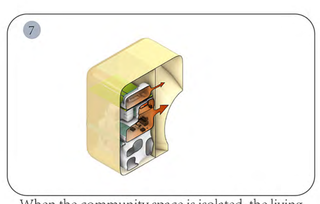
4 Group [joint cell function]



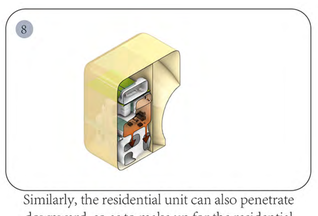
5 Very few units are infected or isolated at home due to policy needs



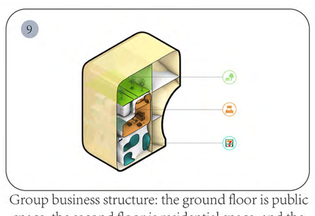
6 The functional space of the community and the residential unit penetrate each other, remove the boundary, and realize the residential + community functional residential mode



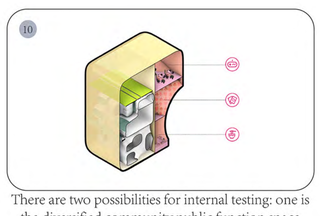
7 When the community space is isolated, the living space can also reverse penetrate into the community public space, so as to make up for the living problem during isolation



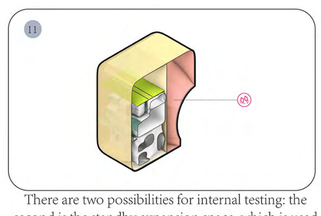
8 Similarly, the residential unit can also penetrate downward, so as to make up for the residential problem of spatial isolation in the bottom community



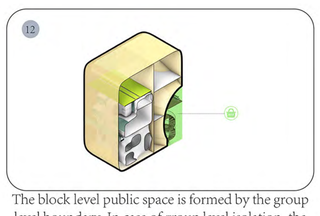
9 Group business structure: the ground floor is public space, the second floor is residential space, and the third floor is green space



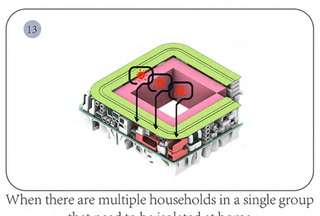
10 There are two possibilities for internal testing: one is the diversified community public function space



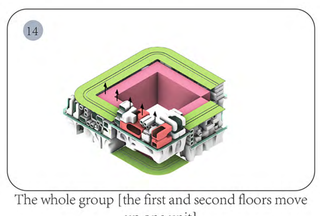
11 There are two possibilities for internal testing: the second is the standby expansion space, which is used to temporarily place the expansion space unit



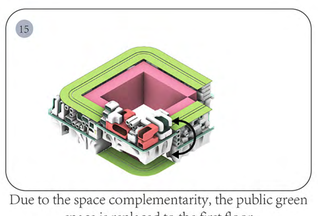
12 The block level public space is formed by the group level boundary. In case of group level isolation, the block level public space will penetrate into the group



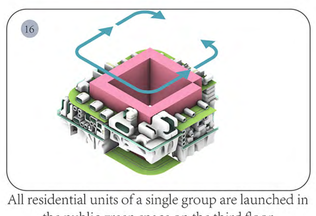
13 When there are multiple households in a single group that need to be isolated at home



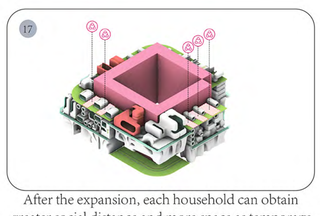
14 The whole group [the first and second floors move up one unit]



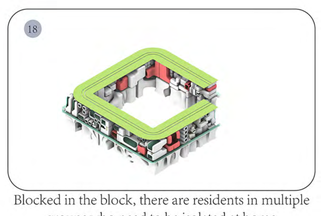
15 Due to the space complementarity, the public green space is replaced to the first floor



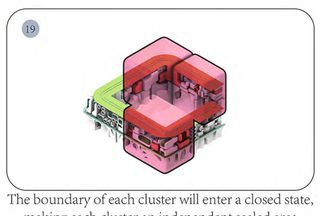
16 All residential units of a single group are launched in the public green space on the third floor



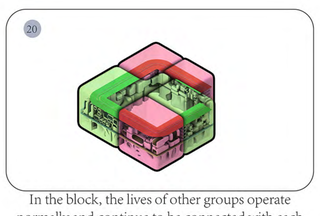
17 After the expansion, each household can obtain greater social distance and more space as temporary placement of expansion equipment and expansion space



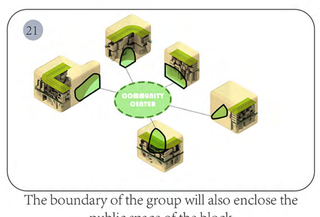
18 Blocked in the block, there are residents in multiple groups who need to be isolated at home



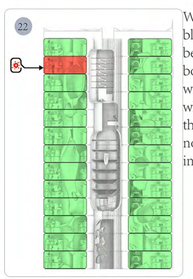
19 The boundary of each cluster will enter a closed state, making each cluster an independent sealed area



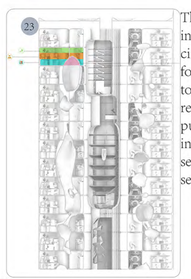
20 In the block, the lives of other groups operate normally and continue to be connected with each other



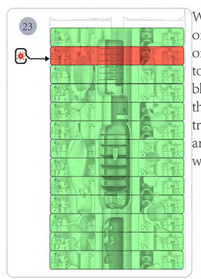
21 The boundary of the group will also enclose the public space of the block



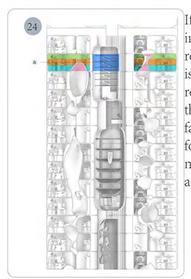
22 When the whole block needs to be enclosed, the boundary of the block will close the block, while other blocks of the building operate normally without interference



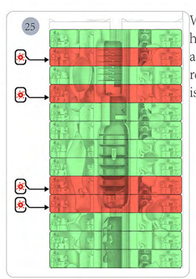
23 The supporting facilities in the block are perfect. If circumstances permit, except for the residents who need to be isolated at home, other residents still enjoy all the public supporting facilities in the block, forming a secondary management of sealing and control



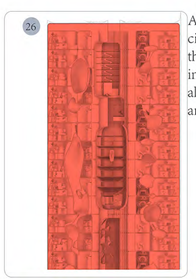
23 When the four blocks on the same floor and only one floor need to be sealed off, the block boundary and the closure of vertical traffic will separate this area, and other floors will not be affected



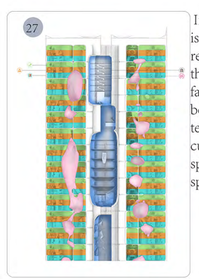
24 If the situation permits, in addition to the residents who need to be isolated at home, other residents still enjoy all the public supporting facilities of the floor , forming a secondary management of sealing and control



25 When the building has multiple floors and a large number of residents need to be isolated at home



26 At this time, the city boundary of the building will intervene to separate all residents in this area



27 In addition to being isolated at home, other residents still enjoy all the public supporting facilities within the boundary , and even temporarily place customized public space in the expanded space through app