

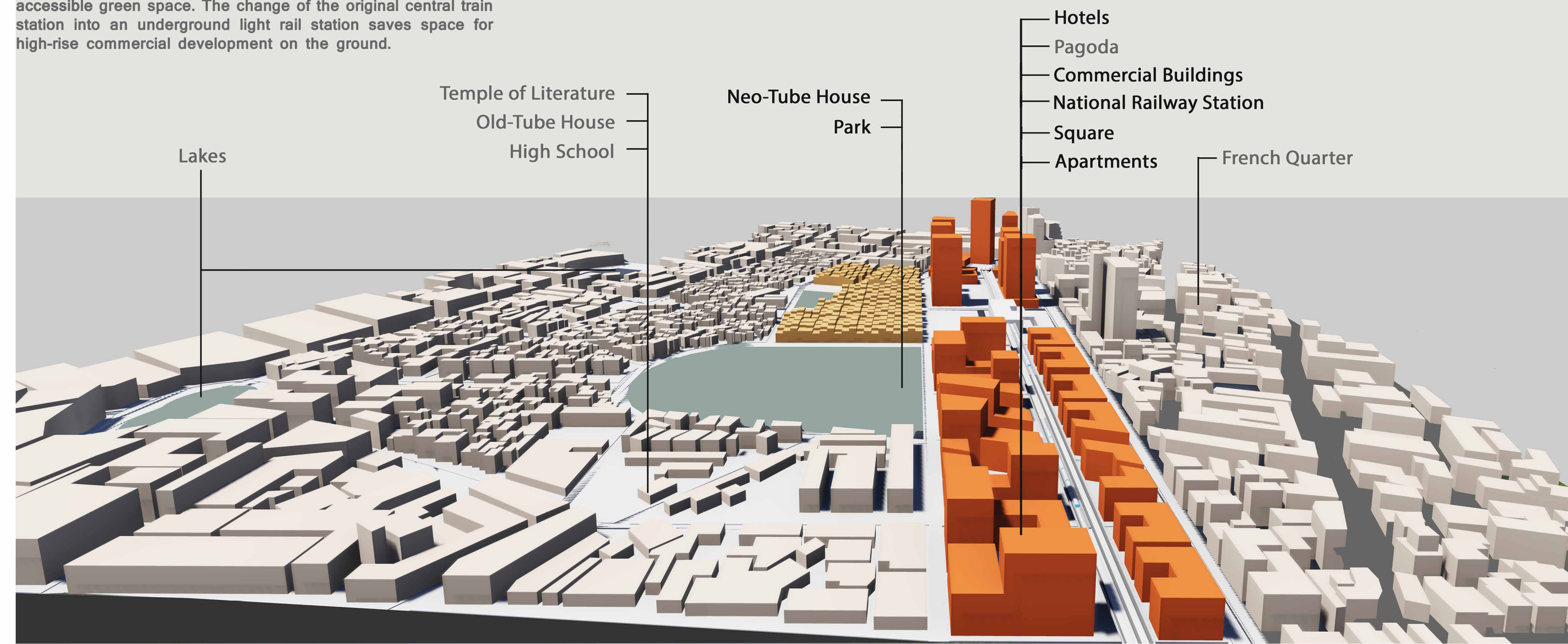
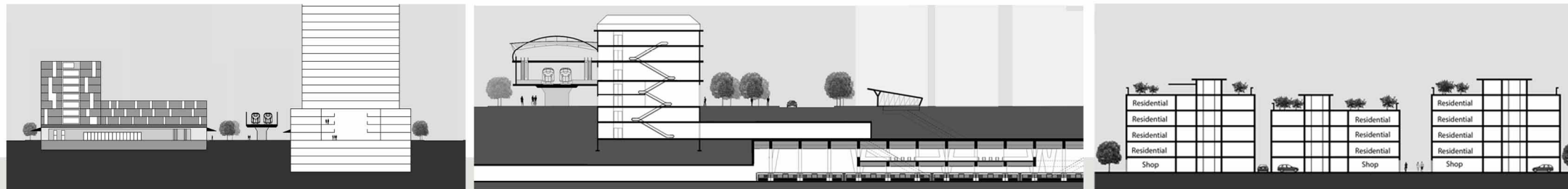
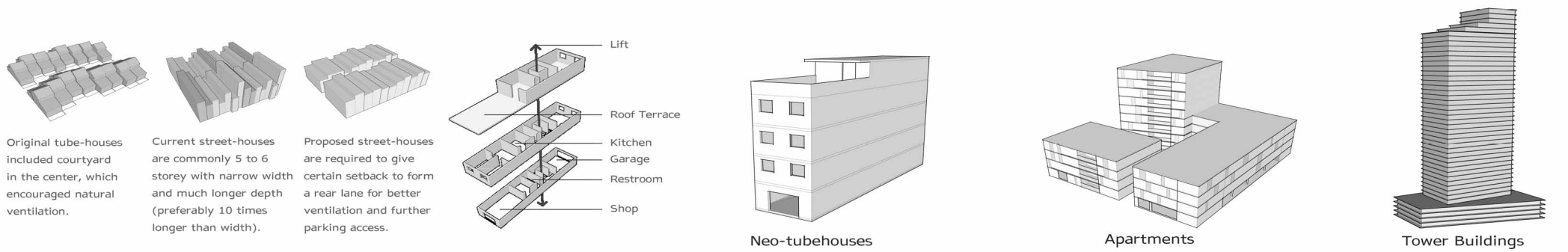
**Master of Urban Development & Design 2015-2016**  
 Hanoi is the capital of Vietnam and the country's second largest city. From 1010 until 1802, it was the most important political centre of Vietnam. Hanoi served as the capital of French Indochina from 1902 to 1954. From 1954 to 1976, it was the capital of North Vietnam, and it became the capital of a reunified Vietnam in 1976, after the North's victory in the Vietnam War. The city lies on the right bank of the Red River. Hanoi is 1,760 km north of Ho Chi Minh City and 120 km west of Hai Phong city.

# HANOI

## National Station Renewal

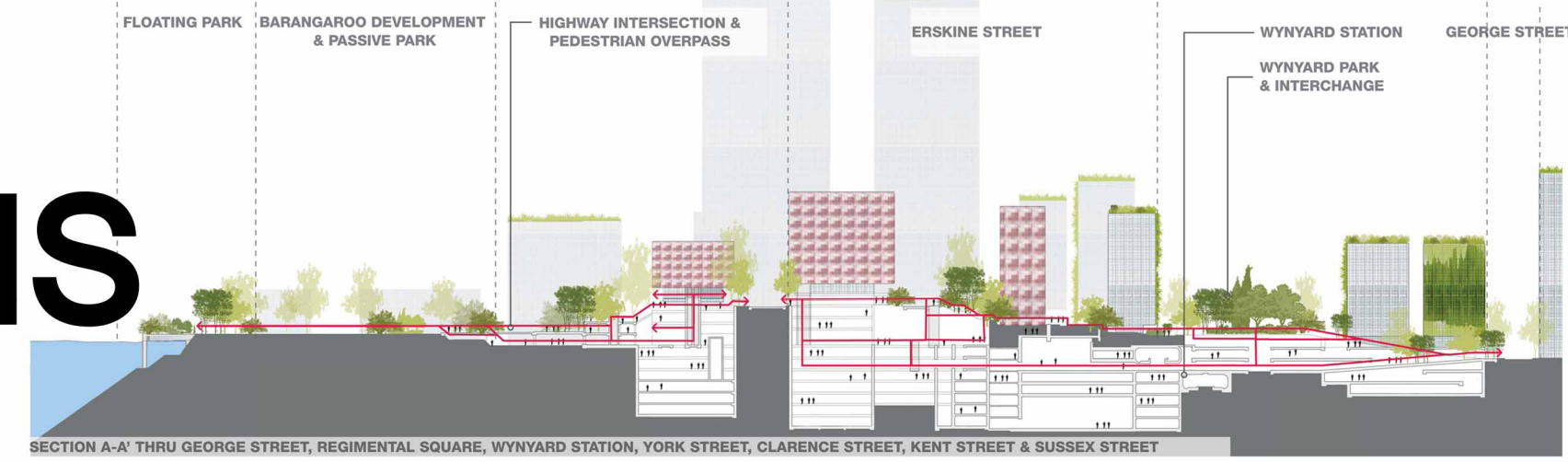
lively neighbourhood reformed by improving connectivity and regeneration of community.

The previous proposal created a fully rebuilt new CBD by demolishing whole existing patterns, which is unrealistic in many terms. The proposal introduced several new streets that divide this area into multiple blocks, which will benefit the local traffic distribution and improve the accessibility. The introduction of a new civic square, several pedestrian streets and the development around the lake creates public space and accessible green space. The change of the original central train station into an underground light rail station saves space for high-rise commercial development on the ground.



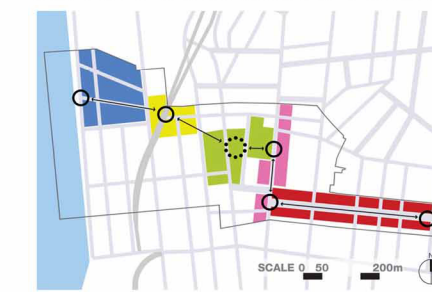
# WYNYARD AXIS

## Landscapae Structure Plan



“To create a dynamic and integrated urban fabric in the heart of Sydney that provides opportunities for people to live, work and play.”

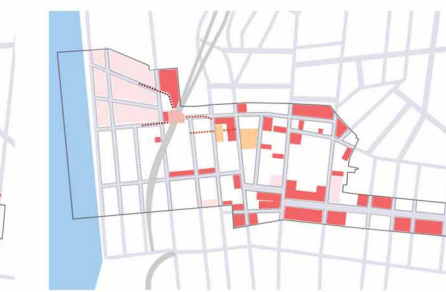
### INVENTORY 3 MAIN DOMAINS IN INVESTIGATING ISSUES & POTENTIALS OF TRANSECT CONNECTION



Ground Plane VS Sub-surface Plane Pedestrian  
Diagram shows current pedestrian flows on ground surface and sub-surface plane with connection bridges

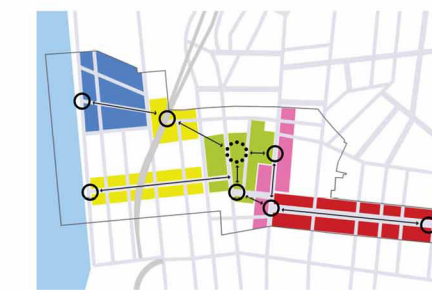


Vehicular Access VS Public Transport Access  
Diagram shows traffic flows of existing vehicular and public transport access.



Heritage Items VS Special Character Areas  
Diagram shows existing heritage items and special character areas zoning found on site

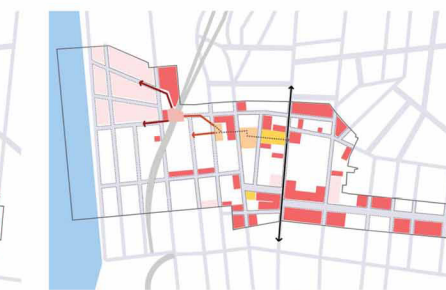
### ANALYSIS OF 3 MAIN DOMAINS IN INVESTIGATING ISSUE & POTENTIALITIES OF TRANSECT CONNECTION



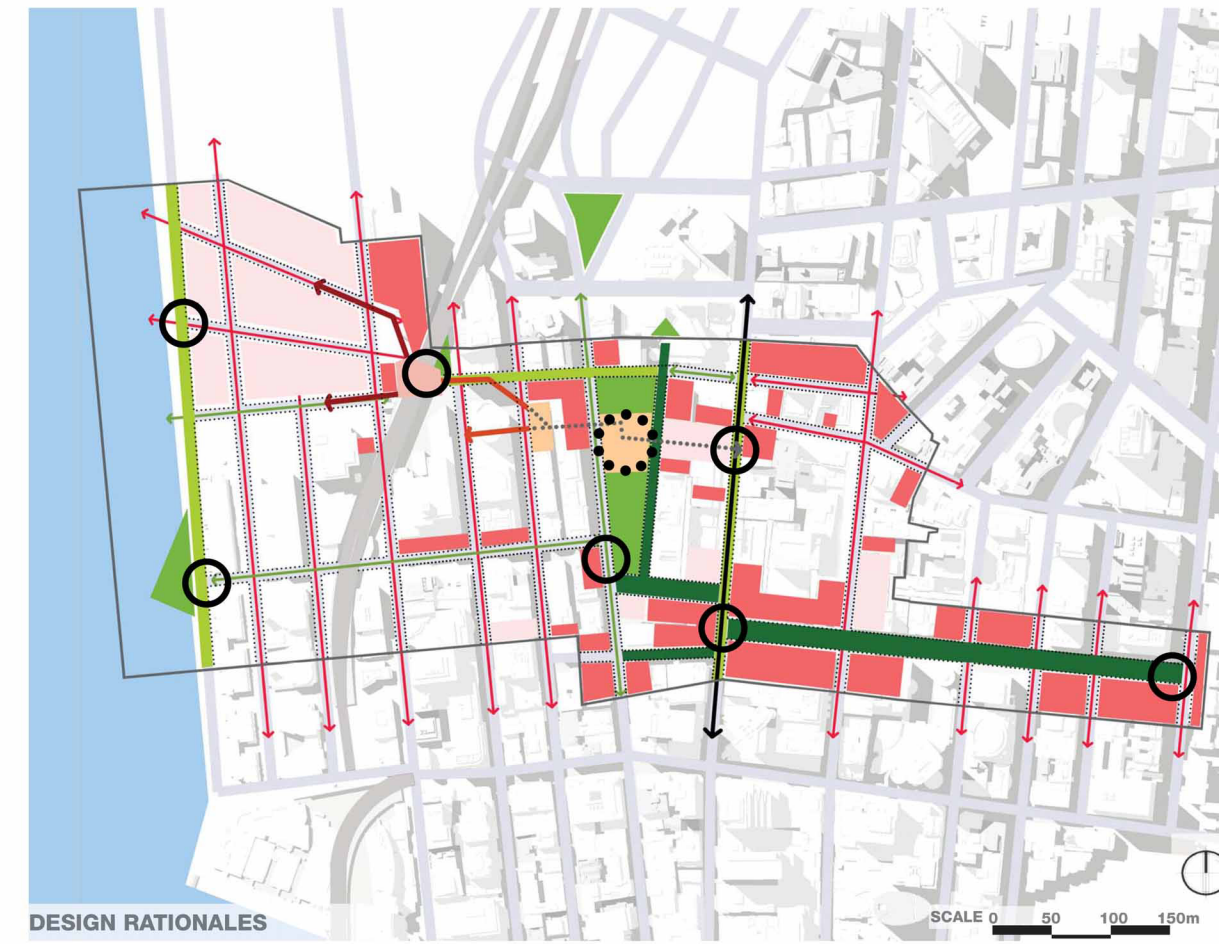
Ground Plane VS Sub-surface Plane Pedestrian  
Diagram shows pedestrian flows on ground surface and sub-surface plane with connection bridges as per future development of George Street pedestrianisation and Barangaroo Development



Vehicular Access VS Public Transport Access  
Diagram shows traffic flows of vehicular and public transport access as per future development of George Street pedestrianisation and Barangaroo Development



Heritage Items VS Special Character Areas  
Diagram shows heritage items versus Special Character Areas as per heritage items list and special character area of Sydney

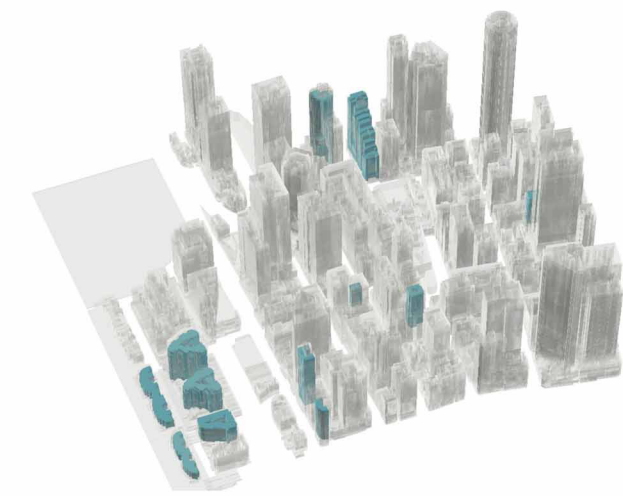
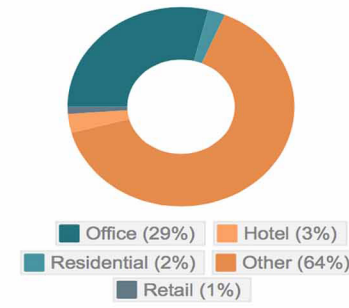


- Heritage Item
- Under Construction
- Underground Space
- Public Domain
- Park
- Pedestrian Corridor
- Wynyard Station
- Physical Cues
- Light Rail
- Skybridge Conn.
- Subsurface Conn.
- Main Roads
- Sidewalk Conn.



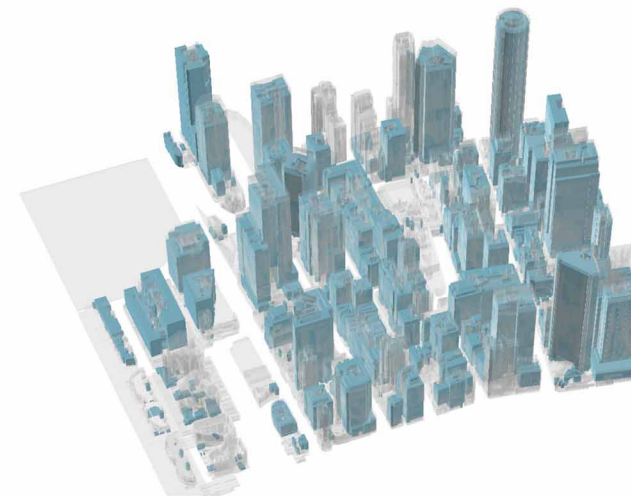
# WYNYARD AXIS

## Feasibility Study



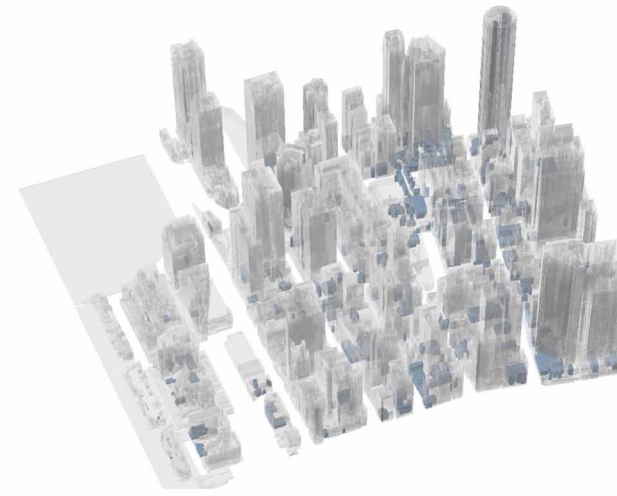
### RESIDENTIAL

Very few residential tower found in the studied transect due to its intensity as office hub and workplace of Sydney. Hence, there is opportunity of increasing the amount of residential buildings to cater demand of growing population in the city.



### OFFICE

Office towers are likely to be the most dominant building uses found on studied transect. With such intensity and high demand of office space in the city core, a versatility or shared office scheme could be a new dynamic intervention of offices usage in Sydney as an international city.

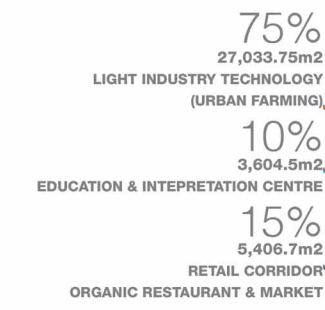


### RETAIL

Retail corridor can be seen as the main source of building activational items in which it connects from one to another premise at pedestrianise accessible space. The should be an anchor of retail within the transect with new attraction of retail items in which it provides healthy and fresh food source within reach from the workplace.

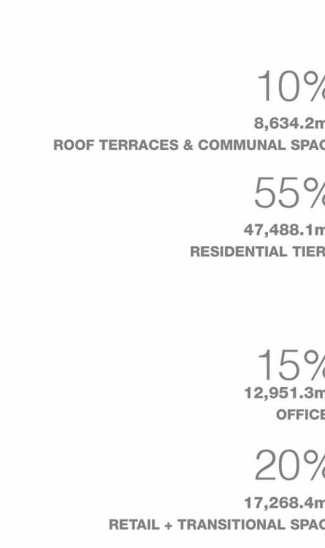
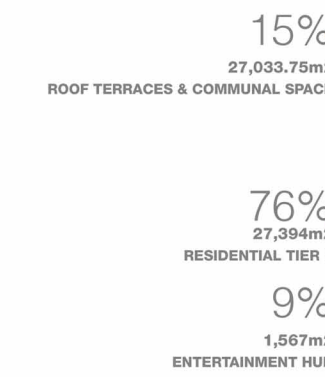
Total floor space (m2) : 36,045

Gross Profit after GST : 9.42%



Total floor space (m2) : 36,045

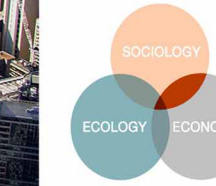
Gross Profit after GST : 9.42%



Total floor space (m2) : 86,342



### The Yorkganics



#### VISION STATEMENT

"Vertical farming to encourage a fresh take on farm to table living and dining"

The idea of bringing vertical urban farming at the city centre is quite radical. It has not been attempted in Sydney before. The case study that we referred to when considering this approach to a development was taken from an urban vertical farm in Singapore and one from the USA. Commercialised urban farming is becoming increasingly a profitable and viable option for new business opportunities.



### Folks on York



#### VISION STATEMENT

"Sustainable Community Tubes to live, learn and play"

The idea of bringing livelihood in a building as a place for the citizen to live and play through a sustainable and building design integrated with recreational facilities which accessible within 10 minutes walking distance.



### Wynyard Place



#### VISION STATEMENT

"Sophisticated living in the heart of Sydney"

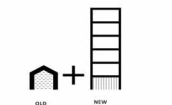
Wynyard Place seen as an urban gateway of new sophisticated living of Sydney congregating urban life in efficiency combining workplace, recreational and entertainment with retails corridor as Sydney's major urban transitional place.



# GREEN OASIS

## Landscape strategy

Reuse and enrich



Connection



Common space



Sustainability

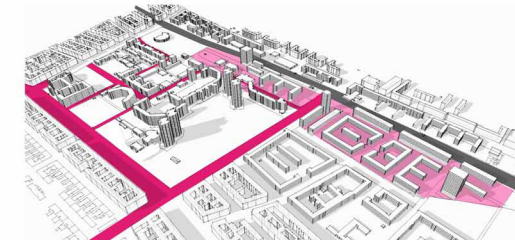
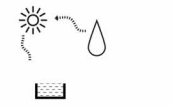


Figure 2. Reuse and enrich

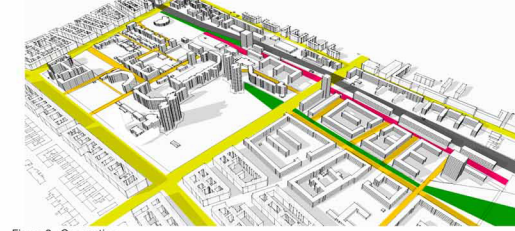


Figure 3. Connection

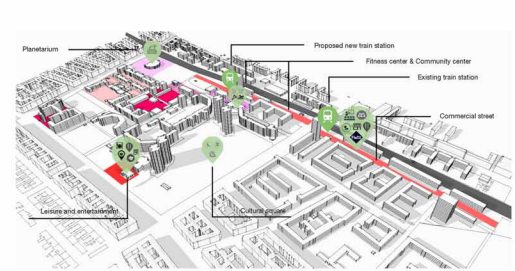
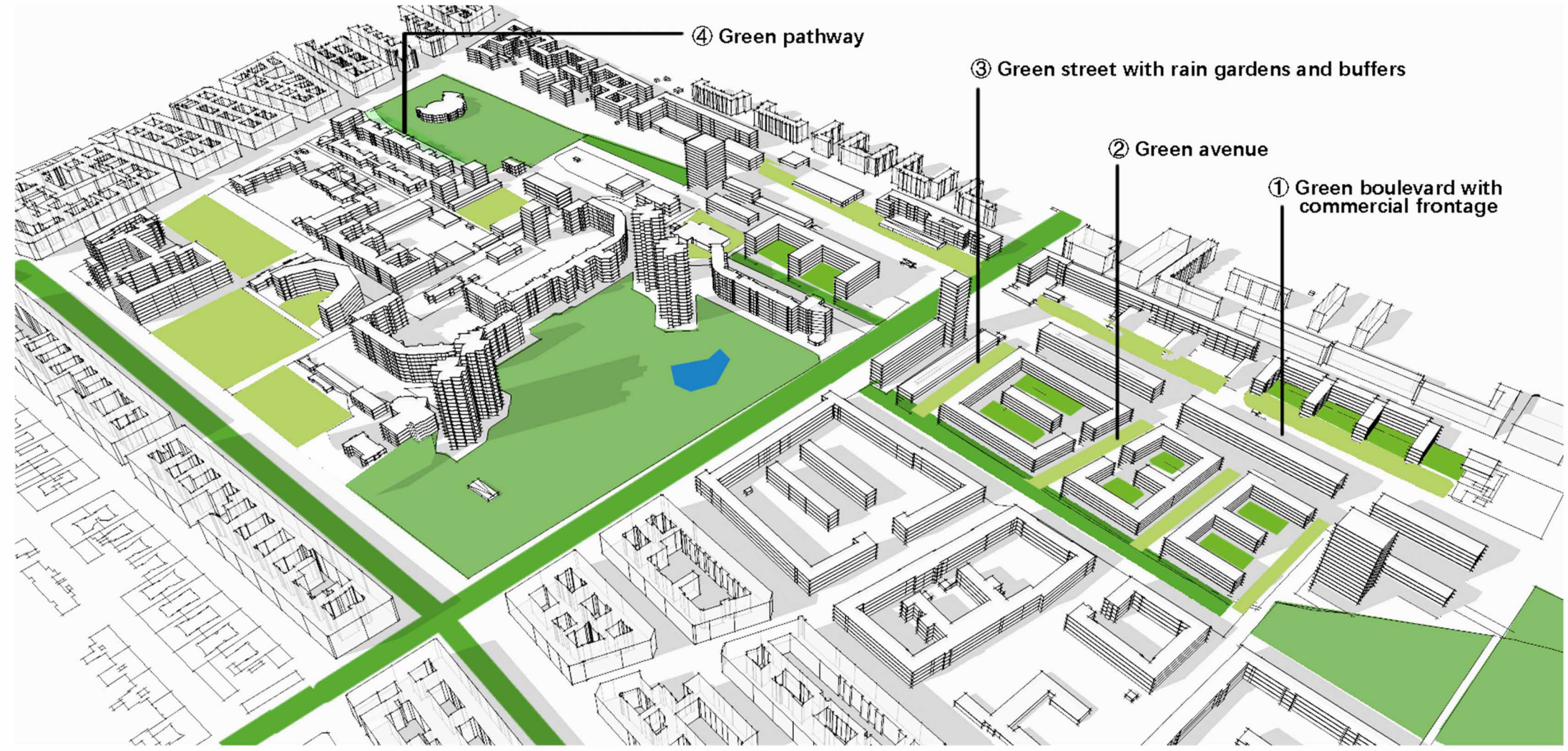


Figure 4. Common space



Figure 5. Sustainability



## Economy strategy



Figure 17. Traditional Berlin community street



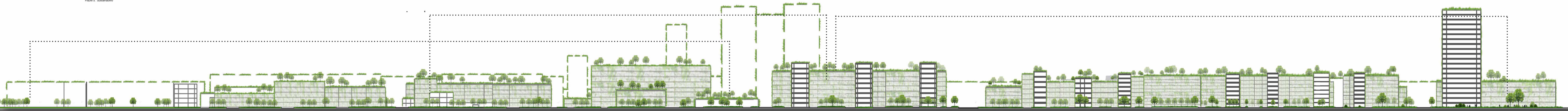
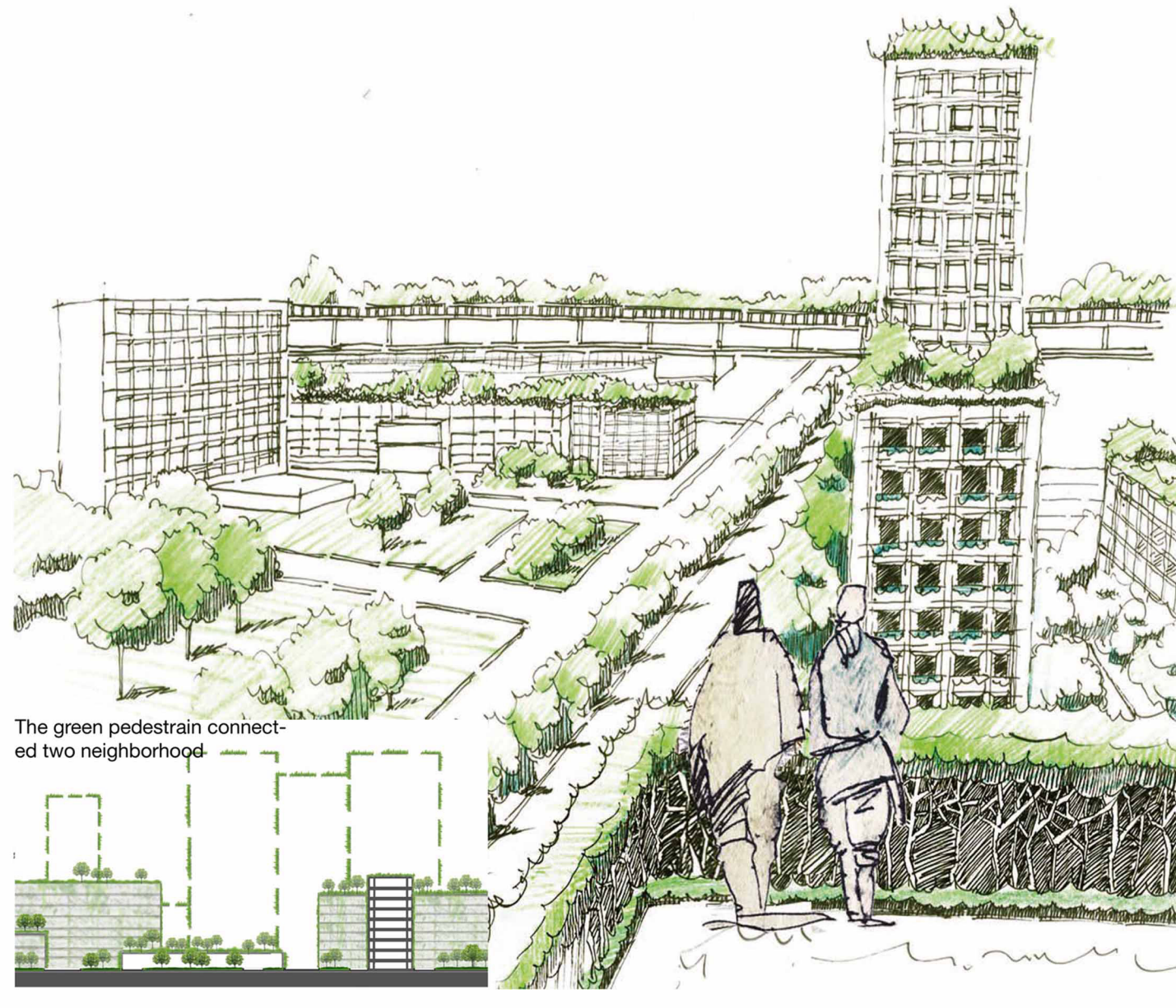
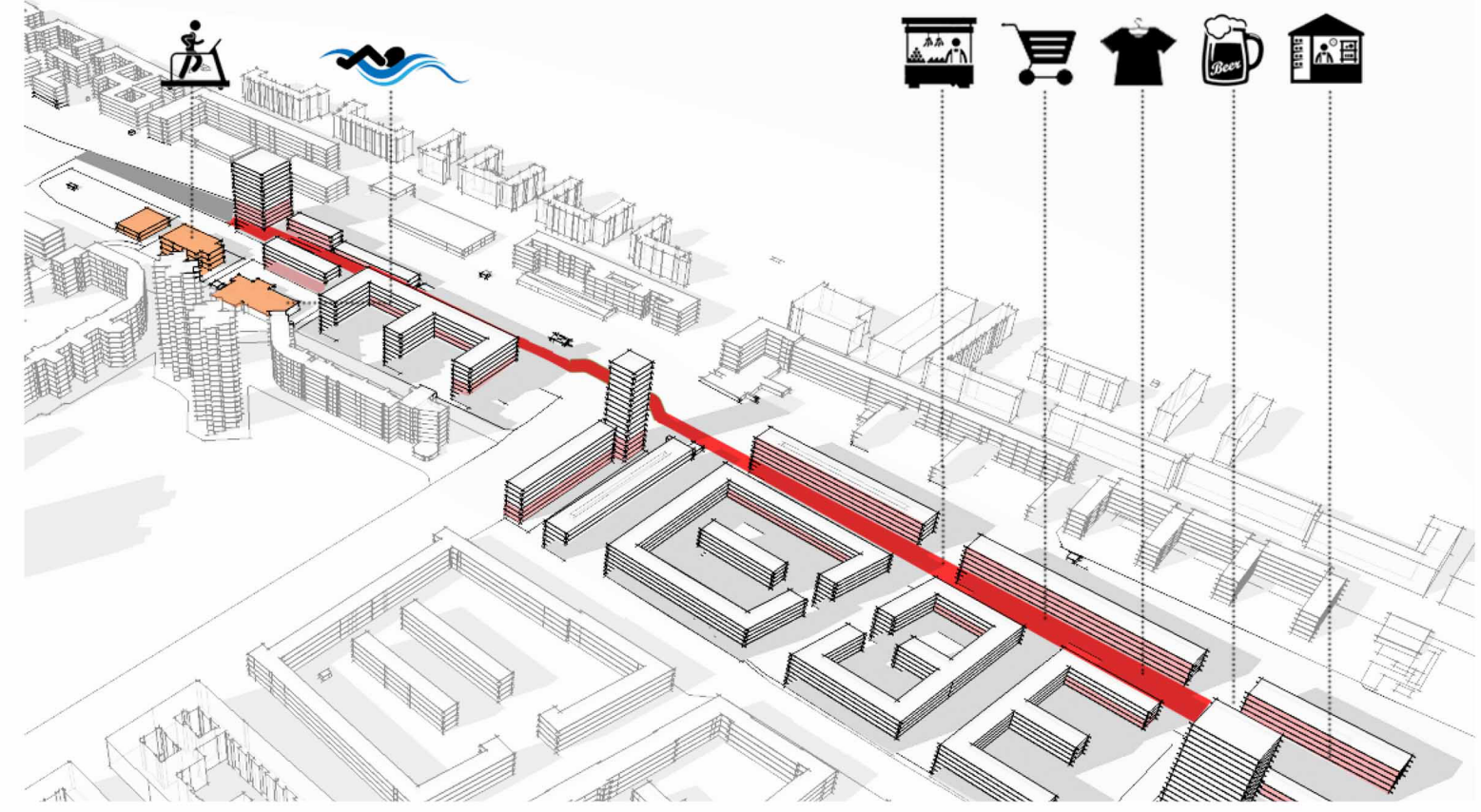
Figure 18. Street with retail on the ground



Figure 19. Commercial street



Figure 20. Commercial street

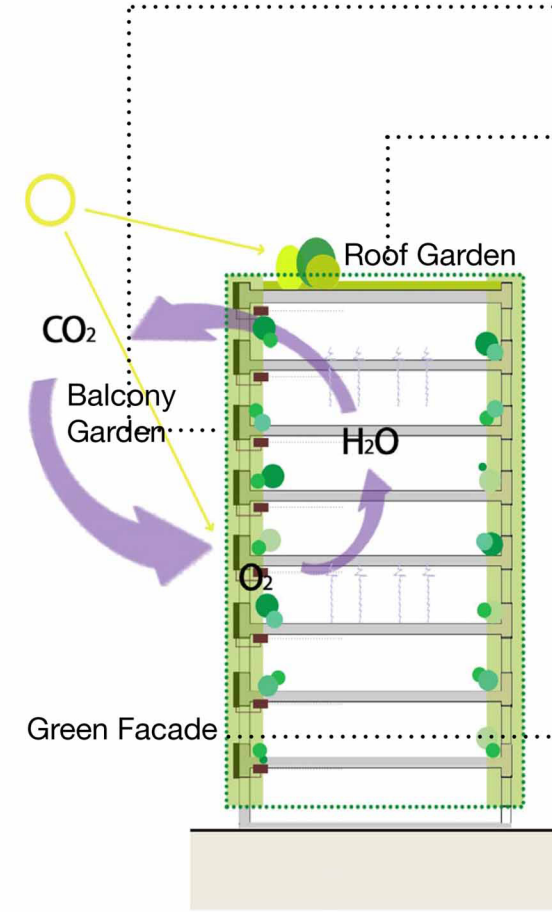


# GREEN OASIS

## Green Building Strategy

### GREEN INFRASTRUCTURE

The new buildings created in this design process will provide its ecosystem in a healthy community. They could reduce the carbon dioxide, but produce more oxygen. Thus, green buildings can benefit from nature to people, and enhance nature's ability to deliver multiple valuable ecosystem goods and services, such as clean air or water. It also encourages a more sustainable and resource efficient development process of this community.



Roof Garden in Berlin



Balcony Garden in Berlin



Green facade in site

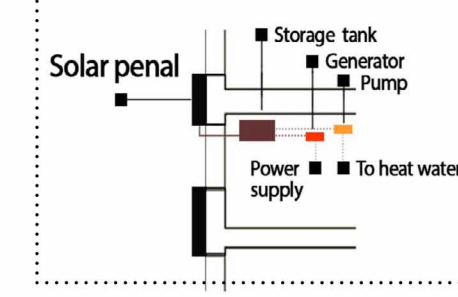


The existing green buildings in Berlin

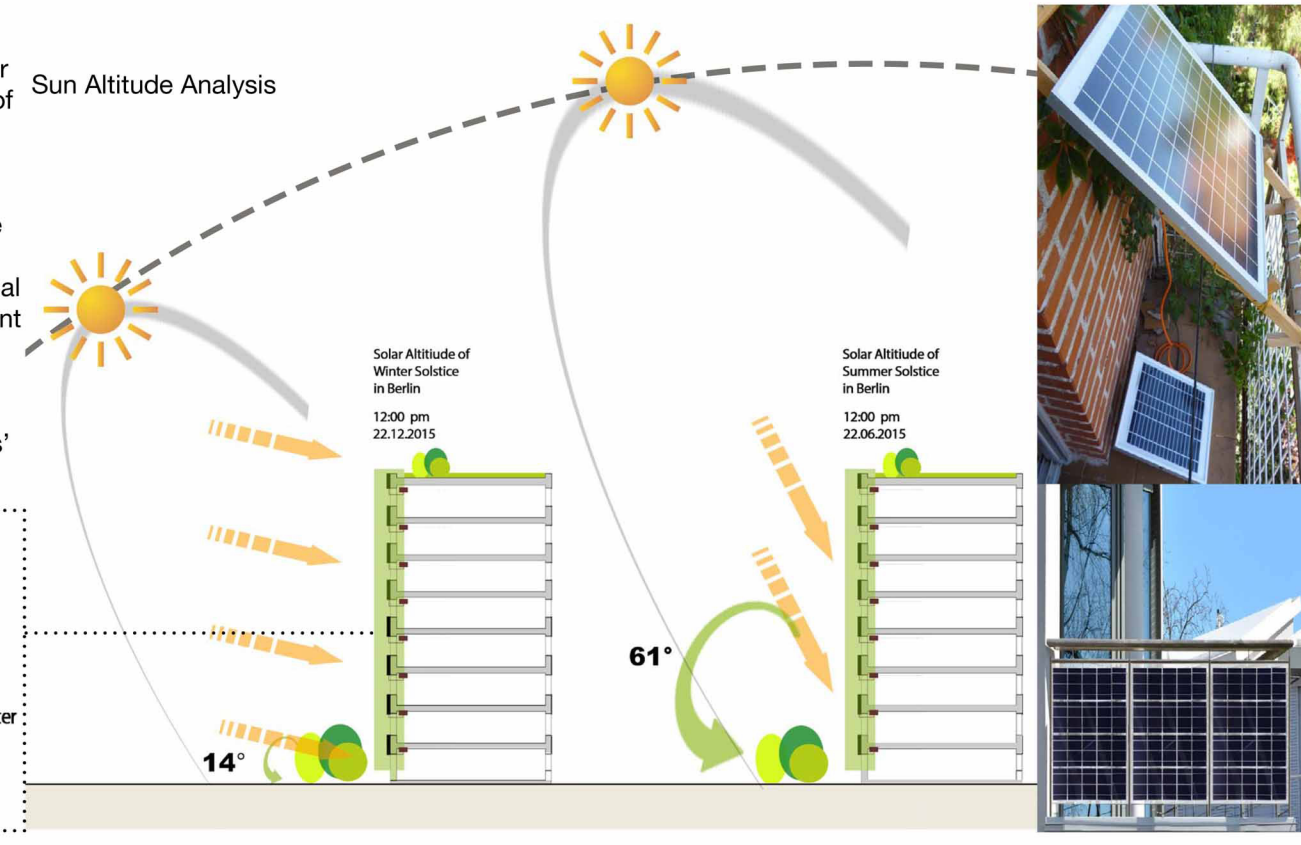
Currently in Germany, solar heating can not only be used in single residential building, which is a house or villa, it can also ensure the supply of apartment buildings.

For example, Munich city government's approach is to start with the transformation of low-rent housing where the residents hold the national welfare subsidies. In fact, investment of their housing renovation can relieve the whole country's pressure, otherwise, the government need to invest more funds for these tenants' heating demand.

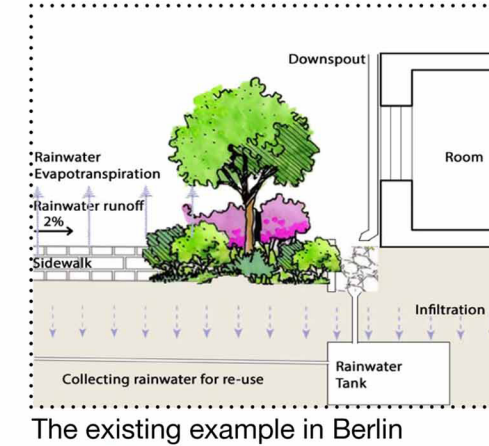
Solar panel system



Sun Altitude Analysis



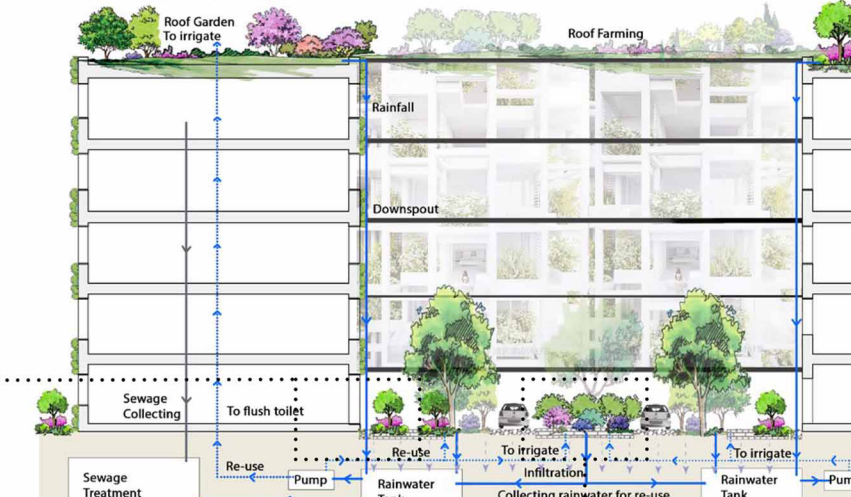
Rainfall Collection



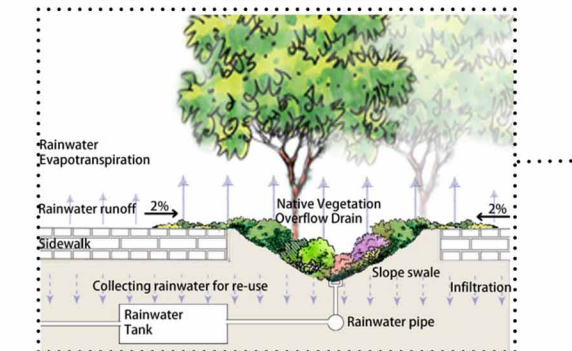
The existing example in Berlin



Water Recycling System



Overflow Drain Water Collection



### WATER RECYCLING AND REUSE

Water recycling system can collect rainwater and greywater. The rainwater can be reused for washing, irrigation and toilet flushing. But the sewage water collected through the treatment equipment can be used for toilet flushing and irrigation.

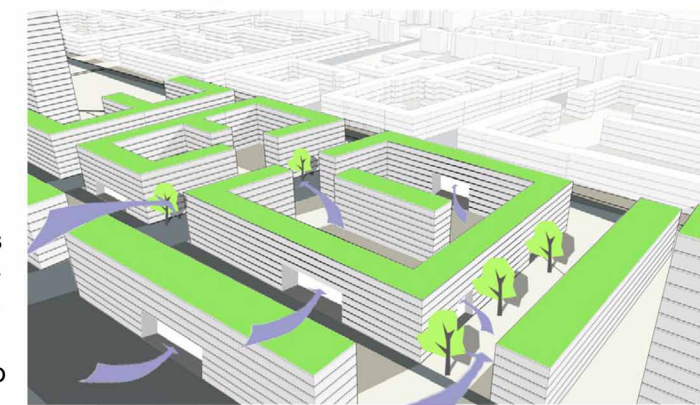
There are two ways to collect water, one is about collecting roof rainfall water through downspout, the other one is about the overflow drain collecting the water.

### VENTILATION

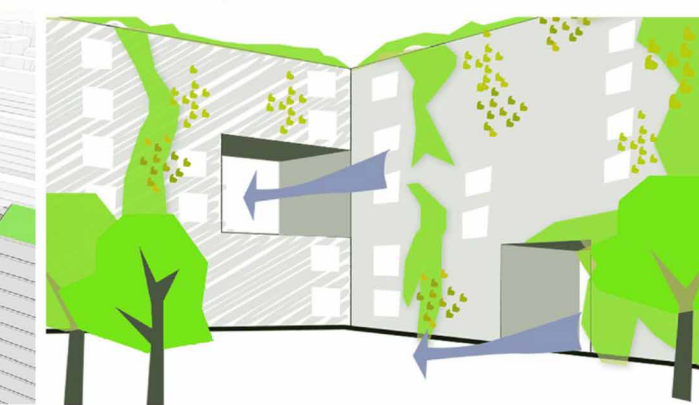
Berlin's wind direction in summer is east south east and the wind direction in winter is east. Therefore, the building open the entrance which could bring the cold and fresh air to the community.



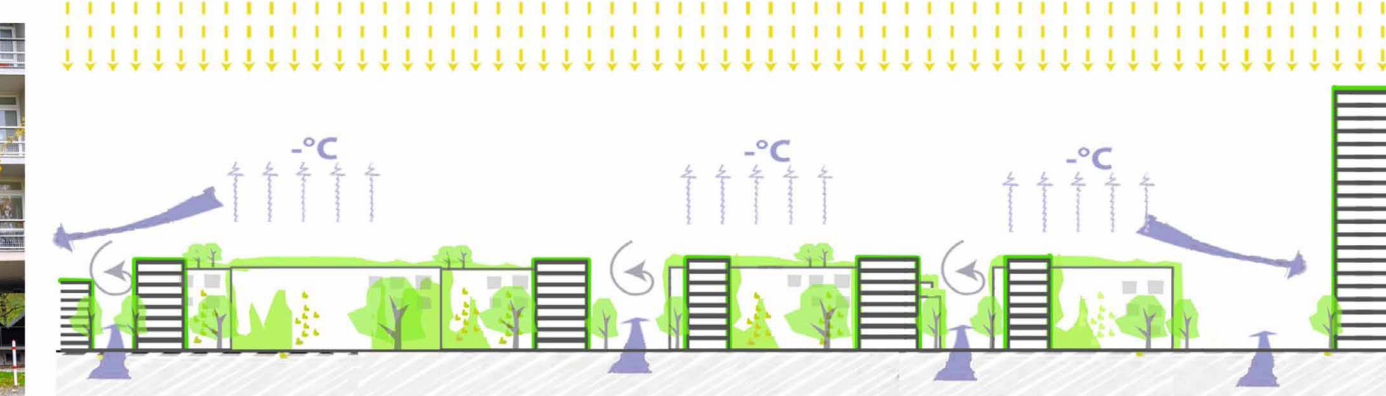
Ventilation analysis in blocks



Ventilation analysis at corner



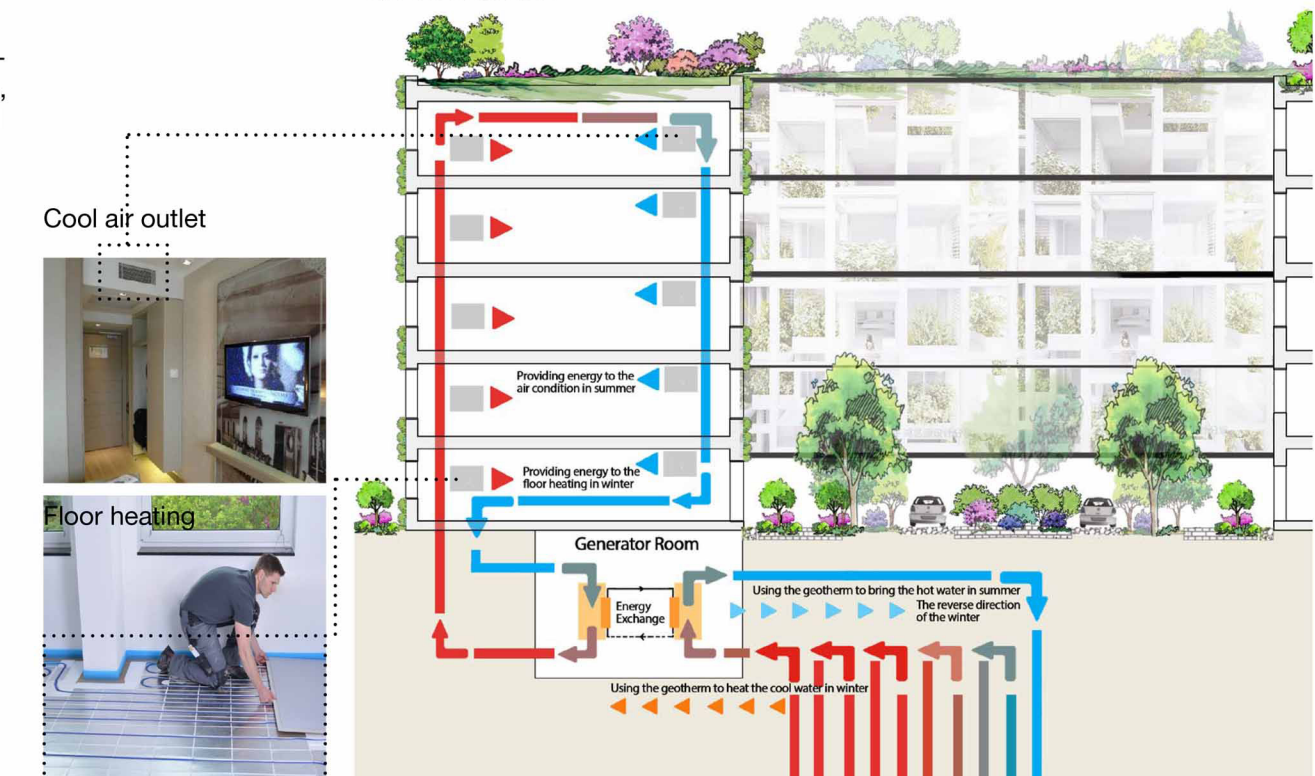
Ventilation analysis of section



### WATER RECYCLING AND REUSE

Although Berlin has experienced rapid development in the past few years, 13.5% of housing utilizes centralized heating and only 1.5% of that uses heat pump heating. Therefore, the change of heating technology can be not only by constructing new housing, it can be also by transformation of old buildings. The low consumption technology used in new houses sustained by government, such as the owner can get the aid financial for the using clean energy equipment. Since first Aug 2015, if the owner can install sustainable energy equipment, the 10% cost will be subsidy from the local bank. Moreover, if the owner could use the heat pump, the solar heating equipment can acquire at least 2000 euro, and the underground heating pump can obtain at least 4000 euro.

Geothermal heat



Cool air outlet



Floor heating

