



# ZERO WASTE EDUCATION PARK

SOUTH TANGERANG RECYCLING CENTER





## ABOUT

It is a service area provided for the people of South Tangerang city as a place of recreation as well as learning about waste management on site, namely at the *Cipeucang Landfills* directly. The area consists of an information gallery facility, recycling class area, recycling art market, then there are waste station facilities and a waste bank with advanced technology as an effort to reduce urban plastic waste.

The planning was motivated by the minimal waste management and processing at the *Cipeucang Landfills*, resulting in piles of garbage causing pollution to the surrounding environment, especially the Cisadane riverside area.

## BACKGROUND

The increase in population and activities in urban areas results in an increase in the amount of waste. The waste consists of various kinds and has a large volume, so if not treated properly, urban waste will have a negative impact in the form of complex environmental pollution, such as pollution of water, soil, and air.

One actual example is South Tangerang City, this city has a population of 1,747,906 people (Source: Population Data; South Tangerang City Central Statistics Agency in 2019) generating waste generation reaching 2,898 m<sup>3</sup>/day. With this amount of generation, the South Tangerang City Environmental Service serves waste generation of 1,200 m<sup>3</sup>/day or 438,000 m<sup>3</sup>/year. Approximately 20% of the waste generation in South Tangerang City has not been handled by the South Tangerang City Environmental Service. (Source: Work Accountability Report of the Environment Agency in 2019).

This is due to a lack of awareness from both the government and the community in waste management at the Cipeucang Landfills, a garbage dump in South Tangerang City. Of course, this causes life around the Landfill to be less feasible and organized as social and economic conditions are in the form of slum settlements with people who depend to the garbage collection (scavengers), then added natural conditions such as water, soil, and polluted air. With the Zero Waste Education Park project, the problems of waste management and the life around it will be gradually resolved later.

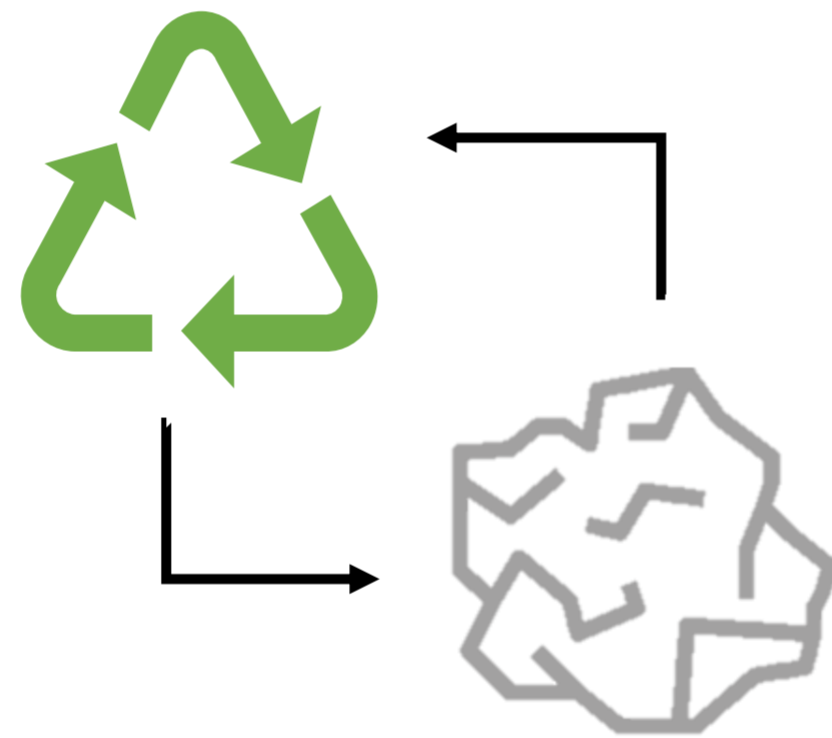


# CONCEPT

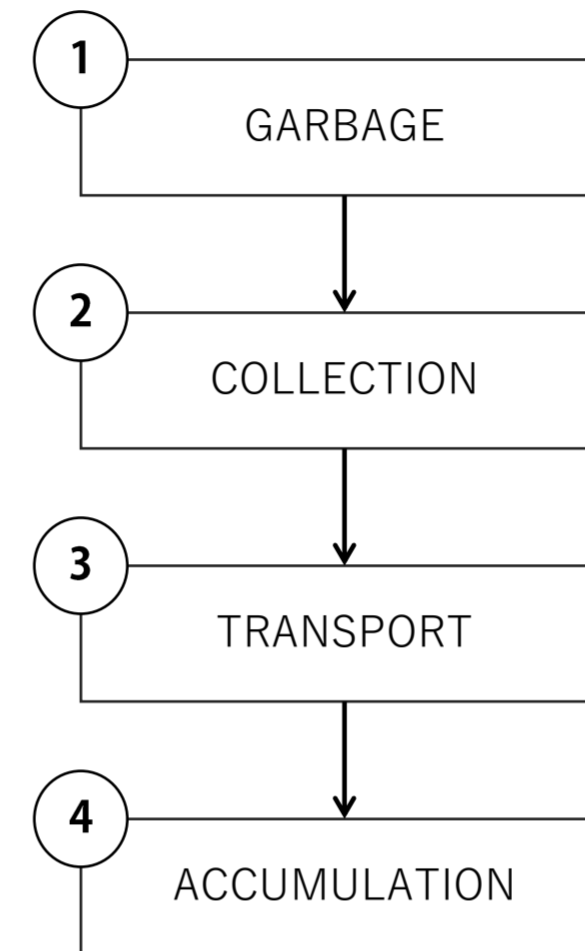


## What if ?

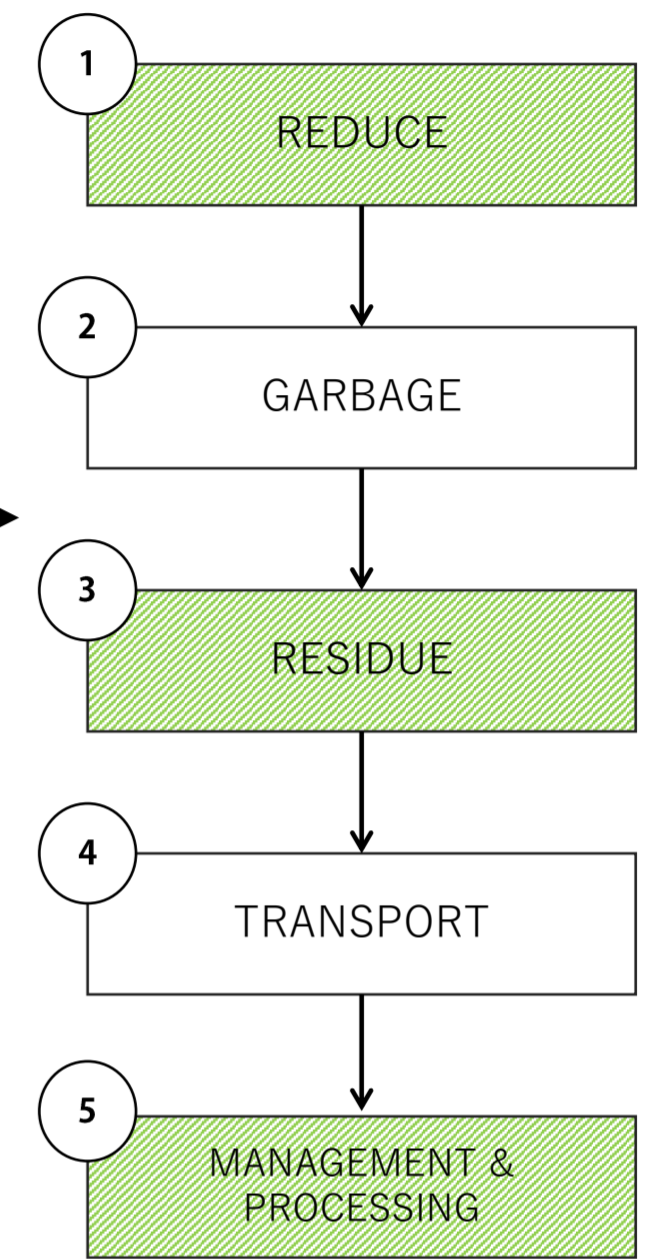
The community's bad point of view about the Garbage Disposal Site is transformed into a positive place and even the potential that can be enjoyed by the whole community as a city public space and facility..



### OLD PARADIGM



### NEW PARADIGM



The design applied is to allow visitors to interact directly with the process of managing and processing waste, inorganic. The waste will be cleaned and then stored in a warehouse to be ready to be shipped and recycled in the industry or recycled again at other facilities at this site.

After the waste is processed, the surrounding community who has a dominant occupation as garbage collectors, scavengers can participate with the community, students, students, or the general public to hold training, seminars about recycling. The recycled products can later be re-marketed to improve the welfare of the surrounding community or the works are exhibited in the exhibition space that has been provided.



### COMMUNITY BASED + ENVIRONMENT BASED



**KEY PLAN**



**PROJECT DATA**

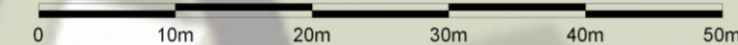
**LOCATION :**  
JL. TPA CIPEUCANG, SERPONG, SOUTH  
TANGERANG CITY, BANTEN 15310

**SITE AREA** : 20.000 m<sup>2</sup>  
**BCR** : 9.578 m<sup>2</sup>  
**FLOOR AREA** : 25.810 m<sup>2</sup>  
**GCA** : 7.512 m<sup>2</sup>

**LEGENDA**

- |                               |                                       |
|-------------------------------|---------------------------------------|
| A. DROP OFF                   | J. WEST PLAZA                         |
| B. 4 WHEEL ENTRY DOORS        | K. RAIN WATER COLLECTION              |
| C. ENTRY WHEEL 2              | L. ART MARKET VISITOR PARKING (NORTH) |
| D. 4 WHEEL VISITOR PARKING    | M. MANAGEMENT TRUCK ENTRANCE          |
| E. 2 WHEEL VISITOR PARKING    | N. PARKING MANAGEMENT                 |
| F. SOUTH ENTRANCE             | O. LOADING-UNLOADING DOOR (SOUTH)     |
| G. EAST ENTRANCE              |                                       |
| H. EAST PLAZA                 |                                       |
| I. CENTER PLAZA               |                                       |
| 1. VISITOR INFORMATION CENTER |                                       |
| 2. ADMINISTRATION OFFICE      |                                       |
| 3. RECYCLING CRAFTS CENTER    |                                       |
| 4. RECYCLING CRAFTS CENTER    |                                       |
| 5. RECYCLING WAREHOUSE        |                                       |
| 6. ANORGANIC WASTE PROCESSING |                                       |

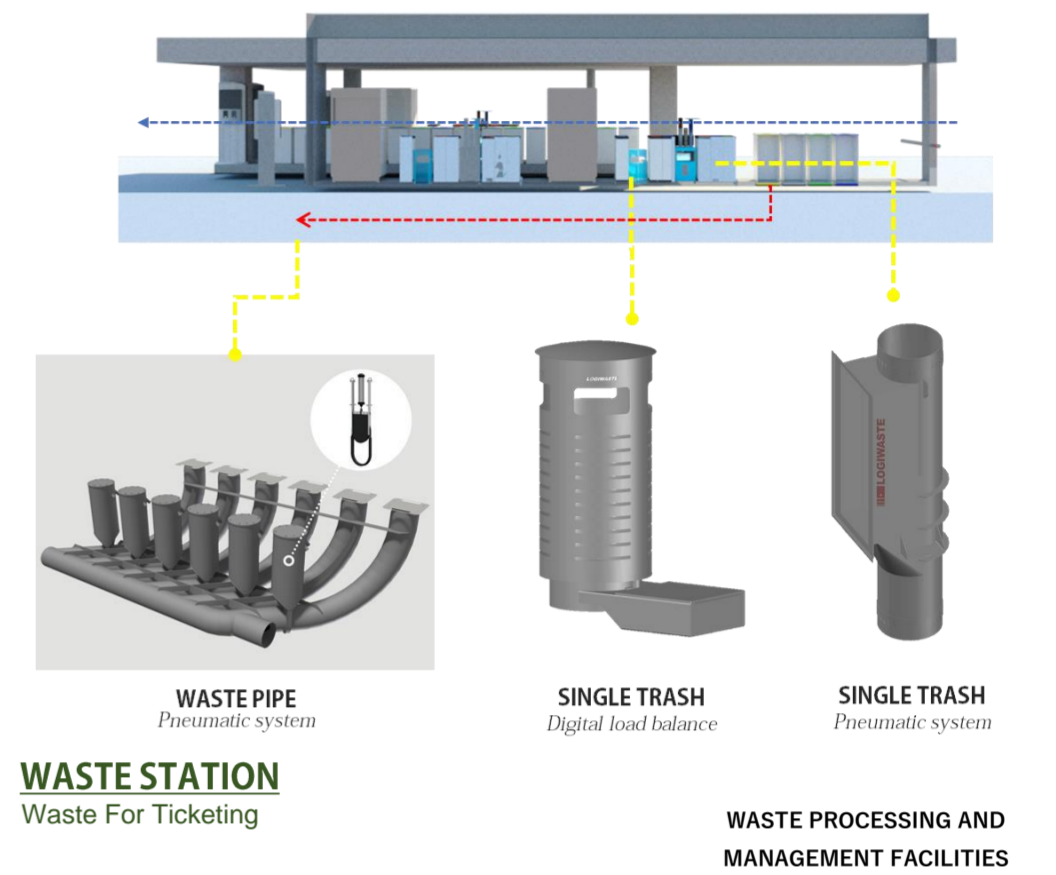
**MASTER PLAN**



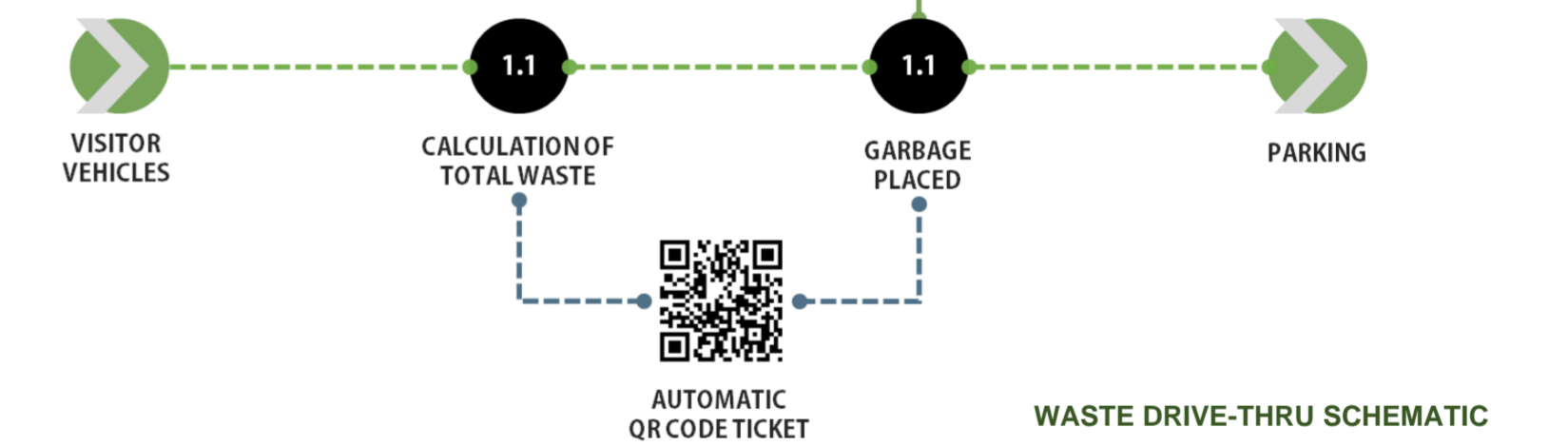


### Waste Drive-Thru System

It is an effort to make people care about the importance and value of waste. The type and amount of waste must also be adjusted to the number of passengers in the vehicle (3 bottles of 600 ml mineral water/person), after fulfilling the requirements, tickets are given in the form of a qr code, open bar and then enter the parking area.



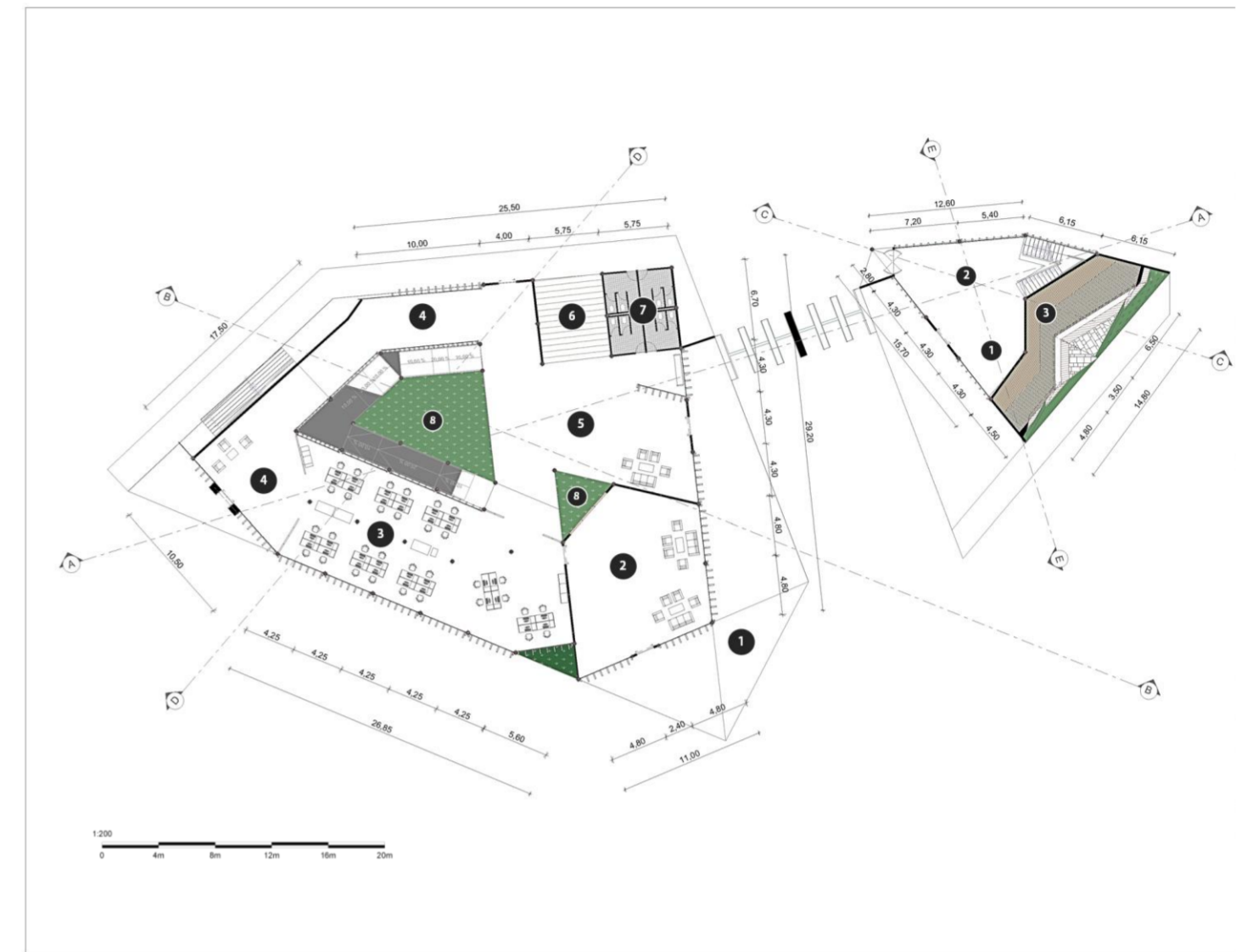
### DRIVE-THRU





### INFORMATION CENTER

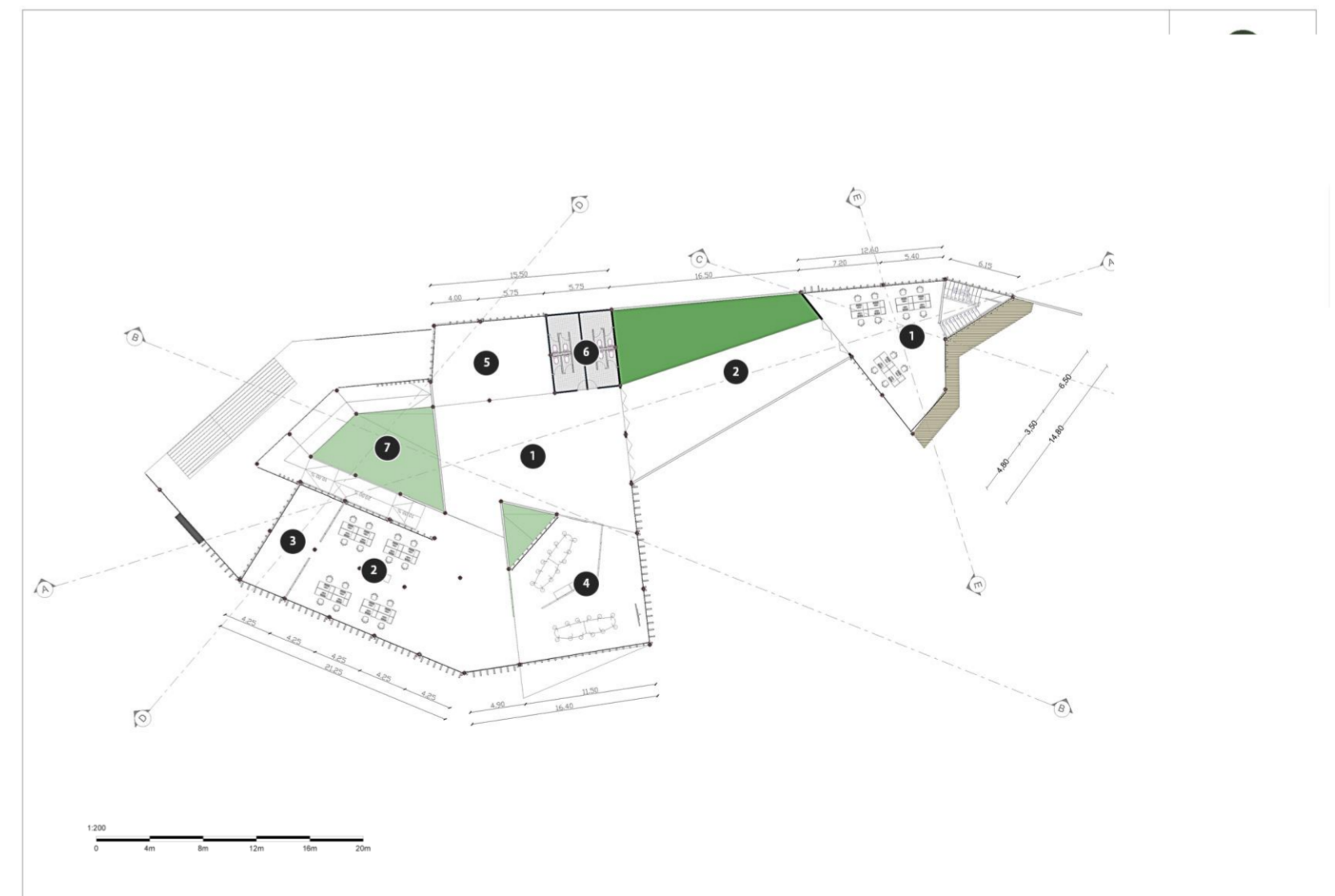
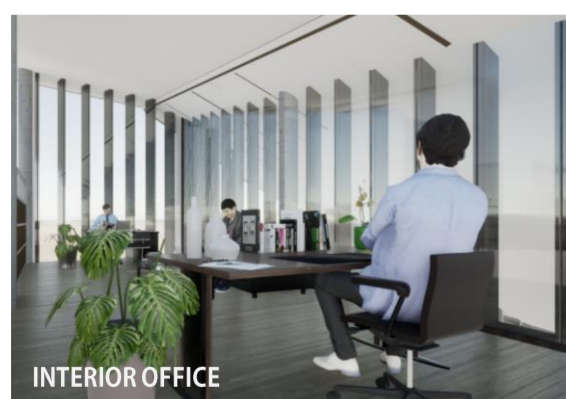
Is a facility for visitors that serves as a place to get information about site management in general. In addition, visitors can leave their luggage or make room reservations for certain agendas.



### ADMINISTRATION OFFICE

It is a facility for managing working areas, storing data, conducting important meetings such as Inter-company Cooperation meetings,

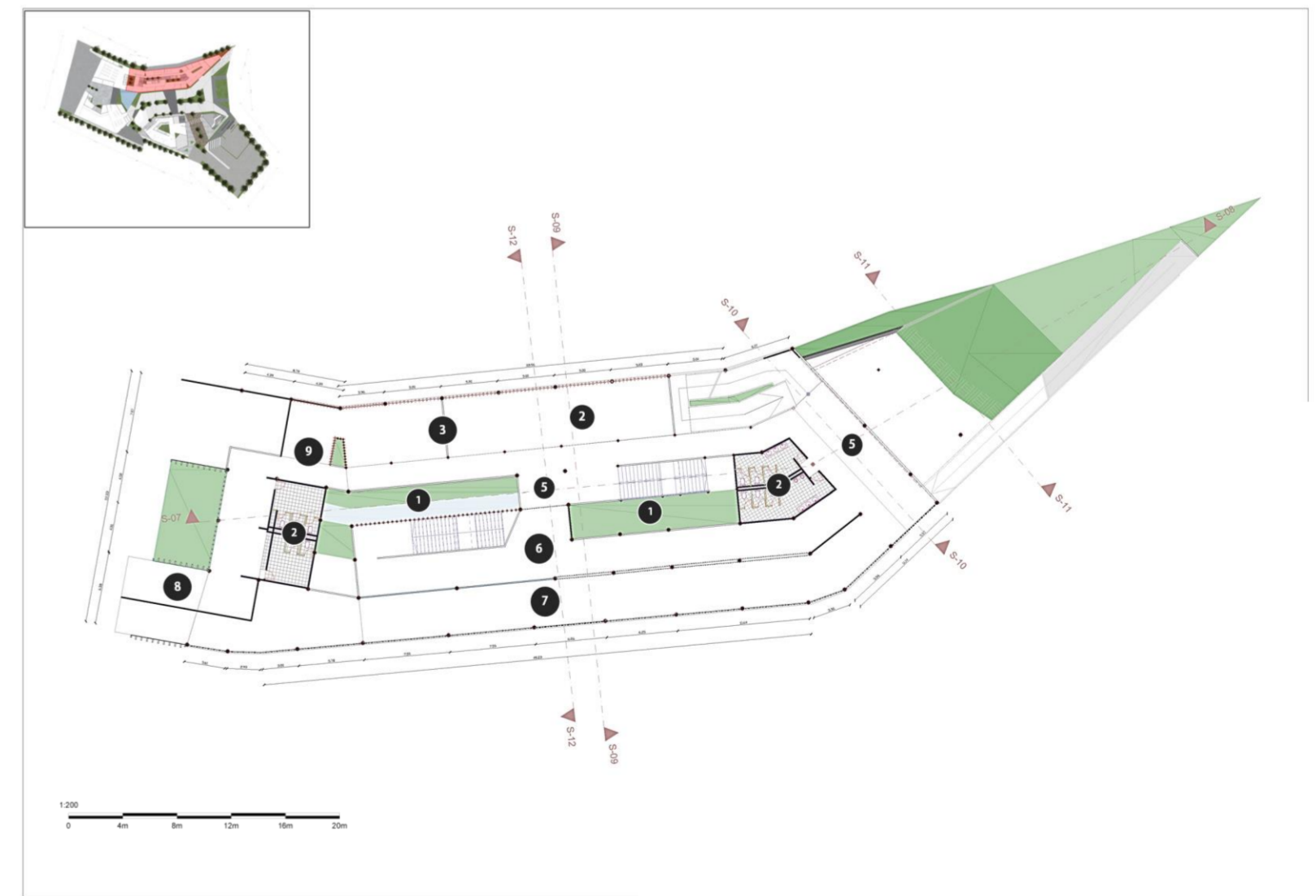
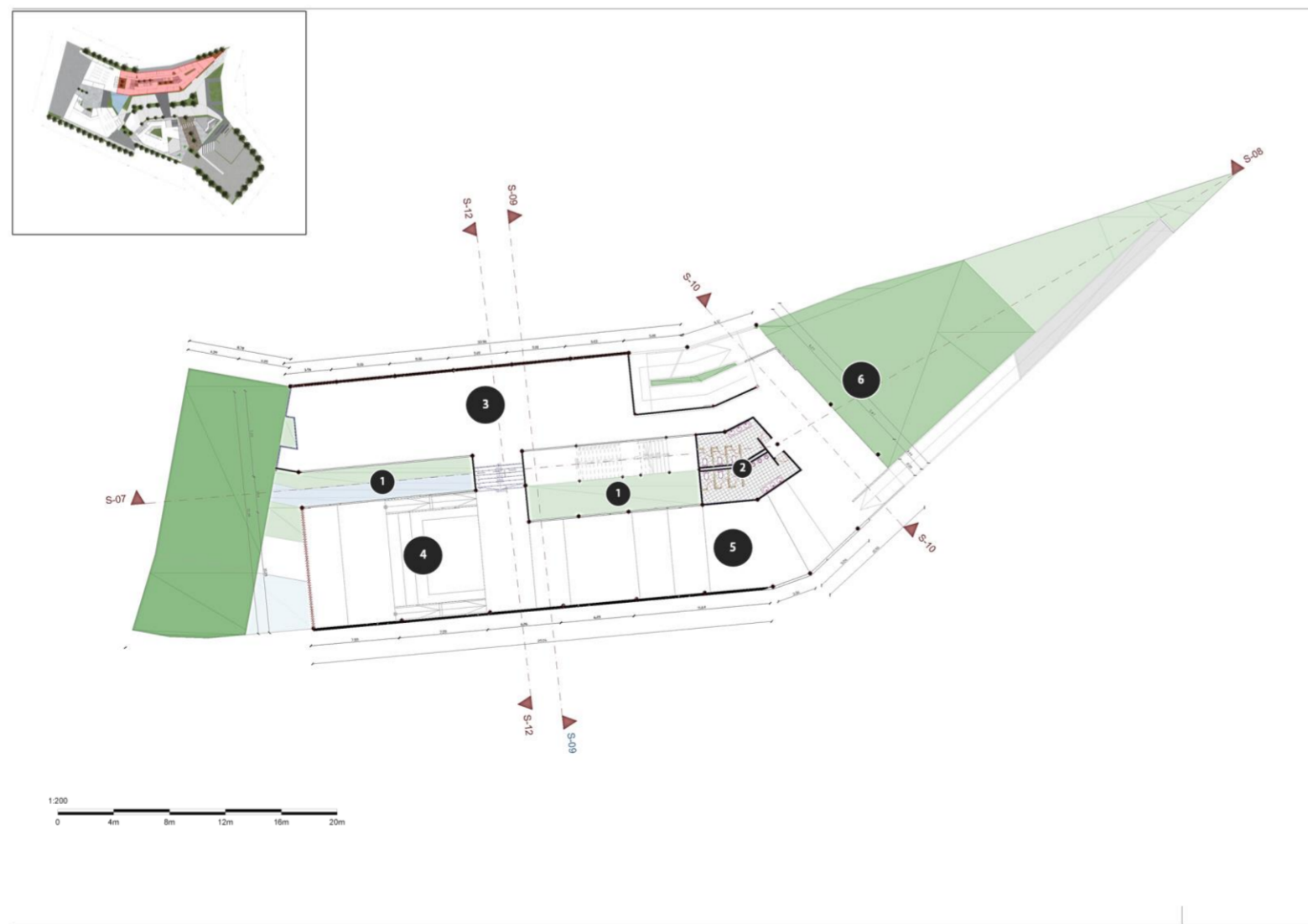
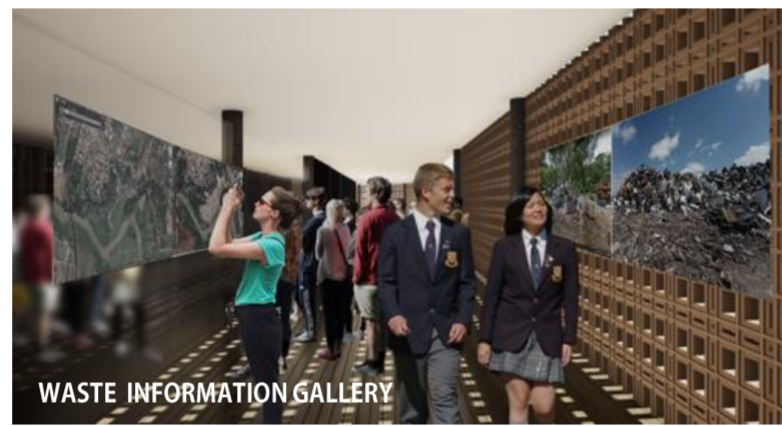
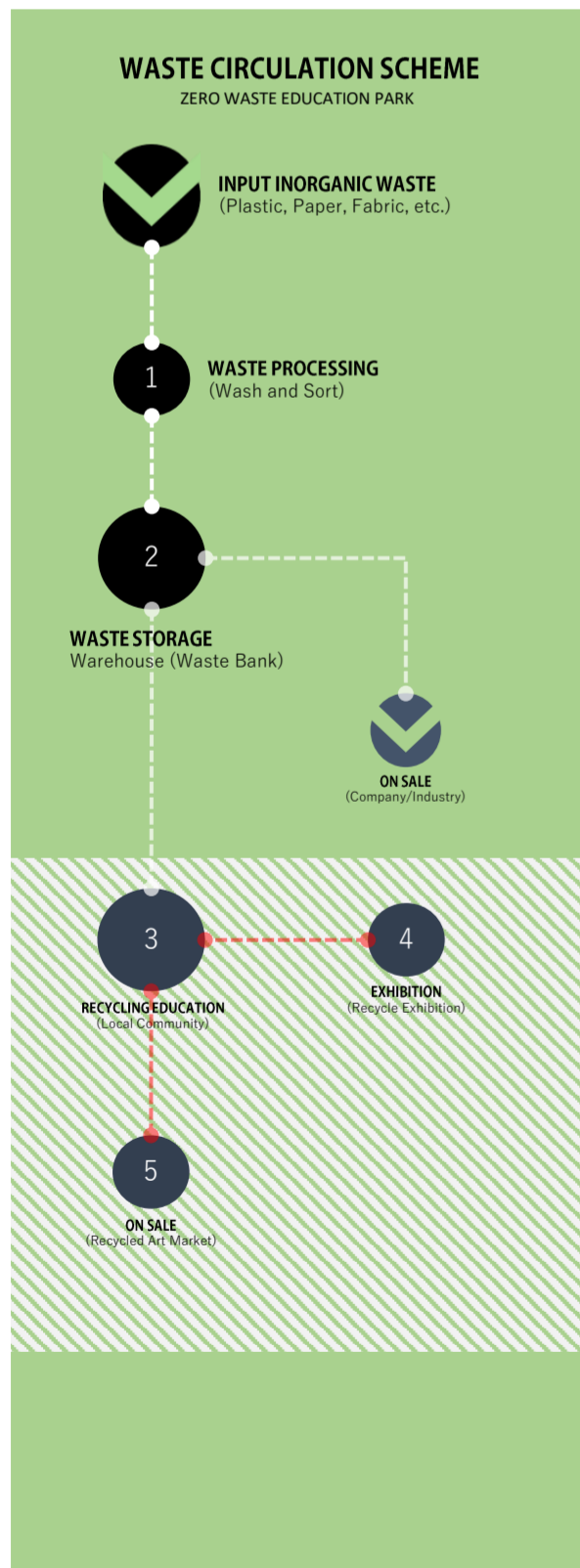
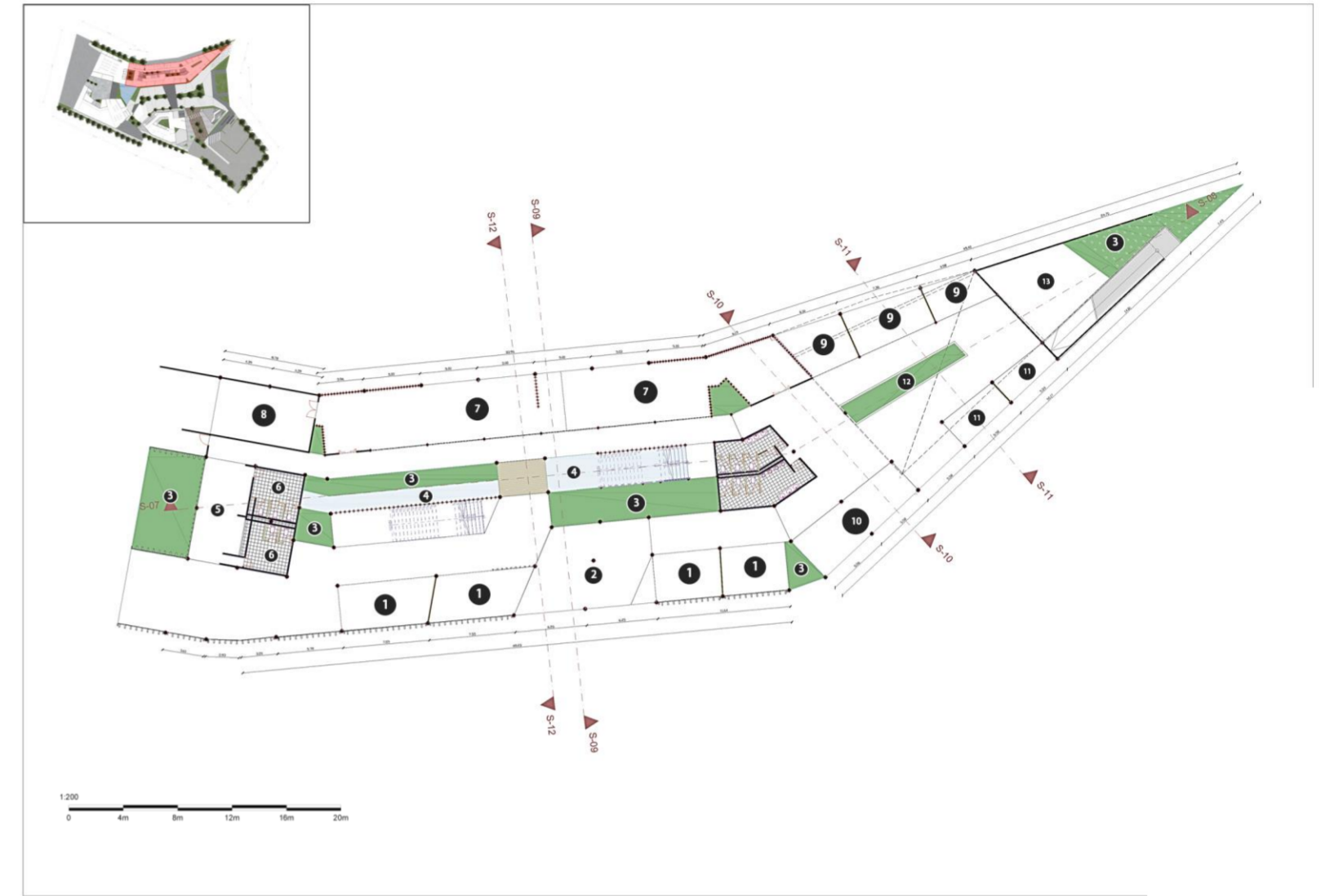
internal meetings. The shape of the office building is designed with a very quirky appearance, because it is located at the entrance so it can be used to attract visitors.





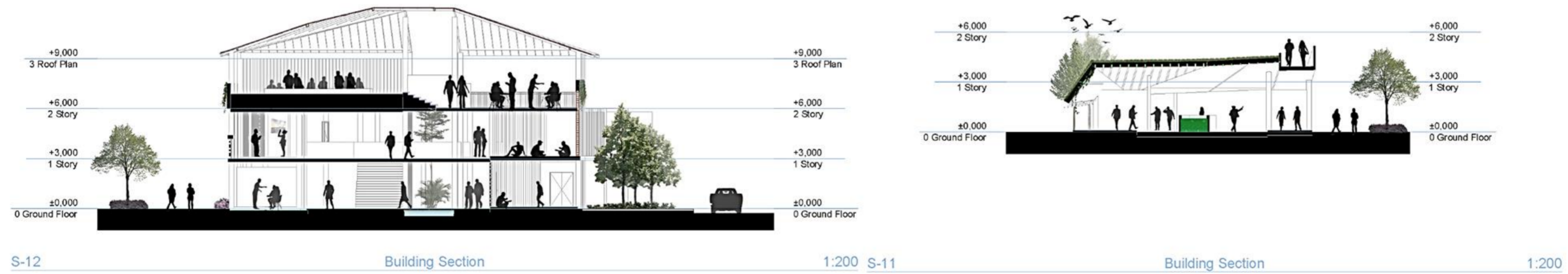
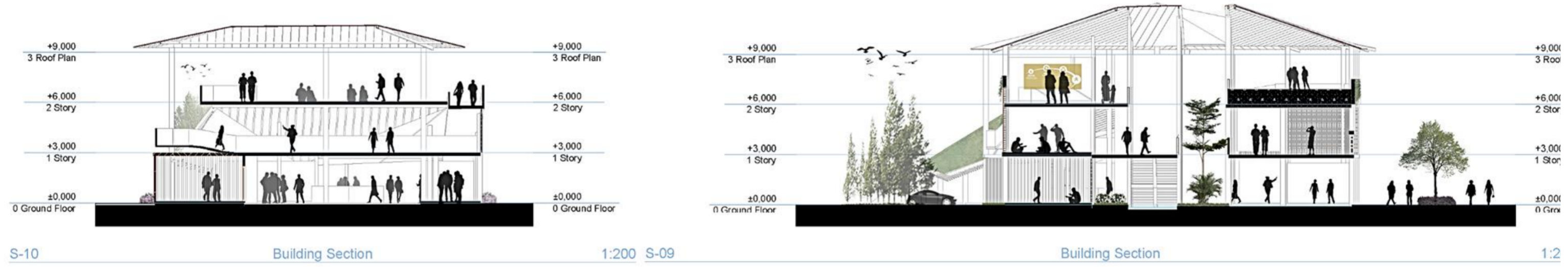
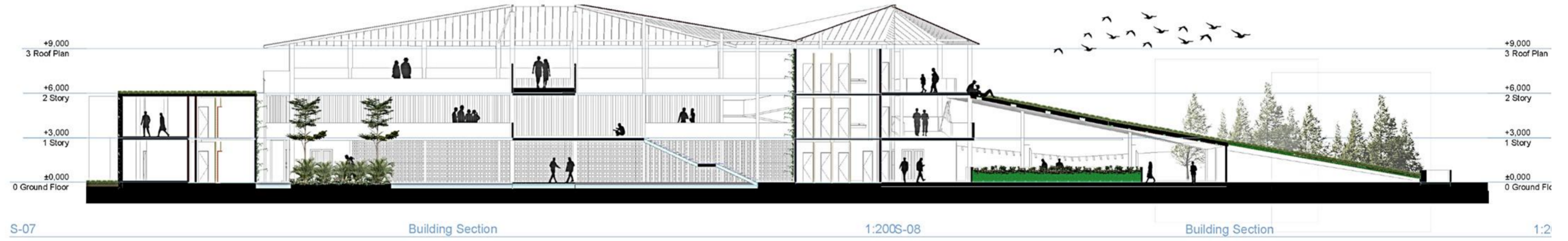
### VISITOR INFORMATION CENTER

It is a facility that aims to educate visitors about waste through galleries and libraries about waste, recycling practices, and the recycling art market. In addition to the above functions, there are also supporting facilities such as a cafeteria, plaza, and an open auditorium (hall). This building is designed with a solid-void concept to allow wind and natural light to enter.





# ZERO WASTE EDUCATION PARK OUR COMMON FUTURE

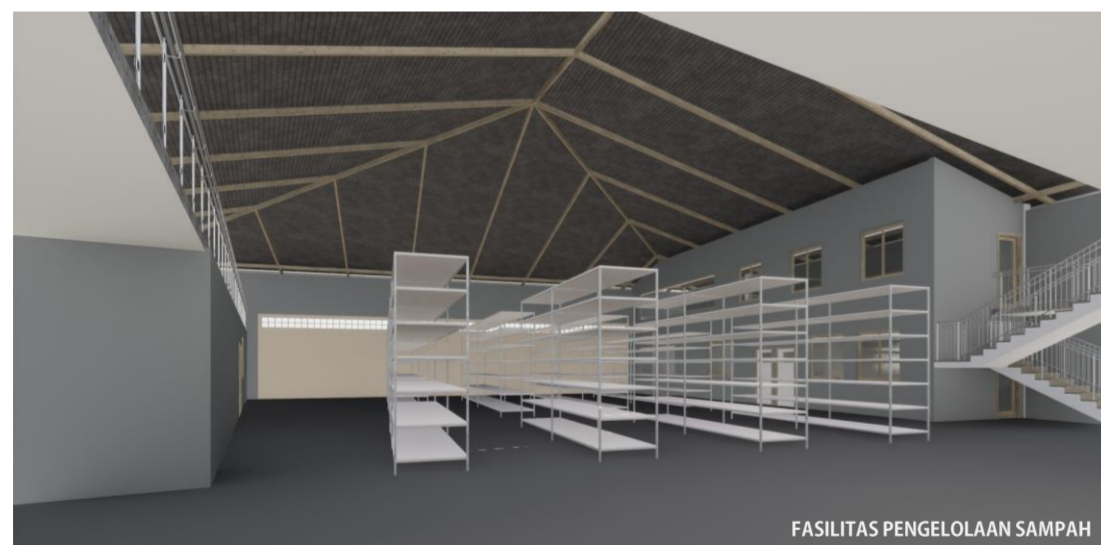




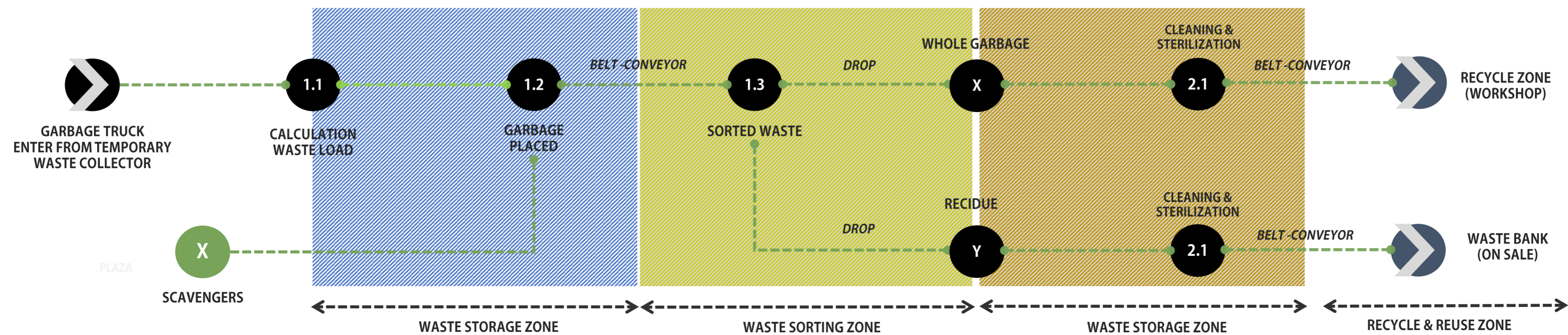
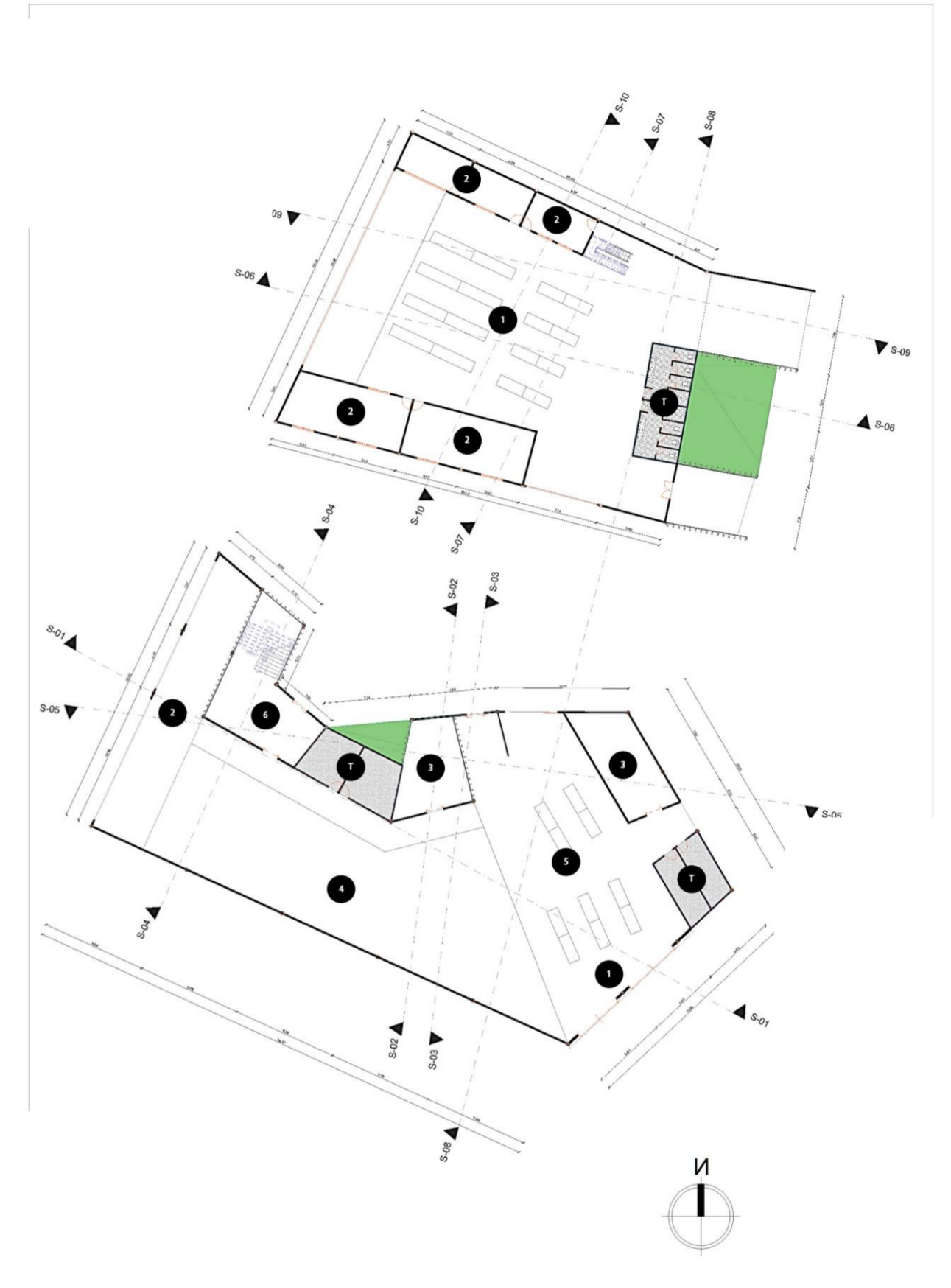
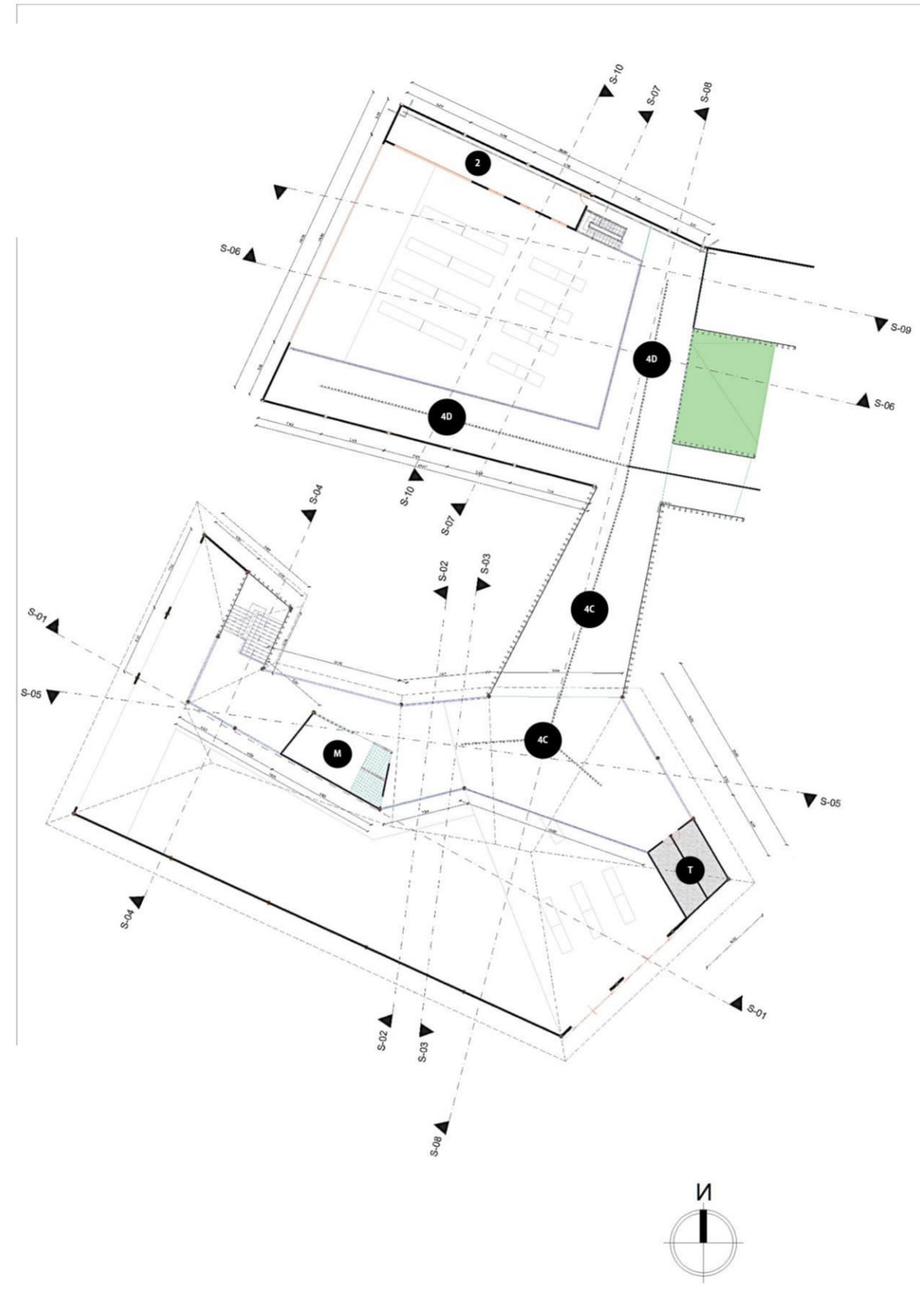
WASTE MANAGEMENT FACILITY  
Waste Processing

### Waste Management Facility

Is a facility that aims to manage inorganic waste in the City of South Tangerang (Cipeucang Landfills) which is integrated as well as a place for learning for the city community. There are two buildings, the first building functions as processing (collection, washing, sorting, temporary storage). While one other building functions as a warehouse for recycling waste which will then be reused into goods that have economic value (garbage rig facilities).



FASILITAS PENGELOLAAN SAMPAH





## Learn From What You See?

In this facility there is also a garbage gallery (continuing the flow from the garbage rig facility). The gallery is designed to surround these two masses with different themes, namely:

1. What is Waste ?
2. South Tangerang City Waste Management
3. Waste Impact
4. Waste Processing
5. Recycle



The informal education provided is not only in galleries, but visitors can also practice in locations such as recycling classes with local residents and participate in sorting waste (a program from the area).





**The Slum Area of Kampung Nambo Settlement, Serpong** is known as a residential area that is affected by the accumulation of garbage in the TPA and the average population of the surrounding area works as a garbage collector.

Become a positive area with varied landscaping (flower gardens, ponds, and also an amphitheater that can be enjoyed by the public. So that the surrounding environment becomes positive, especially reducing air, water, soil pollution and also improving the health of the surrounding residents who live.





**Recycling turns things into other things  
Which is like Magic ...**