

3.9 Landscaping

3.9.1 Landscaping concept according to Safety Regulation

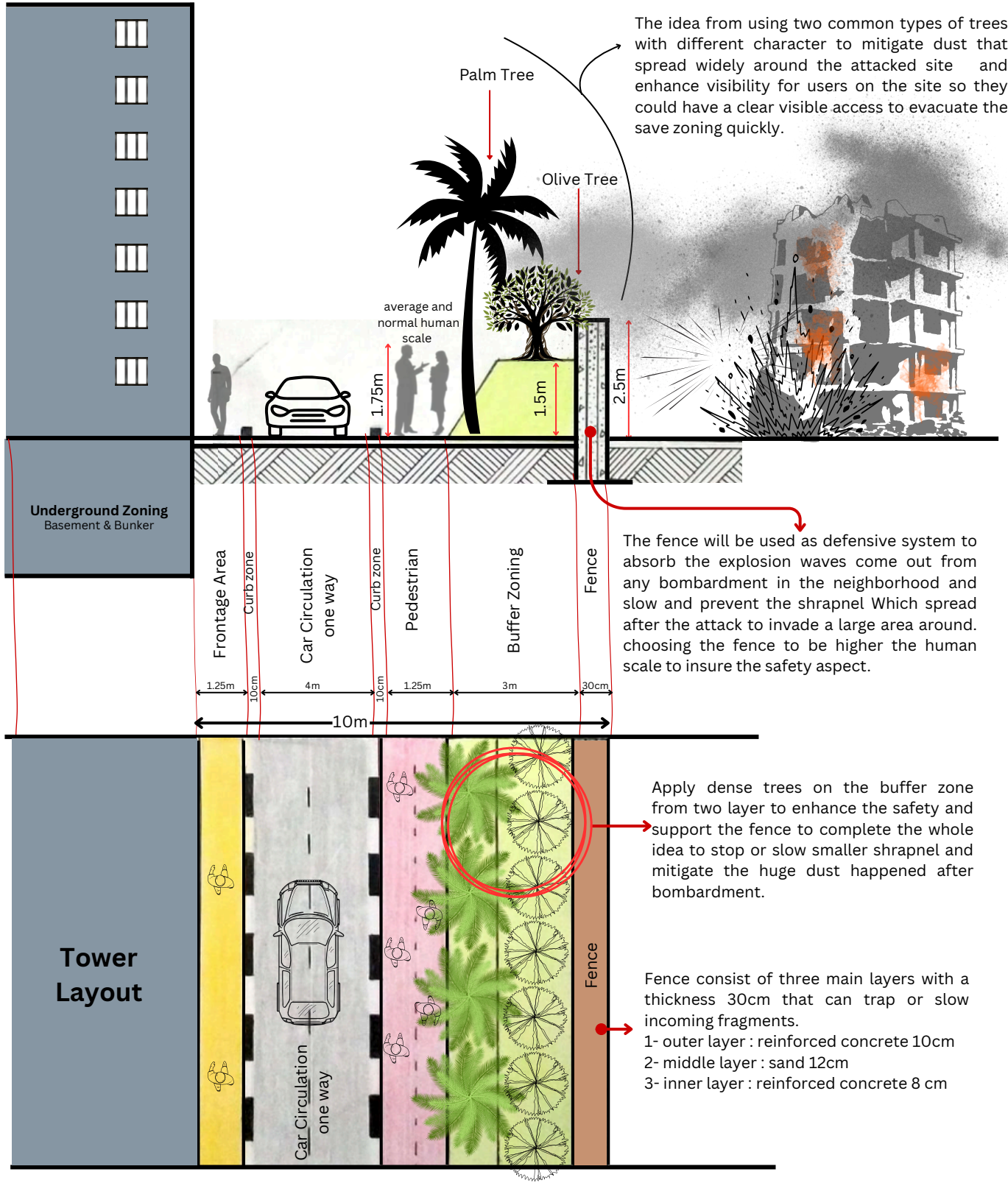


Figure 3.9.1 Schematic plan and section to present the concept of the landscape according to safety
Source: Author, 2025

3.9.2 Landscaping concept according to buffer zoning elements

• Palm Tree Details

The Date Palm is one of the most common and important trees in Gaza. It is widely used for landscaping and symbolic purposes in urban and rural areas. so the benefit of using a large tree like a date palm to control dust around.

Tree Type	Height	Canopy Spread/Width	Trunk Diameter	Tree-to-tree distcance
Date Palm	8m	4m	30cm	4.2m



Figure 3.9.2 Date Palm in Gaza compared to the human scale
Source: <https://rb.gy/b83nna>

• Olive Tree Details

The olive tree's character, focusing on its overall traits, dense canopy, and the trunk's structural. It is really important to know that the olive tree live along till 100 years that's normal and there are many olive trees might reach between 500 years till 800 years and even 1000 year and the height change over years till it reach 9m in height so the smallest size of it will be used on the buffer zone and might be change after every 5 years.

Tree Type	Average Age	Height	Canopy Spread/Width	Trunk Diameter
Olive Tree	5 years old	1.2m	1.5m	25cm
-	10 years old	2.5m	2m	30cm



Figure 3.9.3 Small Olive Tree in Gaza with a human scale
Source: <https://mediterranean-trees.com/products/olive-trees-olea-europaea>

The Strategy to arrange the olive trees near than normal from each other so that create a dense hard leaf, thick, and waxy surface so follow a narrow plantation strategy to make it overlap for getting the buffer greenery more efficient.



Chapter 04

Design Development

INTRODUCTION :-

This chapter will focus on the development of the design technical drawing, Building on the concept of Safety and Security, this chapter explores the project's protective strategies across two main scales: macro (building-level) and micro (unit and space-level). While the macro scale—addressing the broader urban and wartime context around the site—has been discussed earlier, the focus here shifts to the smaller, more immediate layers of protection that directly affect occupants' safety and daily resilience. This includes the design of the site's protective layout, the architectural and structural solutions within the building, and the zoning of secure and vulnerable areas to optimize both defense and usability. The chapter also outlines technical measures, spatial configurations, and infrastructure systems that together form an integrated safety network, ensuring the building operates effectively as both a residence and a refuge during crises.



4.1 Site Situation Exploration

4.1.1 Identify the buildings around the Site

The Site Situation explore a residential high-rise and medium - rise buildings that might face an attack from air Strick and there is no safe zoning like a public shelter or refugee area that the residential who are living is this area to escape or evacuate. so Civix Tower will present the first case in Gaza that provided a safe fortified rooms or different levels either at the building or the landscape

4.1.2 Main Access around the site

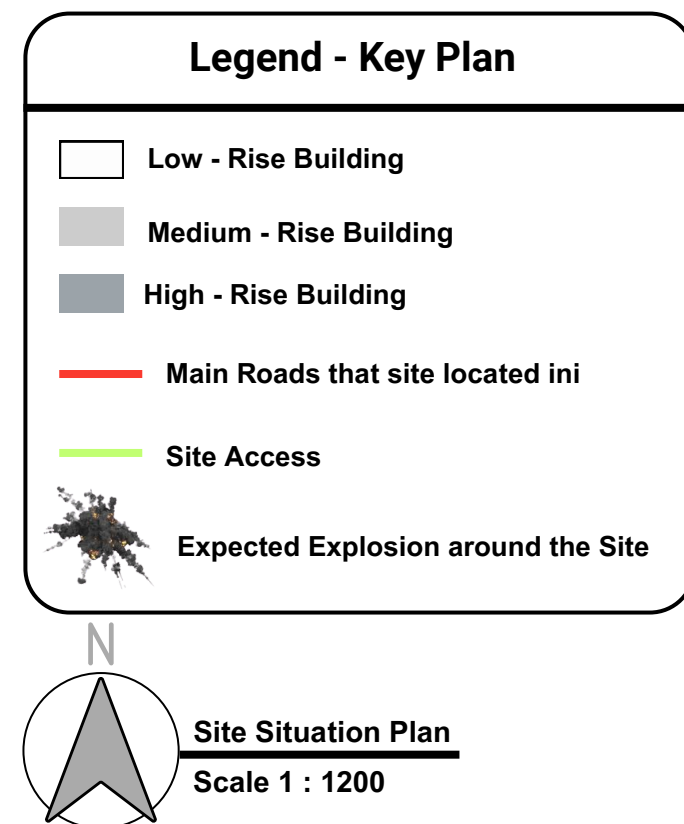


Figure 4.1.1 Site Situation analysis
Source: Author, 2025

4.2 Site Plan Exploration

4.2.1 | Exploring the design layout and site accessibility and Site Analysis(Site plan)

Site has two main roads with two access in and out the site, both are located on north eastern and south eastern so it could be one of the solution when the dangerous is nearby the site surrounding so any these roads blocked before of any demolishing building so the other

Defensive Roof System

Zegzage Form to mitigate the explosion and reduce the surface destruction cause of it's working as a first expected surface to be attacked

Material ; Ducon "ductile concrete" covered by a wire steel mesh to enhance the performance of absorbing the waves and the explosion

Exit from the bunker through the Tunnel to a fortified room then direct to outside the site

Secondary access "Entrance & Exit"

Basement Access

Drop Off Area

The most critical Scenario that the attack will be on the roof top that's why the layout showing the a zegzag form working as a defensive system and dealing with the first attack.

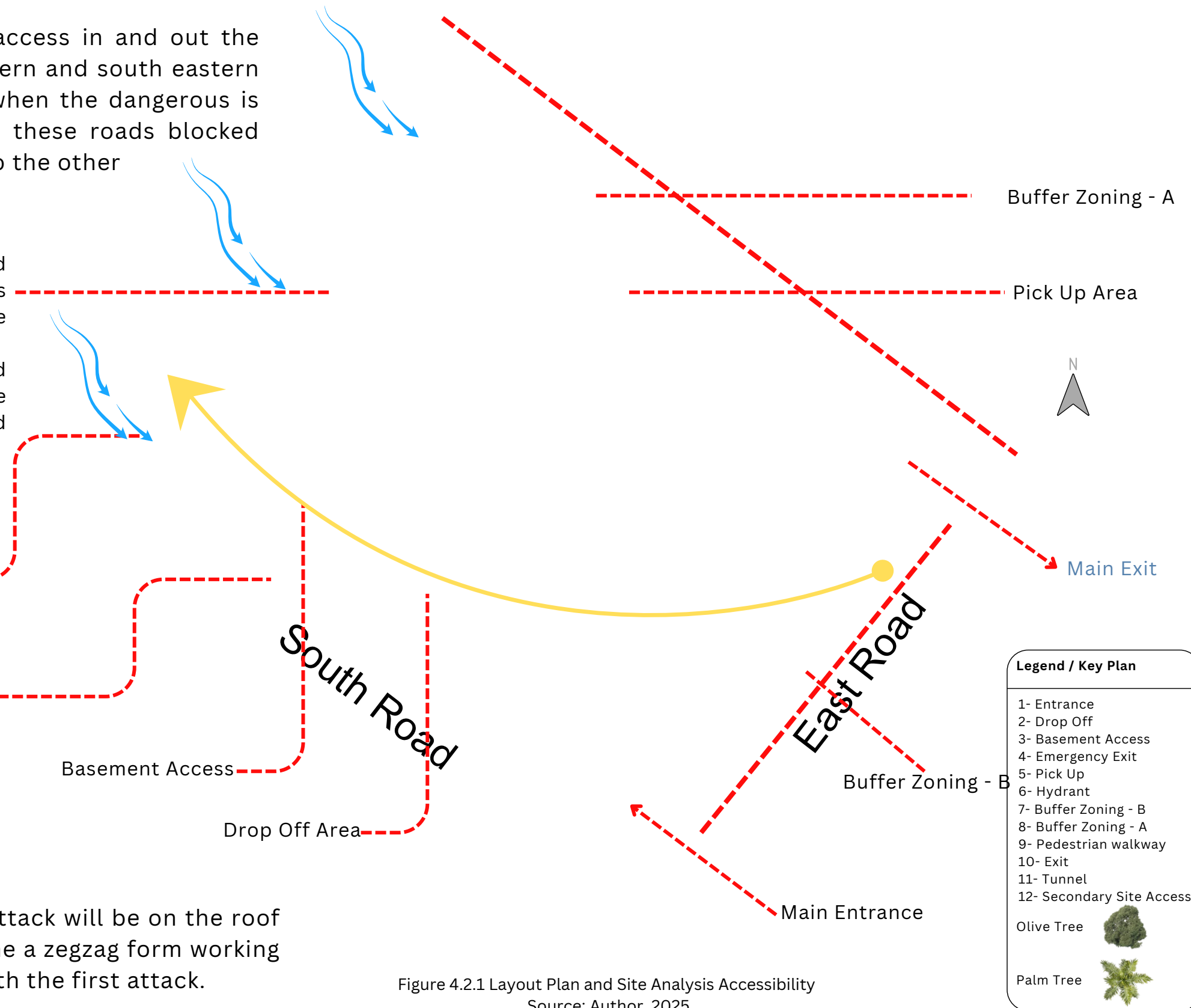


Figure 4.2.1 Layout Plan and Site Analysis Accessibility
Source: Author, 2025

4.3 Building Design Exploration

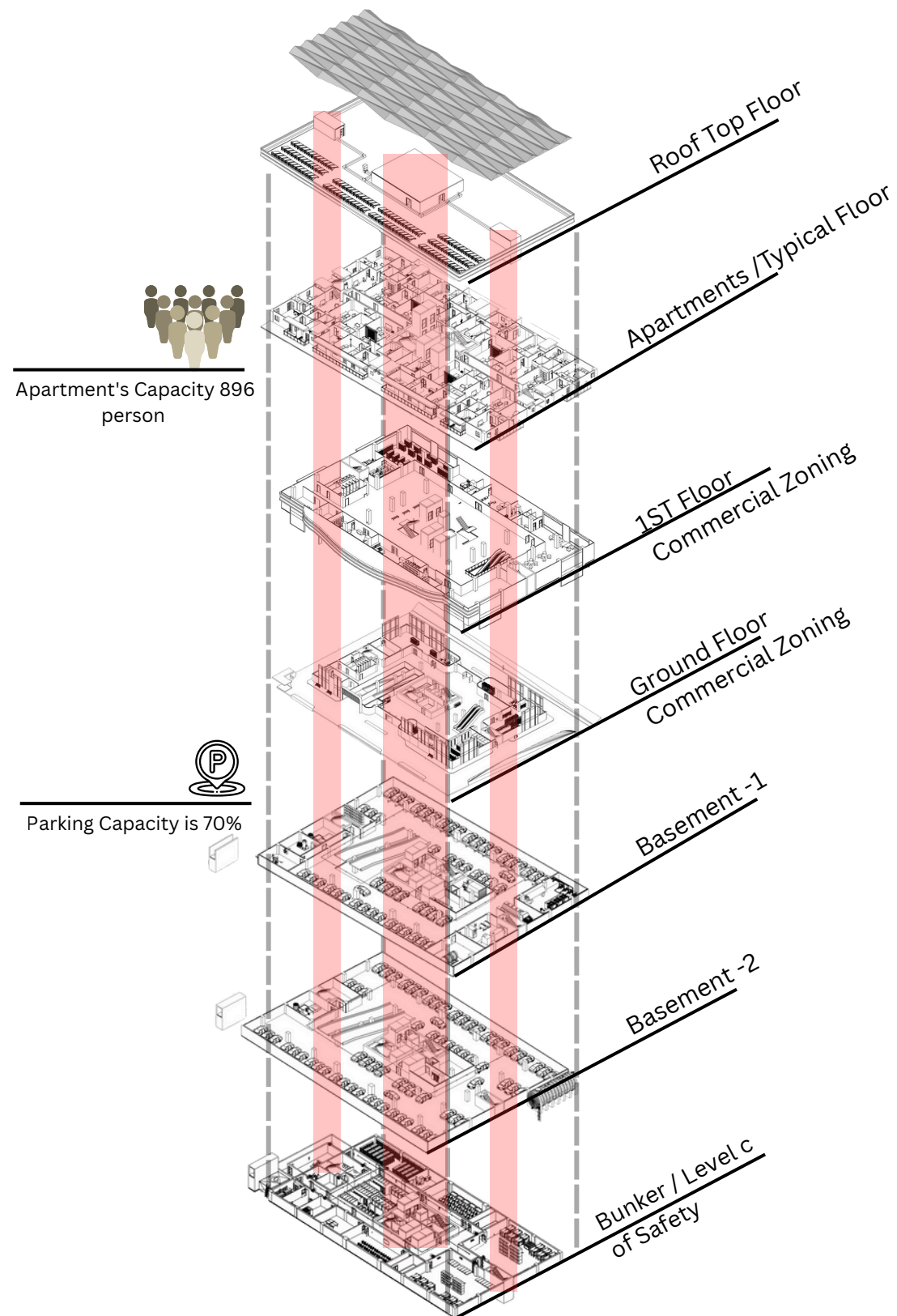


Figure 4.3.1 Exploded Design to show the vertical Zoning and vertical access
Source: Author, 2025

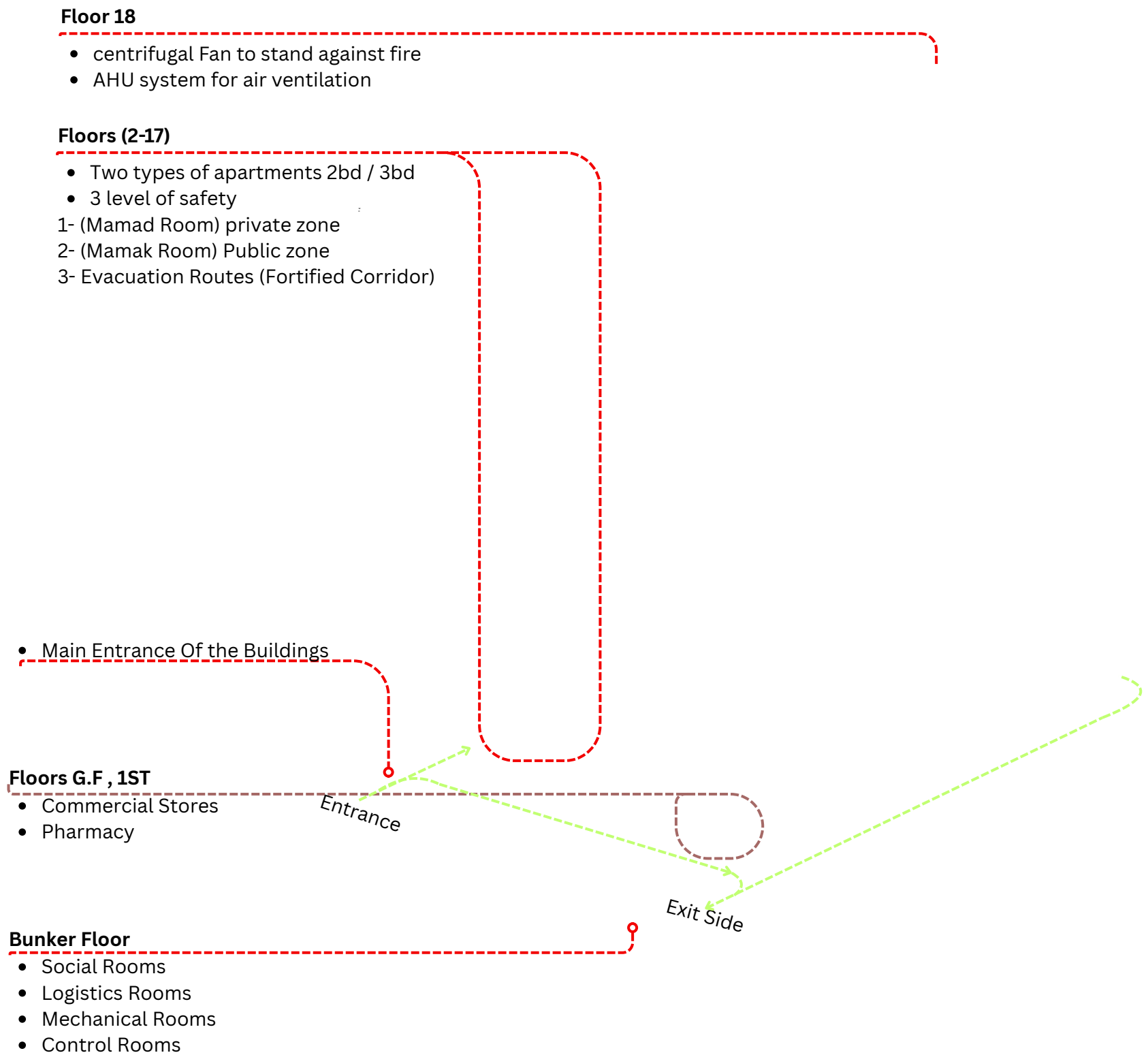


Figure 4.3.2 The Interplay of Pathways, Access, and Program
Source: Author, 2025

Commercial Floors Exploration

Civix Tower has two commercial floors to serve the neighbors around the site specially the area around the site it's a Residential area . the strategy how to make the access to the urgent zoning flexible and fast.



Figure 4.3.3 Exploring the commercial flooring and functions placement
Source: Author, 2025

The design to access from the site entrance to the main shops there is no stairs or ramps that the disable people might use it so the surface almost elevated with the main street and there are two main access to the podium or commercial zoning from east and south direction as the building located into these two main direction

Prototype of apartments

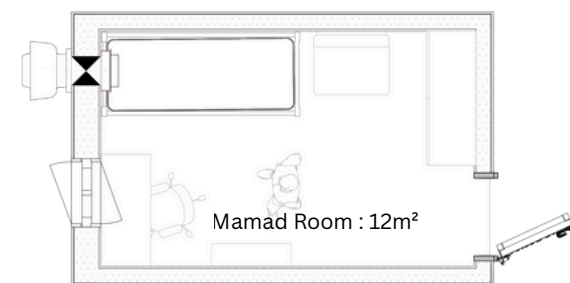
There are two prototype of apartments with three different layouts and area size which are 3bd and 2bd. each Apartment include a specific function for safety that the whole family use it during wartimes and in normal days it's a bed room and the difference between the apartments types is the size of these rooms ;

Apartment 3bd : Mamad Room 12m²

Apartment 2bd : Mamad safe room 9m²

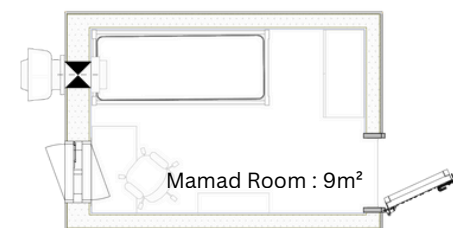
Based on Takam`

Type A - 3BD



The average occupants in this type will be 6 persons so during wartime they can find a space for them into the mamad room

Type B,C - 2BD



The average occupants in this type will be 4 persons so during wartime they can find a space for them into the mamad room

Units and Users

Total units for each floor are 12 units;

4 units : 3bd

8 units : 2bd

based on the custom intimation the 3bd unit will occupy 6 persons and 2bd unit 4 persons

so 4units * 6 persons * 16 floors =

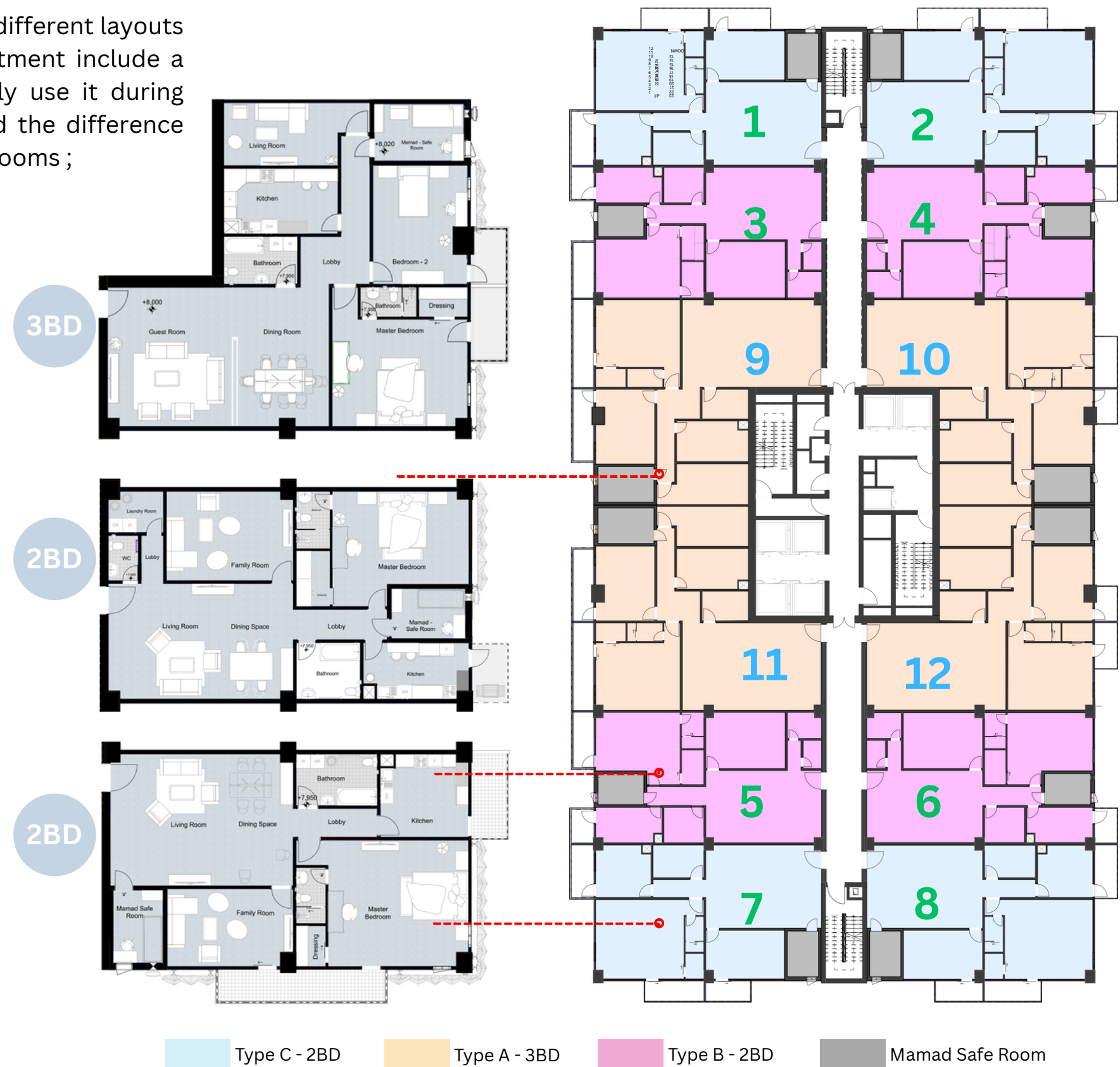


Figure 4.3.4 Exploring the Residential Typical Floor and the Prototype of Apartments
Source, Author 2025

Save Zoning and Safety level

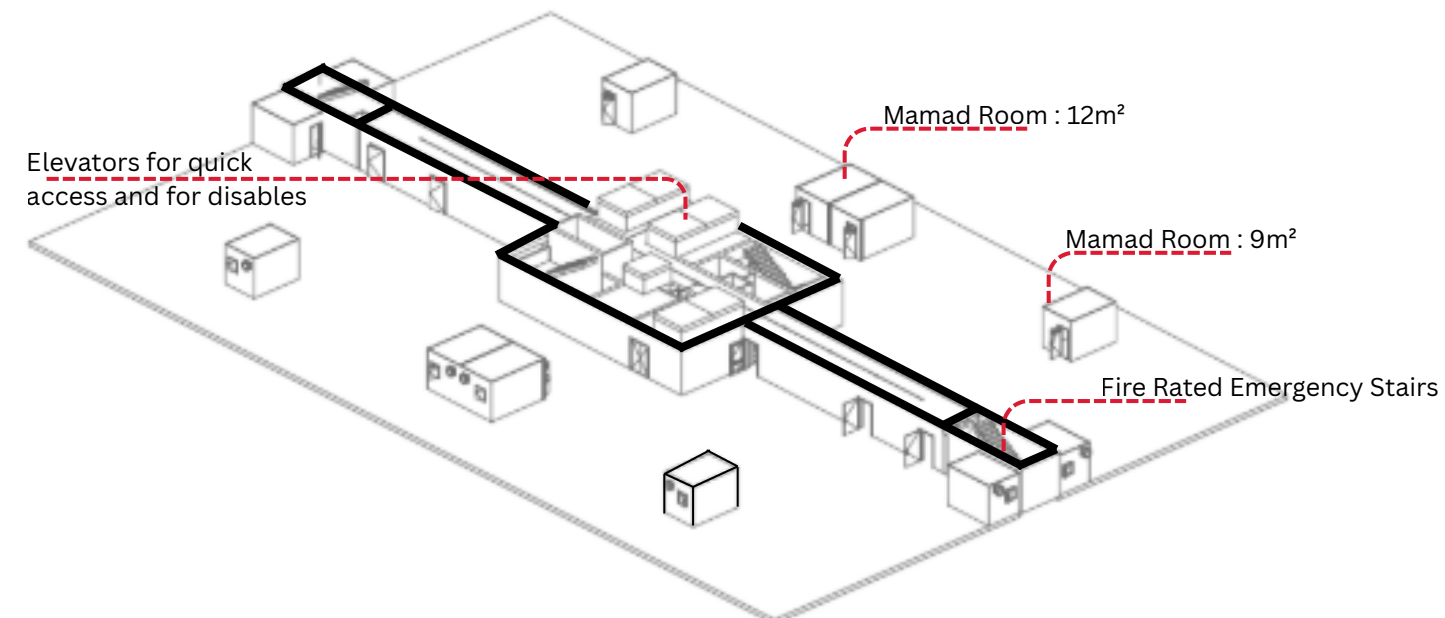


Figure 4.3.5 Safe Zoning and Safety Levels for a Typical Floor
Source: Author, 2025

No	Zoning Type	Quantity	Standard Area (m2)	Total Area
1	Small Mamad Room	8 rooms / Floor	9 m²	8 * 16 = 128 room
2	Big Mamad Room	4 rooms / Floor	12 m²	4 * 16 = 64 room
3	Corridors	Linear Evacuation Routes		
4	Emergency Stairs	4 stairs / Floor	500 m²	500 m²
5	Elevators	7 elevators 5/ passengers for apartmetns 1/ service lift 1/ firefighting lift	2,5m * 2,5m = 6,25m²	7 elevators

Table 4.1.1 Calculating the amount of save rooms overall the building
Source, Author 2025

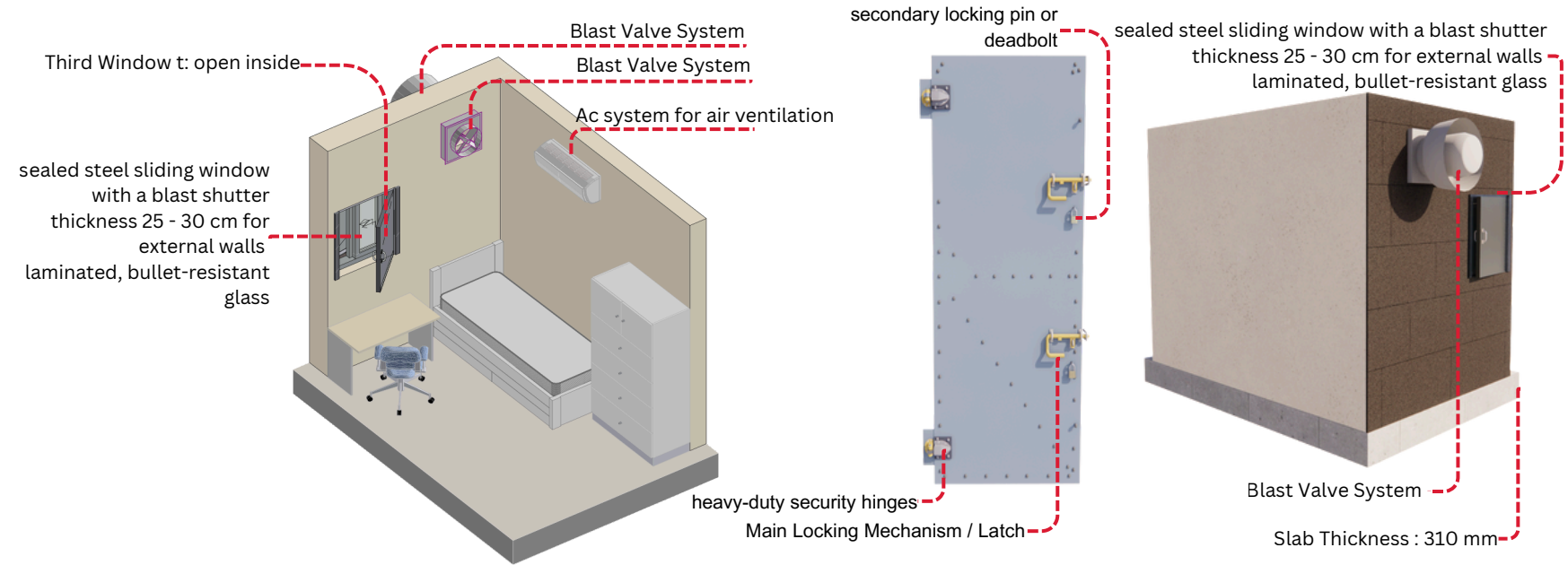


Figure 4.3.6 Exploring the details of mamad room
Source: Author, 2025

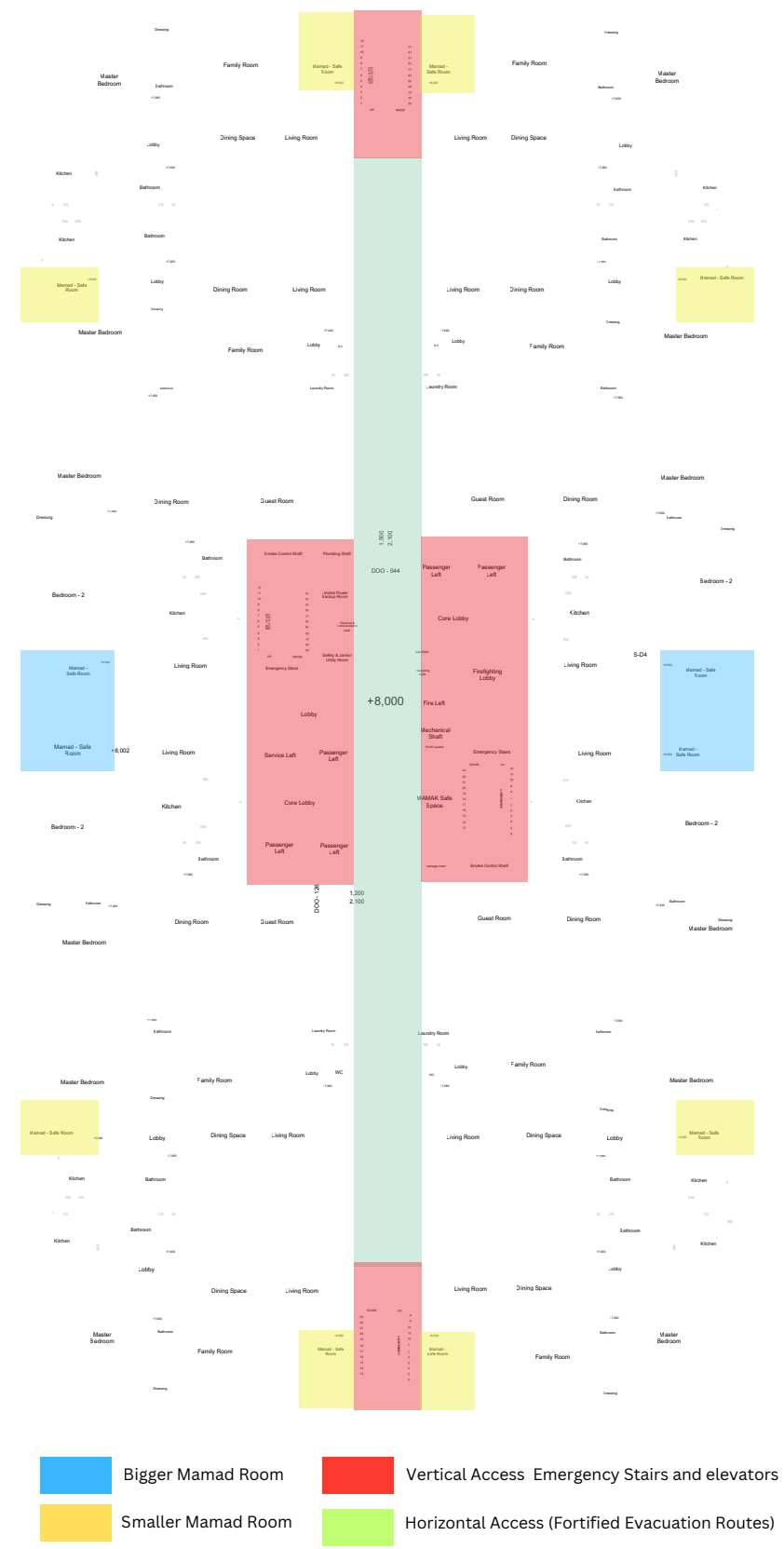


Figure 4.3.7 Exploring the details placement of mamad room at typical floors
Source: Author, 2025

Exploring Safety Level for each zoning

Mamad Room , Private zoning

Private Room at each apartment, has a specific infrastructure system, special door open to outside and the outer wall applied with thicker wall than the rest or the walls of the apartments and even the material of its walls from Reinforced concrete with

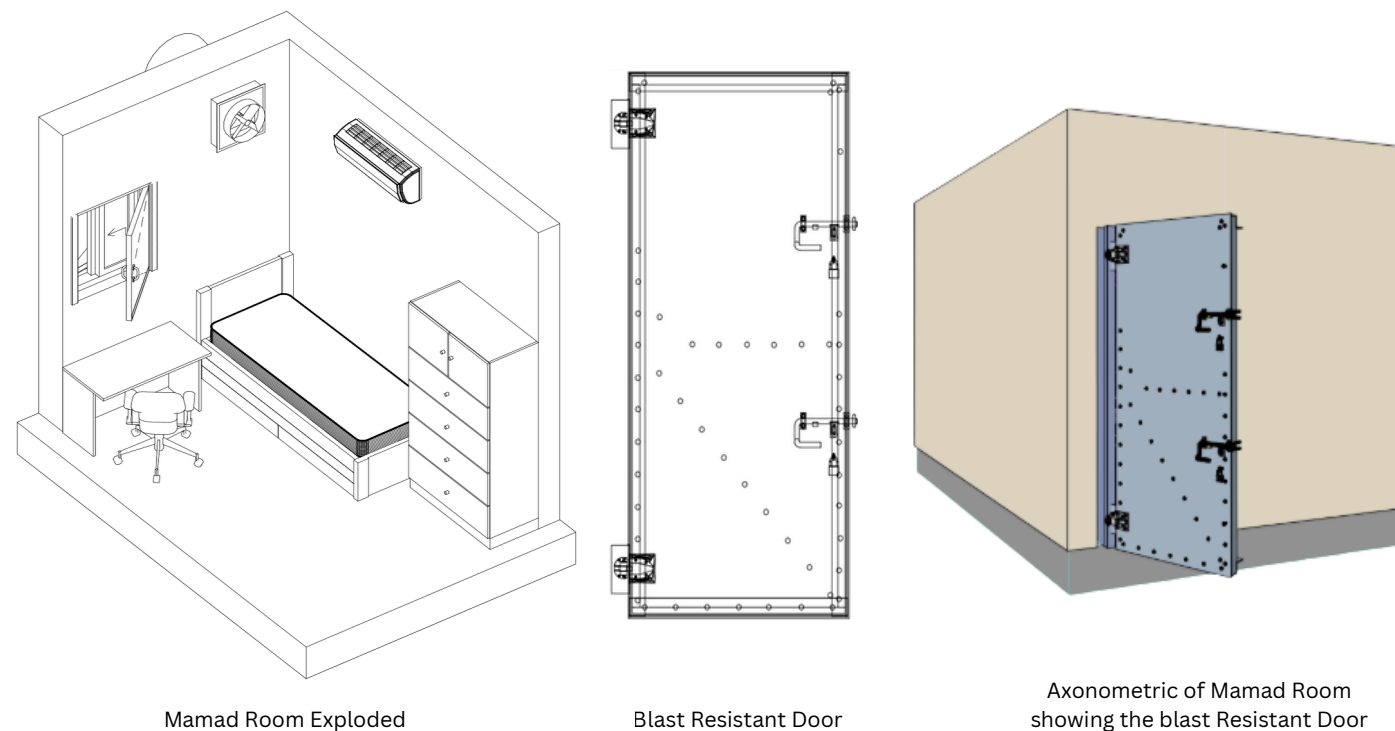


Figure 4.3.8 Mamad room details and counting the total number overall building
Source: Author, 2025

For each floor there are 12 apartments and each apartment has one mamad room so total per floor there are 12 mamad room, 4 present the biggest size which is 12

Total Mamad Room overall building :-
 $12 \text{ Rooms/floor} \times 16 \text{ Floors} = 192 \text{ Rooms}$

Mamad Room : there are two types for this safe room and the difference it's only on the size of each 9m^2 and 12m^2 , so based on the regulation of "תקנות פיקוד העורף" Takam 40 – Design and Construction of Protected Spaces

Mamak Room, Semi Public Zoning

only one room at each floor inside the central core and occupy between 7 and 9 persons, so during wartime the owners or the staff of the tower even the visitors at podium floors and at basement floors the visitors can escape to it.

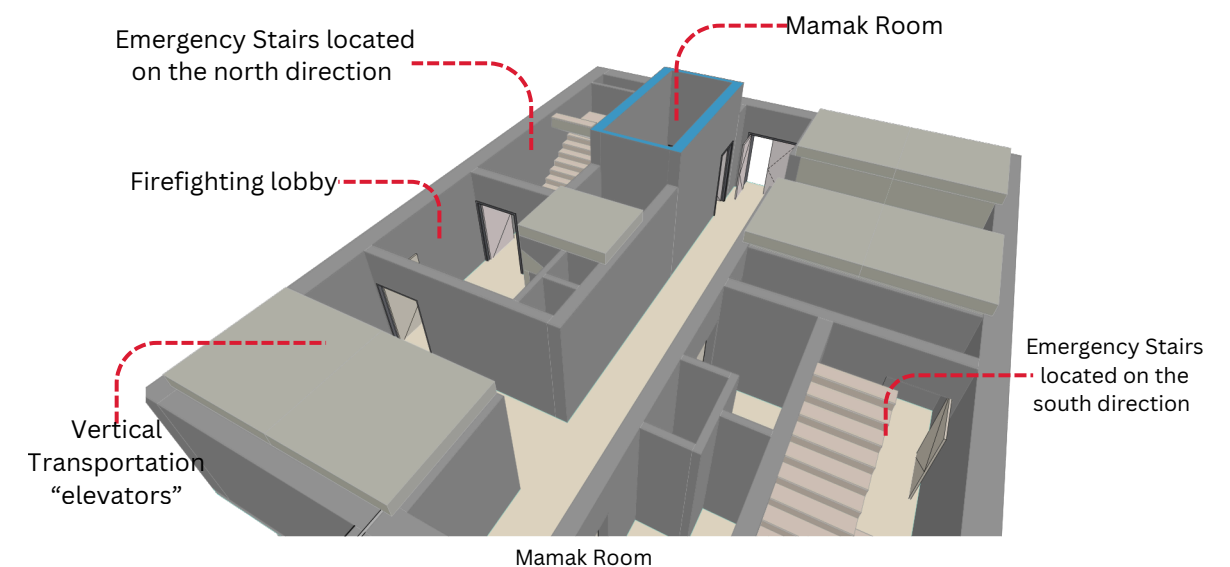


Figure 4.3.9 Placement of Mamak Room inside the main core
Source: Author, 2025

For each floor there is only 1 Mamak safe Room for each floor and the total floor overall the tower is 21 floors so the total mamak room is 21 rooms

$1 \text{ Room/floor} \times 21 = 21 \text{ Rooms}$
Size of each single room =

Evacuation Routes and Vertical access

Main Core : include

- 7 elevators. 5 of them passengers, 1 service left, 1 firefighting left
- 2 emergency stairs
- Infrastructure System

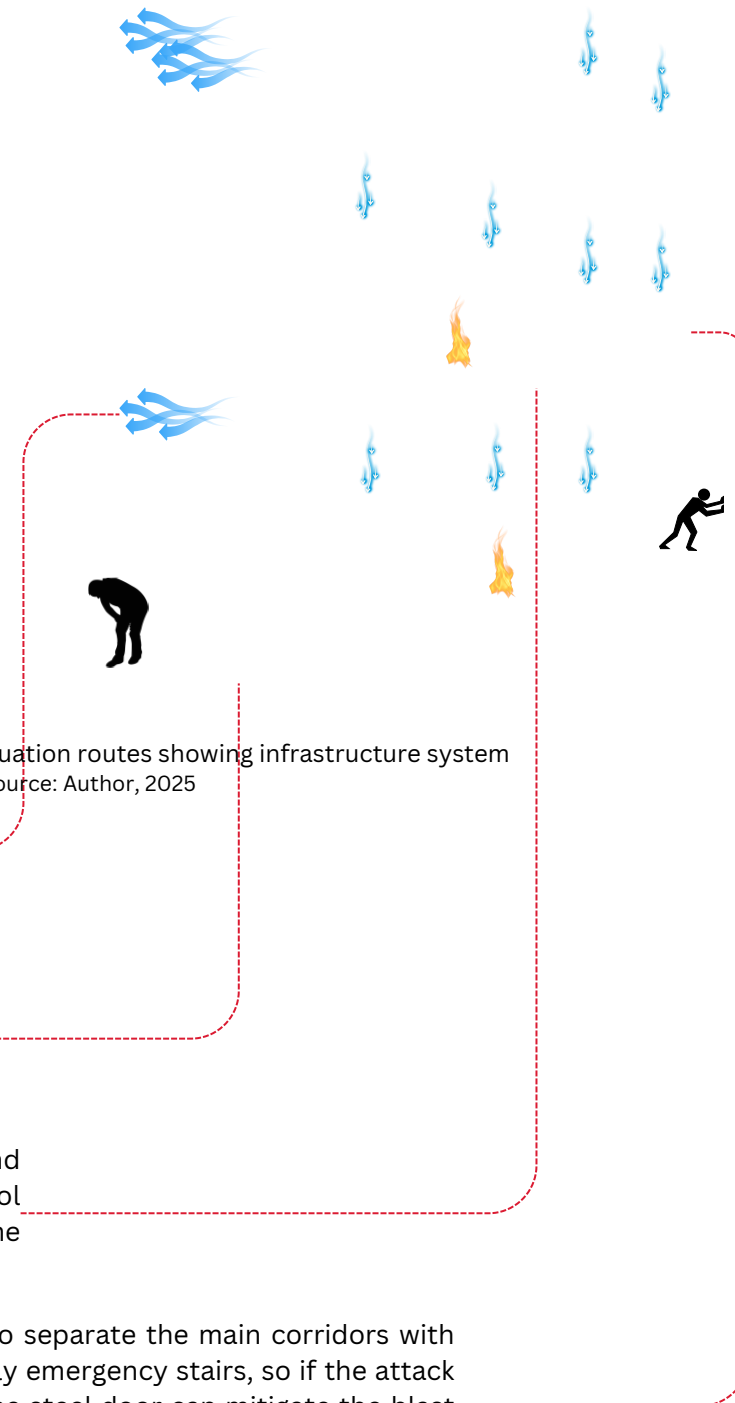


Figure 4.3.10 Section of evacuation routes showing infrastructure system
Source: Author, 2025

Fire/Smoke Dampers at duct-stairwell openings open on alarm to let pressurization air in the fire floor

Duct System that hold the air from the Pressurization Fan to the fire floor based on the alarm system that be controlled from the BMS Control room

Sprinkler head that open based on the fire alarm and sensors which at the point or the area of fire to control the fire while the people are evacuating to the emergency stairs

The Core overall the building has main Steel doors to separate the main corridors with the main core as well as the other two cores with only emergency stairs, so if the attack target the core which is the center of the tower so the steel door can mitigate the blast waves or any shrapnel come out from the source of the attack so this strategy may increase the level of safety

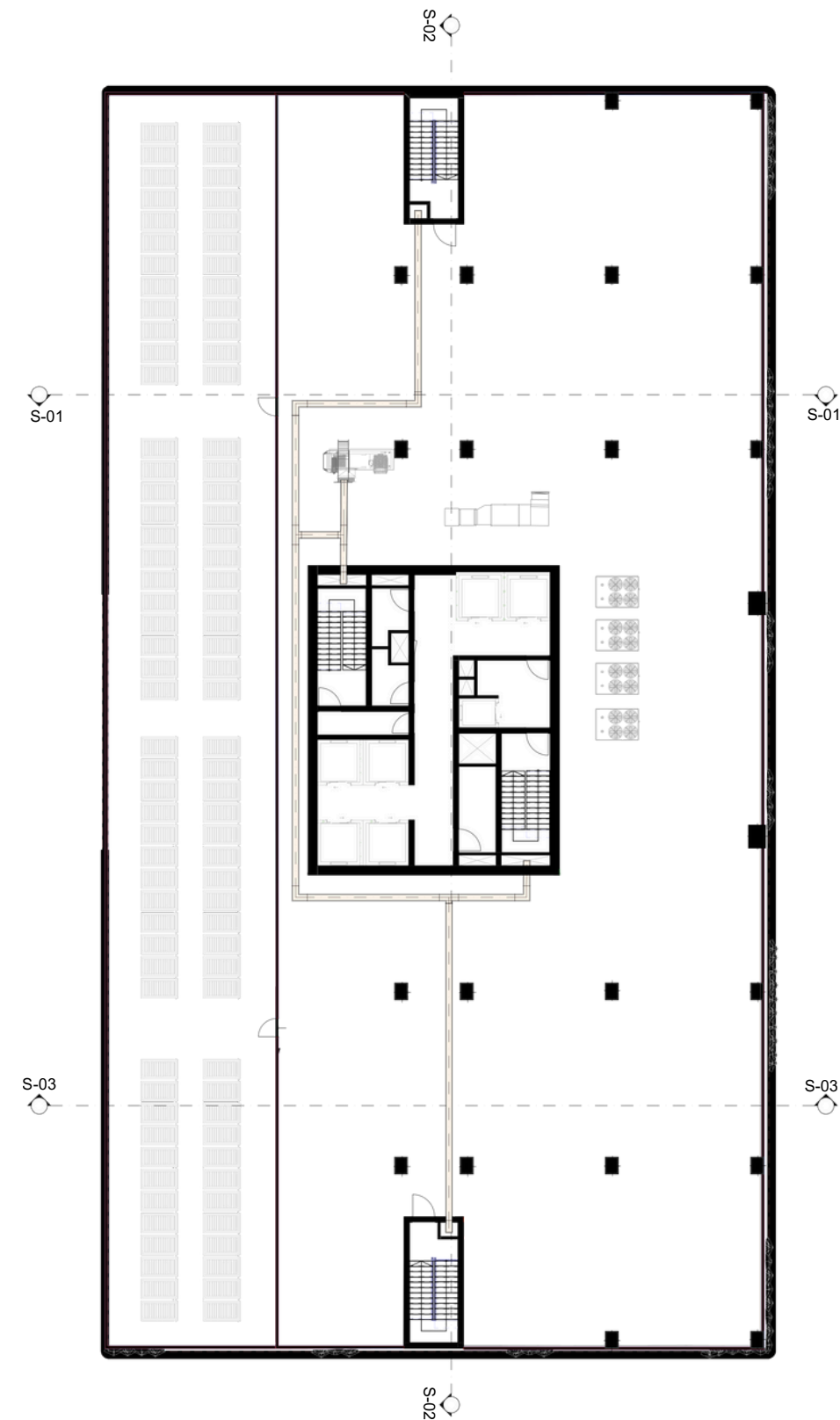


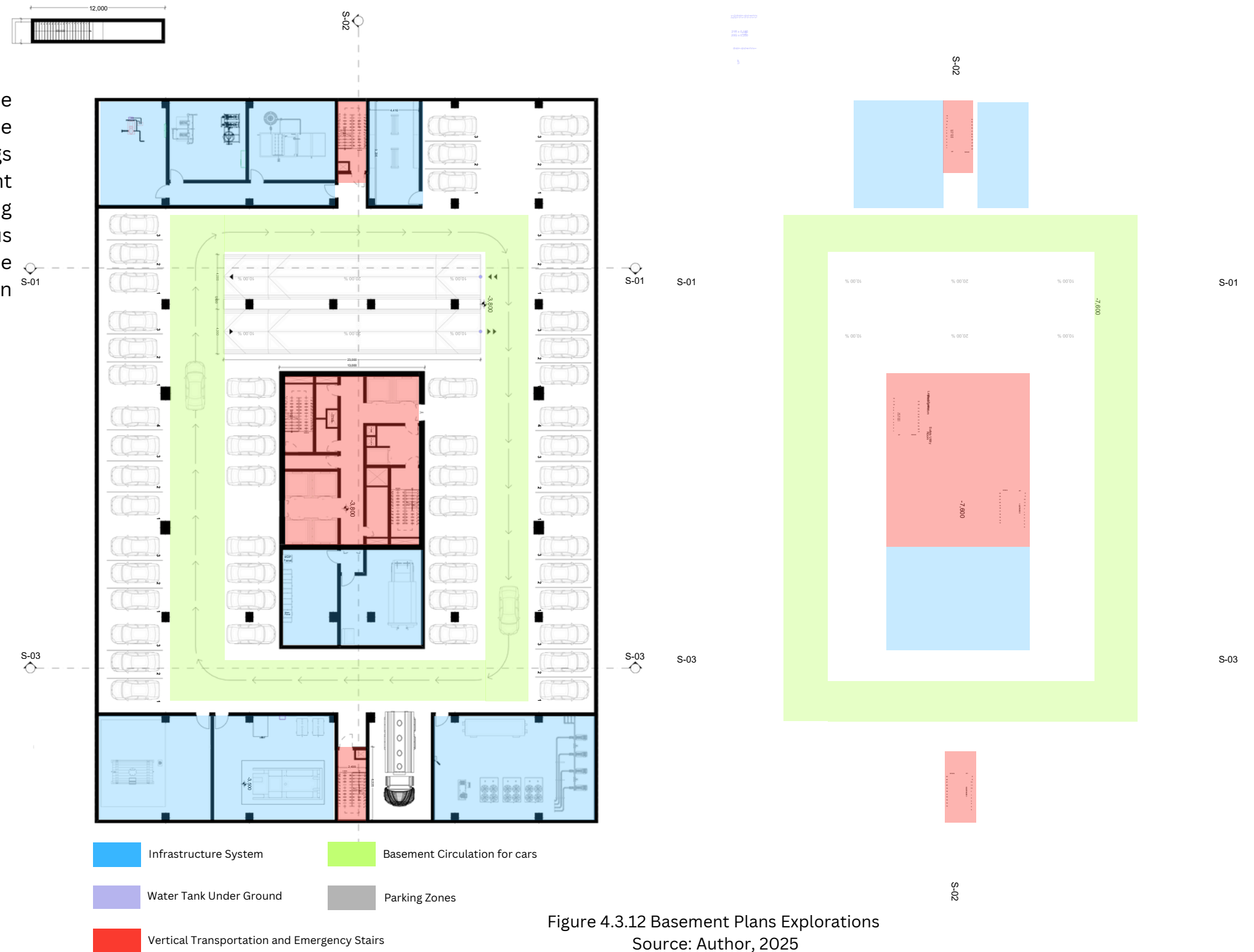
Figure 4.3.11 Roof Plan
Source: Author, 2025

Roof Floor Plan present the core life of the tower because is the most critical face of dangerous and holding the infrastructure system with the main core of the building in the center

Basement Floors Exploration

There are two floors applied for the basement that holding the parking and the infrastructure system overall the buildings and only one-way to access the basement floors because of the dangerous surrounding as the building is facing two dangerous direction of attack and the selected side which is the south direction located in main road

- Parking Capacity 70%



There are two floors applied for the basement that holding the parking and the infrastructure system overall the buildings and only one-way to access the basement floors because of the dangerous surrounding as the building is facing two dangerous direction of attack and the selected side which is the south direction located in main road

Bunker Floor underground

Bunker Floor underground present the main safe zoning and it's the most critical important zoning as the whole users while the high risk of wartimes. so one floor underground serve 1000 users needed attention.

- Social Activity
- Service Rooms
- Utilities
- Infrastructure System
- Tunnel

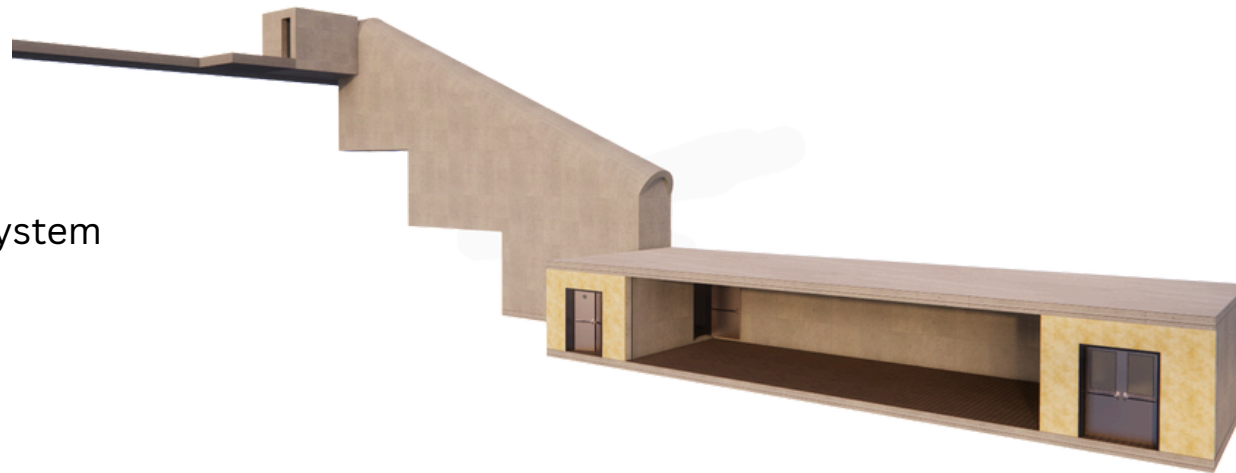


Figure 4.3.13 Fortified escape tunnel axonometric
Source: Author, 2025

Who are allowed to use the bunker !

The bunker is opened to the main users and the staff in case the situation became more dangerous and they can escape to it and the rest of the users allowed to use it for a limited time because of the oxygen and the storage of the food only for the main users will be enough for limited days so the bunker is ready to face the hard situation for two weeks with full of needs that the user need it after that the problem will be supply of the food in case the situation is hard to go out bring food and occupy to the bunker again

- Circulation
- Infrastructure Rooms
- Vertical Access
- Storage food and Kitchen
- Bathrooms
- Water Supply & Ventilation system



Figure 4.3.14 Bunker Plan Exploration
Source: Author, 2025

Exploring Bunker Infrastructure Rooms

Jerry Fuel can

1 jerry = 10 liters of gas

and there are 5 shelves to carry the cans and each shelf
has 12 column + 4 row and each row has 12 jerry;
 $5 * 12 * 4 = 240$ jerry can
 $240 \text{ j} * 10 \text{ l} = 2400 \text{ L}$

Automatically switches power between utility and
generator during outages.

Lithium batteries can be used
underground if strictly protected with
ventilation, fire suppression, and
temperature control.

battery lithium

Generator

fuel storage

Generator : converts mechanical energy into electrical energy to
supply power when the main source fails.

Waste management Room to collect the trash only from the
bunker floor to avoid the illness or non-comfortable situation
specially the users may stay for two weeks

Trash car to take the waste from the bunker to outside using the
service left

Trash holder to collect the trash before treatment

Figure 4.3.15 Power Pack up System Room
Source: Author, 2025

Figure 4.3.16 Waste Management Room
Source: Author, 2025

Exploring Bunker Infrastructure Rooms

The Room of the storage food need a s specially treatment for ventilation system to Preserve food from spoilage due to humidity or heat and most provided food will be Legumes and canned food

Figure 4.3.17 Sleeping Area Room
Source: Author, 2025

The sleeping are double function during wartime the users will use it and there are two big separated room for women and men for privacy.
In normal days will be used as a storage from the management of the tower

Figure 4.3.18 Food Storage Room
Source: Author, 2025

The Communication Room used to control the bunker rooms and keep in touch with the local government in case the emergency situation



Figure 4.3.19 Control and Communication Room
Source: Author, 2025

A small medication room usually has shelves with labeled medicines, a locked cabinet for controlled drugs, a fridge for items like insulin, and basic supplies such as gloves and a sharps container.

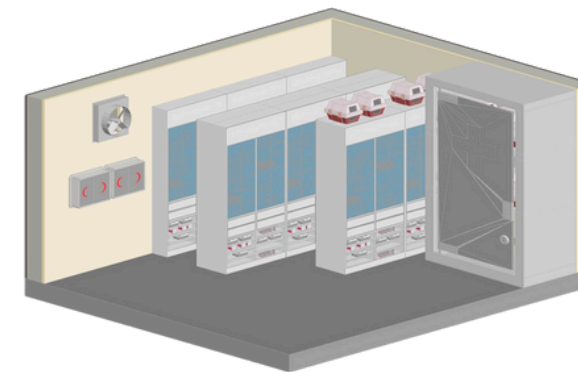


Figure 4.3.20 Medication Storage Room
Source: Author, 2025

This room include enough masks for most of the users in case the attack is a chemical attack and also include a battery a searchlight

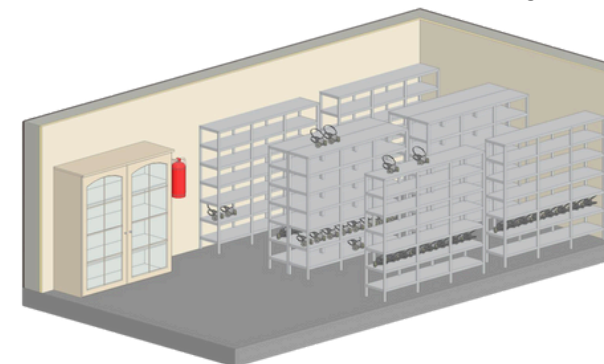


Figure 4.3.21 Safety equipment Storage
Source: Author, 2025

Exploring Bunker Infrastructure Rooms

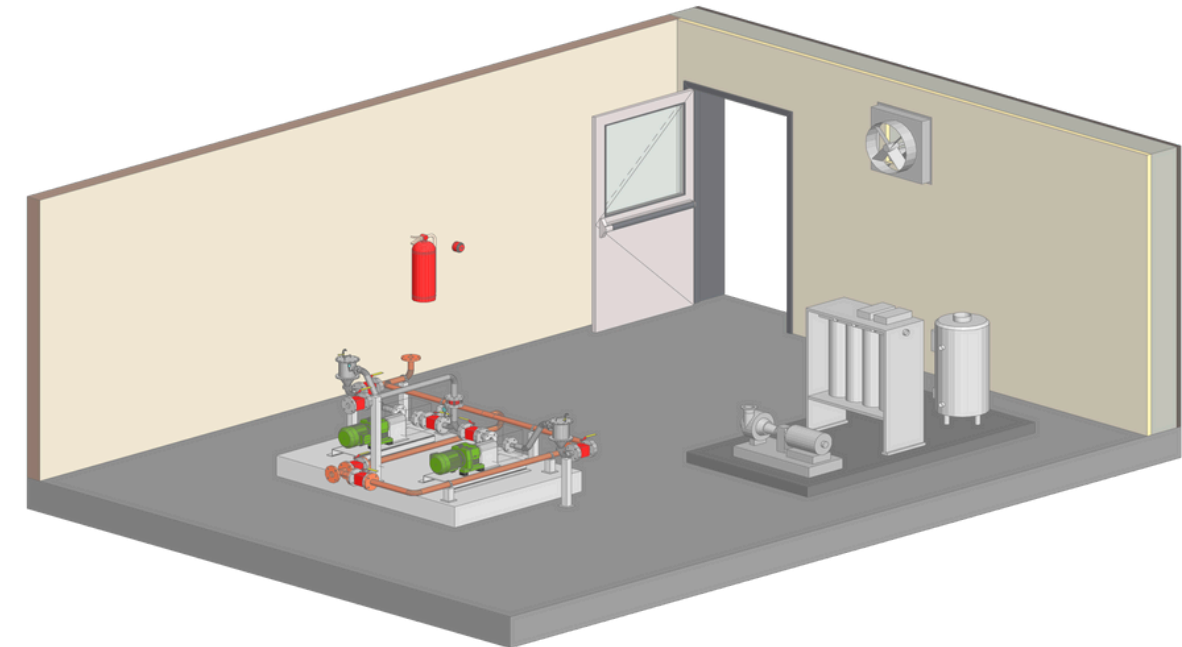


Figure 4.3.22 Emergency Water Tank
Source: Author, 2025

This water tank will serve only the bunker floor during Critical times so the water tank hold
4m in width * 6m in length * 3m in height

Figure 4.3.23 Water Supply Room
Source: Author, 2025

This secondary mechanical room to serve the other rooms during emergency situation but in normal situation like the dangerous is not in a red zone around the building and the building or its system still stand so the bunker will get the these service from the main water tank

1. Tank volume

Dimensions: $4\text{ m} \times 6\text{ m} \times 3\text{ m}$

Volume = $4 \times 6 \times 3 = 72\text{ m}^3$

2. Convert cubic meters to liters

$1\text{ m}^3 = 1,000\text{ liters}$

$72\text{ m}^3 = 72 \times 1,000 = 72,000\text{ liters}$

3. Daily water usage

$1000\text{ people} \times 2\text{ liters/day} = 2,000\text{ liters/day}$

4. Days of supply

Days = $72,000\text{ liters} \div 2,000\text{ liters/day} = 36\text{ days}$

4.3.3 Exploring Building Design Elevations

The North Elevation is the largest surface that face the most critical and dangerous direction that might be attacked

The East Elevation is the Second surface that face the most critical and dangerous direction that might be attacked

Figure 4.3.24 North Elevation showing the placement of defensive facade
Source: Author, 2025

Figure 4.3.25 East Elevation showing the placement of defensive facade
Source: Author, 2025

4.3.3 Exploring Building Design Elevations

The South Elevation is the second largest surface that face the most amount of shrapnel if other buildings around the site get attacked.

The West Elevation is the third surface that face the large open space of facing shrapnel cause of other buildings around the site get attacked.

Figure 4.3.26 South Elevation Exploration
Source: Author, 2025

Figure 4.3.27 West Elevation Exploration
Source: Author, 2025

4.3.3 Exploring Building Design Elevations

- Section A-A
- Section B-B



Figure 4.3.28 Exploring Secondary section and the Circulation between commercial floors
Source: Author, 2025



Figure 4.3.29 Exploring Secondary section and the Circulation between basement floors
Source: Author, 2025

4.3.3 Exploring Building Design Elevations

- Section C-C

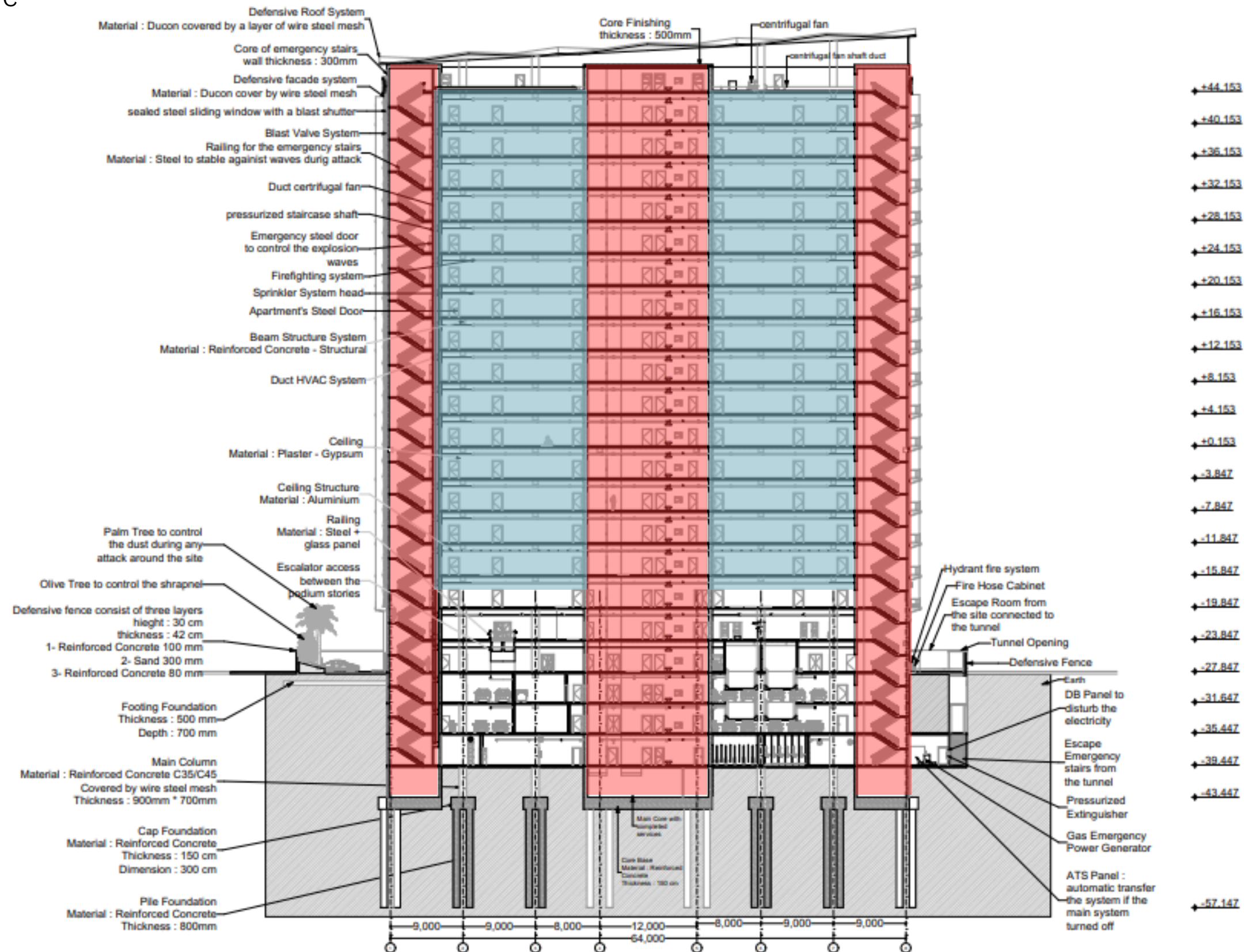


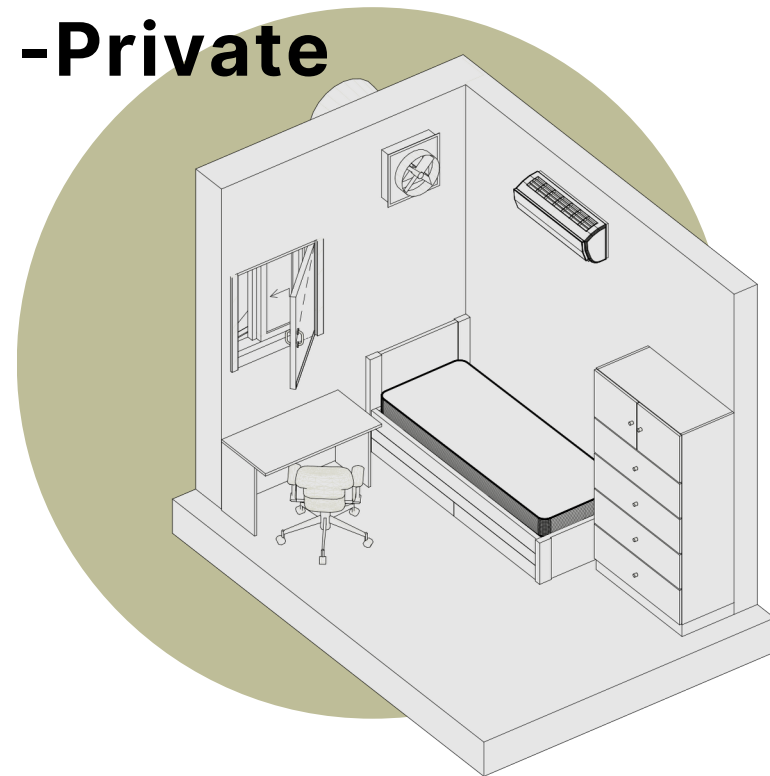
Figure 4.3.30 Exploring the main section and the Circulation and vertical access between floors

Source: Author, 2025

4.4 Detailed solution plan detailed planning according to the problem/excellency

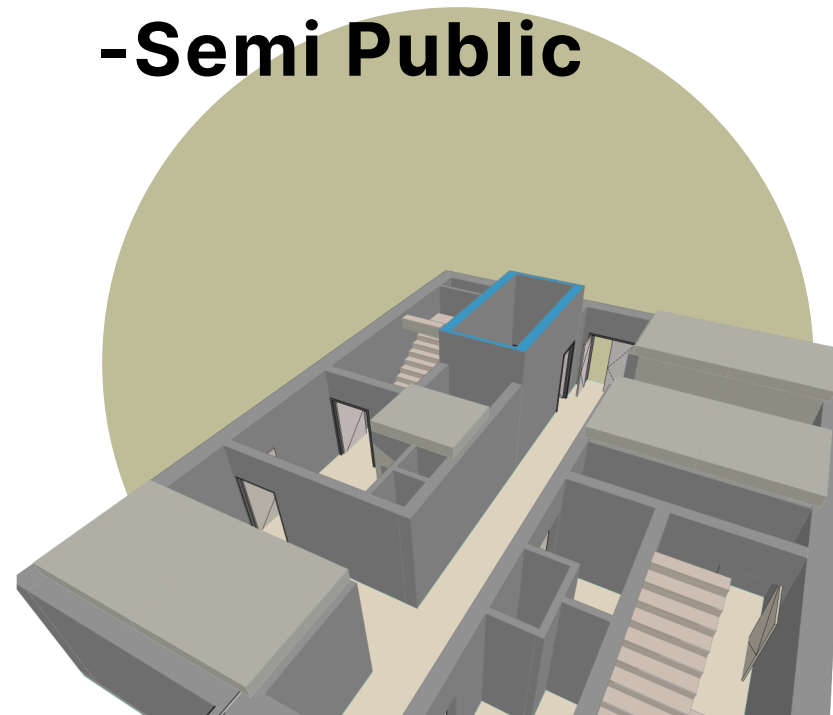
- Level Of Safety

-Private



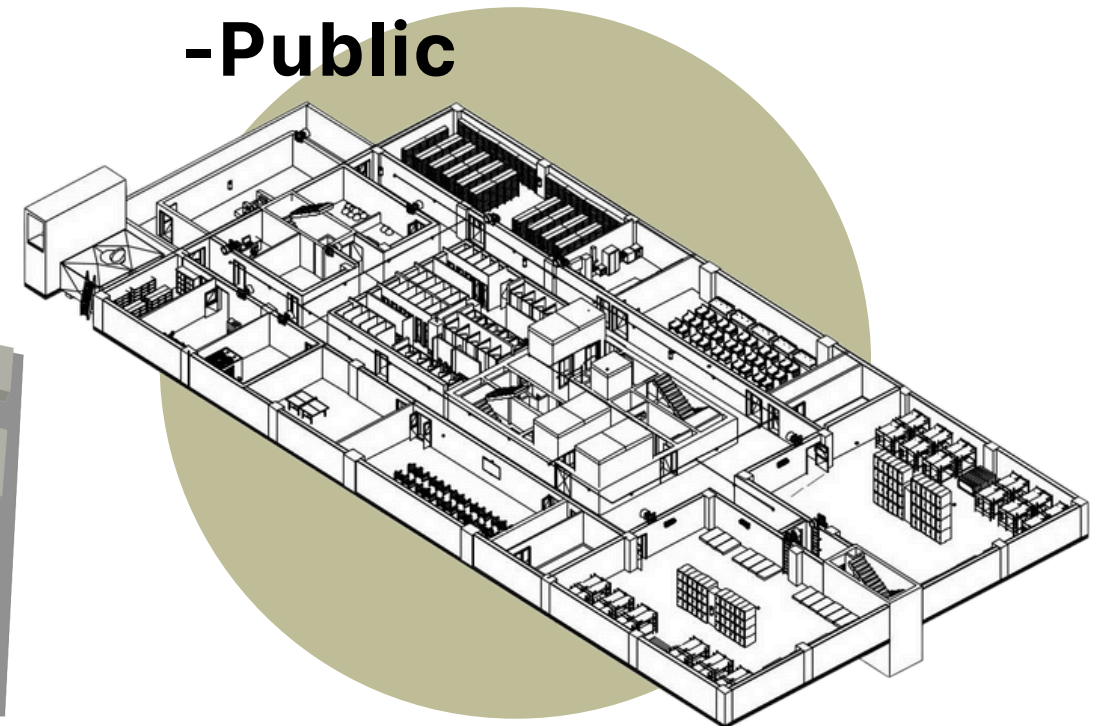
Mamad Room
Level - A

-Semi Public



MamaK Room
Level - B

-Public



Miklat Floor
Level - C

Figure 4.4.1 Exploring the main level of safety
Source: Author, 2025

Main Construction Section

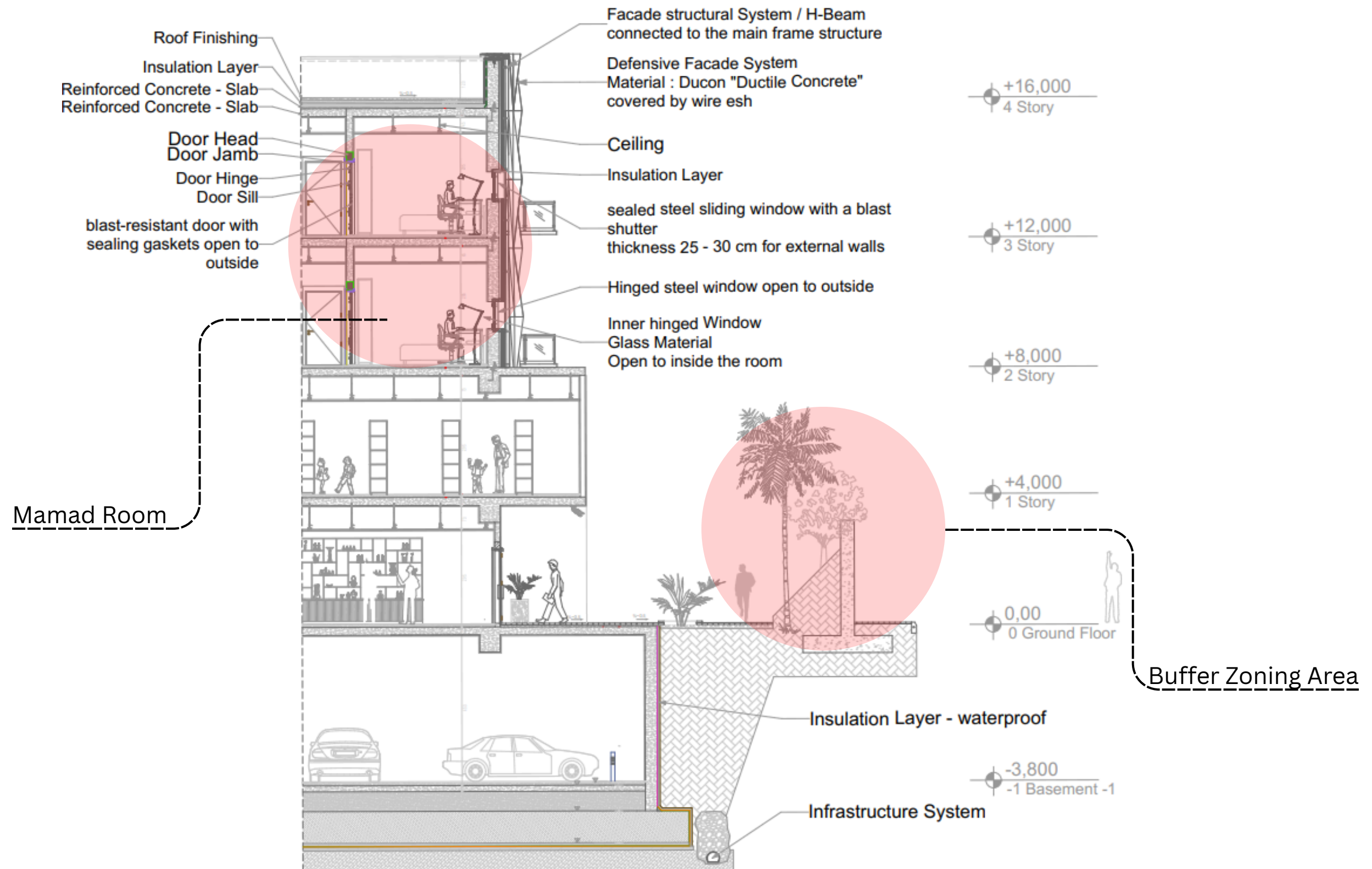


Figure 4.4.2 Exploring the construction details for the main detail section
Source: Author, 2025

Mamad Room plan and section construction Details

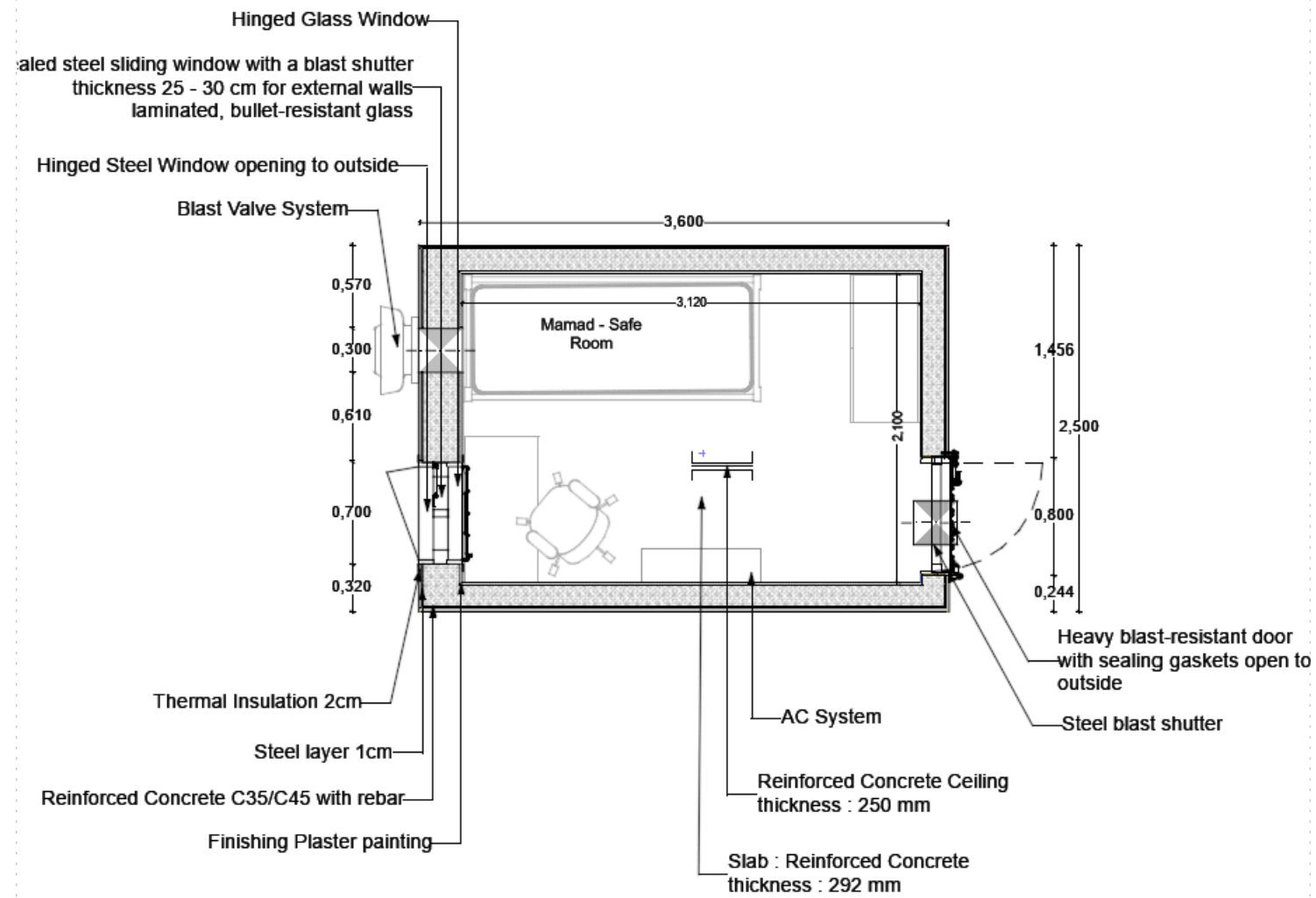


Figure 4.4.3 Exploring Plan detail for mamad room
Source: Author, 2025

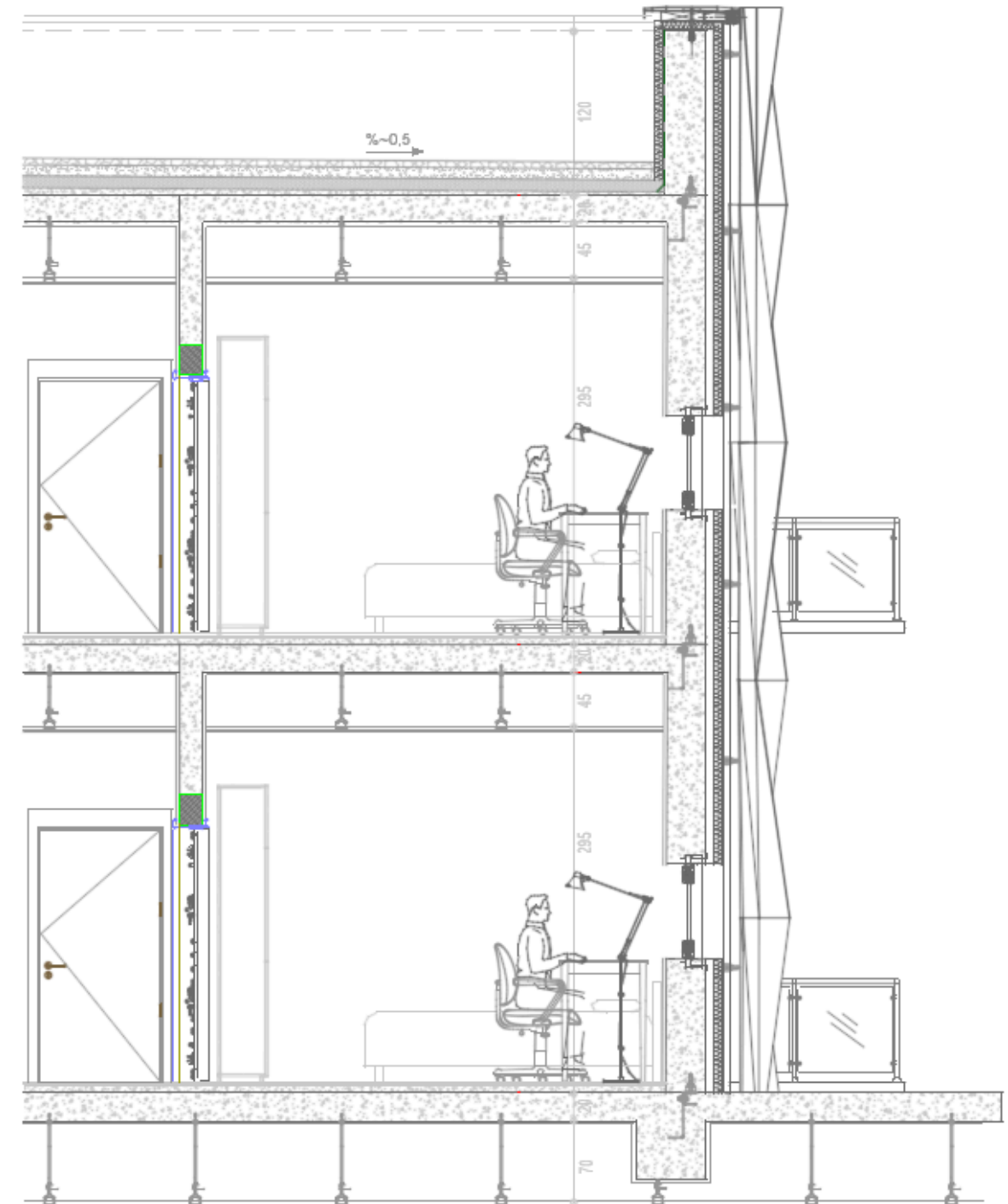


Figure 4.4.4 Exploring section detail for mamad room
Source: Author, 2025

Buffer Zoning Detail and responding Scenario of attack

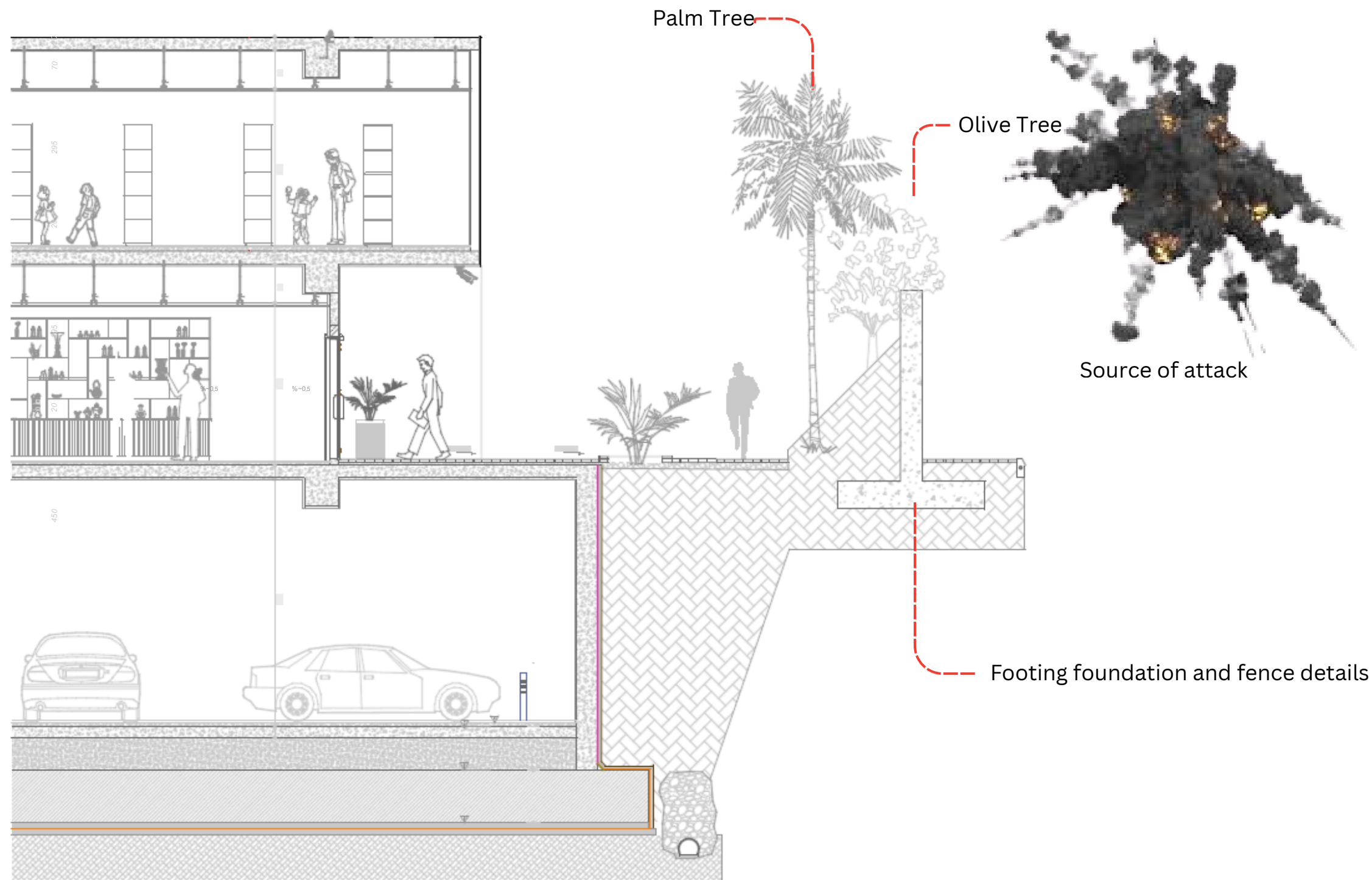


Figure 4.4.5 Section of Buffer Zoning Area
Source Author, 2025

In the buffering zone of the project, olive trees and palm trees are used as natural protective barriers. Olive trees, with their dense branches and deep roots, help to absorb shrapnel impact and reduce the spread of dust and debris in case of nearby explosions. Palm trees, with their tall and flexible trunks, act as vertical shields that break the force of flying fragments while also creating shade and improving the microclimate around the site. Together, these trees form a green defensive layer that not only strengthens safety but also provides a sense of peace and resilience for the residents.

Fortified Escape Tunnel

During wartimes the users will refugee to the bunker floor for a limited time and in case the warzone became nearby the site or the food storage finished then the users will use the tunnel to escape from the building in case the building face any type of attack so that will be the most safe evacuation route to outside the building

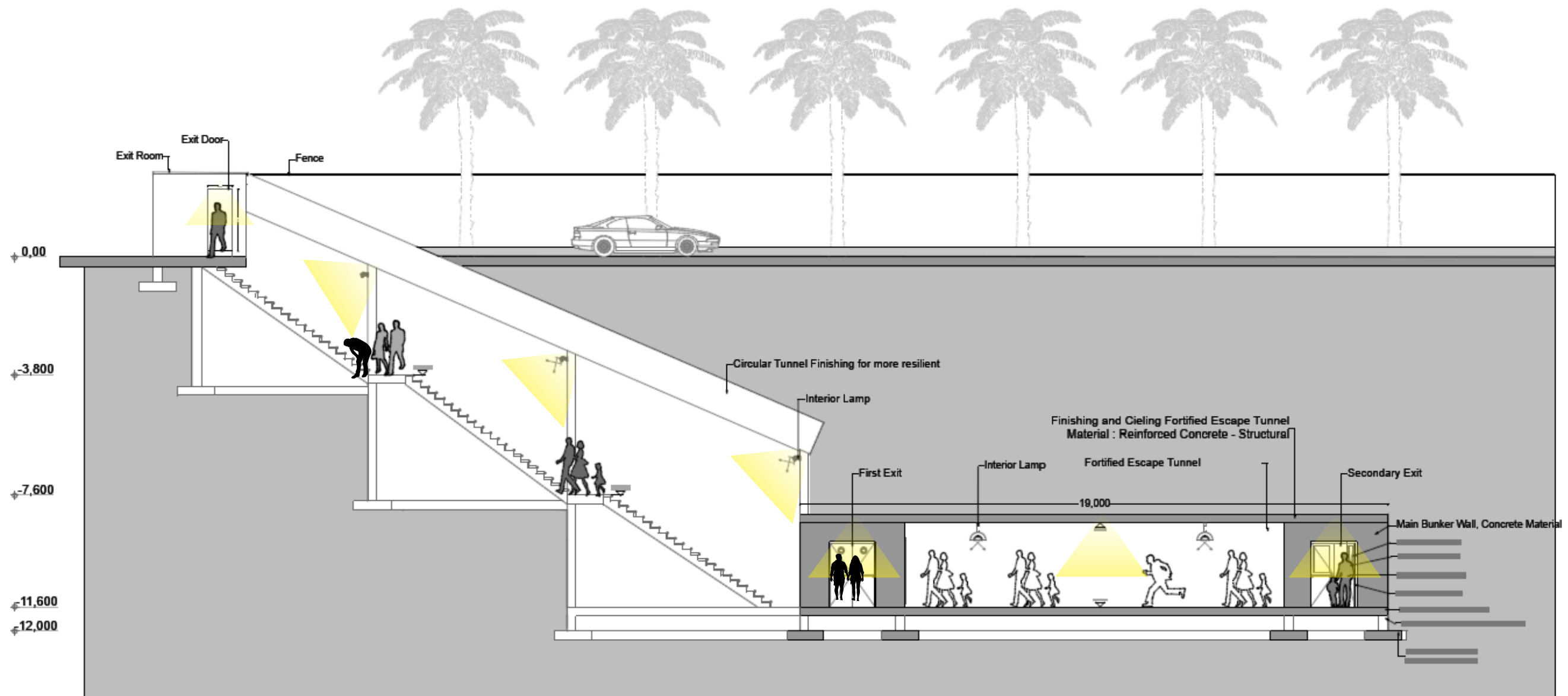


Figure 4.4.6 Section of Fortified Escape Tunnel from the site during critical and emergency times

Source Author, 2025

Facade development and Placement

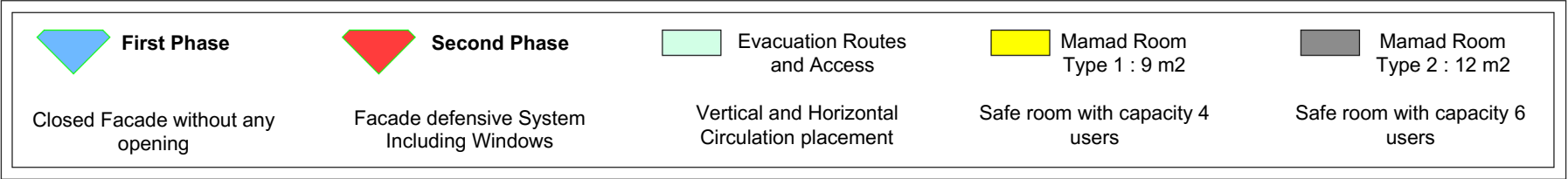


Figure 4.5.1 Exploring the placement of the facade and safe rooms on the typical floors
Source Author, 2025

Facade Construction Details

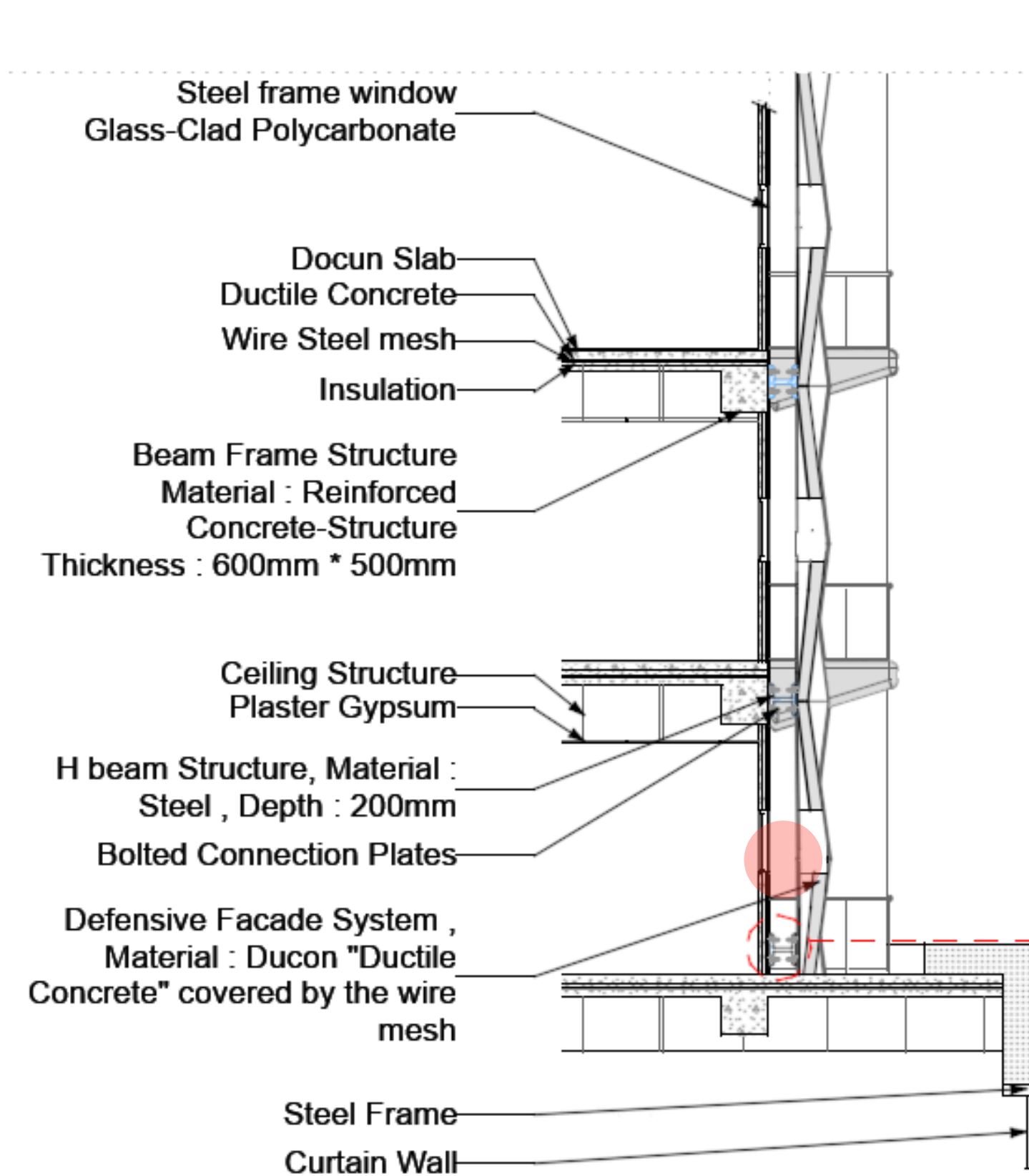
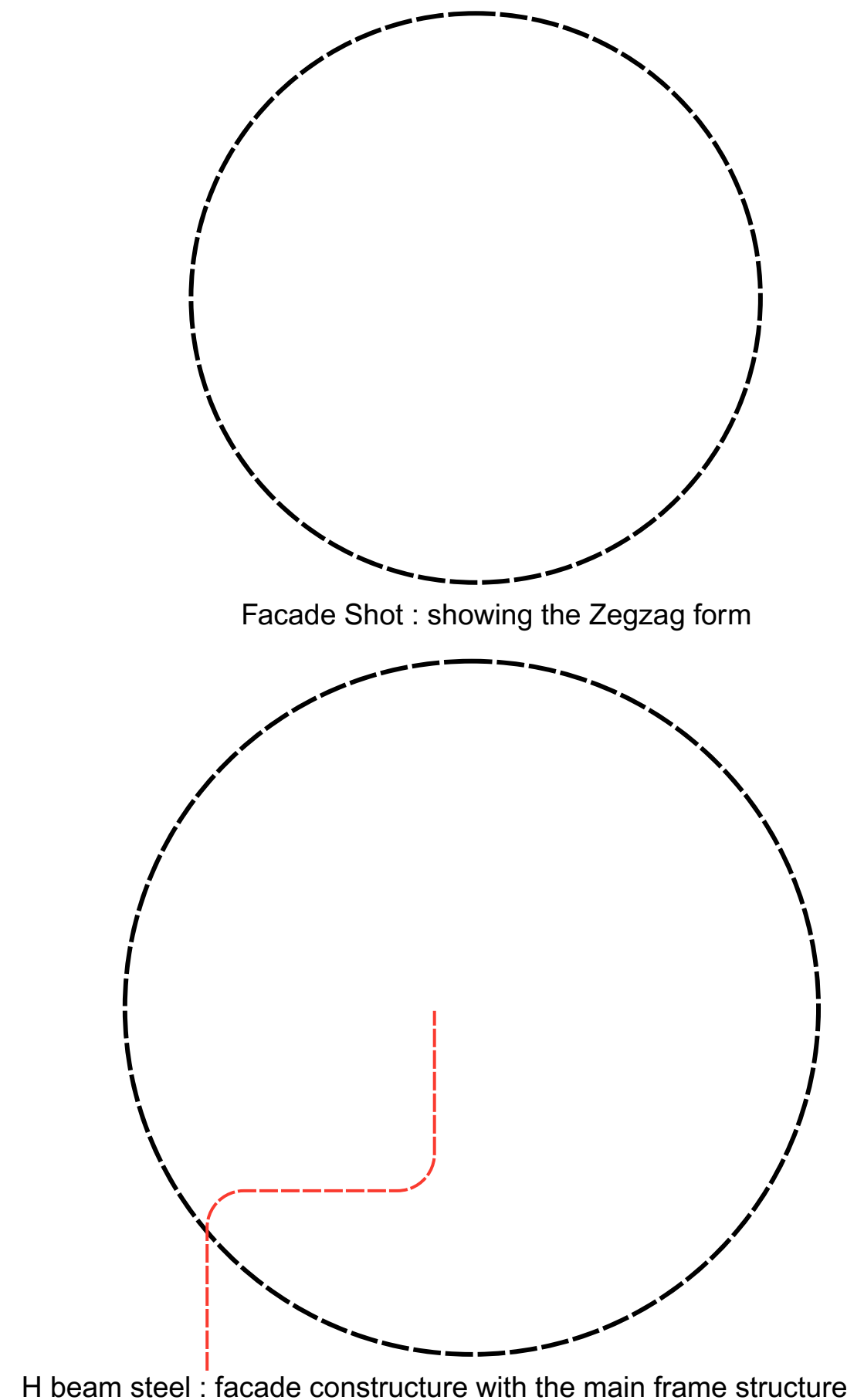


Figure 4.5.2 Section of the defensive facade system and construction details
Source Author, 2025



4.6 Structural system design

Typical Floor - Structural Plan

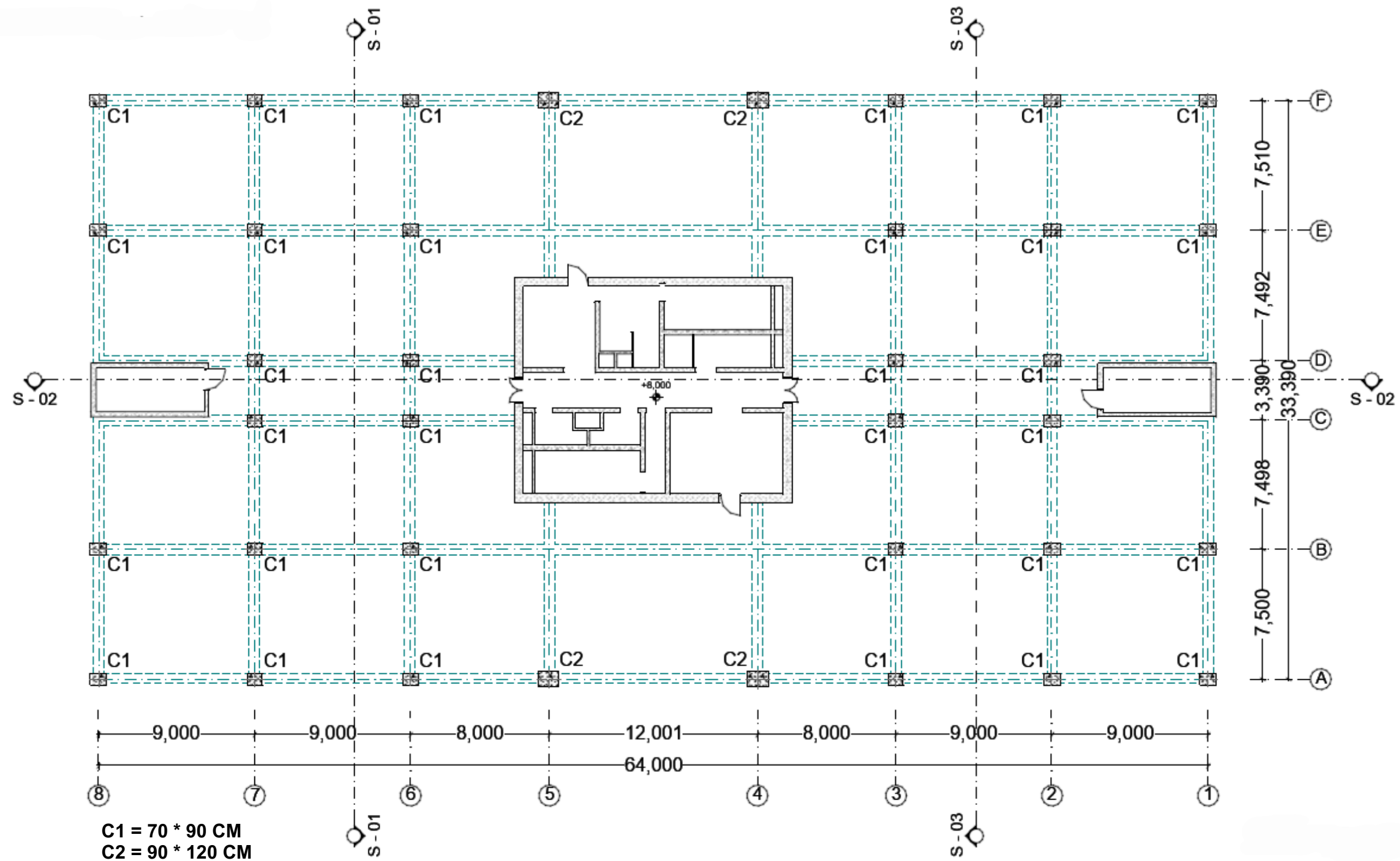


Figure 4.6.1 details of structure plan for the typical floor
Source Author, 2025

Bunker Floor - Structural Plan

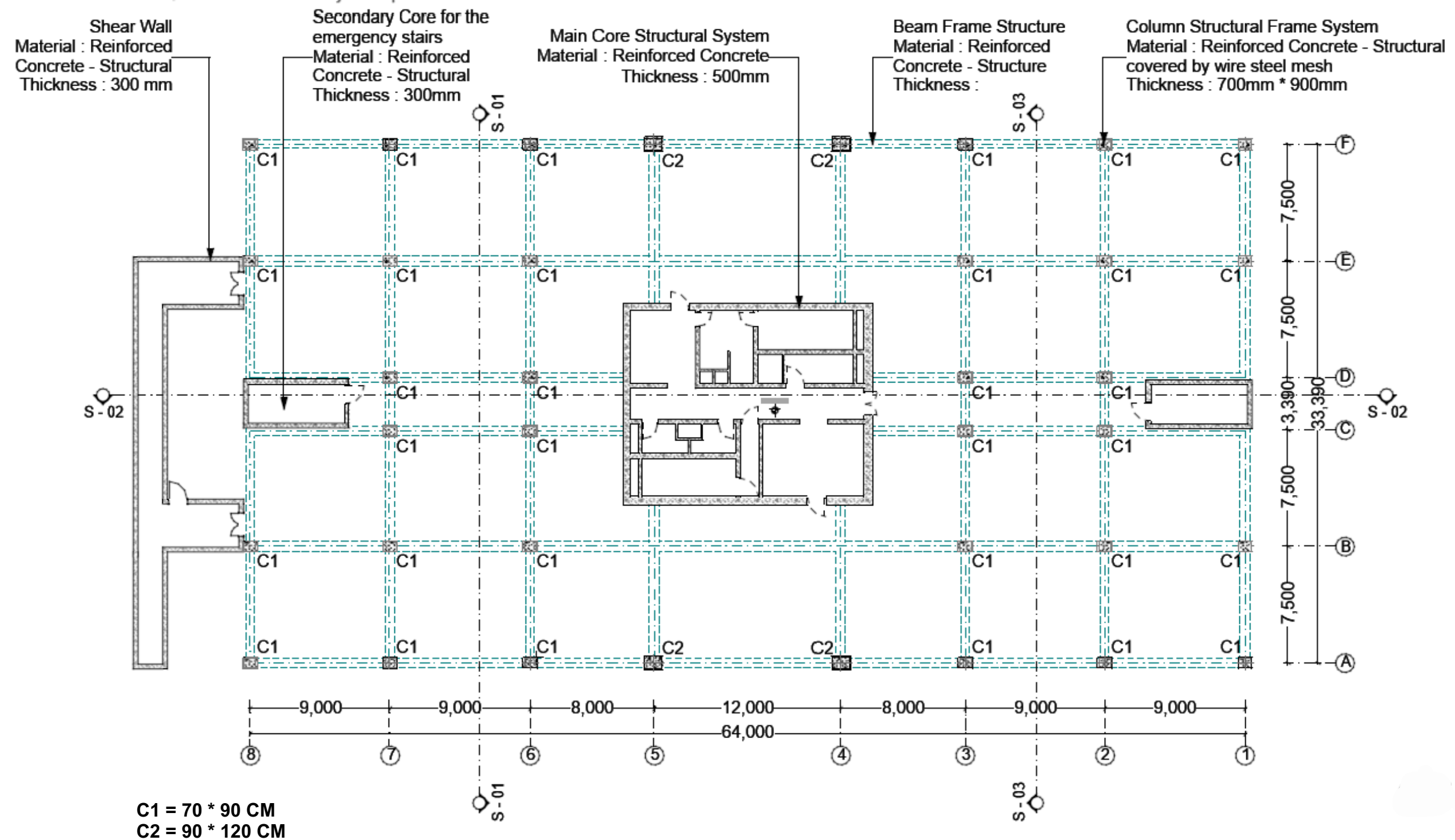


Figure 4.6.2 details of structure plan for the bunker floor
Source Author, 2025

Structural Axonometric

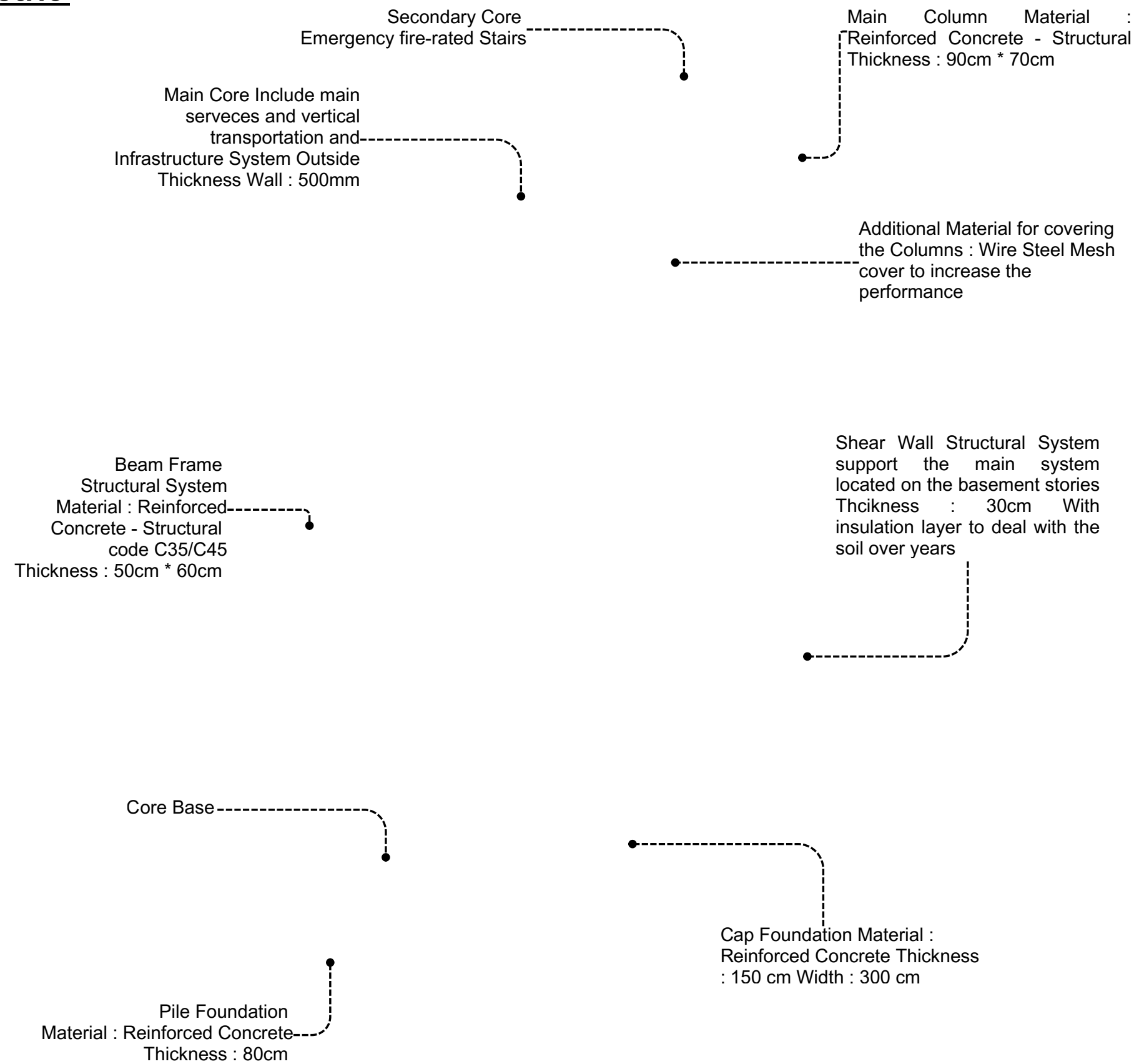


Figure 4.6.3 Axonometric Structural System
Source: Author, 2025

4.7 Utility system design(Infrastructure system : vertically)



Figure 4.7.1 Exploring the utility system through the main section
Source: Author, 2025

This Section figure out the complete and full access horizontally and vertically, the the core and the infrastructure system that serve the evacuation routes and the emergency stairs as it's fire rated also show out the bunker access to outside

Evacuation Routes for Typical Residential Floors



Figure 4.7.2 Exploring evacuation routes and emergency access at typical floors
Source: Author, 2025

Evacuation Routes for Bunker and Escaping Tunnel

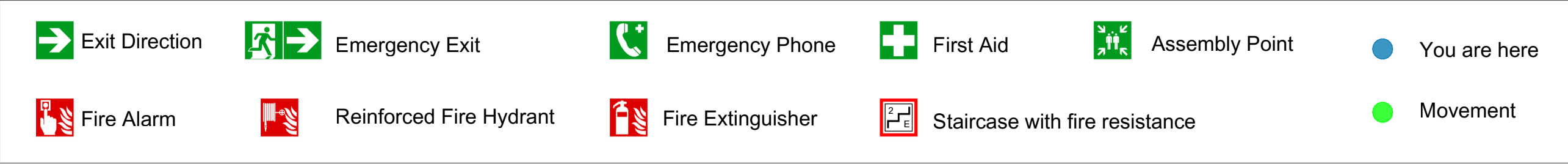


Figure 4.7.3 Exploring evacuation routes and emergency access at bunker floor
Source: Author, 2025

Sprinkler System / G.F - Commercial Floor

Figure 4.7.4 Firefighting system on ground commercial floor
Source: Author, 2025

Sprinkler System / 1st - Commercial Floor

Figure 4.7.5 Firefighting system on first commercial floor
Source: Author, 2025

Sprinkler System / Typical Floor

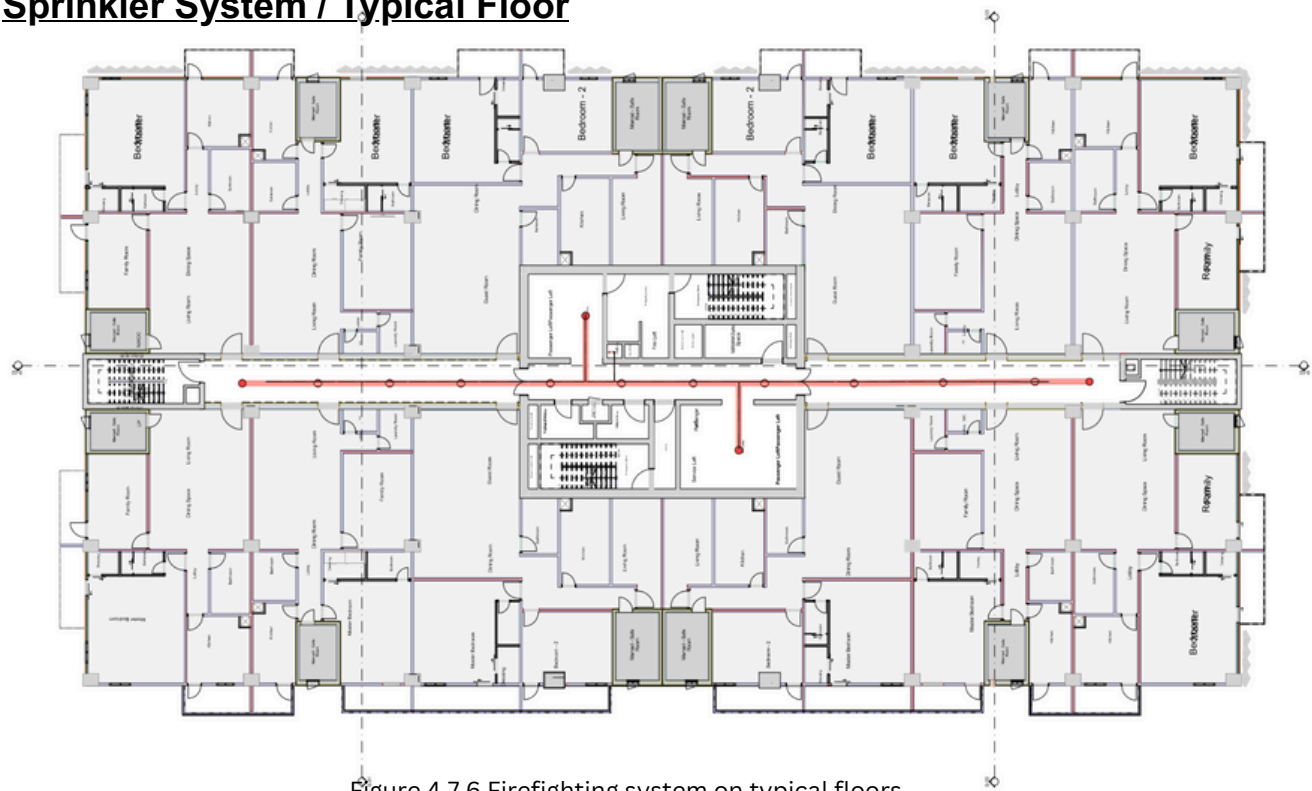


Figure 4.7.6 Firefighting system on typical floors
Source: Author, 2025

Sprinkler System / Bunker Floor - Main safe Zoning

Figure 4.7.7 Firefighting system on bunker floor
Source: Author, 2025

4.8 Design Simulation Result

4.8.1 DIALux Software Simulation

Artificial Lighting Needed during emergencies / typical floors

- Applying target plans and fixing the sitting based on the site location.

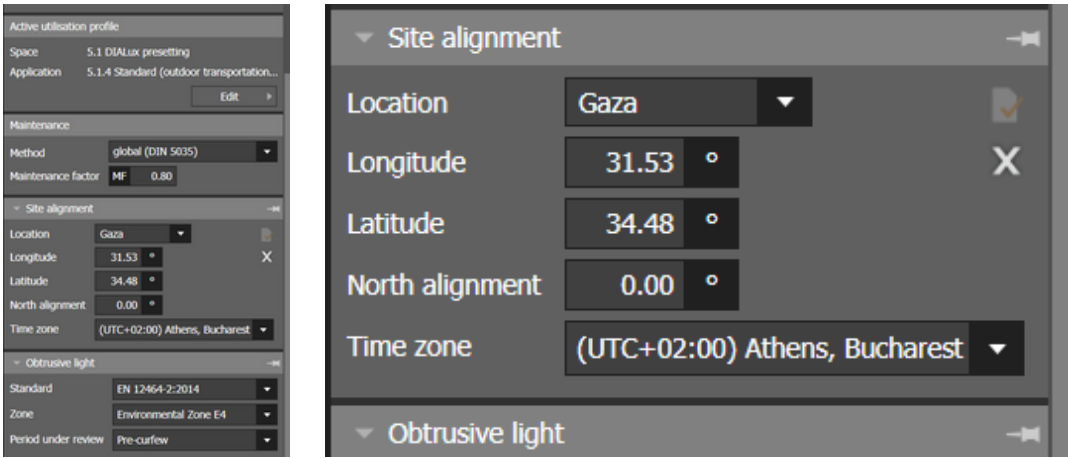


Figure 4.8.1 Sitting from DIALux Simulation about the location of the site
Source: Author, 2025

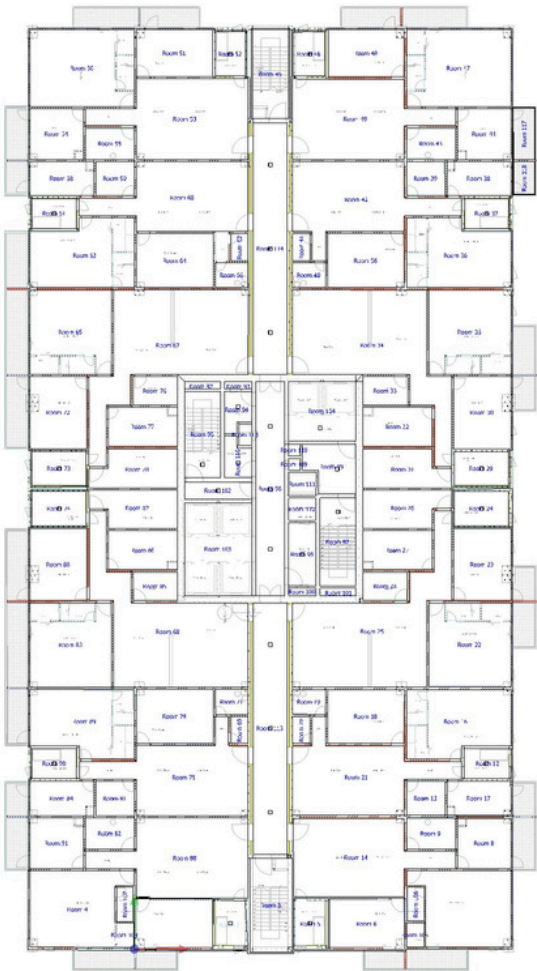


Figure 4.8.2 Typical Floor Layout
Source: Author, 2025

Figure 4.8.2 Simulation result for the evacuation and mamad rooms on typical floors
Source: Author, 2025

Artificial Lighting Applied on whole function at the bunker floor because of the different function, users and the must urgent purpose the huge number of occupants who are refuge at the bunker. The Result of simulation showing that the wat for each needed for each room and the amount of lighting like the sleeping room it's the less needed room to the lighting. and the higher one is the core because of the emergency situation more than 1000 people are accessing at the same time.

4.8 Design Simulation Result

Artificial Lighting Needed during emergencies / bunker floor



Figure 4.8.3 Bunker Floor Layout
Source: Author, 2025

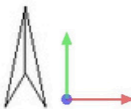


Figure 4.8.4 Simulation result for bunker floor
Source: Author, 2025

First of all need to think about the most important function to apply artificial lighting for easy access and to prevent any accident happen

4.8.2 Pathfinder Software Simulation

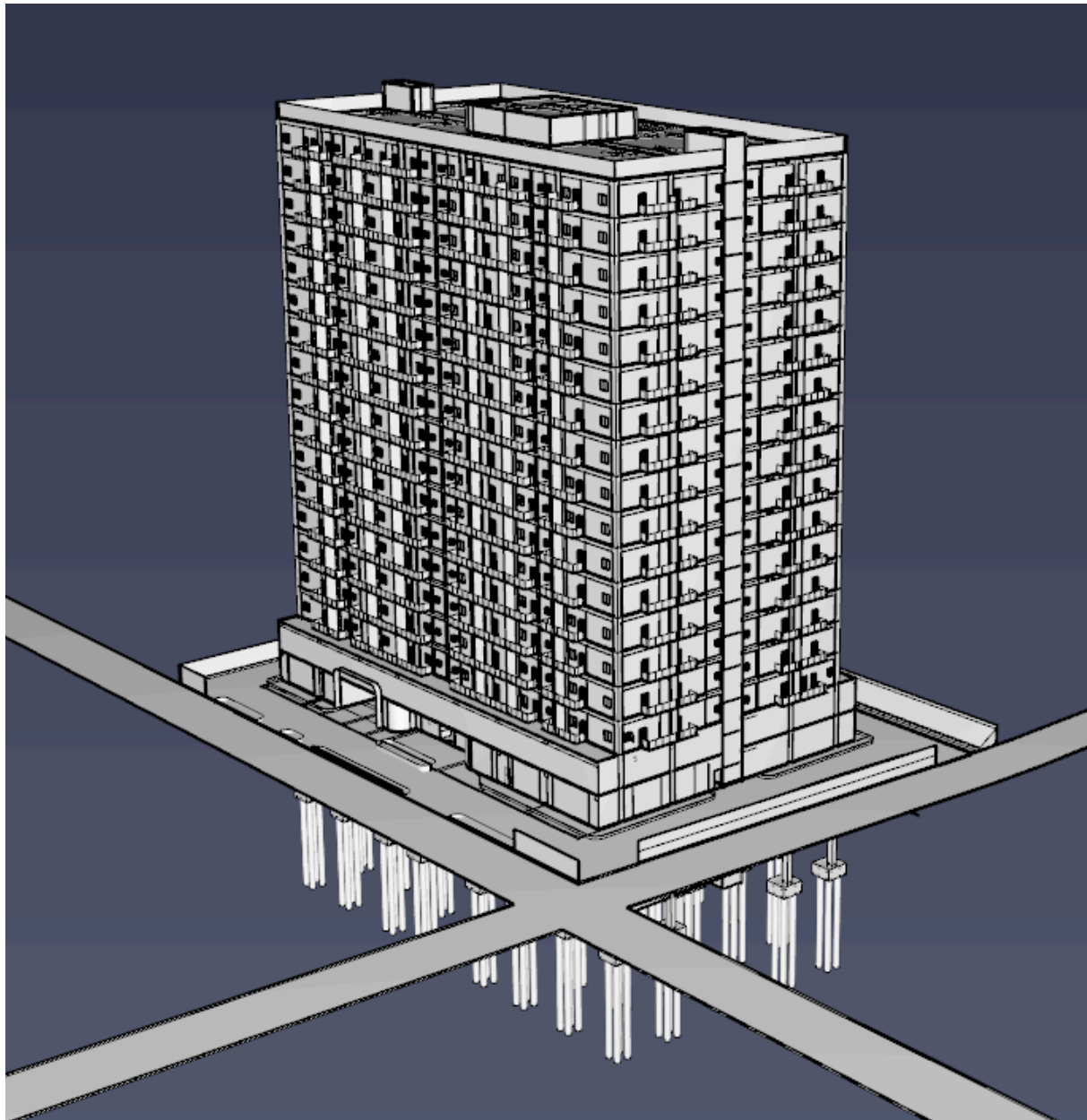


Figure 4.8.5 applying building design on pathfinder simulation software
Source: Author, 2025

layout of the gathering point showing the the direction and gathering point away from the site to avoid the danger

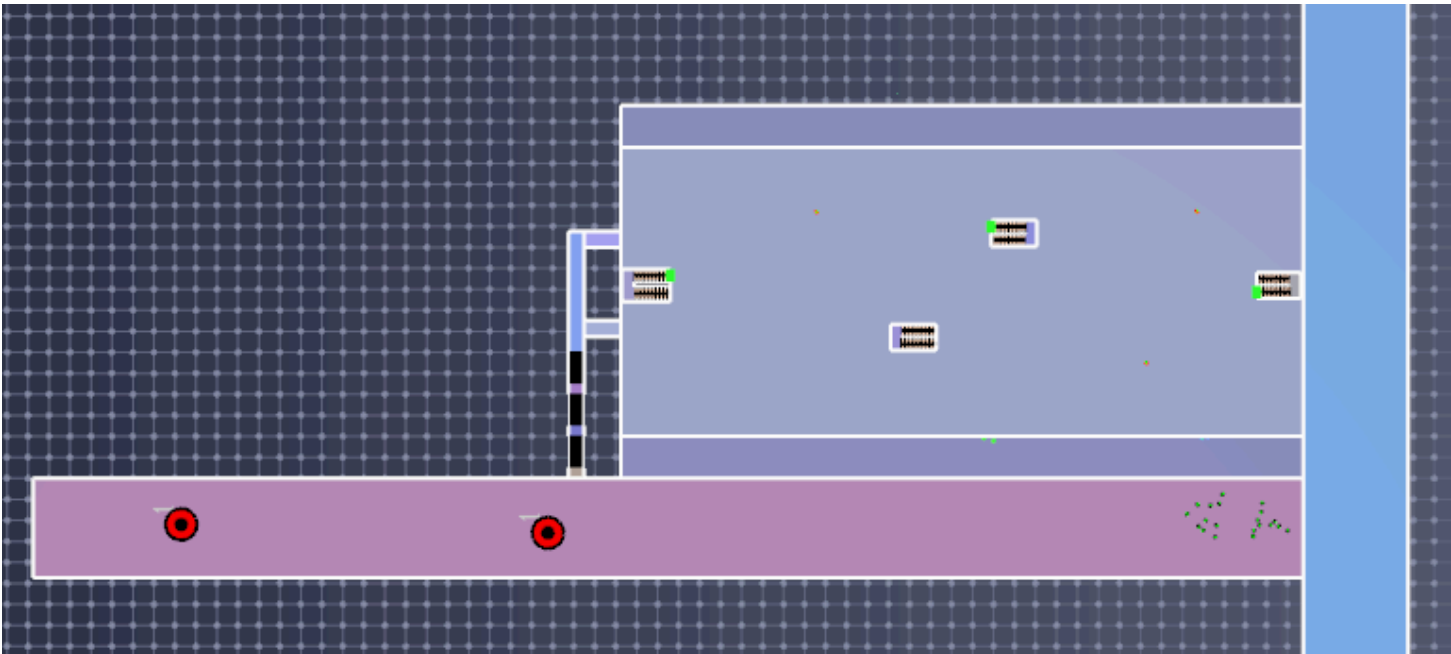


Figure 4.8.6 Lay outing showing the placement of the emergency stairs
Source: Author, 2025

Axonometric overall the building showing the placement of users in different zones

Figure 4.8.7 Lay outing showing the placement of the emergency stairs
Source: Author, 2025

4.8.2 Pathfinder Software Simulation

This movement show the speed of users will escaping from the tower using the emergency stairs to outside

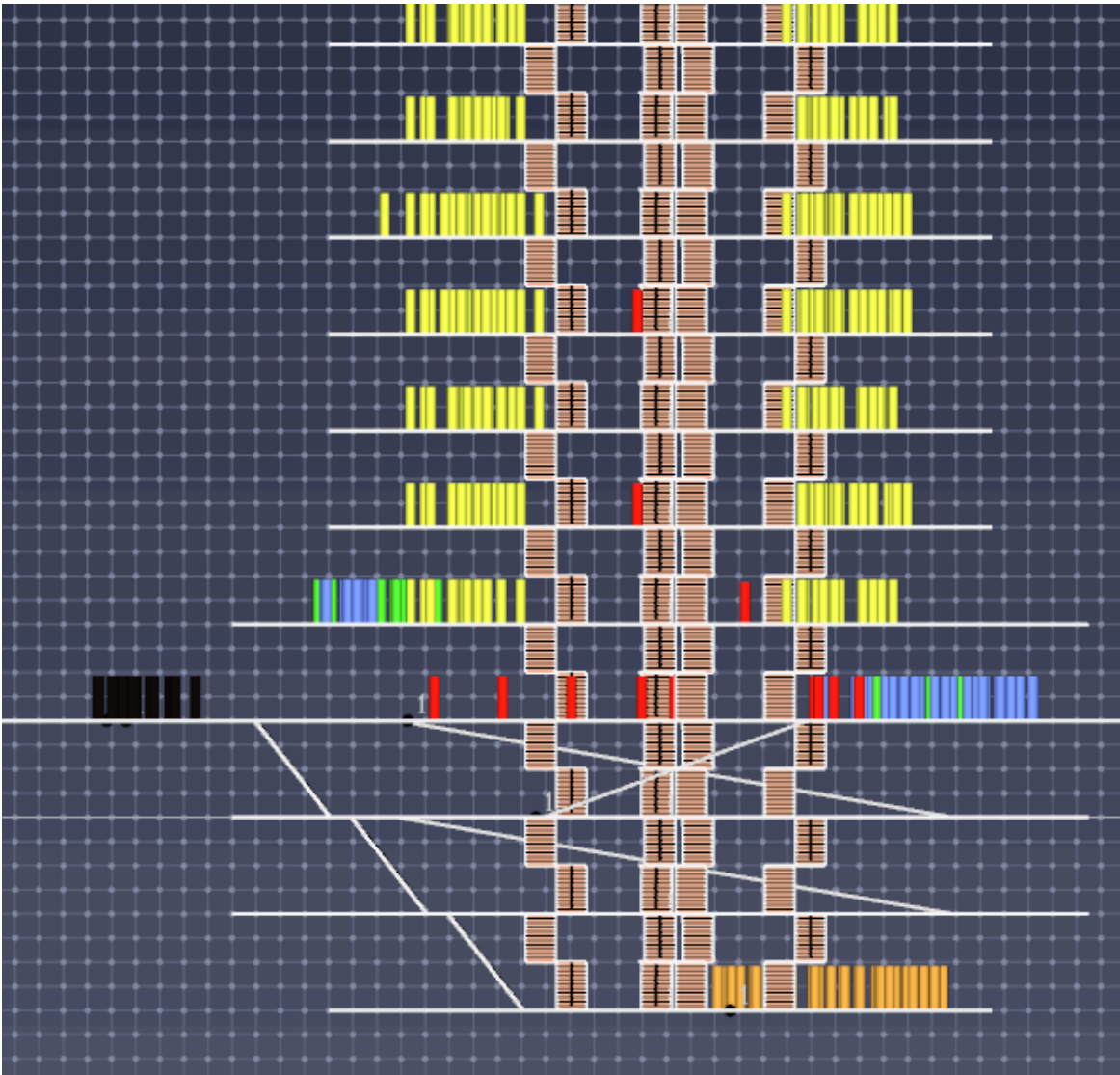


Figure 4.8.8 Secondary section showing placement and vertical access
Source: Author, 2025

Section showing the people refuge to the tunnel during wartimes to be in safe

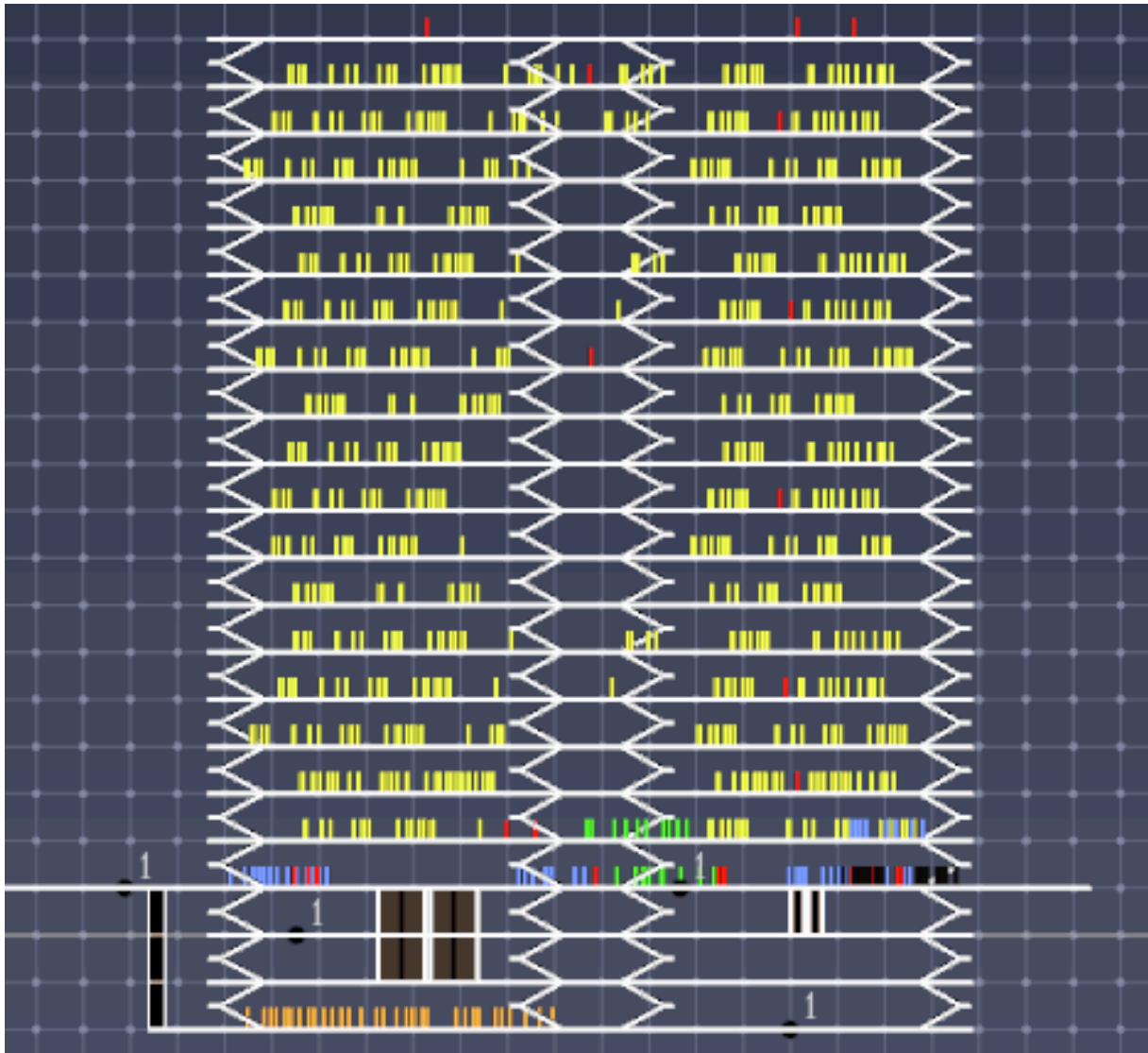


Figure 4.8.9 Main section showing placement of the emergency stairs and people are escaping
Source: Author, 2025

- | | | |
|---|--|---|
|  Owners of apartments |  staff |  visitors will access the basement |
|  Visitors for a limited time |  people escaping from the site zoning |  People already access the bunker |

4.8.2 Pathfinder Software Simulation Result

This simulation visualizes the movement of occupants towards the designated emergency staircases. The color gradient represents varying movement speeds, with higher speeds observed near the exits as individuals approach the stairwell. The results highlight the importance of efficient stair placement, ensuring a clear flow path that minimizes congestion during evacuation.

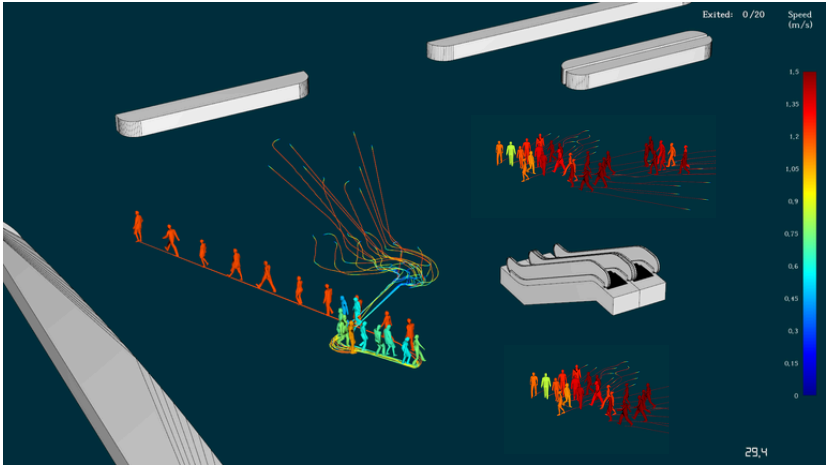


Figure 4.8.10 Simulation result in commercial floors
Source: Author, 2025

This figure illustrates the evacuation process through a spiral emergency staircase. The color-coded representation of occupants indicates different movement speeds, with slower movement evident as congestion builds near the stairwell. The spiral design demonstrates both the efficiency of vertical evacuation and the potential bottlenecks that may arise due to stairwell geometry and crowd density.

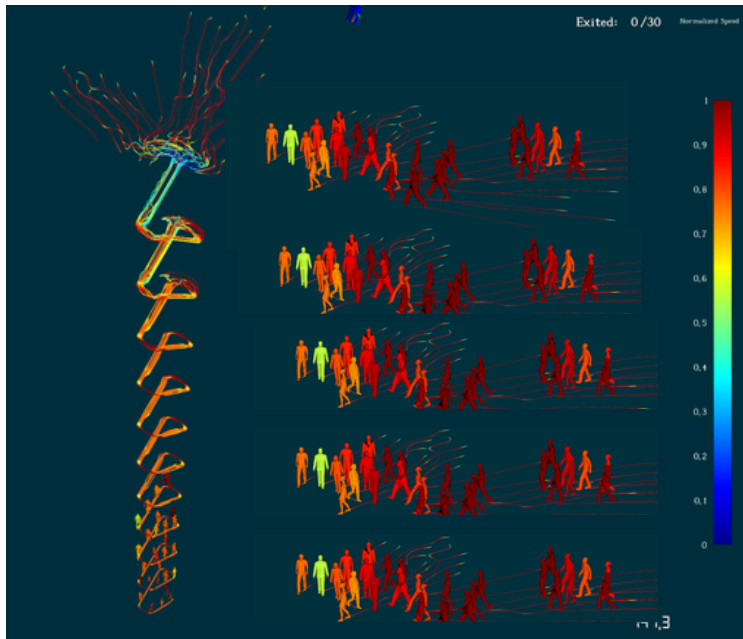


Figure 4.8.11 Simulation Result showing the flexibility of using emergency stairs
Source: Author, 2025

The graph shows the number of occupants in selected rooms over time during the evacuation process. Initially, the occupant count remains constant until evacuation begins, after which a steady decline is observed. The complete evacuation of the rooms occurs in less than 80 seconds, indicating that the escape routes were sufficient to handle the number of people present without major delays

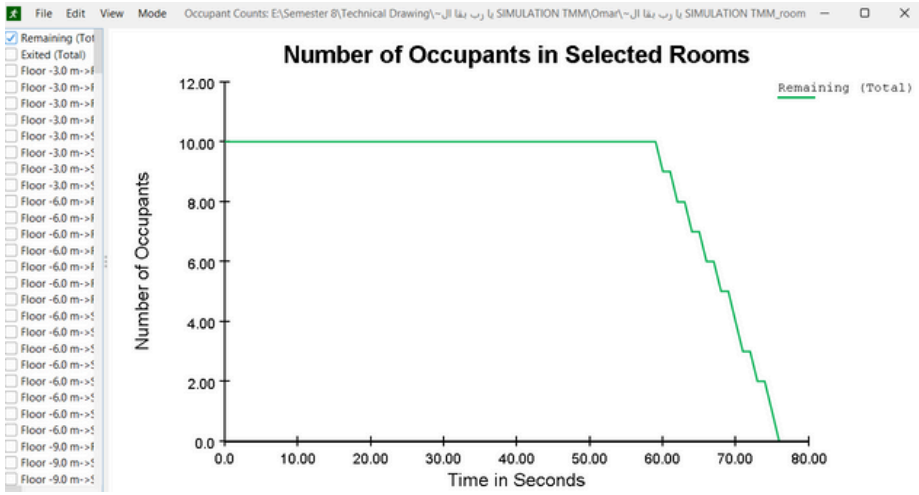


Figure 4.8.12 Analysis the total number of occupants in selected rooms overall the building
Source: Author, 2025

The flow rate graph for selected doors highlights the variation in occupant movement through different exits over time. The data indicates that some doors experience higher peak flow rates, suggesting their greater usage or proximity to major evacuation paths. This analysis is useful in identifying critical exit points and optimizing door placement to balance flow and reduce localized congestion.

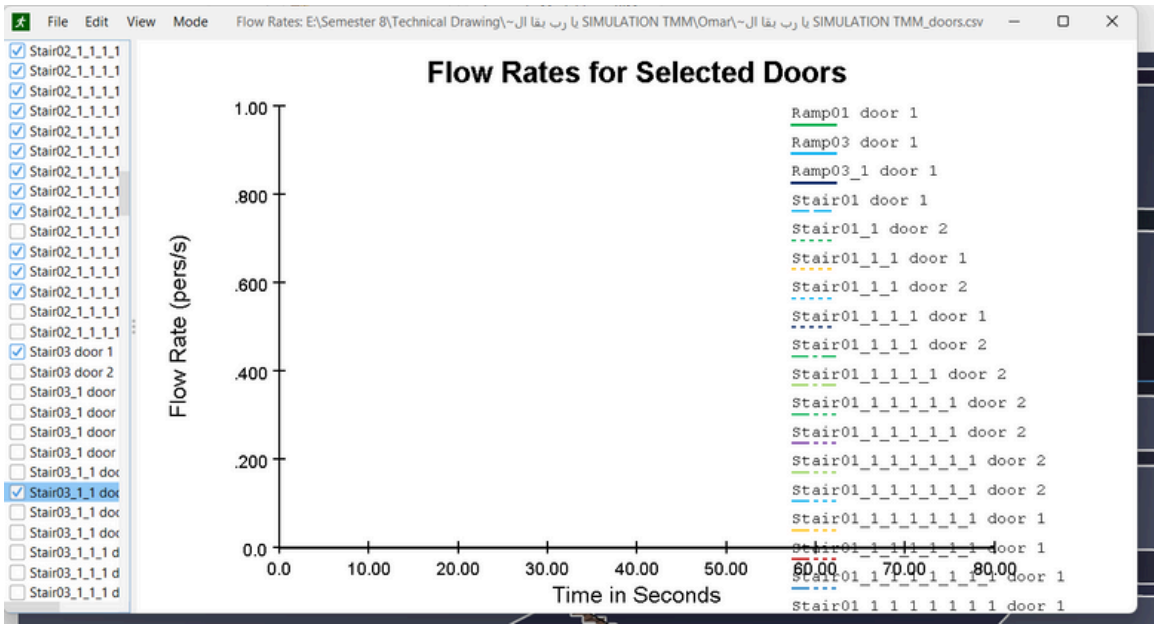
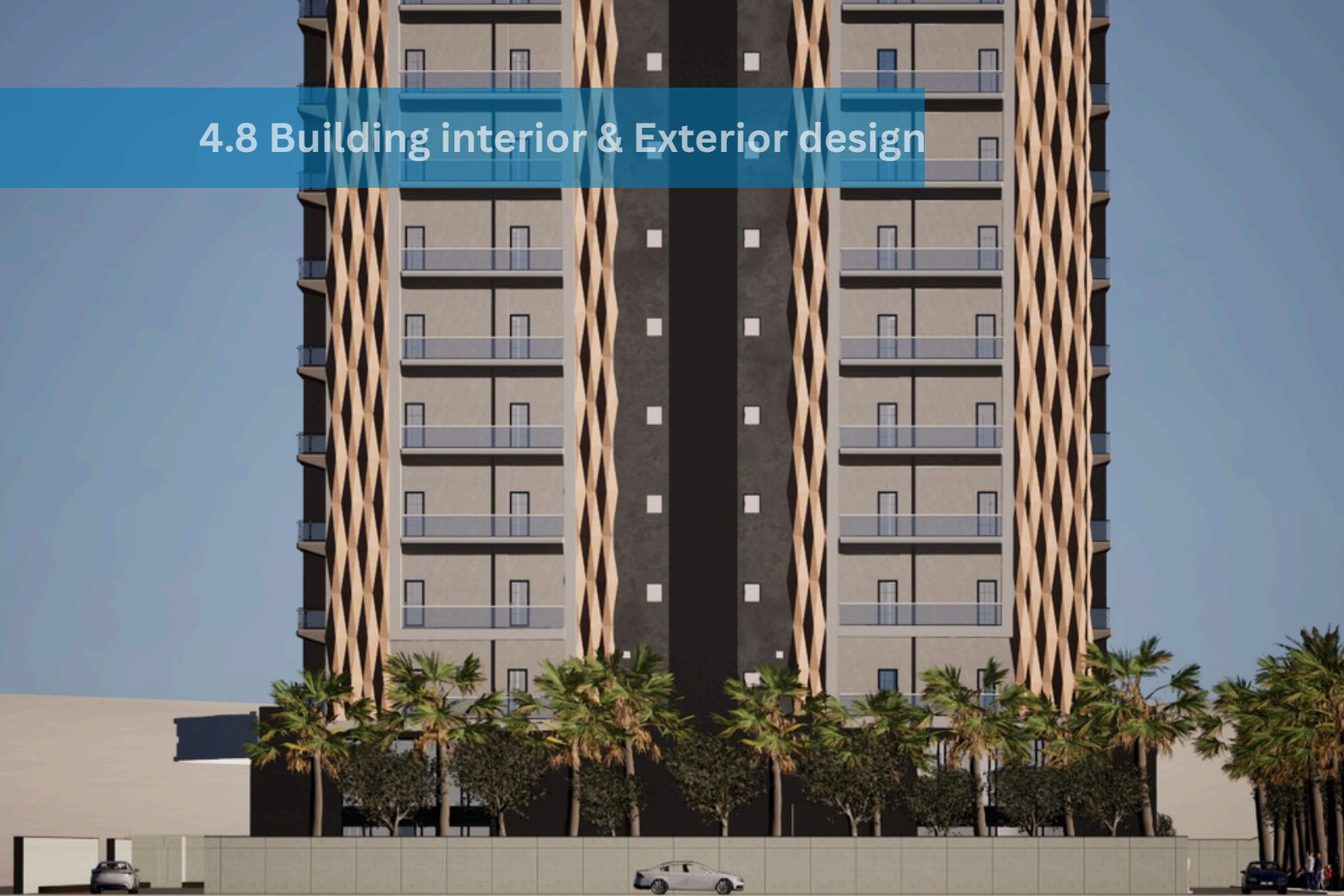
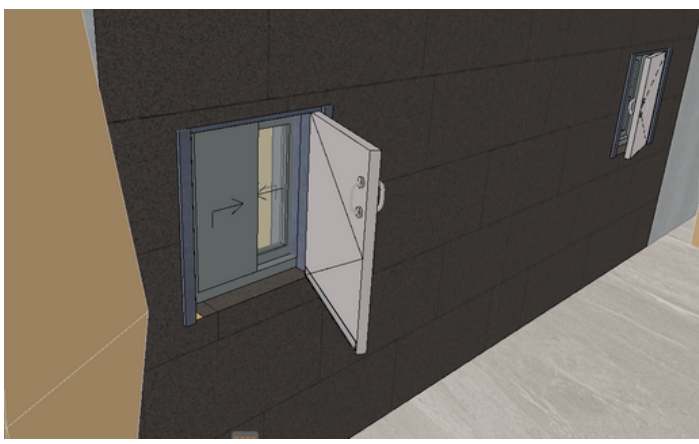


Figure 4.8.13 Analysis the circulation flexibility and connections between rooms
Source: Author, 2025

4.8 Building interior & Exterior design









Chapter 05

Design Reflection

Supervisor

Prof. Or. Noor Cholis Idham, ST, M.Arch., Ph.D.,IAI

- The desain already answer the problem very strong
- explore air ventilation System for the bunker

Tester 01 / Penguji 01

Johanita Anggia Rini, ST, MT, Ph.D.

What if the Building attacked from 5 directions at the same time, the four elevations and the roof top.

Tester 02 / Penguji 02

Ir. Hanif Budiman, M.T., Ph.D.

- The Principle of security and safety have been shown. The technical drawing for development design of residential is clear enough.
- Show Roof System Details

5.1 Air Ventilation Schematic for the Bunker

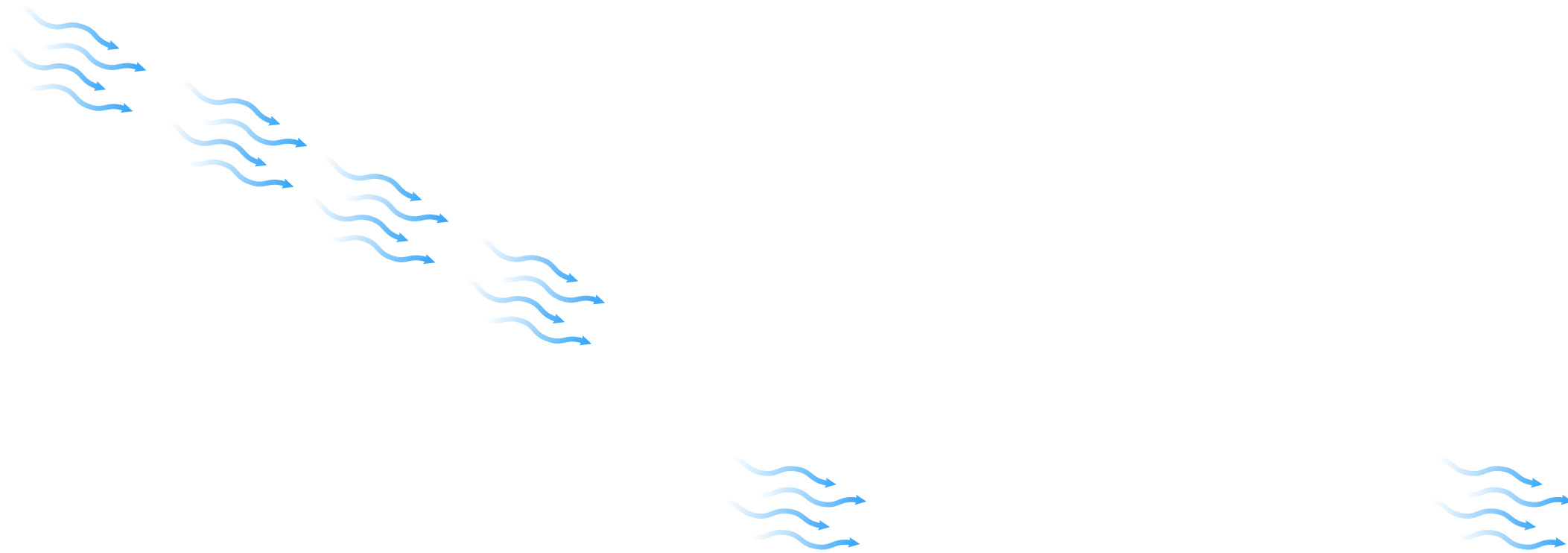
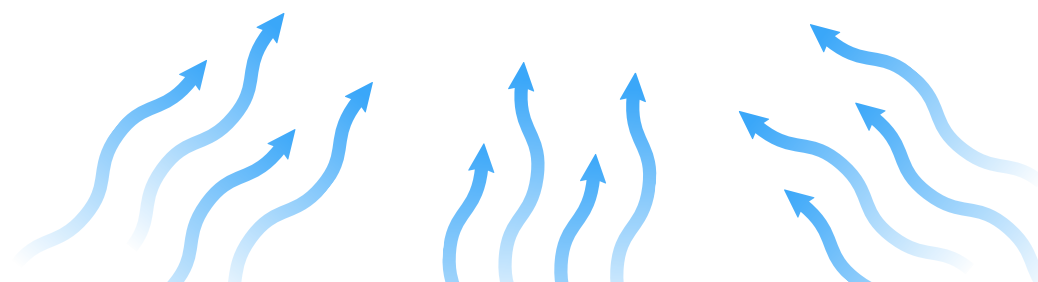


Figure 5.1 circulation of the ventilation system
Source: Author, 2025

Because the Site is 1 km from the coast so applying the ventilation system on the back side which is the west elevation to withdraw the wind the come from that direction to be easier and more efficient to provide the people under ground with the air because of the huge number that nearby 1000 people using one floor so the air might go through the tunnel to the down direction and then through the duct system could cover the most critical rooms into the bunker floor



5.2 Roof Details Construction

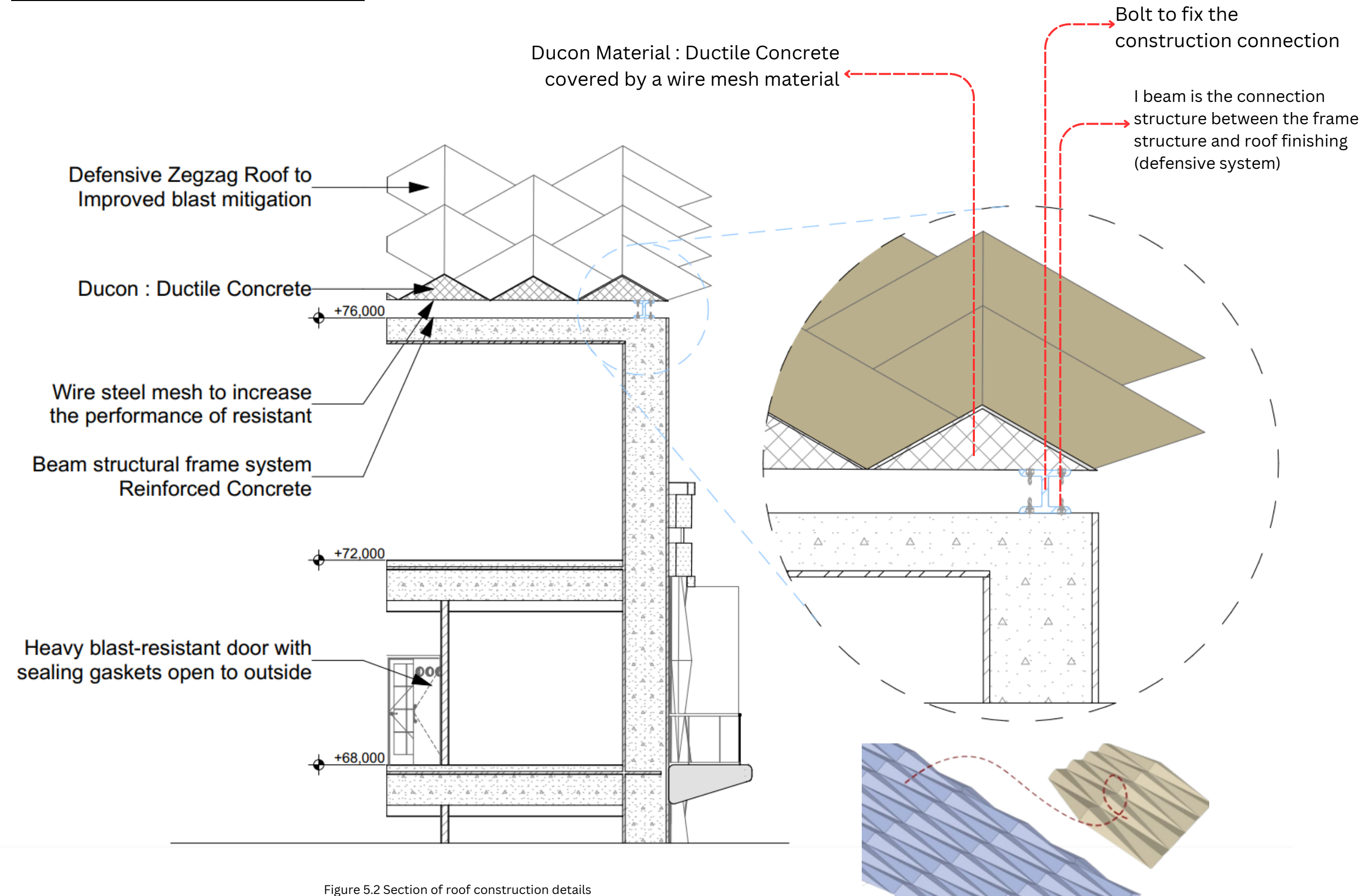


Figure 5.2 Section of roof construction details
Source: Author, 2025

Conclusion

The Civix Tower project represents a new architectural response to the realities of life in Gaza, where civilians are continuously exposed to the threats of war and instability. By integrating safety and security as the central design concept, the project demonstrates how architecture can serve not only as shelter, but also as a protective infrastructure that safeguards human life. Through multi-scalar strategies—macro (urban and contextual), meso (building-level), and micro (unit and interior-level)—the design ensures resilience, functionality, and dignity for its occupants. The incorporation of reinforced structures, protective zones, underground shelters, and reliable infrastructure systems transforms the tower into a hybrid space of living and refuge. Ultimately, the project emphasizes that architecture in conflict zones must move beyond aesthetics, addressing survival, community well-being, and long-term adaptability. The Civix Tower therefore stands as a vision of how thoughtful design can contribute to civilian protection and resilience, offering both safety and hope in one of the most challenging environments in the world.



Chapter 06

Attachment

Attachment

- Plagiarism Check Architectural
- Presentation Board Technical Drawing
- Separate Attachment References
- Maquette

MAQUETTE

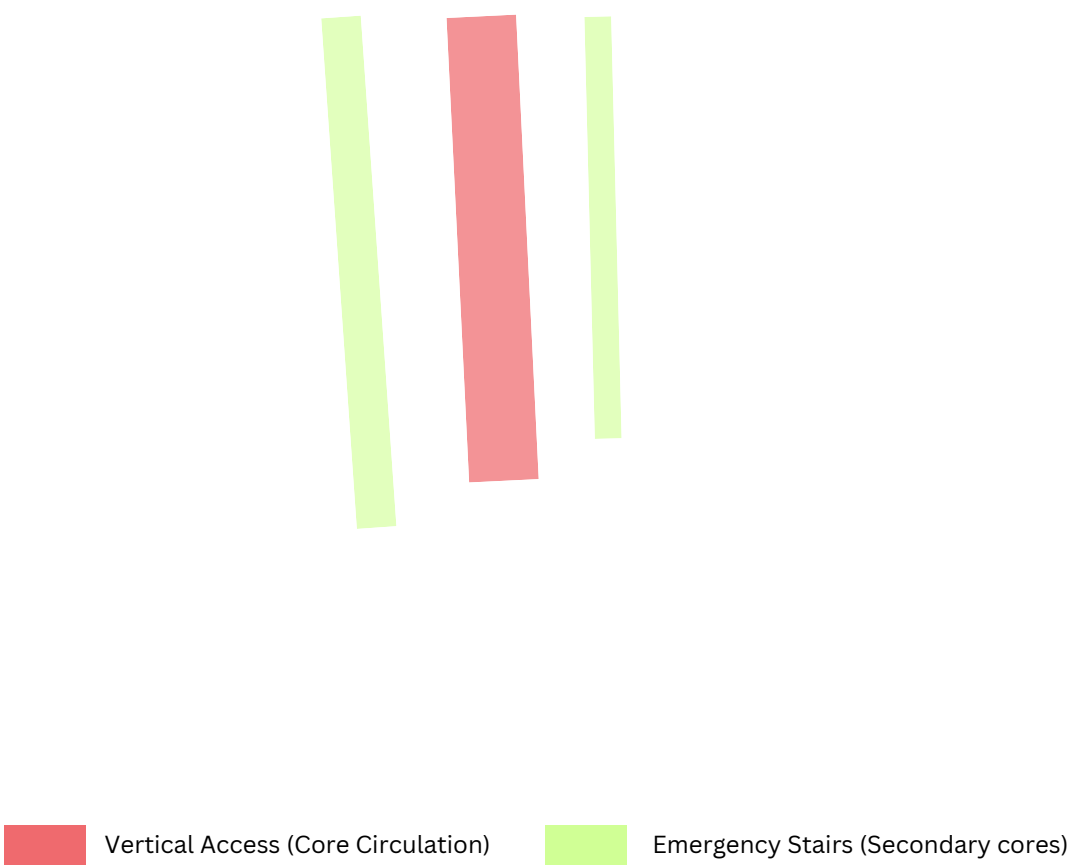


Figure 6.1 Cross Section of the maquette showing the three cores as a vertical access and also the horizontal corridor access overall the building.
Source: Author, 2025

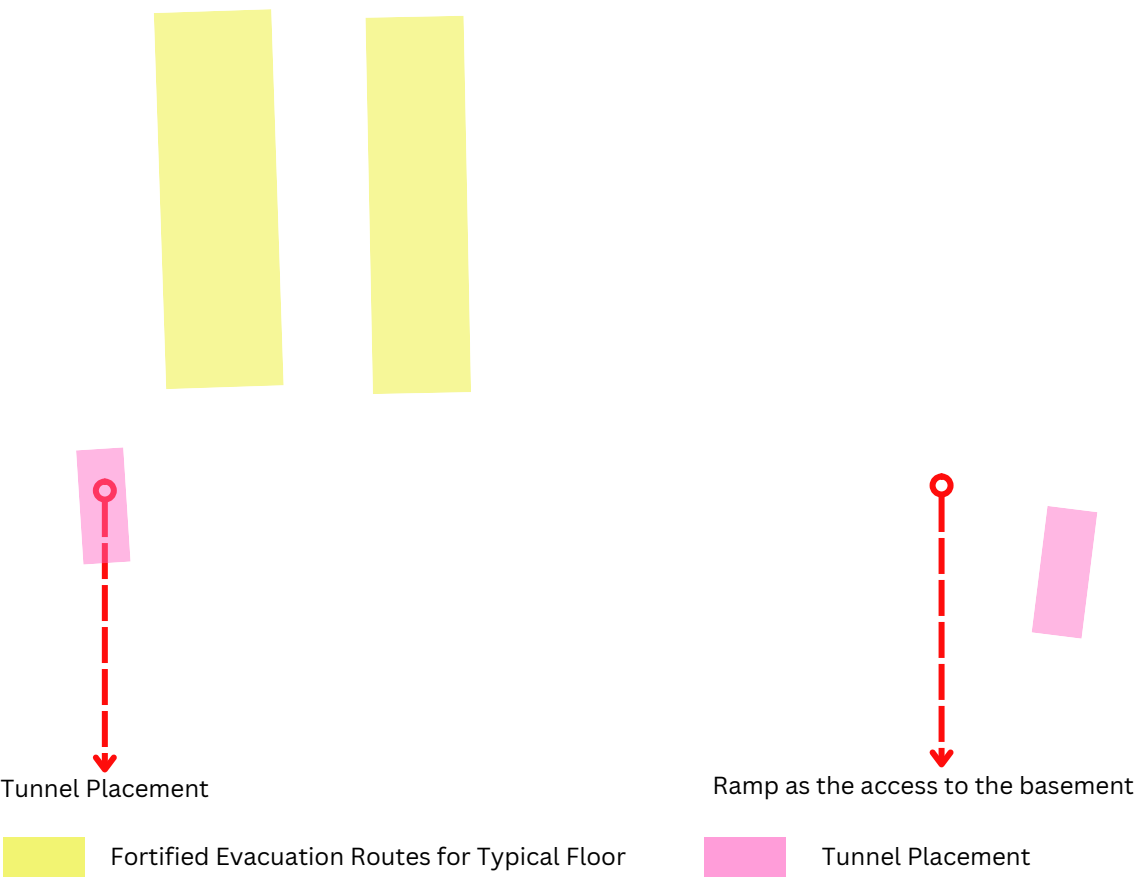


Figure 6.2 Cross Section of the maquette showing the ramp as the access to the basement and the tunnel placement.
Source: Author, 2025

MAQUETTE

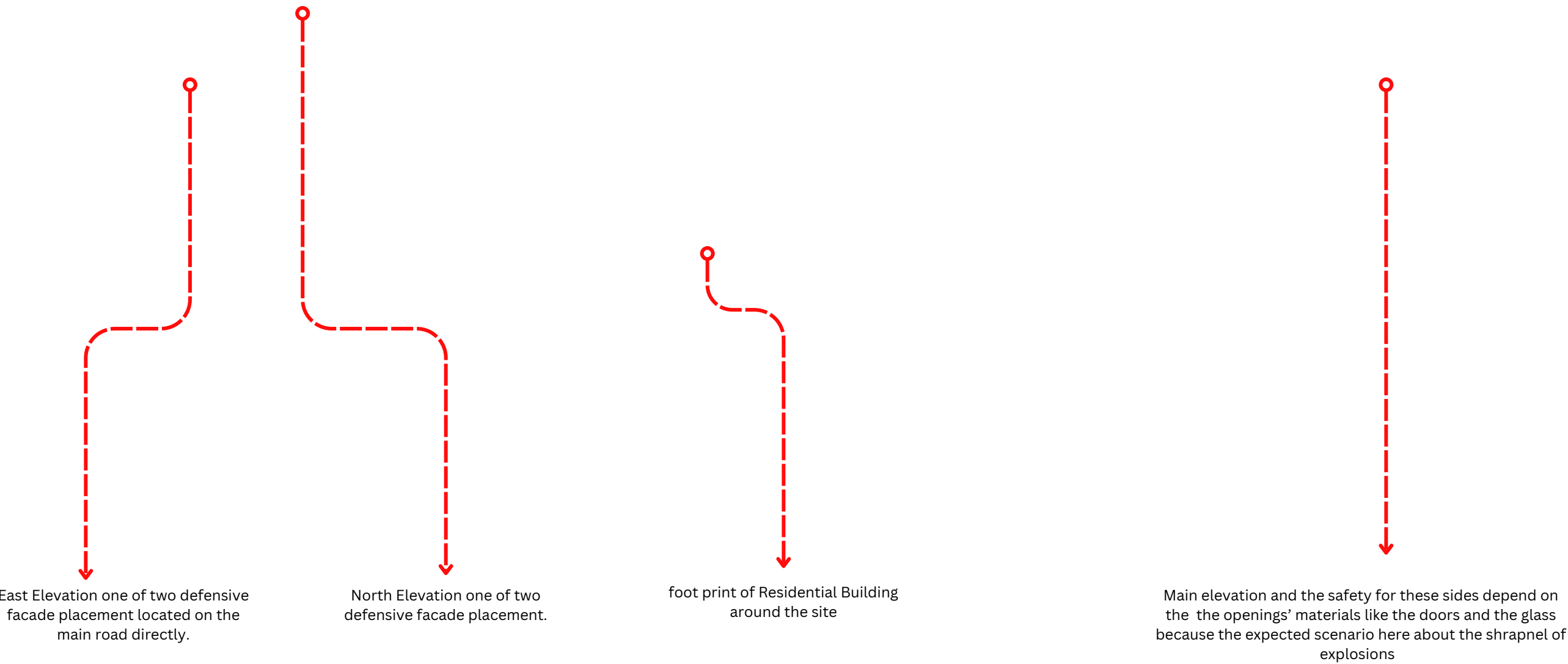


Figure 6.3 Elevations of the maquette showing the defensive sides and the normal sides.
Source: Author, 2025



Chapter 07

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