

CHAPTER V

THEORY STUDY

5.1 Design Emphasis Theory Study

“Post modern (Neo modern) architecture in rental office tower building in Jakarta”

5.1.1 Epistemological

Architecture comes from Greek word Arkhitekton (Ἀρχιτέκτων), Arche (Ἄρχι-) which means ‘chief’ and Tekton (τέκτων) which means builder, carpenter, mason. Architecture can mean the art and science of design and erecting buildings and other physical structures.

Post modern (Neo Modern)

Postmodern is an architectural movement that began in America around 1960-1970 as a reaction towards modernism. Postmodern movement tries to address the limitation of modern era. In era of postmodernist, postmodern offer freedom in architectural design that produce many architectural style. For examples, deconstructive architecture style, historicism and radical eclectism style, straight revivalism and distorted ornament style, neo vernacular style, ad hocism and urbanism style, metaphore and metaphysic style, post Modern space architecture and others.

In the world of corporate office building, there is a famous style that become as modern office trendsetter, it is called neo modern architecture. Neo modern is a term used to describe a "new simplicity" in art and in reaction to the complexity of postmodern architecture. Neo modern architecture continues modernism as a dominant form of architecture in 20th and 21st centuries, especially in corporate offices. It tends to be used for a certain segments of buildings. Neo modern architecture shares many of the basic characteristics of modernism. Both reject the postmodern ornamentation, decorations, and deliberate attempts to imitate the past. Neo modern buildings, like modern ones, are designed to be largely monolithic and functional

Neo modern architecture talks about future, technology and advance material as an aesthetic element in architecture, neo modern also show a great perspective and viewpoint of the present architecture. Neo modern architecture have basic characteristic as listed below:

1. Neo modern architecture elements are always showing meaning and purposes.
2. Neo modern architecture use modern design and structure. Monolithic yet functional.
3. Neo modern architecture provides easiness for the users.
4. Neo modern architecture

Based on characteristic above, generally neo modern architecture is an architecture style with good design for a good purpose. Neo modern

architecture also have specific styles such as platism, suprematism, high-tech and others

5.1.2 Precedent Study

ONE SATHORN SQUARE TOWER



Images 65: One Sathorn Square Tower
Source: Google Images

One Sathorn Square Tower is 75.000m² size grade A office building in Bangkok, Thailand. With 37 floor area and develop by Golden Land Property, Sathorn Square address in the heart of CBD, at the intersection of Sathorn and Narathiwat Roads. Sathorn Square has a distinctive design by renowned international architects Palmer & Turner. The senses of the building start from the 11m high ceiling lobby and sheer glass walls that create a strong sense of arrival. The emphasis of high quality extends to the office spaces, which covers three zones – Low, Medium and High, accessed by 18 high-speed lifts. The offices feature advanced environmental control through its variable-volume air control delivering a consistent climate in all tower areas. One Sathorn Square becomes a landmark modern office building that brings neo modern atmosphere in Thailand through its sophisticated yet functional design.

5.1.3 Precedent Application toward Project

- Design and structures study that meet up with grade A office building standards.
- Materials application study that appropriate for grade A office building.
- Space and circulation layout study.
- Study in creating a strong corporate design senses.

5.2 Theory Study of Dominant Issues

Flexibility in Rental Office Tower

5.2.1 Elaboration and Interpretation of Dominant Issues

Flexibility refers to designs that can adapt when external changes occur. For rental office project, flexibility inside the building demanded as an ability of a system to respond to potential internal or external changes affecting its value delivery, in a timely and cost-effective manner. In short, flexibility talk about how a building can perform a good performance toward activity and need inside the building

Flexibility in rental office

Flexibility factors in this rental office tower consisting:

- Space
- Security
- Fire Safety Evacuation

Space

Office type classification

Rental office flexibility will speak about flexibility applied in the scope of the office facilities. This rental office tower will rent 3 categories of space which is single tenant; double tenant and multi tenant (consist of 4 spaces). Each type of tenants will be categorized into 3 module to give easiness in access and structure modulation in the building. To access each office block, the building providing a circulation around the elevator lobby. Below is general overview about rental office space partition:

Tenant layout and space

- Single Tenant : located in the high zone

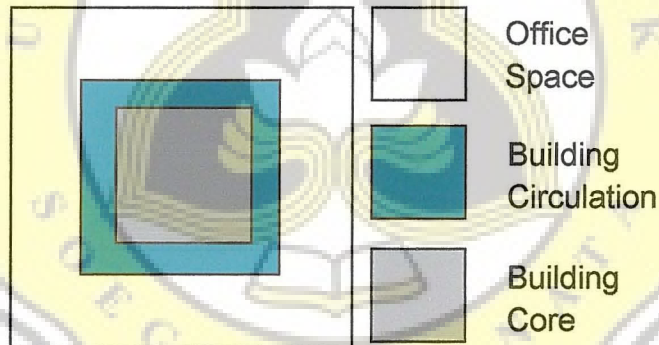


Image 66: Single Tenant Layout

Source: Personal Resume

- Double Tenant : located in the mid zone

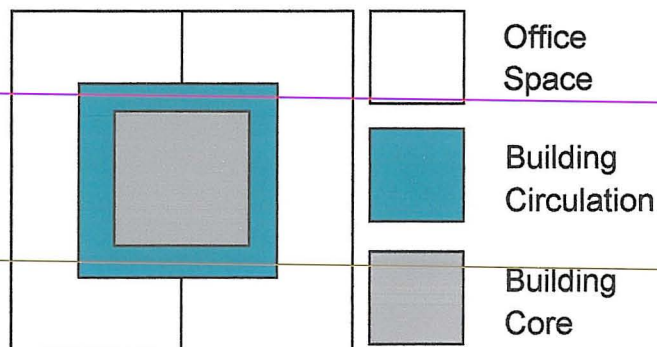


Image 67: Double Tenant Layout

Source: Personal Resume

- Multi Tenant : located in the low zone

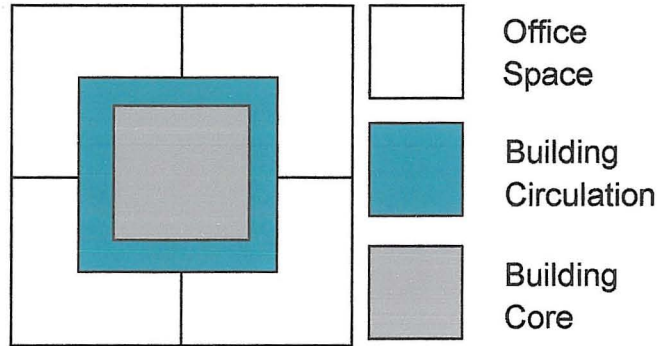


Image 68: Multi Tenant Layout
Source: Personal Resume

The classification system of the office type will help in organize the building storey layout to perform easiness and flexibility in every important aspect of the building such as access configuration, safety configuration and utilities configuration.

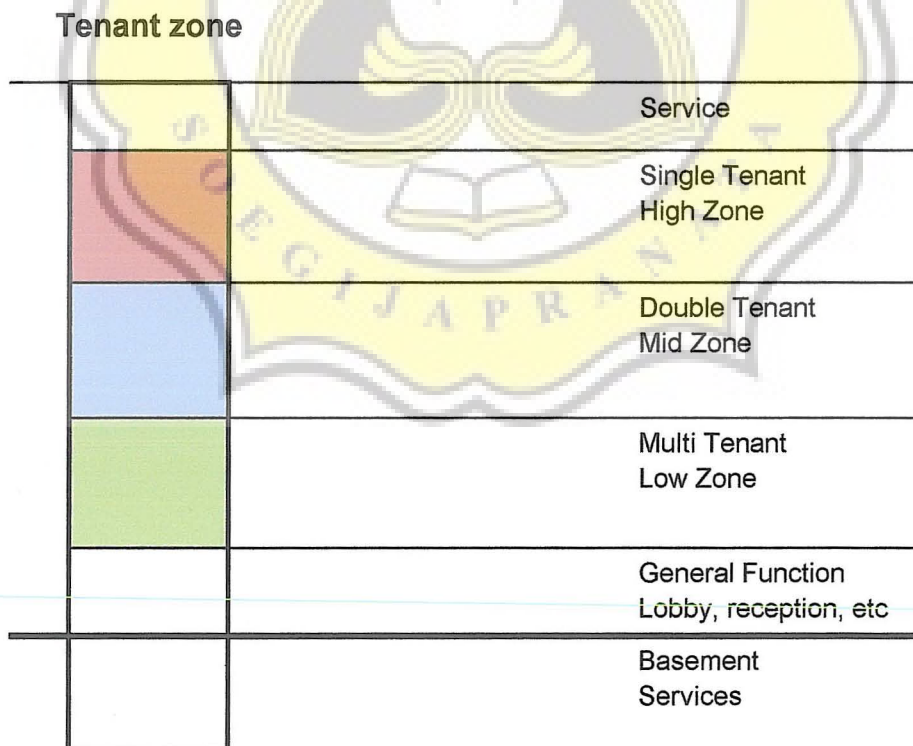


Image 69: Tenants zone
Source: Personal Resume

Office type facility and utility classification

The offices generally will get the same facilities and utilities such as electricity, water, HVAC, security system and others. But the differentiation is at the variables of each office classification. For examples, HVAC conditioning between the single tenant with multi tenants has difference since multi tenant need personal variable air variation so goes with the electrical system.

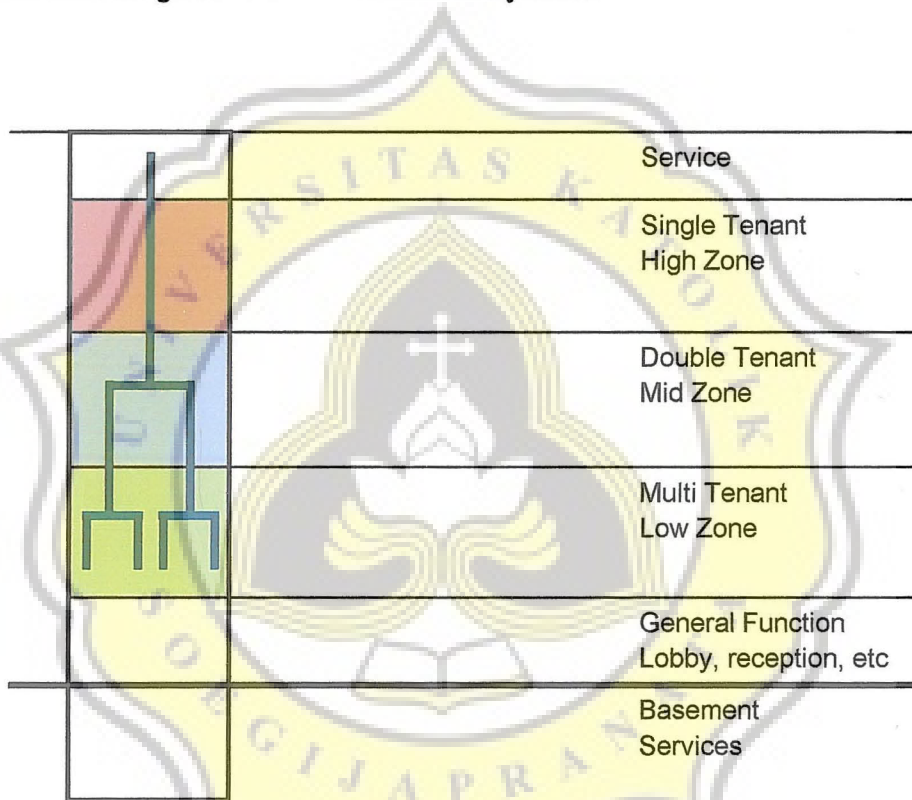


Image 70: HVAC Configuration
Source: Personal Resume

Elevator for this rental office tower using destination control system to maintain flexibility of the passenger work well in the peak hour, the destination control lift separate the elevator line into 3 zone (high, med, and low) which every car is control by operator destination system.

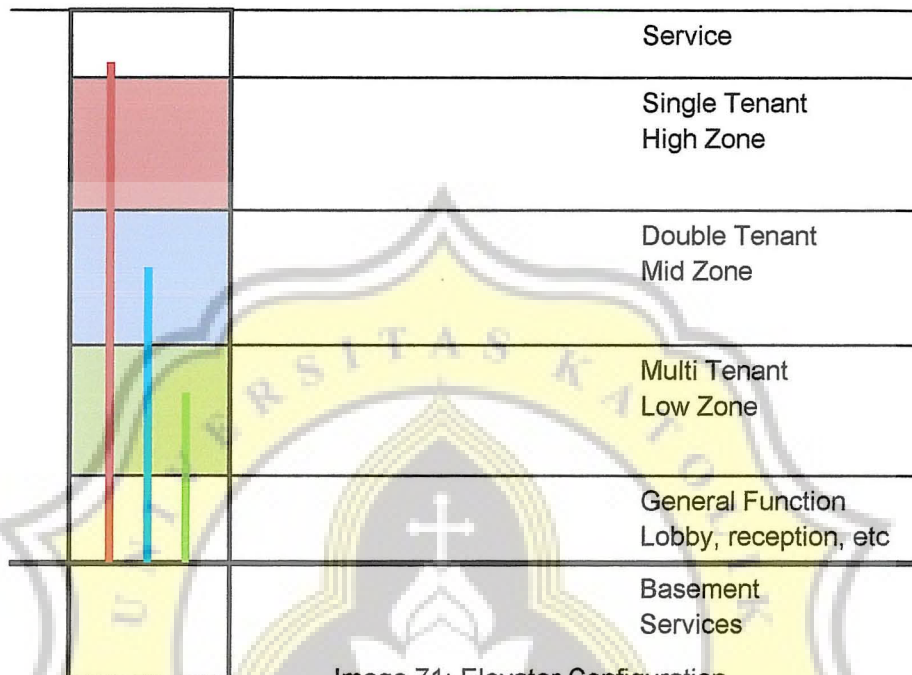


Image 71: Elevator Configuration
Source: Personal Resume

Office plan layout

Since it's classified as open plan office the tenants has advantage to create their own workspaces in term the tenant must first consult the design with the management. The adaptable system where adaptable structures must be featured repositionable partitions or are changeable per user/occupant must be preserves. There are options for rental office spaces plan layout such as plan office, traditional open plan office, and flex office.

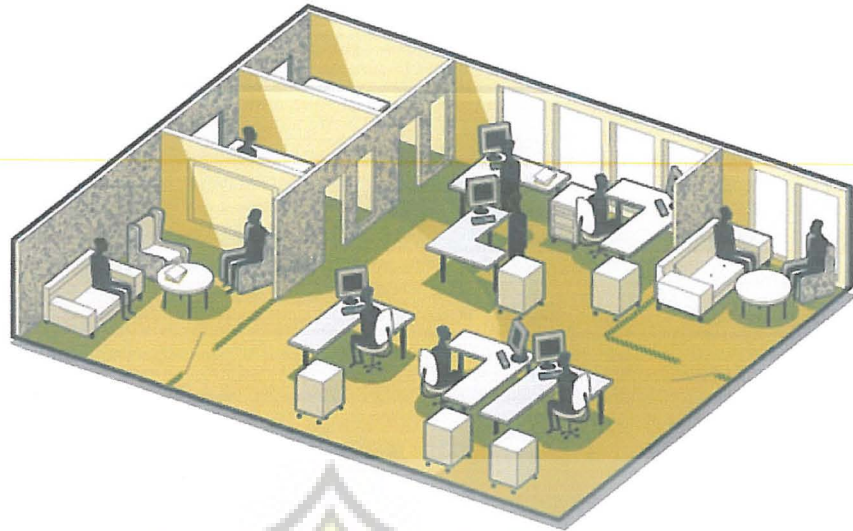


Image 72: Open Plan Office
Source: Personal Resume

With open plan office, we are able to provide more work spaces and place more employees in an office. Besides, it can increase easier communication between the workers. Things are also easier for the supervisors, as everyone is in a centralized area. Open office more economical when it comes to money that is put out for air conditioning and electricity. If the layout if the office needs to be changed, it can be done quickly and with minimal effort.

Security

Office Security Flexibility

Terrorist attacks of the last decade have focused design on protection of occupants and assets against violent attack. Through comprehensive threat assessment, vulnerability assessment, and risk analysis, security requirement for individual buildings are identified, and appropriate

reasonable design responses are identified for integration into the office building design.

This rental office building will have integrated flexible building security in every aspect to perform total security system inside the building.

Below is security system to perform flexibility security inside the building:

- **Security Post**

Security post will be located in several spot in the building area, as in the site entrance security post comprise with guards with metal and bomb detector shall be provided to reduce accident risk inside the building.

- **Security Gate**

Security gate will be located in the entrance of the building comprise of guards with metal detector gate and staff to ensure all the guest are clear from any suspicious act.

- **Destination Control Elevator**

To keep and maintain security and privacy inside the building, destination control lift is provided. Destination control lift is a elevator system that already being program through main operator to ensure the passenger get the most efficient car and only can access in the programmed floor.

- **Security Speed Lane Gate**

Security speed lane gate provided in the elevator area to maintain building user in order and only allow registered guest

with ID card can access the building. As for guest to afford ID card, guest must exchange their identity card for this ID card.

• CCTV

CCTV in this building integrated with one 24 hour security monitor. The security camera located in the several key spot throughout entire building. As for tenant, tenant can afford long distance receiver camera control to maintain and check their workspace wherever they are through mobile device.

Office Security Flexibility Diagram

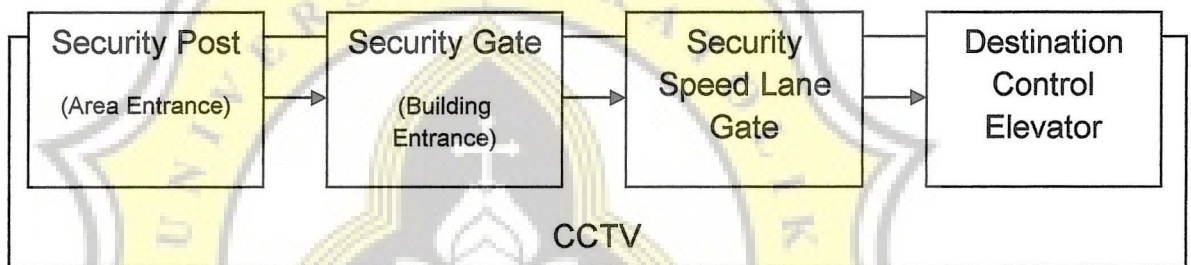


Image 73: Building Security Flexibility
Source: Personal Resume

Fire Safety Evacuation

Office Fire Evacuation Flexibility

Tower buildings have two key issues when compared with other configurations:

- Greater vertical distances for escape
- Increased fire fighting difficulties

The various ways of managing these issues in order to perform building flexibility toward fire danger and preparing the fire strategies of a new building are briefly described as below:

- **Phased Evacuation**

Protected escape routes from tall buildings must be managed effectively. To avoid excessively wide escape stairs needed to evacuate several thousand people at the same time, phased evacuation is common. In this, the services within the building are shut down on the floor where an alarm is raised together with one or two floors above and one floor below, and these floors are evacuated first. Fire protection of the building structure is related to evacuation times by a risk assessment approach - the longer the time for total evacuation of a building, the greater the provision for fire protection.

- **Fire Fighting Shafts and Lifts**

For tall buildings, protected access within the building for fire fighting can be provided by the design of fire fighting shafts. Fire fighting lifts are currently used for heights greater than 18m. The possibility for the use of fire-rated lifts for evacuation of tall buildings is under consideration, in light of questions raised after the fires following the attacks on the World Trade Centre. Developments in the technology of computerized control of lifts in emergency mode may lead to quicker safer escape routes.

- **Smoke Control**

Staircase pressurization and smoke control systems are provided in fire rated air shafts.

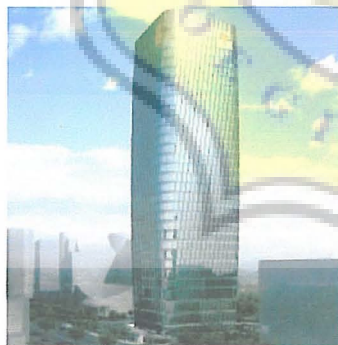
- **Sprinkler Protection and Gas Flooding Systems**

Sprinkler protection is provided throughout the building as an automatic means of fire fighting and controlling a fire during its initial growth. Gas flooding systems may be considered in specialist areas such as computer data rooms where sprinkler systems are undesirable.

For tall buildings to be sustainable, occupants must feel confident that the firefighting equipment and procedures are absolutely reliable. Whilst there are cost and environmental implications, these are secondary to the need to protect the lives of occupants. Without a proven ability to deal with fire and manage evacuations safely, any building is unmarketable.

5.2.2 Precedent Study

Space



The Tempo Scan Tower is located in the heart of Jakarta's CBD, in the heart of the leafy embassy district. The high rise office building represents a new standard in modern Grade A office space, with a rich program of F&B and

Meeting facilities that make it a desirable and sought after business address. This building facilitate with Parking Spaces for both Office and all F&B/Function Occupants, Combined Loading that's Separated from the Side Entry and Rear Ramp, Restaurants, Café, Food Gallery, Mini

Market, Laundry, Florist, Wellness Center, Salon & Spa. This project will contribute in study of facility and structural system.

Tempo Scan Tower Office Layout

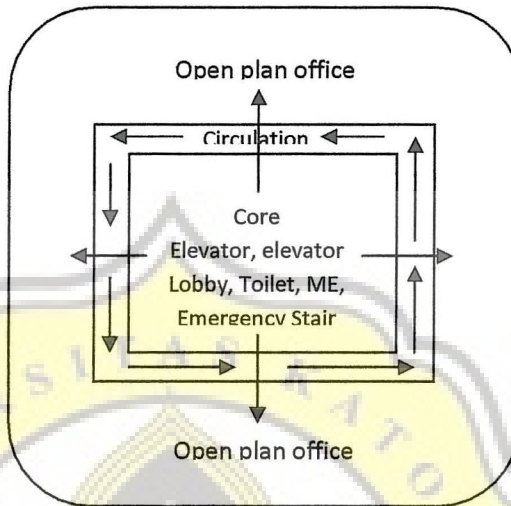


Image 74: Tempo Layout
Source: Personal Documentation

Tempo scan office tower using core building system with center core placement. The core functioned as elevator, lobby, toilet, ME and emergency stair. The entire building general facility is placed in the center to give flexible easiness access and circulation to the each tenant.



Image 75: Tempo Lobby Lift
Source: Personal Documentation



Image 76: Tempo Open Office
Source: Personal Resume

Tempo offices rent a whole open plan office and provide flexibility by giving privilege to the tenant to arrange and maintain the spaces. Below are examples of arrangement open plan office spaces in this building.

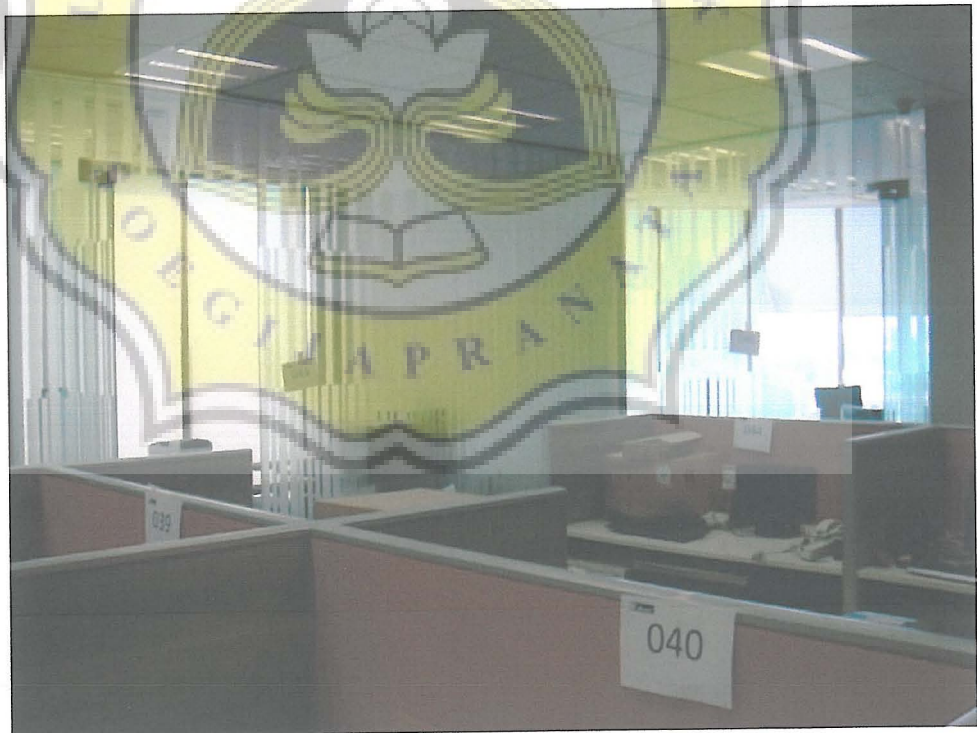


Image 77: Tempo Open Plan Office
Source: Personal Resume



Image 78: Tempo Open Plan Office
Source: Personal Resume

Security

The Plaza Tower soaring to over 200 meters and well known as Jakarta's most prestigious business address, offering exclusive space in the heart of CBD, This Office that is under management of plaza Indonesia who's owned by Global Mediacom and Sinar Mas Group claimed itself as the one of the safest building in town and has sophisticated flexible integrated security system.

Security Post

The Plaza Office Tower provides security post with guards equipped with metal and bomb detector in the entrance gate area to maintain safeties from the very first accessible area in the building. All entering vehicles will be checked thoroughly.



Image 79: Plaza Indonesia Gate Entrance
Source: Personal Documentation

Security Gate

The Plaza Office Tower provides security gate with equipped metal staff and metal detector gate in the building entrance to make sure the entire visitant get checked thoroughly.



Image 86: The Plaza Entrance
Source: Personal Documentation

Security Speed Lane Gate and Destination Control Elevator

The Plaza Office Tower provides security speed lane gate in front of the elevator lobby and only ID card equipped visitor or tenant can access the building. The ID card can be obtained in the receptionist by registered identity card for ID building card.



Image 87: The Plaza Security Speed Lane Gate
Source: Personal Documentation

5.2.3 Project Application Analysis

- Flexible office space layout
- Flexible office space material and design
- Flexible building type configuration
- Flexible building circulation area access
- Flexible building circulation access between office type
- Flexible security availability system
- Flexible security positioning system