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## APPLICATION OF HEALING ENVIRONMENT IN THE DESIGN OF RETREAT HOUSES AND CATHOLIC PRAYER PARKS IN KARANGANYAR

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### Abstract

*The diversity of cultures, ethnicities and religions in Indonesia is one of the potentials that can be developed and one of them is Catholicism. Central Java is the fifth province that has the most Catholic population in Indonesia and Surakarta City is one of its parts. A total of 7.36% of the population of Surakarta adheres to Catholicism. In Catholicism, faith development does not only come through holy communion worship but also through various spiritual activities, one of which is through retreat activities and religious tourism. Retreat houses and Catholic prayer parks are one of the means in developing faith for Catholics. However, the Kevikepan Surakarta is recorded to have only 3 Catholic retreat houses and still limited prayer parks. The provision of retreat houses and prayer parks is one of the means in the development and restoration of the faith of Catholics. One approach that can be used in the design of Catholic retreat houses and prayer parks that combine spiritual, educational, and recreational activities is through the application of the Healing Environment. Catholic Retreat House and Prayer Park with Healing Environment approach is designed to present a scope in deepening and healing faith that can provide healing both mentally and physically from its users. The results of the research will be in the form of a concept of applying aspects of healing architecture aspects to the Design of Catholic Retreat Houses and Prayer Parks in Karanganyar such as application to the concept of the site which contains site zoning and site processing, application to the concept of mass and appearance, and application to the concept of space and spiritual, educational, and recreational activities.*

**Keywords:** Healing Environment, Retreat House, Prayer Park, Karanganyar

### INTRODUCTION

Indonesia has a diversity of cultures, ethnicities, and religions practiced by its people. There are 6 recognized religions in Indonesia, one of which is Catholicism. Catholicism is the religion that has the third largest population after Islam and Christianity. According to data taken from the Indonesian Ministry of Religion, in 2023 the adherents of Catholicism experienced a development of 0.01% compared to the previous year with a total of 8,596,545 people. Central Java is the fifth province with the highest Catholic population in Indonesia.

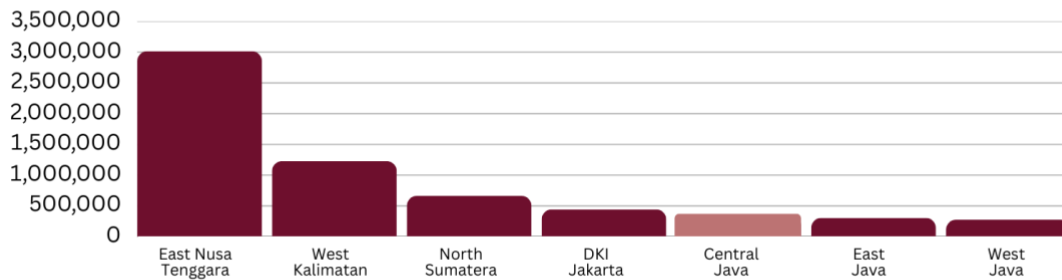


Figure 1. Data on 7 Provinces with the Highest Number of Catholic Residents  
Source : *kompas.id*, 2024

In the Catholic religion, faith development does not only come through the holy communion service but also through various spiritual activities (Ignatius Loyola, 1993). Faith development can be in the form of deepening the scriptures, the Eucharist, and through retreats, recollections, pilgrimages, religious tourism, and so on. In the English-Indonesian dictionary compiled by John M. Echols and Hasan Shadily, retreat means “retreat” or “retreat”, or “place of seclusion”. In accommodating these activities, of course, it requires sufficient space. Unfortunately, currently the availability of retreat houses and Catholic prayer parks is still very minimal in the city of Surakarta and its surroundings. There are only 3 Catholic retreat houses and 6 Catholic prayer parks in the Surakarta Kevikepan. Catholic retreat houses included in the Kevikepan Surakarta are currently scattered in Surakarta City, Klaten Regency, and Karanganyar Regency.

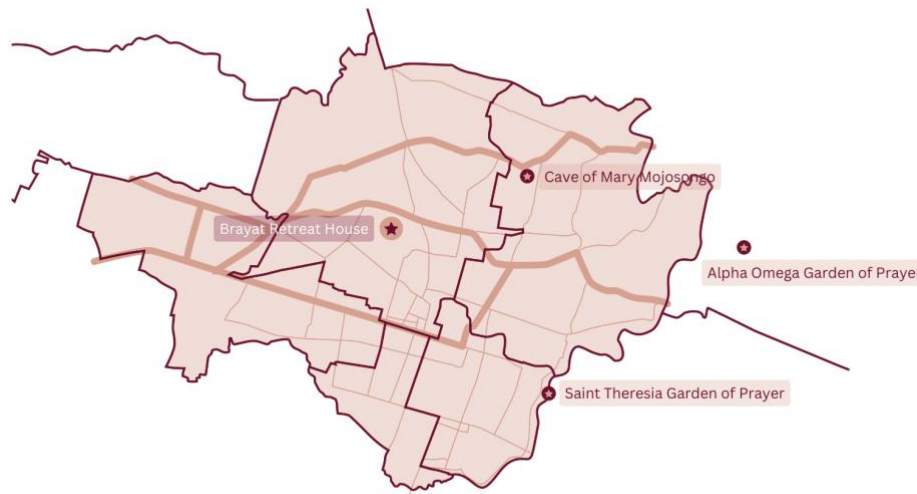


Figure 2. Distribution of Catholic Retreat Houses and Prayer Gardens in Surakarta City

According to data from BPS Central Java Province, Central Java Province is also one of the provinces that has a high number of tourists, reaching 12,979,676 tourists in January 2024. One of the districts that is a tourist destination for tourists is Karanganyar Regency. Karanganyar Regency is one of the districts that has various tourist destinations. According to data from BPS Central Java Province, the number of tourists coming to Karanganyar Regency throughout 2024 looks stable.

Tourism objects in the Karanganyar Regency area can be divided into 4 main objects, namely cultural, commercial, social, and religious. In the *Pesona Karanganyar* book, religious tourism objects have the lowest percentage where there is still a lack of religious destinations that can be visited. From the existing data, it is also found that existing religious destinations only come from Islam. The provision of a Catholic Prayer Park is one form of destination that hopes to attract the attention of Catholics. According to Ignatius Loyola (1993) a prayer garden means a place for spiritual exercise, where people try to get closer to God through silence and reflection. The fulfillment of religious facilities such as retreat houses and prayer parks for spiritual, educational, and recreational needs is one of the answers to the existing issues.

In the process of developing faith, of course, it requires a different process for each individual. One of the processes of faith development is the recovery process where each individual will be asked to look back at how far we have gone and entrust ourselves to God. It is in this recovery process that architecture can help through its application into building design. This recovery process is supported by the Healing Environment approach which produces a good architectural space design that can help the healing process of its users. The Healing Environment provides mental and physical healing through space design, circulation flow and also the materials given to the building. According to M. Nousiainen (2016) there are 9 main principles of Healing Environment, namely:

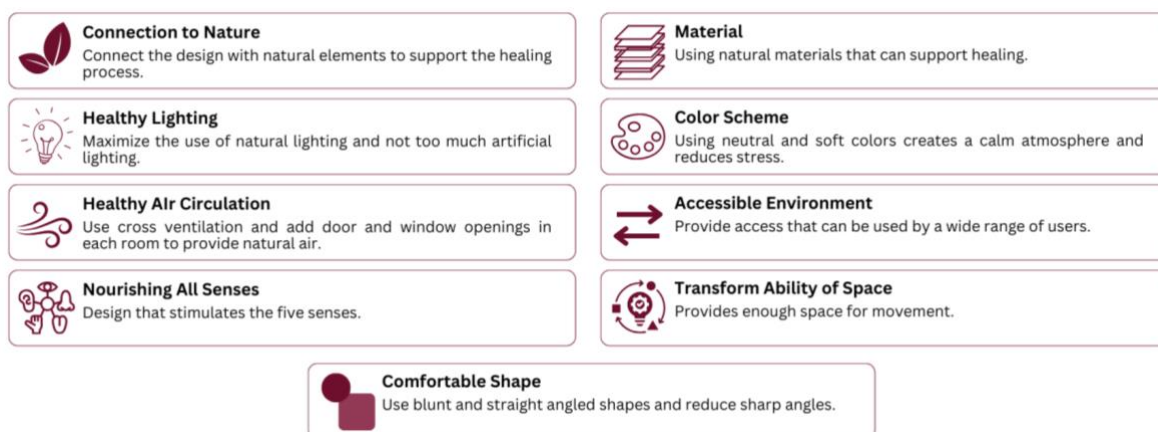


Figure 3. Healing Environment Principles  
Source : M. Nousiainen, 2016

Therefore, the Catholic Retreat House and Prayer Park in Karanganyar Regency with the Healing Environment approach has the aim of providing a place for Catholics to carry out spiritual, educational, and recreational activities at Catholic retreat houses and prayer parks that create a scope that can provide healing both mentally and physically from its users.

## METHODS

The research method used in the design of the Catholic Retreat House and Prayer Park in Karanganyar is to use descriptive-qualitative research methods and healing environment design methods. There are 4 stages in the qualitative descriptive

research method, namely problem formulation, data collection, presentation and analysis of data through design schematics, and design decisions which will be adjusted to the principles in the concept of healing environment architecture.

The problem of the increasing number of Catholics in Central Java, but the lack of availability of facilities for the development and healing of the Catholic faith, as well as the need for educational and recreational facilities for Catholics, is the main issue in this design. The problem is responded with the concept of healing environment architecture by applying 9 principles (M. Nousiainen, 2016), namely, connection to nature, healthy lighting, healthy air circulation, material selection, color scheme selection, nourishing all sense, transform ability of space, comfortable space, and accessible environment. The concept of healing environment architecture was chosen as a strategy in producing a place for spiritual, educational, and recreational activities in retreat houses and Catholic prayer parks that create a scope that can provide healing both mentally and physically from its users.

The application of the healing environment concept can be generated in the design object through architectural aspects such as the following, area zoning, circulation, space programming, mass change and appearance, and structure in the design object. The data that has been obtained is presented descriptively and illustratively describes the application of the concept that will be built in the site area. Design decision-making for the object of design by determining and determining the application of the healing environment concept to the retreat house and Catholic prayer park as a solution to provide a place for spiritual, educational and recreational activities so as to create a scope that can provide healing both mentally and physically from its users.

## RESULT AND DISCUSSION

Catholic Retreat House and Prayer Park with Healing Environment approach is a design object that has a function to carry out spiritual, educational, and recreational activities at a Catholic retreat house and prayer park that creates a scope that can provide both mental and physical healing from its users. This object is designed to prioritize the needs and comfort of users when carrying out deepening and faith healing activities supported by the Healing Environment approach through area zoning, circulation, space programming, mass change and appearance, as well as structures and utilities in the design object.

The Catholic Retreat House and Prayer Garden in Karanganyar is located on Jalan TP. Joko Songo, Tegalrejo, Pablengan, Kec. Matesih, Karanganyar Regency, Central Java. The area of the selected site is approximately 22,000 m<sup>2</sup>. There are several considerations in determining the location of the site, namely: (1) Karanganyar Regency is one of the tourism areas visited by many tourists, (2) The site is located in the Surakarta Kevikepan area and there is still a lack of similar design objects, (3) Located on the Solo-Matesih main road so that it is easily accessible to visitors, and (4) Located in an area with a low population density and noise level so that it suits the needs of the design object.

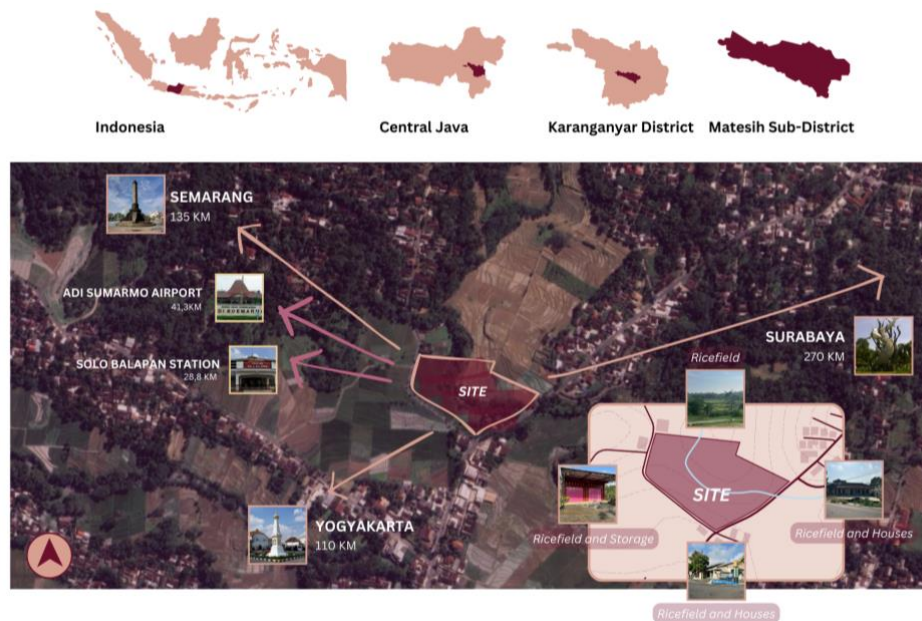


Figure 4. Site Location of Catholic Retreat House and Prayer Park in Karanganyar

The selected site is an empty rice field with the site boundaries in the north in the form of rice fields, the eastern boundary in the form of rice fields and residents' houses, the southern boundary in the form of rice fields and residents' houses, and the western boundary in the form of rice fields and stalls. The regulations that apply to the selected site are the Building Setback Line (GSB) of at least 5 meters from the road, the River Setback Line (GSS) of at least 10 meters from the river, the Basic Building Coefficient (KDB) of a maximum of 40%, the Green Basic Coefficient (KDH) of at least 40%, and the Building Floor Coefficient (KLB) of a maximum of 2 floors.

Before formulating the concept of the site and circulation system, it is necessary to analyze the users and activity patterns of the users of the retreat house and prayer garden. There are 5 types of users of retreat houses and Catholic prayer parks, namely general visitors, retreatants consisting of various ages, retreat assistants, managers, and service personnel. The description and pattern of user activities can be seen through the chart below:

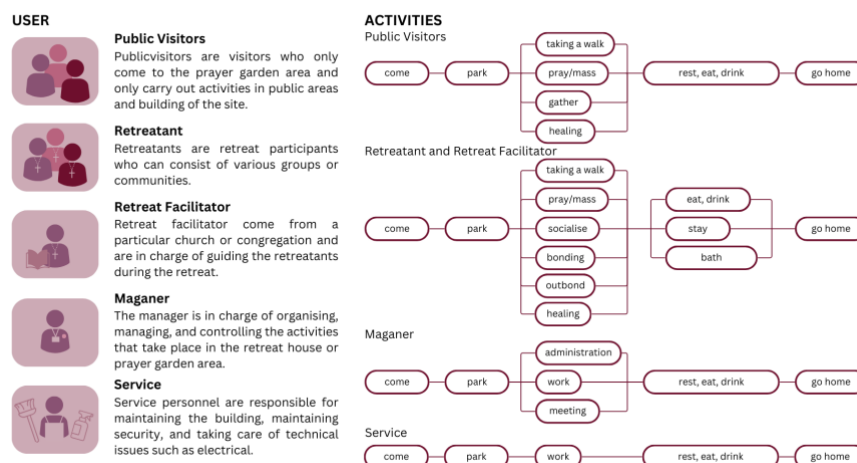


Figure 5. Description and Patterns of User Activity



## Application of Healing Environment on Site Concept

### Zoning Area

Area zoning is generated through site analysis and response which is formed to meet the criteria of the design object. This zoning is re-adjusted with theoretical studies and precedent studies regarding the needs of retreat houses and Catholic prayer parks with a healing environment approach. The concept of area zoning and circulation is formed by following the principles of healing environment, namely connection to nature and accessible environment. Zoning of the retreat house and Catholic prayer garden area responds to site conditions to form a relationship between humans and nature and produce site processing that is easily accessible to various groups. The zoning of the area is divided into 6 main activity zones, namely the retreat house activity zone, prayer garden activity zone, supporting activity zone, reception activity zone, manager activity zone, and service activity zone.

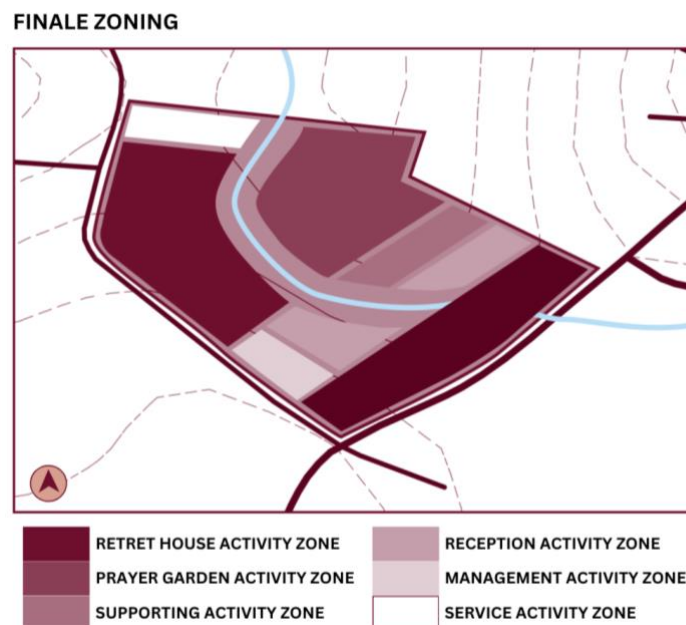


Figure 6. Initial Zoning of the Area

The reception activity zone is placed at the forefront of the site after visitors enter the parking area. There are 2 main gates, namely the gate to the retreat house area and to the prayer garden. The differentiation of the gate is done to facilitate visitors who come so that they can be directed directly to their respective destinations. The main activity zone is placed in the middle and back of the site to give a private impression and minimize external disturbances. The main activity zones in the form of retreat activities and prayer gardens are separated by the river but still integrated with each other through bridges. The transition and merging of these two zones is located in the river area and healing garden. Support zones in the form of food courts and ATM centers are placed after the reception area in the east area to make it easier for visitors who want to go to the area.

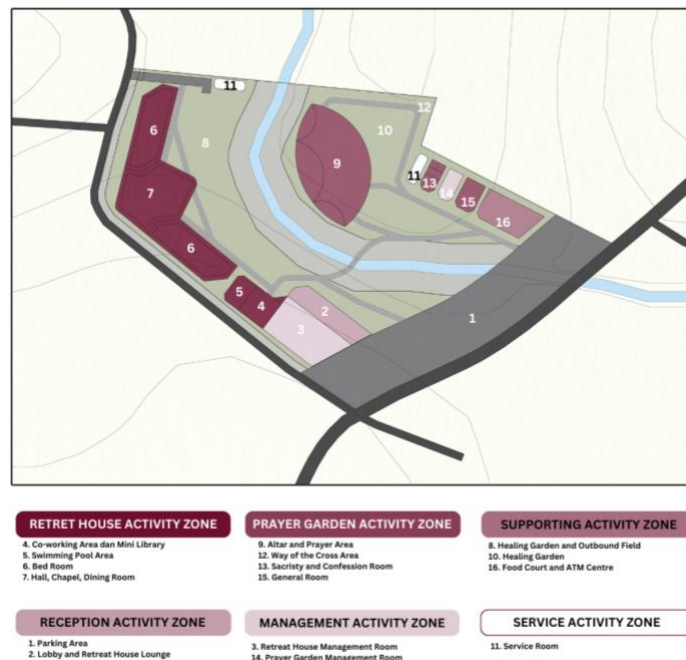


Figure 7. Zoning Area

The manager activity zone is divided into 2, namely the retreat house manager and the prayer garden manager. The retreat house manager is located in the western part of the retreat reception area and is directly connected to the retreat area, while the prayer garden manager is located adjacent to the support zone in the eastern area of the site. The service zone is also divided into 2 places, namely the retreat house service area located in the back area of the site and the prayer garden service area in the east of the site. Landscaped areas such as the healing garden, outbound field, and crosswalk area are open so as to connect users directly with nature. Buildings tend to be arranged linearly to facilitate user access.

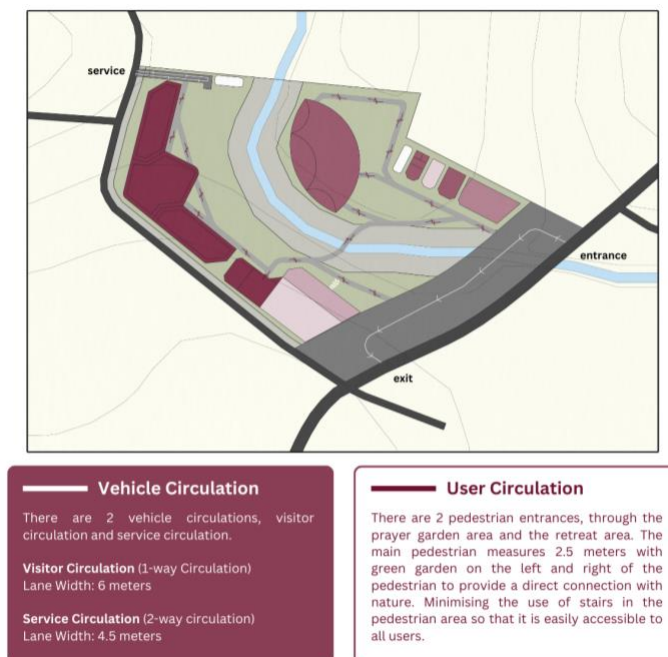


Figure 8. Circulation Area

Vehicle circulation access at the retreat house and Catholic prayer garden is divided into 2, namely visitor vehicle circulation and service vehicle circulation. For visitor vehicles circulation is placed in the east area of the site with the main entrance which is directly related to the main road of TP Joko Songo. Circulation is made unidirectional so as to facilitate visitor access. Service circulation is located in the western area which is directly related to the village road, this access is only devoted to service activities. Human circulation on the site is in the form of 2-way circulation with a road width of 2.5 meters, this is to facilitate visitor access and provide visitors with a direct opportunity to connect with nature.

### Application of Healing Environment in Spatial Concept

The spatial concept is generated through the analysis of users and activity patterns which will produce space requirements. Existing space requirements are then standardized and become a reference in determining the amount according to the required capacity. The spaces are then re-analyzed to produce relationships between spaces and space specifications. The relationship and specifications between spaces are adjusted back to the principle of healing environment. The healing environment principles that can be raised in the spatial concept are healthy lighting, healthy air circulation, nourishing all sense, transform ability of space, and comfortable space.

In the design of this Catholic retreat house and prayer park, the application of these principles can be seen from the required space specifications as in table 1 where each user activity zone has its own specifications. An example is the reception zone which must be easy to reach and easy to find. In the main activity zone of the retreat what is needed is the presence of lighting and direct airing from nature. In this zone the spaces are made more flexible and can be used for various activities. Similarly, the prayer garden area also requires natural lighting and ventilation as well as the provision of flexible spaces for its users.

**Table 1.** Specification of Space Requirements

ACTIVITY GROUP	ZONING	ROOM SPECIFICATIONS					
		Accessibility	Lighting	Air Circulation	Noise Cancelling	View from Site	View to Site
RECEPTION	Public	oooo	ooo	oooo	oo	oooo	ooo
RETREAT HOUSE	Semi Private	ooo	oooo	oooo	oooo	oo	o
PRAYER GARDEN	Public	oooo	oooo	oooo	oooo	oo	o
SUPPORTING	Public	ooo	oo	ooo	oo	o	o
MANEAGEMENT	Semi Private	oo	o	ooo	ooo	o	o
SERVICE	Service	oo	ooo	o	oo	o	o

Description:  
 o not in need  
 oo need enough  
 ooo need  
 oooo need very much

In the supporting areas, natural lighting and ventilation is not something that is needed because the intensity of visitors in the area is not for a long time. Similarly, the service activity group will only be visited at certain times. As for the manager's activity group, natural lighting and ventilation are still needed.

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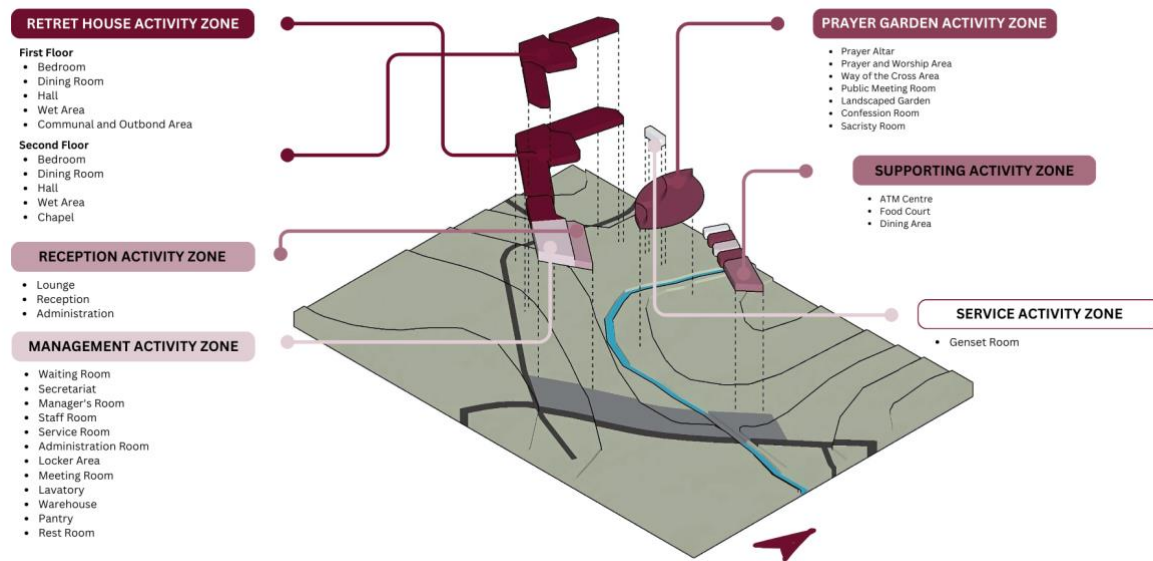


Figure 9. Layout Design

The spatial design above, the main mass of the building is placed in the middle and rear areas of the site to avoid noise and give the impression of a more private area. The main and supporting buildings are separated by small masses and arranged linearly to facilitate access and so that buildings can get maximum natural lighting and ventilation. Each activity zone has easy access connected by pedestrian and landscape arrangements.

### **Application of Healing Environment in Mass and Display Concept**

The concept of mass and appearance is generated through the fulfillment of space requirements and building regulations. The mass and appearance of the building is adjusted to the principle of a healing environment. The principles of a healing environment that can be raised in the concept of mass processing and appearance are material selection, color scheme selection, and comfortable space.

The concept of mass change in the design of retreat houses and Catholic prayer parks is formed not too massively and arranged linearly to produce circulation that is easily accessible to its users. The resulting mass form also reduces the selection of sharp-angled mass forms to produce comfortable spaces. Providing a lot of green areas on the site and adding various vegetation is also a form of fulfilling the principle of connection to nature.

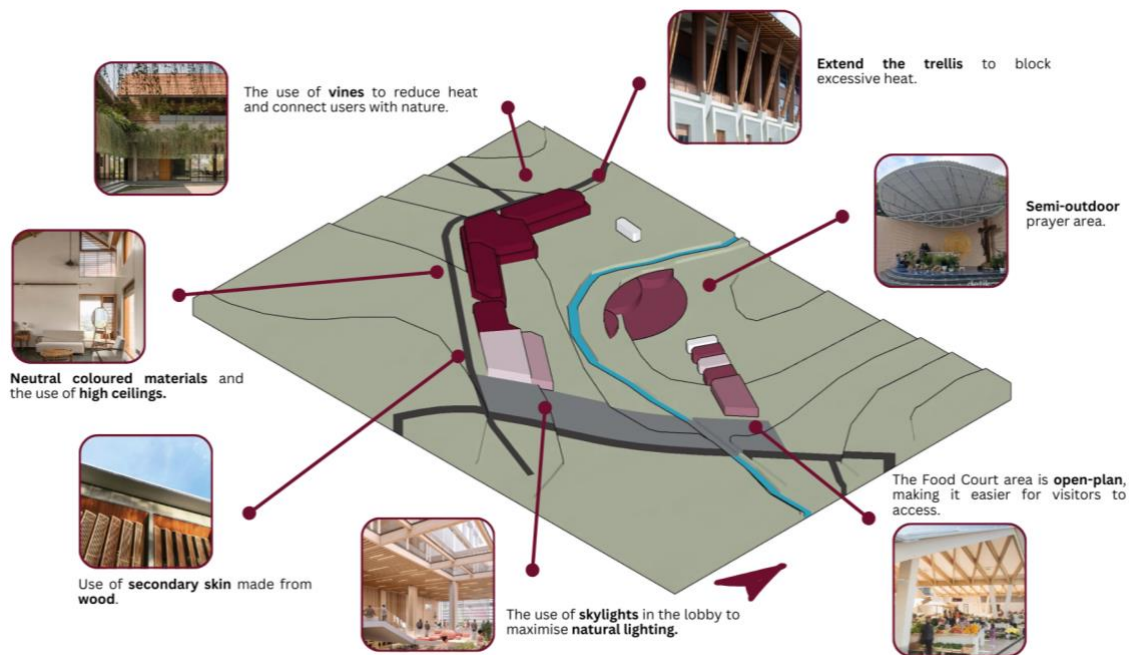


Figure 10. View Processing

In the concept of display processing, the building integrates healing through the selection of materials and colors in buildings that can help the recovery process. The selection of natural materials with neutral colors and gives the impression of warmth. The use of wood materials and increasing vegetation on the site and building which can also stimulate the human senses with the use of diverse materials. Using neutral and soft colors to create a calm atmosphere and reduce stress. The colors used tend to be natural colors such as green, brown, and white so as to help the user's recovery process.

### Application of Healing Environment in Building Structure

The concept of building structure is generated through the fulfillment of building structure needs. The building structure is adjusted to the needs, number of floors, and spans between spaces in the building. After that, the structural concept is adjusted again with the principles of a healing environment, including the principle of material selection and the principle of comfortable shape.

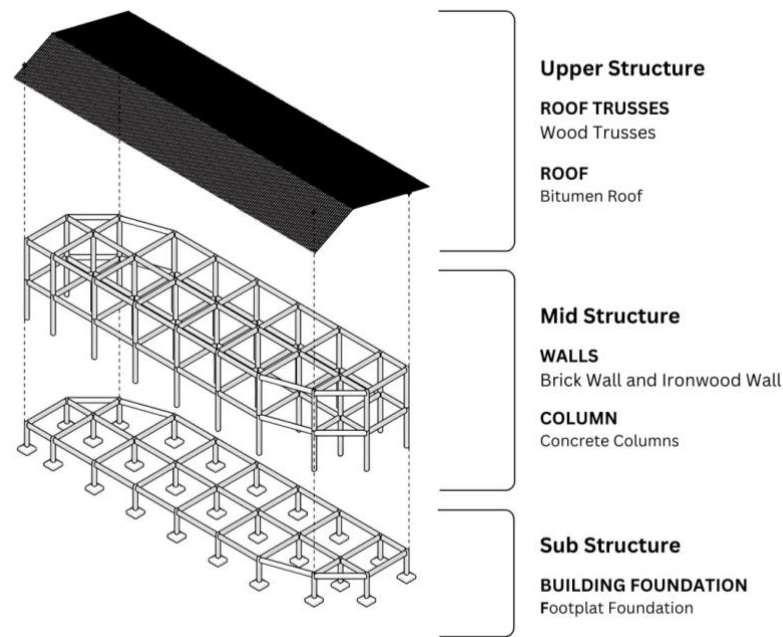


Figure 11. Main Building Structure Plan

The concept of building structure in the design of the Catholic Retreat House and Prayer Park is a 2-story building so that it uses a rigid structure. In the main building, the roof truss structure used is a wooden truss with a span of 8 meters. The use of wooden horses to give a natural impression to the building. The roof truss will be exposed so that it gives a natural and without a ceiling it will make the space seem higher. On the roof, a bitumen roof is used. Bitumen roofs have good weather resistance and can reduce sound. For the middle structure, the walls used are a combination of brick walls and ironwood walls. Brick wall is an environmentally friendly wall because it does not produce carbon burning emissions. While ulin wood is chosen because it is one type of wood that is resistant to all weather and ulin wood is a typical wood that gets stronger when exposed to water. The wall material will be exposed so that it presents a natural feel and can help the healing process. The columns used are cast concrete columns. Cast concrete columns were chosen because of their high durability. The columns were placed on a 6x6 meter grid with a size of 35x35 centimeters. The columns used are square and then coated with steel so that they are cylindrical. This is one way to fulfill the principle of comfortable shape. For the lower structure, the 2-storey building uses a footplate foundation. This foundation tends to have good strength and stability resistance in the soil.

## CONCLUSION

The conclusion of the research that has been done is that the concept of a healing environment can be a solution that can integrate spiritual, educational, and recreational activities in retreat houses and Catholic prayer parks. There are 9 (nine) main principles of a healing environment that can be applied when designing, namely, connection to nature, healthy lighting, healthy air circulation, material selection, color scheme selection, nourishing all sense, transform ability of space, comfortable space, and accessible environment.

These principles are applied to the site concept in the form of area zoning and circulation, spatial concept, mass composition and appearance concept, and structural concept. Zoning on the site concept pays attention to ease of accessibility and connection with nature. Circulation on the site is designed to pay attention to convenience by separating user circulation as needed to maximize mobility. The arrangement of space is adjusted to the specifications of the needs of each space according to the principles of the healing environment. Each space is arranged according to the needs in meeting the needs of natural lighting, natural ventilation, and space flexibility. In the selection of mass and appearance changes also consider changes that can help the healing process through the selection of colors, materials, and shapes. The concept of structure is also made considering the principle of healing environment so as to produce a sturdy structural system but indirectly can also have an influence on the healing process of its users.

The suggestion from this research is to maximize the application of the healing environment principle to support the process of spiritual, educational, and recreational activities at the retreat house and prayer garden so that it can run well and truly become a place for faith development and healing.

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