REDESIGN AL HASANAH MOSQUE AT LARANGAN SUBDISTRICT, IN KOTA TANGERANG, PROVINCE OF BANTEN

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ABSTRACT

A mosque is a place of worship for Muslims. One of the mosques in Tangerang City is the Al Hasanah Mosque which is located in South Kreo Village, Larangan District, Tangerang City, Banten. Al Hasanah Mosque was built several years ago and continues to be used by the surrounding community. After so many years of being used as a place of worship for the surrounding community, currently, Al Hasanah Mosque is no longer able to accommodate Friday prayers and several other activities due to the lack of mosque facilities. So that in 2022 the Al Hasanah Mosque plans to renovate to increase the capacity of the congregation in carrying out worship activities in the mosque. The renovation is planned by increasing the area of the 1st floor, making the second floor specifically for women, adding mosque facilities in the form of separate male and female bathrooms, and changing the facade of the building according to the modern minimalist concept. Based on these conditions, the Faculty of Engineering, Budi Luhur University held a Community Service activity to design the renovation of the Al Hasanah Mosque. The purpose of the redesign of the Al Hasaah Mosque is that all community worship activities can be carried out in the mosque. The method of implementing the activities uses the Architectural Design Process, following input from the Mosque Prosperity Council and architectural comfort standards. The results of the redesign of the Al Hasanah Mosque are working drawings and the electrical system of the Al Hasanah Mosque following architectural standards.

Keywords: Mosque Facilities, Al Hasanah Mosque, Redesign, Architectural Comfort Standards.

1. BACKGROUND

Places of worship for Muslims in Indonesia are Mosques, Musala, Langgar, and Surau (Khairuni and Widyanto, 2018). The function of the mosque in the life of Muslims is as a place of worship. As the name implies, the mosque is a place of prostration, remembrance, I'tikaf, and other Sunnat worship. The main function of the mosque is as a place of worship for prayer and worship both specifically and publicly following Islamic teachings. Mosques have an important role in building civilization. The role of the mosque is not only a place of worship but also a place for education, cadre, public services, a place for discussion, deliberation, and all aspects of the economy, politics, culture, and so on (Kurniawan, 2014).

One of the mosques in Tangerang City is Al Hasanah Mosque which is located in South Kreo Village, Larangan District, Tangerang City, Banten. Al Hasanah Mosque was built independently by the local community several years ago. The land of the mosque is waqf land from one of the residents next to the mosque. Until now, the Al Hasanah Mosque continues to develop due to the increasing number of worshipers and the increasing number of activities accommodated by the mosque. Currently, the Al Hasanah Mosque has an area of one floor with bathroom facilities and a shared ablution area, secretariat room, warehouse, and coffin room.

In 2022, Al Hasanah Mosque is planned to be renovated independently from one floor to two floors. Renovation of the number of floors also has an impact on changing the facade of the building and increasing the facilities owned by the mosque. The facade of the building was developed with many openings for natural air circulation and natural lighting thereby reducing the use of artificial air conditioning and artificial lighting. The facade of the building turned into a modern minimalist concept. Mosque facilities are added by making separate bathrooms and ablution places for men and women.

Because the Al Hasanah Mosque does not yet have a renovation design, the Faculty of Engineering at Budi Luhur University will redesign the renovation of Al Hasanah Mosque through Community Development activities with the theme "Redesign Al Hasanah Mosque At Larangan Subdistrict, In Tangerang City, Province Of Banten".

2. METHODS

Redesign Al Hasanah Mosque At Larangan Subdistrict, In Tangerang City, Province Of Banten using the Architectural Design Process Method (Waani and Rengkung, 2015).

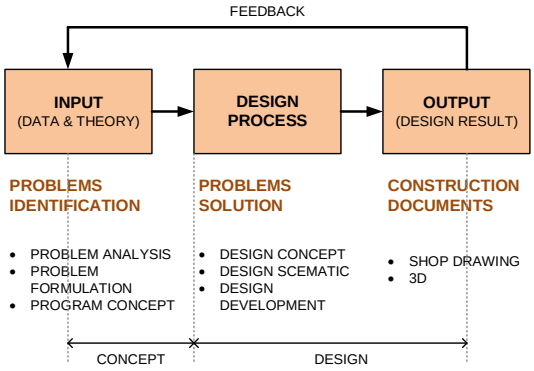

Figure 1. Architectural Design Process

Input

The problem is studied at the Al Hasanah Mosque in the South Kreo Village, Larangan District, Tangerang City, Banten. The problem with the Al Hasanah Mosque is the lack of a worship area in the mosque, the bathroom and ablution areas for men and women are not yet separated, and the facade of the mosque building is old (Basit *et. al.*, 2009).

Design Process

Learned the redesign of the Al Hasanah Mosque according to land conditions, worship needs, and the latest concepts. In addition, the redesign of the Al Hasanah Mosque was also studied according to architectural comfort standards (Rahmawati and Surakarta, 2016).

Output

A working drawing of the redesign of the Al Hasanah Mosque was made including a floor plan, appearance, cuts, and electrical details as well as an exterior 3D image. The stages of implementing the Redesign of the Al Hasanah Mosque in South Kreo Village, Larangan District, Tangerang City, Banten following the architectural design process (Lantang et al., 2014).

3. RESULTS AND DISCUSSION

Existing

Figure 2. Al Hasanah Mosque Siteplan

Figure 3. Front Façade of Al Hasanah Mosque

Figure 4. Right Facade of Al Hasanah Mosque

Figure 5. Left Facade of Al Hasanah Mosque

Design Concept

First, the redesign concept was carried out by adding the facilities of the Al Hasanah Mosque:
1. Make a men's bathroom and ablution area
2. Make a women's bathroom and ablution area

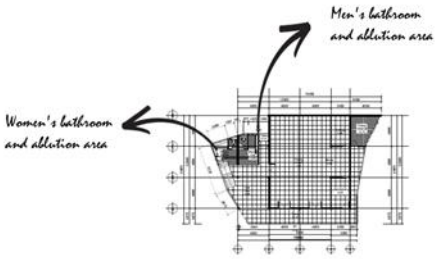

Figure 6. Mosque Facility Design *Concept*

Second, the redesign concept was carried out by increasing the area of the Al Hasanah Mosque:
1. Increase the area of worship on the 1st floor
2. Adding a women's worship area on the 2nd floor
3. Increase the area of the coffin

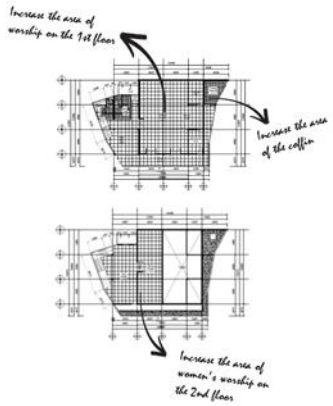

Figure 7. Mosque Area Design Concept

Third, changing the facade of the Al Hasanah Mosque with a Modern Minimalist concept:
1. Make the shape of the opening according to the minimalist concept
2. Making the facade of the 2nd floor according to the modern concept
3. Using white and brake gradient colors according to the minimalist concept

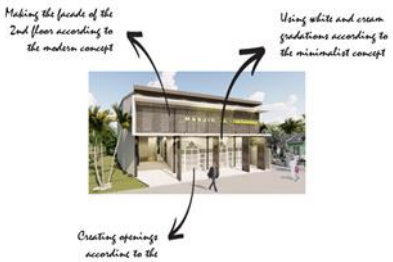

Figure 8. Mosque Architecture Concept

Design

The floor plan of the renovation of the Al Hasanah mosque covers the courtyard, the main part of the mosque and the shape of the mosque building. After the renovation the mosque consists of two floors with a total area of the mosque is 232,228 m2. The mosque renovation plan has taken into account the sharia law that applies in Islam, such

as the plan that separates the male and female rows. On the floor plan, special access is given to the imam if at the time of leading the prayer his prayer suddenly cancels. The floor plan of the mosque that has not been renovated has a coffin space for the execution of the funeral prayer that is not too wide, so the result of the renovation of the mosque plan will be provided with a wider coffin space. The plan considers the circulation conditions of the inner space so that new pilgrims who come and perform ablution will not disturb those who have come before. The location of the mosque on the north side is close to the road, so the boundaries of the mosque must follow a linear road pattern. While on the south side, the mosque is quite close to residential areas, so that during construction and when the mosque has been renovated, it must have clear boundaries so that residents do not enter the terraces of residents' houses during congregational prayers such as Friday prayers. The plan has received approval from members of the Al Hasanah Mosque Prosperity Council (DKM) because each renovation design criteria follows a member of the Al Hasanah DKM.

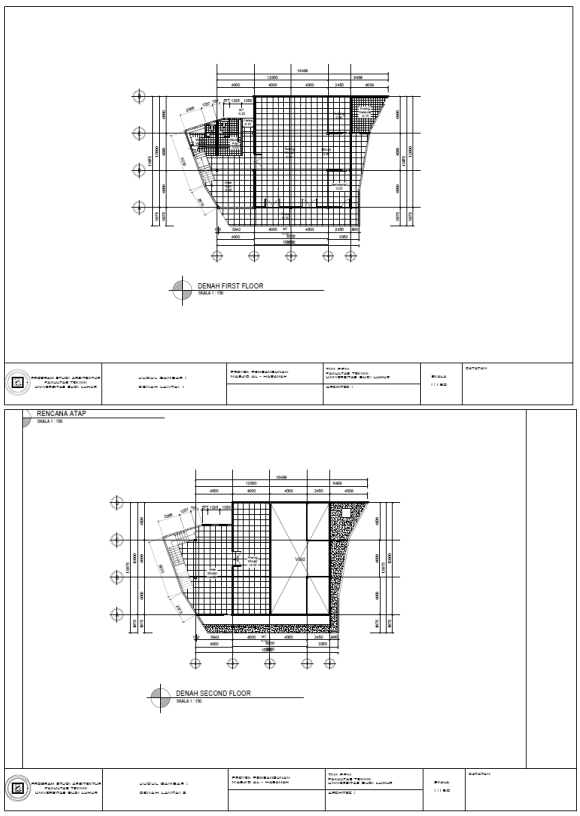

Figure 9. Al Hasanah Mosque Plan

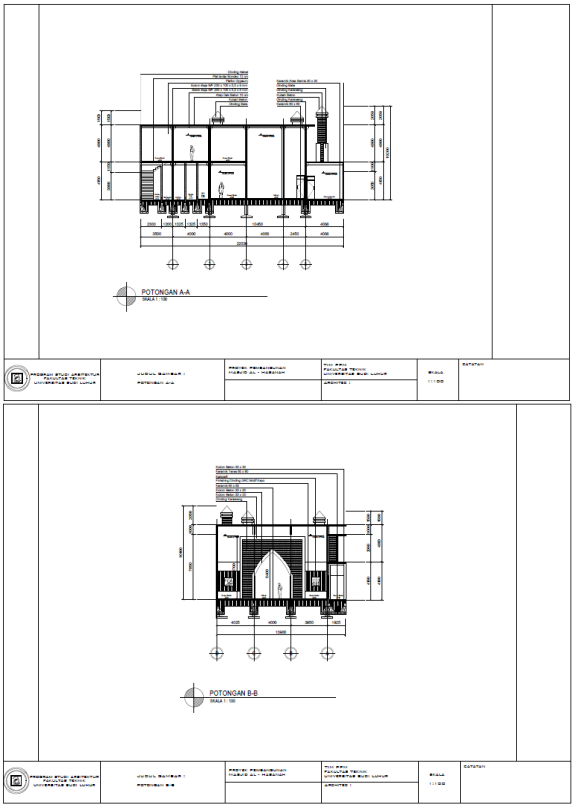

Figure 10. Al Hasanah Mosque Section

Based on the working drawings, the Al Hasanah mosque has a prayer room of 113,106 m2. The floor area for prayer is expanded with the development method towards the vertical. However, this construction can only be carried out on a limited basis because the top of the mosque has a high-voltage air connection (SUTET) owned by PT PLN. The prayer room floors on the first and second floors use granite floors with a total area of 113,106 m2. Access to the second floor will use a ladder that is placed on the outer south side of the mosque, this is so that pilgrims who want to go up to the second floor will not disturb the worshipers on the first floor. The floor of the mosque terrace uses homogeneous tiles that are anti-slip (rustic) so that they are not slippery when it rains.

The concept used for the renovation of this mosque is modern minimalist architecture. On the facade of the first-floor mosque, there are three entrances made of glass so that worshipers outside can still see the congregation inside the mosque. this is done so that when the mosque is carrying out congregational prayers, the congregation can still participate in congregational prayers on the mosque terrace as an entry. The mosque was renovated by considering the natural ventilation system so that the facade of the second-floor mosque will be equipped with a rooster for natural air circulation. The design of the renovation of the Al Hasanah mosque does not use Islamic architecture but uses modern minimalist architecture, so this mosque does not use a dome-like mosques in general. Consideration of using modern minimalist architecture so that this mosque does not use a dome because at the top of the mosque building there is a high voltage line (SUTET) belonging to PT PLN.

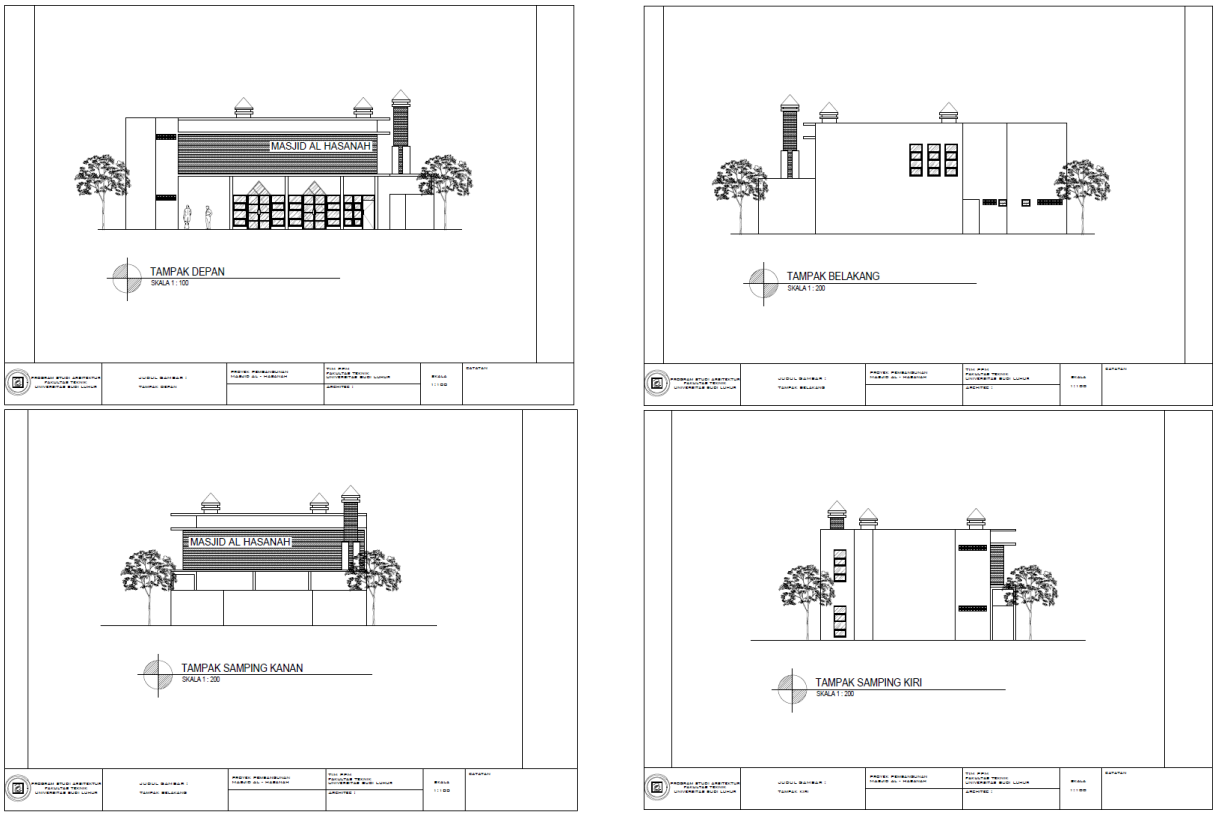

Figure 11. Al Hasanah Mosque Facade

The concept of the utility system focuses on an artificial lighting system that covers the entire renovated Al Hasanah Mosque building, starting from the interior and exterior of the mosque. The artificial lighting system covers the entire building both interior and exterior. The concept of artificial lighting will be made using the concept of smart lighting, i.e. artificial lighting will turn on and off based on movement or based on a predetermined time. For artificial lighting that is regulated based on movement, motion sensors will be used and will generally be placed at the entrance of the mosque and the door of the ablution area. For artificial lighting that is regulated by time, it will be placed outside the mosque, aiming to ease the task of mosque officials to regulate lighting. To make it easier to explain the electrical plan, it will be assisted with an electrical flow scheme.

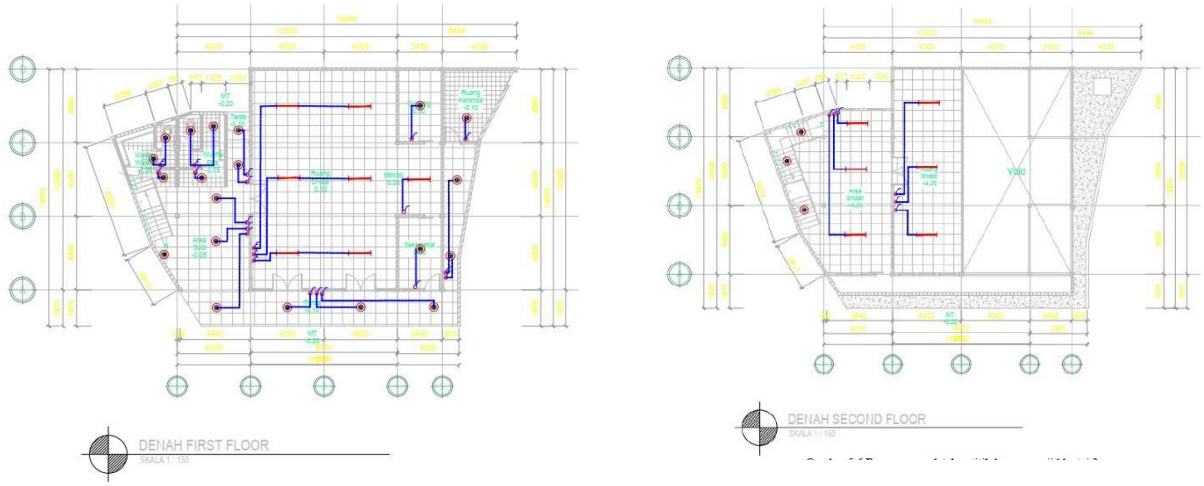

Figure 12. Al Hasanah Mosque Electrical

Based on the working drawings that have been described in the previous sub-chapter, the results of 3-dimensional images are obtained as a form of visualization of the entire image to make it easier to present.

Figure 13. Al Hasanah Mosque Perspective

4. CONCLUSION

The renovation design of the Al-Hasanah Mosque, Kreo Selatan Village, Larangan District, Tangerang City, Banten was carried out with the results of floor plans, pieces, and several three-dimensional modeling images to provide a virtual picture of the mosque that has been built. In addition, the electrical design has also been designed and modeled on a floor plan. The electrical system is made using the concept of smart lighting, i.e. artificial lighting will turn on and off based on movement or based on a predetermined time. The design of artificial lighting is based on SNI 03-6197-2000.

REFERENCES

Basit, A., Agama, M., Komunikasi, J., Purwokerto, S., 2009. *Strategi Pengembangan Masjid Bagi Generasi Muda*. Komunika J. Dakwah dan Komun. 3, 270–286.

Khairuni, N., Widyanto, A., 2018. *Mengatasi Krisis Spiritual Remaja di Banda Aceh Melalui Revitalisasi dan Optimalisasi Fungsi Masjid Sebagai Sarana Pendidikan Islam*. Dayah J. Islam. Educ. 1, 74–84.

Kurniawan, S., 2014. *Masjid Dalam Lintasan Sejarah Umat Islam*. J. Islam. Stud. 4, 169–184.

Lantang, F.N., Sompie, B.F., Malingkas, G.Y., 2014. *Perencanaan Biaya Dengan Menggunakan Perhitungan Biaya Nyata Pada Proyek Perumahan (Studi Kasus Perumahan Green Hill Residence)*. J. Sipil Statik 2, 73–80.

Rahmawati, N., Surakarta, U.M., 2016. *Kenyamanan Ruang Dalam Masjid Dan Pembentukan Generasi Islam. Peran Islam dalam Membangun Perad. Umat Bid. Polit. Sos. Ekon. Pendidikan&Teknologi* 1–11.

Waani, J.O., Rengkung, J., 2015. *Teori Dan Metoda Perancangan : Suatu Kajian Pola Pemikiran Josef Prijotomo Terhadap Arsitektur Nusantara*. Media Matrasain 12, 17–30.