



**DEPARTMENT OF BUILDING**  
**UNIVERSITI TEKNOLOGI MARA**  
**(PERAK)**

**PRACTICAL TRAINING REPORT**

**Prepared by:**

**RAHIMA FARISYA BINTI ABD RAHIM**

**(2019648156)**



**DEPARTMENT OF BUILDING  
UNIVERSITI TEKNOLOGI MARA  
(PERAK)**

**RENOVATION WORKS OF JOHOR STATE TOWN AND  
COUNTRY PLANNING OFFICE AT BANGUNAN DATO'  
MOHAMAD SALLEH PERANG, KOTA ISKANDAR.**

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**AUGUST 2021 – JANUARY 2022**

It is recommended that the report of this practical training provided

**By**

**RAHIMA FARISYA BINTI ABD RAHIM**

**2019648156**

**entitled**

**Renovation Works of Johor State Town and Country Planning Office at  
Bangunan Dato' Mohamad Salleh Perang, Kota Iskandar.**

be accepted in partial fulfilment of requirement has for obtaining Diploma in Building.

Report Supervisor	:	<hr/>
		Cik Nor Azizah binti Talkis
Practical Training Coordinator	:	<hr/>
		Dr. Nor Asma Hafizah binti Hadzaman
Programme Coordinator	:	<hr/>
		Dr. Dzulkarnaen bin Ismail

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**AUGUST 2021 – JANUARY 2022**

**STUDENT'S DECLARATION**

I hereby declare that this report is my own work, except for extract and summaries for which the original references stated herein, prepared during a practical training session that I underwent at Chaqura Enterprise for duration of 20 weeks starting from 23<sup>rd</sup> August 2021 and ended on 7<sup>th</sup> January 2022. It is submitted as one of the prerequisite requirements of BGN310 and accepted as a partial fulfilment of the requirements for obtaining the Diploma in Building.

.....

Name : Rahima Farisya binti Abd Rahim  
UiTM ID No. : 2019648156  
Date : 6<sup>th</sup> January 2022

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## **ABSTRACT**

Renovation is a popular construction term that refers to improving or revising an existing building, structure, room, or other construction entity. To efficiently renovate a project, expertise, experience, and a general understanding of construction means and processes are required. This report will cover the details of site projects that I supervised for two months at Level 2 of *Pejabat Perancang Bandar dan Desa Negeri Johor* or PLANMalaysia Johor which is located at Bangunan Dato' Mohamad Salleh Perang, Kota Iskandar, Nusajaya, Johor. The purposes of this report are to identify the tools and materials used in renovation work, to explain the process of renovations from start to finish, and to determine the problems and solutions related to renovation work.

<b>CONTENTS</b>	<b>PAGE NO.</b>
Acknowledgement	i
Abstract	ii
Contents	iii
List of Tables	iv
List of Figures	v
<b>CHAPTER 1.0 INTRODUCTION</b>	
1.1 Background of Study	1 - 2
1.2 Objectives	3
1.3 Scope of Study	3
1.4 Methods of Study	3 - 4
<b>CHAPTER 2.0 COMPANY BACKGROUND</b>	
2.1 Introduction to Company	5 - 6
2.2 Company Profile	7
2.3 Organization Chart	8
2.4 List of Project	
2.4.1 Completed Projects	9 - 10
2.4.2 Project in Progress	11
<b>CHAPTER 3.0 CASE STUDY</b>	
3.1 Introduction to Case Study	12 - 14
3.2 Tools and Materials Used in Renovation Works	15 - 18
3.3 Process of Renovation Works	19 – 28
3.4 Problems and Solutions Regarding to the Renovation Works	29 – 33
<b>CHAPTER 4.0 CONCLUSION</b>	
4.1 Conclusion	34
 <b>REFERENCES</b>	 35

## LIST OF TABLES

Table 1.1.1	Examples of structural and cosmetic renovation	1
Table 2.4.1.1	List of completed projects	9
Table 2.4.2.1	List of projects in progress	11
Table 3.2.1	The figures and description of the tools and materials used	15
Table 3.3.1.1	The process of dismantling tables from the workstation	19
Table 3.3.1.2	The process of removing carpets from the workstation	19
Table 3.3.1.3	The process of removing partition walls of old officers' rooms at workstation area	20
Table 3.3.1.4	The process of unscrewing vertical blinds at <i>Bilik Latihan</i>	20
Table 3.3.2.1	The process of repairing and painting ceilings at counter	21
Table 3.3.2.2	The process of applying the wall sealer at <i>Bilik J48</i>	21
Table 3.3.2.3	The process of painting the finishing layer at <i>Bilik Latihan</i>	22
Table 3.3.3.1	The process of installing power point in workstation area	22
Table 3.3.3.2	The process of installing vinyl flooring at workstation	23
Table 3.3.3.3	The process of installing cabinet in <i>Bilik Latihan</i>	24
Table 3.3.3.4	The process of installing cabinet in the counter	24
Table 3.3.3.5	The process of installing wallpaper at counter	25
Table 3.3.3.6	The process of installing the letters 'PLANMalaysia Johor' and the National Coat of Arms logo on the counter's backdrop	25
Table 3.3.3.7	The process of installing table set at workstation area	26
Table 3.3.3.8	The process of installing conference table at <i>Bilik Latihan</i>	26
Table 3.3.3.9	The process of installing table at <i>Bilik J41 (1)</i>	26
Table 3.3.3.10	The process of installing roller blind at <i>Bilik J41 (2)</i>	27
Table 3.3.3.11	The process of installing electrical sockets on the tables' partition in workstation	27
Table 3.3.4.1	The process of clearing the work site	28
Table 3.3.4.2	The process of mopping the floor at <i>Bilik J48</i>	28
Table 3.3.4.3	The process of removing of unused boxes	28



## LIST OF FIGURES

Figure 2.1.1	Chaqura's office	5
Figure 2.1.2	The location of Chaqura's office	6
Figure 2.2.1	Company logo	7
Figure 2.3.1	Chaqura Enterprise's organizational chart	8
Figure 3.1.1	The location of PLANMalaysia@Johor	12
Figure 3.1.2	Bangunan Dato Mohamad Salleh Perang	13
Figure 3.1.3	PLANMalaysia Johor's logo	13
Figure 3.1.4	PLANMalaysia's level 2 site plan	14
Figure 3.3.3.1	Vinyl flooring code LA3-6025	23
Figure 3.3.3.2	Vinyl flooring code LA3-2115	23
Figure 3.4.1	Damaged wall paint	29
Figure 3.4.2	Crack lines on the wall	29
Figure 3.4.3	Cracks in walls that have been filled with cement mixture	30
Figure 3.4.4	Messy paint on ceiling with minor stain on its steel frame	30
Figure 3.4.5	Device on ceiling that has been covered with masking tapes	30
Figure 3.4.6	The appearance of the ceiling after painting with masking tape on	31
Figure 3.4.7	Paint stains on wire casing	31
Figure 3.4.8	Wiping the paint stains using thinner	31
Figure 3.4.9	The peaked vinyl planks	32
Figure 3.4.10	The warped vinyl plank	32
Figure 3.4.11	Skim work on uneven cement floors	32
Figure 3.4.12	The dark and moldy stains on wall	33
Figure 3.4.13	The black spots on wall	33

## CHAPTER 1.0

### INTRODUCTION

#### 1.1 Background of Study

In the construction industry, renovation defined as the process of improving a broken, damaged, defective, or outdated building or structure. Renovations and remodeling are somewhat synonymous, but the purpose of a remodel is to change the structure, whereas the purpose of a renovation is to repair the structure. This is in contrast to 'retrofitting' which is the addition of a component or feature that was not initially installed, or 'refurbishment' which is the process of improving something by cleaning, decorating, or re-equipping. However, they do not involve any significant alterations to the load-bearing structure or room arrangement, as opposed to conversions. As a result, they are perfectly between servicing and conversion.

The scope of renovation work can vary greatly. According to the building standards, "major renovation" refers to the renovation of a building in which more than 25% of the surface area of the building envelope is renovated.

It is popular for people to buy run-down properties, usually houses, and renovate them in order to increase their worth. It can also allude to creating something new or bringing something back to life, and it can be used in social environments.

Renovation work is typically classified as either 'cosmetic' or 'structural'.

**Table 1.1.1** Examples of Structural and Cosmetic Renovation

Structural Renovation	Cosmetic Renovation
i. Extensions.	i. Painting and other forms of decoration and minor repairs.
ii. Loft conversions.	ii. Flooring.
iii. Basement construction.	iii. Updating fixtures and fittings.
iv. Redesign of floor plans.	iv. Light landscaping.
v. Re-wiring, re-plumbing and so on.	

The renovation process is typically divided into many stages:

i. Planning

Before beginning a renovation work, the first and most crucial step is to make a planning by understanding every aspect of the building plan, selecting a sufficient budget, hiring in an expert contractor and creating a work timeline.

ii. Engineering

A structural engineer is necessary for renovations since they will provide structural drawings and calculations to the contractor or architect for the design plans. They will also ensure that the building renovations comply with current building codes and all applicable restrictions.

iii. Structural repair

Structural repair includes overhauling, restoration, and other work aimed at improving a structure's deteriorating structural integrity or improving components of the building that are causing side effects. In short, structural repair entails extensive and detailed remedial work intended to meet the health, safety, and fire safety requirements mandated by one's local, state, and even federal governments.

iv. Rebuilding

Rebuilding in renovations comprises knocking down a component of an existing structure and constructing a new one, such as removing an unnecessary wall and installing a new partition wall in a specific location.

v. Finishes

Finishing is an important part of the building construction process since it contributes to the overall aesthetic of the structure. Plastering, pointing, painting, varnishing, white and color washing, and distempering are all part of the process.

## **1.2 Objectives**

This renovation has resulted in several objectives, which are as follows:

- i. To identify the tools and materials used in renovation works.
- ii. To explain the process of renovation works.
- iii. To determine the problems and solutions regarding to the renovation works.

## **1.3 Scope of Study**

The study was conducted in Kota Iskandar, Nusajaya, Johor, which is around 18.6 kilometers from Chaqura's office. The proposed project of this site is *Kerja-kerja Pengubahsuaian Pejabat Perancang Bandar dan Desa Negeri Johor di Bangunan Dato Mohamad Salleh Perang, Kota Iskandar*. The site is located in an urban area, is surrounded by the administrative offices, and stunning landscaping, with each green lung drawing inspiration from the architecture of the various buildings. This research will describe not only the renovation process, but also the tools and materials used in the renovation works, as well as the problems and their solutions. There were three methods that needed to be carried out in order to complete the data, which were observation, interviews, and document reviews. All further explanations relevant to the above methods are given below.

## **1.4 Methods of Study**

- i. Observation

At the construction site, observations were performed on a daily basis. With this strategy, I was able to gain a better understanding, particularly of the change process from one stage to the next. According to my observations, the renovation at the PLANMalaysia Johor office is in four stages. Demolition, painting, constructing, or installation work, as well as cleaning work, are all examples of construction work.

Throughout my tenure on the construction site, I have kept a close eye on these four stages.

ii. Interviews

In contrast to observation, I used the interview approach to gather vital data for my report. Interviews are normally conducted over the phone or via WhatsApp between myself and the client, consultant, or subcontractors. The client from Town and Country Planning department and consultant from JKR Johor have been very helpful in resolving issues by explaining and teaching me how to execute this renovation project properly and effectively. The subcontractors also assisted me in gradually explaining how their task was carried out.

iii. Document reviews

The document review approach is the final method I used to conclude my report. This PLANMalaysia Johor renovation project is part of the JKR Johor project. They have provided a tender as a reference to the contractor in order to make it easier for the contractor to refer to if certain issues come up. This tender was very useful for me to refer to in any eventuality that arose on the building site throughout my monitoring of this project. The tender includes all information on officer's rooms, workspaces, counters, prayer rooms, and other facilities. This made it much easier for me to comprehend how the project was supposed to work.

## CHAPTER 2.0

### COMPANY BACKGROUND

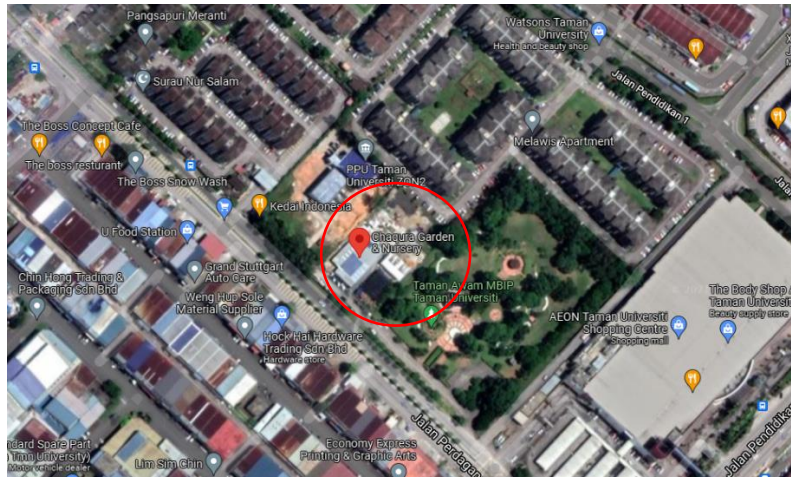
#### 2.1 Introduction of Company



**Figure 2.1.1** Chaqura's office

The company's early activity was as a subcontractor for various modest government and private projects, as well as part-time work on completing the proposal and design plan at the start of the engagement.

Owing to the company's success and competitive attitude, this company which known as Chaqura Enterprise, was registered with Suruhanjaya Syarikat Malaysia (SSM) on 8 October 2010. On 19 January 2011, the company was also registered with the Ministry of Finance, and on 20 January 2012, it was registered with CIDB in grade 2. The registered address is at 25 Ladang Sungai Papan, 81900 Kota Tinggi, Johor. After few years, this company has now expanded its operations and is fully functioning at Lot 49043 (Kebun Bunga) Jalan Permata, Taman Universiti, 81300 Skudai, Johor.



**Figure 2.1.2** The location of Chaqura's office

Encik Hairol Nizam bin Ibrahim, a native son with an academic background in Civil Engineering and Landscape Architecture, fully manages Chaqura Enterprise. He also has experience with contract management, infrastructure projects, and landscaping. Meanwhile, Encik Fadzil bin Ibrahim, an assistant or advisor with a background in Civil Engineering and considerable expertise in construction and infrastructure projects, also aided the organization. To carry out the company's operations effectively, this company is also assisted by qualified staffs and experienced workers.

In September 2014, Chaqura Enterprise expanded its company by managing a landscape nursery called Chaqura Garden & Nursery at the same address. This breakthrough is regarded as the start of the company's efforts to establish and present itself as a competitive and developed bumiputra.

Based on the firm's experience and capabilities, Chaqura Enterprise is now optimistic that it will be able to compete successfully as a bumiputra company in the state of Johor and increase in the future.

## 2.2 Company Profile

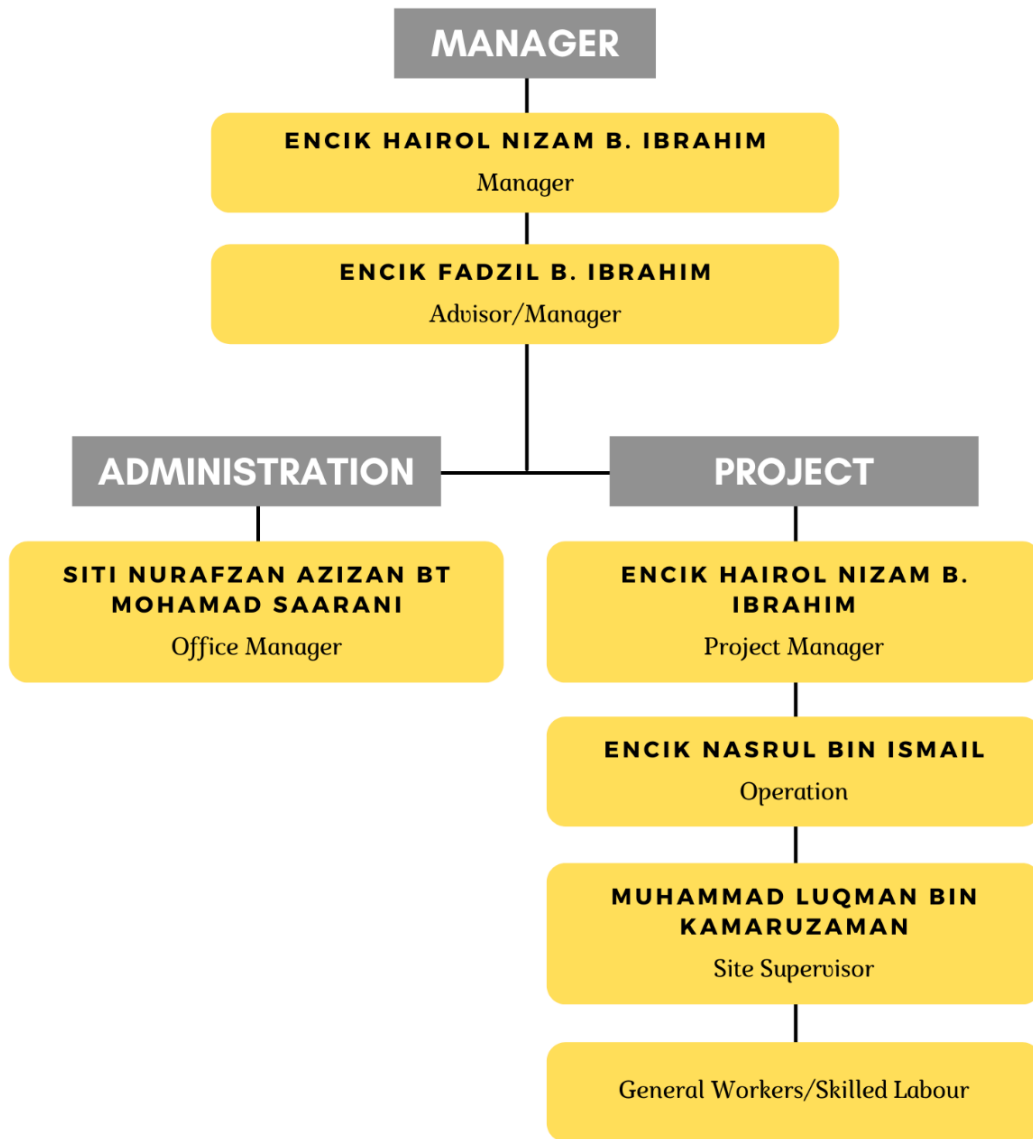


**Figure 2.2.1** Company logo

Company Name	: Chaqura Enterprise
Company Registration No.	: JM0580183-U
CIDB Registration No. (G3)	: 0120120120-JH139445
Ministry of Finance Registration Number	: 357-02161766
Date of Commencement	: 8 <sup>th</sup> October 2010
Address	: Lot 49043, (Kebun Bunga) Jalan Permata, Taman Universiti, 81300 Skudai, Johor.
Telephone/Fax	: 07-5869011/07-586007
E-mail	: <a href="mailto:chaqura.ent@gmail.com">chaqura.ent@gmail.com</a>
Company Ownership	: 100% sole proprietorships
Field of Work	: Civil Engineering, Building Material Supplier, Building Cleaning Work, Laboratory and Office Equipment Supplier, Civil Engineering Equipment, Building Cleaning Work, Building Maintenance, Landscape Design and Landscape Work.



### 2.3 Company Organization Chart



**Figure 2.3.1** Chaqura Enterprise's organizational chart

## 2.4 List of Projects

### 2.4.1 Completed Projects

**Table 2.4.1.1** List of completed projects

No.	Project Title	Project Value	Completion Date	Project Duration	Client
1	Emergency Works for Slope Rehabilitation at KM 16.8 West Bound, Senai Desaru Expressway (E22)	RM 240,819.96	January 2021	3 weeks	Senai-Desaru Expressway (E22)
2	Integrated Management and Maintenance of Local Authority Roads throughout the State of Johor	RM 250,000.00	October 2020	6 months	Safwa Global Venture (M)
3	Kementerian Kerja Raya (KKR) Federal Road Maintenance Program at FT001 Section 90.10-129.55, Jalan Johor Bahru-Melaka, Batu Pahat District.	RM 259,100.014	June 2020	3 weeks	JKR Batu Pahat
4	Road Resurfacing Works and Preparing Road Lines and Related Works in Taman Tampoi Utama, Johor Bahru.	RM 417,140.00	November 2019	8 weeks	Majlis Bandaraya Johor Bahru (MBJB)
5	Upgrading the Drainage System at Jalan Persiaran Teratai and Jalan Pelalai as well as building a Car Park at Medan Selera, Taman Cempaka, Johor Bahru District.	RM 501,301.00	January 2019	12 weeks	Green Spark Construction

6	Cleaning Works, building a Fish Pond and Planting Trees in Front of The Entrance of Larkin Height Apartment at Jalan Idaman 1, Larkin 80350 Johor Bahru, Johor.	RM 50,240.00	May 2018	3 weeks	Larkin Height Apartment
7	Maintenance Works of Open Drainage System and Sewers and Walls In Zone 13 MPJBT For The Year 2018	RM 200,000.00	January 2018	46 weeks	Perniagaan Setia Selamat
8	Panel Contractors for Grass Cutting, Mainline Cleaning Services and Site Clearing Works Along Package 1 KM0.0 – KM24.0 (East Bound & West Bound), Senai Desaru Expressway (E22)	RM 650,695.67	November 2017	16 months	Senai-Desaru Expressway (E22)
9	Pavement work at FT005 SEC 83.0 – 85.0 Jalan Bahru – Melaka, Pontian, Johor.	RM 777,092.36	August 2017	2 weeks	Bina Masyhur Sdn. Bhd.
10	Works To Design and Upgrade the Chalet Area at Chalet D'Cabin Jati Kampung Sri Gunung Pulai, Kulai.	RM 237,499.94	November 2016	8 weeks	Pejabat Daerah Kulai

## 2.4.2 Project in Progress

**Table 2.4.2.1** List of projects in progress

<b>No.</b>	<b>Project Title</b>	<b>Project Value</b>	<b>Start Date</b>	<b>Project Duration</b>	<b>Client</b>
1	<i>Pengurusan dan Penyelenggaraan Jalan-jalan Pihak Berkuasa Tempatan secara Bersepadu di Seluruh Negeri Johor</i>	RM 250,000.00	Januari 2021	12 months	Safwa Global Venture (M)
2	<i>Kerja-kerja Penyelenggaraan Membaiki Kerosakan Jalan di Kawasan Majlis Bandaraya Johor Bahru bagi Tempoh 12 Bulan (Zon Utara C)</i>	RM 425,590.00	September 2021	12 months	Majlis Bandaraya Johor Bahru (MBJB)
3	<i>Kerja-kerja Pengubahsuaian Pejabat Perancang Bandar dan Desa Negeri Johor di Bangunan Dato Mohamad Salleh Perang, Kota Iskandar.</i>	RM 413,650.00	Jun 2021	8 months	JKR Johor
4	Development of New Parking Area at Lot 16, Pengerang Integrated Complex (PIC)	RM 4,151,050.00	December 2021	22 weeks	HRSB Holdings Sdn. Bhd.

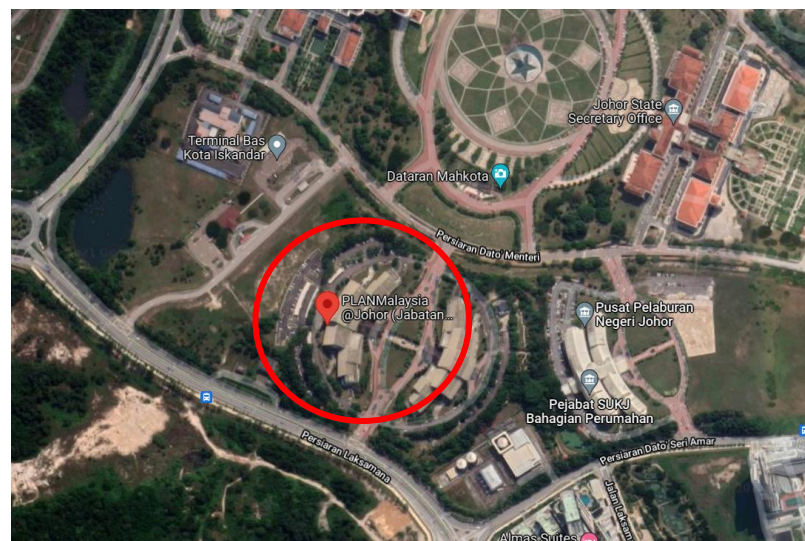
## CHAPTER 3.0

### CASE STUDY

#### 3.1 Introduction to Case Study

The case study that I will discuss in this report is about the renovation work that I supervised from the end of October 2021 until the completion of my practical training. The project is conducted at *Pejabat Perancang Bandar dan Desa Negeri Johor*, also known as PLANMalaysia Johor, which is located at level 1 and 2 of Bangunan Dato Mohamad Salleh Perang in Kota Iskandar, Nusajaya, Johor.

The total cost of this project is around Ringgit Malaysia Four Hundred Thirteen Thousand Six Hundred Fifty only (RM413,650.00). According to the tender specified by the consultant, JKR Johor, the period provided to complete the renovation work in PLANMalaysia Johor is 6 months, from the end of June 2021 to the end of December 2021. However, this project had to be postponed for the time being due to the Movement Control Order (MCO) 3.0 from June 15 to June 28, 2021. Other issues are also impeding this project from being completed on time. As a result, the renovation works are still ongoing until now.



**Figure 3.1.1** The location of PLANMalaysia@Johor



**Figure 3.1.2** Bangunan Dato Mohamad Salleh Perang

*Pejabat Perancang Bandar dan Desa Negeri Johor*, or PLANMalaysia Johor, is the only Town and Country Planning department that represents in the state of Johor. The office located on the first and second floors of Bangunan Dato Mohamad Salleh Perang in Kota Iskandar. In general, Kota Iskandar is Johor's administrative centre, and it houses major institutional such as the State Legislative Assembly Building, the Office of the Chief Minister and State Secretariat, and the State Department Complex.

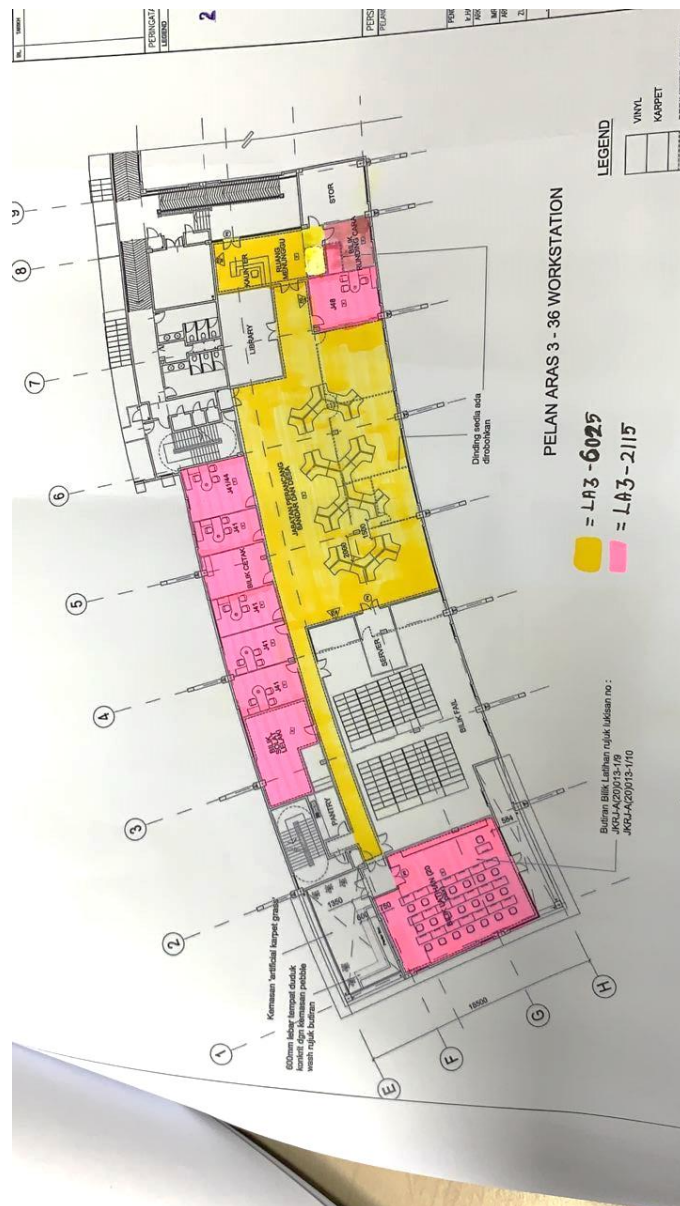


**Figure 3.1.3** PLANMalaysia Johor's logo

PLANMalaysia Johor is the State Government's key advisor on town and country planning, as well as the Local Planning Authority and other related agencies. The department's goal is to increase the physical, social, and economic development of urban and rural areas in order to improve service quality in line with State goals, as well as to assure the quality of expertise and information systems for the purpose of continuous planning. In order to fulfil the needs of people, PLANMalaysia Johor is

responsible for providing full dedication to town and country planning services in terms of building a prosperous and sustainable living environment.

This project must be completed on both floors of the PLANMalaysia Johor office. The aim of this project is to improve the function of the office and increase the comfort or satisfaction of employees. In this report, I will go through the renovation work done on level 2 of PLANMalaysia Johor in great detail. The figure below depicts the redesigned plan of level 2. This layout differs from the original plan in where the position and arrangement of the room as well as its area have been changed.







**Figure 3.1.4** PLANMalaysia’s level 2 site plan








### 3.2 Tools and Materials Used in Renovation Works

Demolition, carpentry, plaster and drywall work, electrical, plumbing, tile, concrete, and roofing are all common renovation tasks. So, before we begin the job, we must ensure that we have a suitable supply of tools and supplies. Here are a few of the tools and equipment we used during the renovations:






**Table 3.2.1** The figures and description of the tools and materials used

NO.	FIGURE	DESCRIPTION
1		<p><b>Cordless drills</b> are used to remove screws from old furniture sets and to unscrew all vertical blinds in workspaces and officer rooms.</p>
2		<p><b>Crowbar</b> is used to remove old carpets as well as skirting.</p>
3		<p><b>Hammer</b> is used to remove any unused nails from old furniture or walls.</p>
4		<p><b>Polyethylene sheet roll</b> is used to securely wrap things that will be temporarily stored in the store to avoid breakage and damage.</p>



5		<p><b>Masking tape</b> is used to cover any area that should not be painted, such as door frames, glass windows, ceiling frame and electrical switches.</p>
6		<p><b>Putty knife scraper</b> is used to scrape hardened paint from the ceiling's metal frame as well as uneven cement floor surfaces.</p>
7		<p><b>Saws</b> are used to cut ceiling boards to specific sizes so that they can be fitted on the ceiling frame.</p>
8		<p><b>Auto lock cutter knife</b> is used to cut old carpets that are trapped in fixed cabinet parts, as well as to cut the carpets into the specific shape of bare floor space so that it can be glued properly.</p>
9		<p><b>Measuring tapes</b> are used to find the length and width on certain areas that needed to be measured.</p>

10		<p><b>Metal stud wall framing</b> is used to support the entire partition wall that is constructed.</p>
11		<p><b>Plasterboard</b> is used as a wall in construction of the partition walls.</p>
12		<p><b>Nippon Paint Super Matex Emulsion Paint</b> is used to paint the ceiling.</p>
13		<p><b>Smart Wall Sealer 400S</b> is used to recondition uneven wall surfaces so that they can be applied evenly to achieve a uniform finish.</p>
14		<p><b>Nippon Paint Easywash</b> which has been blended according to the Peaceful White color code is used as the finishing paint for the entire office wall.</p>

15		<p><b>Vinyl flooring</b> is used as a new floor finish in workstations and other officer rooms.</p>
16		<p><b>Wallpaper</b> is used as a new wall finish in the counter space.</p>
17		<p><b>Dunlop General Purpose Glue</b> is used to adhere old carpets to the bare floor surfaces in file room and server room.</p>
18		<p><b>Paint thinner</b> is used to remove minor stains, such as smudged paint, on glass windows, skirting surfaces, and other surfaces.</p>
19		<p><b>Cement</b> is used for perforated or uneven wall and floor scheme works.</p>

### 3.3 Process of Renovation Works

Before begin the renovations, we must guarantee that the correct sequence of building renovation works is followed in order to achieve the best potential results. Renovation projects have several stages. Here are five typical stages to consider.

#### 3.3.1 Demolition Works

When all of the tools and materials have arrived at the construction site, it is time to begin demolition. We started the demolition by dismantling all of the tables in the workstation as well as the other officers' rooms, using cordless drills, hammers, pliers, and screwdrivers to loosen the nuts, bolts, and screws.

**Table 3.3.1.1** The process of dismantling tables from the workstation area

		
Before	During	After

After removing all of the tables and other furniture, we used an auto lock cutter knife, crowbar, pliers and other suitable tools to pull up the entire old carpets.



**Table 3.3.1.2** The process of removing carpets from the workstation area

		
Before	During	After



According to the new site plan given by JKR in the tender, some sections of the partition wall must be knocked down and rebuilt in a new place. The table below depicts the process of demolishing the partition wall of the old officer's rooms at the workstation area. A utility knife, sledgehammer, and saw are among the tools required to cut the junction between the wall that has to be removed.

**Table 3.3.1.3** The process of removing partition walls of old officers' rooms at workstation area

		
Before	During	After

When all of the demolition work is finished, it is time to take down all of the vertical blinds in the workstation, officers' rooms, and other rooms. Removing vertical blinds is a simple task when they break down the process step by step. Workers should be as cautious as possible when removing the blinds with cordless drills and the small screws that hold the brackets to the wall with a screwdriver to avoid damage to the blinds and the wall to which they are attached.

**Table 3.3.1.4** The process of unscrewing vertical blinds at *Bilik Latihan*

		
Before	During	After

### 3.3.2 Painting Works

The painting work began once all of the demolition work was completed. Repairing the entire broken and cracked ceiling, as well as the dirty ceiling, was the first step in the painting process. The paint used to fix the ceiling was Nippon Paint Super Matex Emulsion Paint code 145, Brilliant White. It provides a durable and attractive smooth finish on walls, asbestos, hard and soft boards. Super Matex is easy to apply and is fungus resistant.

**Table 3.3.2.1** The process of repairing and painting ceilings at counter

		
Before	During	After

After all of the ceilings have been fixed, it's time to paint the walls. Before applying the finishing paint to the interior walls, it is recommended to apply one layer of sealer coat. Natural bonding agents are known to be present in this sealer. These bonding agents enable the sealer to stick to the surface of the wall and bond tightly to it. Another advantage of using the sealer is that it helps to keep the paint's original quality. Smart Wall Sealer 400S was utilized as the sealer coat in this job.

**Table 3.3.2.2** The process of applying the wall sealer at *Bilik J48*

		
Before	During	After

After painting the walls with wall sealer, the walls need to be painted with 2 coats of the finishing layer. The colour code that has been chosen by the client to paint all over the office walls was Peaceful White (OW 1009 P). The colors used to create this color code have been combined with the original white paint, which is Nippon Paint Easywash.

**Table 3.3.2.3** The process of painting the finishing layer at *Bilik Latihan*

		
Before	During	After

### 3.3.3 Installation Works

Installation work can begin after painting work has been done. Priority should be given to electrical work before starting installation work such as adding floor finishes, furniture, or other goods. The method of wiring and installing a power point in a concrete floor is depicted in the table 3.3.3.1. Before placing the wiring, the concrete floor must be cut according to the electrical lines specified in the tender drawings and agreed upon by the client and consultant, using dry blades or other suitable tools.

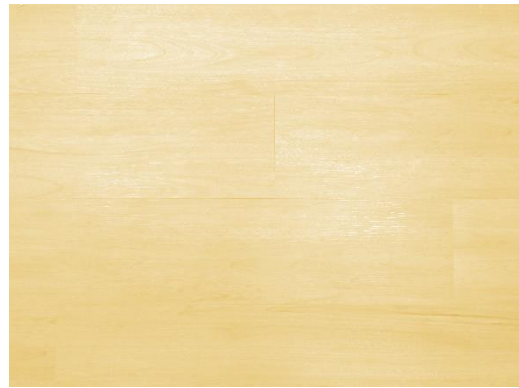
**Table 3.3.3.1** The process of installing power point in workstation area

		
Before	During	After

Concrete floors that have electrical wires installed into them must be re-cemented uniformly. After the floor has been cemented, the vinyl floor installation can begin. LAA Builders (M) Sdn Bhd was chosen for the installation of vinyl flooring as well as skirting wood on this project. The client chose two vinyl floor color codes to be implemented on level 3 of the PLANMalaysia Johor office, namely codes LA3-6025 and LA3-2115.



**Figure 3.3.3.1** Vinyl flooring code LA3-6025



**Figure 3.3.3.2** Vinyl flooring code LA3-2115

According to the client's request, code LA3-6025, as shown in figure 3.3.3.1, must be installed in the workstation and hallway in front of the officer's rooms as well as counter space. While code LA3-2115, as shown in figure 3.3.3.2, must be installed in all officer rooms, *Bilik Solat* and *Bilik Latihan*. From my observations, these vinyl floors are installed using glue-down method. This method requires a steady touch and a lot of patience to achieve a clean appearing installation.

**Table 3.3.3.2** The process of installing vinyl flooring at workstation area

<p>Before</p>	<p>During</p>	<p>After</p>



In terms of cabinet installation, there are two locations where cabinets must be installed, which are at the counter and *Bilik Latihan*. RHA Furniture has been chosen for this work scope. The process of installing cabinets in the counter and *Bilik Latihan* are illustrated in table below.

**Table 3.3.3.3** The process of installing cabinet in *Bilik Latihan*

		
Before	During	After

**Table 3.3.3.4** The process of installing cabinet in the counter

		
Before	During	After

The old wallpaper on the counter’s wall was completely removed before installing the new one. It is vital to ensure that the walls are in good condition so that the application looks fantastic and lasts a long time. According to my observations, the workers who are in charged for this job are lightly sanding away any texture of the wall in order for the wallpaper to apply cleanly and with a smooth finish. Furthermore, they were also scrubbing the walls using water, multipurpose soap, and a sponge or rag to remove any dirt or oils that had accumulated. Then, they simply applied an even coat of primer to the walls with a sponge brush and let it to dry completely.

**Table 3.3.3.5** The process of installing wallpaper at counter



For counter space, the letters for the word "PLANMalaysia Johor" made from CLC must be put on the counter backdrop according to the font style, thickness, and height agreed upon by the client. Jomex Global Sdn Bhd is the subcontractor in charge of installing the lettering as well as the National Coat of Arms logo.

**Table 3.3.3.6** The process of installing the letters 'PLANMalaysia Johor' and the National Coat of Arms logo on the counter's backdrop



OR Solution is the subcontractor in charge of the furniture installation work. The office workstation on this level was originally four L-shaped desks connected together to form a lowercase T. Following discussions between the client and the consultant, they agreed to redesign the workstations as a Walnut-colored of 120-degree table with three legs and positioned the tables in a circle around a pillar. In *Bilik Latihan*, the type of table that needs to be installed is an elongated and oval-shaped table, or also known as a conference table. The client chose Cherry wood as the color for this furniture. Lastly, for the officers' rooms, there are furnished with a White three-legged Equal Corner table.



**Table 3.3.3.7** The process of installing table set at workstation area

		
Before	During	After

**Table 3.3.3.8** The process of installing conference table at *Bilik Latihan*

		
Before	During	After

**Table 3.3.3.9** The process of installing table at *Bilik J41 (1)*

	
Before	After

After all of the tables have been installed, OR Solution is also in responsible of installing blinds on each glass window on level 2. Vertical blinds were originally utilized in this office. However, they have all been replaced with roller blinds. Roller blinds offer better benefits to employees in the workplace because they are easy to operate, can be dusted with little effort, and improve the aesthetics of the office while give enough privacy.

**Table 3.3.3.10** The process of installing roller blind at *Bilik J41* (2)



The final important installation task is to put electrical sockets on the workspace's table partitions. Sockets enable the interchange of information between processes on the same system or across a network, the distribution of work to the most efficient machine, and the easy access to centralized data. There are three socket holes on the table partition where the sockets must be set. According to my observations, the three sockets installed by the electrical team are two power sockets and one internet socket. Both of these types of sockets are critical to put, specifically in the office.

**Table 3.3.3.11** The process of installing electrical sockets on the tables' partition in workstation



### 3.3.4 Cleaning Works

The final task before handing over the site to the client is cleaning. Sweeping trash or dust, wiping glass windows or other things, and disposing of unused items or equipment into rooro bins are all part of this cleaning and clearing activity. The table below depicts some of the cleaning processes at PLANMalaysia Johor's level 2.



**Table 3.3.4.1** The process of clearing the work site



**Table 3.3.4.2** The process of mopping the floor at *Bilik J48*



**Table 3.3.4.3** The process of removing of unused boxes



### 3.4 Problems and Solutions Regarding to the Renovation Works

Common issues are unavoidable in construction work. As someone who was assigned to monitor this construction site, I done several searches in order to solve such issues, particularly by asking opinions from workers who are more knowledgeable in this renovation work. Here are a few common renovation problems and solutions:

i. Wall cracks



**Figure 3.4.1** Damaged wall paint



**Figure 3.4.2** Crack lines on the wall

During my observation of this site, one of the reasons of cracks that I have noticed is when workers remove old skirting board from the walls which has caused the layer of wall paint and cement on the wall to be lifted together. There are also light crack lines that were previously existed which might have formed prior to the start of the renovation work.

After cleaning the cracks in the wall, the best way to repair them is to fill it with joint compound such as filler or cement mixture. With the scraper, smooth out the surface and let the filling to dry. After the surface has dried, sand it until it is perfectly smooth and even.



**Figure 3.4.3** Cracks in walls that have been filled with cement mixture

ii. Messy paint on ceiling



**Figure 3.4.4** Messy paint on ceiling with minor stain on its steel frame



**Figure 3.4.5** Device on ceiling that has been covered with masking tapes

Figure 3.4.4 depicts the appearance of the ceiling after painting without using masking tape on areas that do not require to apply. The paint looked discolored and smudged all over.

Putting masking tape on parts that do not need to be painted, such as door or window frames, steel ceiling frames, electrical switches, and wire casings, is an effective way to avoid such issues. Based on the figure 3.4.5, workers can easily paint with this masking tape on without having to worry about applying in places that do not want to be painted.



**Figure 3.4.6** The appearance of the ceiling after painting with masking tape on

iii. Paint stains



**Figure 3.4.7** Paint stains on wire casing



**Figure 3.4.8** Wiping the paint stains using thinner

Paint stains will appear if we do not paint properly. The size of the brush used in painting is also very important. If you're using a wide brush to paint on a tiny surface or vice versa, you will still get messy and uneven paint stains.

As a result, wiping the paint stain on wire casing with paint thinner is an effective technique to remedy the problem of paint stains at an area like figure 3.4.8. Paint thinners can assist in eroding the stained paint until it disappears. Besides, it can also be used to clean the tools and equipment such as paint brushes or paint tray once work is completed.



iv. Vinyl planks peaking and warping



**Figure 3.4.9** The peaked vinyl planks



**Figure 3.4.10** The warped vinyl plank

Vinyl flooring may be easy to install, but they are not without drawbacks. These failures could be attributed to the quality of the vinyl planks, the adhesives used, and the installation techniques used. While inspecting the vinyl floors, we discovered a number of issues. Among them are the peaked and warped vinyl surface, which causes a disturbing sound like there is a gap that is not entirely glued when stepped on.

The solution to this problem is by asking the subcontractors involved in the installation of this finishing floor to repair or replace the new ones and ensure the vinyl floor is laid properly and neatly. One of the ways I identified while they are repairing the vinyl is by scraping or skim the cement floor in order to level the floor surface. This allows the vinyl floor to be easily and flatly bonded.



**Figure 3.4.11** Skim work on uneven cement floors

v. Water leakage in wall and ceiling



**Figure 3.4.12** The dark and moldy stains on wall



**Figure 3.4.13** The black spots on wall

As we all known, buildings frequently encounter leakage problems. This can happen for a variety of causes, including faulty pipe connections or extreme temperature changes in the pipeline.

The figures above depict the black and moldy stains on the counter's walls. The solution to this problem is to notify management in order to investigate the source of the leak in a specific point, and then inform a plumber the issue to repair the damaged pipe problem.

## **CHAPTER 4.0**

### **CONCLUSION**

Building renovation is critical to ensuring that the building's external and internal conditions remain safe and sustainable. Every feature, such as ceiling, walls, and floor, is crucial in bringing comfort and satisfaction to the building's occupants. Ceiling is the element that provides the best unobstructed view of the room. Because of its huge surface area, the ceiling plays a vital role in the thermal comfort of the room. The wall is an element that must be highlighted, particularly for its finishing, because the perfect wall finish will make a space appear bright, spacious, and large. The floor, on the other hand, is essential for occupants to be able to move and walk freely and comfortably throughout the building, especially when the floor surface is appealing, neat, and clean to step on. These three features are the major contributions to the building's residents being able to occupy in peace and tranquility.

Overall, the two months I spent supervising this project taught me that renovating an office or building may provide several benefits to the employees or society. It will also solve a number of issues that were urgently needed to be fixed. In addition to making it more aesthetically pleasing, it will help increase longevity. When it comes to the reasons why upgrading the office is important, comfort and enjoyment should be at the top of the list. If the office does not provide the cozy atmosphere that employees have always desired, starting the renovation process is the right answer.

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