



اَبُو سَيِّدِي تَيْكُو لَوِي كِي مَارَا  
UNIVERSITI  
TEKNOLOGI  
MARA

**DEPARTMENT OF BUILDING  
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING  
UNIVERSITI TEKNOLOGI MARA  
(PERAK)**

**APRIL 2014**

It is recommended that this report prepared

**By**

**Mohamad Hafizzal Bin Zulkifli  
2011940039**

**Topic**

**Building Defects And Repairing Work For Finishing**

accepted as fulfilling some of the requirements for obtaining Diploma In Building

Report Supervisor

En. Mohd Fareh Bin Majid

Practical Training Coordinator

Sr. Anas Zafiro Bin Abdullah

Halim

Faculty Coordinator

Dr. Mohd Rofdzi Bin Abdullah

**DEPARTMENT OF BUILDING  
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING  
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(PERAK)**

**APRIL 2014**

**STUDENT'S DECLARATION**

This is to declare that this Practical Training Report was produced entirely by the author except as expressed through practical training that I have done through a period of 5 months from 4 November 2013 to 24 March 2014 in Aman Setia Resources Sdn. Bhd. It is also one of the requirements to pass the course DBN307 and received in partial fulfilment of the requirements for obtaining a Diploma in Building.

Name : Mohamad Hafizzal Bin Zulkifli

UiTM ID No : 2011940039

Date : 24 March 2014

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Thank you.

## **ABSTRACT**

This report briefly describes the impact of defects on building and repairing defects of the method continues to spread and damage building finishes. Besides that, the finish will not look good and it will cause problems after the delivery of the keys are made available to homeowners at once complicates the process of repair is made. This report is produced based on experience and observation for five months house at a construction site. The result of experience and observation find the process of repairing defects in the building is not as easy as it looks because of repair work must be done carefully so as not repeat the same defect. Besides that, it takes quite some time to do the repair defects and require monitoring site supervisor so that the repair is done correctly and neatly. As a solution of this report describes the defects in the building and refurbishment of the right steps.



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## LIST OF ABBREVIATIONS

UiTM	Universiti Teknologi MARA
CIDB	Construction Industry Development Board
MPSPK	Majlis Perbandaran Sungai Petani Kedah
SEMI-D	Semi Detached
REHDA	Real Estate and Housing developer's Association Malaysia
SSM	Suruhanjaya Syarikat Malaysia
SADA	Syarikat Air Darul Aman
TNB	Tenaga Nasional Berhad
LTD.	Limited

## CHAPTER 1

### 1.0 INTRODUCTION

#### 1.1 INTRODUCTION

Defects in buildings often occur on the construction industry players . Defects in the building could not be avoided but can be restored using the proper technique. Other than, that it should also use the right material and place . There are two types of defects and structural defects in the non-structural defects . structural defects usually occur during the construction work done as defects in the column , beam, ground beams and foundation and so on . Defects to the building structure is very critical because it involves the strength of the building to accommodate the weight of the building it would cause structural failure at once will cause the building to collapse and so on . Defects in non-structural defects are is like plaster, paint , flooring or more to finish the job that will not deface buildings and beautiful views at once will cause problems when handing over the keys made to the building owner for any defects will be borne by the developer , contractor , and so that after he handed over the keys will have a defect that would allow building owners to make a complaint to the house . Often the defect ( liability period ) in depending on the agreement with the owner of the building contractor or developer during the process of building sale made. Often the building defects is 12 months , 14 months, 18 months. and so it depends on the size of the building , the building and contracts that have been agreed by the buyer 's possible for a developer or contractor .

Among the effects of the disability that's often happens is cracking on the walls of buildings. Cracks in the walls of the building cans be Divided into two cracks in brick and cracking the plaster. Fractures often happens is that's cracks in plaster finish on the walls before the final paint finish made. Because this occurs the mortar mix made not according to the proper ratio.

Besides that, the raw materials used does not begin or wrong in the selection of raw materials are often fractured brick is common in the joints of the wall at the polishes Because of the connection the term is not done properly as not using excemt and no starter wire bar on a pole. It will reduce resistance or grip brick pillars.

From the observations, the effects of the defects occur that's are on the cement floor screed. It looks like a thousand cracks because Sonny use of raw materials. To finish necessary to use cement types lion Because it resistant and suitable to finish the floor and it will not cause a defect occurs on the floor. In Reading and Listening, the effect of weather is also a factor as it is raining or too hot. It will cause the floor will look cracked or broken floor. Told in this introduction is a bit about the defects. It will be dealt with more building defects and repairs Efficient way that's cause birth defects will not recur in the same place are described in more detail in this report.

## **1.2 OBJECTIVE REPORT.**

The objective of this practical report is to identify more precisely and must be taken seriously for the students make practical report to identify building defects and repair work for finishing. They are three objectives :

1. Identifying the effects of defects on building
2. Identify methods or steps to be taken.
3. To know the equipment and materials needed.



### 1.3 SCOPE OF REPORT

In its report and review of defects in a building I have chosen a Taman Akasia Indah Phase 1 on the plot 20 and house no. 21, . Construction of the park is the kind of single storey semi-D house in the city in lots 1415 and lots 11562 Bandar Sungai Petani area Kuala Muda. Many factors influencing the plot is due to the effect of the disability on the house is different. This building was fully completed only some minor work such as sanitary uncompleted work and pipeing work. The number of houses available in the park of 40 units. Selection of the park for a review as I placed on the site and I was given the responsibility to oversee and organize the work on site. Making it easier for me to study or report on building defects and steps to be taken. Other than that, I was given guidance by the supervisor of another site for doing repair work disability

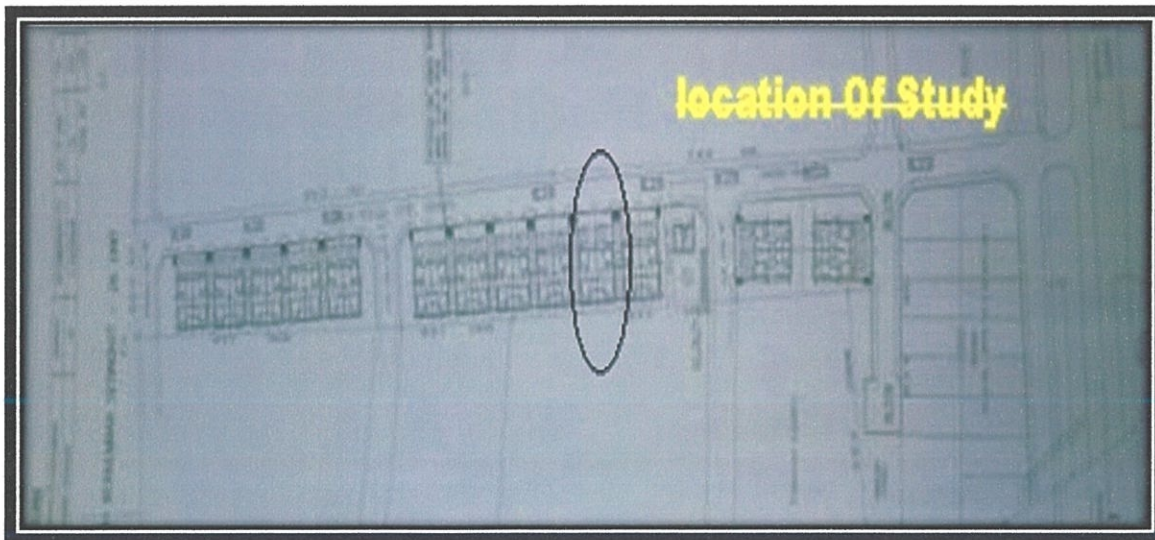


Photo 1.1 : Location Of Study



## 1.4 REPORT METHODOLOGY

There are several methods used to obtain information that is:

### Interviews

- For more information on the impact of the disability and the necessary remedial building two respondents had chosen the site supervisor En. Fahmi Bin Shuaib. Obtained information is the effect of the disability that is common in the building. Besides that, the information obtained is that there are several factors that cause this defect occurs among which are the raw materials used, human carelessness, climatic factors, as well as practical techniques work. In addition, the information obtained is material to be used in repairing defects and equipment to be used, as well as a number of techniques that can be applied in the process of repairing is done.
- For the second respondent is a skilled Indonesians. information obtained is to do the work of repairing the building of an employee requires high skills if not restored the effect of the disability does not last long and messy but will ruin the final work on the building. In addition, the equipment to be used are to be properly and the techniques used are correct.

### Observations

- From the observations made in the building there are several types of disability. Among other significant defects that can be seen is cracking plaster walls, leaking roofs, cracked flooring, wall finish is not perfect. besides, there is also a defect in the door frame. Lock set and so on. Trough observations made defect building occurs due to several factors which work techniques used, raw materials, climatic factors and human error itself. The raw materials used such as black cement, cement glue, milk glue, plaster, sand, coarse and fine and so on.

## CHAPTER 2

### 2.0 COMPANY BACKGROUND

#### 2.1 INTRODUCTION

Aman Setia Resources Sdn. Bhd. is primarily a property and housing development company specializing in the construction of residential and commercial building. Aman Setia Resources established on 26 May 2003. Aman Setia Resources Sdn. Bhd. had 3 director, Mr. Tan Chong Ming as managing director, Mr. The Executive Inn Ooi Kee as Director and Mr. Ong Boon Lee as project director. Aman Setia Resources Sdn. Bhd. Conduct operations at no 2 and 3 ,1<sup>st</sup> floor, Jalan Permatang Gedung, Taman Sejati Indah.08000 Sungai Petani ,Kedah Darul Aman . Most loyal man building a house of Single Storey Semi-Detached, single story terrace, double story shop house. Aman Setia Resources Sdn. Bhd. Aman Setia Resources Sdn. Bhd. aims to become a caring and responsible enterprise, actively contributing toward nation-building and unity, while conforming with environment laws. The company ambition is to attain cost-effectiveness to keep pace with other successful businesses as collectively we march inexorable toward a Developed Country Status and Vision 2020. Aman Setia Resources Sdn. Bhd. has many strategically located prime lands in its land bank. Aman Setia Resources Sdn. is member of the Real Estate and Housing developer's Association Malaysia ( REHDA ). Aman Setia Resources Sdn. Bhd. Is Committed to provide customer s with high quality products at a competitive price with prompt delivery and value-added services.

### **2.1.1 Company Structure**

Aman Setia is committed to develop its staff through effective human resource strategies. Teamwork's spirit is constantly upgrade by using every encounter as an opportunity to evaluate, coach and guild self-confidence. In order to align our staff to our group's business strategy, the management encourages every staf not only to see the vision but to live and breathe it.

### **2.1.2 Company Policy**

Aman Setia strive to build high quality homes amidst lush greenery . Our team is driven to create living standards beyond our customer's expectation

## 2.2 COMPANY PROFILE

### 2.2.1 Administration System



Name Of Company : M/S Aman Setia Resources Sdn. Bhd.

Principal Activities : Property Based Housing Developer

Director : Mr. Tan Chong Meng ( Managing Director )

Mr. Ooi Inn Kee ( Executive Director )

Mr. Ong Boon Lee ( Project Director )

Business Address : No. 2 & 3, 1<sup>st</sup> Floor Jalan Permatang Gedung,  
Taman Sejati Indah, 08000 Sungai Petani Kedah.

Registration : Registration No : 866149-M  
Date Of Incorporation : 28<sup>th</sup> July 2009  
Authorised Capital : RM 500,000.00  
Paid Up Capital : RM 500,000.00

Auditors : Poor ooi & Co.  
140, 1<sup>st</sup> Floor, Jalan Cinta Sayang,  
Taman Ria Jaya,08000 Sungai Petani Kedah

Solicitors : Suraya Zuraidah £ Co.  
No. 29, Tingkat 1 ,Taman Pandan  
Jln. Sultanah Sambungan.05350 Alor Setar, Kedah Darul Aman

Banker : Hong Leong Bank Berhad  
No. 26 & 27, jalan Permatang Gedung,  
Taman Sejati Indah, 08000 Sungai Petani Kedah



### **2.2.2 The Board of Directors**

#### Executive Director

- Name : Mr. Ooi Inn Kee
- Qualification : B. Eng (Hons) Civil Engineering MIEM P. ENG.
- Education : Graduated in 1990 from University College London, University of London with a Bachelor Of Engineering ( Honours ) in civil Engineering.
- Experience : Has 12 years working with 3 engineering consultancy firms and a property development company before setting joining Aman Setia Properties Sdn.Bhd.

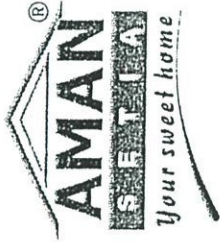
#### Managing Director

- Name : Mr. Tan Chong Ming
- Qualification : B.A. (Hons ) Mass Communication ( Major in Advertising )
- Education : Graduated in 1997 from National University of Malaysia with a Bachelor Degree (Honours) in Mass Communication.Majoring in Advertising .
- Experience : Has many years of working experience with a public listed property development company and a public listed manufacturing company before setting up Aman Setia Properties Sdn. Bhd.

#### Project Director

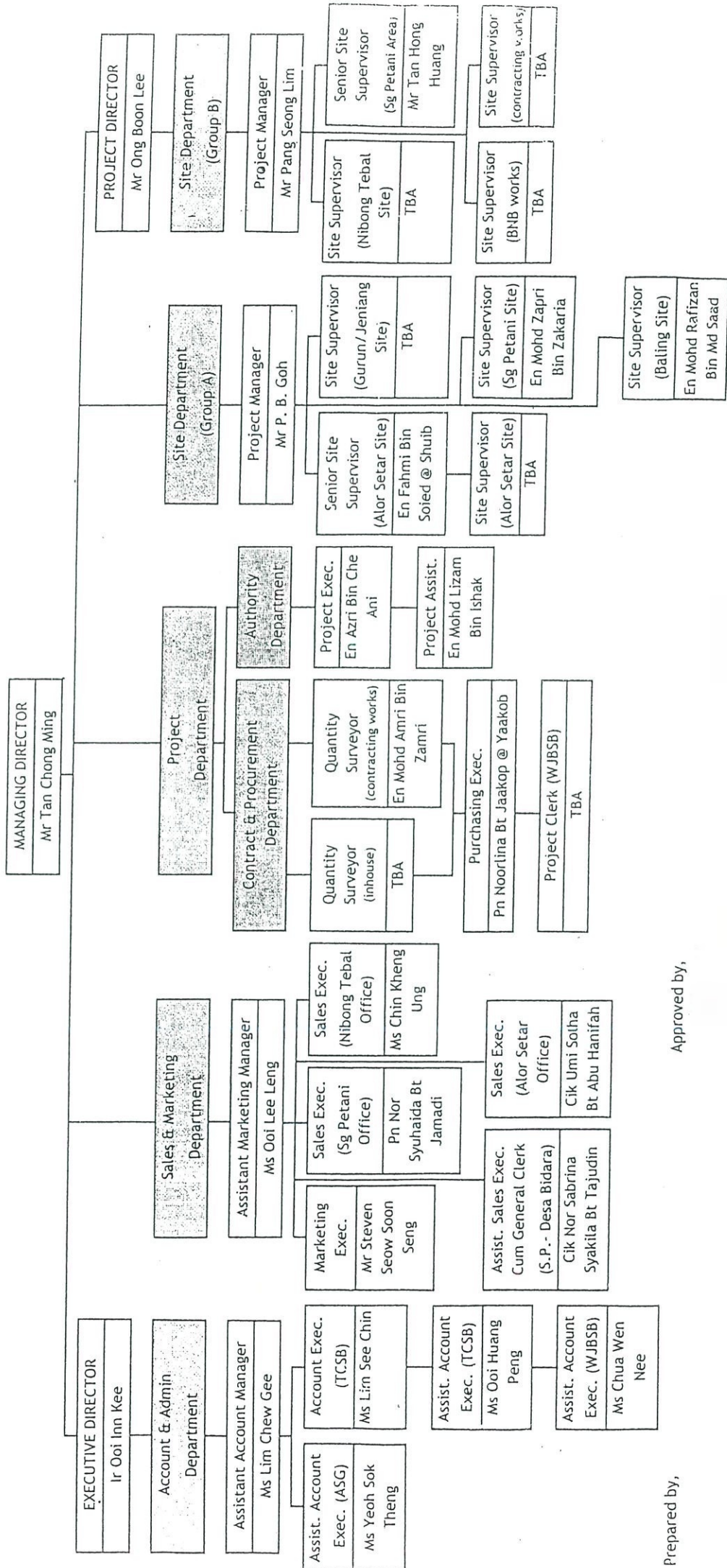
- Name : Mr. Ong Boon Lee
- Qualification : B. Eng ( Hons ) Civil Engineering
- Education : Graduated in 1991 from University Of Westminster , London with a Bachelor Of Enggering ( Honours ) in Civil Engineering
- Experience : Has 8 years experience with 2 engineering consultancy firms and a property company .





**AMAN SETIA GROUP**

ORGANIZATION CHART as at 11.02.2014



Prepared by,

Ooi Lee Leng

Approved by,

Ooi Inn Kee

Tan Chong Ming

### 2.3.2 Site Department

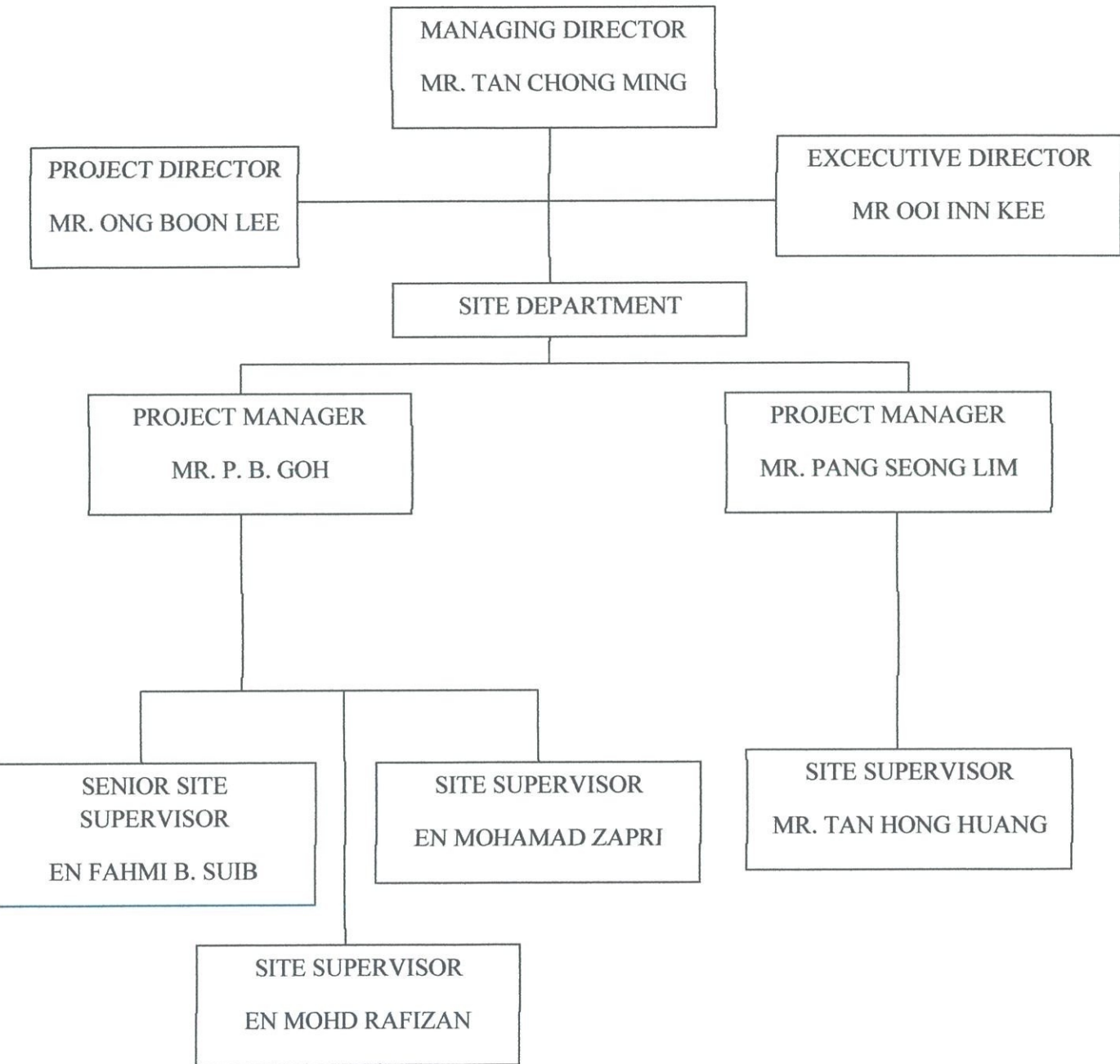


Figure 2.2: Site Department Organization Chart

Source: Aman Setia Group

### 2.3.3 Site Organization

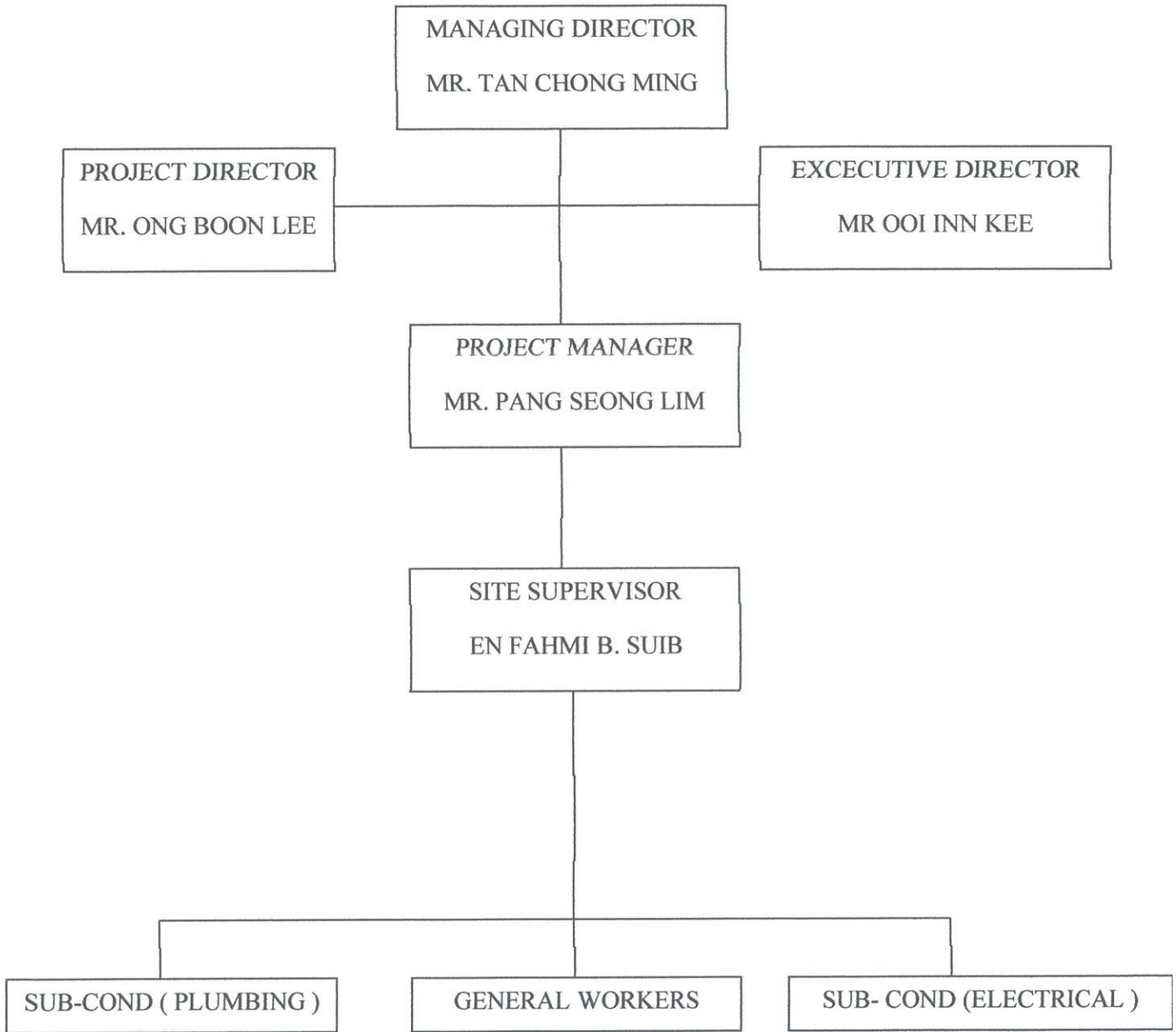


Figure : 2.3 : Site Organization

Source : Aman Setia Group

## 2.4 LIST OF PROJECT

### 2.4.1 COMPLETED PROJECT



Photo 2.1 : Taman Jeniang Jaya ( Phase I )

Mukim Gurun, Daerah Kuala Muda,Kedah

Source : Aman Setia Group Sdn. Bhd.



Photo 2.2 : Taman Jeniang Jaya ( Phase II )

Mukim Gurun, Daerah Kuala Muda,Kedah

Source : Aman Setia Group Sdn. Bhd.





Photo 2.3 : Taman Jeniang Jaya ( Phase III )

Mukim Gurun, Daerah Kuala Muda,Kedah

Source : Aman Setia Group Sdn. Bhd.



Photo 2.4 : Taman Jeniang Jaya ( Phase IV)

Mukim Gurun, Daerah Kuala Muda,Kedah

Source : Aman Setia Group Sdn. Bhd.



Photo 2.5: Taman Berangan Villa

Mukim Sungai Petani, Kedah

Source : Aman Setia Group Sdn. Bhd.



Photo 2.6: Taman seri wawasan

Mukim Sungai Petani, Kedah

Source : Aman Setia Group Sdn. Bhd.





Photo 2.7: Taman Simpang Empat Perdana ( Phase 1 )

Mukim Sungai Petani, Kedah

Source : Aman Setia Group Sdn. Bhd



Photo 2.8: Pendang Square

Mukim Gurun, Daerah Kuala Muda, Kedah

Source : Aman Setia Group Sdn. Bhd.

Table 2.1 Completed project

No	Project	Gross Of Development Value	Duration
1.	Taman Jeniang Jaya ( Phase I ) Proposed 28 units single storey Semi-detected and 1 unit Double Storey Bungalow on Lot 4528 , Mukim Gurun, Daerah Kuala Muda.	3.6 Million	September 2004 – August 2006
2.	Taman Jeniang Jaya ( Phase II ) Propose 12 units Single storey semi-detected, 16 unit single Story Terrace on lot 4527 Mukim Gurun Daerah Kuala Muda.	3.3 Million	November 2005 – November 2007
3.	Taman Jeniang Jaya ( Phase III) Propose 14 unit single storey semi-detected , 2 unit double Storey semi-D, and 1 unit bungalow on lot 4593 Mukim Gurun	2.3 Million	December 2007 – December 2009
4.	Taman Jeniang Jaya IV, Jeniang Propose 20 unit single storey Semi-D and 10 unit single storey Terrace On lot 4526, Mukim Gurun	5 Million	2009 – 2011
5.	Berangan Villa Propose 6 units 1 ½ storey semi-D and 2 units 1 ½ storey Bungalow on lot 2730, Mukim Sungai Petani .	1.8 Million	July 2005 – June 2007
6.	Taman Seri Wawasan. Propose 30 units single story semi- D ,8 units single storey Terrace, 8 unit double story shop and 3 units Bungalow	8.2 Million	2007 – 2010

Table : 2.2 Completed Project

No.	Project	Gross Of Development Value	Duration
7.	Taman Simpang Empat Perdana ( Phase 1 )	28 Million	February 2008 - October 2010
8.	<i>Pendang Square Propose</i> 30 units Double Storey shop house on lot 5945 Mukim Ayer Putih, Daerah Pendang	12 Million	2009 - 2011

## 2.5.2 CURRENT PROJECT



Photo 2.9: Taman Ilmu Indah , Nibong Tebal ( phase 1 )

Daerah Bukit Panchor Daerah Seberang Perai Selatan ,  
Pulau Pinang

Source : Aman Setia Group Sdn. Bhd.



Photo 2.10: Taman Akasia Indah ( Phase 1 )

Mukim Sungai Petani, Kedah

Source : Aman Setia Group Sdn. Bhd



Photo 2.11: Taman Akasia Indah ( Phase 11 )

Mukim Sungai Petani, Kedah

Source : Aman Setia Group Sdn. Bhd



Photo 2.12: Taman Lengkuas

Daerah Kota Setar, Kedah

Source : Internet





Photo 2.13: Taman Setia Harmoni

Mukim Gurun, Kedah

Source : Aman Setia Group Sdn. Bhd



Photo 2.14: Aman Square

Bandar Sungai Petani, Daerah Kuala Muda Kedah

Source : Aman Setia Group Sdn. Bhd



Table 2.3 : Current Project

No	Project	Gross Of Development Value	Duration
1.	Taman Ilmu Indah , Nibong Tebal (phase 1 ) Propose 12 units double Story shop office , 102 unit double Story Terrace on Lot 550 , mukim 7 , jalan Bukit Panchor ,Daerah Bukit Panchor Daerah Seberang Perai Selatan , Pulau Pinang	31 Million	2011 – 2014
2.	Taman Akasia Indah ( Phase 1 ) Propose 26 units single story semi- D on lot 1415 Bandar Sungai Petani	5 Million	2012 – 2014
3.	Taman Akasia Indah ( Phase 11 ) Propose 14 unit single storey semi-D on lot 11562 Bandar Sungai Petani	3.5 Million	2013 – 2014
4.	Taman Lengkuas ,Propose 2 units Double story Bungalow, 6 units Double story Semi-D house, 15 units Double story terrace on lot 6226 Daerah Kota Setar.	6 Million	2012 – 2014
5.	Taman Setia Harmoni ,Propose 23 units Double storey shop office on lot 3927Mukim Gurun	9 Million	2012 – 2014
6.	Aman Square,Propose 41 units 3 storey shop office on lot 316 & 317 Bandar Sungai Petani, Daerah Kuala Muda.	27 Million	2013 - 2015

### 2.5.3 Future Project

Table 2.4 : Future Project

No.	Project	Gross Of Development Value	Duration
1.	Taman Kenari Propose 28 units single storey semi-D on lot 1067,Bandar Kupang,Daerah Baling kedah	5.6 Million	2014-2016
2.	Taman Kekwa Proposed 7 units storey bungalow,52 units single storey semi-D,35 units single storey terrace on lot 2250 & 2251,Bandar Sungai Petani,Daerah kuala Muda,Kedah	21 Million	2014 – 2016
3.	Proposed 3 units single storey shop house,4 unit single semi-D,2 units single storey banglow and 15 unit single storey terrace on lot 2305,mukim Pengkalan Hulu,Daerah Hulu Perak	2.2 Million	2014 – 2016
4.	Proposed 20 units single storey semi-d and on lot 44, Mukim Pengkalan Hulu ,Daerah Hulu Perak	2.2 Million	2015-2017
5.	Proposed 76 units commercial center development on lot 13591,Bandar Sungai Petani,Kedah	38 Million	2015-2017
6.	Valencia Proposed 74 units gated strata landed housing development & Condominiums on lot 152 & 153,Mukim 11,daerah Barat Daya Pulau Pinang.	70 Million	2014 – 2017

## CHAPTER 3

### 3.0 BUILDING DEFECTS AND REPAIR WORK FOR FINISHING

#### 3.1 INTRODUCTION



Photo 3.1 : Location Of Study

Soure : Mohamad Hafizzal Bin Zulkifli

Location of the study lies in the lot 1415 Bandar Sungai Petani Daerah Kuala Muda. Taman Akasia Indah I . The park contains 26 units single storey semi- D . I have chosen a home to conduct a study of house no. 21 and plot number is 20, this home is a kind of semi - D . This house has an area of 9.75mx 29.39m of 4584.84 square feet . The house has 4 bedrooms and 2 toilets . The house has a high room master room badroom. That is more than 16 feet . The design of this house deliberately designed so that it is high in order to reduce the heat or the heat available in the house. This house uses a fixed glass in the windows in the room and the room to the master badroom 2 . By using this glass fixed bolt design looks more modern and light into the building would be perfect. In the courtyard there it aims to establish the concept of the garden in the house.

In addition to this courtyard will launch airflow in and out of the building. This house uses a sliding window . Finishing used for floor living room, toilet, kitchen and was using finishing of tiles . Finishing the wall just using paint . The material used for the roof tiles roof also.



### 3.2 PROJECT BACKGROUND



Photo 3.2

Source : Mohamad Hafizzal Bin Zulkifli

Taman Akasia Indah is the second project undertaken after construction Garden chrysanthemums that have been completed perior Taman Kekwa is located next to Taman Akasia Indah Phase 1 and 2 contains 8 semi- D. Taman Akasia Indah is located in Sungai Petani , Kuala Muda District on land lots 1415 and 11 562 . Taman Akasia Indah is divided into two phases: phase 1 and phase 2. Construction commenced with phase 1 , is 2012 and is expected complete in the last 2 years, that at the beginning of 2014.

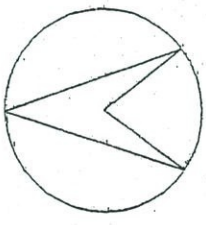
For the construction of phase 1 there are 26 units of single story home semi- detached. The house is only sold to the Bumiputra community because the land in the area is Malay reserve land . Construction costs for the Taman Akasia Indah 1 is about 5 Million . Consultant responsible for the construction of this house is SCFC architect , consulting engineers pte dawn . Limited . And M & E consultant consultant HPL .

Contractors involved in the construction of the True Contruction Sdn . Phase Two will construction of 14 housing units are single story semi- Detached . The construction cost for this house is 3.5 Million . It was started in 2013 and is expected to be completed in 2015 . The construction of this house near the city cente ,hospitals,and schools.In addition, to this area of the house is set in a green area and village inviroment.



96120 - 96147

PELAN MENUNJUKKAN PT  
BAGI PECAH SEMPADAN  
DI ATAS LOT 1415, GM636  
BANDAR SUNGAI PETANI  
DAERAH KUALA MUDA  
KEDAH DARUL AMAN



SKALA - 1 : 1250  
SYIT PIAWAI : 140-A  
FAIL PEJABAT TANAH : PTKM(A) 49/2004

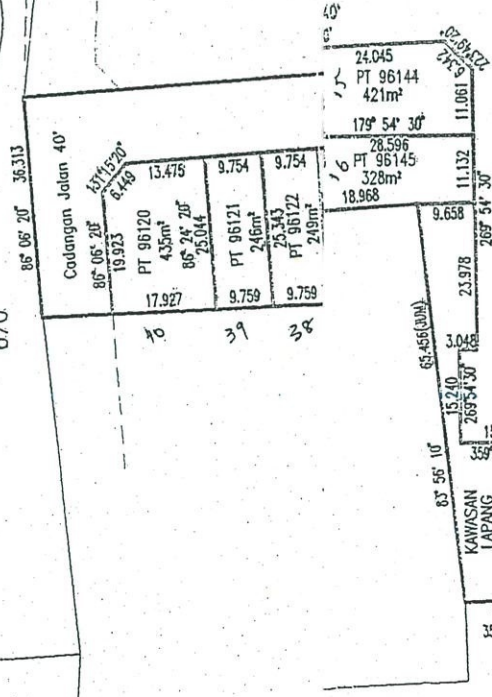
ukuran sebarang disempurnakan.  
Semua ukuran dalam unit METER.

SAUJANA UKUR  
JURUKUR TANAH BERLESEN  
6B, Tkt 2, Kompleks Seri Temin, Jalan Ibrahim  
08000 Sungai Petani, Kedah Darul Aman  
Tel :  
Fax : 04-4244 429

YEO SUAN IMM  
JURUKUR TANAH YANG DILESEN DI BAWAH AKTA 458 (DISEMAK 1991)  
B.SURY.(MELB.),MIS(M)

PELAN NO. : 553/SU/KED/2011/QT

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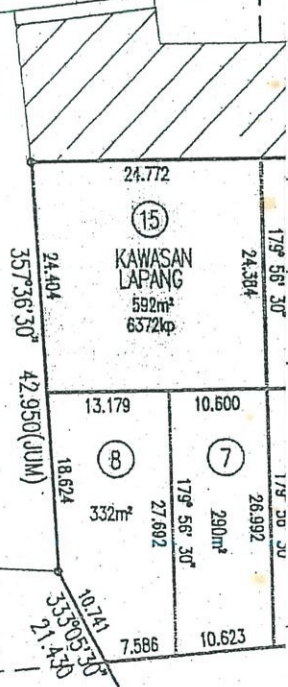
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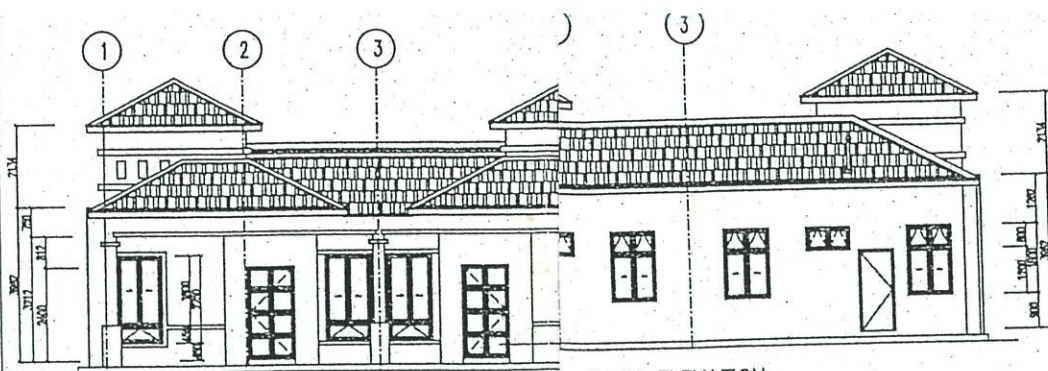
DATA :

KELUASAN KAWASAN LAPANG YANG DIPERLUKAN = 4574 kp  
 KELUASAN KAWASAN LAPANG YANG DISEDIAKAN = 6451 kp

diada  
1)

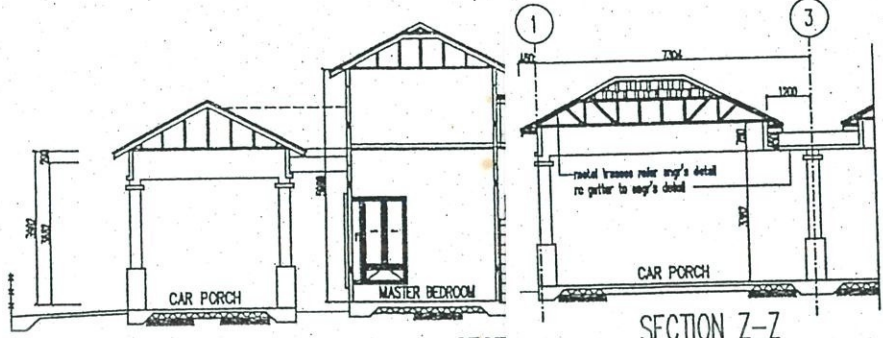
87





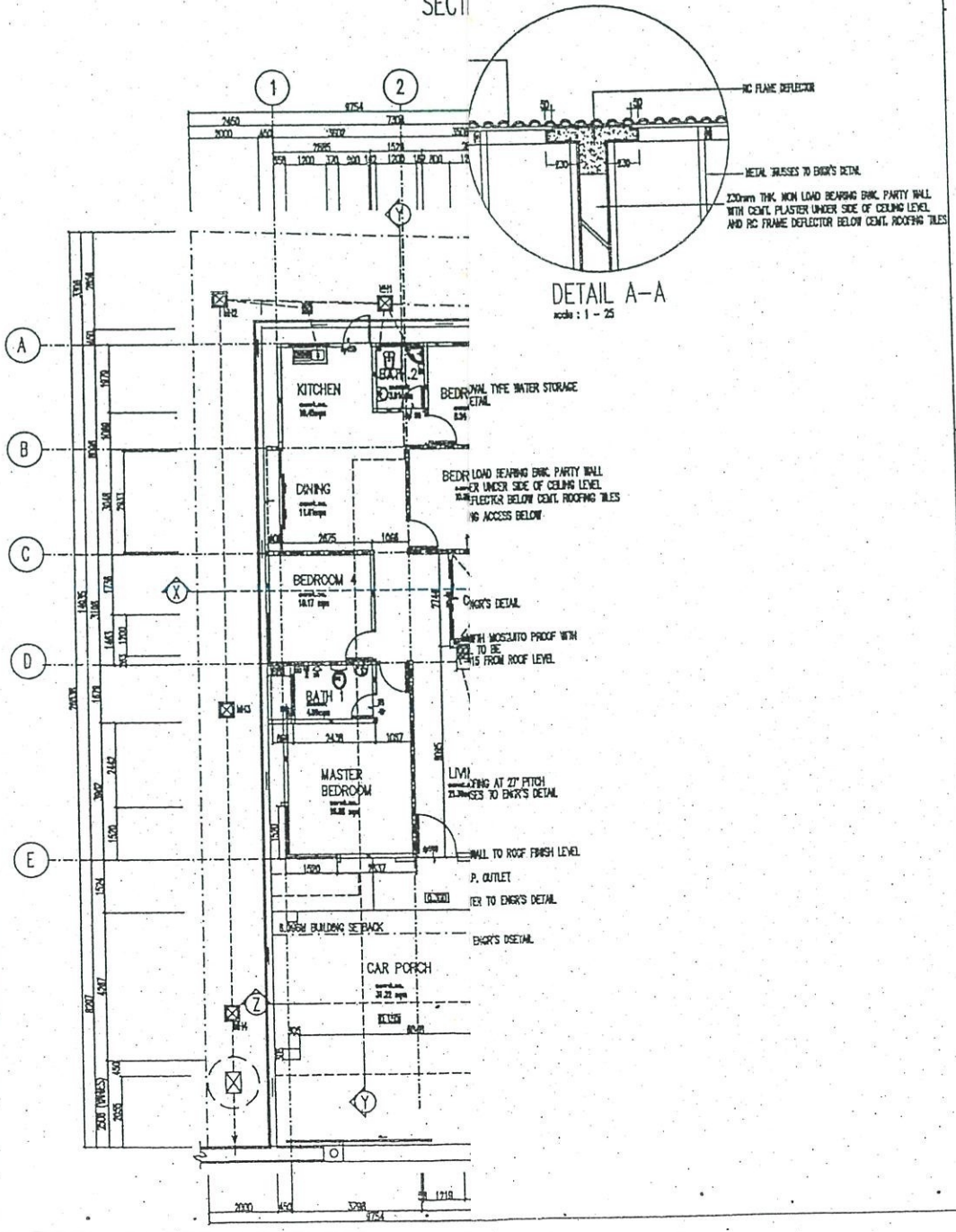
FRONT ELEVATION

REAR ELEVATION



SECT

SECTION Z-Z



DETAIL A-A  
scale : 1 - 25

### 3.3 CASE STUDY

#### 3.3.1 STEP OF WORK

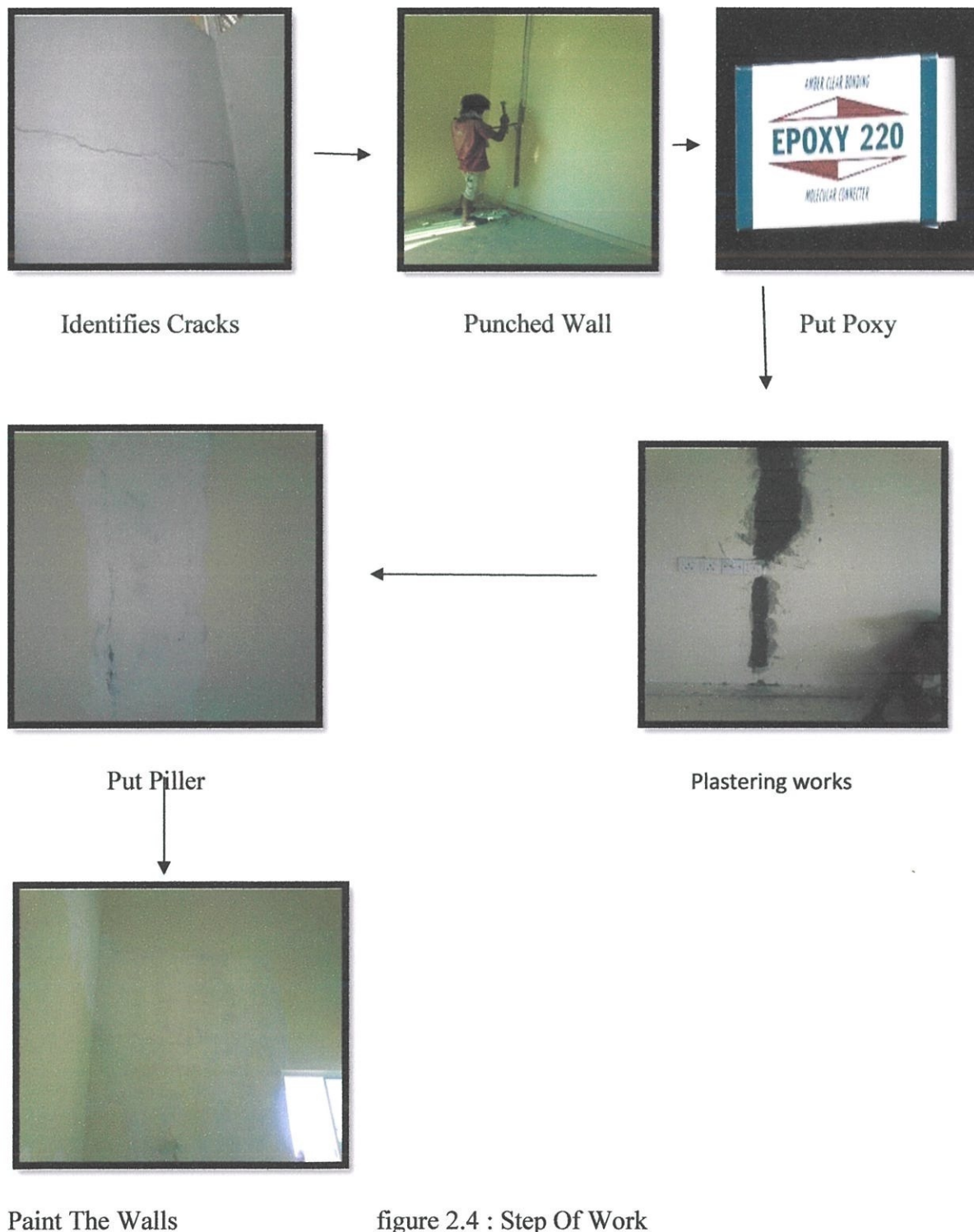


figure 2.4 : Step Of Work

Source : Mohamad Hafizzal Bin Zulkifli

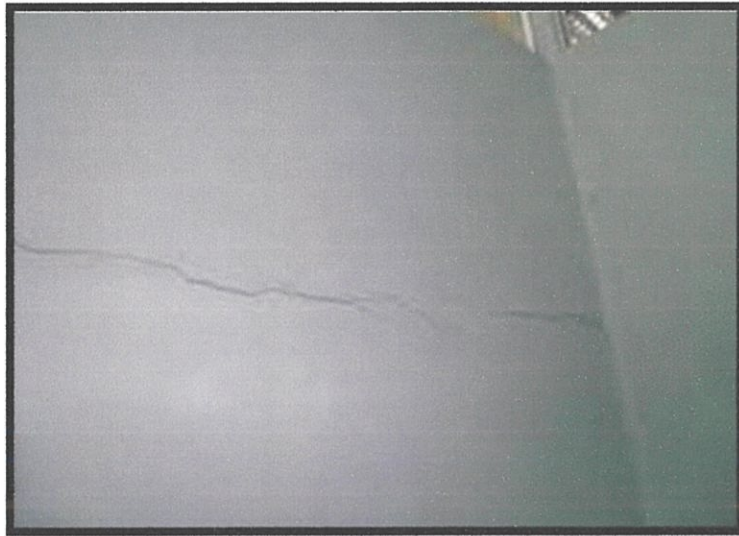


Photo 3.3 : Identifies Cracks

Source : Mohamad Hafizzal Bin Zulkifli

Cracking is the breakdown or cracks that occur in the walls. There are two types of cracks in the walls of plaster cracking or cracking plaster and brick. Before any action is cracking should be identified cracking level. Cracking occurs due to several factors such as the weather, the materials used, as well as plaster technique used. All of this will affect the situation aserta wall resistance. Cracks often occur in every construction it is often caused by carelessness during the work done.





Photo 3.4 : Punched Wall

Source : Mohamad Hafizzal Bin Zulkifli

Plaster walls removed about 3 inches in the vicinity of cracks. Punched a wall intended to connect back fractures. If the cracks are not bored and just going back diplaster only fractures occur. But if the occurrence of cracking is called 'Hair Creak' it can be pasted directly because the cracks will grow more and more ignore and wall finishes such as paint damage.

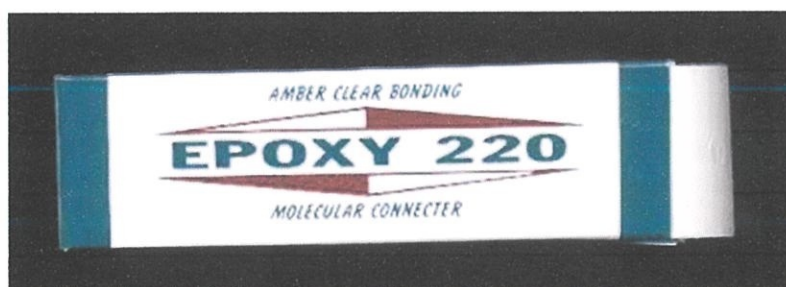


Photo 3.5 : Put Poxy

Source : Internet

Hypoksi is followers or material will strengthen the structure of damaged plaster before the plaster work done. Plaster work will be done after the work put hipoksi done. Hipoksi will tie back cracks or leaks in the roof slab example.

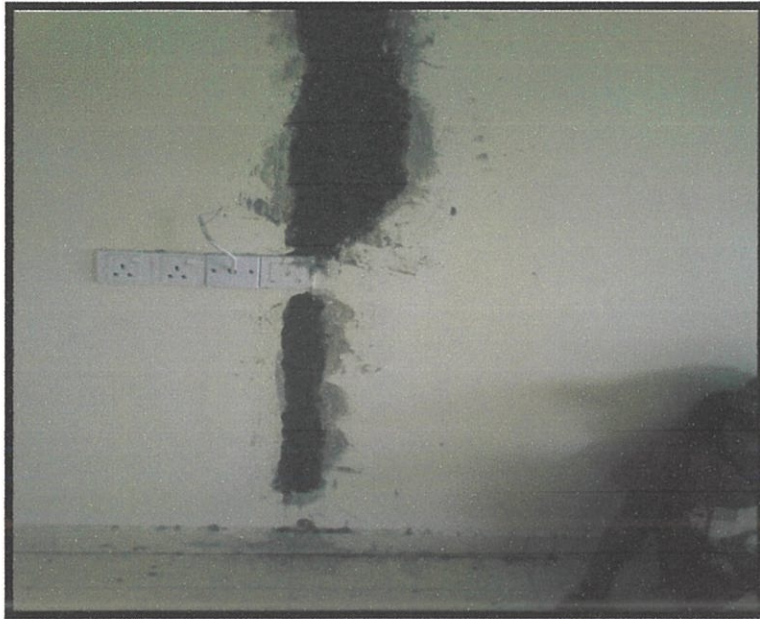


Photo 3.6 : Plastering works

Source : Mohamad Hafizzal Bin Zulkifli

Walls will be plastered back. Among the materials used in the work - from work poland cement plaster, cement, gum, and fine sand. Poland cement and cement gum because to reinforce the wall structure. In cement gum there is a stronger binder than poland cement. It needs to be added to strengthen the walls of the diplaster to avoid back crack back.



Photo 3.7 : Put Piller

Source : Mohamad Hafizzal Bin Zulkifli

After completion of plaster work done and a bit dry Piller will be placed on the wall diplaster. Piller is a white limestone used in the cover llubang in the wall. These Piller often used during wiring work done. Piller is also intended to prevent the wall that has not suffered a fracture plaster back.



Photo 3.8 : Paint The Walls

Source : Mohamad Hafizzal Bin Zulkifli

After all ready done painting work will be performed again to remove the effects of restoration on the wall done. Paint done for melindugi wall of the fungus, dirt and walls will be more beautiful and neat.

### 3.3.2 THE EQUIPMENT



Photo 3.9 : wood float

Source : Internet



Photo 4.1 : Trowol

Source : Mohamad Hafizzal Bin Zulkifli





Photo 4.1 : Float Trowel

Source : Internet

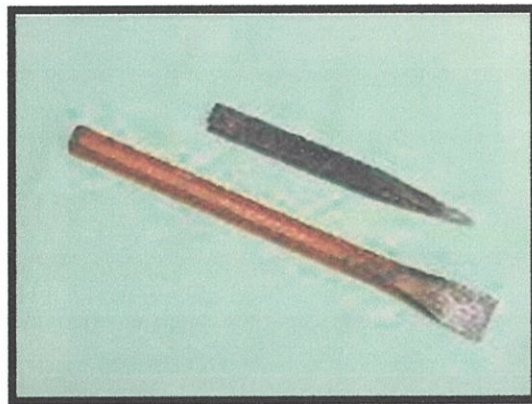


Photo 4.2 : Chisel

Source : Mohamad Hafizzal Bin zulkifli



## **CHAPTER 4**

### **CONCLUSION AND RECOMMENDATION**

#### **4.1 Conclusion**

In conclusion, in every construction defect home especially cracking home. Effects of defects such as cracks, leaks will occur in every building, but it depends on whether a lot or a little defect that occurs. But the effect of the defect is also influenced by the methods or skills used or owned by an employee's own. In addition, the material used also plays a large factor in determining the quality or impact of defects in construction.

#### **4.2 Recommendation**

For recommendations work methods must be correct and the method of construction or manufacturing also be used in the right way. In addition, monitoring should be made during the final work done in order to avoid defects in the home is becoming more and teruk. Selain, the material used must be true and accurate in order to avoid relapse and disability become more severe.

## REFERENCES

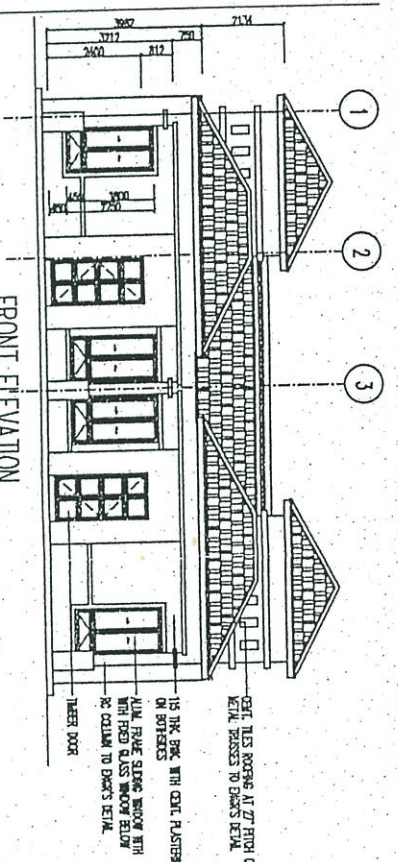
### ➤ Book

- Occupational outlook handbook, Diane publishing,1996
- Popular mechanics complete how to,Albert Jackson and David day,2004
- David Mariy,( 2011 ),impression defect for building,report daily 99

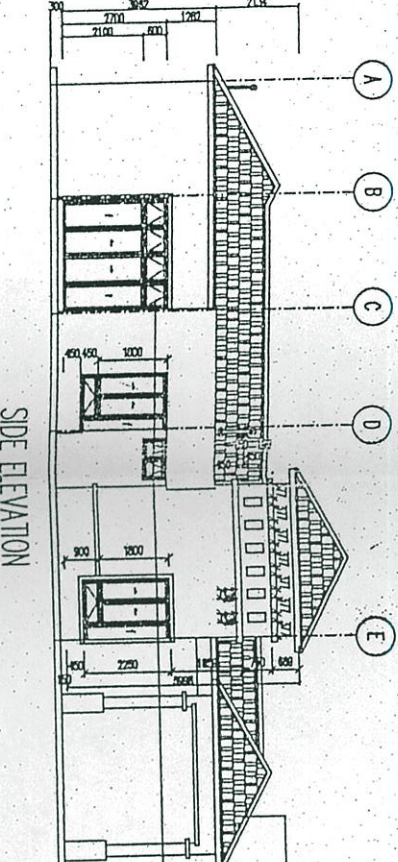
### ➤ Interview

- Fahmi Bin Shuib ( 1987)sitesupervisor,building technology, Q-tech Mara,Ipoh Perak
- Mr. P. B. Goh ( 1977),B.Eng (Hons)civil Engineering,UTM skudai, Johor

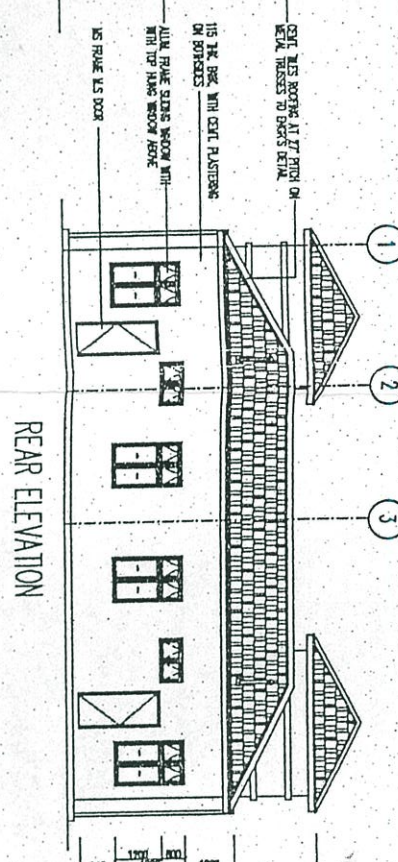




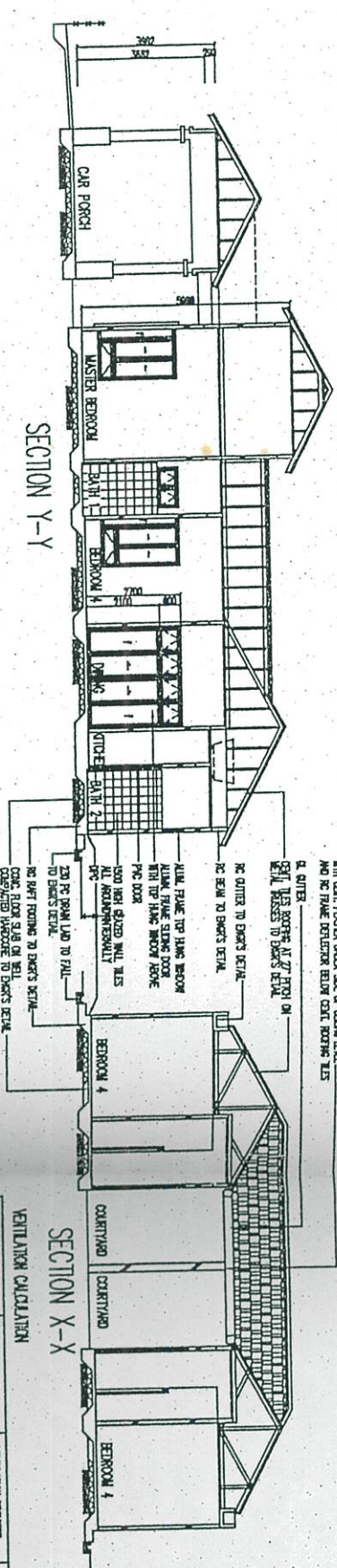
FRONT ELEVATION



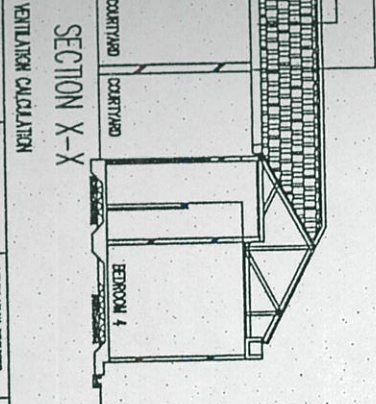
SIDE ELEVATION



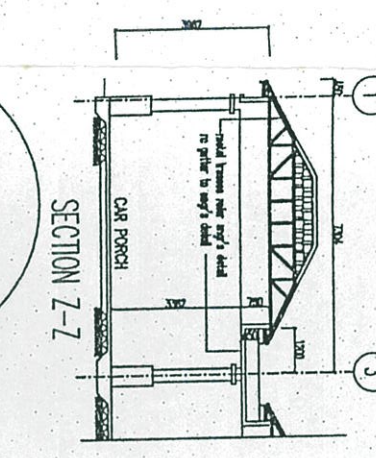
REAR ELEVATION



SECTION Y-Y



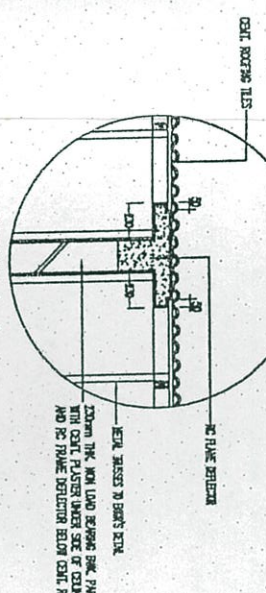
SECTION X-X



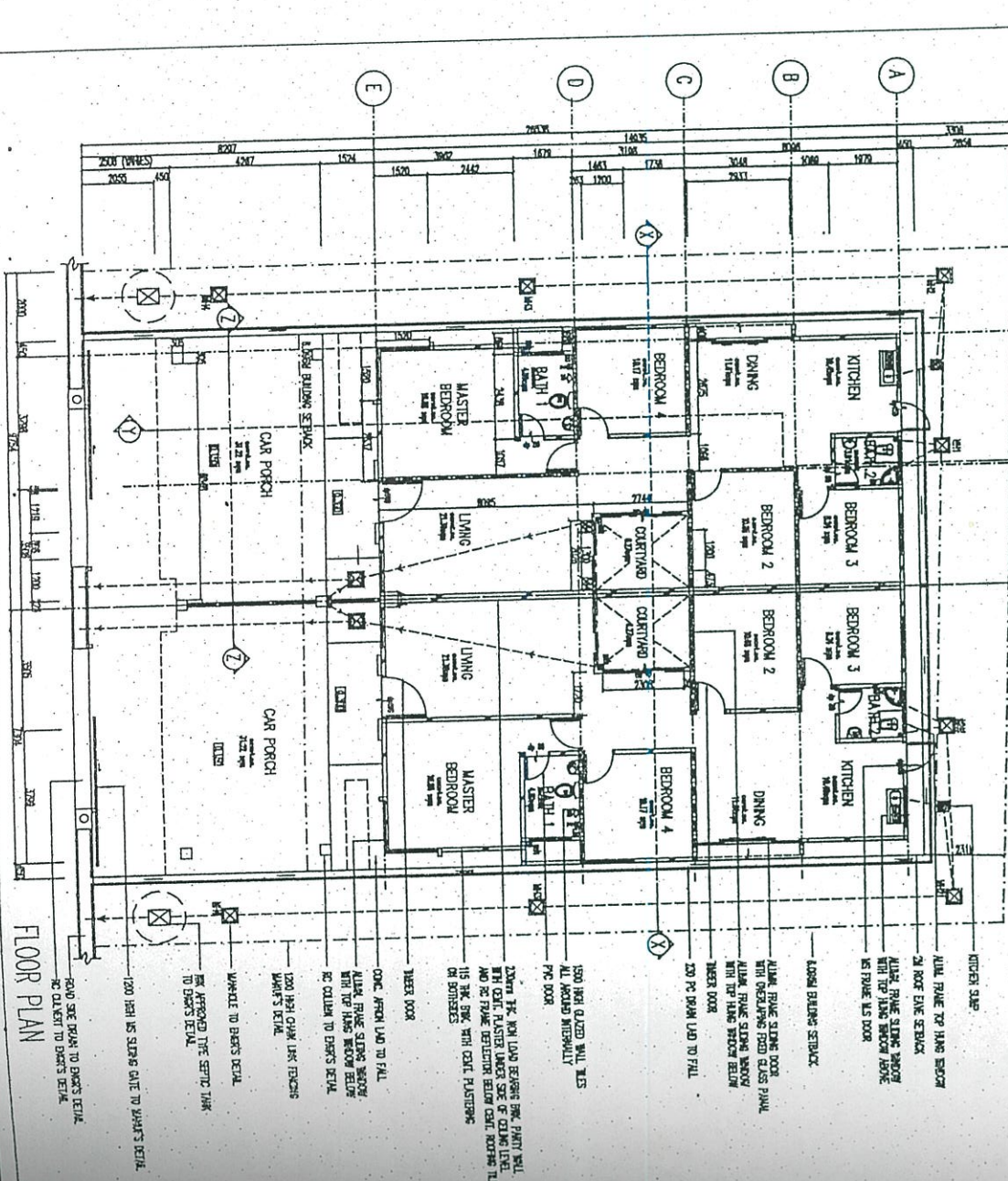
SECTION Z-Z

VENTILATION CALCULATIONS

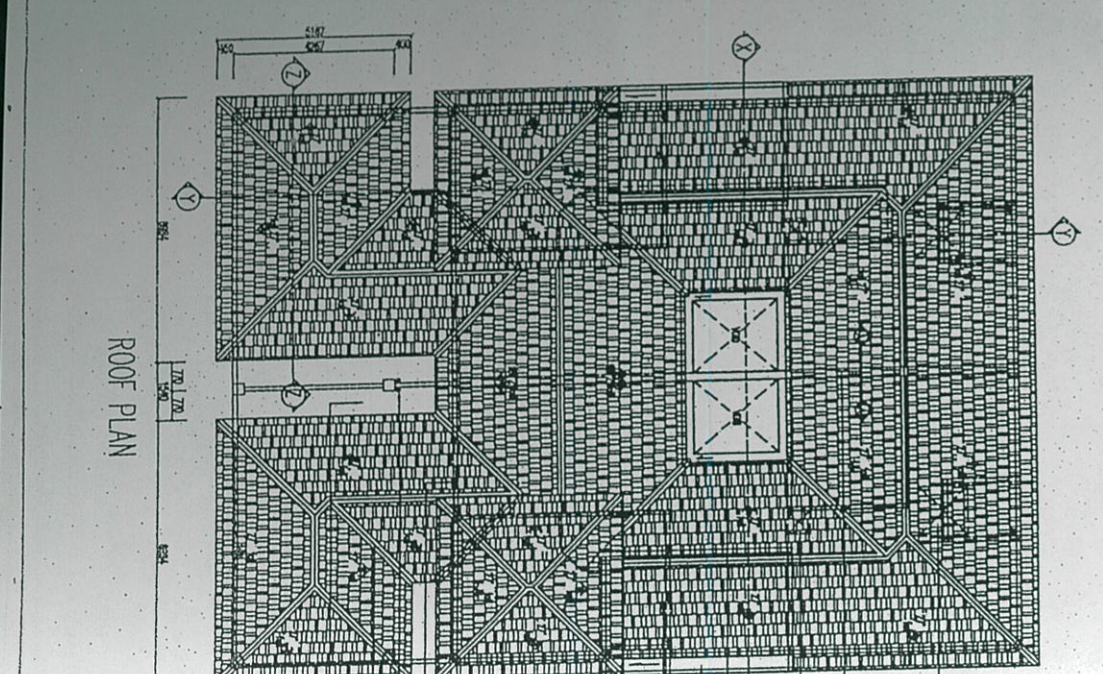
LOCATION	FLOOR AREA	VENTILATION REQUIRED	VENTILATION PROVIDED	REMARK
LIVING	71.35 sqm	214 sqm + 1.07 sqm	10 X + 5 X	
KITCHEN	11.81 sqm	112 sqm + 0.58 sqm	10 X + 5 X	
DINING	10.45 sqm	129 sqm + 0.52 sqm	10 X + 5 X	
MASTER BEDROOM	18.28 sqm	159 sqm + 0.94 sqm	5.55 sqm + 1.57 sqm	
BEDROOM 2	10.25 sqm	127 sqm + 0.53 sqm	2.18 sqm + 0.54 sqm	
BEDROOM 3	8.24 sqm	102 sqm + 0.41 sqm	1.44 sqm + 0.72 sqm	
BEDROOM 4	10.17 sqm	122 sqm + 0.51 sqm	2.18 sqm + 0.54 sqm	
BATH 1	4.09 sqm	42 sqm (min)	0.72 sqm	
BATH 2	3.01 sqm	32 sqm (min)	0.72 sqm	



DETAIL A-A



FLOOR PLAN



ROOF PLAN







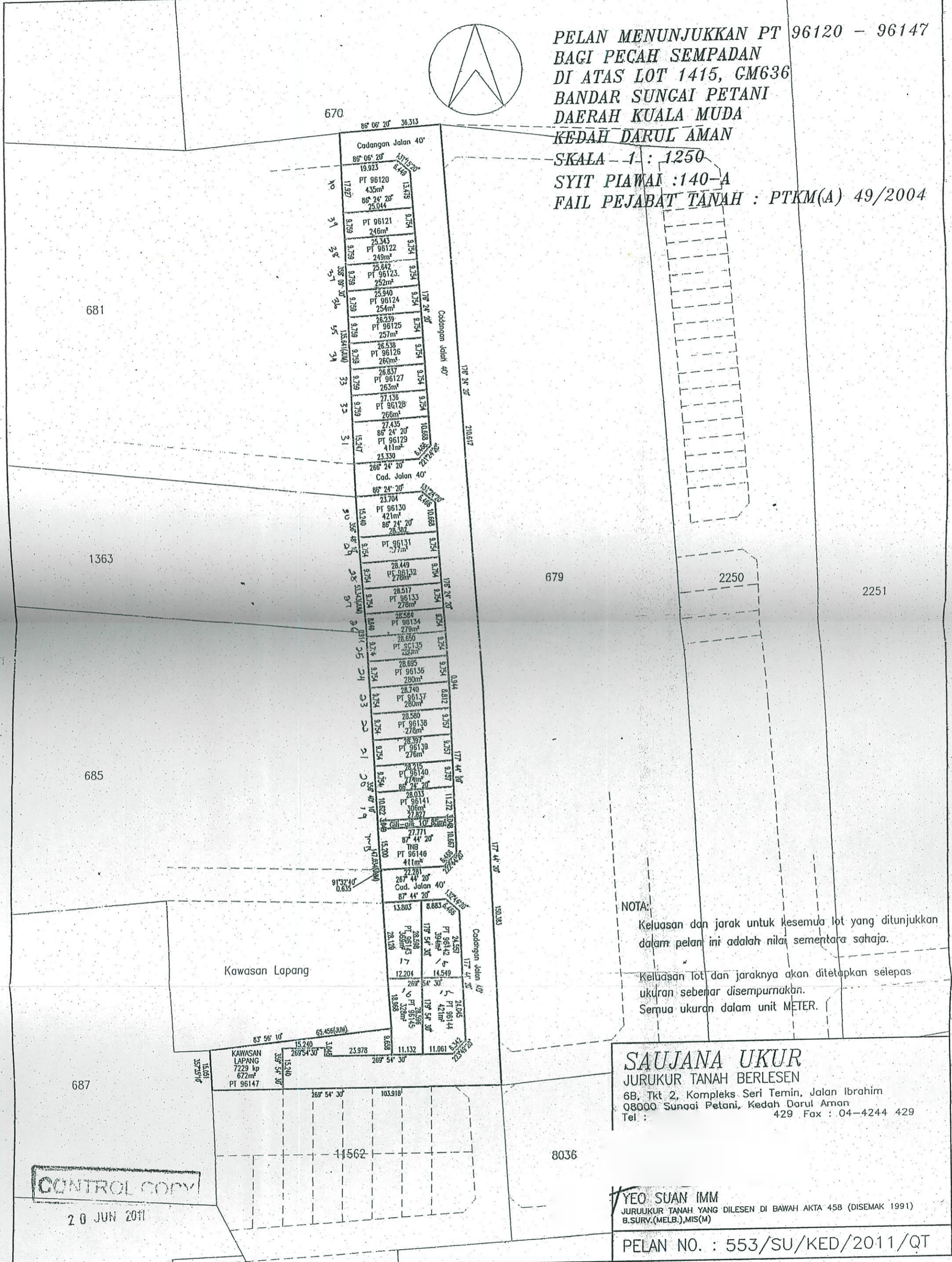


PELAN MENUNJUKKAN PT 96120 - 96147  
 BAGI PECAH SEMPADAN  
 DI ATAS LOT 1415, GM636  
 BANDAR SUNGAI PETANI  
 DAERAH KUALA MUDA  
 KEDAH DARUL AMAN

SKALA - 1 : 1250

SYIT PIAWAI : 140-A

FAIL PEJABAT TANAH : PTKM(A) 49/2004



NOTA:  
 Keluasan dan jarak untuk kesemua lot yang ditunjukkan dalam pelan ini adalah nilai sementara sahaja.  
 Keluasan lot dan jaraknya akan ditetapkan selepas ukuran sebenar disempurnakan.  
 Semua ukuran dalam unit METER.

**SAUJANA UKUR**  
 JURUKUR TANAH BERLESEN  
 6B, Tkt 2, Kompleks Seri Temin, Jalan Ibrahim  
 08000 Sungai Petani, Kedah Darul Aman  
 Tel : 429 Fax : 04-4244 429

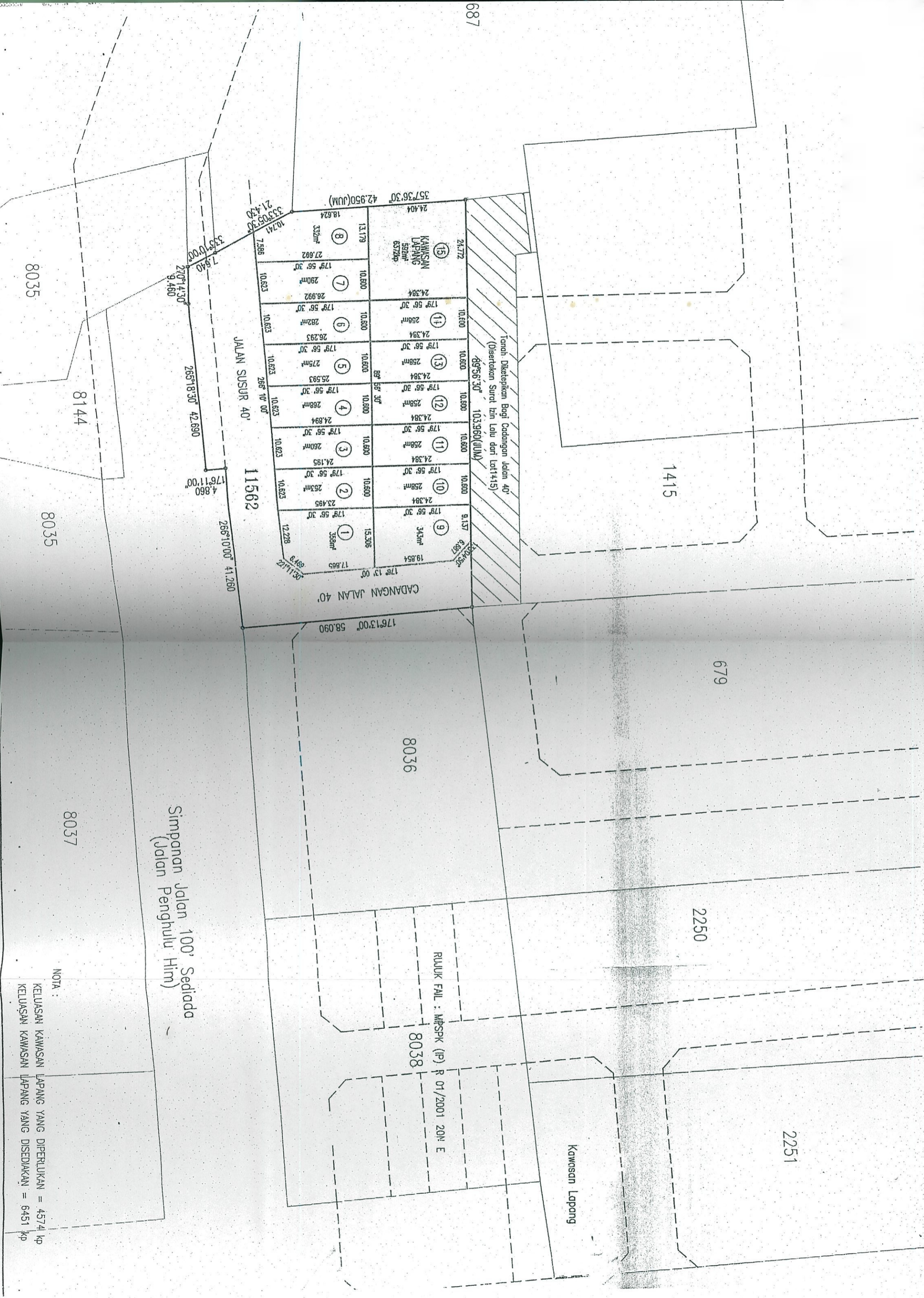
**YEO SUAN IMM**  
 JURUKUR TANAH YANG DILESEN DI BAWAH AKTA 458 (DISEMAK 1991)  
 B.SURV.(MELB.),MIS(M)

PELAN NO. : 553/SU/KED/2011/QT

CONTROL COPY

20 JUN 2011





687

1415

679

8036

2250

2251

8035

8144

8035

8037

Simpunan Jalan 100' Sediada  
(Jalan Penghulu Him)

JALAN SUSUR 40'

11562

CADANGAN JALAN 40'

RUUK FAIL : MPSPK (IP) R 01/2001 20N E  
8038

Kawasan Lapang

NOTA :  
KELUASAN KAWASAN LAPANG YANG DIPERLUKAN = 4574 kp  
KELUASAN KAWASAN LAPANG YANG DISEDIAKAN = 6451 kp

Plot No.	Area (m <sup>2</sup> )	Bearing	Distance
1	358m <sup>2</sup>	179° 56' 30"	12.228
2	253m <sup>2</sup>	179° 56' 30"	23.495
3	260m <sup>2</sup>	179° 56' 30"	24.195
4	268m <sup>2</sup>	179° 56' 30"	24.894
5	275m <sup>2</sup>	179° 56' 30"	25.593
6	282m <sup>2</sup>	179° 56' 30"	26.293
7	290m <sup>2</sup>	179° 56' 30"	26.992
8	332m <sup>2</sup>	179° 56' 30"	27.692
9	343m <sup>2</sup>	179° 56' 30"	34.384
10	258m <sup>2</sup>	179° 56' 30"	24.384
11	258m <sup>2</sup>	179° 56' 30"	24.384
12	258m <sup>2</sup>	179° 56' 30"	24.384
13	258m <sup>2</sup>	179° 56' 30"	24.384
14	258m <sup>2</sup>	179° 56' 30"	24.384
15	5924m <sup>2</sup>	179° 56' 30"	24.304

Tanah Dikecualikan Bagi Cadangan Jalan 40'  
(Disertakan Surat Izin Lalu dari Lot1415)  
89°56'30" 103.960(JUM)

24.404  
357°36'30" 42.950(JUM)

333°09'30" 21.428  
333°00'00" 7.566  
270°14'30" 9.460  
265°18'30" 42.690  
176°11'00" 4.860