



UNIVERSITI TEKNOLOGI MARA

FACULTY OF CIVIL ENGINEERING

INDUSTRIAL TRAINING REPORT

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ABSTRACT

Assalamualaikum w.b.t. My name is Sara Alya Luqman Bt Zalimie Sham, student from the Faculty of Civil Engineering Universiti Teknologi MARA (UiTM) Cawangan Johor Kampus Pasir Gudang. The main reason engineering students need to do Industrial Training (IT) is so they are well prepared for a graduate job in their chosen field. It is a chance for us to put what we have learned at university to work in the kind of real-life situations we will come up against when we start our career.

First of all, this report is about my industrial training that I have been going through for two month, which is 8 weeks from 8 July 2019 until 30 August 2019 at **Perunding ZMS**. I choose this place as my location for industrial training is because it near to my home town. The reason I choose to do my internship locally because I believe that I will gain a lot of experiences which I have yet to explore whether it is related my course or anything that related to real life as an engineer. This internship is a great experiences for me to learn and improve as well as to develop new sets of skills.

Nevertheless, my experience having an industrial training at the **Perunding ZMS** can really teach me about working condition and the working attitude in the organization itself. This report consists of four main chapters. In this report, I will tell about my company background, which is for me is a very basic thing to have in a report. This report also consists of organization chart, vision and mission of the company. All about the company is in the chapter one while in the chapter two consists of weekly summary based on my logbook. In the chapter three, it is about a technical report. In that chapter, I tell about what I learned. Last but not least, in the chapter four is about the conclusion of my report, which is about what do I get from undergo through the industrial training. That is all about my report that I can share about. I hope with this information can really taught me something about working for the private sector.

ACKNOWLEDGEMENT

Alhamdulillah, all praises to Allah for the strengths and His blessing in completing this report exactly within given time. First and foremost, special appreciation goes to my supervisor, Ir. Mohd Fauzi Bin Sani as Technical D who had taken a lot of efforts to arrange our industrial training between us and our employer. Not forgotten, my appreciation to Mr. Saaidin Bin Abu Bakar as a Managing Director, for giving me such a good opportunity to get more knowledge regarding this report.

Secondly, I would like to express my sincerity to Admin & Account Department especially Mrs. Zairina and Mrs. Sabariah for their cooperation, knowledge and endless patience. Their cooperation indeed helped me, hence my work became easier and faster.

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And at the same time, a deepest thankful given to Technical Executive & Drafter, purposely to Mrs. Aieda Mohd Yunus, Mr. Kamarul Shariman and Mr Zamzarifa Zainal, who had taken a lot of effort to give a guideline during working process in using autocad system. My acknowledgement also goes to all the officer and office staffs of **Perunding ZMS** management for their technical knowledge. Last but not least, I would like to express my heartfelt gratitude to my family, friends and also lecturer for their support, constructive suggestion and also helpful criticism.

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CHAPTER 1.0 : INTRODUCTION

1.1 INTRODUCTION

Industrial Training module is a main component in the learning academic for Universiti Teknologi MARA (UiTM) Cawangan Johor Kampus Pasir Gudang. Industrial training is one of the compulsory courses for every UiTM under the Faculty Civil Engineering semester 5. Every student bounds to be involved in industrial training for 8 weeks during the semester break in order for him or her to get his or her diploma certificate.

The industrial training was carried out the main purpose of the industrial training is to produce graduates who are ready and capable to face their profession academically or non-academically with a high professionalism appearance.

Other than that, the industrial training exposes the students about the real situation of the working class citizen. The industrial training also helps in developing social skills in the students such as communication skills, presentation skills, management skills and etc. Furthermore, to expose the students to the real life working experience and expanding the knowledge in their specific field. They will also learn what they need to do in order to finish their works. This will prepare the students so that they will easily fit in and fulfill the demands of their profession after they finish their course.

Nowadays, construction in Malaysia has grown rapidly. As far as we can see, highways and buildings are the most obvious development has been done. Nevertheless, many of us had played their role perfectly, because to construct a building it is impossible for one man's job. As example, developers, contractors and consultants are all included in any projects, and behind the organization there must be civil engineers. The company that is going to be introduced is a consultant firm that has been operating since last two years.

1.2. BACKGROUND OF THE COMPANY

1.2.1 Background Of Perunding ZMS Sdn Bhd.

Perunding ZMS Sdn Bhd (ZMS) commenced its business as geotechnical design consultants in December, 2000. Initially, our focus was on providing services as Independent Geotechnical Checker and Slope Failure Rehabilitation Design.

In the intervening years, we have expanded to become a full-fledge consultancy outfit for undertaking design and engineering work for roads, bridges, buildings and drainage systems. We have sufficient number of professionals capable of doing a multitude of project assignments.

ZMS is duly registered with Ministry of Finance and under Engineers Registration Act. Our company is 100% owned by Bumiputera and operated by Bumiputera professionals having the necessary experience and knowledge to undertake a diverse range of design and engineering consultancy assignments.

Our clients vary from the Government federal and local authorities and local contractors. With the combined experience of our technical team, we are well positioned to take on from minor civil engineering structures to diverse infrastructure and utility projects. The categories of major projects undertaken include:

- Slope engineering and design
- Infrastructure and utilities for building projects
- Highways and bridges
- Flood mitigation and river rehabilitation

[7]



Figure 1.2.1.1 Perunding ZMS Sdn Bhd logo

Logo Perunding ZMS reflect on the areas in the civil and structural consulting engineering. Our scope of services includes highway, bridge, building, and drainage design work. We could provide turnkey and 'design and build' services through collaboration with our various associates. The company also has the capability to deliver various related services including Project Management, Geotechnical Investigations, and Mechanical & Electrical services.

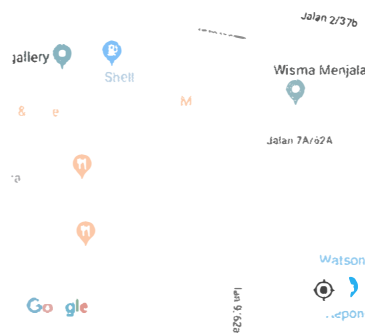


Figure 1.2.1.2 Map

Figure 1.3 : No 9-2, Jalan 11/62A, Bandar Menjalara 52200 Kepong, Kuala Lumpur.

[8]

1.3 ORGANIZATION STRUCTURE

ORGANIZATION CHART

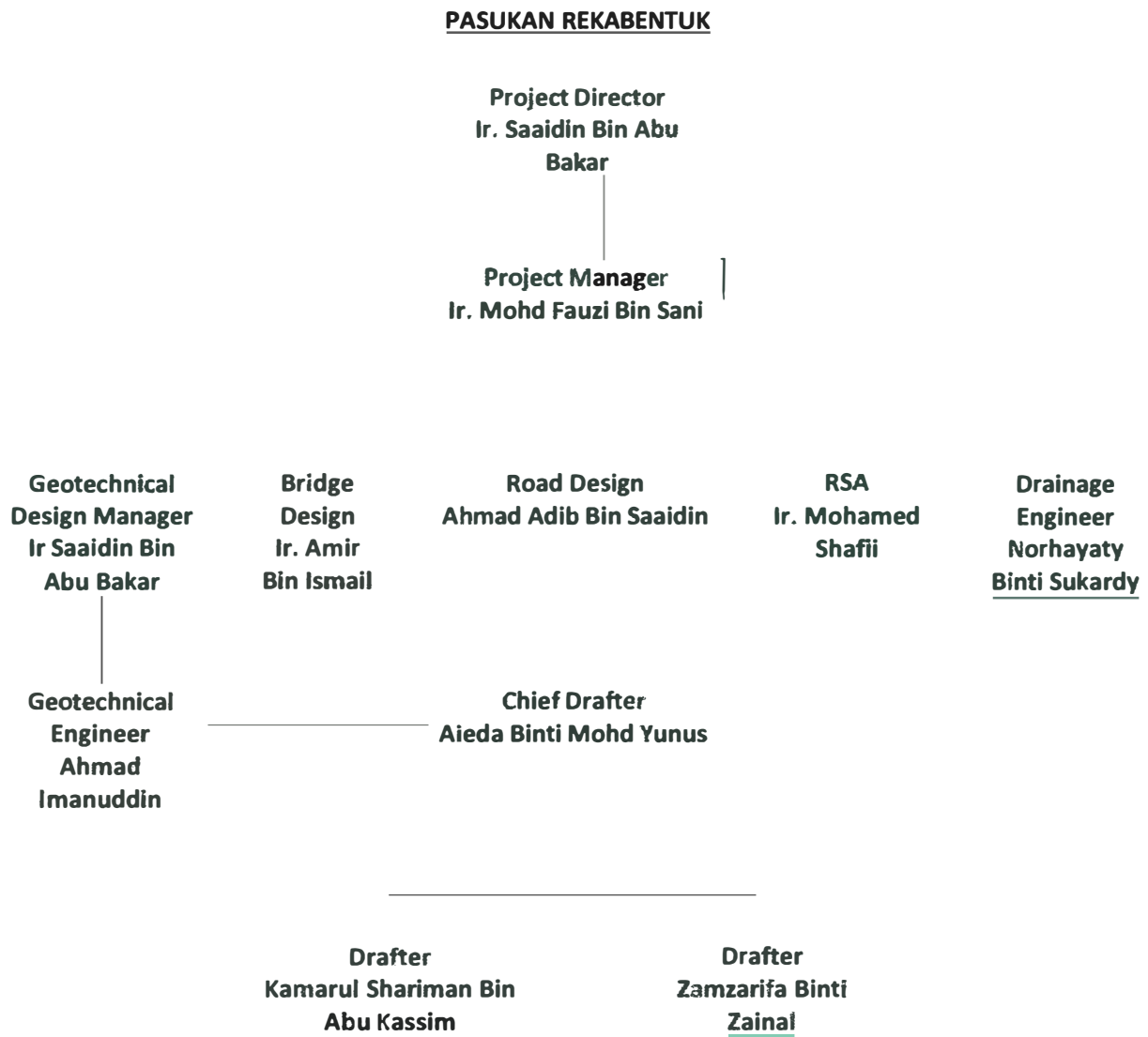


Figure 1.3.1 Design Office Organization chart

PASUKAN PENYELIAAN
TAPAK

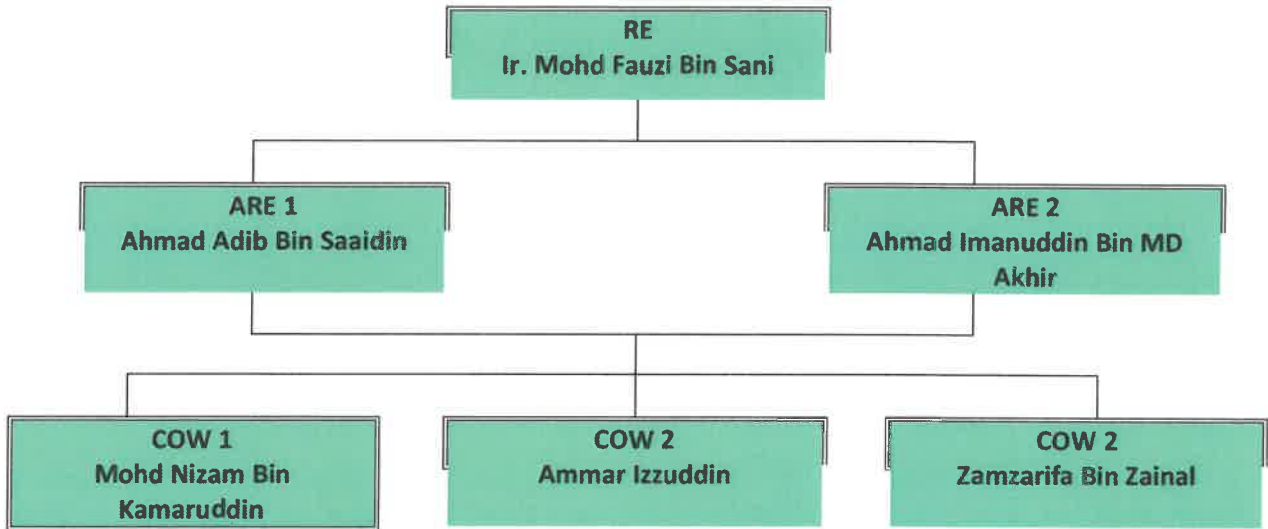


Figure 1.3.2 Site Investigation Organization chart

1.4 NATURE OF THE BUSINESS

Consultant in Civil Engineering id to provide expert advice on design, planning, and management which cover all type of construction. In construction, engineer as consultant helped client make sound preparation for project and to ensure that contractors complete the project on cost. It helped provide cost estimation, draw budget, select contractor, administer construction. They also helped to resolve differences between contractor and project owner. Therefore, there are a few things to prepare before start surveying which is preparation documentation that need to look. Documentation that need to be prepare is tender which it will help in understanding maintenance of any type of structure according to the needs of client.

Revealing the function and roles of the consultant to the public, it also aims to obtain information and feedback to the consultant company with more easy and faster line with client. Hence, this type of information by collecting data and picture in the website may disclose to general function and objectives of the consultant so that the public can find out the consultant company's roles in distributing to national development.

1.5 PRODUCT

1.5.1 PROJECT MANAGEMENT

1.5.1.1 Project Management and Supervision

The desired quality is achieved through **ZMS's** disciplined approach to project management systems involving the preparation of a detailed Project Management Plan for every project undertaken. These includes:-

- Methods statements for all main activities
- Strategy and structure for managing the project
- Planning and control framework
- Quality control programmed
- Resources utilization
- Procurement and material control
- Health, safety and environmental programmed

1.5.2 Geotechnical Services

ZMS provides a comprehensive range of geotechnical services related to civil engineering and building construction. These include:

- General field investigations
- Standard penetration test
- Plate bearing test
- Soil characteristics and strength test

1.5.2 Design and Build Project

In '**Design and Build**' projects undertaken by the company, we had planned for designed, bid and executed several public and institutional projects. The approach calls for total responsibility in implementing the project management, engineering, construction and other related activities to successfully deliver the project to the satisfaction of clients. In augmenting our services in the engineering and construction business, **ZMS** has formed strategic alliances with architects and other technical consultants, as well as various companies in order to allow for maximum flexibility in the delivery of services. With its team of qualified and experienced technical personnel **ZMS** is able to undertake a range of design and engineering services. These cover all aspects of project development, from feasibility study through project execution, and maintenance work. Examples of services provided are:

- Infrastructure and utility project proposals
- Highway and bridge designs
- Solutions for rehabilitation of civil engineering structures
- Miscellaneous engineering and technical support activities in performing the various types of proposals and contracts

1.5.4 Facilities

ZMS's headquarters is located at Bandar Menjalara, Kepong, Kuala Lumpur. The office is equipped with security control, computer facilities, modern digital phones and facsimile system.

1.5.5 Quality Assurance

It is our policy to continually enhance the use of information and communication technology in line with our strategy to thrive on knowledge. Computer-aided engineering and project management are therefore an integral part of **ZMS's** operations.

1.5.6 Software

Software available includes project management, civil engineering design and analysis, planning and control, 3D-modelling, general-purpose office software, and graphics packages. Examples of softwares used are:

- Microstrand for structural analysis
- MX Road
- Moss for highway design
- CivilCad for highway design
- Slope/W for slope stability analysis
- Orion
- TEDDS
- Infra Package C
- Urban Stormwater Design
- Drain Network Analysis And Design
- WaterRec
- Earthworks Computation
- AutoCAD 2011

1.6 MARKET STRENGTH

Project in the previous job act as reference for client to check company information and quality. Therefore, these methods used to attract client through company previous job. These in based on client whether they satisfied with company services. As they satisfied, we will provide a proposal to client which are technical and financial proposal. These proposals contain all method that company used for the project and whether client accept or not. Therefore, I would be grateful if you can provide feedback and comment to us in order to improve the quality of our services.

1.7 CONCLUSION

Many things can be exposed to students when they joined developers, consultants or contractors. A lot we can learn from the company that we joined for industrial training, we have been exposed to various type of company that done civil engineering scope, it will lead us to choose the suitable job that we interested to. Thus, it is a must for students to join and understand the scope of their job.

CHAPTER 2.0 : TRAINING ATTENDED

2.1 INTRODUCTION

In this period, Industrial Training had showed me many things throughout the industrial training activities. Although it only took 8 weeks from 15 July 2019 until 6 Sept 2019, and it is considered a short period, but overall I have been exposed to so many compliances whether in academics or even on soft skills.

2.2 EXPOSURE LEVEL

Week 1 (15th-19th July)

- Introduced to all staff
- Calculate invoice claim by using excel
- Calculate mileage transportation using excel for project ' Felda Waha, Sedili'
- Check arrangement report 'Siasatan Integriti Struktur'
- Checked drawing borehole using Autocad
- Folded A2 size drawing to A4 size
- Draw plan house using Autocad
- Type content for ' Senarai Semakan Dokumen Mandatori Cadangan Kos' by using words.
- Write ' Format Pengiraan Keseluruhan Anggaran Kos Perunding '
- Site at Desa Park City

Week 2 (22th-26th July)

- Write document 'Penyerahan Projek Jalan & Dokumen JKR' using excel
- Photostate document
- Learn detailed about excel and guided by Encik Fauzi
- Check CV staff for tender 'Felda Waha, Sedili'
- Type tender for project '2nd Bridge, Penang'
- Check technical proposal for project '2nd Bridge, Penang'
- Check CV staff involved for project '2nd Bridge, Penang' and attached with their certificate

Week 3 (29th July-2nd August)

- Make a copy tender '2nd Bridge. Penang' for financial Proposal
- Make a cover page for envelope using word
- Learn how to bind document using binder
- Learn how to combine all pdf into one pdf using adobe acrobat
- Print and scan document for tender' Felda Waha, Sedili'
- Photostat and scan certificate staff involved
- Added CV Encik Ammar and check format CV
- Create organization chart using excel
- Printed document 'SoilPro Technical Services Sdn Bhd'

Week 4 (5th -9th August)

- Print and scan document 'Borang A : Penyediaan Pelan Pengurusan Lembaga Sunagi Bersepadu'
- Draw table for list of figure, list of table, appendices and table of content using word
- Learn how to make report
- Learn how to apply supplier registration for Syabas using internet.
- Scan company profile
- Photostat account statement from May 2019- June 2019
- Checked and printed organization chart using word
- Checked calculation on mileage transportation using excel
- Checked drawing 'Semakan Pra-Penyerahan kepada UPNM' using Autocad

Week 5 (13th-16th August)

- Print document ' Surat Pelepasan Gemas' and attached to technical proposal
- Checked and send to Encik Fauzi via email
- IT Visit – presentation about experience gained during training
- Learn more detailed about contract document for 'Menyiapkan Baki Kerja-kerja Yang Tertinggal Untuk Projek Menaiktaraf Persimpangan Jalan Serdang, Raya Puchong, Sungai Besi'
- Print and scan document 'Geotechnical Report' and make another copy
- Write document 'Sijil Pemeriksaan Visual' using word
- Created separator for 'Siasatan Integriti Struktur di Pusat Universiti Kebangsaan Malaysia' using word
- Print document 'Sijil Pemeriksaan Visual' and attach to file 'Siasatan Struktur di Pusat Kebangsaan Malaysia'

Week 6 (19th-22th August)

- Folded A3 size drawing to A4 size
- Make list of drawing of UPNM using Autocad
- Recalculate the financial proposal for 'Felda Waha, Sedili' using excel
- Added staff name in organization chart
- Insert CD for softcopy and binding document 'Tender Financial Proposal Gemas'
- Binding document project ' Membina 24 unit Rumah Teres di Setapak' which contain three of it.
- Rename all drawing number and title and convert into pdf.

Week 7 (26th – 30th August)

- Make list of drawing for 'Masjid UiTM Pahang' using Autocad
- Checked and do correction on list of drawing 'Masjid UiTM Pahang' in term of drawing number and title using Autocad
- Checked drawing plan based on list of drawing in term of drawing number and title for project 'PSKN'
- Learned how to print and folded A1 size drawing
- Convert drawing acad to pdf using autocad and print all drawing UPNM including cover and separator
- Write document 'Section 4 : Taking Over, Inspection, Testing, Commisioning and Over Linear Park Sewerage Network.
- Added 'Plan Layout Site Investigation' drawing into list of drawing and attached with other drawing

Week 8 (3rd – 6th September)

- Learned how to compress many acad drawing into one compressed zip folder for project UPNM and project ‘Bungalow Melaka’
- Learned the easy way to use autocad with a guide of Encik Kamarul and Encik Fauzi
- Print ‘Site Investigation Report Desa Park City’ and make another copy as a reference
- Print drawing for project ‘HUKM’ in A3 size
- Learned more about document contract for project ‘Menyiapkan Baki Kerja-kerja Yang Tertinggal untuk Projek Menaiktaraf Persimpangan Serdang, Jalan Puchong Sungai Besi’

2.3 CONCLUSION

During that training period, I learned a lot of knowledge that does not have during my studies. From this training, I learned to know the different between studies and the real life working as an engineer. Many things can be exposed when they join consultant, developer or contractor. I also learned many things through various type such as communication. This training has opened up more my interest as student of civil engineering in order to learn more detailed of civil engineering works.

CHAPTER 3.0 : TECHNICAL REPORT

3.1 INTRODUCTION

Consultant in Civil Engineering id to provide expert advice on design, planning, and management which cover all type of construction. In construction, engineer as consultant helped client make sound preparation for project and to ensure that contractors complete the project on cost. It helped provide cost estimation, draw budget, select contractor, administer construction. They also helped to resolve differences between contractor and project owner. Therefore, there are a few things to prepare before start surveying which is preparation documentation that need to look. Documentation that need to be prepare is tender which it will help in understanding maintenance of any type of structure according to the needs of client.

3.2 EXPERIENCE GAINED

Tender can be described as documentation that provide services required or supply the goods. This documentation how their company will solve business problem using their method. There are three roles of tender which is overview of company, response section and pricing section. Overview of company is the background of company and their quality in the previous project.as for response section, the company response and client response based on this tender. The pricing section is where all the cost or amount that need to use for project. Therefore, there are two type of tender which is technical proposal and the financial proposal.

3.2.1 Technical Proposal

Technical proposal is a documentation where they introduce their product to client and to explain the method use that can solve the recipient issue. As for client, they can identify the company's plan for execution. Therefore, the easier way to know the company's background is by providing technical detailed of the deals. Other than that, this proposal is provided to understand that proposal document has other critical function and need to be of good quality to serve the client needs. In the technical proposal, there appear the agreement document and consultant technical proposal such as :-

- Letter of Acceptance
- Project information
- Guidelines for technical proposal

3.2.2 Guideline for Preparation of Technical Proposal

FORM A

Form A is the declaration form where all information and accompanying document is truthful, complete and correct. This form is a sign form on the information.

FORM B

Form B is the general information and consultant background. This form is known as the company's profile or company background.

FORM C

Form C is about the financial data of company. It contains of monthly account bank statement for latest twelve months.

FORM D

Form D is the company's experience within last five years. This form is including copy of certificate/confirmation of completed project/studies and letter of acceptance for each of the completed project/studies.

Project Name	Contract Sum	Scope of Consultancy Services	Consultant Cost	Duration of Services	Commence Data	Completion Data	Name & Address Employer

Table 3.2.2.1 Experience Record

FORM E

Form E is a technical staff including curriculum vitae based on standard format containing basic information. All CV staff that involved in project are included and certificate are attached together according to their CV.

FORM F

Form E is known as project implementation. This section is given with detailed activities using Microsoft Office Project based on the term of reference.

FORM G

Form G is the methodology section. This section described the scope of Independent Checking Engineer (ICE) services for Rest & Service Area (RSA). This section is check and review all designed proposed by consultant during design stage including :-

- Carry out Design Checking and overall review of all design input parameters
- Review and comment on Final Design Report
- Prepare design check report
- Checking drawing and associated schedule
- Ensure that design review and necessary changes in design/working procedures which made by designer or contractor
- Design coordination with Contractors

FORM H

Form H is a quality assurance program. This form is contained with firm's staff competency development program, innovation carried out and to be implemented and ISO/MS-ISO (certificate/ in process of certification).

3.3 PROBLEM ENCOUNTERED AND HOW TO OVERCOME IT

3.3.1 PROBLEM ENCOUNTERED

There are many major and minor problem during preparing these tenders documentation. Sometimes a few errors done by contractor or a consultant. Therefore, this problem must be solved. These are few problem can be highlights :-

- Last minutes datelines
- Prepare and not checking
- Risk management
- Does not have a clear view about what tendering process will achieve
- Tender still requires robust business requirement

3.3.2 THE SOLUTION

Due to several analysis and observation, management have done to construct the best way to reduce the mistakes. To ensure the work done properly, there are few solutions can need to do as guidelines :-

- Check standard and specification of material to be used in building
- Check design loading for both gravity load and lateral load acting on the structure
- Verify key element of structure and mechanical & electrical which being designed are consistence
- Perform independent calculation with view to determine the adequacy of key structural element of the building
- Check stability of structural system
- Ensure all work is practical and viable and potential damage to adjoining properties during construction of the proposed building is minimized and public safety is not endangered

3.4 CONCLUSION

Consultant play a big role in the project which is by giving their best in advice, planning and designing the project. This can be seen during the tender documentation in order to make a easier way to understand the method they used. These documentation is giving a good condition by preparing the tender. In addition, consultant may be giving a many benefit as their objective construct.

CHAPTER 4.0 : CONCLUSION

4.1 INTRODUCTION

Being exposed to industry during diploma is really valuable whereby it helps to learn new things and know what industrial training actually all about. It does bring benefits to students to face the real world in the future and know the real scope of engineering world. Diploma in Civil engineering is not only about what we learned during our learning process, but also how we could contribute to the country and society as well. Other than that, from this industrial training student could see which part they should improve more, and they should have learned a lot of things that they don't get in the class, especially soft skills. Thus, students should be very grateful for getting this opportunity.

4.2 LESSONS LEARNED

70% of development came from on-the-job activities and action learning. 20% of development came from interactions with others, and another 10% of development came from training. Thus, author had gotten so much skills that is being useful.

Technical

Basically many designs scope has been exposed to the author and some of engineering software has been used during the designing work such as E-Tabs, Auto-Cad and more. Besides, to check the calculations and values of the analysis also can be check by creating your own spreadsheet through Microsoft Excel. Off course with this software we can do our work more efficient.

4.3 KNOWLEDGE GAINED

4.3.1 SOIL INVESTIGATION

Boreholes is a deep verticle holes with small diameter drilled into the ground to obtain soil samples for soil investigation required for the construction of suitable foundation for the planned structure. There are a few methods to determine the soil strength such as Standard Penetration Test (SPT). The soil samples are takes to get values such as c , k and ϕ in order to use the given formula to get consolidation settlement. There are a few of machines can be used to get the soil samples.

During my Industrial Training, I got an opportunity to get the knowledge how they collect soil samples for testing. Even though I have learned in my studies but for the first time I get to know the procedure that needs for investigation. The machine that they used to collect soil samples is Borehole Drilling machine.



Figure 4.3.1.1 Boreholes Drilling Machine

Borehole Drilling machine is machine that dig the soil into the ground. When I was in a site visit at Desa Park City, they dig the soil using the Borehole Drilling machine in order get the soil sample. They dig that ground until they reach the rock layer. This type of machine used to estimate the criteria soil strength. Mostly they dig around SPT 50 for 5 casing set.

4.5 SUITABILITY OF ORGANIZATION

Nowadays, we heard many post-graduates were unemployed. It might because of inadequate experience or they are being too choosy. That's why it is important for diploma students to have industrial training so that they could prove their ability and in the future they might be offer for a position in the organization, and this organization is really suit for practical students to have their industrial training.

In addition, this organization is good in many aspects, such as they gave suitable task for students to finish, they even considered the results that we have done and correct it patiently. Besides, the senior engineers are willing to share their knowledge and never feel tired to answer the question.

Nonetheless, they provide suitable rate of allowance for industrial training's students.

Although it took some times for students to adapt with office environment, it is good for those who are more interested in doing designing jobs rather than staying at site and being a site engineer.

Nevertheless, working in a small consultant office can train us to apply all the knowledge we had learned in the class before, means all scope of designing works we have to do, no matter substructure or superstructure. If we work in a big company, we might have to stay at a specific department and only apply some of the knowledge.

Thus, it is suitable for student to come back to work with this company. After all student that has been offered to come back should take that opportunity and do not be too greedy to go for other big company as their salary is higher. Last but not least, work hard now if you want to be success.

4.6 LIMITATIONS AND RECOMMENDATIONS

For my opinion, the industrial training should have brought benefit for the students. We really hope that each student gain knowledge and experience throughout this 8 weeks of industrial training. It is such a waste if students itself doesn't know how to appreciate it. However, there are still many aspects that can be improved.

First, students that went to consultant office do not being prepared with fundamental of design. The superior has been expecting so much, that they thought students can help them to do designs task. It is nothing to be shocked of when there are some students are not being appoint to do any jobs or task, they are even being abandoned. We don't fully blame the superior for their insufficient. Because as we know, they are so busy to rush the due date for a project and it is impossible for them to give any task. Thus, it is important for students to have at least study the fundamental of design or structure first.

Nonetheless, students are more suitable to join contractor and developer because the chances for students to go to site are higher. As it is more things that will be exposed to them. Students can't only gain knowledge and experience from professional and seniors' engineers, they can also gain it from layman. If and only if, students can start doing their practical when they are already in or after part 5 because during that time they already have more fundamentals.

Nevertheless, some students are being misunderstood as parasite when they got allowance from the company but they didn't contribute anything to them. It's lucky for students who gain knowledge and allowance together. But it's a lost for them who never gain knowledge and allowance both.

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3. From email saraayla98@gmail.com from website
<https://mail.google.com/mail/u/0/?tab=rm&ogbl#inbox/FMfcgxwDqxQbtGdVkgjGSBbgdhxzRFM M?projector=1&messagePartId=0.1>
4. https://www.google.com/search?ei=M6p3XbTeJMjqvAT3iqbgBA&q=civil+engineering+consultant+meaning&oq=consultant+engineering+meanin&gs_l=psy-ab.3.2.0i22i30l4.14148.20179..23852...1.2..0.861.6541.2-5j3j2j2.....0....1..gws-wiz.....0i71j0i0i67j0i22i10i30.Uupti7kYGJw
5. https://www.google.com/search?ei=UKp3XZX0C8rzvgTknaeQDg&q=civil+engineering+consultant+role&oq=civil+engineering+consultant+role&gs_l=psy-ab.3..0i22i30.255160.259517..260814...1.2..0.250.1489.4j7j1.....0....1..gws-wiz.....0i71j0i0i22i10i30j33i22i29i30.fDmqne5Q_jU&ved=0ahUKEwiV3JiUs8bkAhXKuY8KHeTOCeiQ4dUDCAs&uact=5
6. https://www.google.com/search?ei=4q13XcLultmPwgPB7JWICw&q=roles+of+tender+documentation&oq=roles+of+tender+documentation&gs_l=psy-ab.3...9740.19781..20296...0.2..0.537.1984.7j6j5-1.....0....1..gws-

[wiz.....0i71j0i22i30j0i22i10i30j33i22i29i30j33i10.Gt5rv4oOKNw&ved=0ahUKEWjC55nltsbkAhXZh3AKHUF2BbEQ4dUDCAs&uact=5](https://www.google.com/search?ei=TK53XfKqG4OYvQTYi7m4CQ&q=purpose+of+technical+proposal&oq=purpose+of+technical+proposal&gs_l=psy-ab.1.0.0i13j0i22i30l2.55908.537657..544318...3.2..5.957.5433.17j7j3j0j2j0j2.....4....1..gws-wiz.....0i71j0i22i30j0i22i10i30j33i22i29i30j33i10.Gt5rv4oOKNw&ved=0ahUKEWjC55nltsbkAhXZh3AKHUF2BbEQ4dUDCAs&uact=5)

[32]

7. https://www.google.com/search?ei=TK53XfKqG4OYvQTYi7m4CQ&q=purpose+of+technical+proposal&oq=purpose+of+technical+proposal&gs_l=psy-ab.1.0.0i13j0i22i30l2.55908.537657..544318...3.2..5.957.5433.17j7j3j0j2j0j2.....4....1..gws-wiz.....0i71j0i22i30j0i22i10i30j33i22i29i30j33i10.MYEHNmQKcVk&ved=0ahUKEwiU2NfStsbkAhVh148KHR21CPoQ4dUDCAs&uact=5
8. https://www.google.com/search?ei=K13XZT8leGuvGsd6qLQDw&q=roles+of+tender+&oq=roles+of+tender+&gs_l=psy-ab.3..0j0i22i30l6j0i22i10i30j0i22i30l2.79152.81643..82753...0.2..0.137.1264.9j4.....0....1..gws-wiz.....0i71j33i22i29i30j33i10.MYEHNmQKcVk&ved=0ahUKEwiU2NfStsbkAhVh148KHR21CPoQ4dUDCAs&uact=5
9. https://www.google.com/search?ei=0Kx3XcOtBOC6vgTk94HoCA&q=roles+of+tender&oq=roles+of+tender&gs_l=psy-ab.3..0i7i30l2j0l2j0i30l6.266797.271429..273627...0.2..0.259.1518.6j4j2.....0....1..gws-wiz.....0i71j0i8i7i30j0i13.D UF4LMf3Nw&ved=0ahUKEWjD1afFtcbkAhVgnY8KHeR7AI0Q4dUDCAs&uact=5
10. https://www.google.com/search?ei=Vqt3XdrJGMi6vgT7xoOwBA&q=purpose+of+tender+&oq=purpose+of+tender+&gs_l=psy-ab.3..0l7j0i22i30l3.355717.367656..374941...0.3..0.406.1930.11j6j4-1.....0....1..gws-wiz.....0i71j0i13i1j0i67j0i13i1i67.5rUbsr1NRp0&ved=0ahUKEwjazJyRtMbkAhVInY8KHxvjAEYQ4dUDCAs&uact=5

[33]

APPENDIX

[34]

APPENDIX A

[35]

APPENDIX B

[36]

APPENDIX C

UiTM.FKA.LI-01

INDUSTRIAL TRAINING PLACEMENT INFORMATION FORM
(*Borang Matlumat Penempatan Latihan Industri*)

A) STUDENT INFORMATION (*Matlumat Pelajar*)

Name (*Nama*) : SARA ALYA LUQMAN BT ZALIMIE SHAM : UiTM No. (*No. UiTM*) : 2016772219
Programme (*program*) : DIPLOMA KEJURUTERAAN AWAM : ID No. (*No. k/p*) : 980625-14-6082
Session (*sesi*) : SESI 2 2018/2019 : Semester (*Semester*) : 5
Address (*alamat*): No 33 JALAN AMAN ABADI U17/49A, SEKSYEN U17, AMAN PUTRI 40160 SHAH ALAM.
Phone (*Telefon*) : - : Mobile No. (*No. h/p*) : 013-282 4570
Email (*emel*) : miniaturemodel@gmail.com

B) HEIRS (*Waris*)

Name (*Nama*) : ZALIMIE SHAM BIN CHE MUDA
Address (*alamat*): No 33 JALAN AMAN ABADI U17/49A, SEKSYEN U17, AMAN PUTRI 40160 SHAH ALAM.
Phone (*Telefon*) : - : Mobile No. (*No. h/p*) : 017-341 5344

C) PLACEMENT OPTIONS (*Pilihan penempatan*)

No. (<i>Bil.</i>)	State (<i>Negeri</i>)	City (<i>Bandar</i>)
1.	KUALA LUMPUR	BANDAR MENJALARA
2.		

C) ORGANIZATION INFORMATION (*Matlumat organisasi*)

Name (*Nama*) : PERUNDING ZMS SDN BHD.
Address (*alamat*): NO 9-2, JALAN 11/62A, BANDAR MENJALARA, 52200 KUALA LUMPUR.
Contact Person (*Pegawai yang boleh dihubungi*) : IR SAAIDIN BIN ABU BAKAR
Designation (*Jawatan*) : MANAGING DIRECTOR
Phone (*Telefon*) : +603 6280 3825 : Mobile No. (*No. h/p*) : -
Fax No. (*No. Fax*) : +603 6280 3802 : Email (*emel*): pzms_1@yahoo.com

Signature (*Tandatangan*)

Date (*tarikh*)

Office use:	Checked by:		Approved by:	
-------------	-------------	--	--------------	--

RESUME**PERSONAL DETAILS**

Name : Sara Alya Luqman Bt Zalimie Sham
Identification No. : 980625-14-6082
Date of Birth : 25.6.1998
Place of Birth : Hospital Besar Kuala Lumpur
Age : 21
Sex : Female
Marital Status : Single
Race : Melayu
Religion : Islam
Citizenship : Malaysia
Postal Address : No 33 Jalan Aman Abadi U17/49A, Seksyen U17, Aman Putri, 40160, Shah Alam.
Mobile Phone No. : 013-282 4570
E-mail : miniaturemodel@gmail.com

EDUCATIONAL BACKGROUND

Year / Period	Institution	Level	Achievement / Award
2015	SMK Menjalara	Spm	1A
2016	Uitm Jengka	Pra Diploma	3.62
2018	Uitm Kampus Pasir Gudang	Diploma in Civil Engineering	3.06

EXTRA-CURRICULAR ACTIVITIES

Year / Period	Programme / Activity	Location	Participation
2018	Volleyball	UiTMPG	UiTM
2017/2018	TTS(Tempur Tanpa Senjata)	UiTMPG	UiTM
2018	Site Visit Perak	Perak	Faculty

WORKING EXPERIENCE

Year / Period	Organisation	Designation	Responsibilities

2015-2019	With Family	Model Maker	Architecture
------------------	--------------------	--------------------	---------------------

SKILLS

Language skills :	Language	Written	Speaking
	English	Good	Good
	Bahasa Melayu	Excellent	Excellent

Computer Literacy: Autocad and Programming C++

Other skills : Drawing Plan, Microsoft Office

HOBBIES

No.	Description
1	Play Badminton
2	Autocad

ACADEMIC REFEREES

1. **Name :** Mohd Firdaus Bin Mohd Akhbar
Designation : Koordinator Latihan Industri Fakulti Kejuruteraan Awam
Organisation : Uitm Cawangan Johor, Kampus Pasir Gudang
Tel. No. : 013-299 4660 / 07-380 8368
Email : firdausakhbar@gmail.com

2. **Name :** Siti Shahidah Binti Sharipudin
Designation : Lecturer
Organisation : Uitm Cawangan Johor, Kampus Pasir Gudang
Tel. No. : 019-223 8265/ 07-381 8298
Email : shahidahs@uitm.edu.my



UiTM.FKA.LI-04

Rujukan Kami : 100-UiTMKPG (FKA14/3/4)
Tarikh : 30 APRIL 2019

Koordinator Latihan Industri
Fakulti Kejuruteraan Awam
UiTM Johor Kampus Pasir Gudang,
Jalan Purnama 81750 Masai Johor.
(u/p: **MOHD FIRDAUS B. MOHD AKHBAR**, firdausakhbar@gmail.com)
Fax: 07-3818141

PENGESAHAN PENERIMAAN PELAJAR EC110 UNTUK LATIHAN INDUSTRI TAHUN

Merujuk kepada surat/faks Tuan yang bertarikh adalah disahkan pihak kami ***menerima / tidak menerima** pelajar Tuan bernama dan nombor pelajar untuk menjalani latihan industri mulai hingga (**8 minggu**) di organisasi /syarikat kami.

Butiran Latihan:

Tarikh melaporkan :
Masa melaporkan :
Alamat melaporkan /
ditempatkan :
.....
.....
.....

Kami juga bersedia untuk menyediakan kemudahan berikut**:

1. Penginapan
2. Pengangkutan
3. Makanan dan minuman
4. Elaun bulanan
5. Kemudahan lain (sila nyatakan jika ada):

Ada	Tiada

Sekian, terima kasih.

Yang benar,

.....
(NAMA DAN COP ORGANISASI/SYARIKAT)

Sila faks / emailkan kembali surat ini kepada Fakulti Kejuruteraan Awam, UiTM Pasir Gudang selewat-lewatnya 2 minggu dari tarikh surat permohonan ini.

* Potong mana tidak berkenaan.

**sila tandakan (√) bagi yang berkaitan

UiTM.FKA.LI-05

Our Reference: 100-UiTMKPG(FKA14/3/4)
Date:

To:
Industry Training Coordinator,
Faculty of Civil Engineering
Universiti Teknologi MARA
Cawangan Johor Kampus Pasir Gudang
Jalan Purnama 81750 Masai Johor

Dear Sir / Madam

**INDUSTRIAL TRAINING REPORT DUTY VERIFICATION
SESSION**

The above matter is referred.

Please be informed that the following students have reported for Industrial Training to our company / organization on _____ (completed by the company / organization) as stated.

STUDENT NAME : SARA ALYA LUQMAN BINTI ZALIMIE SHAM.
STUDENT NO. : 2016772219
ID NO. : 980625-14-6082
PROGRAMME : DIPLOMA KEJURUTERAAN AWAM
SEMESTER : LIMA (5)
REPORT DATE : 15 JULY 2019
INDUSTRIAL TRAINING ADDRESS : NO 9-2, JALAN 11/62A, BANDAR MENJALARA
52200 KEPONG, KUALA LUMPUR.

DURATION / PERIOD : 8 weeks (2 MONTHS)

Thank you.

Yours sincerely,

.....
(Signature and Company /Organization Stamp)



CURRENT LOCATION INFORMATION FORM
(*Borang Matlumat Penempatan Semasa*)

A) STUDENT INFORMATION (*Matlumat Pelajar*)

Name (*Nama*) : **UiTM No.** (*No. UiTM*) :

Programme (*program*) : **ID No.** (*No. k/p*) :

Session (*sesi*) : **Semester** (*Semester*) :

Address (*alamat*):

Phone (*Telefon*) : **Mobile No.**(*No. h/p*) :

Email (*emel*) :

B) ORGANIZATION INFORMATION (*Matlumat organisasi*)

Name (*Nama*) :

Address (*alamat*):

Contact Person (*Pegawai yang boleh dihubungi*) :

Designation (*Jawatan*) :

Phone (*Telefon*) : **Mobile No.**(*No. h/p*) :

Fax No. (*No. Fax*): **Email** (*emel*) :

.....
Signature (*Tandatangan*)

.....
Date (*tarikh*)

* Kindly mail this form to the Faculty of Civil Engineering, UiTM Pasir Gudang via fax/post/email within a week to:

*Industry Training Coordinator,
Faculty of Civil Engineering
Universiti Teknologi MARA
Cawangan Johor Kampus Pasir Gudang
Jalan Purnama 81750 Masai Johor*

Office use:	Checked by:		Approved by:	
--------------------	--------------------	--	---------------------	--

(u / p: Mohamed Khatif Tawaf, fax to: 607-3818141 or email: mohdkhatif@johor.uitm.edu.my)

UiTM.FKA.LI-05

Our Reference: 100-UITMKPG(FKA14/3/4)
Date:

To:
Industry Training Coordinator,
Faculty of Civil Engineering
Universiti Teknologi MARA
Cawangan Johor Kampus Pasir Gudang
Jalan Purnama 81750 Masai Johor

Dear Sir / Madam

INDUSTRIAL TRAINING REPORT DUTY VERIFICATION
SESSION

The above matter is referred.

Please be informed that the following students have reported for Industrial Training to our company / organization on _____ (completed by the company / organization) as stated.

STUDENT NAME : SARA ALYA LUQMAN BINTI ZALIMIE SHAM.
STUDENT NO. : 2016772219
ID NO. : 980625-14-6082
PROGRAMME : DIPLOMA KEJURUTERAAN AWAM
SEMESTER : LIMA (5)
REPORT DATE : 15 JULY 2019
INDUSTRIAL TRAINING ADDRESS : NO 9-2, JALAN 11/62A, BANDAR MENJALARA
52200 KEPONG, KUALA LUMPUR.

DURATION / PERIOD : 8 weeks (2 MONTHS)

Thank you.

Yours sincerely,

.....
(Signature and Company /Organization Stamp)



UNIVERSITI TEKNOLOGI MARA
 CAWANGAN JOHOR
 Kampus Pasir Gudang, 81750 Masai, Johor

UITM.FKA.II-07

INDUSTRIAL TRAINING STUDENT PLACEMENT REPORT
 (Report Evaluation Form)

A) Student Information
 Name : SARA ALYA LYBMAN BT. JALIMIE SHAM
 Programme : DIPLOMA KEJURUTERAAN AWAM
 Session : JULY - SEPT 2019
 Date of Commencement : 15 JULY 2019
 UITM No. : 2016777219
 ID No. : 980625-14-6082
 Semester : 5
 Date of Completion : 6 SEPT 2019

B) Organization Information
 Organization : PERUNDING JMS SDN BHD
 Name of Supervisor : Ir. MOHD FAUZI BIN SANI
 Designation : PENGARAH TEKNIKAL

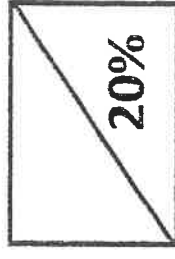
C) Faculty Supervisor Information
 Name :

D) Marks

No.	Criteria	COI-POS	TOTAL MARKS
1.	Abstract	/5	
2.	Introduction	/5	
3.	Report content	/5	
4.	Conclusion and Recommendation for Industrial Training	/5	
5.	Writing Quality	/5	
		CO-PO MARKS	/25

Signature & Official Stamp
 (Faculty Supervisor)

Date





No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
1.	Abstract Summary of; • Training that has been undertaken • Lesson learnt from the training. (CO1 – PO5)	<input type="checkbox"/> Training and lesson learnt are described clearly	<input type="checkbox"/> Training and lesson learnt are described with substantial clarity	<input type="checkbox"/> Training and lesson learnt are described satisfactorily	<input type="checkbox"/> Training and lesson learnt are described with minimal clarity	<input type="checkbox"/> Fail to describe training and lesson learnt
2.	Introduction • Background of Organization • Scope of Work Covered • Report Organization. (CO1-PO5)	<input type="checkbox"/> Clear description of content	<input type="checkbox"/> The content is described with clear substantially	<input type="checkbox"/> The content is described with moderate clarity	<input type="checkbox"/> The content is described with minimal clarity	<input type="checkbox"/> Fail to describe the content
3.	Report content • Tasks carried out • Problems encountered • Problem solving Approach • Lesson learnt (CO1-PO5)	<input type="checkbox"/> All elements are clearly described	<input type="checkbox"/> Tasks, problems encountered and problem solving approach are clearly described but lesson learnt is missing	<input type="checkbox"/> Tasks and problems encountered are clearly described but problem solving approach is not clearly described	<input type="checkbox"/> Tasks are clearly described but problems encountered is not clearly described	<input type="checkbox"/> Tasks are not clearly described

*Please tick (✓) at appropriate scale

No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
4.	Conclusion and Recommendation for Industrial Training <ul style="list-style-type: none"> Conclude the findings of Industrial Training Evaluations on outcomes of training & suitability of the placement. (CO1-PO5) 	<input type="checkbox"/> Able to conclude & evaluate the training outcomes & placement clearly	<input type="checkbox"/> Able to conclude & evaluate the training outcomes & placement with substantial clarity	<input type="checkbox"/> Able to conclude and evaluate the training outcomes & placement with moderate clarity	<input type="checkbox"/> Able to conclude & evaluate the training outcomes & placement with minimal clarity	<input type="checkbox"/> No conclusion on the achievement of training & provide no evaluations on both training outcomes & placement
5.	Writing Quality <ul style="list-style-type: none"> Writing Style Plagiarism as stated in UITM Policy (CO1-PO5) 	<input type="checkbox"/> The report is well organized and supported with sufficient and relevant information	<input type="checkbox"/> The organization of the report is good and supported with substantial evidence	<input type="checkbox"/> The organization of the report is good and supported with satisfactory evidence	<input type="checkbox"/> The organization of the report is satisfactory with minimal support	<input type="checkbox"/> The report is poorly organized and lacked of supporting evidence

*Please tick (✓) at appropriate scale

Percentage earned from Report = Total Marks Earned from Report X 20%

25

= %

For Faculty Supervisor Response

- i. Would you recommended this workplace for future Industrial Training Student Yes No
- ii. If NO, please specify the reason



No.	Criteria	5 (Excellent)	4 (Good)	3 (Satisfactory)	2 (Average)	1 (Weak)
1.	Verification from supervisor. (CO1 - PO5)	<input type="checkbox"/> More than 9 signatures	<input type="checkbox"/> At least 9 signatures	<input type="checkbox"/> At least 8 signatures	<input type="checkbox"/> At least 7 signatures	<input type="checkbox"/> Less than 7 signatures
2.	Attendance. (CO1-PO5)	<input type="checkbox"/> 100%	<input type="checkbox"/> At least 90 %	<input type="checkbox"/> At least 80 %	<input type="checkbox"/> At least 50 %	<input type="checkbox"/> Less than 50 %
Attendance must be at least 40 days including public holidays (if attendance is less than 40 days, the student will fail unless the Industrial Training with a legitimate reason)						
3.	Content at least 80% engineering technical with additional technical specification (drawing, design calculation, picture and safety awareness). (CO1-PO5)	<input type="checkbox"/> All elements are clearly stated with evidence.	<input type="checkbox"/> Engineering and technical specification are described but some details are missing	<input type="checkbox"/> Engineering and technical specification are described but major details are missing	<input type="checkbox"/> Engineering content is described but technical specification is not clearly described	<input type="checkbox"/> Engineering content is not clearly described
4.	Allocate problems & analysis to formulate & solution to real-life. (CO1-PO5)	<input type="checkbox"/> Able to allocate problems & analysis related to real-life and clearly described	<input type="checkbox"/> Able to allocate problems & analysis related to real-life but minor description are missing	<input type="checkbox"/> Able to allocate problems & analysis related to real-life but major description are missing	<input type="checkbox"/> Able to allocate problems & analysis related to real-life but not clearly described	<input type="checkbox"/> Unable to allocate problems & analysis related to real-life.

*Please tick (v) at appropriate scal

Percentage earned from Logbook = Total Marks Earned from Logbook X 10%
 = %

20



INDUSTRIAL TRAINING LOGBOOK
 (Logbook Evaluation Form)

A) Student Information

Name : SARA AUYA LUCMAN BT. JALIMIE SHAM
 Programme : DIPLOMA KEJURUTERAAN AWAM.
 Session : JULY - SEPT 2019
 Date of Commencement : 15 JULY 2019

UiTM No. : 2016577219
 ID No. : 980625-14-6082
 Semester : 5
 Date of Completion : 6 SEPT 2019

B) Organization Information

Organization : PERUNDING AMS SDN BHD.
 Name of Supervisor : JR. MOHD FAUZI BIN SANI
 Designation : PENGARAH TEKNIKAL

C) Faculty Supervisor Information

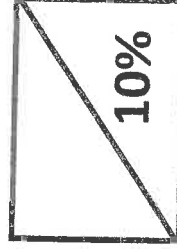
Name :

D) Marks

No.	Criteria	CO1-PO5	TOTAL MARKS
1.	Verification from supervisor	/5	
2.	Attendance	/5	
3.	Technical content	/5	
4.	Allocate problems & analysis	/5	
CO-PO MARKS		/20	/20

Signature & Official Stamp

Date



Logbook Evaluation Form

LAMPIRAN B**SENARAI SEMAK DOKUMEN MANDATORI CADANGAN KOS**

Dokumen Cadangan Kos perlu dihantar dalam sampul surat beransingan dan berlakri dan ditandakan “Cadangan Kos” di sebelah kiri sampul surat berkenaan. Senarai semak berikut perlulah dimasukkan sebagai muka surat pertama di dalam sampul berkenaan. Perunding hendaklah memastikan Cadangan Perunding adalah lengkap merangkumi semua item-item yang dinyatakan di bawah. Kegagalan Perunding melaksanakan demikian akan mengakibatkan Cadangan Perunding **Tidak Akan Dipertimbangkan**.

Bil.	Dokumen Yang Perlu Disertakan	Sila Tandakan (√)	
		Untuk Di tanda Oleh Perunding	Untuk Ditanda Oleh Jawatankuasa Pembuka
1.	Pengiraan Keseluruhan Anggaran Kos Perunding (termasuk Yuran Perkhidmatan Perunding dan Kos Imbuan Balik) mengikut format di Lampiran B1 (dilabelkan sebagai Lampiran B1)		
2.	Pengiraan Yuran Perkhidmatan Perunding secara Skala Yuran Piawai(SOF) mengikut format di Lampiran B2 (dilabelkan sebagai Lampiran B2)		
3.	Pengiraan Yuran Penyeliaan Pembinaan format di Lampiran B3 (dilabelkan sebaagai Lampiran B3)		
4.	Pengiraan Add. Professional Services-Road Safety Audit Stage 1-5 format di Lampiran B4 (dilabelkan sebagai Lampiran B4)		
5.	Pengiraan Add. Professional Services-Additional Audit (TMP) format di Lampiran B5 (dilabelkan sebagai Lampiran B5)		
6.	Pengiraan Add. Professional Services-Pengawasan Tapak bagi Kerja-kerja Penyiasatan Tanah(SI) format di Lampiran B6 (dilabelkan sebagai Lampiran B6)		
7.	Pebgiraan Kos Imbuan Balik mengikut format di Lampiran B7, B8, B9, B10, B11 dan B12 (dilabelkan sebagai Lampiran B7, B8, B9, B10, B11 dan B12)		
8.	Salinan Softcopy Cadangan Kos dalam bentuk CD/pebdrive dimasukkan dalam sampul (ditandakan sebagai Lampiran B13)		

PENGESAHAN OLEH PERUNDING

Dengan ini saya mengesahkan bahawa saya telah membaca dan memahami semua syarat yang dinyatakan di atas dan semua maklumat yang dikemukakan adalah benar dan lengkap.

.....

Nama Prinsipal :

Tarikh :

No. K/P :

Cop Syarikat :

SIJIL PEMERIKSAAN VISUAL

(Seksyen 85A, Akta Jalan, Parit dan Bangunan 1974)

Kepada
Datuk Bandar Kuala Lumpur

No. Rujukan Notis : (2) dlm. DBKL/JKB/PBK/S2/2019/0084
Nama Bangunan : Pusat Perubatan Universiti Kebangsaan Malaysia
Alamat Bangunan : Pusat Perubatan UKM, Jln Yaacob Latiff, 56000
 Bandar Tun Razak, Cheras, Kuala Lumpur, Wilayah
 Persekutuan.

Seperti yang dikehendaki dibawah seksyen 85A, Akta Jalan, Parit dan Pembangunan (Pindaan) 1994, [Akta A903], saya telah menjalankan pemeriksaan visual bagi bangunan diatas dan kawasan persekitarannya dari tarikh **24 Ogos 2018** hingga tarikh **31 Januari 2019**.

*** Dalam membuat kesimpulan, saya mengesahkan bahawa:**

Tiada tanda mengenai kecacatan-kecacatan struktur penting dilihat.

Kecacatan-Kecacatan yang memerlukan pengawasan tetapi bukan penyiasatan struktur dan tindakan pembaikan (jika ada) telah kelihatan pada bangunan dan kawasan persekitaran semasa pemeriksaan dibuat. **(Sila isikan Sijil Siap Kerja Pembaikan).**

Tanda-tanda kemungkinan mengenai kecacatan-kecacatan struktur penting telah dikesan pada bangunan. Satu penyiasatan penuh dan serta merta untuk menentukan kesan-kesan ke atas struktur diperlukan. **(Sila isikan Sijil Pemeriksaan Struktur).**

Saya dengan ini mengemukakan laporan bagi pemeriksaan visual.

Nama	: Ir. Saadin bin Abu Bakar
No. Pendaftaran	: C18500
Nama Firma	: Perunding ZMS Sdn Bhd
Alamat Firma	: No 9-2, Jalan 11/62A, Bandar Menjalara 52200 Kepong, Kuala Lumpur.

.....
(Cop & Tandatangan)

s.k (Pemilik Bangunan/Pemadanan Pengurusan)

*** Sila tandakan di petak mana yang berkenaan.**

KERAJAAN

JABATAN KERJA RAYA

PERAKUAN SIAP KERJA
(CERTIFICATION OF PRACTICAL COMPLETION)

Rujukan

Pejabat

Tarikh

Kepada
.....
.....
(Kontraktor)

Daftar Dengan PKK Dalam Kelas "....."

Kontrak No.
Kontrak untuk
.....
Bahagian*
Section*

Menurut Klausula 39 Syarat-Syarat Kontrak, dan tertakluk kepada penyiapan apa-apa kerja yang
In accordance with Clause 39 of the Conditions of Contract and subject to the completion

belum disiapkan dan perbaiki apa-apa kecacatan, ketidaksempurnaan, kesusutan atau apa-apa
of any outstanding work and the making good of any defects, imperfections, shrinkages or any

kerusakan lain apa jua pun sebagaimana yang dikehendaki di bawah Klausula 45 Syarat-Syarat Kontrak
other faults whatsoever or required under Clause 45 of the Conditions of Contract

dan yang mungkin terzahir dalam Tempoh Tanggungan Kecacatan maka adalah dengan ini di
and which may appear during the Defects Liability Period, it is hereby certified that

perakui bahawa seluruh Kerja-Kerja / Sebahagian daripada Kerja-Kerja* seperti yang tersebut dia atas
the whole of the Works / Section of the Works as mentioned above*

telah siap dengan memuaskan hati pada dan diambil milik
were satisfactorily completed on and taken into possession

pada dan dengan itu Tempoh Tanggungan Kecacatan untuk
on and that the said Defects Liability Period in respect of

Kerja-Kerja/Sebahagian daripada Kerja-Kerja* tersebut bermula pada
the said Works/Section of the Works began on*

dan akan berakhir pada
and will end on

.....
Pegawai Penguasa
Superintending Officer.

(Nama Penuh
Designation

Nama Jawatan
Name in full

**JABATAN KERJA RAYA
PERAKUAN SERAHA KERJA SIAP (SELEPAS CPC)
KEPADA BAHAGIAN SENGGATA FASILITI JALAN**

Rujukan Fail :
Tarikh :

Tajuk Kontrak :
No. Kontrak :

Kerja diatas telah disiapkan dan Sijil Siap Secara Praktikal (CPC) telah dikeluarkan. Kerja telah diperiksa oleh :

..... mewakili
(Nama Pegawai) (Kementerian/Jabatan Pelanggan)
dan

..... mewakili
(Nama Pegawai) (Pegawai Penguasa)

Kami yang menandatangani di bawah ini mengakui bahawa Kerja tersebut telah diserahkan oleh Pegawai Penguasa kepada Pengarah Bahagian Senggara Fasiliti Jalan. Baki kerja yang masih belum disiapkan dan/atau kerja cacat adalah seperti yang disenaraikan di Lampiran.

.....
Tandatangan
WakilKementerian/Jabatan Pelanggan

.....
Tandatangan
(Wakil Pegawai Penguasa)

Nama :
Jawatan :

Nama :
Jawatan :

Tarikh :

Tarikh :

Nota : Aduan terhadap kerja cacat hendaklah dibuat secara bertulis kepada Pegawai Penguasa tidak lewat dari tarikh tamatnya Tempoh Tanggungan Kecacatan iaitu pada

SENARAI SEMAKAN PRA-PENYERAHAN KEPADA BSFJ
(Untuk disediakan selepas Sijil Siap Secara Praktikal dikeluarkan)

Nama Projek :

	Ada	Tiada	TB
1. Sijil Siap Secara Praktikal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Borang A - Perakuan Serahan Kerja Siap (Selepas CPC) Kepada BSFJ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Borang A mengandungi lampiran berikut;			
• Senarai baki kerja belum siap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Senarai kerja cacat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Bil TNB yang terkini			
5. Kerja-kerja Penyenggaraan Rutin dalam Tempoh Tanggungan Kecacatan di dalam Skop Kontrak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Tindakan mewatarkan jalan sebagai Jalan Persekutuan telah diambil.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Nota:
- 1. BSFJ - Bahagian Senggara Fasiliti Jalan
 - 2. TB - Tidak Berkaitan
 - 3. Jika "Ada", sila sertakan bersama salinan dokumen

Catatan:

.....
.....
.....

.....
(Wakil Pegawai Penguasa)

Nama :
Jawatan :
Tarikh :

**JABATAN KERJA RAYA
PERAKUAN SERAHA KERJA SIAP (SELEPAS CMGD)
KEPADA BAHAGIAN SENGGATA FASILITI JALAN**

Rujukan Fail :
Tarikh :

Tajuk Kontrak :
No. Kontrak :

..... mewakili
(Nama Pegawai) (Kementerian/Jabatan Pelanggan)
dan

..... mewakili
(Nama Pegawai) (Pegawai Penguasa)

Kami yang menandatangani di bawah ini mengakui bahawa Kerja tersebut telah diserahkan oleh Pegawai Penguasa kepada Pengarah Bahagian Senggara Fasiliti Jalan.

.....
Tandatangan
WakilKementerian/Jabatan Pelanggan

.....
Tandatangan
(Wakil Pegawai Penguasa)

Nama :
Jawatan :

Nama :
Jawatan :

Tarikh :

Tarikh :

SENARAI SEMAKAN PRA-PENYERAHAN KEPADA BSFJ
(Untuk disediakan selepas Sijil Siap Secara Praktikal dikeluarkan)

Nama Projek :

	Ada	Tiada	TB
1. Sijil Siap Secara Praktikal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Borang B - Perakuan Serahan Kerja Siap (Selepas CMGD) Kepada BSFJ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Pelan Lukisan Siap Bina (Softcopy 2 salinan - 1 format dwg autoCAD dan 1 format pdf dengan cop dan tandatangan Jurutera Profesional			
• Pelan Lokasi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Had Lajuan (ROW)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Longitudinal Profile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Soil Investigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Alignment Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Drainage Layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Geoteknikal - Ground Treatment Layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Road Furniture Layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Traffic Control Layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Pelan Utilities Layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Telekom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TNB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bekalan Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lian-lain (nyatakan_____)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Pelan Kerja Jabatan/Jejambat/Jejantas/
Pembetung (layout, structure, drainage,
furniture & utilities)
- Pelan Kerja Elektrik
- Pelan Kerja Mekanikal

4. Sijil Jaminan

- Sijil Jaminan Kerja Awam
- Sijil Jaminan Kerja Jambatan
- Sijil Jaminan Kerja Arkitek
- Sijil Jaminan Kerja Elektrik
- Sijil Jaminan Kerja Mekanikal

5. Kerja Elektrik (Lampu Jalan/ Lampu Isyarat)

- Surat Pelantikan Kontraktor/Perunding
Elektrik (untuk Projek Reka dan Bina)
- Manual Operasi & Penyelenggaraan
(OMM)
- Keputusan Peperiksaan Pengujian
(Ujian Earthing, Continuity, Insulation,
Polarity - untuk setiap feeder pillar)
(Ujian Luminance dan Illuminance -
untuk setiap lampu jalan)
- Latihan Penggunaan Sistem
- Jadual Kerja-Kerja Penyelenggaraan
- Katalog Produk

6. Kerja Mekanikal

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| • Surat Pelantikan Kontraktor/Perunding Mekanikal (untuk Projek Reka dan Bina) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Manual Operasi & Penyelenggaraan (OMM) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Keputusan Peperiksaan Pengujian | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Latihan Penggunaan Sistem | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Jadual Kerja-Kerja Penyelenggaraan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Katalog Produk | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Maklumat Inventorisasi

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| • Jejambat/Jejantas | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Jambatan & Pembetung | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Perabot Jalan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Lampu Jalan/Isyarat dan Feeder Pillar | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Laporan Penutupan NCR

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| • Kerosakan/Kecacatan yang dikenalpasti oleh Wakil Pegawai Penguasa | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Audit Kriteria Penerimaan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| • Teguran Road Safety Auditor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Audit Keselamatan Jalan

- | | | | |
|---------------------|--------------------------|--------------------------|--------------------------|
| • Compliance Report | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---------------------|--------------------------|--------------------------|--------------------------|

Nota: 1. BSFJ - Bahagian Senggara Fasiliti Jalan
2. TB - Tidak Berkaitan
3. Jika "Ada", sila sertakan bersama salinan dokumen

Tuntutan Kemajuan No 2		
a) final report and final hydrological procedure	30%	95,115.60
Imbuan Balik:-		
a) Perjalanan	Lampiran B	35.00
b) Draft Final Report	(10 set x RM 80.00)	800
c) Final Report	(10 set x RM 100.00)	1,000.00
d) Draft Hydrological Procedure	(10 set x RM 80.00)	800
e) Draft Final Hydrological Procedure	(10 set x RM 90.00)	900.00
f) Final Hydrological Final	(10 set x RM 100.00)	1,000.00
g) Communication	(10 set x RM 50.00)	200
f) Training to JPS		3,600.00
JUMLAH		103450.6
Tambah : SST		6,207.04
JUMLAH KESELURUHAN TUNTUTAN		109723.04

PENYEDIAAN PROSIDUR SEMAKAN DATA-DATA MENTAH HIDROLOGI NEGARA SEBELUM DIARKIBKAN KE PANGKALAN DATA BAHAGIAN PENGURUSAN
SUMBER AIR DAN HIDROLOGI

Item	Date	Particular Of Duty	Destination		Mileage		
			From	To	KM	Rate	
1	30/1/2019	Final Report Meeting	Pejabat Bandar Menjalara	JPS Jalan Ampang	43.6	0.7	
2	11-13/12/2018	Sesi Demonstrasi Derisian Semakan Data	Pejabat Bandar Menjalara	JPS Jalan Ampang	130.8	0.7	
3	23/1/2018	Draft Final Report Meeting	Pejabat Bandar Menjalara	JPS Jalan Ampang	43.6	0.7	
Total							152.6

KENYATAAN TUNTUTAN

Tarikh	Waktu		Tujuan/Tempat	Jarak (k.m)
	Bertolak	Sampai		
28.08.2018	10.00 pagi	4.00 petang	MESYUARAT PEMBANGUNAN PERISIAN SEMAKAN DATA VER.01 Tarikh : 28 Ogos 2018 Tempat : JPS Melaka Masa : 10.00pagi - 4.00petang	144
			Menaiki kenderaan sendiri dari pejabat di Bandar Manjalara ke JPS Melaka untuk menghadiri Mesyuarat Menaiki kenderaan sendiri untuk pulang ke pejabat di Bandar Manjalara	144
JUMLAH				288

KENYATAAN TUNTUTAN

Tarikh	Waktu		Tujuan/Tempat	Jarak (k.m)
	Bertolak	Sampai		
24 & 25.09 .2018	9.00 pagi		<p>MESYUARAT DAN HANDS-ON VER.04 DATA RECTIFICATION HP28</p> <p>Tarikh : 24 & 25 Jun 2019 Tempat : JPS Bangi Masa : 9.00pagi - 5.00petang</p>	
		5.00 petang	<p>Menaiki kenderaan sendiri dari pejabat di Bandar Manjalara ke JPS Bangi untuk menghadiri Mesyuarat</p> <p>Menaiki kenderaan sendiri untuk pulang ke pejabat di Bandar Manjalara</p>	90.2 90.2
JUMLAH				180.4

KENYATAAN TUNTUTAN

Tarikh	Waktu		Tujuan/Tempat	Jarak (k.m)
	Bertolak	Sampai		
26&27.09 .2018	9.00 pagi	5.00 petang	MESYUARAT DAN HANDS-ON VER.04 DATA CHECKING HP28 Tarikh : 26 & 27 Jun 2019 Tempat : JPS Ampang Masa : 9.00pagi - 5.00petang	43.6
			Menaiki kenderaan sendiri dari pejabat di Bandar Manjalara ke JPS Ampang untuk menghadiri Mesyuarat Menaiki kenderaan sendiri untuk pulang ke pejabat di Bandar Manjalara	43.6
JUMLAH				87.2