



**UNIVERSITI TEKNOLOGI MARA**

**FACULTY OF CIVIL ENGINEERING**

**INDUSTRIAL TRAINING REPORT  
ECM376**

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**JULY 2019**

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**DIPLOMA IN CIVIL ENGINEERING**

**JULY 2019 UTM**

## **Acknowledgement**

Alhamdulillah and thank you to all that have supporting me during this 8 weeks of internship and I am able to complete this industrial training report successfully.

First and foremost, I would like to take this opportunity to thank to Mrs Irhana Ibrahim in receiving my application to undergo internship with DD&I Engineering Sdn Bhd, to the all employees especially to my company supervisor, Mr Sudesh Maharjan because during the industrial training a lot of knowledge and technical skills that I have gained from them. Without their guidance and information, I do not think that I will gain knowledge and manage to do the task that I have assigned to do.

Finally, I would like to thank to the Project Manager Team (PMT) from the main contractor company, Malaysia Marine Heavy Engineering (MMHE) that have advising in completing this report. Without them, I may not be able accomplished this report. Besides, a very special thank you to my project manager, Mr Noraizan Hassan for support and advice during this industrial training. Lastly, I would like to thank all the peoples that are related directly and indirectly to support and help me to complete my industrial training report successfully.

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## **Chapter 1 : Introduction**

## 1.1 Introduction

Industrial training is training scheme by which a student can undergo practical training within an approved industrial. All students in UiTM must participate in industrial training because pass in industrial training is one main condition before a student certified for Diploma in Civil Engineering in UiTM.

Industrial training is a course for students that gives them an opportunity to expose themselves in the real career world so as to they will learn on how to relate theoretical learning before and real practical in working environment. Besides that, in future, it will be having good preparation and understanding for their field of profession.

Trainees have to undergo 8 weeks of industrial training starting from 15 th July 2019 until 7 th September 2019. Student can choose whether in government or private company. During industrial training, students are required to record activities and task on the training period. At the end of training, students are required to submit the log book and industrial training report.

## 1.2 Background Of The Company

DD&I Engineering Sdn. Bhd. is a Malaysian Bumiputra company and incorporated on 20th November 2001. DD&I Engineering Sdn Bhd. main activity is providing corrosion protection services which specialize in blasting and painting for both offshore and onshore in Oil & Gas industry and marine infrastructure. The company's core competencies including blasting & painting, hydro jetting, power tooling, cleaning, includes installations of valves, pipelines, main engines, boiler, generator, cooling system, pumps mucking out sludge, underwater works and all kind of works pertaining of marine, ship and vessel.

The company has grown from strength to strength since, with the invaluable support from customers, principal suppliers, business associates, and company operation staffs strength of more than 200 employees. The company have qualified skilled workforce and capable to ensure all jobs delivered in high quality of standard within the allocated time. The company also recruited skilled workers, in order to be more competence and able to cater current market demand.

DD&I Engineering Sdn Bhd implement a quality management system and acquired ISO 9001:2005 certification that endorsed by Lloyd's Register Quality Assurance which certificate number is KLR 6047553. The company holds a Grade G7 license in category B, CE and ME which approved by the Construction Industry Development Board Malaysia (CIDB) starting from 21 March 2003. To be competent in the market, the company also acquired PETRONAS license including for ICT server, mechanical engineering as well as coating services.



Figure 1.1 (Company's Logo)

**Vision.**

“To achieve global recognition as the leader in oil & gas engineering business through the expertise, and to deliver the best quality services to our stakeholders”

**Mission.**

- To use our resources, knowledge and experience to create win-win-win relationship with our clients, employees, suppliers and stakeholders to create a relationship emphasis on long term mutual success and satisfaction rather than short term gain.
- To provide employee with training and development and to ensure the well being of the employees family members.
- To constantly up to date with latest technology and expand business by leading the global market in abrasive blasting and shot peening technology.

## 1.1 Organizational Structure



## 1.2 Nature of Business

DD&I Engineering Sdn Bhd operating for six days per week. Which means Sunday is the holiday for all the staff. DD&I Engineering Sdn Bhd main activity is providing corrosion protection services which specialize in blasting and painting for both offshore and onshore in oil & gas industry and marine infrastructure. The company's blasting and painting services including auto blast, hydro blasting, and more traditional grit and steel ball blasting. The company is able to do full blast or spot blast and able to produce capacity of 7000m<sup>2</sup> blast and paint material monthly.

DD&I Engineering Sdn Bhd owned blasting machines model LCQ3000 and LCQi1250. The company understands that surface preparation is essential for satisfactory performance of any paint system. The most expensive and advanced painting systems will fail if surface preparation is inadequate either in cleanliness or profile. The company has high skilled blasters and painters who are Institute of Materials Malaysia (IMM) certified and committed to provide the best solutions, best methods, best quality and best value in area such as: Shipyards, LNG Plants,

Fabrication Facilities, Onshore Projects and more. The company manage to handle all works in various areas regardless the level of difficulties. In the same time, DD &I Engineering Sdn Bhd ensure that their coating system are applied accordance with the paint manufactures specifications and client's requirement.

### 1.3 Products

DD&I Engineering Sdn. Bhd. is closely monitored all process during the works to ensure meeting their standard. They also engaged in providing civil construction services such as building construction, structural construction, road construction services, pilling construction, repair and maintenance solution includes plumbing, landscaping, electrical restoration and other works. The breakthrough of the project delivered through combination of experienced management and workforce. With deep skills and knowledge, DD&I Engineering Sdn Bhd promise to offer the best services to client at the most competitive prices.



Figure a and Figure b

#### 1.4 Conclusion

As a conclusion, I am very grateful to be a part of these company team members. The working environment here is very good and all the staff are so friendly. We (the internship students) also can share all of our experience together. I hope this Bokor CPP project will be completed successfully in April 2020. I am very grateful because undergoing internship programme with a very successful blasting and painting company. My project manager team also very helpful and all the questions I asked they can answer it perfectly. I hope one day I can be with them again to make other big project finished successfully.

## **CHAPTER 2: TRAINING ATTENDED**

## 2.1 Introduction

Various tasks have been given and being done by the trainee as material controller. The major task is to calculate burnmark, damage and weldent at Bokor CPP project regarding its condition and quantity, check the correct painting system, received packing list and release note, area measurement, measurement of beam, column and other structural materials and other material, preparation before blasting and painting process, update Daily Progress Report and informed the related parties if any problem arise regarding to the material received The working hours for this site is from 8.00 a.m. until the work is done which is around 8 p.m.

## 2.2 Exposure level (Weekly Report)

### Week 1 (15/7/2019 to 20/7/2019)

- Learn on how to recognize the type of materials at the construction site.
  - Such as base support, angle bar, column, EIB support.
- Make a report on life boat/LER after blast and before blast.
- Learn on how to identify the damage and burn mark based on staff experiences.
- Involved in induction safety class. (a must before entering the site)
- Read the drawing plan such as primary and secondary beam plan of each deck.
- Making a Collection Note (CN) after the Release Note (RN) given have been done.
- Preparing the Request For Inspection (RFI).
- Follow the supervisor to know the level of each deck at the Bokor Central Processing Platform (CPP) site.
- Learn on how to find the drawing (primary beam drawing, technical drawing) from drawing files.

### Week 2 (22/7/2019 to 25/7/2019)

- Calculate burn mark, weldment and damage at splice area (row 4A, Lower Deck) and at Central Control Room (CCR)
- Photocopy the drawing of CCR and splice area for the report.
- Checking the final coat from system 11 inside the Switchgear Room (SWR)
- Inspect the after blasting condition in CCR.
- Learn on how to close the RN.
- Doing the mechanical work shop report on truss and wall.

Week 3 (29/7/2019 to 3/8/2019)

- Checking progress for blasting external wall (mechanical workshop).
- Take drawing LER from drawing files.
- Calculate total burn mark, weldment and damage.
- Check progress at pipe rack below main deck panel 2.
- Devcon area at underside battery room is calculated.

Week 4 (5/8/2019 to 10/8/2019)

- Checking progress at CCR (B) which has entered final coat.
- Take drawing primary beam and secondary beam at row 4B cellar deck and main deck.
- Inspect on the progress CCR (A) underside.
- Make a report on battery room angle bar, T support and other electrical support.
- Close RN on pipe rack main deck panel 2 after the final coat have been placed.

Week 5 (12/8/2019 to 17/8/2019)

- Make a report on blast wall at row 4 lower deck.
- Help QC in doing inspection based on the location in the RFI.
- Checking progress on external wall that have entered second coat (cream 410)
- Calculate burn mark, weldment and damage at the lifting lug underside cellar deck.

Week 6 (19/8/2019 to 24/8/2019)

- Calculate burn mark, damage and markers scribble at the service platform underside mezzanine deck.
- Tell the foremen to settle that area (to blast and apply coats)
- Marking the pipe supports at main deck.
- Receive RN of the life boat secondary beam and primary beam that need to undergo blasting and painting.
- Based on the drawing given, I calculate and state where the burn marks and damage is located.

Week 7 (26/8/2019 to 31/8/2019)

- Receive RN on HVAC ducting support and copper pipe support at underside main deck row 2B.
- State the amount of burn mark and damage at the support.
- Make CN for the pipe rack at underside main deck that have entered final coat (yellow 550) system 1A.
- Tell QC to inspect the splash wall area at row 5B cellar deck that have entered second coat (cream 410) before the third coat is applied.

Week 8 (2/9/2019 to 7/9/2019)

- During this week I complete all the pending reports.
- All the staff have to attend a meeting including all the intern students.
- At the site I just checking on progress at the area based on RN last week and last two weeks.
- Closed all the RN received by making the CN (Collection Note)

## **CHAPTER 3 : TECHNICAL REPORT**

### 3.1 Introduction

In this chapter I want to explain about the undergoing project of the company which is the Bokor Central Processing Platform (CPP) project. The cost of this mega project is around 226.7 million dollars (RM 1 Billion). This project is under Petronas Cari Gali and expected to finish in April 2020. Upon completion, the new CPP will be installed at Bokor field located in Baram Delta, offshore Sarawak, in a water depth of 70 meters.



Figure 1: Bokor CPP project is under construction.

So the involvement of DD&I Engineering Sdn Bhd in this project is focus on blasting and painting at all the structural parts such as column, primary and secondary beams, walls, E&I and piping supports and other materials that need to be paint. So, blasting is the operation of forcibly propelling a stream of abrasive material against a surface under high pressure to smooth a rough surface, roughen a smooth surface, shape a surface, or remove surface contaminants.

Painting specification for the project is given by Paint Matrix Certificate (PMC) or Client. It is updated by material engineer on the project. Engineering firm can use its own standard painting specification if allowed by client. DD&I Engineering used a paint matrix guidelines from Petronas. This guidelines will ensured right coating system for each materials.

Preparation of painting specification involves understanding environmental factors, location of piping (indoor or outdoor), insulation requirements, operating and design temperatures. During bad weather, the painting process cannot be proceed as it will affect the quality of paint. Types of painting methods used are painting by brush and Airless Spray Painting Machine.

### 3.2 Problem encountered and solutions

- Some items (like angle bar and pipe support) in the Release Note (RN) is not appear.  
  
-As a solution, I request to our company PMT to check why the item is not there and the new corrected RN will be given to me.
- Some progress at the site is slow due to the low number of workers.  
  
-As a solution, I. tell the company's site supervisor to manage the number of workers that cause the progress at the Bokor CPP site to be too slow and he managed to add some new workers to make the progress faster than before.
- The quality of paint coating is not excellent.  
  
-As a solution, our company's quality control (QC) make a marking at the area that not achieve their quality standard and the painter repair that area to make it the surface even again.

### 3.3 Experience gained

Experience I gained in this company is I managed to completely finish all the paper works given to me perfectly without having any errors. Sometimes I have been told a new knowledge, some experiences about blasting and painting from my PMT and my site supervisor. Other than that, I manage to feel the working environment which is very good for us as a internship student to involve in this internship programme.

### 3.4 Conclusion

As a conclusion I would like to give some suggestions, a lot of improvement can be made for the company to increase the productivity and its efficiency. From trainee's perspective, here are some recommendations that maybe will improve the company productivity.

Here are some suggestions:

- Improve the arrangement of the workspace. For example, prioritize the most used things rearrange the workspace to create smooth flow of work process. It will increase the efficiency of working process and create a less movement in the small cabin area.
- Provide a small transport in the site for document delivery process. The site had a lorry which is used for material delivery but sometime the urgency of document need to be delayed due to unavailability of the transportation.
- Safety awareness need to be improvise because some of the workers did not take care of their safety seriously.
- Provide a basic engineering software such as AutoCAD therefore it can reduce uses of paper.

## **CHAPTER 4: CONCLUSION**

#### 4.1 Introduction

In this chapter I want to tell about the objectives for students need to participate in industrial training. Industrial training required the maturity in committing a task that has been given by supervisor, it also test the extent of student ability to practice the theory that has been taught in class and preparing themselves for the students prior to actual employment. Here is the list of objectives for industrial training:

- Expose students to the real working environment.
- Provide opportunity to students to apply the knowledge and skills learned.
- Enhance the team spirit in group works.
- Boost up confident level and communication skills.
- Develop problem solving skill

#### 4.2 Lesson learned and knowledge gained

During doing internship in this company, I am a helper to the Quantity Surveyor in a structural and architectural part. From that I can see and feel the steel structure in real life and I also learn on how to read the structural and architectural drawing of this project. In civil engineering also have QS involve in the project same with me in this company.



Figure 1.2: Example wall attached on primary beam.



Figure1.3: Example of primary beam attach to secondary beam (I Beam)

#### 4.4 Suitability of Organization

DD & I Engineering Sdn Bhd is suitable for the EC 110 Civil Engineering students because it applied the finish work in construction which is painting. The company also gives allowance to their internship students. This help student to feel the same environment in a working phase (getting a salary).

Other than that, the company also registered with The Construction Development Board (CIDB). Any accident happens, the internship students are protected with insurance under CIDB. All the staff including the highest board in the company always gives support to the students who work in their company.

Lastly, DD & I Engineering is a very suitable company for the UiTM Civil Engineering student to involve in the '8 weeks' internship programme.

#### 4.5 Limitations and Recommendations

Industrial training is a must for every student to prepare themselves for a real working practice in the future. This is one of the best time to enhance skills and develop student's potential. Other than that, working in related field to the courses, will help students to widen their knowledge in the exact job scope.

Therefore, it is very important to choose the right company that can provide students with that kind of experience and knowledge. It is hopeful, that company will provide best education and experience to the student as they come to learn from the experts. Company should start, giving trust to an intern and shaping them into a better working personnel, hence, student could grow their career with no doubt.

It is a must, for student to choose and apply for a company which its nature of business related to the courses studied. This will help students to apply their knowledge practically and it could be a driven in improving or enhancing their potential in the industry or field they have chosen. Eight weeks period shall be used wisely by working in a company which relate to the future career student's want to penetrate.

## REFERENCE

### ➤ Internet

1. <https://www.ddni.com.my/>
2. <https://www.offshoreenergytoday.com/>

### ➤ Books

1. Industrial Training Student Handbook Faculty Of Civil Engineering UiTM  
Pasir Gudang, Johor.

### ➤ Staff

1. Staff of DD&I Engineering Sdn Bhd
2. Clerk Of Work
3. Project Manager Team (MMHE)

## Appendices



Figure 1.4: Pipe rack after final coat (yellow 550)



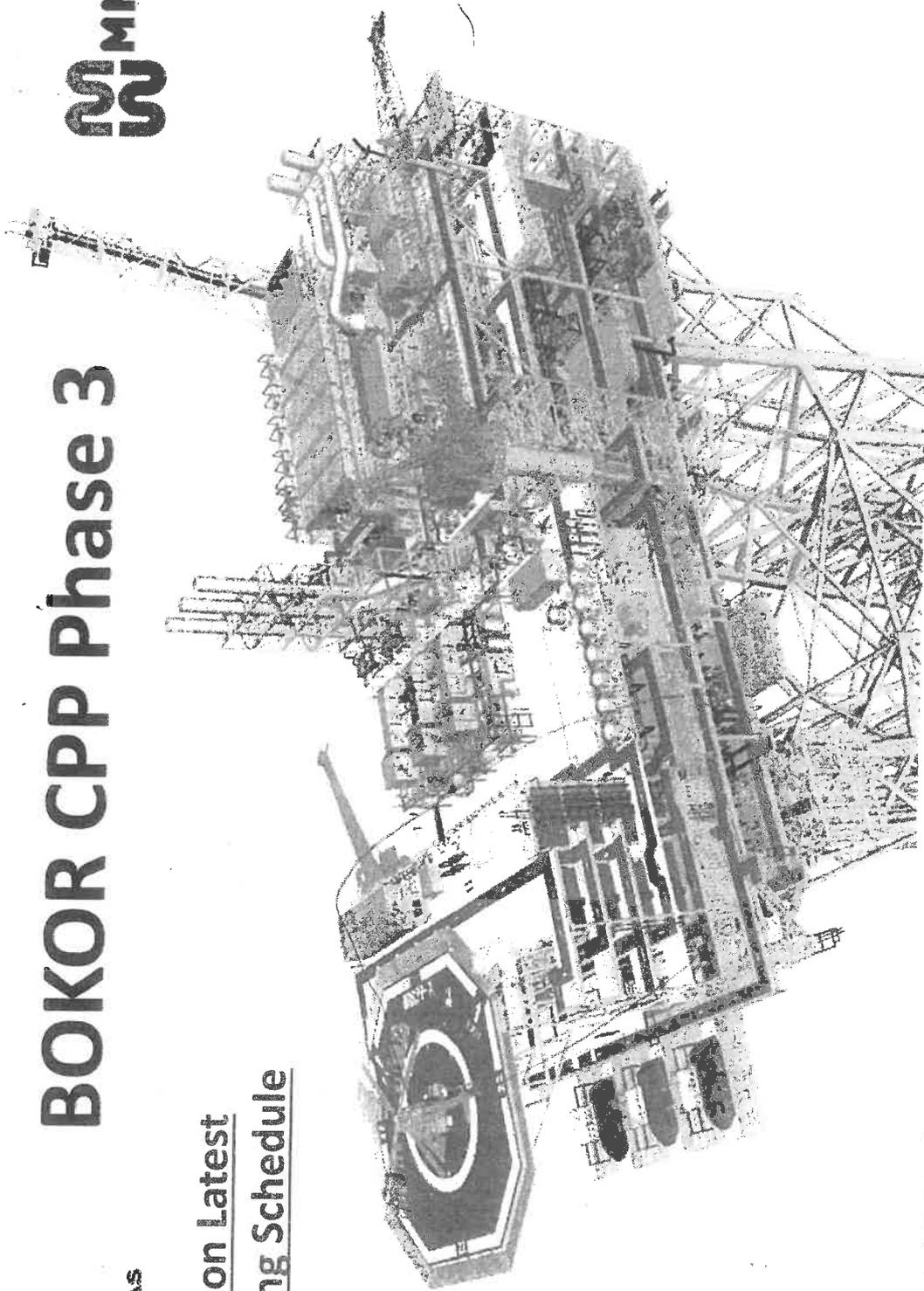
Figure 1.5: Pipe rack before blast



# BOKOR CPP Phase 3



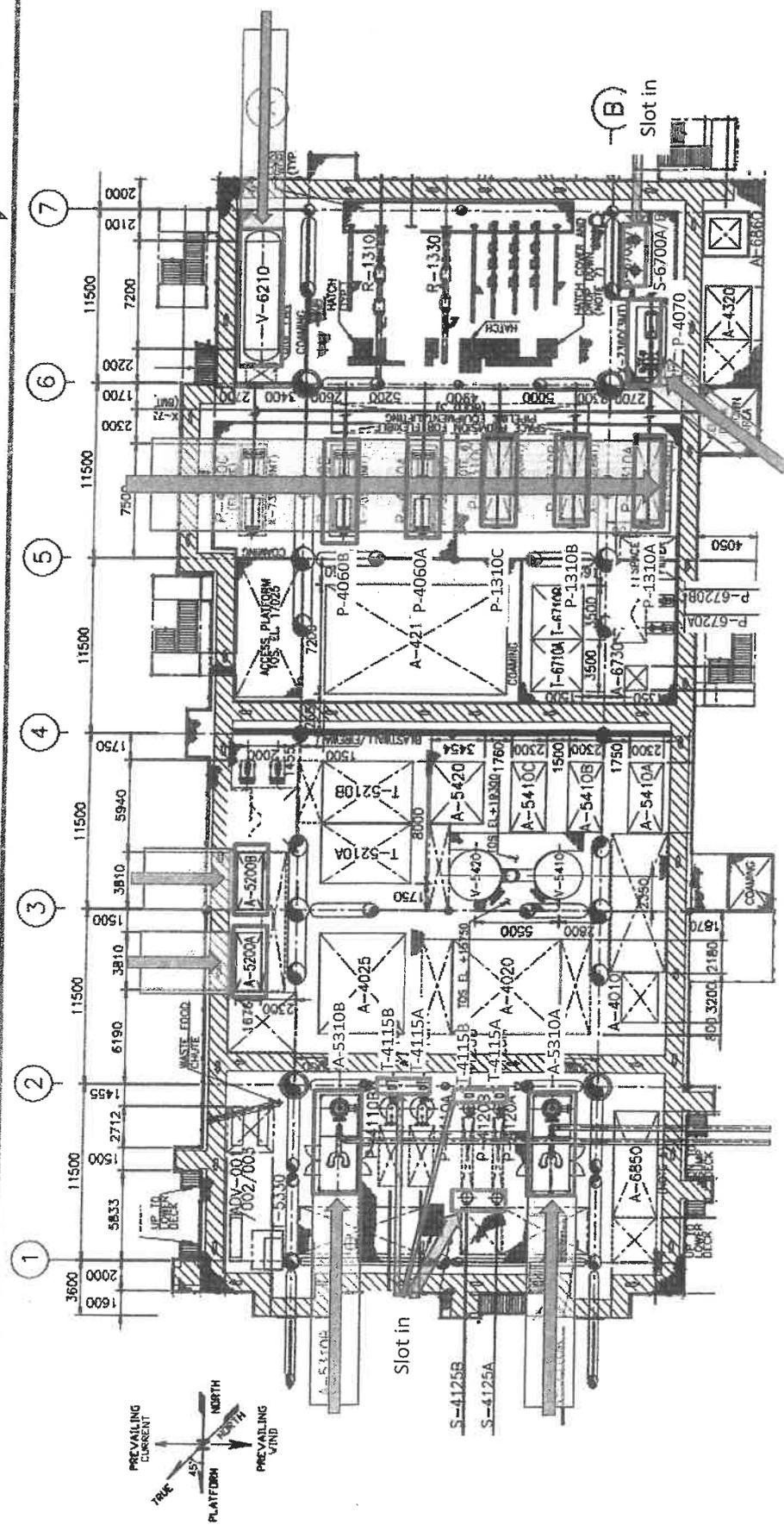
Based on Latest  
Working Schedule



## MECHANICAL EQUIPMENT INSTALLATION PLAN & SEQUENCE

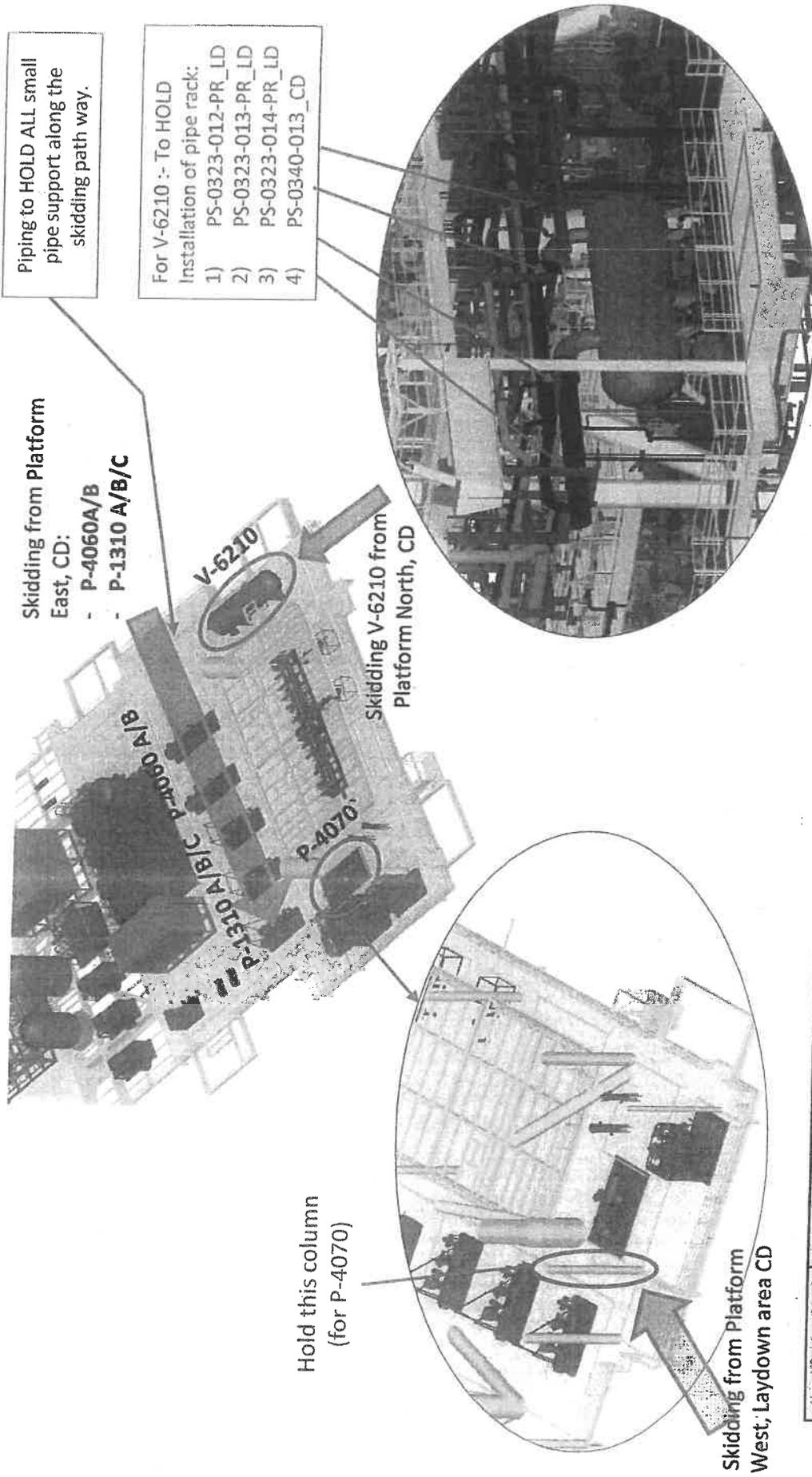
(Rev 9 : 7<sup>th</sup> Jan 2019)

# BOKOR CPP Phase 3 MECHANICAL EQUIPMENT SKIDDING ACCESS (CELLAR DECK)



Skidding access	Row	Column	Tag No	Description	Equipment Size (mm)			Equipment Weight (MT)	Skidding Projection Size (mm)/ Clearance requirement		
					Length	Width	Height		Length	Width	Height
1-2	A & B		P-5310A/B	Firewater Pump	8350	3000	3630	24.00	12000	4000	3950
3	A		A-5200A/B	Potable Water Maker	2591	2083	2311	3.20	4000	2900	2611
6	B		P-4070	Bullhead WI Pump	5500	2440	2200	4.80	7000	3000	2700
6-7	A		V-6210	HP Flare KO Drum	7200 T/T	2300ID	4920	14.60	12300	3000	5400
7	B		S-6700A/B	Diesel Filter Inlet	-	460 ID	2000	0.60	1000	1000	2500
1-2	A-B		S-4125A/B	Service Water Filter	-	800 ID	1000	0.20	1500	1500	1500

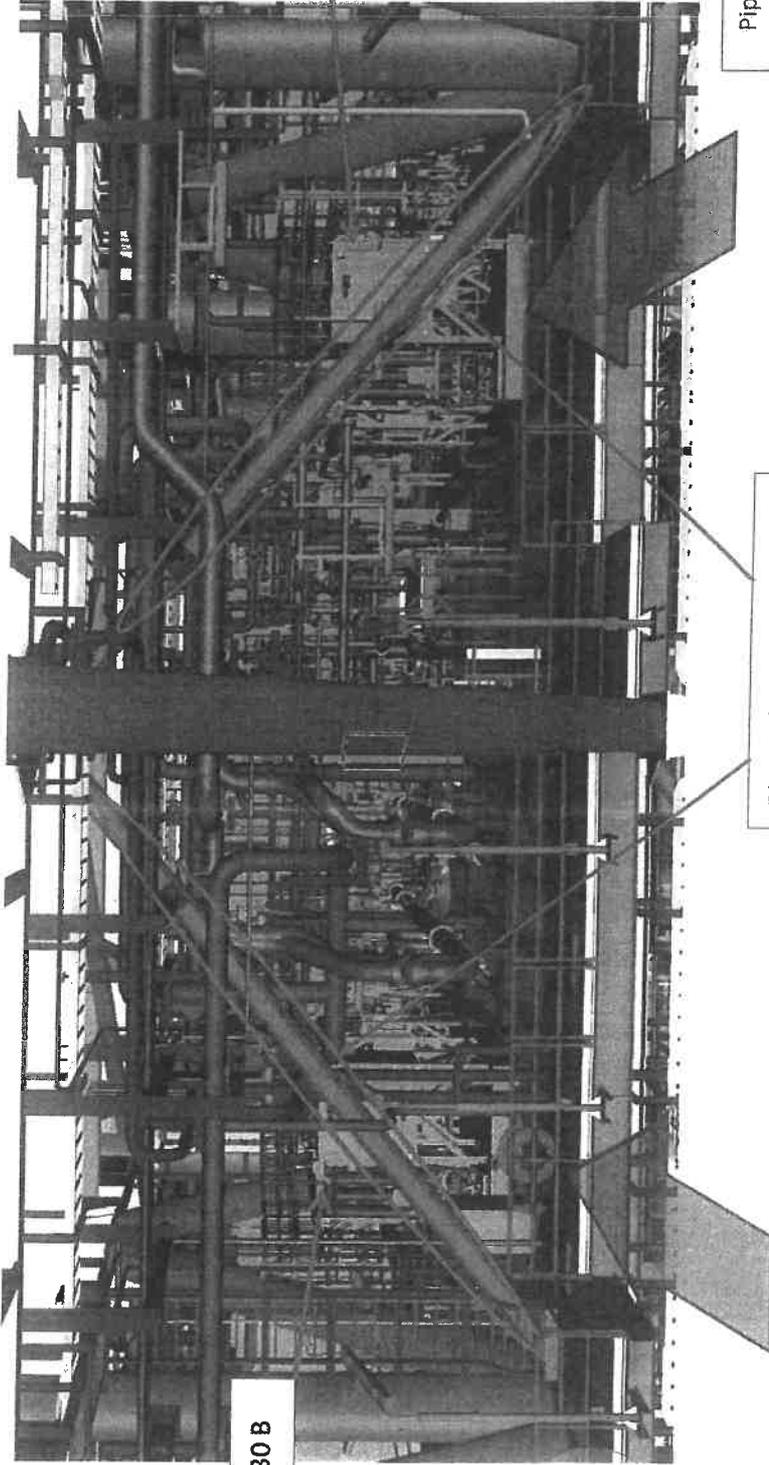
# SKIDDING PLAN for P-4070, V-6210, P-1310 A/B/C & P-4060 A/B at CD



Skidding access	Tag No.	Description	Equipment Size (mm)			Skidding Projection Size (mm) / Clearance Requirement		
			Length	Width	Height	Length	Width	Height
6	B	Bullhead Water Injection Pump	5500	2440	2200	7000	3000	2700
6-7	A	HP Flare KO Drum	7200 T/T	2300ID	4920	12300	3000	5420
5-6	A	Water Injection Pump A/B	6000	1750	1540	7000	2800	2100
5-6	A-B	Crude Oil Transfer Pump A/B/C	5614	1800	1890	7000	2800	2500

# SKIDDING PLAN for FIREWATER PUMP A-5330 A/B at CD

Looking from Platform North:-



A-5330 B

A-5330 A

Diagonal bracing to be HOLD by Structure

Piping and E&I to HOLD ALL pipe rack and support along the skidding path way, on Cellar Deck, or below Lower Deck.

NOTE: C-Channel 250 will be used for guiding the skidding roller, instead of using skidding beam. This can save at least 310mm height. Since the area has no deck plate (grating), existing secondary beam can function as skidding beam.



# BOKOR CPP Phase 3 MECHANICAL EQUIPMENT LAYOUT (LOWER DECK)

**Erect/ Install Lower Deck:**  
 1<sup>st</sup> Panel : 12/2/19  
 2<sup>nd</sup> Panel : 20/2/19

Life Boat Launching System	
ETA	20/11/2019 24 MT
INSTALL	3/12/2019
Launching syst. 1	7/12/2019
Launching syst. 2	12/12/2019
Launching syst. 3	12/12/2019
METHOD	Direct Lifting

Life Boat 1, 2, 3	
ETA	20/11/2019 11.9 MT
Install Boat 1	29/12/2019
Install Boat 2	8/1/2020
Install Boat 3	19/1/2020
METHOD	Pulling thru Launching winch

Surge Vessel	
ETA	21/7/2019 21.4 MT
INSTALL	25/7/2019
METHOD	Top Lift - HOLD Structure's beam

Emergency Diesel Generator	
ETA	28/2/19 60 MT
INSTALL	3/3/19
METHOD	Direct Lifting

A-400 Chemical Injection Pkg	
ETA	17/2/2019 18 MT
INSTALL	4/3/19
METHOD	Direct Lifting

LP Separator	
ETA	30/6/2019 120 MT
INSTALL	3/7/2019
METHOD	Direct Lift - Main Deck will HOLD until the Vessel install

A-404 Chemical Injection Pkg	
ETA	17/12/18 6.7 MT
INSTALL	8/3/19
METHOD	Direct Lifting

A-610 Chemical Injection Pkg	
ETA	17/2/2018 20 MT
INSTALL	12/3/19
METHOD	Direct Lifting

C-4050 Water Injection Distribution Tower	
ETA	02/04/2019 20.3 MT
INSTALL	10/08/2019
METHOD	Direct Lifting from Top Deck - Install after Top Deck install

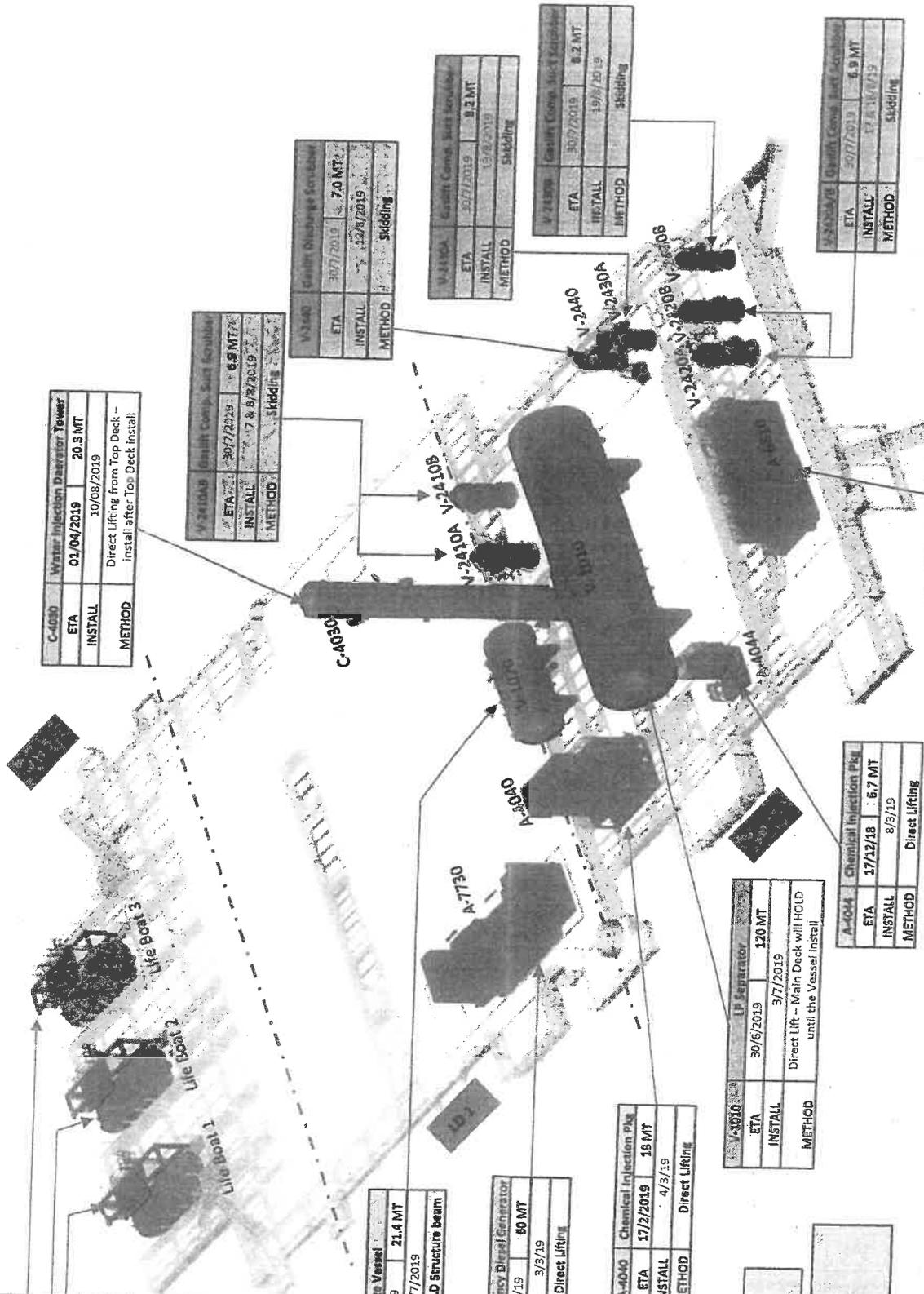
V-2410A High Comp. Surt. Scrubber	
ETA	30/7/2019 6.9 MT
INSTALL	7 & 8/8/2019
METHOD	skidding

V-2440 High Density Scrubber	
ETA	30/7/2019 7.0 MT
INSTALL	12/8/2019
METHOD	skidding

V-2450 Gasoil Comp. Surt. Scrubber	
ETA	30/7/2019 9.2 MT
INSTALL	15/8/2019
METHOD	skidding

V-2490 Gasoil Comp. Surt. Scrubber	
ETA	30/7/2019 8.2 MT
INSTALL	19/8/2019
METHOD	skidding

A-2410A High Comp. Surt. Scrubber	
ETA	30/7/2019 6.9 MT
INSTALL	27/8/2019
METHOD	skidding



**Erect/ Install MEZZ DECK:**  
 17-Apr-19 - 9-May-19

**Erect/ Install MAIN DECK:**  
 1<sup>st</sup> Panel 23 March 2019  
 2<sup>nd</sup> Panel 7 July 2019



# BOKOR CPP Phase 3 MECHANICAL EQUIPMENT SKIDDING ACCESS (LOWER DECK)

Piping and E&I to HOLD  
ALL pipe support, E&I  
cable tray/ cable/ pipe  
rack along the skidding  
path way and height  
clearance as required.

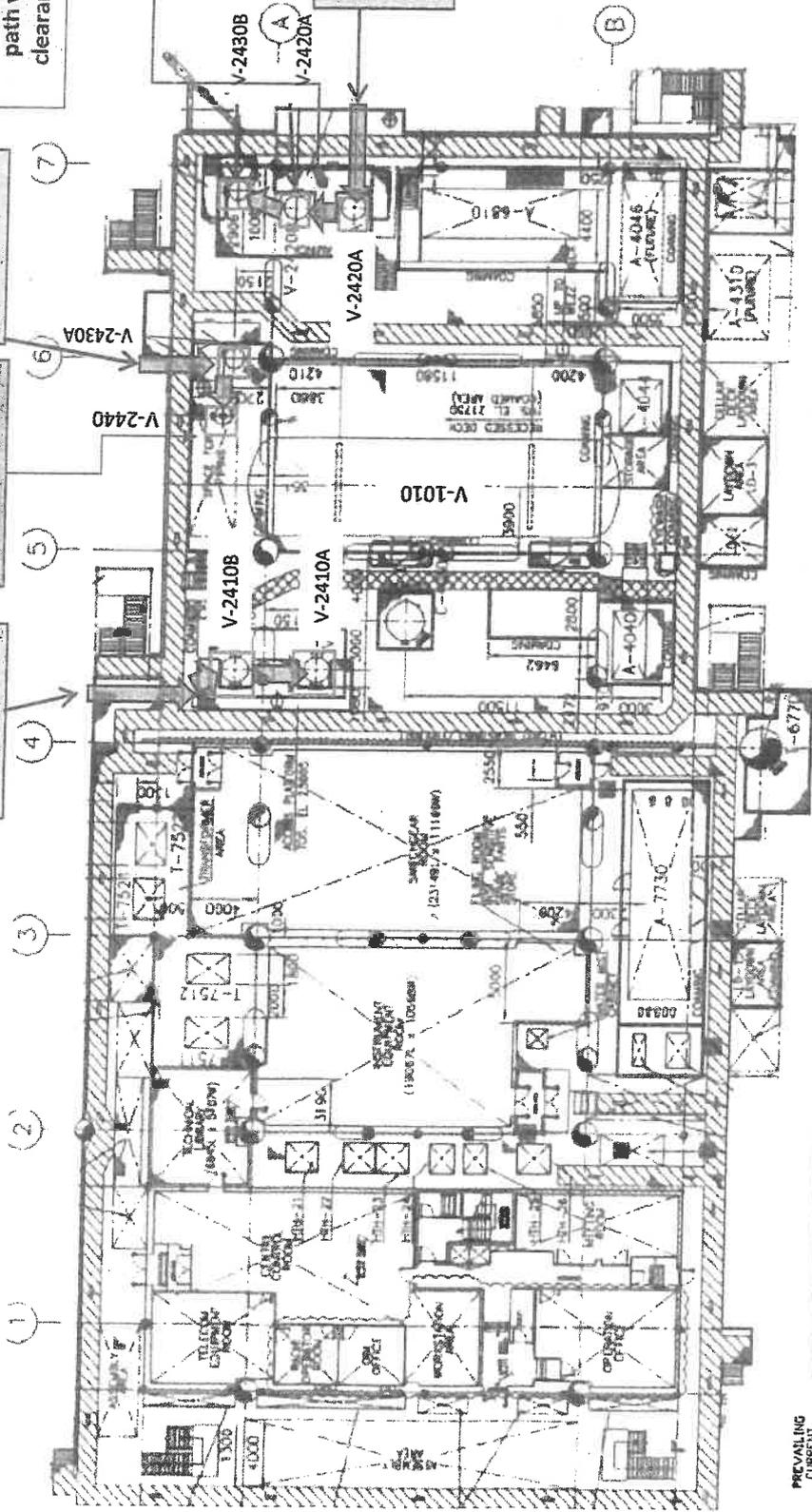
Skidding from  
Platform East:  
• V-2430A  
• V-2440

To HOLD access  
platform for the  
Vessel at E.L. 25200

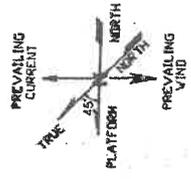
Skidding from  
Platform East:  
• V-2410 A/B

Service Platform  
for V-2420 A/B  
at E.L. 26500 to  
be HOLD.

Skidding from  
Platform South:  
• V-2430B  
• V-2420B  
• V-2420A



Skidding access		Tag No.	Description	Equipment Size (mm)			Equipment Weight (MT)	Skidding Projection Size/ Clearance required (mm)		
Row	Column			Length	Width	Height		Length	Width	Height
6	A	V-2440	Gas Lift Discharge Scrubber	1915	3834	6.5	4000	2400	4334	
6	A	V-2430 A	3 <sup>rd</sup> Stage Suction Scrubber A	2017	4361	7	5000 + 3000	2500	4900	
7	A	V-2430 B	3 <sup>rd</sup> Stage Suction Scrubber B	2017	4361	7	5000 + 7000	2500	4900	
7	A-B	V-2420 A/B	2 <sup>nd</sup> Stage Suction Scrubber A/B	2300	4610	7.5	5000	2500	5110	
4-5	A-B	V-2410 A/B	1 <sup>st</sup> Stage Suction Scrubber A/B	2500	4610	7	12000	2800	5110	



# BOKOR CPP Phase 3 MECHANICAL EQUIPMENT LAYOUT (MAIN DECK)

**Erect/ Install MAIN DECK:**

- 1st Panel 5 Apr 2019
- 2nd Panel 7 July 2019

**Erect/ Install TOP DECK:**  
23-Jul-19 - 22-AUG-19

A-7530 Gas Turbine Generator Pkg. 3		
ETA	31/1/19	37.5 MT
Fabricate, install, machine support	18/4/19 - 11/5/19	
INSTALL skid	12/5/19	
Inst. accessories	16/5-22/7/19	
METHOD	Direct Lifting	

A-7520 Gas Turbine Generator Pkg. 2		
ETA	31/1/19	37.5 MT
Fabricate, install, machine support	15/4/19 - 5/5/19	
INSTALL skid	6/5/19	
Inst. accessories	10/5/19 - 10/7/19	
METHOD	Direct Lifting	

A-7510 Gas Turbine Generator Pkg. 1		
ETA	31/1/19	37.5 MT
Fabricate, install, machine support	11/4/19 - 30/4/19	
INSTALL skid	2/5/19	
Inst. accessories	5/5/19 - 28/6/19	
METHOD	Direct Lifting	

A-4030 Deserator Vacuum Pump Pkg.		
ETA	11/12/18	6.0 MT
INSTALL	07/07/2019	
METHOD	Direct Lifting	

A-5900 Nitrogen Generation Pkg.		
ETA	14/5/19	6.5 MT
INSTALL	14/6/19	
METHOD	Direct Lifting	

V-5950 Nitrogen Receiver		
ETA	24/12/18	4.3 MT
INSTALL	8/6/19	
METHOD	Direct Lifting	

A-6010 Fuel Gas Treatment Skid		
ETA	18/5/19	18 MT
INSTALL	12/07/19	
METHOD	Direct Lifting	

E-7510/Lube Oil Cooler		
ETA	31/03/19	2.4 MT
INSTALL	30.31/10 & 1/11/2019	
METHOD	Direct Lifting	

A-2300 TEG Regener Package		
ETA	17/04/19	70 MT
INSTALL	14/07/19	
METHOD	Direct Lifting	

C-2210 Glycerol Converter		
ETA	05/04/19	10.0 MT
INSTALL	11/08/19	
METHOD	Direct Lifting from Top Deck	

A-2410A Gas Lift Compressor Pkg. 1		
ETA	04/11/19	84.4 MT
INSTALL	10/11/2019 - 19/01/2019	
METHOD	Top Lift & Skidding	

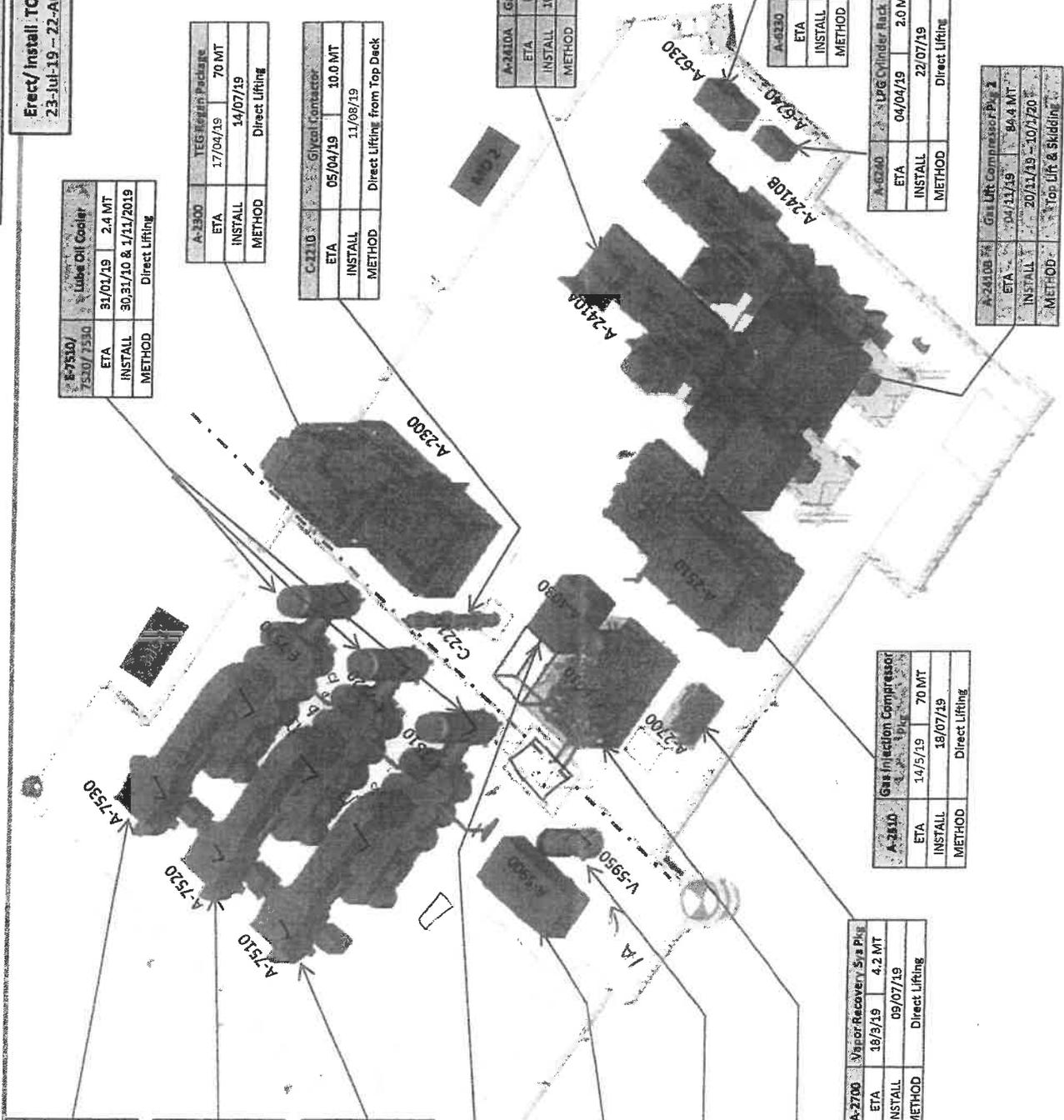
A-4230 Fire Ignition Package		
ETA	03/04/19	1.6 MT
INSTALL	20/07/19	
METHOD	Direct Lifting	

A-6240 LPG Cylinder Rack		
ETA	04/04/19	2.0 MT
INSTALL	22/07/19	
METHOD	Direct Lifting	

A-2410B Gas Lift Compressor Pkg. 2		
ETA	04/11/19	84.4 MT
INSTALL	20/11/19 - 10/1/20	
METHOD	Top Lift & Skidding	

A-2410 Gas Infection Compressor		
ETA	14/5/19	70 MT
INSTALL	18/07/19	
METHOD	Direct Lifting	

A-2700 Vapor Recovery Sys Pkg.		
ETA	18/3/19	4.2 MT
INSTALL	09/07/19	
METHOD	Direct Lifting	



# BOKOR CPP Phase 3 MECHANICAL EQUIPMENT LAYOUT (ABOVE TOP DECK)

Install Living Quarter : 9/10/2019

T-5260	Potable Water Break Tank	15/10/18	23 MT
ETA		27/10/19	
INSTALL			Direct lifting
METHOD			

K-7320	LO Pedestal Crane	22/05/2019	44.7 MT
ETA		29/05/19	28/06/19
INSTALL			Direct lifting - assemble in situ
METHOD			

A-7332	GTG Exhaust Duct 3	29/8/19	15.0 MT
ETA		16/9/19	28/11/19
INSTALL			Direct lifting
METHOD			

A-7312	GTG Exhaust Duct 1	29/8/19	15.0 MT
ETA		2/9/19	14/9/19
INSTALL			Direct lifting
METHOD			

A-7322	GTG Exhaust Duct 2	29/8/19	15.0 MT
ETA		9/9/19	21/11/19
INSTALL			Direct lifting
METHOD			

A-2412A	GLC Exhaust Stack	29/8/19	21.9 MT
ETA		09/01/20	17/02/20
INSTALL			Direct lifting & slot
METHOD			

A-2412B	GLC Exhaust Stack	29/8/19	16.1 MT
ETA		24/01/20	03/03/20
INSTALL			Direct lifting & slot
METHOD			

A-6210/A-6220	HP/IP Flare Tip	03/04/19	0.7 MT (ea)
ETA		13 & 14/09/19	
INSTALL			Install while Flare Platform still on ground
METHOD			

A-5350	DIFF System Skid	10/12/19	0.4 MT
ETA		16/12/19	
INSTALL			Direct lifting
METHOD			

A-5280	Potable Hot Water System	19/5/19	5.0 MT
ETA		23/7/19	
INSTALL			Direct lifting
METHOD			

A-5230A/B	UV Sterilizer	30/05/19	1.0 MT
ETA		27/7/19	
INSTALL			Direct lifting
METHOD			

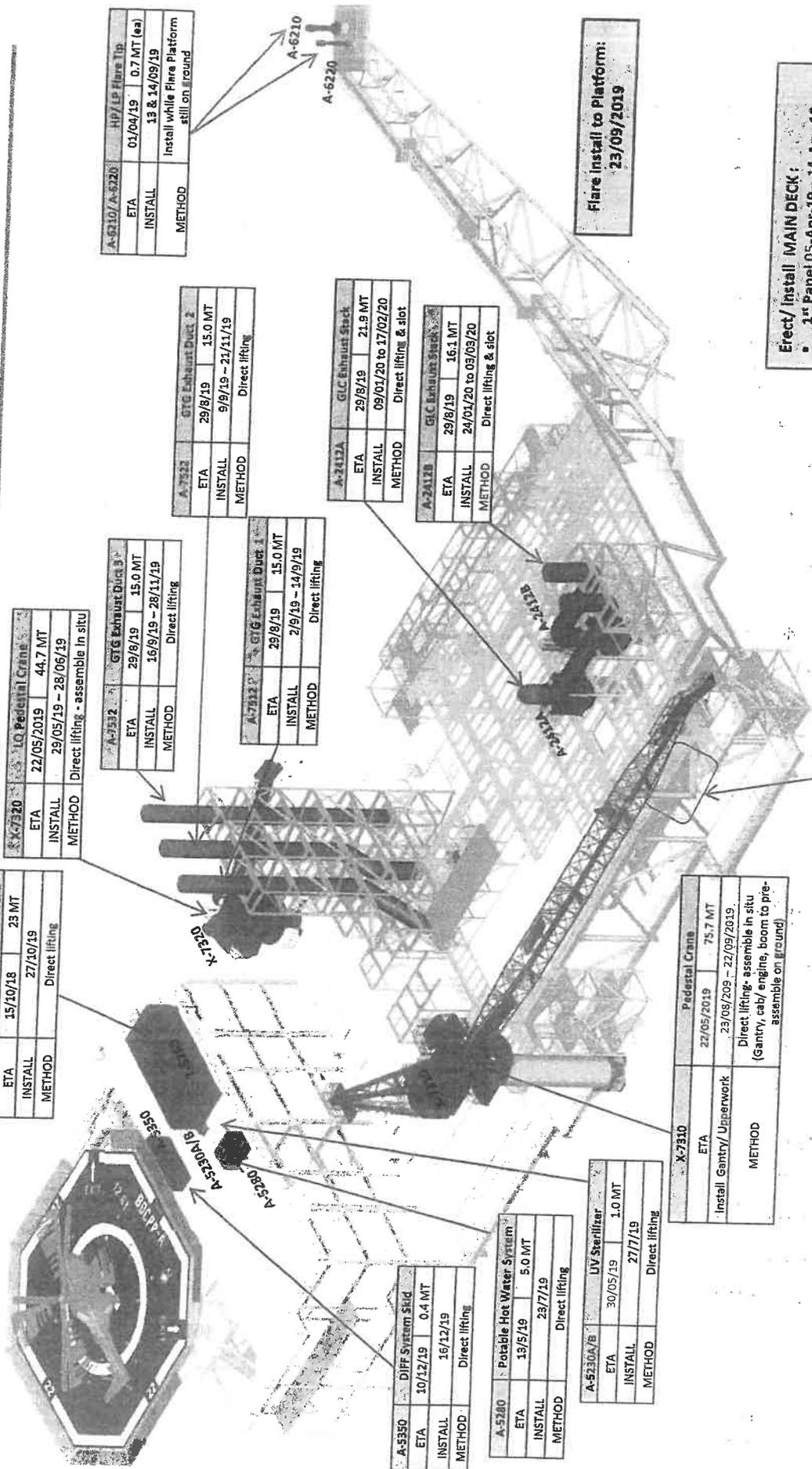
X-7310	Pedestal Crane	22/05/2019	75.7 MT
ETA		29/09/209	22/09/2019
INSTALL	Gantry/Upperwork		Direct lifting - assemble in situ (Gantry, cab/ engines, boom to pre-assemble on ground)
METHOD			

Flare Install to Platform:  
23/09/2019

Erect/ install MAIN DECK:  
 • 1<sup>st</sup> Panel 05-Apr-19 – 14-Apr-19  
 • 2<sup>nd</sup> Panel 07-Jul-2019 – 21-Jul-19

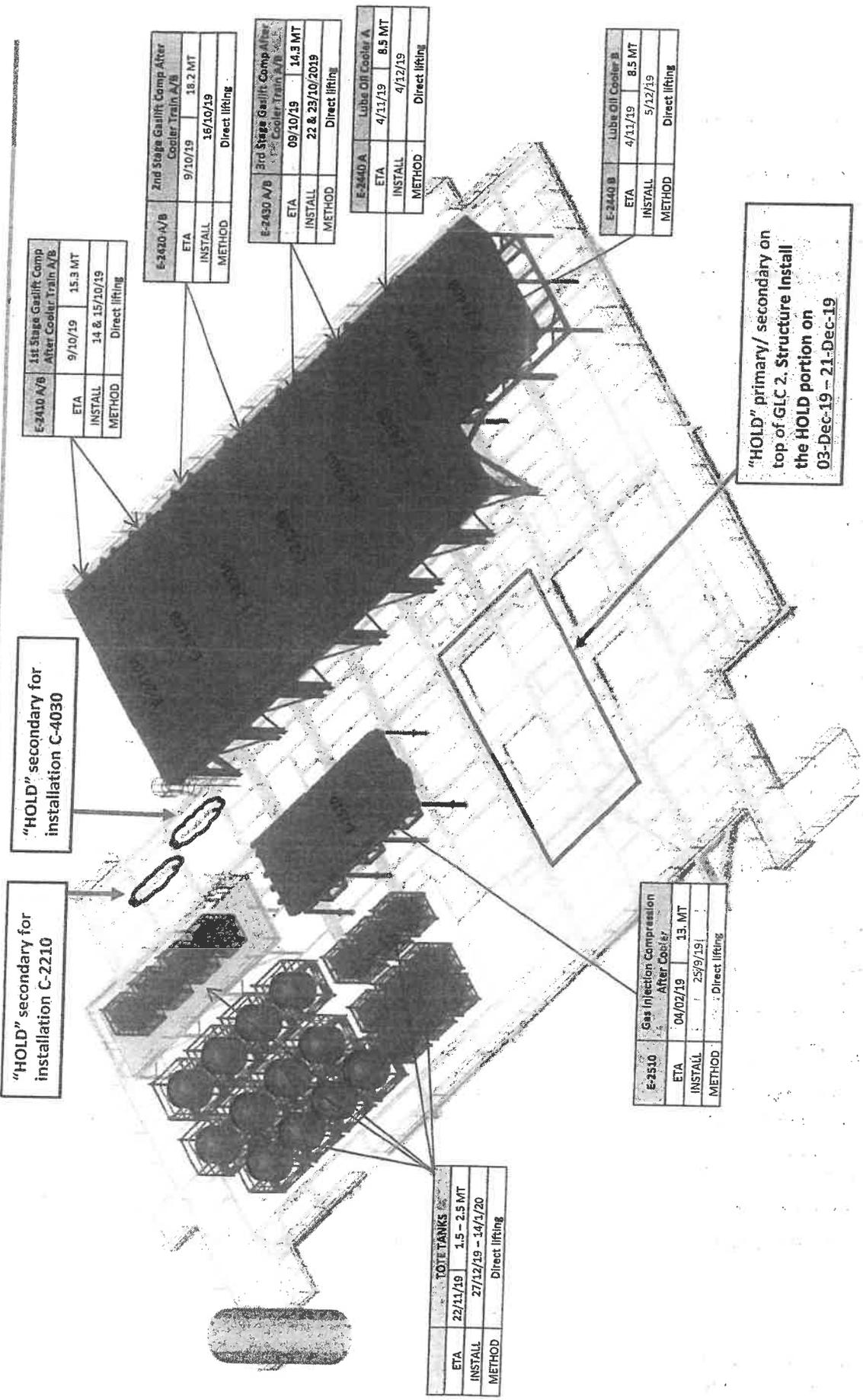
Erect/ install TOP DECK: 23-Jul-19 – 12-Aug-19

Boom rest - attached to Top Deck



**Erect/ Install TOP DECK:**  
23-Jul-19 – 22-Aug-19

# BOKOR CPP Phase 3 MECHANICAL EQUIPMENT LAYOUT (TOP DECK)



"HOLD" secondary for installation C-2210

"HOLD" secondary for installation C-4030

<b>E-2410 A/B</b> 1st Stage Gaslift Comp After Cooler Train A/B	
ETA	9/10/19 15.3 MT
INSTALL	14 & 15/10/19
METHOD	Direct lifting

<b>E-2420 A/B</b> 2nd Stage Gaslift Comp After Cooler Train A/B	
ETA	9/10/19 18.2 MT
INSTALL	16/10/19
METHOD	Direct lifting

<b>E-2430 A/B</b> 3rd Stage Gaslift Comp After Cooler Train A/B	
ETA	09/10/19 14.3 MT
INSTALL	22 & 23/10/2019
METHOD	Direct lifting

<b>E-2440 A</b> Lube Oil Cooler A	
ETA	4/11/19 8.5 MT
INSTALL	4/12/19
METHOD	Direct lifting

<b>E-2440 B</b> Lube Oil Cooler B	
ETA	4/11/19 8.5 MT
INSTALL	5/12/19
METHOD	Direct lifting

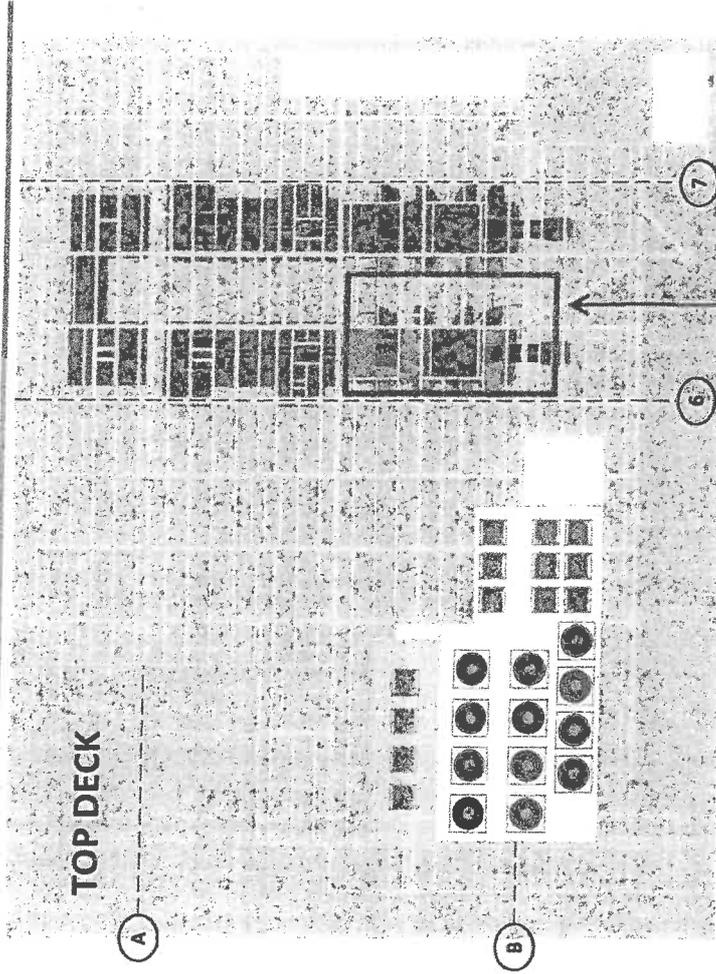
<b>TOTE TANKS</b>	
ETA	22/11/19 1.5 – 2.5 MT
INSTALL	27/12/19 – 14/1/20
METHOD	Direct lifting

<b>E-2510</b> Gas Injection Compression After Cooler	
ETA	04/02/19 13. MT
INSTALL	29/9/19
METHOD	Direct lifting

"HOLD" primary/ secondary on top of GLC 2. Structure Install the HOLD portion on 03-Dec-19 – 21-Dec-19

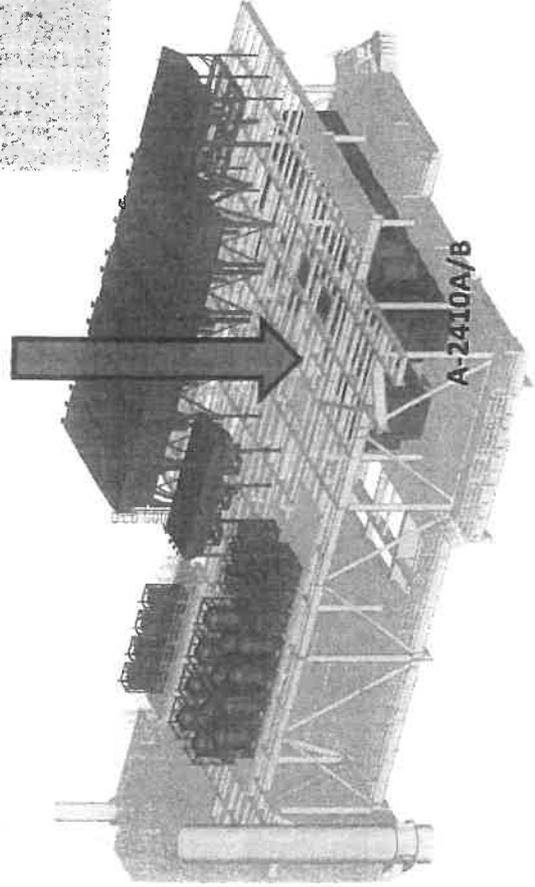
## BOKOR CPP Phase 3

### MECHANICAL EQUIPMENT LAYOUT (TOP DECK)

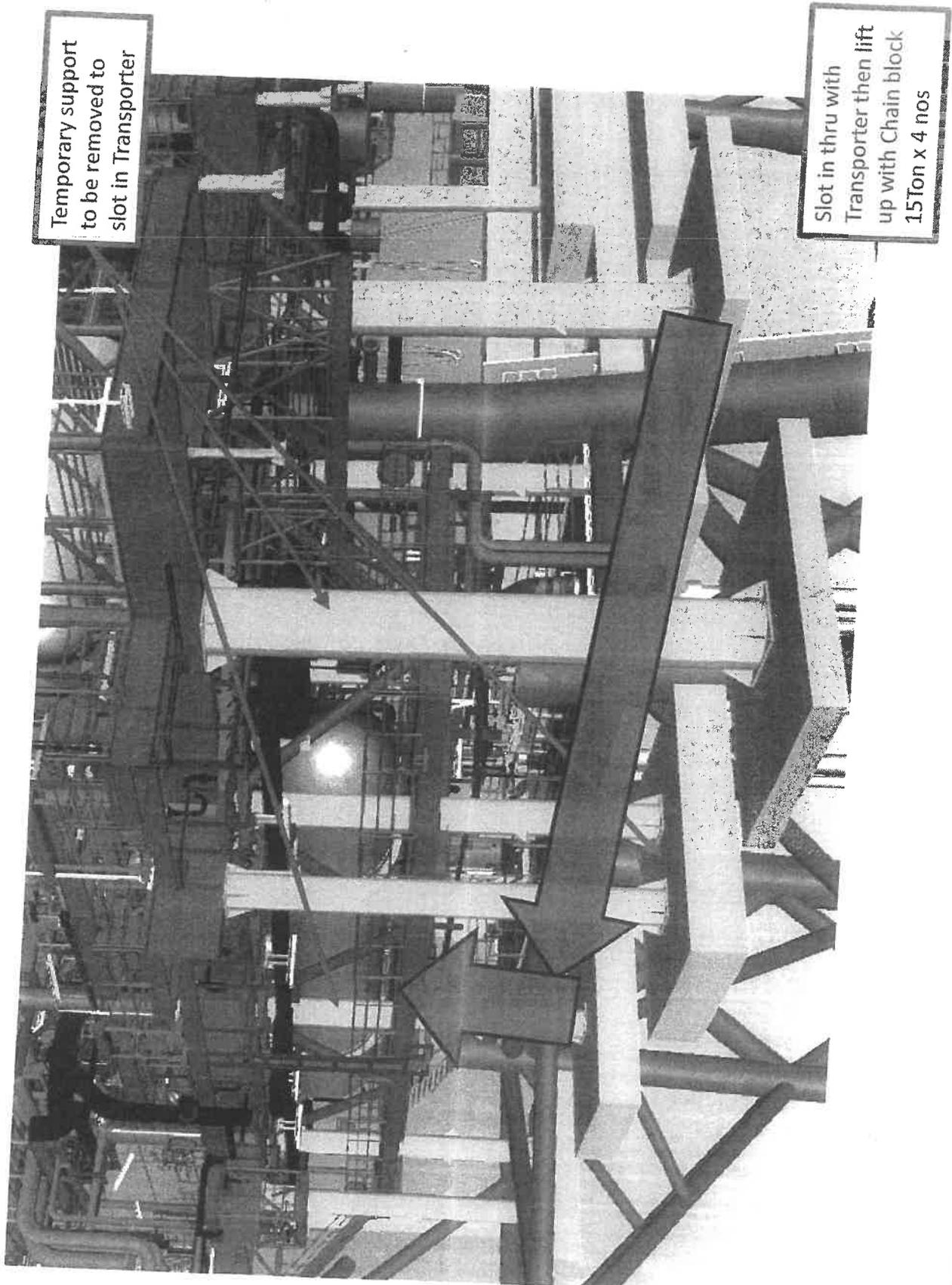


#### Installation method of GLC:-

- 1) Top Lift and skid - A-2410A (2xSeal Gas – Compressor – Driver skid).
- 2) Top Lift and skid - A-2410B (2xSeal Gas – Compressor)
- 3) Top Lift - A-2410B Driver skid



# SKIDDING PLAN for V-6220 below CD



Temporary support  
to be removed to  
slot in Transporter

Slot in thru with  
Transporter then lift  
up with Chain block  
15Ton x 4 nos



DD&I ENGINEERING SDN. BHD.

## *Certificate of Appreciation*

This is to certify that

**Mohd Zuhair Bin Zulkefli**  
(NRIC : 970901-05-5277)

From

**UNIVERSITI TEKNOLOGI MARA CAWANGAN JOHOR**  
**DIPLOMA CIVIL ENGINEERING**

Has successfully completed Industrial Training

At

**DD & I ENGINEERING SDN BHD**

From

**15<sup>th</sup> July 2019 ~ 07<sup>th</sup> Sept 2019**



.....  
**DATO' HJ IRWADI BIN HJ IBRAHIM**  
**Managing Director**  
**DD&I Engineering Sdn Bhd (564901-X)**

**RESUME****PERSONAL DETAILS**

**Name** : Mohd Zuhair Bin Zulkefli  
**Identification No.** : 970901-05-5277  
**Date of Birth** : 1<sup>st</sup> September 1997  
**Place of Birth** : Seremban, Negeri Sembilan  
**Age** : 21  
**Sex** : Male  
**Marital Status** : Single  
**Race** : Malay  
**Religion** : Islam  
**Citizenship** : Malaysian  
**Postal Address** : No.527, Jalan 14, Taman Seri Pagi, Senawang 70450  
 Seremban, Negeri Sembilan  
**Mobile Phone No.** : 0137295226  
**E-mail** : zuhairzulkefli@gmail.com

**EDUCATIONAL BACKGROUND**

Year / Period	Institution	Level	Achievement / Award
2014	SMS MUZAFFAR SYAH	SIJIL PELAJARAN MALAYSIA	8A 1B
2016	UITM JOHOR KAMPUS PASIR GUDANG	DIPLOMA	3.01 CGPA

**EXTRA-CURRICULAR ACTIVITIES**

Year / Period	Programme / Activity	Location	Participation
2014	KEJOHANAN KAWAD NEGERI MELAKA	MELAKA	PENAKAP UDARA
2017	RAYA COMMERCIAL VIDEO COMPETITION	UITM PG	PARTICIPANT
2017	SUSTAINABLE FLOATING CITY COMPETITION	UITM PG	ASSISTANT PROJECT MANAGER

**WORKING EXPERIENCE**

Year / Period	Organisation	Designation	Responsibilities
2015	PESONA MENAWAN	SALES ASSISTANT	Sell health products and make a profit.
2016	7 ELEVEN	CASHIER	Receive payment by cash and record the invoice product.
2017	MARRYBROWN	CASHIER	Receive payment by cash, check, credit cards, vouchers, or automatic debits.

**SKILLS****Language skills:**

Language	Written	Speaking
BAHASA MELAYU	EXCELLENT	EXCELLENT
ENGLISH	GOOD	MODERATE

**Computer Literacy:** Microsoft Word, Microsoft Powerpoint, Autocad and Dev C++

**Other skills** : Excellent at team working, multitask and can complete a task on time.

**ACADEMIC REFEREES**

1. Name : NUR MUIZZAH BT. NAWI  
 Designation : LECTURER  
 Organisation : FAKULTI KEJURUTERAAN AWAM,  
 UiTM CAWANGAN JOHOR KAMPUS PASIR GUDANG.  
 Tel. No. : 017-6240627  
 Email : [nmuizzah@uitm.edu.my](mailto:nmuizzah@uitm.edu.my)
2. Name : MOHD. FIRDAUS B. MOHD. AKHBAR  
 Designation : LECTURER  
 Organisation : FAKULTI KEJURUTERAAN AWAM,  
 UiTM CAWANGAN JOHOR KAMPUS PASIR GUDANG.  
 Tel. No. : 013-2994660  
 Email : [firdausakhbar@gmail.com](mailto:firdausakhbar@gmail.com)

UiTM.FKA.LI-02

Surat Kami : 100-UiTMKPG(FKA14/3/4)  
Tarikh : 22 MEI 2019

**DD&I ENGINEERING SDN BHD,**  
NO 1&2, BAZAAR MASAI,  
JALAN BAYAN,  
81750 MASAI,  
JOHOR

Tuan,

**PERMOHONAN PENEMPATAN LATIHAN INDUSTRI BAGI PROGRAM DIPLOMA  
KEJURUTERAAN AWAM (EC110)**

**Nama:** : MOHD ZUHAIR BIN ZULKEFLI  
**No. Kad Pengenalan:** : 970901-05-5277  
**No. Pelajar UiTM** : 2016307303  
**Program** : DIPLOMA KEJURUTERAAN AWAM  
**Semester** : 5(LIMA)

2. Saya dengan ini mengesahkan bahawa butir-butir peribadi dan akademik di atas adalah seorang pelajar di Fakulti Kejuruteraan Awam, UiTM , Pasir Gudang.

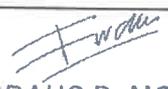
3. Sukacitanya jika pihak Tuan dapat menerima pelajar tersebut untuk menjalani Latihan Industri untuk tempoh **LAPAN (8)** minggu bermula pada **8 JULAI 2019** sehingga **2 SEPTEMBER 2019** sebagai pra-syarat untuk lulus. Sebagai makluman, pelajar dilindungi oleh insurans sepanjang tempoh latihan.

4. Jika Tuan bersetuju untuk penempatan pelajar ini, saya memohon jasa baik pihak Tuan untuk memaklumkan kepada pihak saya dengan melengkapkan "Borang Pengesahan Penerimaan" (lampiran UiTM.FKA.LI-04) dalam tempoh **DUA (2)** minggu daripada tarikh surat ini. Jika tidak ada sebarang maklum balas daripada pihak Tuan, permohonan ini dianggap **TIDAK BERJAYA**.

5. Latihan industri yang akan dijalankan selama 8 minggu adalah sangat pendek, tetapi ia sangat bermakna untuk membantu Universiti dalam menghasilkan bakal jurutera yang berdedikasi, cekap dan berdaya saing selepas tamat pengajian.

6. Fakulti Kejuruteraan Awam UiTM Kampus Pasir Gudang amat menghargai kerjasama pihak Tuan dalam semua hal yang berkaitan dengan latihan industri pelajar Fakulti Kejuruteraan Awam UiTM Kampus Pasir Gudang.  
Terima kasih.

Yang benar,



MOHD FIRDAUS B. MOHD AKHEAR  
KOORDINATOR LATIHAN INDUSTRI  
FAKULTI KEJURUTERAAN AWAM  
KAMPUS PASIR GUDANG  
UiTM JOHOR

KOOR. LI FKA UiTM PG

s.k 1) Ketua Pusat Pengajian Kejuruteraan Awam, UiTM Pasir Gudang

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 ..... 2 / 2019 .....**

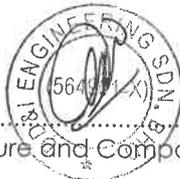
The above matter is referred.

Please be informed that the following students has reported for Industrial Training to our company / organization on 15 / 7 / 2019 (completed by the company/ organization) as stated.

**STUDENT NAME** : MOHD ZUHAIK B. ZUCKEFLI  
**STUDENT NO.** : 2016309303  
**ID NO.** : 990901-05-5277  
**PROGRAMME** : DIPLOMA IN CIVIL ENGINEERING  
**SEMESTER** : 5  
**REPORT DATE** : 15/7/2019  
**INDUSTRIAL TRAINING ADDRESS** : NO 1-2, BAZAAR MASAI, JALARI  
BAYAN, 81750 MASAI, JOHOR.  
  
**DURATION / PERIOD** : 8 weeks

Thank you.

Yours sincerely,



(Signature and Company / Organization Stamp)

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

**STUDENT INFORMATION** (Matlumat Pelajar)

Name (Nama) : MOHD ZUHAIK B. ZULKEFLI : UiTM No. (No. UiTM) : 2016207303  
Programme (program) : EC110 : ID No. (No. k/p) : 990901-05-5274  
Session (sesi) : 2 : Semester (Semester) : 5  
Address (alamat) : No 51, TALAN MAYA 4, MAYA HEIGHT, 81750, MASAI, JOHOR  
Phone (Telefon) : 013-7295226 : Mobile No. (No. h/p) : -  
Email (emel) : zuhairzulketli@gmail.com

**ORGANIZATION INFORMATION** (Matlumat organisasi)

Name (Nama) : Ddni Engineering Sdn. Bhd.  
Address (alamat) : NO 1-2, Bazaar masai, Jalan Bayan, 81750 masai, Johor.  
Contact Person (Pegawai yang boleh dihubungi) : Nuraini Binti Ismail  
Designation (Jawatan) : Management Clerk  
Phone (Telefon) : 013 7898606 : Mobile No. (No. h/p) :  
Fax No. (No. Fax) : : Email (emel) : ddni-eng@gmail.com

  
Signature (Tandatangan)

25/7/2014  
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)