



**OCCUPATIONAL JOB STRUCTURES FOR
BUILDING CONSTRUCTION INDUSTRY SECTOR**
**(Struktur Pekerjaan Bagi
Sektor Industri Pembinaan Bangunan)**



JABATAN PEMBANGUNAN KEMAHIRAN

KEMENTERIAN SUMBER MANUSIA

Jabatan Pembangunan Kemahiran
Kementerian Sumber Manusia, Malaysia

CONTENTS	PAGE
1. EXECUTIVE SUMMARY	1
2. CONCEPT AND STRUCTURE OF THE MALAYSIAN OCCUPATIONAL SKILLS QUALIFICATION FRAMEWORK (MOSQF)	2
3. BUILDING CONSTRUCTION INDUSTRY IN MALAYSIA – BACKGROUND OF THE SECTOR	6
3.1 Preamble	6
3.2 Definition of The Building Construction Industry Sector	6
3.3 Current Analysis of the Building Construction Industry	7
3.4 Policies, Associations and Development Plan for the Building Construction Industry	8
3.5 Skilled Worker Requirement in the Local Industry Sector	13
3.6 Industrial Competition at International Level	14
4. METHODOLOGY OF OCCUPATIONAL ANALYSIS – BUILDING CONSTRUCTION SECTOR	16
4.1 Methodology to Construct Occupational Definition	16
4.2 Methodology of the Overall Occupational Analysis Process	19
5. FINDINGS	22
5.1 Existing Job Title and Hierarchy	22
5.2 Newly Identified Sub Sectors	22
5.3 Mapping Between Proposed Sub Sectors to the Existing Sub Sectors	43
5.4 Entry Level & Justification	46
5.5 Occupational Definition	49
5.6 Critical Job Titles	49
6. CONCLUSION AND RECOMMENDATION	58
7. REFERENCES	59

LIST OF ANNEXURES

Annex 1: List of Panel Experts and Facilitators of the Building
Construction Industry Occupational Analysis Development

Annex 2: Occupational Definitions in the Building Construction Industry
Sector

LIST OF FIGURES	PAGES
Figure 2.1: MOSQF – Four (4) Higher Education Sectors & Eight (8) Qualifications Levels	3
Figures 2.2 : Malaysian Occupational Skills Qualification Framework (MOSQF) Levels Description	5
Figures 4.1 : Example of Identifying Object	17
Figure 5.1.1 : Existing OA Matrices for the Building Construction Sector (Sub Sector : Construction industry)	33
Figure 5.1.2 : Existing OA Matrix for the Building Construction Sector (Sub Sector : Draughting – Architectural)	33
Figure 5.1.3 : Existing OA Matrix for the Building Construction Sector (Sub Sector : Surveying – Land)	34
Figure 5.1.4 : Existing OA Matrix for the Building Construction Sector (Sub Sector : Industrialised Building System)	34
Figure 5.1.5 : Existing OA Matrix for the Building Construction Sector (Sub Sector : Lift & Escalator)	35
Figure 5.1.6 : Existing OA Matrix for the Building Construction Sector (Sub Sector: Piling)	35
Figure 5.1.7 : Existing OA Matrix for the Building Construction Sector (Sub Sector : Crane)	36
Figure 5.1.8: Proposed OA Matrix for the Building Construction Sector (Sub Sector : Civil)	37
Figure 5.1.9: Proposed OA Matrix for the Building Construction Sector (Sub Sector : Structural)	38
Figure 5.1.10: Proposed OA Matrix for the Building Construction Sector (Sub Sector : Architectural)	39
Figure 5.1.11: Proposed OA Matrix for the Building Construction Sector (Sub Sector: Machinery & Plant)	40

Figure 5.1.13: Proposed OA Matrix for the Building Construction Sector (Sub Sector: IBS Installation)	41
Figure 5.1.12: Proposed OA Matrix for the Building Construction Sector (Sub Sector : Construction Site Supervisory & Management)	42
Figure 5.14 : Mapping between the proposed sub sectors to the existing sub sectors	45
Figure 5.15: Summary of Critical & Non Critical Job Titles	57

1. EXECUTIVE SUMMARY

Building construction is the process of adding structure to real property. Building construction is procured privately or publicly utilizing various delivery methodologies, including hard bid, negotiated price, traditional, management contracting, construction management-at-risk, design & build and design-build bridging.

Industrial construction, though a relatively small part of the entire construction industry, is a very important component. Owners of these projects are usually large, for-profit, industrial corporations. These corporations can be found in such industries as medicine, petroleum, chemical, power generation, manufacturing, etc. Processes in these industries require highly specialized expertise in planning, design, and construction. As in building and heavy/highway construction, this type of construction requires a team of individuals to ensure a successful project.

However, this particular Occupational Analysis is focusing only on the building construction industry and does not include other civil structures such as bridges or highways.

Building construction is an industry with great potential. Endowed with strong government support and a substantial human resource, this industry could expand more in the future. Malaysia still needs more skilled expertise in the building construction industry that can improve this sector so that it can advance into the market globally.

2. CONCEPT AND STRUCTURE OF THE MALAYSIAN OCCUPATIONAL SKILLS QUALIFICATION FRAMEWORK (MOSQF)

The Malaysia Occupational Skills Qualification Framework (MOSQF) is a framework that will be a unified system to bind and interlink all the qualifications awarded in Malaysia. The MOSQF will serve as an instrument that develops and classifies qualifications based on a set of criteria that are approved nationally and is at par with international good practices at the level of learning attained by the learners. This includes learning outcomes achieved and thus clarifying levels of learning. The criteria will be used and accepted by all Department of Skills Development (DSD) accredited centres. The MOSQF is developed based on the Malaysian Qualifications Framework (MQF) and also based on frameworks used and referenced by other countries such as England, Wales & Northern Ireland, Australia, New Zealand and Europe. Therefore the MOSQF will enable it to become a translation device to make qualifications more readable and understandable across different countries. The framework was developed in order to improve the current national training system for all parties of interest such as individuals, skills training providers, the Government, associations, professional bodies, the industry and the Malaysian community. The MOSQF has defined eight (8) levels of qualifications in four sectors of education. The four sectors of education are the:

- Skills sector;
- Vocational and technical sector;
- Life-long learning sector; and
- Higher education (university) sector.

The eight (8) levels of qualifications can be seen in *Figure 2.1: MOSQF – Four (4) Higher Education Sectors & Eight (8) Qualifications Levels*.

Qualification Levels	Sectors			Lifelong Learning
	Skills	Vocational and Training	Higher Education	
8	Malaysian Skills Higher Meister		Doctoral Degree	Accreditation for Prior Experiential Learning (APEL)
7	Malaysian Skills Meister		Master's Degree	
			Postgraduate Certificate & Diploma	
6	Malaysian Skills Higher Advanced Diploma		Bachelor's Degree	
			Graduate Certificate & Diploma	
5	Malaysian Skills Advanced Diploma	Advanced Diploma	Advanced Diploma	
4	Malaysian Skills Diploma	Diploma	Diploma	
3	Malaysian Skills Certificate 3	Vocational & Technical Certificate	Certificate	
2	Malaysian Skills Certificate 2			
1	Malaysian Skills Certificate 1			

Figure 2.1: MOSQF – Four (4) Higher Education Sectors & Eight (8) Qualifications Levels

Source: MOSQ Division, Department of Skills Development

Date Reviewed: June 2008

**MALAYSIA OCCUPATIONAL SKILLS QUALIFICATION FRAMEWORK
(MOSQF)**

Level	Level Description
1	Achievement at this level reflects the ability to use relevant knowledge, skills and procedures to complete routine and predictable tasks that include responsibility for completing tasks and procedures subject to direction or guidance
2	Achievement at this level reflects the ability to select and use relevant knowledge, ideas , skills and procedures to complete well-defined tasks and address straightforward problem . It includes taking responsibility for completing tasks and procedures, and exercising autonomy and judgment subject to overall direction or guidance
3	Achievement at this level reflects the ability to identify and use relevant understanding , methods and skills to complete task and address problems that are well defined with a measure of complexity . It includes taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgments within limited parameter . It also reflects awareness of different perspectives or approaches within an area of study or work
4	Achievement at this level reflects the ability to identify and use relevant understanding, methods and skills to address problems that are well defined but complex and non-routine . It includes taking responsibility for overall courses of action as well as exercising autonomy and judgment within fairly broad parameters. It also reflects under-standing of different perspective or approaches within an area of study or work
5	Achievement at this level reflects the ability to identify and use relevant understanding, methods and skills to address broadly-defined, complex problems . It includes taking responsibility for planning and developing courses of action as well as exercising autonomy and judgment within broad parameters. It also reflects understanding of different perspectives, approaches or schools of thought and the reasoning behind them
6	Achievement at this level reflects the ability to refine and use relevant understanding, methods and skills to address complex problems that have limited definition . It includes taking responsibility for planning and developing courses of action that are able to underpin substantial change or development, as well as exercising broad autonomy and judgment . It also reflects an understanding of different perspectives, approaches of schools of thought and the theories that underpin them
7	Achievement at this level reflects the ability to reformulate and use relevant understanding, methodologies and approaches to address problematic situations that involve many interacting factors. It includes taking responsibility for planning and developing courses of action that initiate or underpin substantial change or development, as well as exercising broad autonomy and judgment. It also reflects an understanding of theoretical and relevant methodological perspectives, and how they affect their area of study or work

Level	Level Description
8	Achievement at this level reflects the ability to develop original understanding and extend an area of knowledge or professional practice. It reflects the ability to address problematic situations that involve many complexes, interacting factors through initiating, designing and undertaking research, development or strategic activities. It involves the exercise of broad autonomy, judgement and leadership in sharing responsibility for the development of a field of work or knowledge, or for creating substantial professional or organisational change. It also reflects a critical understanding of relevant theoretical and methodological perspectives and how they affect the field of knowledge or work.

Figure 2.2: Malaysian Occupational Skills Qualification Framework (MOSQF)
Levels Description

Source: MOSQ Division, Department of Skills Development

Date Reviewed: 2 April 2009

3. BUILDING CONSTRUCTION INDUSTRY IN MALAYSIA – BACKGROUND OF THE SECTOR

3.1 PREAMBLE

Construction is a process that consists of the building or assembling of infrastructure. Far from being a single activity, large scale construction is a feat of multitasking. Normally the job is managed by the project manager and supervised by the construction manager, design engineer, construction engineer or project architect.

The building construction industry has an obligation and a responsibility to ensure that development taking place today and the pursuit of wealth must not be done at the expense of the quality of life of future generations.

It is for this very reason that development of a Construction Industry Master Plan becomes imperative. Malaysia has developed the Construction Industry Master Plan covering the period of 2006 – 2015. The construction sector continues to be an essential element of the Malaysian economy, which lends strength and capability to a host of economic sectors and supports the social development of the country through the provision of basic infrastructure.

3.2 DEFINITION OF THE BUILDING AND CONSTRUCTION INDUSTRY SECTOR

The Oxford dictionary explains that construction is the act or method of building. Construction means new construction, alteration, repairs, and demolition. Installation of any machinery or equipment which is built-in at the time of the original construction is included, as well as installation of machinery or equipment after the original construction but which requires structural alteration in order to be installed. Construction is to ensure that the industry is well positioned to support the nation's overall economic growth and to meet various challenges, such as the need to enhance productivity and quality along the entire construction industry value chain.

3.3 CURRENT ANALYSIS OF THE BUILDING CONSTRUCTION INDUSTRY

Taking advantage of global opportunities will allow the Malaysian construction industry to reduce the effects of the domestic market condition and have greater control over its own development. Since 1986, a total of 328 projects in excess of RM 22 billion have been completed- mainly in India, the Middle East and the ASEAN regions. In addition, 84 projects remain underway (since 1986) with a total value of RM 39 billion. *“Resource, Construction Industry Master Plan Malaysia 2006 – 2015” is a copyright reserve of the Construction Industry Development Board.*

The focus of overseas projects has mainly been in infrastructure works – such as building and road/ highway projects – which are areas of export specialty for Malaysian contractors. The export activities of other Malaysian industries also provide opportunities for the construction sector. In 2004 alone, the oil and gas industry saw major partnership deals and opportunities arise in India, Indonesia, and China. Although these projects mentioned were secured by non-construction Malaysian companies, it would be beneficial if these non-construction Malaysian companies could also tie-up with Malaysian contractors as part of the overseas expansion plan.

In order to continue leveraging on domestic opportunities and to compete in the global marketplace, the Malaysian construction industry players need to address a number of key strategic and operational challenges. There is a need to take a holistic approach when reviewing the factors impacting the construction industry value chain. Improvements need to be implemented by all parties along the entire construction industry value chain for lasting transformation to occur. Therefore, in addition to contractors, clients, approving authorities, consultants and other stakeholders must be involved in this transformation.

3.4 POLICIES, ASSOCIATIONS AND DEVELOPMENT PLAN FOR THE BUILDING CONSTRUCTION INDUSTRY

i) Construction Industrial Development Board ACT 1994 (CIDB) (ACT 520)

Known as ACT 520 in short, the ACT came into force on 24 July 1994 to establish CIDB (*Lembaga Pembangunan Industri Pembinaan Malaysia*) as the governing body entrusted with the responsibility to provide effective leadership and coordination among construction industry players in Malaysia.

Function of CIDB:-

- To promote and stimulate the development, Improvement and expansion of the construction industry;
- To advise and make recommendation to the Federal Government and the State Government on matters affecting or connected with the construction industry;
- To promote, stimulate and undertake research into any matter relating to the construction industry;
- To promote, stimulate and assist in the export of service relating to the construction industry;
- To provide consultancy and advisory services with respect to the construction industry;
- To promote quality assurance in the construction industry;
- To encourage the standardization and improvement of construction techniques and materials;
- To initiate and maintain a construction industry information system;
- To provide promote, review and coordinate training programs organised by public and private construction training centers for skilled construction;
- To accredit and register contractors and to cancel, suspend or reinstate the registration of any registered contractor; and
- To accredit and certify skilled construction workers and construction site supervisors.

ii) The Third Industrial Master Plan (IMP3)

The Construction Industry Development Board (CIDB) Act 1994 (Act 520) and regulations refer to the Plan (IMP3), 2006–2007 that outlines the industrial strategies and policies which form part of the country’s continuing efforts towards realising Malaysian’s objective of becoming a fully developed nation by 2020, as stated in vision 2020. The plan leverages upon the strengths and capabilities of existing industries and the country’s resources to enhance competitiveness and resilience. It also builds upon the experience and success of the previous two plans, with adjustments to reflect development and opportunities in the global, regional and domestic environments.

The overriding objective of the IMP3 is to achieve global competitiveness through innovation and transformation of the manufacturing and services sector, while contributing to the other development thrusts of the National Mission of the Malaysia Plan (RMK-9) 2006-2010.

To contribute towards the objectives of Malaysia to be a developed nation by 2020, it is envisaged that Malaysia will develop a construction industry that is internationally competitive. The industry will be seamless and all stakeholders will work in collaboration with each other. To make sure the objective is successful, it needs to follow the vision of Malaysian construction, “be the Malaysia construction industry shall be a world-class, innovative, and knowledge global solution provider”. Another important thing is mission, set out as follows, “to be a dynamic, productive, and resilient enabling sector, supporting sustainable wealth generation and value creation, driven by a technologically-pervasive, creative, and cohesive construction community”.

The plan leverages upon the strengths and capabilities of existing industries and the country’s resources to enhance competitiveness and resilience. Reviews of the plan’s overall policy directions and targets are conducted every five years. Major

services sub-sector targeted for greater development and expert promotion include construction.

The Malaysian construction industry is planned to be world-class in terms of excellence throughout the construction industry value chain (from inception to facility management) as well as integrated to contribute to the economic development of Malaysia.

iii) Occupational Safety and Health ACT 1994 (ACT 514)

The Occupational Safety and Health Act 1994 (Act 514) is Malaysian legislation which has been gazetted on the 25 February 1994 by the Malaysian Parliament.

The principal of the Act is *“To make further provision for securing that safety, health and welfare of persons at work, to protecting others against risks to safety or health in connection with the activities of persons at work, to establish the National Institute for Occupational Safety and Health and for matters connected therewith”*.

The Act applies throughout Malaysia to the industries specified mentioned as below:

- Manufacturing;
- Mining and Quarrying;
- Construction;
- Agriculture, Forestry and Fishing;
- Utilities;
- Transport, Storage and communication;
- Wholesale and Retail Trades;
- Hotel and Restaurants;
- Finance, Insurance, Real Estate and Business services; and
- Public Services and Statutory Authorities.

iv) National Institute of Occupational Safety and Health (NIOSH)

The National Institute of Occupational Safety and Health (NIOSH) was launched on 1st December, 1992, after careful preparation and commitment from all parties to improve the safety and health of workers at the workplace in Malaysia. In the words of the Minister of Human Resource, Malaysia, NIOSH would be a “critical catalyst” in the promotion of occupational safety and health that would also serve as the ‘backbone’ to create a “self-regulating occupational safety and health culture” in Malaysia.

v) Ministry of Works

Commonly known as the Kementerian Kerja Raya (KKR) Malaysia in Malay term. Established in 1956 as the, Post and Telecom. In 1975, the Ministry was restructured and renamed the Ministry of Works and Transportation. The rapid growth and socio-economic development of the country in the 1970s has added to the responsibilities of the Ministry. Thus, the Ministry was again renamed the Ministry of Works and Public in 1978. In accordance with its specialised responsibilities in the 1980s, the Government renamed the Ministry to the Ministry of Works. The Ministry's objective is to develop and enhance a high quality infrastructure system, the construction industry and services.

vi) Jabatan Kerja Raya (Public Works Department)

Also known as the Public Works Department (PWD) in English term. Established in 1872 to build infrastructure for socio-economic development and political systems of the English government in the Straits Settlement comprising of Singapore, Malacca, Perak, Seberang Perai and Penang. Today, Jabatan Kerja Raya (JKR) is the foremost technical department in national infrastructure development. JKR provides multidisciplinary expertise that ensures best practice in technical consultancy, project management and asset/facilities maintenance management.

vii) Construction Industry Master Plan Malaysia (2006-2015)

On 24 June 2003, the Construction Industry Development Board (CIDB) and the Building Industry President Council (BIPC) jointly organised the Presidents and Chief Executive Officers (CEOs) Roundtable on Establishing priorities to improve the Malaysian construction industry for the future. The Roundtable was participated by CEOs of major construction and property development companies, presidents of professional institutes and building industry associations as well as officers from various Government departments. The Roundtable identified and recommended measures to improve the Malaysian construction industry. CIDB was then entrusted with the role of coordinating the various measures recommended and establishing the 10 Working Groups (WGs) which included the CIMP.

The CIMP, Construction Industry Master Plan is Malaysia's strategic move to transform its construction industry to be among the best in the world. Malaysia's construction industry in 2015 is envisioned to be characterised by the following;

Efficient and productive industry – Progressive industry employing highly skilled workers using modern techniques and technology, delivering high quality product and services with an outstanding achievement in global construction arena.

Consolidated industry – One that is customer and service-focussed delivering integrated services through strategic partnership between the clients, contractors, consultants, sub-contractors and suppliers.

Innovative industry – that benefits from structured application of R&D initiatives. The industry that continuously seek to improve itself to meet the demand of sophisticated and highly knowledgeable customers.

Environmentally responsible industry - Industry that is committed to environmentally sustainable development.

3.5 SKILLED WORKER REQUIREMENT IN THE LOCAL BUILDING CONSTRUCTION INDUSTRY

There are many routes to the different careers within the construction industry which vary by country. However, there are three main tiers of careers based on educational background which are common internationally, which are ;

- i) Unskilled and Semi-Skilled-General site labour with little or no construction qualifications.
- ii) Skilled-On-site managers whom possess extensive knowledge and experience in their craft or profession.
- iii) Technical and Management - Personnel with the greatest educational qualifications, usually graduate degrees, trained to design, manage and instruct the construction process.

The construction sector employs approximately 9% (or 900,000) of the total work force in Malaysia. There is however, still heavy dependence on foreign labour especially from Indonesia and the Association of Southeast Asian Nations (ASEAN) region. According to official statistics around 250,000 of approximately 800,000 construction personnel are foreigners.

The reliance on unskilled foreign workers in the construction phase of the value chain is related to the earlier issues of cost constraint and low adoption of technology. Foreign workers are usually unskilled when they first arrive in Malaysia. This has impacted the productivity and quality of the construction industry. Efforts have, however, been put in place to train and accredit them as semi – skilled or skilled workers.

The construction industry's use of unskilled foreign labour has several effects on productivity. The first of these is the low incentive to adopt more productive and modern methods of construction. Unskilled foreign labour is cheaper to employ in the short term than skilled local labour, even if productivity per person is low. This labour preference with its associated low wages is a self-perpetuating problem, since not only

does it lower the incentive to migrate to more productive technologies, but it also reduces the attractiveness of the industry to employ more highly skilled or local labour.

Local workforce is also reluctant to join the industry because unskilled foreign labour and low wages combined with a low emphasis on occupational safety has created an image of a “Dirty, Dangerous, Difficult” industry. With the government focused on resolving the problem of illegal immigrants in the near to medium term, a continued reliance on illegal labour would be highly undesirable for the construction industry. Even when, there will always be a need for a small population of legal, skilled foreign workers. Thus, a two-prong approach is required: firstly, to train the foreign unskilled labour and secondly, to nurture the desire of the local workforce to join the construction industry.

3.6 INDUSTRIAL COMPETITION AT INTERNATIONAL LEVEL

The Construction industry in Malaysia should focus on continuously improving quality – one of the key global market differentiators. Although it is still an important consideration, there is an increasing consumer demand in the global environment for higher quality construction and to continuously enhance the global level of productivity and quality.

Among the factors that impact the industry to compete internationally are such as the inability to attract and develop the local workforce for the industry mainly due to the “Dirty, Dangerous, Difficult” image of the industry, difficulty in securing timely and adequate financing at the various stages of construction and difficulty in repatriating profits / dividends and the inability to provide total integrated solutions in foreign projects, unlike Japanese, Korean, and German construction companies which could provide total solutions that include financing package and equipment.

Based on the foregoing opportunities and challenges in both local and international markets, the Malaysian construction industry needs to continuously enhance its value chain efficiency and effectiveness to be a total solution provider in the globalised environment. Ultimately, the industry needs to streamline its structure and ensure that entry requirements and performance of contractors are stringent enough to assess only those players capable of contributing value to the industry.

4. METHODOLOGY OF OCCUPATIONAL ANALYSIS – BUILDING CONSTRUCTION SECTOR

In conducting the Occupational Analysis, a kick off meeting was held primarily to strategise the Plan of Action in accordance with guidelines as presented by JPK in terms of scope of study, time frame and representation by the panel of Building Construction experts from both public and private sectors as stipulated in the letter of offer. After the kick off meeting, a Plan of Action was formulated taking into consideration the activities and time frame required.

This chapter is divided into two (2) sections; the proposed methodology to construct the Occupational Definition for the respective Job Titles and the methodology of the overall Occupational Analysis Process.

4.1 METHODOLOGY TO CONSTRUCT OCCUPATIONAL DEFINITION

This is a proposed methodology formulated by the facilitator, Dr. Amiron Ismail who is an experienced facilitator in NOSS, COS, LG and WIM development. This methodology is used in order to produce an Occupational Definition that is clear on the main job scope of the job title, the verb used is according to level of difficulty and the object is clearly described.

Below are the main steps in producing the Occupational Definition for the respective job titles obtained in the Occupational Analysis:

- (i) Determine the main sub sectors and areas in the sector;
- (ii) Identify the job titles; and
- (iii) Identify the job scope.

To describe the Occupational Definition clearly, the statement must consist of a **Verb**, **Object** and **Qualifier**. The rationale of determining the definition attributes are, to ensure consistency and continuity of using those attributes right from Occupational Analysis, Job Analysis to Task Analysis Developmental.

(a) Object

Firstly, the object is determined before the other two attributes. The object of any job is the main determinant of distinguishing one job to the other. For example, a demi-chef (kitchen sub-sector of Hotel Industry), deals with food and cooking utensils as the objects in performing tasks. While, a hairdresser deals with client's hair, hairdressing chemical, etc.

The Objects are acquired from the expert panel members during a brainstorming session and written on DACUM cards so that all panel members can see the Objects identified. Objects of those in the related area or sub sector of the E&E industry are determined such as in the example below:

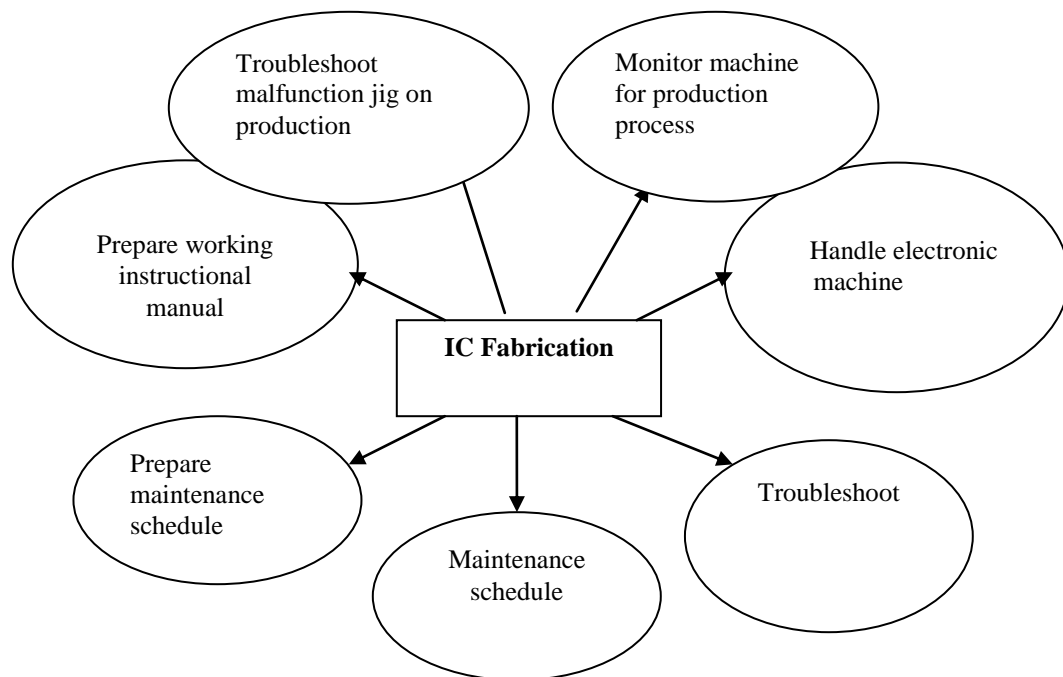
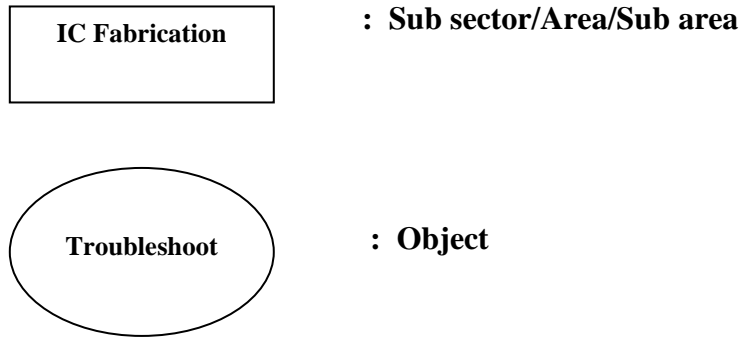


Figure 4.1: Example of Identifying Object

Legend:



(b) Verb

The Verb is then determined based on the level of difficulty of the identified job titles, such as below:

- ***Object : maintenance schedule***
- ***Verb for Level 6 : Prepare***
- ***Verb for Level 7 : Analyse***
- ***Verb for Level 8 : Evaluate***

Hence, the contents of the job definitions will be as below

- **IC Fabrication Assistant Manager (Level 6)**
✓ ***Prepare maintenance schedule + (qualifier)***
- **IC Fabrication Manager (Level 7)**
✓ ***Analyse maintenance schedule + (qualifier)***
- **Microelectronic Specialist (Level 8)**
✓ ***Evaluate maintenance schedule + (qualifier)***

(c) Qualifier

Based on the example above, the statement is not clear as there is no qualifier for the object, therefore a qualifier must be added to further clarify it. Below is an example:

- ***Analyse maintenance schedule for building construction equipment***

4.2 METHODOLOGY OF THE OVERALL OCCUPATIONAL ANALYSIS PROCESS

(i) Literature Survey

As outlined by the guidelines, a literature survey on the Building Construction sector was carried out to get some insight on the scope, policy, program, activities in the context of the Malaysian scenario. The scope covered under this search includes definitions, current analysis of the sector/sub sector, current status of the Building Construction industry sector, skilled workers requirement in the local industry and the industrial competition at international level.

(ii) Identifying Industry & Public Players

The literature survey findings were used as a guide to identify the scope of occupational study and analysis. Experts from the Building Construction sector were identified and short listed for further communication and contact.

(iii) Establish Contact With The Building Construction Sector Players

A pool of Building Construction experts from the industry and public sector were contacted. The list of experts is in Annex 1.

(iv) Information Gathering

In the process of gathering the information, two (2) methods were adopted, namely; brainstorming and the Developing a Curriculum (DACUM) session. The brainstorming and DACUM session were attended by expert panels who discussed the different sub sectors and areas. The information gathered was then used as input for the occupational analysis of the said industry.

(v) Analysing The Information

Based on the activities done as above, substantial data and information were collected. The data and information were discussed and analysed in several in-house workshops attended by selected key person or experts from the public and industry sector. The presence of the key persons or experts was to help in the development of the Occupational Analysis for this sector. During this session, attempts to reframe the Building Construction sector in Malaysia were done using the following framework:

- (a) Scope of the Building Construction sector and its sub sector;
- (b) Main area;
- (c) Major occupational group of the industry;
- (d) Job title;
- (e) Hierarchy structure (Level 1 – 8); and
- (f) Occupational definition.

(vi) Organise Workshop With Expert Panels

The first workshop was conducted in the development of the Occupational Analysis of the Building Construction sector. The details of the workshops are as below:

- (a) Held on the 5th and 6th July, 2009 at PRITEC Academy, Melaka. The objectives of the workshop were:
 - Presentation of preliminary findings
 - ✓ Outline of Job Title
 - ✓ Career structure
 - ✓ Hierarchy structure (Level 1 – 8)
 - ✓ Occupational Definition
 - Occupational Analysis Session
 - Validation of the findings

(b) Held on the 13rd and 14th July, 2009 at PRITEC Academy, Melaka. The objectives of the workshop were:

- Review of :
 - ✓ Job Titles
 - ✓ Career structure
 - ✓ Hierarchy structure (Level 1 – 8)
 - ✓ Occupational Definition
- Validation and verification (proofreading) of :
 - ✓ Job Titles
 - ✓ Career structure
 - ✓ Hierarchy structure (Level 1 – 8)
 - ✓ Occupational Definition
- Validation of the findings

5. FINDINGS

The findings from the research of the Building Construction Industry sector's Occupational Analysis can be divided into five (5) categories, which are:

- i) Existing job titles and hierarchy;
- ii) Newly identified sub sectors;
- iii) Mapping between existing sub sectors to proposed sub sectors;
- iv) Entry Level & Justification; and
- v) Critical Job Titles.

5.1 EXISTING JOB TITLE AND HIERARCHY

Based on the existing job titles in DSD's NOSS Registry, the Building Construction Industry sector in Malaysia, is divided into 7 major sub sectors namely Construction Industry, Draughting – Architectural, Surveying – Land, Industrialised Building System, Lift & Escalator, Piling, and Crane. A total of 148 job titles are present from Level 1 until Level 5 for this sector. The existing job titles and OA matrix for the Building Construction sub sector are included in Figure 5.1.1 until Figure 5.1.7

5.2 NEWLY IDENTIFIED SUB SECTORS

The newly identified sub sectors for the Building Construction Industry were obtained through literature research and discussions with industry experts during the development workshop sessions. The proposed sub sectors, areas and job titles are based on the current industry and Building Construction Industry job titles used currently in Malaysia. They are according to Malaysia's Industrial Plan (IMP3), The Construction Industry Master Plan (CIMP) and other related national economical plans where the nation is targeted to propel itself towards improving the quality of life of Malaysians and at boosting Malaysia's global competitiveness.

The OA matrix for this sector is included in this section. The Building Construction sector consists of 6 sub sectors, starting from Civil, Structural, Architectural, Plant & Machinery, Industrial Building System (IBS) and Construction Site Supervisory & Management.

During the development workshops, panel members had identified 6 new sub sectors that reflect the main areas in the building and construction process. The 6 sub sectors are listed as below:-

- (i) Civil;
- (ii) Structural;
- (iii) Architectural;
- (iv) Machinery & Plant
- (v) Industrial Building System (IBS); and
- (vi) Construction Site Supervisory & Management.

A total of 225 job titles exist in the proposed sub sectors. Compared to the existing job titles in the building construction sectors, the industry observes that if the next generation of workforce were more specialised in the different areas of building construction, this would save the employer's time and cost spent to train them. This is because each of the areas of Building Construction are rapidly changing and evolving, it would be more efficient for workers to update their knowledge and skills in their respective areas. Below are the descriptions for each of the sub sectors:

(i) Civil

This sub sector encompasses the conception, design, construction and management of residential and commercial buildings and structures, water supply facilities, as well as control of the environment for the maintenance and improvement of the quality of life. This sub sectors consist of 12 main areas.

- (a) Earth Work;
- (b) Site Soil Investigation;
- (c) Engineering Survey;
- (d) Slope Protection;

- (e) Foundation Work/Piling;
- (f) Domestic Sewerage System;
- (g) Water Reticulation;
- (h) Drainage/Culvert;
- (i) Road Works;
- (j) Metal & Steel Works;
- (k) Wood Works; and
- (l) Civil Drawing.

(ii) Structural

This sub sector specialises in the use of structural elements of building construction starting from Level 1 until Level 6. Therefore, the areas under the structural sub sector are divided according to the main categories of structural elements which are:-

- (a) Staircase;
- (b) Roof Truss;
- (c) Roofing Material;
- (d) Steel Structure;
- (e) Brickwall;
- (f) Steel Reinforcement Works;
- (g) Form Works;
- (h) Concreting Work;
- (i) Water Tank;
- (j) Retaining Structure;
- (k) Water Proofing;
- (l) Structural Drawing; and
- (m) Scaffolding.

(iii) Architectural

Architecture involves designing and constructing environments for human interactions and expressing social/cultural relationships. This sub sector deals with work related to the architectural aspects of building construction.

The following are the different areas observed and proposed for the Architectural areas:

- (a) Aluminum Building Work;
- (b) Glass Building Work;
- (c) Tiling;
- (d) Window/Doors;
- (e) Drywall & Ceiling Installations;
- (f) Curtain Walling;
- (g) Plastering;
- (h) Painting; and
- (i) Architectural Drawing.

(iv) Machinery & Plant

The Machinery & Plant sub sector's main function is to support in terms of mechanical and electrical aspects of building construction and maintaining the effectiveness in meeting the needs of this area. The function is divided into 2 areas:

- (a) Crane works; and
- (b) Machinery/Plant Operations.

(v) Industrial Building System (IBS)

Rahman & Omar (2006) defined IBS as a construction system that is built using pre-fabricated components. The manufacturing of the components are systematically done using machine, formworks and other forms of mechanical equipment. The components are manufactured offsite and once completed will be

delivered to construction sites for assembly and erection. IBS is also defined as an integrated manufacturing and construction process with well planned organisation for efficient management, preparation and control over resources used, activities and results supported by the use of highly developed components (Lessing, *et al.*, 2005). IBS is divided into 5 categories:

- (a) Precast Concrete System;
- (b) Formwork System;
- (c) Blockwall System;
- (d) Timber Frame System; and
- (e) Steel Framework System.

(vi) Construction Site Supervisory & Management

The Construction Site Supervisory & Management area includes specific activities like defining the responsibilities and management structure of the project management team, organising and leading by implementing project controls, defining roles and responsibilities and developing communication protocols, and identifying elements of project design and construction likely to give rise to disputes and claims. The main categories of Construction Site Supervisory & Management are:

- (a) Contract Administration;
- (b) Civil;
- (c) Structural;
- (d) Architectural;
- (e) Mechanical & Electrical;
- (f) Site Safety & Health; and
- (g) Construction.

Existing OA Matrix for the Building Construction Sector

i) Sub Sector: Construction Industry

	Site Safety & Health*	Construction*
L5	(Not Available)	
L4		
L3	CSH3 (Construction Site Safety and Health Supervisor) (19-12-2000)	B-010-3 @ (Building Construction Supervisor) (28-04-94)
L2	No Level	B-010-2 Building Constructor (28-04-94)
L1		B-010-1 Building Constructor (28-04-94)

	Scaffolding*		
L5	B-070-5 Scaffolding Manager (19-04-2001)		SCF5 Scaffold Manager (09-06-08)
L4	B-070-4 Scaffolding Superitendant (19-04-2001)		SCF4 Scaffold Inspector (09-06-08)
L3	B-060-3 Scaffolding Supervisor (Tubular) (06-07-2000)	B-061-3 Scaffolding Supervisor (Prefabricated) (06-07-2000)	SCF3 Scaffold Supervisor (09-06-08)
L2	B-060-2 Scaffolder (Tubular) (06-07-2000)	B-061-2 Scaffolding (Prefabricated) (06-07-2000)	SCF2 Scaffold Erector (09-06-08)
L1	B-060-1 Scaffolder (Tubular) (06-07-2000)	B-061-1 Scaffolder (Prefabricated) (06-07-2000)	SCF1 Scaffold Erector (09-06-08)

	Water Reticulation	Plumbing	Plumbing & Sanitary
L5	Not Available		
L4			
L3	PWR3 Water Reticulation Supervisor (09-06-08)	B-020-3 @ Waterwork Technician (28-04-94)	PNS3 Plumbing & Sanitary Supervisor (09-06-08)
L2	PWR3 Water Reticulation Supervisor (09-06-08)	B-020-2 Plumber (28-04-94)	PNS2 Plumbing & Sanitary Plumber (09-06-08)
L1	PWR3 Water Reticulation Supervisor (09-06-08)	B-020-1 Plumber (28-04-94)	PNS1 Plumbing & Sanitary Fitter (09-06-08)

	DOMESTIC SEWERAGE SYSTEM*	
	Civil & Structure	Mechanical & Electrical
L5	SWD 5 Sewerage Construction Manager (26-05-2008)	
L4	SWD4 Sewerage C & S Manager (26-05-2008)	SWD 4 Sewerage M & E Manager (25-05-2008)
L3	SWD3 Sewerage Civil and Structure Supervisor (26-05-2008)	SWD 3 Sewerage M & E Supervisor (26-05-2008)
L2	SWD2 Sewer Fitter (26-05-2008)	SWD 2 Sewerage M & E Fitter (26-05-2008)
L1	SWD1 Sewer Installer (26-05-2008)	SWD 1 Sewerage M & E Installer (26-05-2008)

	Glass Building Works*		Aluminium Building Works*
L5	Not Available		
L4			
L3	GLZ3 Glazier Supervisor (08-11-01)		FWA3 Aluminium Frame Works Supervisor (08-11-01)
L2	GLZ2 Glazier 08-11-01		FWA3 Aluminium Frame Works Installer (08-11-01)
L1	GLZ1 Stained Glass Cutter (08-11-01)	GLS1 Glass Cutter (08-11-01)	FWA3 Aluminium Frame Works Fabricator (08-11-01)

	Construction Site Supervisory & Management*		
	Civil & Structural	Architectural & Building	Mechanical & Electrical
L5	Not Available		
L4	CVS4 Civil & Structural Manager (28-02-2002)	ARB4 Architectural & Building Manager (19-06-2003)	MCE4 Mechanical & Electrical Manager (19-06-2003)
L3	CVS4 Civil & Structural Supervisor (19-12-2002)	ARB4 Architectural & Building Supervisor (19-12-2002)	MCE4 Mechanical & Electrical Supervisor (19-12-2002)
L2	No Level		
L1			

Building Painting		
	Decorative Coating *	Architectural Coating *
L5	PTD5 Building Painting Manager (11-04-2002)	
L4	PTD4 Building Painting Project Coordinator (11-04-2002)	
L3	PTD3 Building Decorative Supervisor (11-04-2002)	
L2	PTD2 Building Decorative Painter L2 (11-04-2002)	PTC2 Building Architectural Coating Applicator L2 (11-04-2002)
L1	PTD1 Building Decorative Painter L1 (11-04-2002)	PTC1 Building Architectural Coating Applicator L1 (11-04-2002)

Drywall & Ceiling Installations				
	Drywall Partition *	Drywall Cleanroom *	Ceiling*	
			Demountable ceiling	Fixed ceiling
L5	DWC5 Drywall & Ceiling Project Manager (11-04-2002)			
L4	DWC4 Drywall & Ceiling Project executive (11-04-2002)			
L3	DWP3 Drywall partition Supervisor (11-04-2002)	DWC3 Drywall Cleanroom Supervisor (11-04-2002)	DCG3 Ceiling Supervisor (11-04-2002)	
L2	DWP2 Drywall Partition Installer (11-04-2002)	DWC2 Drywall Cleanroom Installer (11-04-2002)	DCG2 Demountable Ceiling Installer (11-04-2002)	DCF2 Fixed Ceiling Installer (11-04-2002)
L1	DWP1 Drywall Partition Assistant Installer (11-04-2002)	DWC1 Drywall Cleanroom Assistant Installer (11-04-2002)	DCG1 Demountable Ceiling Assistant Installer (11-04-2002)	DCF1 Fixed Ceiling Assistant Installer (11-04-2002)

	Plant Operations*				
L5	Not Available				
L4					
L3					
L2	EXH2 Hydraulic Excavator Operator (19-06-2003)	BHL2 Backhoe Loader Operator (19-06-2003)	LWH2 Wheel Loader Operator (03-03-2005)	DZT2 Track Dozer Operator (03-03-2005)	GRM2 Motor Grader Operator (03-03-2005)
L1	No Level				

	Plant Operations*				
L5	Not Available				
L4					
L3					
L2	TRH2 Off Highway Truck Operator (26-05-2008)	SCR2 Scraper Operator (26-05-2008)	BKP2 Back Pusher Operator (26-05-2008)	TCM2 Telescopic Material Handler (26-05-2008)	PUC2 Concrete Pump Operator (26-05-2008)
L1	No Level				

	Plant Operations*		
L5	Not Available		
L4			
L3			
L2	SSL2 Skid Steer Loader Operator (26-05-2008)	FRL2 Forklift Operator (26-05-2008)	RCL2 Compactor Roller Operator (26-05-2008)
L1	No Level		

	Plant Operations*		
L5	Not Available		
L4			
L3			
L2	RPT2 Pneumatic Tyre Roller Operator (26-05-2008)	MTC2 Code Metal Operator (26-05-2008)	CIDB CODE: PVR2 Paver Operator (26-05-2008)
L1	No Level		

	Wet Trade*			
L5	Not Available			
L4				
L3				
L2	BRL2 Bricklayer (26-05-2008)	PLR2 Plasterer (26-05-2008)	TLR 2 Tiler (26-05-2008)	BBR2 Bar Bender (26-05-2008)
L1	BRL1 Bricklayer (26-05-2008)	PLR1 Plasterer (26-05-2008)	TLR 1 Tiler (26-05-2008)	BBR1 Bar Bender (26-05-2008)

	Site Investigation*	
L5	Not Available	
L4		
L3	SID3 Site Investigation Driller Supervisor (26-05-2008)	
L2	SID3 Site Investigation Driller (26-05-2008)	
L1	SID3 Site Investigation Driller Assistant (26-05-2008)	

	Roof Truss Installation	
L5	Not Available	
L4		
L3	BC-380-3 Roof Truss Supervisor (28-08-08)	
L2	BC-360-2 Roof Truss Installer (Timber) (28-08-08)	BC-370-2 Roof Truss Installer (Light Gauge Steel) (28-08-08)
L1	BC-360-1 Roof Truss Installer (Timber) (28-08-08)	BC-370-1 Roof Truss Installer (Light Gauge Steel) (28-08-08)

Figure 5.1.1: Existing OA Matrices for the Building Construction Sector
(Sub Sector: Construction industry)

ii) Sub Sector: Drafting – Architectural

	Architectural	Civil
L5	Not Available	
L4		
L3	B-050-1 Senior Architectural Draughtsman (10-04-95)	B-040-1 Senior Civil and Structural Engineering Draughtsman (19-12-94)
L2	B-050-1 Architectural Draughtsman (10-04-95)	B-040-1 Civil and Structural Engineering Draughtsman (19-12-94)
L1	B-050-1 Architectural Draughtsman (10-04-95)	B-040-1 Civil and Structural Engineering Draughtsman (19-12-94)

Figure 5.1.2: Existing OA Matrix for the Building Construction Sector
(Sub Sector: Drafting – Architectural)

iii) Sub Sector: Surveying – Land

	Land Survey
L5	V-020-3 Survey Manager (25-04-2006)
L4	V-020-3 Senior Survey Assistant (25-04-2006)
L3	V-020-3 Survey Assistant (Engineering) 22-04-99 (25-04-2006)
L2	No Level
L1	

Figure 5.1.3: Existing OA Matrix for the Building Construction Sector
(Sub Sector: Surveying – Land)

iv) Sub Sector: Industrialised Building System

	Lightweight Concrete Panel	Lightweight Blockwall	Precast Concrete
L5	Not Available		
L4			
L3	LWP3 Lightweight Panel Supervisor (09-06-08)	BLK3 Lightweight Blockwall Supervisor (09-06-08)	PCC3 Precast Concrete Supervisor (Building) (09-06-08)
L2	LWP2 Lightweight Panel Installer (09-06-08)	BLK2 Lightweight Blockwall Installer (09-06-08)	PCC2 Precast Concrete Installer (Building) (09-06-08)
L1	LWP1 Lightweight Panel Installer (09-06-08)	BLK1 Lightweight Blockwall Installer (09-06-08)	PCC1 Precast Concrete Installer (Building) (09-06-08)

Figure 5.1.4: Existing OA Matrix for the Building Construction Sector
(Sub Sector: Industrialised Building System)

v) Sub Sector: Lift & Escalator

	Lift Installation		Escalator Installation
L5	LIF5 Lift Installation Manager (09-06-08)		Not Available
L4	LIF4 Lift Installation Manager (09-06-08)		
L3	LIF3 Lift Installation Supervisor (09-06-08)	LIT3 Lift Testing Supervisor (09-06-08)	
L2	LIF2 Lift Installer (09-06-08)	LIF2 Lift Tester (09-06-08)	
L1	LIF1 Lift Installer (09-06-08)	No Level	

Figure 5.1.5: Existing OA Matrix for the Building Construction Sector
(Sub Sector: Lift & Escalator)

vi) Sub Sector: Piling

	Land Piling				
L5	Not Available				PLS5 Piling Project Manager (09-06-08)
L4					PLS4 Piling Site Manager (09-06-08)
L3					PLS3 Piling Site Supervisor (09-06-08)
L2					PLS2 Piling Site Foreman (09-06-08)
L1	PLJ1 Jacked In Pile Operator (09-06-08)	PLM1 Micro Pile Operator (09-06-08)	PLD1 Driven Pile Operator (09-06-08)	PLB1 Bored Pile Operator (09-06-08)	No Level

Figure 5.1.6: Existing OA Matrix for the Building Construction Sector (Sub Sector: Piling)

vii) Sub Sector: Crane

	Tower Crane Erection Works	Tower Crane	Mobile Crane		Rigging works	Self Loading Crane
			Mobile Crane (Wheel)	Mobile Crane (Crawler)		
L5	Not Available	CMM5 Crane Operation Manager (09-06-08)				Not Available
L4		CMM4 Crane Superintendant (09-06-08)		CRG4 Rigging Superintendant (09-06-08)		
L3	CTE3 Tower Crane Erection Supervisor (09-06-08)	CTO3 Tower crane Supervisor 09-06-08	CMM3 Mobile Crane Supervisor (09-06-08)		CRG3 Rigger Supervisor (09-06-08)	
L2	CTE2 Tower crane Erector (09-06-08)	CTO2 Tower crane Operator (09-06-08)	CMW2 Mobile Crane (Wheel) Operator (09-06-08)	CMC2 Mobile Crane (Crawler) Operator (09-06-08)	CRG2 Rigger (09-06-08)	
L1	No Level	COM1 Crane Signalman (09-06-08)			CRG1 Rigger (09-06-08)	

Figure 5.1.7 Existing OA Matrix for the Building Construction Sector
(Sub Sector: Crane)

BUILDING CONSTRUCTION INDUSTRY																			
Sub Sector	CIVIL																		
Area	Earth Work		Site Soil Investigation	Engineering Survey	Slope Protection	Foundation Works/ Piling					Domestic Sewerage System		Water Reticulation	Drainage/ Culvert	Road Works	Metal & Steel Works	Wood Works	Civil Drawing	
Sub-Area/ Level											Civil & Structure (Internal/ External)	Mechanical & Electrical							
LEVEL 8	No Level																		
LEVEL 7	No Level	Construction Manager																	
LEVEL 6	No Level	Civil Technical Manager																	
LEVEL 5	No Level	Civil Technical Executive																	
LEVEL 4	No Level	Civil Assistant Technical Executive																	
LEVEL 3	No Level	Earth Work Supervisor	Soil Investigation Probe Supervisor	Surveying Supervisor	Slope Protection Supervisor	Piling Site Supervisor (PLS3)					Sewerage Supervisor (SWD3)	Sewerage Mechanical & Electrical Supervisor (SWM3)	Water Reticulation Supervisor (PWR3)	Water Reticulation Mechanical & Electrical Supervisor	Drainage/ Culvert Site Supervisor	Road work Supervisor	Metal & Steel Works Supervisor	Carpenter Supervisor	Civil Draughting Supervisor (B-040-3)
LEVEL 2	Earth Work Dump Truck Driver (TRH2)	Earth Work Machine Senior Operator	Soil Investigation Probe Operator	Surveying Technician	Slope Protection Technician	Piling Site Technician (PLS2)					Sewer Senior Installer (SWD2)	Sewerage Mechanical & Electrical Technician (SWM2)	Water Reticulation Senior Installer (PWR2)	Water Reticulation Mechanical & Electrical Technician	Drainage/ Culvert Senior Installer	Road Work Senior Constructor	Metal & Steel Works Senior Installer	Senior Carpenter	Civil Draughters on (B-040-1 & 2)
LEVEL 1	No Level	Earth Work Machine Operator	No Level	No Level	No Level	Drop Hammer Operator	Driven Pile Operator (PLD1)	Jacked In Pile Operator (PLJ1)	Bored File Operator (PLB1)	Micro Pile Operator (PLM1)	Sewer Installer (SWD1)	Sewerage Mechanical & Electrical Installer (SWM1)	Water Reticulation Pipe Installer (PWR1)	Water Reticulation Mechanical & Electrical Installer	Drainage/ Culvert Installer	Road Work Constructor	Metal & Steel Works Installer	Carpenter	No Level

Figure 5.1.8: Proposed OA Matrix for the Building Construction Sector (Sub sector: Civil)

BUILDING CONSTRUCTION INDUSTRY																					
Sub Sector	STRUCTURAL																				
Area	Staircase			Roof Truss																	
Sub-Area/ Level	Timber Staircase	Steel Staircase	Concrete Staircase	Timber Roof Truss	Light Gauge Steel Roof Truss	Space Frame Roof Truss	Concrete Roof Truss														
LEVEL 8	No Level																				
LEVEL 7	Construction Manager																				
LEVEL 6	Structural Technical Manager																				
LEVEL 5	Structural Technical Executive																		Scaffold Manager (B-070-5)		Scaffold Manager (Erector) (SCF5)
LEVEL 4	Structural Assistant Technical Executive																		Scaffold Assistant Technical Executive (B-070-4)		Scaffold Inspector (SCF4)
LEVEL 3	Staircase Supervisor			Roof Truss Supervisor* (BC-380-3)				Roofing Supervisor*	Steel Structure Supervisor	Brick Layer Supervisor	Bar Bender Supervisor	Steel Reinforcement Supervisor	Formworks Supervisor	Structural Supervisor	Water Tank Supervisor	Retaining Structure Supervisor	Water Proofing Supervisor	Structural Draughting Supervisor* (B-040-3)	Scaffold Supervisor or (Tubular) (B-060-3)	Scaffold Supervisor or (Prefabricated) (B-061-3)	Scaffold Supervisor or (SCF3)
LEVEL 2	Timber Staircase Installer	Steel Staircase Installer	Concrete Staircase Constructor	Senior Roof Truss Installer (Timber)* (BC-360-2)	Senior Roof Truss Installer (Light Gauge Steel)* (BC-70-2)	Senior Truss Installer (Space Frame)*	Roof Truss Senior Constructor (Concrete)*	Roofing Senior Installer*	Steel Structure Senior Installer	Senior Bricklayer (BRL2)	Senior Bar Bender (BBR2)	Steel Reinforcement Installer	Formworks Senior Installer	Structural Senior Concrete	Water Tank Senior Installer	Retaining Structure Senior Constructor	Water Proofing Senior Installer	Structural Draught person* (B-040-1 & 2)	Senior Scaffold er (Tubular) (B-060-2)	Senior Scaffold er (Prefabricated) (B-061-2)	Scaffold Senior Erector (SCF2)
LEVEL 1	No Level	No Level	No Level	Roof Truss Installer (Timber)* (BC-360-1)	Roof Truss Installer (Light Gauge Steel)* (BC-70-1)	Roof Truss Installer (Space Frame)*	Roof Truss Constructor (Concrete)*	Roofing Installer*	Steel Structure Installer	Bricklayer (BRL1)	Bar Bender (BBR1)	No Level	Formworks Installer	Structural Concrete	Water Tank Installer	Retaining Structure Constructor	Water Proofing Installer	No Level	Scaffold er (Tubular) (B-060-1)	Scaffold er (Prefabricated) (B-061-1)	Scaffold Erector (SCF1)

Figure 5.1.9: Proposed OA Matrix for the Building Construction Sector (Sub sector: Structural)

BUILDING CONSTRUCTION INDUSTRY												
Sub Sector	ARCHITECTURAL											
Area	Aluminum Building Work	Glass Building Work	Tiling	Window/ Doors	Drywall & Ceiling Installations				Curtain Walling	Plastering	Painting	Architectural Drawing
Sub-Area/ Level												
LEVEL 8	No Level											
LEVEL 7	Construction Manager											
LEVEL 6	Architectural Technical Manager											
LEVEL 5	Architectural Technical Executive											
LEVEL 4	Architectural Assistant Technical Executive											
LEVEL 3	Aluminum Frame Work Supervisor (FWA3)	Glazier Supervisor (GLZ3)	Tiler Supervisor	Windows/ Doors Supervisor	Drywall Partition Supervisor (DWP3)	Drywall Cleanroom Supervisor (DWC3)	Ceiling Supervisor (DCG3)		Curtain Walling Supervisor	Plasterer Supervisor	Painting Supervisor (PTD3)	Architectural Draughting Supervisor* (B-050 3)
LEVEL 2	Aluminum Frame Work Senior Installer (FWA2)	Glazier (GLZ2)	Senior Tiler (TLR2)	Windows/ Doors Senior Installer	Drywall Partition Senior Installer (DWP2)	Drywall Cleanroom Senior Installer (DWC2)	Demountable Ceiling Senior Installer (DCG2)	Fixed Ceiling Senior Installer (DCF2)	Curtain Walling Senior Installer	Senior Plasterer (PLR2)	Decorative Painter (PTD2 & PTC2)	Architectural Draughtperson (B-050 1 & 2)
LEVEL 1	Aluminum Frame Work Installer (FWA1)	Glass Cutter (GLZ1 & GLS1)	Tiler (TLR1)	Windows/ Doors Installer	Drywall Partition Installer (DWP1)	Drywall Cleanroom Installer (DWC1)	Demountable Ceiling Installer (DCG1)	Fixed Ceiling Installer (DCF1)	Curtain Walling Installer	Plasterer (PLR1)	Painter (PTD1 & PTC1)	No Level

Figure 5.1.10: Proposed OA Matrix for the Building Construction Sector (Sub Sector: Architectural)

BUILDING CONSTRUCTION INDUSTRY																						
Sub Sector	MACHINERY & PLANT																					
Area	Crane Works							Machinery/ Plant Operations														
Sub-Area/ Level	Self Loading	Tower Crane Erection Works	Tower Crane	Mobile Crane		Rigging Works	Passenger Hoisting															
				Mobile Crane (Wheel)	Mobile Crane (Crawler)																	
LEVEL 8	No Level																					
LEVEL 7	No Level	No Level	Construction Manager																			
LEVEL 6	No Level	No Level	Crane Operation Manager					Machinery & Plant Operation Technical Manager														
LEVEL 5	No Level	No Level	Crane Technical Executive (CMM5)					Machinery & Plant Operation Technical Executive														
LEVEL 4	No Level	No Level	Crane Superintendent (CMM4)		Rigging Superintendent (CRG4)			Machinery & Plant Operation Assistant Technical Executive														
LEVEL 3	No Level	Tower Crane Erector Supervisor or (CTE3)	Tower Crane Supervisor or (CTO3)	Mobile Crane Supervisor (CMM3)		Rigger Supervisor or (CRG3)	Passenger Hoisting Supervisor or	Machinery & Plant Operation Supervisor														
LEVEL 2	No Level	Tower Crane Erector (CTE2)	Tower Crane Operator (CTO2)	Mobile Crane (Wheel) Operator (CMW2)	Mobile Crane (Crawler) Operator (CMC2)	Senior Rigger (CRG2)	Passenger Hoisting Senior Installer	Skid Steer Loader Operator (SSL2)	Forklift Operator (FRL2)	Compact or Roller Operator (RLC2)	Pneumatic Tyre Roller Operator (RPT2)	Cold Metal Operator (MTC2)	Paver Operator (PVR2)	Wheel Loader Operator (LWH2)	Hydraulic Excavator Operator (EXH2)	Backhoe Loader Operator (BHL2)	Track Dozer Operator (DZT2)	Motor Grader Operator (GRM2)	Scraper Operator (SCR2)	Back Pusher Operator (BKP2)	Telescopic Material Handler (TCM2)	Concrete Pump Operator (PUC2)
LEVEL 1	Self Loading Crane Operator (CSL1)	No Level	Crane Signalman (COM1)			Rigger (CRG1)	Passenger Hoisting Installer	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level	No Level

Figure 5.1.11: Proposed OA Matrix for the Building Construction Sector (Sub Sector: Plant & Machinery)

BUILDING CONSTRUCTION INDUSTRY					
Sub Sector	INDUSTRIAL BUILDING SYSTEM (IBS)				
Area	Precast Concrete System	Formwork System	Blockwall System	Timber Frame System	Steel Framework System
Sub-Area/ Level					
LEVEL 8					
LEVEL 7	Construction Manager				
LEVEL 6	IBS Technical Manager*				
LEVEL 5	IBS Technical Executive*				
LEVEL 4	IBS Assistant Technical Executive*				
LEVEL 3	Precast Supervisor (Building)* (PCC3)	Formwork System Supervisor*	Blockwall System Senior Supervisor* (BLK3)	Timber System Supervisor*	Steel Framework System Supervisor*
LEVEL 2	Precast Concrete Senior Installer (Building)* (PCC2)	Formwork System Senior Installer*	Blockwall System Senior Installer* (BLK2)	Timber System Senior Installer*	Steel Framework Senior System Installer*
LEVEL 1	Precast Concrete Installer (Building)* (PCC1)	Formwork System Installer*	Blockwall System Installer* (BLK1)	Timber System Installer*	Steel Framework System Installer*

Figure 5.1.12: Proposed OA Matrix for the Building Construction Sector (Sub Sector: IBS)

BUILDING CONSTRUCTION INDUSTRY								
Sub Sector	CONSTRUCTION SITE SUPERVISORY & MANAGEMENT							
Area	Contract Administration		Civil	Structural	Architectural	Mechanical & Electrical	Site Safety & Health	Construction
Sub-Area/ Level								
LEVEL 8	No Level							
LEVEL 7	Construction Manager							
LEVEL 6	Contract Administration Manager (QS)*		Civil Technical Manager* (CVS4)	Structural Technical Manager* (CVS4)	Architectural Technical Manager* (ARB4)	Mechanical & Electrical Technical Manager* (MCE4)	No Level	No Level
LEVEL 5	Contract Executive (Finance)*	Contract Executive (Admin)*	Civil Technical Executive*	Structural Technical Executive*	Architectural Technical Executive*	Mechanical & Electrical Technical Executive*	No Level	No Level
LEVEL 4	Contract Administration Assistant Executive*		Civil Assistant Technical Executive*	Structural Assistant Technical Executive*	Architectural Assistant Technical Executive*	Mechanical & Electrical Assistant Technical Executive*	No Level	No Level
LEVEL 3	Contract Administration Supervisor*		Civil Site Supervisor* (CVS3)	Structural Site Supervisor* (CVS3)	Architectural Site Supervisor* (ARB3)	Mechanical & Electrical Site Supervisor* (MCE3)	Construction Site Safety and Health Supervisor (CSH3)	Building Construction Supervisor (B-010-3)
LEVEL 2	No Level	No Level	No Level	No Level	No Level	No Level	No Level	Building Constructor (B-010-2)
LEVEL 1	No Level	No Level	No Level	No Level	No Level	No Level	No Level	Building Constructor (B-010-1)

Figure 5.1.13: Proposed OA Matrix for the Building Construction Sector (Sub sector: Construction Site Supervisory & Management)

5.3 MAPPING BETWEEN THE PROPOSED SUB SECTORS TO THE EXISTING SUB SECTORS

Due to the current development in the Building Construction industry, the existing job titles in DSD's Registry of Job Titles for this sector have been reviewed and enhanced. The mappings between the proposed sub sectors to the existing sub sectors are included in this section in an overall view of all the sub sectors. There are some issues regarding the mapping as described below:-

(i) Leveling

In accordance with DSD's requirement to take into consideration job titles extended from the existing Level 1 up to Level 8, many of the existing leveling has been changed to a higher level than the existing one. For the Building Construction Industry, the highest is at Level 7 because the duties at this level involve the ability to **reformulate** and use relevant understanding, methodologies and approaches to address **problematic situations** that involve many interacting factors. It includes taking responsibility for **planning and developing** courses of action that initiate substantial change or development, as well as exercising broad autonomy and judgment. Job titles at Level 8 are not required for this industry because it does not coincide with the definition of those at Level 8 as specified by the DSD.

(ii) New existing Job Title, Area or Sub Sector

As there are newly defined job titles, areas and sub sectors, it is not possible to map all of them to existing NOSSes. However, mapping has been done between the proposed sub sectors to existing NOSSes according to the job scope that is felt relevant and can be used as reference.

(iii) Mapping of the Building Construction Industry sub sectors

The following figure illustrates the mapping between the existing sub sectors Construction Industry, Draughting-Architectural, Surveying-Land, Industrialised Building System, Lift and Escalator, Piling and Crane to the proposed sub sectors. All these areas are most similar to the present sub sectors; therefore they can be mapped to each other.

It must be noted that even though there are similarities between the existing and proposed sub sectors, the main difference is the structure of the framework that is divided according to the main areas of construction, level of hierarchy and provide a clearer career pathway for the overall construction environment.

Existing Sub Sectors \ Proposed Areas	Site Supervisory & Management	Draughting – Architectural	Surveying – Land	Industrialised Building System	Lift And Escalator	Piling	Crane
Civil							
Structural							
Architectural							
Machinery & Plant							
Industrial Building System (IBS)							
Construction Site Supervisory & Management							

Figure 5.14 : Mapping between the proposed sub sectors to the existing sub sectors

5.4 ENTRY LEVEL & JUSTIFICATION

i) Entry Level at Level 1

Sub Sector: Civil, Architectural, Structural, Industrial Building System (IBS), Machinery & Plant, Construction Site Supervisory & Management

These sub sectors begin at Level 1, because the work of the operator deals with complete routine and predictable tasks that include responsibility for completing tasks and procedures subject to direction or guidance.

The workers can follow this career pathway from Level 1 to Level 7 as the Construction Manager. This is seen as achievable based on the number of years of experience and formal skills training acquired (7 years). The formal skills training only enables them to proceed to the next level based on competency, therefore ensuring only competent workers are able to further their careers until Level 7.

Civil	Architectural	Structural	Industrial Building System (IBS)	Machinery & Plant	Construction Site Supervisory & Management
Level 7	Level 7	Level 7	Level 7	Level 7	No Level
Level 6	Level 6	Level 6	Level 6	Level 6	No Level
Level 5	Level 5	Level 5	Level 5	Level 5	No Level
Level 4	Level 4	Level 4	Level 4	Level 4	No Level
Level 3	Level 3	Level 3	Level 3	Level 3	Level 3
Level 2	Level 2	Level 2	Level 2	Level 2	Level 2
Level 1	Level 1	Level 1	Level 1	Level 1	Level 1

ii) Entry Level at Level 2

Sub sectors: Civil (Earth work, Site Soil Investigation, Engineering Survey, Slope Protection, Civil Drawing), Structural (Staircase, Steel Reinforcement Works, Structural Drawing), Architectural Drawing, Machinery & Plant (Tower Crane Erection Works, Machinery/Plant Operations)

Earth Work	Site Soil Investigation	Engineering Survey	Slope Protection	Civil Drawing	Staircase
No Level	Level 7	Level 7	Level 7	Level 7	Level 7
No Level	Level 6	Level 6	Level 6	Level 6	Level 6
No Level	Level 5	Level 5	Level 5	Level 5	Level 5
No Level	Level 4	Level 4	Level 4	Level 4	Level 4
No Level	Level 3	Level 3	Level 3	Level 3	Level 3
Level 2	Level 2	Level 2	Level 2	Level 2	Level 2
No Level	No Level	No Level	No Level	No Level	No Level

Steel Reinforcement Works	Structural Drawing	Architectural Drawing	Tower Crane Erection Works	Machinery/Plant Operations
Level 7	Level 7	Level 7	No Level	Level 7
Level 6	Level 6	Level 6	No Level	Level 6
Level 5	Level 5	Level 5	No Level	Level 5
Level 4	Level 4	Level 4	No Level	Level 4
Level 3	Level 3	Level 3	Level 3	Level 3
Level 2	Level 2	Level 2	Level 2	Level 2
No Level	No Level	No Level	No Level	No Level

Generally, the areas and sub sectors above start at Level 2 because the job titles require the ability to select and use relevant knowledge, ideas, skills and procedures to complete well-defined tasks and address straightforward problems. It includes taking responsibility for completing tasks and procedures, and exercising autonomy and judgment subject to overall direction or guidance. However, for the Earth Work Dump Truck Driver, which is a specialised job title, the worker will not proceed to the upper levels.

iii) Entry level at Level 3

Sub sector: Construction Site Supervisory & Management

Contract Administration	Civil	Structural	Architectural	Mechanical & Electrical	Site Safety & Health
Level 7	Level 7	Level 7	Level 7	Level 7	No Level
Level 6	Level 6	Level 6	Level 6	Level 6	No Level
Level 5	Level 5	Level 5	Level 5	Level 5	No Level
Level 4	Level 4	Level 4	Level 4	Level 4	No Level
Level 3	Level 3	Level 3	Level 3	Level 3	Level 3
No Level	No Level	No Level	No Level	No Level	No Level
No Level	No Level	No Level	No Level	No Level	No Level

This particular sub sector starts at Level 3 because of the duties and job scope that requires the personnel to be at supervisory level to complete tasks and address problems that are well defined with a measure of complexity. It includes taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgments within limited parameter.

5.5 OCCUPATIONAL DEFINITION

Under the Building Construction industry sector, job titles are identified and defined. Each job title is given a job definition as specified. The definition for all job titles can be seen in *Annex 2*.

5.6 CRITICAL JOB TITLES

For the Building Construction Industry sector, a total of 54 **job titles** are considered to be critical and 171 **job titles** are non critical.

(i) CRITICAL JOB TITLES

Based on input from the expert panel members, it can be summarised that the critical job titles for this industry are from the Roof Truss, Roofing Material, Architectural Drawing, Industrial Building System (IBS) and Construction Site Supervisory & Management sub sectors and areas.

Job titles under the Roof Truss and Roofing areas are considered critical due to the recent situation of roofing problems such as roof collapses and maintenance issues of buildings in Malaysia. The causes of these problems are design and maintenance issues by a majority of unskilled personnel.

Industrial Building System (IBS) is seen by the government as a sub sector with potential, therefore it is important that the personnel under this sub sector can perform up to the standards required by the industry as it requires precision and efficiency to work in the IBS environment.

Those under the Construction Management sub sector are also considered to be critical job titles as this sub sector is very instrumental in ensuring that the quality and standards are adhered to during the building construction process.

The lists of critical job titles are as below:

a) SUB SECTOR : STRUCTURAL

No.	Job Title	Level
1	Roof Truss Installer (Timber)	L1
2	Roof Truss Installer (Light Gauge Steel)	L1
3	Roof Truss Installer (Space Frame)	L1
4	Roof Truss Constructor (Concrete)	L1
5	Roofing Installer	L1
6	Senior Roof Truss Installer (Light Gauge Steel)	L2
7	Senior Roof Truss Constructor (Concrete)	L2
8	Senior Truss Installer (Space Frame)	L2
9	Senior Roof Truss Installer (Timber)	L2
10	Roofing Senior Installer	L2
11	Structural Draughtperson	L2
12	Roofing Supervisor	L3
13	Roof Truss Supervisor	L3
14	Structural Draughting Supervisor	L3

b) SUB SECTOR : ARCHITECTURAL

No.	Job Title	Level
1	Architectural Draughting Supervisor	L3

c) SUB SECTOR : INDUSTRIAL BUILDING SYSTEM (IBS)

No.	Job Title	Level
1	Precast Concrete Installer (Building)	L1
2	Formwork System Installer	L1
3	Blockwall System Installer	L1
4	Timber Frame System Installer	L1
5	Steel Framework System Installer	L1
6	Precast Concrete Senior Installer (Building)	L2
7	Formwork System Senior Installer	L2
8	Blockwall System Senior Installer	L2
9	Timber Frame System Senior Installer	L2
10	Steel Framework System Senior Installer	L2
11	Formwork System Supervisor	L3
12	Blockwall System Supervisor	L3
13	Timber Frame System Supervisor	L3
14	Precast Concrete Supervisor (Building)	L3
15	Steel Framework System Supervisor	L3
16	IBS Assistant Technical Executive	L4
17	IBS Technical Executive	L5
18	IBS Technical Manager	L6

d) SUB SECTOR : CONSTRUCTION SITE SUPERVISORY & MANAGEMENT

No.	Job Title	Level
1	Civil Site Supervisor	L3
2	Structural Site Supervisor	L3
3	Architectural Site Supervisor	L3
4	Mechanical & Electrical Site Supervisor	L3
5	Contract Administration Supervisor	L3
6	Structural Assistant Technical Executive	L4
7	Architectural Assistant Technical Executive	L4
8	Civil Assistant Technical Executive	L4
9	Mechanical & Electrical Assistant Technical Executive	L4
10	Contract Administration Assistant Executive	L4
11	Architectural Technical Executive	L5
12	Structural Technical Executive	L5
13	Civil Technical Executive	L5
14	Mechanical & Electrical Technical Executive	L5
15	Contract Executive (Finance)	L5
16	Contract Executive (Admin)	L5
17	Contract Administration Manager (QS)	L6
18	Architectural Technical Manager	L6
19	Civil Technical Manager	L6
20	Mechanical & Electrical Technical Manager	L6
21	Structural Technical Manager	L6

(ii) NON CRITICAL JOB TITLE

The job titles under this category do not reflect that they are not critical in the industry but only represent categories of job titles that have a sufficient supply of skilled workers in the near future and do not require immediate revision of the National Occupational Skills Standards documents or skills training .

(a) SUB SECTOR : CIVIL

No.	Job Title	Level
1	Earth Work Machine Operator	L1
2	Drop Hammer Operator	L1
3	Driven Pile Operator	L1
4	Jacked In Pile Operator	L1
5	Bored File Operator	L1
6	Micro Pile Operator	L1
7	Sewerage Installer	L1

No.	Job Title	Level
8	Sewerage Mechanical & Electrical Installer	L1
9	Water Reticulation Pipe Installer	L1
10	Water Reticulation Mechanical & Electrical Installer	L1
11	Drainage/ Culvert Installer	L1
12	Road Work Constructor	L1
13	Metal & Steel Works Installer	L1
14	Carpenter	L1
15	Surveying Technician	L2
16	Slope Protection Technician	L2
17	Piling Site Technician	L2
18	Earth Work Dump Truck Driver	L2
19	Sewerage Senior Installer	L2
20	Earth Work Machine Senior Operator	L2
21	Sewerage Mechanical & Electrical Technician	L2
22	Water Reticulation Senior Installer	L2
23	Drainage/ Culvert Senior Installer	L2
24	Soil Investigation Probe Operator	L2
25	Road Work Senior Constructor	L2
26	Metal & Steel Works Senior Installer	L2
27	Civil Draughtperson	L2
28	Water Reticulation Mechanical & Electrical Technician	L2
29	Senior Carpenter	L2
30	Sewerage Mechanical & Electrical Supervisor	L3
31	Water Reticulation Supervisor	L3
32	Piling Site Supervisor	L3
33	Soil Investigation Probe Supervisor	L3
34	Drainage/ Culvert Site Supervisor	L3
35	Earth Work Supervisor	L3
36	Sewerage Civil & Structure Supervisor	L3
37	Road Work Supervisor	L3
38	Surveying Supervisor	L3
39	Metal & Steel Works Supervisor	L3
40	Slope Protection Supervisor	L3
41	Civil Draughting Supervisor	L3
42	Water Reticulation Mechanical & Electrical Supervisor	L3
43	Carpenter Supervisor	L3
44	Civil Assistant Technical Executive	L4
45	Civil Technical Executive	L5
46	Civil Technical Manager	L6
47	Construction Manager	L7

(b) SUB SECTOR : STRUCTURAL

No.	Job Title	Level
1	Steel Structure Installer	L1
2	Brick Layer	L1
3	Bar Bender	L1
4	Form Works Installer	L1
5	Structural Concreter	L1
6	Water Tank Installer	L1
7	Retaining Structure Constructor	L1
8	Water Proofing Installer	L1
9	Scaffolder (Tubular)	L1
10	Scaffolder (Prefabricated)	L1
11	Scaffold Erector	L1
12	Senior Brick Layer	L2
13	Senior Bar Bender	L2
14	Steel Reinforcement Installer	L2
15	Formworks Senior Installer	L2
16	Structural Senior Concreter	L2
17	Water Tank Senior Installer	L2
18	Retaining Structure Senior Constructor	L2
19	Timber Staircase Installer	L2
20	Senior Scaffolder (Tubular)	L2
21	Steel Staircase Installer	L2
22	Senior Scaffolder (Prefabricated)	L2
23	Concrete Staircase Constructor	L2
24	Scaffold Senior Erector	L2
25	Steel Structure Supervisor	L2
26	Water Proofing Senior Installer	L2
27	Water Tank Supervisor	L3
28	Steel Reinforcement Supervisor	L3
29	Staircase Supervisor	L3
30	Retaining Structure Supervisor	L3
31	Bar Bender Supervisor	L3
32	Formworks Supervisor	L3
33	Scaffolder Supervisor (Tubular)	L3
34	Scaffolder Supervisor (Prefabricated)	L3
35	Structural Supervisor	L3
36	Scaffold Supervisor	L3
37	Brick Layer Supervisor	L3
38	Steel Structure Supervisor	L3
39	Water Proofing Supervisor	L3
40	Scaffold Inspector	L4
41	Structural Assistant Technical Executive	L4
42	Scaffold Assistant Technical Executive	L4

No.	Job Title	Level
43	Scaffold Manager	L5
44	Scaffold Manager (Erector)	L5
45	Structural Technical Executive	L5
46	Structural Technical Manager	L6

c) SUB SECTOR: ARCHITECTURAL

No.	Job Title	Level
1	Aluminum Frame Work Installer	L1
2	Glass Cutter	L1
3	Tiler	L1
4	Windows/ Doors Installer	L1
5	Drywall Partition Installer	L1
6	Drywall Cleanroom Installer	L1
7	Demountable Ceiling Installer	L1
8	Fixed Ceiling Installer	L1
9	Curtain Walling Installer	L1
10	Painter	L1
11	Plasterer	L1
12	Glazier	L2
13	Senior Tiler	L2
14	Windows/ Doors Senior Installer	L2
15	Drywall Partition Senior Installer	L2
16	Drywall Cleanroom Senior Installer	L2
17	Aluminum Framework Senior Installer	L2
18	Demountable Ceiling Senior Installer	L2
19	Fixed Ceiling Senior Installer	L2
20	Decorative Painter	L2
21	Architectural Draughtperson	L2
22	Senior Plasterer	L2
23	Curtain Walling Senior Installer	L2
24	Drywall Partition Supervisor	L3
25	Drywall Cleanroom Supervisor	L3
26	Aluminum Framework Supervisor	L3
27	Windows/ Doors Supervisor	L3
28	Ceiling Supervisor	L3
29	Tiler Supervisor	L3
30	Glazier Supervisor	L3
31	Painting Supervisor	L3
32	Plasterer Supervisor	L3
33	Curtain Walling Supervisor	L3
34	Architectural Assistant Technical Executive	L4

No.	Job Title	Level
35	Architectural Technical Executive	L5
36	Architectural Technical Manager	L6

d) SUB SECTOR: MACHINERY & PLANT

No.	Job Title	Level
1	Crane Signalman	L1
2	Self Loading Crane Operator	L1
3	Rigger	L1
4	Passenger Hoisting Installer	L1
5	Mobile Crane (Wheel) Operator	L2
6	Mobile Crane (Crawler) Operator	L2
7	Senior Rigger	L2
8	Tower Crane Operator	L2
9	Skid Steer Loader Operator	L2
10	Forklift Operator	L2
11	Compactor Roller Operator	L2
12	Pneumatic Tyre Roller Operator	L2
13	Cold Metal Operator	L2
14	Paver Operator	L2
15	Wheel Loader Operator	L2
16	Hydraulic Excavator Operator	L2
17	Backhoe Loader Operator	L2
18	Track Dozer Operator	L2
19	Motor Grader Operator	L2
20	Scraper Operator	L2
21	Back Pusher Operator	L2
22	Telescopic Material Handler	L2
23	Concrete Pump Operator	L2
24	Tower Crane Erector	L2
25	Passenger Hoisting Senior Installer	L2
26	Machinery & Plant Operation Supervisor	L3
27	Tower Crane Supervisor	L3
28	Rigger Supervisor	L3
29	Mobile Crane Supervisor	L3
30	Tower Crane Erector Supervisor	L3
31	Passenger Hoisting Supervisor	L3

No.	Job Title	Level
32	Rigging Superintendent	L4
33	Machinery & Plant Operation Assistant Technical Executive	L4
34	Crane Superintendent	L4
35	Crane Technical Executive	L5
36	Machinery & Plant Operation Technical Executive	L5
37	Crane Operation Manager	L6
38	Machinery & Plant Operation Technical Manager	L6

e) SUB SECTOR: CONSTRUCTION SITE SUPERVISORY & MANAGEMENT

No.	Job Title	Level
1	Building Constructor	L1
2	Building Constructor	L2
3	Construction Site Safety and Health Supervisor	L3
4	Building Construction Supervisor	L3

(iii) Summary of Critical and Non Critical Job Titles

SUB SECTOR			LEVEL									Total
			NL	L1	L2	L3	L4	L5	L6	L7	L8	
1.	Civil	Critical	0	0	0	0	0	0	0	0	0	0
		Non-Critical	0	14	15	14	1	1	1	0	0	46
2.	Structural	Critical	0	5	6	3	0	0	0	0	0	14
		Non-Critical	0	11	15	13	3	3	1	0	0	46
3.	Architectural	Critical	0	0	0	1	0	0	0	0	0	1
		Non-Critical	0	11	12	10	1	1	1	0	0	36
4.	Machinery & Plant	Critical	0	0	0	0	0	0	0	0	0	0
		Non-Critical	0	4	21	6	3	2	2	0	0	38
5.	Industrial Building System (IBS)	Critical	0	5	5	5	1	1	1	0	0	18
		Non-Critical	0	0	0	0	0	0	0	0	0	0
6.	Construction Site Supervisory & Management	Critical	0	0	0	5	5	6	5	0	0	21
		Non-Critical	0	1	1	2	0	0	0	1	0	5
		Critical									54	
		Non-Critical									171	
Total			0	51	75	59	14	14	11	1	0	225

Figure 5.15: Summary of Critical & Non Critical Job Titles

6. CONCLUSION AND RECOMMENDATION

As a result of the Building Construction sector Occupational Analysis conducted together with expert panel members from various Building Construction sub sectors and organisations, a total of 225 job titles and 6 main sub sectors have been identified.

In order to continue leveraging on domestic opportunities and to compete in the global marketplace, the Malaysian construction industry players need to address a number of key strategic and operational challenges. There is a need to take a holistic approach when reviewing the factors impacting the construction industry value chain. Improvements need to be implemented by all parties along the entire construction industry value chain for lasting transformation to occur. Therefore, in addition to contractors, clients, approving authorities, consultants and other stakeholders must be involved in this transformation.

The Construction industry in Malaysia should focus on continuously improving quality – one of the key global market differentiators. Although it is still an important consideration, there is an increasing consumer demand in the global environment for higher quality construction. To continuously enhance the global level of productivity and quality.

The building construction industry has an obligation and a responsibility to ensure that development taking place today and the pursuit of wealth must not be done at the expense of the quality of life of future generations.

Malaysia has made significant strides to take advantage of advancements and incentives in the Building Construction industry to improve efficiency and productivity, thus contributing to the increased overall competitiveness of the economy. Additional measures must also be undertaken to enhance human resource development to provide adequate skilled and knowledgeable manpower to support the knowledge – based economy.

7. REFERENCES

1. Ninth Malaysian Plan (2006-2010).Bernama.2006
2. IMP3 Third Industrial Master Plan (2006 – 2020).
3. Ministry of work Malaysia.2009. <http://webevents.bernama.com/events/imp3/>
4. E-NOSS. Jabatan Pembangunan Kemahiran.2008
<http://www.nvtc.gov.my/enoss/index.html>
5. www.mohr.gov.my/eNOSS
6. www.Wikipedia.com
7. www.st.gov.my
8. www.sirim.my/techinfo/catalougeonline/MSListing-IEC.html
9. www.cidb.gov.my
10. www.niosh.gov.my
11. www.jkr.com.my
12. Construction Industry Master Plan Malaysia.2006-2015.CIDB.2007

**ANNEX 1: LIST OF PANEL EXPERTS AND
FACILITATORS OF THE BUILDING
CONSTRUCTION INDUSTRY SECTOR
OCCUPATIONAL ANALYSIS
DEVELOPMENT**

**LIST OF PANEL EXPERTS OF THE BUILDING
CONSTRUCTION INDUSTRY SECTOR OCCUPATIONAL
ANALYSIS DEVELOPMENT**

NO	NAME	POSITION	EXPERTISE	ORGANISATION
1	Ir. AHMAD FAUZI BIN YAHYA	MANAGING DIRECTOR	PROPERTY AND CONSTRUCTION MANAGEMENT	R.A.S. ENGINEERING SERVICES SDN. BHD.
2	Ir. SABRAN BIN SAHPERI	HEAD OF DEPUTY DIRECTOR	PROJECT MANAGEMNET	JABATAN KERAJAAN TEMPATAN
3	ENCIK MOHD. RAZAKI BIN ABDULLAH	DEPUTY DIRECTOR	SKILLS TRAINING & EDUCATION	INSTITUT KEMAHIRAN MARA JASIN
4	ENCIK SULAIMAN BIN MD. ISA	MANAGER	ARCHITECTURE	CIDB MALACCA
5	ENCIK MOHD. SHAMSUDDIN BIN DAMIN	MANAGING CONSULTANT	CONSTRUCTION MANAGEMENT	NICEDAY INDUSTRIES SDN. BHD.
6	ENCIK LOKMAN BIN DARUS	SENIOR ASSISTANT MANAGER	ARCHITECTURE AND MANAGEMENT	CIDB MALACCA

**LIST OF FACILITATORS OF THE BUILDING
CONSTRUCTION INDUSTRY SECTOR OCCUPATIONAL
ANALYSIS DEVELOPMENT**

DR. AMIRON BIN ISMAIL

FACILITATOR
PRITEC ACADEMY

EN. FAHISZAM BIN SAAD

CO-FACILITATOR
PRITEC ACADEMY

PUAN EVARINA BINTI AMIRON

CO-FACILITATOR
PRITEC ACADEMY

CIK NOORASIKIN BINTI OTHMAN

SECRETARIAT
PRITEC ACADEMY

EN. AZIZAN BIN RAMLI

SECRETARIAT
PRITEC ACADEMY

CIK RAFIDAH BINTI AMIRRUDIN

SECRETARIAT
PRITEC ACADEMY

CIK NORASIKIN BINTI BAHROM

EN. MUHAMMAD SHAHRIL BIN ZOLKEPLI

EN. B. SUGENDRAN

RESEARCHER
PRITEC ACADEMY

**ANNEX 2: OCCUPATIONAL DEFINITION OF THE
BUILDING CONSTRUCTION INDUSTRY
SECTOR**

SUB SECTOR: CIVIL



CIVIL

LEVEL 2 EARTH WORK DUMP TRUCK DRIVER

AN EARTH WORK DUMP TRUCK DRIVER DESIGNATED TO CARRY OUT DAILY WORK RECORD, RECORD LOADING DOCUMENT, PERFORM METHOD OF STATEMENT AND CARRY OUT PERIODIC PREVENTATIVE MAINTENANCE.

An Earth Work Dump Truck Driver will be able to:

1. Carry out daily work record;
2. Record loading document;
3. Perform method of statement;
4. Carry out periodic preventative maintenance;
5. Perform daily operative maintenance on assigned trucks and equipment;
6. Operate earth dump truck to haul gravel and material to work site;
7. Operate fuel truck to deliver fuel to work site;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



CIVIL

LEVEL 1

EARTH WORK MACHINE OPERATOR

AN EARTH WORK MACHINE OPERATOR IS DESIGNATED TO PERFORM METHOD OF STATEMENT, PERFORM ROUTINE MAINTENANCE, NORMAL EARTH WORK DUTY, PREPARE DAILY EARTH WORK RECORD AND SUPERVISE LIGHT DUTY MACHINERY.

An Earth Work Machine Operator will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Perform normal earth work duty;
4. Prepare daily earth work record;
5. Supervise Light duty machinery;
6. Setup and inspect equipment prior to operation;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



**CIVIL
LEVEL 2
EARTH WORK MACHINE SENIOR OPERATOR**

AN EARTH WORK MACHINE SENIOR OPERATOR IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM ROUTINE MAINTENANCE. PREVENTIVE MAINTENANCE, PREPARE COMPLEX EARTH WORK DUTY AND SUPERVISE HEAVY DUTY MACHINERY.

An Earth Work Machine Senior Operator will be able to:

1. Confirm to method of statement;
2. Perform routine maintenance;
3. Carry out periodic preventive maintenance;
4. Prepare complex earth work duty;
5. Supervise heavy duty machinery;
6. Operate or tend machinery equipped with scoops, shovel, or buckets to excavate and load loose material;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



**CIVIL
LEVEL 3
EARTH WORK SUPERVISOR**

AN EARTH WORK SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET WORK INSTRUCTION, SUPERVISE EARTH WORK DUTY, PREPARED EARTH WORK REPORT, SUBMITTED SITE DIFFICULTY FEEDBACK, CARRY OUT SITE INSPECTION AND LIAISE WITH AUTHORISED REPRESENTATIVES.

An Earth Work Supervisor will be able to:

1. Prepare method of statement;
2. Understand and interpret work instruction;
3. Supervise earth work duty;
4. Prepared earth work report;
5. Submitted site difficulty feedback;
6. Carry out site inspection;
7. Liaise with authorised representatives;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



LEVEL 2 SOIL INVESTIGATION PROBE OPERATOR

A SOIL INVESTIGATION PROBE OPERATOR IS DESIGNATED TO PERFORM METHOD OF STATEMENT, CARRY OUT DAILY WORK RECORD, PREPARE SOIL INVESTIGATION PROBE AND PERFORM ROUTINE MAINTENANCE.

A Soil Investigation Probe Operator will be able to:

1. Perform method of Statement;
2. Carry out daily work record;
3. Prepare soil investigation probe;
4. Perform routine maintenance;
5. Adhere to safety and security procedure; and
6. Follow standard operating procedure.



CIVIL

LEVEL 3 SOIL INVESTIGATION PROBE SUPERVISOR

A SOIL INVESTIGATION PROBE SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, CARRY OUT SITE WORK INSTRUCTION, UNDERSTAND AND INTERPRET WORK INSTRUCTION, PREPARE REPORT, SUPERVISE SOIL INVESTIGATION WORK, SUBMIT SITE DIFFICULTY FEEDBACK. EXECUTION PLAN AND SUPERVISORY FUNCTION.

A Soil Investigation Probe Supervisor will be able to:

1. Prepare method of Statement;
2. Carry out site work instruction;
3. Understand and interpret work instruction;
4. Prepare report;
5. Supervise soil investigation work;
6. Submit site difficulty feedback;
7. Provide execution plan;
8. Perform Supervisory function;
9. Adhere to safety and security procedure; and
10. Follow standard operating procedure.



CIVIL

LEVEL 2 SURVEYING TECHNICIAN

A SURVEYING TECHNICIAN IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, SURVEYING FIELD BOOK, CARRY OUT SITE SURVEY, ESTABLISH TEMPORARY BENCH MARK, PERFORM ROUTINE MAINTENANCE AND COORDINATED SLOPE PROTECTION CONSTRUCTION.

A Surveying Technician will be able to:

1. Confirm method of statement;
2. Perform to method of statement;
3. Surveying field book;
4. Carry out site survey;
5. Establish temporary bench mark;
6. Perform routine maintenance;
7. Coordinated slope protection construction;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 3 SURVEYING SUPERVISOR

A SURVEYING SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, SUPERVISE SURVEYING WORK, LIAISE WITH AUTHORITIES REPRESENTATIVES, UNDERSTAND AND INTERPRET WORK INSTRUCTION/ WORK ORDER, PREPARE SURVEYING REPORT, CARRY OUT SITE INSPECTION AND SUBMIT SITE DIFFICULTY FEEDBACK.

A Surveying Supervisor will be able to:

1. Prepare method of statement;
2. Supervise surveying work;
3. Liaise with authorities representatives;
4. Understand and interpret work instruction/ work order;
5. Prepare surveying report;
6. Carry out site inspection;
7. Submit site difficulty feedback;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 2 SLOPE PROTECTION TECHNICIAN

A SLOPE PROTECTION TECHNICIAN IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, SURVEY FIELD WORK, CARRY OUT SITE SURVEY, ESTABLISH TEMPORARY BENCH MARK AND ROUTINE MAINTENANCE.

A Slope Protection Technician will be able to:

1. Confirm method of statement;
2. Survey field work;
3. Carry out site survey;
4. Establish temporary bench mark;
5. Perform routine maintenance;
6. Adhere to safety and security procedure; and
7. Follow standard operating procedure.



CIVIL

LEVEL 3 SLOPE PROTECTION SUPERVISOR

A SLOPE PROTECTION SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, SUPERVISE SLOPE PROTECTION WORK, LIAISE WITH AUTHORITIES REPRESENTATIVES, UNDERSTAND AND INTERPRET WORK INSTRUCTION, CARRY OUT SITE INSPECTION, PREPARE SLOPE PROTECTION REPORT AND SUBMIT SITE DIFFICULTY FEEDBACK.

A Slope Protection Supervisor will be able to:

1. Prepare method of statement;
2. Supervise slope protection work;
3. Liaise with authorities representatives;
4. Understand and interpret work instruction;
5. Carry out site inspection;
6. Prepare slope protection report;
7. Submit site difficulty feedback;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 1 DROP HAMMER OPERATOR

A DROP HAMMER OPERATOR IS DESIGNATED TO PERFORM ROUTINE MAINTENANCE, METHOD OF STATEMENT, CARRY OUT DAILY WORK RECORD AND OPERATE DROP HAMMER MACHINE.

A Drop Hammer Operator will be able to:

1. Perform routine maintenance;
2. Perform method of statement;
3. Carry out daily work record;
4. Operate drop hammer machine;
5. Adhere to safety and security procedure; and
6. Follow standard operating procedure.



CIVIL

LEVEL 1 DRIVEN PILE OPERATOR

A DRIVEN PILE OPERATOR IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, CARRY OUT DAILY WORK RECORD AND OPERATE DRIVEN PILE MACHINE.

A Driven Pile Operator will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out daily work record;
4. Operate driven pile machine;
5. Adhere to safety and security procedure; and
6. Follow standard operating procedure.



CIVIL

**LEVEL 1
JACKED IN PILE OPERATOR**

A JACKED IN PILE OPERATOR IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, CARRT OUT DAILY WORK RECORD AND OPERATE JACKED IN PILE MACHINE.

A Jacked In Pile Operator will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out daily work record;
4. Operate jacked in pile machine;
5. Adhere to safety and security procedure; and
6. Follow standard operating procedure.



CIVIL

LEVEL 1 BORED FILE OPERATOR

A BORED FILE OPERATOR IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, CARRY OUT DAILY WORK RECORD AND OPERATE BORED FILE MACHINE.

A Bored File Operator will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out daily work record;
4. Operate bored file machine;
5. Adhere to safety and security procedure; and
6. Follow standard operating procedure.



CIVIL

LEVEL 1 MICRO PILE OPERATOR

A MICRO PILE OPERATOR IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, CARRY OUT DAILY WORK RECORD AND OPERATE MICRO PILE MACHINE.

A Micro Pile Operator will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out daily work record;
4. Operate micro pile machine;
5. Adhere to safety and security procedure; and
6. Follow standard operating procedure.



CIVIL

LEVEL 2 PILING SITE TECHNICIAN

A PILING SITE TECHNICIAN IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM ROUTINE MAINTENANCE, ESTABLISH TEMPORARY BENCH MARK, CARRY OUT SITE SURVEY, SURVEY FIELD WORK, PLENARY TEST PILE, SETTING OUT PILE POSITION AND TESTING FOR PILE.

A Piling Site Technician will be able to:

1. Confirm Method Of Statement;
2. Perform routine maintenance;
3. Establish temporary bench mark;
4. Carry out site survey;
5. Survey field work;
6. Carry out plenary test pile;
7. Setting out pile position;
8. Carry out testing for pile;
9. Adhere to safety and security procedure; and
10. Follow standard operating procedure.



CIVIL

LEVEL 3 PILING SITE SUPERVISOR

A PILING SITE SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, SUBMIT TO SUPERIOR TO APPROVAL, COORDINATION, LIAISE WITH AUTHORITIES REPRESENTATIVES, SUPERVISE PILING WORK. CARRY OUT SITE INSPECTION, SUBMIT SITE DIFFICULTY FEEDBACK AND UNDERSTAND AND INTERPRET WORK INSTRUCTION.

A Piling Site Supervisor will be able to:

1. Prepare method of statement;
2. Submit to superior to approval;
3. Prepare Coordination;
4. Liaise with authorities representatives;
5. Supervise piling work;
6. Carry out site inspection;
7. Submit site difficulty feedback;
8. Understand and interpret work instruction;
9. Adhere to safety and security procedure; and
10. Follow standard operating procedure.



CIVIL

LEVEL 1 SEWERAGE INSTALLER

A SEWERAGE INSTALLER IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, CARRY OUT DAILY WORK RECORD, PIPE INSTALLATION, EXECUTION AND BEDDING WORK AND IMPLEMENT PREPARATION FOR TESTING.

A Sewerage Installer will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out daily work record;
4. Implement preparation for testing;
5. Carry out pipe installation;
6. Carry out execution;
7. Carry out bedding work;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 2 SEWERAGE SENIOR INSTALLER

A SEWERAGE SENIOR INSTALLER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, COORDINATE PIPE INSTALLATION WORK, CARRY OUT TESTING, RECORD SURVEY FIELD BOOK AND SITE SURVEY AND ESTABLISHED TEMPORARY BENCH MARK.

A Sewerage Senior Installer will be able to:

1. Confirm to method of statement;
2. Coordinate pipe installation work;
3. Carry out testing;
4. Record survey field book;
5. Established Temporary Bench Mark;
6. Carry out site survey;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 3 SEWERAGE SUPERVISOR

A SEWERAGE SUPERVISOR IS DESIGNATED TO PREPARE SEWERAGE SYSTEM INVESTIGATION REPORT, CARRY OUT SITE INSPECTION, UNDERSTAND AND INTERPRET WORK INSTRUCTION, PREPARE METHOD OF STATEMENT, PERFORM SUPERVISORY FUNCTION, EXECUTION PLAN, LIAISE WITH AUTHORISED REPRESENTATIVES, RECORD TESTING AND ASSIST TO SUPERVISE TESTING.

A Sewerage Supervisor will be able to:

1. Prepare sewerage system investigation report;
2. Carry out site inspection;
3. Understand and interpret work instruction;
4. Prepare method of statement;
5. Perform supervisory function;
6. Provide execution plan;
7. Liaise with authorised representatives;
8. Record testing;
9. Assist to supervise testing;
10. Adhere to safety and security procedure; and
11. Follow standard operating procedure.



CIVIL

LEVEL 1

SEWERAGE MECHANICAL & ELECTRICAL INSTALLER

A SEWERAGE MECHANICAL & ELECTRICAL INSTALLER IS DESIGNATED TO PERFORM TO METHOD OF STATEMENT, ROUTINE MAINTENANCE, CARRY OUT MECHANICAL & ELECTRICAL INSTALLATION, DAILY WORK REPORT AND PREPARE PREPARATION FOR TESTING.

A Sewerage Mechanical & Electrical Installer will be able to:

1. Perform to method of statement;
2. Perform routine maintenance;
3. Carry out mechanical & electrical installation;
4. Carry out daily work report;
5. Prepare preparation for testing;
6. Adhere to safety and security procedure; and
7. Follow standard operating procedure.



CIVIL

LEVEL 2 SEWERAGE MECHANICAL & ELECTRICAL TECHNICIAN

A SEWERAGE MECHANICAL & ELECTRICAL TECHNICIAN IS DESIGNATED TO CARRY OUT SURVEY, TESTING, ESTABLISHED TEMPORARY BENCH MARK, RECORD SURVEY FIELD BOOK, COORDINATE PIPE INSTALLATION WORK AND CONFIRM METHOD OF STATEMENT.

A Sewerage Mechanical & Electrical Technician will be able to:

1. Carry out survey;
2. Established Temporary Bench Mark;
3. Record survey field book;
4. Carry out testing;
5. Coordinate pipe installation work;
6. Confirm method of statement;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 3

SEWERAGE MECHANICAL & ELECTRICAL SUPERVISOR

A SEWERAGE MECHANICAL & ELECTRICAL SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, SEWERAGE SYSTEM INVESTIGATION REPORT, CARRY OUT SITE INSPECTION, UNDERSTAND / INTERPRET WORK INSTRUCTION / WORK ORDER AND SUPERVISE TESTING, RECORD TESTING, PERFORM SUPERVISORY FUNCTION, SUPERVISE EXECUTION PLAN AND LIAISE WITH AUTHORITY REPRESENTATIVES.

A Sewerage Mechanical & Electrical Supervisor will be able to:

1. Prepare method of statement;
2. Prepare sewerage system investigation report;
3. Carry out site inspection;
4. Understand / interpret work instruction / work order;
5. Perform supervisory function;
6. Supervise execution plan;
7. Carry out supervise testing;
8. Record testing;
9. Liaise with authority representatives;
10. Adhere to safety and security procedure; and
- 11 Follow standard operating procedure.



CIVIL

LEVEL 1 WATER RETICULATION PIPE INSTALLER

A WATER RETICULATION PIPE INSTALLER IS DESIGNATED TO CARRY OUT WATER RETICULATION PIPE INSTALLATION, EXCAVATION, BEDDING WORK, PREPARE PREPARATION FOR TESTING, DAILY WORK RECORD, PERFORM METHOD OF STATEMENT AND ROUTINE MAINTENANCE.

A Water Reticulation Pipe Installer will be able to:

1. Carry out water reticulation pipe installation;
2. Carry out excavation;
3. Carry out bedding work;
4. Prepare preparation for testing;
5. Carry out daily work record;
6. Perform method of statement;
7. Perform routine maintenance;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 2

WATER RETICULATION SENIOR INSTALLER

A WATER RETICULATION SENIOR INSTALLER IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, COORDINATE WATER RETICULATION WORK, CARRY OUT WATER RETICULATION WORK, RECORD SURVEY FIELD BOOK, SITE SURVEY AND ESTABLISHED TEMPORARY BENCH MARK.

A Water Reticulation Senior Installer will be able to:

1. Confirm method of statement;
2. Coordinate water reticulation work;
3. Carry out water reticulation work;
4. Record survey field book;
5. Carry out site survey;
6. Established temporary bench mark;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 3

WATER RETICULATION SITE SUPERVISOR

A WATER RETICULATION SITE SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, WATER RETICULATION SYSTEM REPORT, CARRY OUT SITE INSPECTION AND RECORD TESTING, UNDERSTAND AND INTERPRET WORK INSTRUCTION, LIAISE WITH AUTHORITY REPRESENTATIVES, PERFORM SUPERVISORY FUNCTION, SUPERVISE EXECUTION PLAN AND PREPARE WATER RETICULATION INVESTIGATION REPORT.

A Water Reticulation Site Supervisor will be able to:

1. Prepare method of statement;
2. Prepare water reticulation system report;
3. Carry out site inspection;
4. Understand and interpret work instruction;
5. Liaise with authority representatives;
6. Perform supervisory function;
7. Supervise execution plan;
8. Carry out record testing;
9. Prepare water reticulation investigation report;
10. Adhere to safety and security procedure; and
11. Follow standard operating procedure.



CIVIL

LEVEL 1

WATER RETICULATION MECHANICAL & ELECTRICAL INSTALLER

A WATER RETICULATION MECHANICAL & ELECTRICAL INSTALLER IS DESIGNATED TO CARRY OUT WATER RETICULATION MECHANICAL & ELECTRICAL PIPE INSTALLATION, EXCAVATION, BEDDING WORK AND DAILY WORK RECORD, PREPARE PREPARATION FOR TESTING, PERFORM METHOD OF STATEMENT AND ROUTINE MAINTENANCE.

A Water Reticulation Mechanical & Electrical Installer will be able to:

1. Carry out water reticulation mechanical & electrical pipe installation;
2. Carry out excavation;
3. Carry out bedding work;
4. Prepare preparation for testing;
5. Carry out daily work record;
6. Perform method of statement;
7. Perform routine maintenance;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 2

WATER RETICULATION MECHANICAL & ELECTRICAL TECHNICIAN

A WATER RETICULATION MECHANICAL & ELECTRICAL TECHNICIAN IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, COORDINATE WATER RETICULATION MECHANICAL & ELECTRICAL WORK, CARRY OUT WATER RETICULATION MECHANICAL & ELECTRICAL WORK AND SITE SURVEY RECORD SURVEY FIELD BOOK AND ESTABLISHED TEMPORARY BENCH MARK.

A Water Reticulation Mechanical & Electrical Technician will be able to:

1. Confirm method of statement;
2. Coordinate water reticulation mechanical & electrical work;
3. Carry out water reticulation mechanical & electrical work;
4. Record survey field book;
5. Carry out site survey;
6. Established temporary bench mark;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 3

WATER RETICULATION MECHANICAL & ELECTRICAL SUPERVISOR

A WATER RETICULATION MECHANICAL & ELECTRICAL SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, WATER RETICULATION MECHANICAL & ELECTRICAL SYSTEM REPORT, CARRY OUT SITE INSPECTION, RECORD TESTING, UNDERSTAND AND INTERPRET WORK INSTRUCTION, LIAISE WITH AUTHORITY REPRESENTATIVES, PERFORM SUPERVISORY FUNCTION, SUPERVISE EXECUTION PLAN AND PREPARE WATER RETICULATION MECHANICAL & ELECTRICAL INVESTIGATION REPORT.

A Water Reticulation Mechanical & Electrical Supervisor will be able to:

1. Prepare method of statement;
2. Prepare water reticulation mechanical & electrical system report;
3. Carry out site inspection;
4. Understand and interpret work instruction;
5. Liaise with authority representatives;
6. Perform supervisory function;
7. Supervise execution plan;
8. Record testing;
9. Prepare water reticulation mechanical & electrical investigation report;
10. Adhere to safety and security procedure; and
11. Follow standard operating procedure.



CIVIL

LEVEL 1

DRAINAGE / CULVERT INSTALLER

A DRAINAGE / CULVERT INSTALLER IS DESIGNATED TO PERFORM METHOD OF STATEMENT, COORDINATE CULVERT INSTALLATION WORK, CARRY OUT SITE SURVEY AND TESTING, RECORD SURVEY FIELD BOOK AND ESTABLISH TEMPORARY BENCH MARK.

A Drainage / Culvert Installer will be able to:

1. Perform method of statement;
2. Coordinate culvert installation work;
3. Carry out site survey;
4. Carry out testing;
5. Record survey field book;
6. Establish temporary bench mark;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 2 DRAINAGE CULVERT SENIOR INSTALLER

A DRAINAGE CULVERT SENIOR INSTALLER IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM ROUTINE MAINTENANCE. CARRY OUT INSTALLATION DRAINAGE & CULVERT, DAILY WORK RECORD, BEDDING WORK AND EXCAVATION, ASSIST TO PREPARE FOR TESTING.

A Drainage Culvert Senior Installer will be able to:

1. Confirm method of statement;
2. Perform routine maintenance;
3. Carry out installation drainage & culvert;
4. Perform Preparation for testing;
5. Assist to daily work record;
6. Carry out excavation;
7. Carry out bedding work;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 3 DRAINAGE CULVERT SITE SUPERVISOR

A DRAINAGE CULVERT SITE SUPERVISOR IS DESIGNATED TO SUPERVISE TESTING, RECORD TESTING, LIAISE WITH AUTHORITIES REPRESENTATIVES, SUPERVISE EXECUTION PLAN, PREPARE DRAINAGE & CULVERT INVESTIGATION REPORT, CARRY OUT SITE INSPECTION, PERFORM SUPERVISORY FUNCTION, UNDERSTAND & INTERPRET WORK INSTRUCTION / WORK ORDER AND PREPARE METHOD OF STATEMENT.

A Drainage Culvert Site Supervisor will be able to:

1. Supervise testing;
2. Record testing;
3. Liaise with authorities representatives;
4. Supervise execution plan;
5. Prepare drainage & culvert investigation report;
6. Carry out site inspection;
7. Perform supervisory function;
8. Understand & interpret work instruction / work order;
9. Prepare method of statement;
10. Adhere to safety and security procedure; and
11. Follow standard operating procedure.



CIVIL

LEVEL 1 ROAD WORK CONSTRUCTOR

A ROAD WORK CONSTRUCTOR IS DESIGNATED TO PERFORM ROUTINE MAINTENANCE, METHOD OF STATEMENT, CARRY OUT INSTALLATION ROAD WORK MACHINE, DAILY WORK RECORD, EXCAVATION, SUB GRADE WORK, PRE-MIXED WORK AND BASE WORK.

A Road Work Constructor will be able to:

1. Perform routine maintenance;
2. Perform method of statement;
3. Carry out installation road work machine;
4. Carry out daily work record;
5. Carry out excavation;
6. Carry out sub grade work;
7. Carry out pre-mixed work;
8. Carry out base work;
9. Adhere to safety and security procedure; and
10. Follow standard operating procedure.



CIVIL

LEVEL 2 ROAD WORK SENIOR CONSTRUCTOR

A ROAD WORK SENIOR CONSTRUCTOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, TOOLS AND EQUIPMENT FOR CONCRETING WORKS, INSPECT CONCRETING WORK ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL AND LIAISE WITH ORDER RELEVANT PARTIES FOR CONCRETING WORK.

A Road Work Senior Constructor will be able to:

1. Prepare method of statement;
2. Submit site difficulty feedback;
3. Established temporary bench mark;
4. Coordinate & perform road work construction;
5. Carry out road work as per setting out plan;
6. To comply the instruction from superior time to time;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 3 ROAD WORK SUPERVISOR

A ROAD WORK SUPERVISOR IS DESIGNATED TO CARRY OUT SITE INSPECTION, RECORD TESTING, COORDINATE SURVEYING WORK, LIAISE WITH AUTHORITIES REPRESENTATIVES, CARRY OUT SITE SURVEY, SUPERVISE TESTING, SURVEYING FIELD BOOK, PREPARE ROAD WORK INVESTIGATION REPORT, SUPERVISE EXECUTION PLAN, PERFORM SUPERVISORY FUNCTION, UNDERSTAND & INTERPRET WORK INSTRUCTION / WORK ORDER AND PREPARE & SUBMIT METHOD OF STATEMENT FOR APPROVAL.

A Road Work Supervisor will be able to:

1. Carry out site inspection;
2. Record testing;
3. Coordinate surveying work;
4. Liaise with authorities representatives;
5. Carry out site survey;
6. Carry out supervise testing;
7. Surveying field book;
8. Prepare road work investigation report;
9. Supervise execution plan;
10. Perform supervisory function;
11. Understand & interpret work instruction / work order;
12. Prepare & submit method of statement for approval;
13. Adhere to safety and security procedure; and
14. Follow standard operating procedure.



CIVIL

LEVEL 1 METAL & STEEL WORKS INSTALLER

A METAL & STEEL WORKS INSTALLER IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, PREPARATION FOR TESTING, METAL & STEEL ERECTOR, DAILY WORK REPORT AND INSTALLATION AS PER SETTING OUT PLAN.

A Metal & Steel Works Installer will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out metal & steel erector;
4. Carry out daily work report;
5. Carry out preparation for testing;
6. Carry out installation as per setting out plan;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 2

METAL & STEEL WORKS SENIOR INSTALLER

A METAL & STEEL WORKS SENIOR INSTALLER IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, CARRY OUT TESTING, METAL & STEEL WORK INSTALLATION INSPECTION, WELDING WORKS AND SETTING WORK, PERFORM ROUTINE MAINTENANCE AND COORDINATE CONSTRUCTION SCOPE DRAWING WORKS WITH DRAUGHTING TEAM.

A Metal & Steel Works Senior Installer will be able to:

1. Confirm method of statement;
2. Carry out testing;
3. Carry out metal & steel work installation inspection;
4. Perform routine maintenance;
5. Carry out welding works;
6. Carry out setting work;
7. Coordinate construction scope drawing works with draughting team;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 3 METAL & STEEL WORKS SUPERVISOR

A METAL & STEEL WORKS SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, RECORD TESTING, SUPERVISE EXECUTION PLAN, PERFORM SUPERVISORY FUNCTION, UNDERSTAND & INTERPRET WORK INSTRUCTION, CARRY OUT SITE INSPECTION, TESTING, INSPECTION, SITE RECORD AND SUBMISSION AND UNDERSTAND AND INTERPRET WORK INSTRUCTION.

A Metal & Steel Works Supervisor will be able to:

1. Prepare method of statement;
2. Record testing;
3. Supervise execution plan;
4. Perform supervisory function;
5. Understand & interpret work instruction;
6. Carry out site inspection;
7. Carry out testing, and record, submission;
8. Understand and interpret work instruction;
9. Carry out site inspection;
10. Adhere to safety and security procedure; and
11. Follow standard operating procedure.



CIVIL

LEVEL 1 CARPENTER

A CARPENTER IS DESIGNATED TO PERFORM METHOD OF STATEMENT, ROUTINE MAINTENANCE, PREPARATION FOR TESTING, WOOD ERECTOR, DAILY WORK REPORT AND INSTALLATION AS PER SETTING OUT PLAN.

A Carpenter will be able to:

1. Perform method of statement;
2. Perform routine maintenance;
3. Carry out wood erector;
4. Carry out daily work report;
5. Carry out preparation for testing;
6. Carry out installation as per setting out plan;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 2 SENIOR CARPENTER

A SENIOR CARPENTER IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, CARRY OUT TESTING, WOOD WORK INSTALLATION INSPECTION AND SETTING WORK, PERFORM ROUTINE MAINTENANCE AND COORDINATE CONSTRUCTION SCOPE DRAWING WORKS WITH DRAUGHTING TEAM.

A Senior Carpenter will be able to:

1. Confirm method of statement;
2. Carry out testing;
3. Carry out wood work installation inspection;
4. Perform routine maintenance;
5. Carry out setting work;
6. Coordinate construction scope drawing works with draughting team;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CIVIL

LEVEL 3 CARPENTER SUPERVISOR

A CARPENTER SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, RECORD TESTING, SUPERVISE EXECUTION PLAN, PERFORM SUPERVISORY FUNCTION, UNDERSTAND & INTERPRET WORK INSTRUCTION, CARRY OUT SITE INSPECTION, TESTING, INSPECTION, SITE RECORD AND SUBMISSION AND UNDERSTAND AND INTERPRET WORK INSTRUCTION.

A Carpenter Supervisor will be able to:

1. Prepare method of statement;
2. Record testing;
3. Supervise execution plan;
4. Perform supervisory function;
5. Understand & interpret work instruction;
6. Carry out site inspection;
7. Carry out testing, and record, submission;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CIVIL

LEVEL 2 CIVIL DRAUGHTPERSON

A CIVIL DRAUGHTPERSON IS DESIGNATED TO PREPARE CIVIL CONSTRUCTION DRAWING FOR EARTH WORK, ROAD WORK, DRAINAGE CULVERT, DOMESTICS SEWERAGE SYSTEM AND WATER SUPPLY, PRODUCE COMPLETE ENGINEERING DRAWING AS PER STANDARD PRACTICE AND OPERATE CAD SOFTWARE.

A Civil Draughtperson will be able to:

1. Prepare civil construction drawing for earth work, road work, drainage culvert, domestics sewerage system and water supply;
2. Produce complete engineering drawing as per standard practice;
3. Operate CAD software;
4. Adhere to safety and security procedure; and
5. Follow standard operating procedure.



CIVIL

LEVEL 3 CIVIL DRAUGHTING SUPERVISOR

A CIVIL DRAUGHTING SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, REVIEW CONSTRUCTION DRAWING AND PERFORM SUPERVISORY FUNCTION.

A Civil Draughting Supervisor will be able to:

1. Prepare method of statement;
2. Review construction drawing;
3. Perform supervisory function;
4. Adhere to safety and security procedure; and
5. Follow standard operating procedure.



CIVIL

LEVEL 4

CIVIL ASSISTANT TECHNICAL EXECUTIVE

A CIVIL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO EDIT, ENDORSE CONSTRUCTION DRAWINGS, PREPARE REPORT AND UNDERSTAND AND INTERPRET SIMPLE ENGINEERING CALCULATION.

A Civil Assistant Technical Executive will be able to:

1. Edit, endorse construction drawings;
2. Prepare report;
3. Understand and interpret simple engineering calculation;
4. Adhere to safety and security procedure; and
5. Follow standard operating procedure.



CIVIL

LEVEL 5 CIVIL TECHNICAL EXECUTIVE

A CIVIL TECHNICAL EXECUTIVE IS DESIGNATED TO CHECK & ENDORSE CONSTRUCTION DRAWINGS, INTERPRET CONSTRUCTION DRAWING, LIAISE WITH MANUFACTURER/ FABRICATOR AND AUTHORITIES, UNDERSTAND AND INTERPRET ENGINEERING CALCULATION.

A Civil Technical Executive will be able to:

1. Check & endorse construction drawings;
2. Interpret construction drawing;
3. Liaise with manufacturer/ fabricator;
4. Liaise with authorities;
5. Understand and interpret engineering calculation;
6. Adhere to safety and security procedure; and
7. Follow standard operating procedure.



CIVIL

LEVEL 6 CIVIL TECHNICAL MANAGER

A CIVIL TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH JABATAN BOMBA AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING, APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

A Civil Technical Manager will be able to:

1. Acknowledge receive certified construction drawings and work progress;
2. Approve completed works;
3. Approve method of statement;
4. Approve material equipment samples;
5. Issue job order;
6. Issue job order factories;
7. Visit and approve manufacturers;
8. Coordinate with civil engineering, management and organizations;
9. Jointly inspect with Fire Department and local authorities;
10. Certify installation, testing and commissioning;

11. Evaluate/ analyses reports consultation drawing;
12. Attend management meeting;
13. Attend site meeting;
14. Approve and submit Variation Order (VO);
15. Approve and submit progress claim;
16. Attend technical coordination meeting; and
17. Approve Certificate Of Practical Completion (CPC), RE and RA.

SUB SECTOR: STRUCTURAL



STRUCTURAL

LEVEL 2 TIMBER STAIRCASE INSTALLER

A TIMBER STAIRCASE INSTALLER IS DESIGNATED TO CONFORM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, INSTALL TIMBER STAIRCASE, CONSTRUCT AND FIX TIMBER STAIRCASE JOINERIES, CARRY OUT SAMPLING FOR MATERIAL ANALYSIS, CARRY OUT TIMBER STAIRCASE PAINTING.

A Timber Staircase Installer will be able to:

10. Conform to method of statement;
11. Perform to method of statement;
12. Install timber staircase;
13. Construct and fix timber staircase joineries;
14. Carry out sampling for material analysis;
15. Carry out timber staircase painting;
16. Adhere to safety and security procedure; and
17. Follow standard operating procedure.



STRUCTURAL

LEVEL 2 STEEL STAIRCASE INSTALLER

A STEEL STAIRCASE INSTALLER IS DESIGNATED TO CONFORM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, INSTALL STEEL STAIRCASE, CONSTRUCT AND FIX STEEL STAIRCASE JOINERIES, CARRY OUT SAMPLING FOR MATERIAL ANALYSIS, CARRY OUT STEEL STAIRCASE PAINTING.

A Steel Staircase Installer will be able to:

9. Conform to method of statement;
10. Perform to method of statement;
11. Install steel staircase;
12. Construct and fix steel staircase joineries;
13. Carry out sampling for material analysis;
14. Carry out steel staircase painting;
15. Adhere to safety and security procedure; and
16. Follow standard operating procedure.



STRUCTURAL

LEVEL 2 CONCRETE STAIRCASE CONSTRUCTOR

A CONCRETE STAIRCASE CONSTRUCTOR IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, INSTALL CONCRETE STAIRCASE, CONSTRUCT AND FIX CONCRETE STAIRCASE JOINERIES, CARRY OUT SAMPLING FOR MATERIAL ANALYSIS, CARRY OUT CONCRETE STAIRCASE PAINTING.

A Concrete Staircase Constructor will be able to:

7. Confirm to method of statement;
8. Perform to method of statement;
9. Install concrete staircase;
10. Construct and fix concrete staircase joineries;
11. Carry out sampling for material analysis;
12. Carry out concrete staircase painting;
13. Adhere to safety and security procedure; and
14. Follow standard operating procedure.



STRUCTURAL

LEVEL 3 STAIRCASE SUPERVISOR

A STAIRCASE SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, DRAFT SKETCHES OF SHOP DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, IDENTIFY TOOLS AND EQUIPMENT FOR CONCRETE STAIRCASE CONSTRUCTION, INSPECT CONCRETE STAIRCASE INSTALLATION ACTIVITIES, PERFORM SUPERVISORY FUNCTION, SET UP WORK SITE AND LIAISE WITH AUTHORITIES.

A Staircase Supervisor will be able to:

11. Prepare method of statement;
12. Understand and interpret construction drawing;
13. Draft sketches of shop drawing;
14. Identify types and strength of material;
15. Identify tools and equipment for concrete staircase construction;
16. Inspect concrete staircase installation activities;
17. Perform supervisory function;
18. Set up work site; and
19. Liaise with authorities.



STRUCTURAL

LEVEL 1

ROOF TRUSS INSTALLER (TIMBER)

A ROOF TRUSS INSTALLER (TIMBER) IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN INSTALLATION OF TIMBER ROOF TRUSS, ASSIST IN CONSTRUCTING AND FIXING TIMBER ROOF TRUSS JOINERIES, ASSIST IN CARRYING OUT HOISTING WORK AND ASSIST IN CARRY OUT SUPPORT WORK FOR ROOF TRUSS.

A Roof Truss Installer (Timber) will be able to:

10. Confirm method of statement;
11. Perform to method of statement;
12. Assist in installation of timber roof truss;
13. Assist in constructing and fixing timber roof truss joineries;
14. Assist in carrying out hoisting work;
15. Assist in carry out support work for roof truss;
16. Adhere to safety and security procedure; and
17. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 2

SENIOR ROOF TRUSS INSTALLER (TIMBER)

A SENIOR ROOF TRUSS INSTALLER (TIMBER) IS DESIGNATED TO SET UP WORK AREA, CONFIRM TO METHOD OF STATEMENT, PERFORM METHOD OF STATEMENT, INSTALL TIMBER ROOF TRUSS, CONSTRUCT AND FIX TIMBER ROOF TRUSS JOINERIES, ASSIST AND CARRYING OUT HOISTING WORK, CARRY OUT SUPPORT FOR ROOF TRUSS AND CARRY OUT SAMPLING FOR MATERIAL ANALYSIS.

A Senior Roof Truss Installer (Timber) will be able to:

10. Set up work area;
11. Confirm to method of statement;
12. Perform method of statement;
13. Install timber roof truss;
14. Construct and fix timber roof truss joineries;
15. Assist and carrying out hoisting work;
16. Carry out support for roof truss; and
17. Carry out sampling for material analysis.



STRUCTURAL

LEVEL 1

ROOF TRUSS INSTALLER (LIGHT GAUGE STEEL)

A ROOF TRUSS INSTALLER (LIGHT GAUGE STEEL) IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN INSTALLATION OF LIGHT GAUGE STEEL ROOF TRUSS. ASSIST IN CONSTRUCTING AND FIXING LIGHT GAUGE STEEL ROOF TRUSS JOINERIES, ASSIST IN CARRYING OUT HOISTING WORK. AND SUPPORT WORK FOR LIGHT GAUGE STEEL ROOF TRUSS.

A Roof Truss Installer (Light Gauge Steel) will be able to:

10. Confirm method of statement;
11. Perform to method of statement;
12. Assist in installation of light gauge steel roof truss;
13. Assist in constructing and fixing light gauge steel roof truss joineries;
14. Assist in carrying out hoisting work;
15. Assist in carry out support work for light gauge steel roof truss;
16. Adhere to safety and security procedure; and
17. Follow standard operating procedure.



STRUCTURAL

LEVEL 2

SENIOR ROOF TRUSS INSTALLER (LIGHT GAUGE STEEL)

A SENIOR ROOF TRUSS INSTALLER (LIGHT GAUGE STEEL) IS DESIGNATED TO SET UP WORK AREA, CONFIRM TO METHOD OF STATEMENT, PERFORM METHOD OF STATEMENT, INSTALL TIMBER ROOF TRUSS, CONSTRUCT AND FIX LIGHT GAUGE STEEL ROOF TRUSS JOINERIES, ASSIST AND CARRYING OUT HOISTING WORK, CARRY OUT SUPPORT FOR LIGHT GAUGE STEEL ROOF TRUSS AND SAMPLING FOR MATERIAL ANALYSIS.

A Senior Roof Truss Installer (Light Gauge Steel) will be able to:

7. Set up work area;
8. Confirm to method of statement;
9. Perform method of statement;
10. Install timber roof truss;
11. Construct and fix light gauge steel roof truss joineries;
12. Assist and carrying out hoisting work;
13. Carry out support for light gauge steel roof truss; and
14. Carry out sampling for material analysis.



STRUCTURAL

LEVEL 1 ROOF TRUSS INSTALLER (SPACE FRAME)

A ROOF TRUSS INSTALLER (SPACE FRAME) IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN INSTALLATION OF TIMBER ROOF TRUSS, ASSIST IN CONSTRUCTING AND FIXING, TIMBER ROOF TRUSS JOINERIES, ASSIST IN CARRYING OUT HOISTING WORK AND ASSIST IN CARRY OUT SUPPORT WORK FOR ROOF TRUSS.

A Roof Truss Installer (Space Frame) will be able to:

7. Confirm method of statement;
8. Perform to method of statement;
9. Assist in installation of timber roof truss;
10. Assist in constructing and fixing timber roof truss joineries;
11. Assist in carrying out hoisting work;
12. Assist in carry out support work for roof truss;
13. Adhere to safety and security procedure; and
14. Follow standard operating procedure.



STRUCTURAL

LEVEL 2

SENIOR TRUSS INSTALLER (SPACE FRAME)

A SENIOR TRUSS INSTALLER (SPACE FRAME) IS DESIGNATED TO SET UP WORK AREA, CONFIRM TO METHOD OF STATEMENT, PERFORM METHOD OF STATEMENT, INSTALL TIMBER ROOF TRUSS, CONSTRUCT AND FIX TIMBER ROOF TRUSS JOINERIES, ASSIST AND CARRYING OUT HOISTING WORK, CARRY OUT SUPPORT FOR ROOF TRUSS, CARRY OUT SAMPLING FOR MATERIAL ANALYSIS.

A Senior Truss Installer (Space Frame) will be able to:

7. Set up work area;
8. Confirm to method of statement;
9. Perform method of statement;
10. Install timber roof truss;
11. Construct and fix timber roof truss joineries;
12. Assist and carrying out hoisting work;
13. Carry out support for roof truss; and
14. Carry out sampling for material analysis.



STRUCTURAL

LEVEL 1

ROOF TRUSS CONSTRUCTOR (CONCRETE)

A ROOF TRUSS CONSTRUCTOR (CONCRETE) IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN INSTALLATION OF TIMBER ROOF TRUSS, ASSIST IN CONSTRUCTING AND FIXING TIMBER ROOF TRUSS JOINERIES, ASSIST IN CARRYING OUT HOISTING WORK AND ASSIST IN CARRY OUT SUPPORT WORK FOR ROOF TRUSS.

A Roof Truss Constructor (Concrete) will be able to:

1. Confirm method of statement;
2. Perform to method of statement;
3. Assist in installation of timber roof truss;
4. Assist in constructing;
5. Assist in fixing timber roof truss joineries;
6. Assist in carrying out hoisting work;
7. Assist in carry out support work for roof truss;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 2

ROOF TRUSS SENIOR CONSTRUCTOR (CONCRETE)

A ROOF TRUSS SENIOR CONSTRUCTOR (CONCRETE) IS DESIGNATED TO SET UP WORK AREA, CONFIRM TO METHOD OF STATEMENT, PERFORM METHOD OF STATEMENT INSTALL TIMBER ROOF TRUSS, CONSTRUCT AND FIX TIMBER ROOF TRUSS JOINERIES, ASSIST AND CARRYING OUT HOISTING WORK, CARRY OUT SUPPORT FOR ROOF TRUSS AND SAMPLING FOR MATERIAL ANALYSIS.

A Roof Truss Senior Constructor (Concrete) will be able to:

11. Set up work area;
12. Confirm to method of statement;
13. Perform method of statement;
14. Install timber roof truss;
15. Construct and fix timber roof truss joineries;
16. Assist and carrying out hoisting work;
17. Carry out support for roof truss; and
18. Carry out sampling for material analysis.



STRUCTURAL

LEVEL 3 ROOF TRUSS SUPERVISOR

A ROOF TRUSS SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, DRAFT SKETCHES OF SHOP DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIALS, IDENTIFY TOOLS AND EQUIPMENT FOR TIMBER ROOF TRUSS CONSTRUCTION, INSPECT TIMBER ROOF TRUSS INSTALLATION ACTIVITIES AND PERFORM SUPERVISORY FUNCTION.

A Roof Truss Supervisor will be able to:

10. Prepare method of statement;
11. Understand and interpret construction drawing;
12. Draft sketches of shop drawing;
13. Identify types and strength of materials;
14. Identify tools for timber roof truss construction;
15. Identify equipment for timber roof truss construction;
16. Inspect timber roof truss installation activities;
17. Perform supervisory function; and
18. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 1 ROOFING INSTALLER

A ROOFING INSTALLER IS DESIGNATED TO ARRANGE, CUT AND PACKING ROOFING INSTALLATION WORK, CARRY OUT FITTING AND ROOFING INSTALLATION, UPKEEP MACHINERY BEFORE AND AFTER USE, SELECT TOOLS AND EQUIPMENT ROOFING WORK, INTEPRET BASIC TECHNICAL DRAWING, ADHERE TO SAFETY AND SECURITY AND FOLLOW STANDARD OPERATING PROCEDURE.

A Roofing Installer will be able to:

1. Arrange, cuts and packing roofing installation work;
2. Carry out fitting and roofing installation;
3. Upkeep machinery before and after use;
4. Select tools and equipment roofing work;
5. Interpret basic technical drawing;
6. Adhere to safety and security;
7. Follow standard operating procedure.
8. Plan and complete all necessary roofing work involved in single ply roofing systems;
9. Ensure all work is performed according to specifications, on schedule with very high quality workmanship;
10. Verify use of graphic instructions to include blueprints, layouts and other visual aids; and
11. Maintain a safe and clean job site



STRUCTURAL

LEVEL 2 ROOFING SENIOR INSTALLER

A ROOFING SENIOR INSTALLER IS DESIGNATED TO ADHERE TO WORK SAFETY PRECAUTION WHILE WORKING AND KEEP WORKING AREA SAFE, CLEAN AND TIDY, SELECT, PREPARE AND MAINTAIN TOOLS AND EQUIPMENT FOR ROOFING INSTALLATION WORK, INTERPRET BASIC TECHNICAL DRAWING, PERFORM QUALITY CHECK ON ROOFING CUTTING INSTALLATION, UPKEEP MACHINERY BEFORE AND AFTER USE, CARRY OUT STOCK INVENTORY, CARRY OUT PLANAR BRACKET INSTALLATION, SYSTEM SUPPORT STABILITY AND SEALANT WORKS AND CARRY OUT STAINED ROOFING ACTIVITIES.

A Roofing Senior Installer will be able to:

1. Adhere to work safety precaution while working and keep working area safe, clean and tidy;
2. Select, prepare and maintain tools and equipment for roofing installation work;
3. Interpret basic technical drawing;
4. Perform quality check on roofing cutting installation;
5. Upkeep machinery before and after use;
6. Carry out stock inventory;
7. Carry out planar bracket installation, system support stability and sealant works; and
8. Carry out stained roofing activities.



STRUCTURAL
LEVEL 3
ROOFING SUPERVISOR

A ROOFING SUPERVISOR IS DESIGNATED TO ENSURE WORKING AREA SAFE, CLEAN AND TIDY, REVIEWS AND INTERPRET TECHNICAL DRAWING, SELECT MATERIALS FOR ROOFING CUTTING AND INSTALLATION, MAINTAIN STOCK INVENTORY AND CONTROL, ENSURE TOOLS AND EQUIPMENT ARE MAINTAINED, ENSURE FIRE FIGHTING EQUIPMENTS ARE AVAILABLE AND IN OPERATING CONDITION, CARRY OUT LOGISTIC ACTIVITIES, MATERIALS HANDLING AND DISTRIBUTION, DISTRIBUTE WORK ASSIGNMENT, CONDUCT WORKS BRIEFING AND MEETING, MONITOR AND REVIEWS STAFF ATTENDANCE AND WORKS PERFORMANCE AND PREPARES WORK SCHEDULE AND TECHNICAL REPORT.

A Roofing Supervisor will be able to:

1. Ensure working area safe, clean and tidy;
2. Review and interpret technical drawing;
3. Select materials for roofing cutting and installation;
4. Maintain stock inventory and control;
5. Ensure tools and equipment are maintained;
6. Ensure fire fighting equipments are available and in operating condition;
7. Carry out logistic activities, materials handling and distribution;
8. Distribute work assignment, conduct works briefing and meeting;
9. Monitor and reviews staff attendance and works performance; and
10. Prepares work schedule and technical report.



STRUCTURAL

LEVEL 1 STEEL STRUCTURE INSTALLER

A STEEL STRUCTURE INSTALLER IS DESIGNATED TO CONFIRM METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN INSTALLATION OF STEEL STRUCTURE, ASSIST IN CONSTRUCTING AND FIXING STEEL STRUCTURE JOINERIES, ASSIST IN CARRYING OUT HOISTING WORK AND ASSIST IN CARRY OUT SUPPORT WORK FOR STEEL STRUCTURE.

A Steel Structure Installer will be able to:

1. Confirm method of statement;
2. Perform to method of statement;
3. Assist in installation of steel structure;
4. Assist in constructing and fixing steel structure joineries;
5. Assist in carrying out hoisting work; and
6. Assist in carry out support work for steel structure.



STRUCTURAL

LEVEL 2 STEEL STRUCTURE SENIOR INSTALLER

A STEEL STRUCTURE SENIOR INSTALLER IS DESIGNATED TO SET UP WORK AREA, CONFIRM TO METHOD OF STATEMENT, PERFORM METHOD OF STATEMENT, INSTALL STEEL STRUCTURE, CONSTRUCT AND FIX STEEL STRUCTURE JOINERIES, ASSIST AND CARRYING OUT HOISTING WORK, CARRY OUT SUPPORT FOR STEEL STRUCTURE AND SAMPLING FOR MATERIAL ANALYSIS.

A Steel Structure Senior Installer will be able to:

1. Set up work area;
2. Confirm to method of statement;
3. Perform method of statement;
4. Install steel structure;
5. Construct and fix steel structure;
6. Assist and carrying out hoisting work;
7. Carry out support for steel structure; and
8. Carry out sampling for material analysis.



STRUCTURAL

LEVEL 3 STEEL STRUCTURE SUPERVISOR

A STEEL STRUCTURE SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, DRAFT SKETCHES OF SHOP DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIALS, IDENTIFY TOOLS AND EQUIPMENT FOR STEEL STRUCTURE CONSTRUCTION, INSPECT STEEL STRUCTURE INSTALLATION ACTIVITIES AND PERFORM SUPERVISORY FUNCTION.

A Steel Structure Supervisor will be able to:

1. Prepare method of statement;
2. Understand and interpret construction drawing;
3. Draft sketches of shop drawing;
4. Identify types and strength of materials;
5. Identify tools and equipment for steel structure construction;
6. Inspect steel structure installation activities; and
7. Perform supervisory function.



STRUCTURAL

LEVEL 1 BRICK LAYER

A BRICK LAYER IS DESIGNATED TO CARRY-OUT BRICKWORK ACTIVITIES INCLUDING BRICK WORKS HAND TOOLS AND MATERIALS PREPARATION, WORKING AREA SETTING OUT, MORTAR MIXING, BRICKWORKS CONSTRUCTION AND OTHER REQUIREMENTS TO ENSURE EFFECTIVE AND EFFICIENT BRICKWORKS ACTIVITIES, CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN ERECTING BRICKWALL, ASSIST IN SETTING UP WORK AREA I.E. LEVELLING, LOADING AND UNLOADING OF BRICKS AND CARRY OUT MIXING OF MORTAR.

A Brick Layer will be able to:

9. Carry-out brickwork activities including brick works hand tools and materials preparation, working area setting out, mortar mixing, brickworks construction and other requirements to ensure effective and efficient brickworks activities;
10. Store brickwork materials;
11. Perform brickwork material storage;
12. Maintain and upkeep brickwork machines and equipment;
13. Perform wall base and brick pier setting out;
14. Prepare brickwork mortar;
15. Perform construction of brickwork such as straight wall, door and window opening, mechanical & electrical opening, returned corner and T-junction wall, honeycomb sleeper wall, isolated and attached pier and coping and capping;
16. Perform housekeeping;

17. Confirm to method of statement;
18. Perform to method of statement;
19. Assist in erecting brickwall;
20. Assist in setting up work area i.e. Levelling, loading, and unloading of bricks; and
21. Carry out mixing of mortar.



**STRUCTURAL
LEVEL 2
SENIOR BRICK LAYER**

A SENIOR BRICK LAYER IS DESIGNATED TO CARRY-OUT BRICKWORK ACTIVITIES INCLUDING TOOLS AND MATERIALS PREPARATION, WORKING AREA SETTING OUT, BRICKWORK MORTAR MIXING, BRICKWORK CONSTRUCTION TO ENSURE EFFECTIVE AND EFFICIENT BRICKWORK ACTIVITIES, ERECTING BRICKWALL (BRICK LAYING) AND ADEQUATE WATERING FOR BRICK BEFORE ERECTING.

A Senior Brick Layer will be able to:

12. Check suitability of brickwork materials storage area;
13. Check brickwork materials storage;
14. Perform brickwork arch and decorative wall base setting out;
15. Check set out wall base and brick pier;
16. Control brickwork mortar quality;
17. Check constructed straight brick wall;
18. Check constructed brick opening such as door, window opening and mechanical & electrical opening;
19. Perform construction various types of brickwork such as brick piers, brick arches and decorative brickworks;
20. Install glass block panel;
21. Install slim brick;
22. Check constructed honeycomb sleeper wall;
23. Perform housekeeping;
24. Erecting brickwall (brick laying);
25. Carry out inspection on mixed mortar;

26. Carry out inspection on wall erecting straightness;
27. Ensure the installation of damp proof course and exmet ; and
28. Ensure adequate watering for brick before erecting.



STRUCTURAL
LEVEL 3
BRICK LAYER SUPERVISOR

A BRICK LAYER SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, DRAFT SKETCHES OF SHOP DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, IDENTIFY TOOLS, EQUIPMENT AND MATERIAL FOR MIXING PROCESS, INSPECT BRICK LAYING ACTIVITIES, PERFORM SUPERVISORY PROCESS, PREPARE AND SUBMIT REPORT TO SUPERIOR, AND INSPECT PLASTERING ACTIVITIES.

A Brick Layer Supervisor will be able to:

11. Prepare method of statement;
12. Understand and interpret construction drawing;
13. Draft sketches of shop drawing;
14. Identify types and strength of material;
15. Identify tools, equipment and material for mixing process;
16. Inspect brick laying activities;
17. Perform supervisory process;
18. Prepare and submit report to superior; and
19. Inspect plastering activities.



STRUCTURAL

LEVEL 1 BAR BENDER

A BAR BENDER IS DESIGNATED TO CARRY-OUT BAR BENDING WORK ACTIVITIES INCLUDING ORGANIZE BAR BENDING TOOLS, MATERIALS AND EQUIPMENT, REINFORCEMENT WORKS PREPARATION, BAR BENDING AND CUTTING OPERATION, FABRICATION WORKS AND OTHER REQUIREMENTS TO ENSURE EFFECTIVE AND EFFICIENT BAR BENDING WORKS ACTIVITIES, CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, CARRY OUT SIMPLE BAR BENDING, ASSIST IN SETTING UP BAR BENDING BENCH, CARRY OUT SIMPLE BAR CUTTING CARRY OUT STIRRUP BENDING, CARRY OUT LOADING, UNLOADING AND PROPER STORAGE OF MATERIAL.

A Bar Bender will be able to:

10. Allocate reinforcement bar storage area;
11. Maintain and upkeep hand tools, reinforcement bar and bar bending machine;
12. Prepare bar bending work bench;
13. Prepare reinforcement spacer;
14. Perform bar cutting works;
15. Perform bar bending works;
16. Perform reinforcement tying;
17. Perform reinforcement placing;
18. Perform reinforcement spacer placing;
19. Perform housekeeping;
20. Confirm to method of statement;

21. perform to method of statement;
22. Carry out simple bar bending;
23. Assist in setting up bar bending bench;
24. Carry out simple bar cutting;
25. Carry out stirrup bending; and
26. Carry out loading, unloading and proper storage of material.



STRUCTURAL

LEVEL 2 SENIOR BAR BENDER

A SENIOR BAR BENDER IS DESIGNATED TO CARRY-OUT BAR BENDING WORK ACTIVITIES INCLUDING ORGANIZE BAR BENDING TOOLS, MATERIALS AND EQUIPMENT, REINFORCEMENT WORKS PREPARATION, BAR BENDING AND CUTTING OPERATION, FABRICATION WORKS AND OTHER REQUIREMENTS TO ENSURE EFFECTIVE AND EFFICIENT BAR BENDING WORKS ACTIVITIES, CONFIRM TO METHOD OF STATEMENT, CARRY OUT BAR BENDING, SET UP WORK AREA I.E LEVELLING, LOADING AND UNLOADING OF MATERIALS, CARRY OUT INSPECTION ON MATERIALS, SAMPLING ON MATERIALS AND SORTING OUT OF SIZES AND TYPES OF BAR.

A Senior Bar Bender will be able to:

9. Check suitability of reinforcement bar storage area;
10. Perform setting bar cutting shear;
11. Perform setting steel bar cutting machines;
12. Check bar bending pin setting;
13. Perform estimating reinforcement materials quantity;
14. Prepare bar bending schedule;
15. Prepare cutting schedule;
16. Check bar cutting work;
17. Check bar bending shape work;
18. Check reinforcement tying;
19. Check reinforcement placing;
20. Check reinforcement spacer placing;

21. Perform housekeeping;
22. Confirm to method of statement;
23. Carry out bar bending;
24. Setting up work area i.e levelling, loading and unloading of materials;
25. Carry out inspection on materials;
26. Carry out sampling on materials; and
27. Carry out sorting out of sizes and types of bar.



STRUCTURAL

LEVEL 3 BAR BENDER SUPERVISOR

A BAR BENDER SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, DRAFT SKETCHES OF BAR BENDING SCHEDULE, IDENTIFY TYPES AND STRENGTH OF MATERIAL, IDENTIFY TOOLS, EQUIPMENT AND MATERIAL FOR BAR BENDING, INSPECT BAR BENDING ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR.

A Bar Bender Supervisor will be able to:

12. Prepare method of statement;
13. Understand and interpret construction drawing;
14. Draft sketches of bar bending schedule;
15. Identify types and strength of material;
16. Identify tools, equipment and material for bar bending;
17. Inspect bar bending activities;
18. Perform supervisory function; and
19. Prepare and submit report to superior.



STRUCTURAL

LEVEL 2 STEEL REINFORCEMENT INSTALLER

A STEEL REINFORCEMENT INSTALLER IS DESIGNATED TO INSTALLER IS DESIGNATED TO CONFORM TO METHOD OF STATEMENT, CARRY OUT STEEL REINFORCEMENT WORK, SET UP STEEL REINFORCEMENT WORKS, INSPECTION ON MATERIALS, SAMPLING ON MATERIALS, SORTING OUT OF SIZES AND TYPES OF BAR, UTILISE PROPER TOOLS AND EQUIPMENT.

A Steel Reinforcement Installer will be able to:

9. Conform to method of statement;
10. Carry out steel reinforcement work;
11. Set up steel reinforcement works;
12. Carry out inspection on materials;
13. Carry out sampling on materials;
14. Carry out sorting out of sizes and types of bar; and
15. Utilise proper tools and equipment.



STRUCTURAL

LEVEL 3 STEEL REINFORCEMENT SUPERVISOR

A STEEL REINFORCEMENT SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, IDENTIFY TOOLS AND EQUIPMENT FOR STEEL REINFORCEMENT WORK , INSPECT STEEL REINFORCEMENT ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL, LIAISE WITH OTHER RELEVANT PARTIES FOR FIXING OF FORMWORKS.

A Steel Reinforcement Supervisor will be able to:

1. Prepare method of statement;
2. Understand and interpret construction drawing;
3. Identify types and strength of material;
4. Identify tools and equipment for steel reinforcement work ;
5. Inspect steel reinforcement activities;
6. Perform supervisory function;
7. Prepare and submit report to superior;
8. Liaise with other relevant parties for joint inspection and approval; and
9. Liaise with other relevant parties for fixing of formworks.



STRUCTURAL

LEVEL 1 FORMWORKS INSTALLER

A FORMWORKS INSTALLER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, CARRY OUT SIMPLE FORMWORKS ERECTION, CARRY OUT LOADING, AND LOADING OF MATERIAL, CARRY OUT TIE BARS, CARRY OUT WATER PROOFING LINING.

A Formworks Installer will be able to:

1. Confirm to method of statement;
2. Perform to method of statement;
3. Carry out simple formworks erection;
4. Carry out loading, and loading of material;
5. Carry out tie bars; and
6. Carry out water proofing lining.



STRUCTURAL

LEVEL 2 FORMWORKS SENIOR INSTALLER

A FORMWORKS SENIOR INSTALLER IS DESIGNATED TO CONFORMING TO METHOD OF STATEMENT, CARRY OUT FORMWORKS WORK, SET UP FORMWORKS WORKS, CARRY OUT INSPECTION ON MATERIALS, CARRY OUT SAMPLING ON MATERIALS, CARRY OUT SORTING OUT OF SIZES AND TYPES OF BAR, UTILISE PROPER TOOLS AND EQUIPMENT.

A Formworks Senior Installer will be able to:

1. Conforming to method of statement;
2. Carry out formworks work;
3. Set up formworks works;
4. Carry out inspection on materials;
5. Carry out sampling on materials;
6. Carry out sorting out of sizes and types of bar; and
7. Utilise proper tools and equipment.



STRUCTURAL

LEVEL 3 FORMWORKS SUPERVISOR

A FORMWORKS SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, IDENTIFY TOOLS AND EQUIPMENT FOR FORMWORKS WORKS, INSPECT FORMWORKS ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL AND LIAISE WITH OTHER RELEVANT PARTIES FOR FIXING OR FORMWORK.

A Formworks Supervisor will be able to:

10. Prepare method of statement;
11. Understand and interpret construction drawing;
12. Identify types and strength of material;
13. Identify tools and equipment for formworks works;
14. Inspect formworks activities;
15. Perform supervisory function;
16. Prepare and submit report to superior;
17. Liaise with other relevant parties for joint inspection and approval; and
18. Liaise with other relevant parties for fixing or formwork.



STRUCTURAL
LEVEL 1
STRUCTURAL CONCRETER

A STRUCTURAL CONCRETER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, CARRY OUT SIMPLE CONCRETING WORK, LOADING AND UNLOADING OF MATERIAL AND WATER PROOFING LINING, ASSIST IN CARRYING OUT SAMPLE TESTING, ASSIST IN CARRY OUT PREPARATION OF SAMPLE, MIXING OF CONCRETE TO METHOD OF STATEMENT, HANDLING TOOLS AND EQUIPMENT ROUTINE MAINTENANCE.

A Structural Concreter will be able to:

12. Confirm to method of statement;
13. Perform to method of statement;
14. Carry out simple concreting work;
15. Carry out loading and unloading of material;
16. Carry out water proofing lining;
17. Assist in carrying out sample testing;
18. Assist in carry out preparation of sample;
19. Mixing of concrete to method of statement;
20. Handling tools and equipment; and
21. Routine maintenance.



STRUCTURAL

LEVEL 2 STRUCTURAL SENIOR CONCRETER

A STRUCTURAL SENIOR CONCRETER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, CARRY OUT CONCRETING WORKS, SET UP CONCRETING WORKS, INSPECTION ON MATERIALS, CARRY OUT SAMPLING ON MATERIALS AND SORTING OUT OF SIZES AND TYPES OF BAR, UTILISE PROPER TOOLS AND EQUIPMENT.

A Structural Senior Concreter will be able to:

11. Confirm to method of statement;
12. Carry out concreting works;
13. Set up concreting works;
14. Carry out inspection on materials;
15. Carry out sampling on materials;
16. Carry out sorting out of sizes and types of bar; and
17. Utilise proper tools and equipment.



STRUCTURAL

LEVEL 3 STRUCTURAL SUPERVISOR

A STRUCTURAL SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, TOOLS AND EQUIPMENT FOR CONCRETING WORKS, INSPECT CONCRETING WORK ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL AND LIAISE WITH ORDER RELEVANT PARTIES FOR CONCRETING WORK.

A Structural Supervisor will be able to:

9. Prepare method of statement;
10. Understand and interpret construction drawing;
11. Identify types and strength of material;
12. Identify tools and equipment for concreting works;
13. Inspect concreting work activities;
14. Perform supervisory function;
15. Prepare and submit report to superior;
16. Liaise with other relevant parties for joint inspection and approval; and
17. Liaise with order relevant parties for concreting work.



STRUCTURAL

LEVEL 1 WATER TANK INSTALLER

A WATER TANK INSTALLER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, CARRY OUT WATER TANK INSTALLATION (INTERNAL), CARRY OUT WATER PROOFING LINING, PIPE INSTALLATION AND JOINTING, ASSIST IN CARRYING OUT PREPARATION OF WATER TANK AND PIPE TESTING, ASSIST IN CARRYING OUT OF WATER TANK AND PIPE TESTING, PROPER HANDLING OF TOOLS AND EQUIPMENT ROUTINE MAINTENANCE, CARRY OUT LOADING AND UNLOADING OF WATER TANK MATERIALS AND PIPING.

A Water Tank Installer will be able to:

15. Confirm to method of statement;
16. Perform to method of statement;
17. Carry out water tank installation (internal);
18. Carry out water proofing lining ;
19. Carry out pipe installation and jointing;
20. Assist in carrying out preparation of water tank and pipe testing;
21. Assist in carrying out of water tank and pipe testing ;
22. Proper handling of tools and equipment;
23. Routine maintenance; and
24. Carry out loading and unloading of water tank materials and piping.



STRUCTURAL

LEVEL 2 WATER TANK SENIOR INSTALLER

A WATER TANK SENIOR INSTALLER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, CARRY OUT CONCRETING WORKS, SET UP WATER TANK INSTALLATION WORKS, INSPECTION ON WATER TANK MATERIALS, SAMPLING ON SUPPORT MATERIALS FOR WATER TANK, UTILISE PROPER TOOLS AND EQUIPMENT, CARRY OUT WATER TANK PREPARATION AND TESTING AND PIPE JOINT AND ANCHORING SUPPORT.

A Water Tank Senior Installer will be able to:

9. Confirm to method of statement;
10. Carry out concreting works;
11. Set up water tank installation works;
12. Carry out inspection on water tank materials ;
13. Carry out sampling on support materials for water tank;
14. Utilise proper tools and equipment;
15. Carry out water tank preparation and testing; and
16. Carry out pipe joint and anchoring support.



STRUCTURAL

LEVEL 3 WATER TANK SUPERVISOR

A WATER TANK SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, TOOLS AND EQUIPMENT FOR WATER TANK WORKS, INSPECT WATER TANK INSTALLATION ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL, LIAISE WITH OTHER RELEVANT PARTIES FOR WATER TANK AND PIPING INSTALLATION.

A Water Tank Supervisor will be able to:

10. Prepare method of statement;
11. Understand and interpret construction drawing;
12. Identify types and strength of material;
13. Identify tools and equipment for water tank works;
14. Inspect water tank installation activities;
15. Perform supervisory function;
16. Prepare and submit report to superior;
17. Liaise with other relevant parties for joint inspection and approval; and
18. Liaise with other relevant parties for water tank and piping installation.



STRUCTURAL

LEVEL 1

RETAINING STRUCTURE CONSTRUCTOR

A RETAINING STRUCTURE CONSTRUCTOR IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, ASSIST IN SETTING OUT WORK AREA, CARRY OUT EXCAVATION, CARRY OUT PRE-MIXED, CARRY OUT SUB-GRADE, CARRY OUT BASE WORK, CARRY OUT REINFORCEMENT FOR RETAINING STRUCTURE, CARRY OUT INSTALLATION OF PERFORATED PIPE, ROUTINE MAINTENANCE AND ASSIST IN PREPARATION OF TESTING.

A Retaining Structure Constructor will be able to:

12. Confirm to method of statement;
13. Perform to method of statement;
14. Assist in setting out work area;
15. Carry out excavation;
16. Carry out pre-mixed;
17. Carry out sub-grade;
18. Carry out base work;
19. Carry out reinforcement for retaining structure;
20. Carry out installation of perforated pipe;
21. Routine maintenance; and
22. Assist in preparation of testing.



STRUCTURAL

LEVEL 2

RETAINING STRUCTURE SENIOR CONSTRUCTOR

A RETAINING STRUCTURE SENIOR CONSTRUCTOR IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, CARRY OUT SETTING UP OF RETAINING STRUCTURE, BASE CONCRETE, CARRY OUT REINFORCEMENT STRUCTURE INSTALLATION, FORMWORK INSTALLATION, CARRY OUT BASE/ STEM CONCRETE, CARRY OUT PERFORATED PIPE INSTALLATION, CARRY OUT BACK FILLING OF SAND, CARRY OUT DRAIN INSTALLATION, CARRY OUT SURFACE DRAIN, CARRY OUT TURFING WORK, UTILISE PROPER TOOLS, EQUIPMENT, AND MACHINERIES.

A Retaining Structure Senior Constructor will be able to:

6. Confirm to method of statement;
7. Carry out setting up of retaining structure;
8. Carry out soil investigation;
9. Carry out base excavation;
10. Carry out base concrete;
11. Carry out reinforcement structure installation;
12. Carry out formwork installation;
13. Carry out base/ stem concrete;
14. Carry out perforated pipe installation ;
15. Carry out back filling of sand;
16. Carry out drain installation;
17. Carry out surface drain;
18. Carry out turfing work; and
19. Utilise proper tools, equipment, and machineries.



STRUCTURAL

LEVEL 3 RETAINING STRUCTURE SUPERVISOR

A RETAINING STRUCTURE SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, IDENTIFY TOOLS AND EQUIPMENT FOR CONCRETING WORKS, INSPECT RETAINING STRUCTURE WORK ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL AND LIAISE WITH OTHER RELEVANT PARTIES FOR CONCRETING WORK.

A Retaining Structure Supervisor will be able to:

6. Prepare method of statement;
7. Understand and interpret construction drawing;
8. Identify types and strength of material ;
9. Identify tools and equipment for concreting works;
10. Inspect retaining structure work activities;
11. Perform supervisory function;
12. Prepare and submit report to superior;
13. Liaise with other relevant parties for joint inspection and approval; and
14. Liaise with other relevant parties for concreting work.



STRUCTURAL

LEVEL 1 WATER PROOFING INSTALLER

A WATER PROOFING INSTALLER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, PERFORM TO METHOD OF STATEMENT, CARRY OUT WATER PROOFING INSTALLATION, CARRY OUT WATER PROOFING LINING, PIPE INSTALLATION AND JOINTING, ASSIST IN CARRYING OUT PREPARATION OF WATER PROOFING AND PIPE TESTING, ASSIST IN CARRYING OUT OF WATER PROOFING AND PIPE TESTING, PROPER HANDLING OF TOOLS AND EQUIPMENT ROUTINE MAINTENANCE, CARRY OUT LOADING AND UNLOADING OF WATER PROOFING MATERIALS AND PIPING.

A Water Proofing Installer will be able to:

1. Confirm to method of statement;
2. Perform to method of statement;
3. Carry out water proofing installation (internal);
4. Carry out water proofing lining ;
5. Carry out pipe installation and jointing;
6. Assist in carrying out preparation of water proofing and pipe testing;
7. Assist in carrying out of water proofing and pipe testing ;
8. Proper handling of tools and equipment;
9. Routine maintenance; and
10. Carry out loading and unloading of water proofing materials and piping.



STRUCTURAL

LEVEL 2 WATER PROOFING SENIOR INSTALLER

A WATER PROOFING SENIOR INSTALLER IS DESIGNATED TO CONFIRM TO METHOD OF STATEMENT, CARRY OUT CONCRETING WORKS, SET UP WATER PROOFING INSTALLATION WORKS, INSPECTION ON WATER PROOFING MATERIALS, SAMPLING ON SUPPORT MATERIALS FOR WATER PROOFING, UTILISE PROPER TOOLS AND EQUIPMENT, CARRY OUT WATER PROOFING PREPARATION AND TESTING AND PIPE JOINT AND ANCHORING SUPPORT.

A Water Proofing Senior Installer will be able to:

1. Confirm to method of statement;
2. Carry out concreting works;
3. Set up water proofing installation works;
4. Carry out inspection on water proofing materials ;
5. Carry out sampling on support materials for water proofing;
6. Utilise proper tools and equipment;
7. Carry out water proofing preparation and testing; and
8. Carry out pipe joint and anchoring support.



STRUCTURAL

LEVEL 3 WATER PROOFING SUPERVISOR

A WATER PROOFING SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, IDENTIFY TYPES AND STRENGTH OF MATERIAL, TOOLS AND EQUIPMENT FOR WATER PROOFING WORKS, INSPECT WATER PROOFING INSTALLATION ACTIVITIES, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH OTHER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL, LIAISE WITH OTHER RELEVANT PARTIES FOR WATER PROOFING AND PIPING INSTALLATION.

A Water Proofing Supervisor will be able to:

1. Prepare method of statement;
2. Understand and interpret construction drawing;
3. Identify types and strength of material;
4. Identify tools and equipment for water proofing works;
5. Inspect water proofing installation activities;
6. Perform supervisory function;
7. Prepare and submit report to superior ;
8. Liaise with other relevant parties for joint inspection and approval; and
9. Liaise with other relevant parties for water proofing and piping installation.



STRUCTURAL

LEVEL 2 STRUCTURAL DRAUGHTPERSON

A STRUCTURAL DRAUGHTPERSON IS DESIGNAED TO PREPARE CIVIL CONSTRUCTION DRAWINGS FOR EARTHWORK, ROAD WORKS DRAINS CULVERT, WAIER SUPPLY AND SEWERAGE, PRODUCE COMPUTER ENGINEERING DRAWING AS PER STANDARD PRACTICE AND OPERATE CAD SOFTWARE.

A Structural Draughtperson will be able to:

1. Prepare civil construction drawings for earthwork, road works drains culvert, waier supply and sewerage;
2. Produce computer engineering drawing as per standard practice;
3. Operate cad software;
4. Adhere to safety and security procedure;
5. Follow standard operating procedure;
6. Correspond with engineers, project managers and construction managers to provide quality drawings;
7. Develop, create, recommend, design new drawings and standardize it for multi-site application. Include fix/edit in existing drawing to conform with current acceptable design standards;
8. Create CAD drawings from concept to final design, drawn to scale, suitably detailed to convey the necessary information required for construction;
9. Check and correct any mistakes within the drawings; and

10. Come up with new and innovative methods to improve the quality of drawings and the drawing process.



STRUCTURAL

LEVEL 3

STRUCTURAL DRAUGHTING SUPERVISOR

A STRUCTURAL DRAUGHTING SUPERVISOR IS DESIGNATED TO REVIEW CONSTRUCTION DRAWINGS AND PERFORM SUPERVISORY FUNCTION.

A Structural Draughting Supervisor will be able to:

1. Review construction drawings;
2. Perform supervisory function;
3. Prepare coordinating drawings;
4. Apply complex Computer-Aided Design (CAD);
5. Check drawing produced by subordinates;
6. Perform office and administrative procedures;
7. Produce as-built drawing;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 4

STRUCTURAL ASSISTANT TECHNICAL EXECUTIVE

A STRUCTURAL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO EDIT AND ENDORSE CONSTRUCTION DRAWINGS, PREPARE REPORT, UNDERSTAND AND INTERPRET SIMPLE ENGINEERING CALCULATION.

A Structural Assistant Technical Executive will be able to:

1. Edit and endorse construction drawings;
2. Prepare report;
3. Understand and interpret simple engineering calculation;
4. Perform supervisory function;
5. Adhere to safety and security procedure while operating in work area; and
6. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 5

STRUCTURAL TECHNICAL EXECUTIVE

A STRUCTURAL TECHNICAL EXECUTIVE IS DESIGNATED TO CHECK AND ENDORSE CONSTRUCTION DRAWINGS, INTERPRET CONSTRUCTION DRAWING, LIAISE WITH AUTHORITIES, UNDERSTAND AND INTERPRET ENGINEERING CALCULATION.

A Structural Technical Executive will be able to:

1. Check and endorse construction drawings;
2. Interpret construction drawing;
3. Liaise with authorities;
4. Understand and interpret engineering calculation;
5. Adhere to safety and security procedure while operating in work area; and
6. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 1 SCAFFOLDER (TUBULAR)

A SCAFFOLDER (TUBULAR) IS DESIGNATED TO ASSIST IN SETTING OUT WORK AREA, ASSIST IN PREPARING BASE SUPPORT, ASSIST IN INSTALLING TIE OR ANCHORING SUPPORT, ASSIST IN INSTALLING TUBULAR SCAFFOLDING AND CARRY OUT LOADING AND UNLOADING.

A Scaffolder (Tubular) will be able to:

6. Assist in setting out work area;
7. Assist in preparing base support;
8. Assist in installing tie or anchoring support;
9. Assist in installing tubular scaffolding ; and
10. Carry out loading and unloading.



STRUCTURAL

LEVEL 2 SENIOR SCAFFOLDER (TUBULAR)

A SENIOR SCAFFOLDER (TUBULAR) IS DESIGNATED TO SET OUT WORK AREA, CARRY OUT TUBULAR SCAFFOLDING INSTALLATION, CARRY OUT INSTALLATION OF TIE OR ANCHORING SUPPORT, CARRY OUT DISMANTLING OF TUBULAR SCAFFOLDING, CARRY OUT BASE WORK FOR SCAFFOLDING AS PER DRAWING, COMPLY TO SAFE AND HEALTH REQUIREMENT.

A Senior Scaffolder (Tubular) will be able to:

8. Set out work area;
9. Carry out tubular scaffolding installation;
10. Carry out installation of tie or anchoring support;
11. Carry out dismantling of tubular scaffolding;
12. Carry out base work for scaffolding as per drawing; and
13. Comply to safe and health requirement.



STRUCTURAL

LEVEL 3 SCAFFOLDER SUPERVISOR (TUBULAR)

A SCAFFOLDER SUPERVISOR (TUBULAR) IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, CARRY OUT INSPECTION OF MATERIAL AND TUBULAR SCAFFOLDING SYSTEM, IDENTIFY TOOLS AND EQUIPMENT FOR ERECTING TUBULAR SCAFFOLDING, INSPECT ERECTED TUBULAR SCAFFOLDING SYSTEM, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH ORDER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL AND LIAISE WITH ORDER RELEVANT PARTIES FOR SCAFFOLDING ERECTING ACTIVITIES.

A Scaffolder Supervisor (Tubular) will be able to:

1. Prepare method of statement;
2. Understand and interpret construction drawing ;
3. Carry out inspection of material and tubular scaffolding system;
4. Identify tools and equipment for erecting tubular scaffolding ;
5. Inspect erected tubular scaffolding system;
6. Perform supervisory function;
7. Prepare and submit report to superior;
8. Liaise with order relevant parties for joint inspection and approval; and
9. Liaise with order relevant parties for scaffolding erecting activities.



STRUCTURAL

LEVEL 1 SCAFFOLDER (PREFABRICATED)

A SCAFFOLDER (PREFABRICATED) IS DESIGNATED TO ASSIST IN SETTING OUT WORK AREA, ASSIST IN PREPARING BASE SUPPORT, ASSIST IN INSTALLING TIE OR ANCHORING SUPPORT, ASSIST IN INSTALLING PREFABRICATED SCAFFOLDING AND CARRY OUT LOADING AND UNLOADING.

A Scaffolder (Prefabricated) will be able to:

1. Assist in setting out work area;
2. Assist in preparing base support;
3. Assist in installing tie or anchoring support;
4. Assist in installing prefabricated scaffolding ; and
5. Carry out loading and unloading.



STRUCTURAL

LEVEL 2 SENIOR SCAFFOLDER (PREFABRICATED)

A SENIOR SCAFFOLDER (PREFABRICATED) IS DESIGNATED TO SET OUT WORK AREA, CARRY OUT PREFABRICATED SCAFFOLDING INSTALLATION, CARRY OUT INSTALLATION OF TIE OR ANCHORING SUPPORT, CARRY OUT DISMANTLING OF PREFABRICATED SCAFFOLDING, CARRY OUT BASE WORK FOR SCAFFOLDING AS PER DRAWING AND COMPLY TO SAFE AND HEALTH REQUIREMENT.

A Senior Scaffolder (Prefabricated) will be able to:

1. Set out work area;
2. Carry out prefabricated scaffolding installation;
3. Carry out installation of tie or anchoring support;
4. Carry out dismantling of prefabricated scaffolding;
5. Carry out base work for scaffolding as per drawing; and
6. Comply to safe and health requirement.



STRUCTURAL

LEVEL 3 SCAFFOLDER SUPERVISOR (PREFABRICATED)

A SCAFFOLDER SUPERVISOR (PREFABRICATED) IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, CARRY OUT INSPECTION OF MATERIAL AND PREFABRICATED SCAFFOLDING SYSTEM, IDENTIFY TOOLS AND EQUIPMENT FOR ERECTING PREFABRICATED SCAFFOLDING, INSPECT ERECTED PREFABRICATED SCAFFOLDING SYSTEM, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH ORDER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL AND LIAISE WITH ORDER RELEVANT PARTIES FOR SCAFFOLDING ERECTING ACTIVITIES.

A Scaffolder Supervisor (Prefabricated) will be able to:

1. Prepare method of statement;
2. Understand and interpret construction drawing;
3. Carry out inspection of material and prefabricated scaffolding system;
4. Identify tools and equipment for erecting prefabricated scaffolding;
5. Inspect erected prefabricated scaffolding system;
6. Perform supervisory function;
7. Prepare and submit report to superior;
8. Liaise with order relevant parties for joint inspection and approval; and
9. Liaise with order relevant parties for scaffolding erecting activities.



STRUCTURAL

LEVEL 4

SCAFFOLD ASSISTANT TECHNICAL EXECUTIVE

A SCAFFOLD ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO COMPILE AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT TO SUPERIOR AND ANALYSE BASED ON APPROVED TECHNICAL DRAWING SPECIFICATION AND IDENTIFY VARIATION ORDER.

A Scaffold Assistant Technical Executive will be able to:

1. Compile as per submission by site supervisor;
2. Submit to superior;
3. Analyse based on approved technical drawing specification; and
4. Identify variation order;
5. Adhere to safety and security procedure while operating in work area; and
6. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 5

SCAFFOLD MANAGER

A SCAFFOLD MANAGER IS DESIGNATED TO ANALYSE AS PER SUBMISSION BY SITE SUPERVISOR AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP MAINTENANCE, EQUIPMENT AND TOOLS, ATTEND SITE MEETING, COORDINATION MEETING, LIAISON WITH AUTHORITIES AND PREPARE AND SUBMIT TECHNICAL/ PROGRESS REPORT TO SUPERIOR.

A Scaffold Manager will be able to:

1. Analyse as per submission by site supervisor;
2. Analyse and interpret construction drawing;
3. Analyse and interpret specification of workmanship maintenance, equipment and tools;
4. Attend site meeting;
5. Attend coordination meeting; and
6. Prepare and submit technical/ progress report to superior.



STRUCTURAL

LEVEL 1 SCAFFOLD ERECTOR

A SCAFFOLD ERECTOR IS DESIGNATED TO ASSIST IN SETTING OUT WORK AREA, ASSIST IN PREPARING BASE SUPPORT, ASSIST IN INSTALLING TIE OR ANCHORING SUPPORT, ASSIST IN INSTALLING SCAFFOLD ERECTOR SCAFFOLDING, CARRY OUT LOADING AND UNLOADING.

A Scaffold Erector will be able to:

1. Assist in setting out work area;
2. Assist in preparing base support;
3. Assist in installing tie or anchoring support;
4. Assist in installing scaffold erector scaffolding; and
5. Carry out loading and unloading.



STRUCTURAL

LEVEL 2 SCAFFOLD SENIOR ERECTOR

A SCAFFOLD SENIOR ERECTOR IS DESIGNATED TO SET OUT WORK AREA, CARRY OUT SCAFFOLD ERECTOR SCAFFOLDING INSTALLATION, CARRY OUT INSTALLATION OF TIE OR ANCHORING SUPPORT, CARRY OUT DISMANTLING OF SCAFFOLD ERECTOR SCAFFOLDING, CARRY OUT BASE WORK FOR SCAFFOLDING AS PER DRAWING AND COMPLY TO SAFE AND HEALTH REQUIREMENT.

A Scaffold Senior Erector will be able to:

1. Set out work area;
2. Carry out scaffold erector scaffolding installation;
3. Carry out installation of tie or anchoring support;
4. Carry out dismantling of scaffold erector scaffolding;
5. Carry out base work for scaffolding as per drawing; and
6. Comply to safe and health requirement.



STRUCTURAL

LEVEL 3 SCAFFOLD SUPERVISOR

A SCAFFOLD SUPERVISOR IS DESIGNATED TO PREPARE METHOD OF STATEMENT, UNDERSTAND AND INTERPRET CONSTRUCTION DRAWING, CARRY OUT INSPECTION OF MATERIAL AND SCAFFOLD ERECTOR SCAFFOLDING SYSTEM, IDENTIFY TOOLS AND EQUIPMENT FOR ERECTING SCAFFOLD ERECTOR SCAFFOLDING, INSPECT ERECTED SCAFFOLD ERECTOR SCAFFOLDING SYSTEM, PERFORM SUPERVISORY FUNCTION, PREPARE AND SUBMIT REPORT TO SUPERIOR, LIAISE WITH ORDER RELEVANT PARTIES FOR JOINT INSPECTION AND APPROVAL, AND LIAISE WITH ORDER RELEVANT PARTIES FOR SCAFFOLDING ERECTING ACTIVITIES.

A Scaffold Supervisor will be able to:

1. Prepare method of statement;
2. Understand and interpret construction drawing;
3. Carry out inspection of material and scaffold erector scaffolding system;
4. Identify tools and equipment for erecting scaffold erector scaffolding;
5. Inspect erected scaffold erector scaffolding system;
6. Perform supervisory function;
7. Prepare and submit report to superior;
8. Liaise with order relevant parties for joint inspection and approval; and
9. Liaise with order relevant parties for scaffolding erecting activities.



STRUCTURAL

LEVEL 4 SCAFFOLD INSPECTOR

A SCAFFOLD INSPECTOR IS DESIGNATED TO CARRY OUT INSPECTION TO DETERMINE SCAFFOLDING RATING REQUIREMENTS AND SCAFFOLD TYPE TO BEST SUPPORT THE PLANNED ACTIVITIES, OUT INSPECTION ENSURE THE SCAFFOLD IS PROPERLY ERECTED, SAFE TO USE AND PROPERLY DISMANTLED, EVALUATE AND INSPECT THE SCAFFOLD ERECTION CHECKLIST IS COMPLETED AND IS PART OF WORK PACKAGE, LIAISE WITH AUTHORITIES, APPROVE THE SAFETY OF THE SCAFFOLDING AND FOLLOW STANDARD OPERATING PROCEDURE.

A Scaffold Inspector will be able to:

1. Carry out inspection to determine scaffolding rating requirements and scaffold type to best support the planned activities;
2. Carry out inspection ensure the scaffold is properly erected, safe to use and properly dismantled;
3. Evaluate and inspect the scaffold erection checklist is completed and is part of work package;
4. Carry out tagging work in site;
5. Liaise with authorities;
6. Approve the safety of the scaffolding;
7. Verify scheduled re-inspection by the scaffold supervisor in accordance with inspection procedure;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



STRUCTURAL

LEVEL 5 SCAFFOLD MANAGER ERECTOR

A SCAFFOLD MANAGER ERECTOR IS DESIGNATED TO ANALYSE AS PER SUBMISSION BY SITE SUPERVISOR AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP MAINTENANCE, EQUIPMENT AND TOOLS, ATTEND SITE MEETING, COORDINATION MEETING, LIAISON WITH AUTHORITIES, PREPARE AND SUBMIT TECHNICAL/ PROGRESS REPORT TO SUPERIOR.

A Scaffold Manager Erector will be able to:

1. Analyse as per submission by site supervisor;
2. Analyse and interpret construction drawing;
3. Analyse and interpret specification of workmanship maintenance, equipment and tools;
4. Attend site meeting;
5. Attend coordination meeting; and
6. Prepare and submit technical/ progress report to superior.



STRUCTURAL

LEVEL 6

STRUCTURAL TECHNICAL MANAGER

A STRUCTURAL TECHNICAL MANAGER IS DESIGNATED TO ATTEND MANAGEMENT MEETING, APPROVE PROGRESS CLAIM, VARIATION ORDER, ISSUE SITE INSTRUCTION & ENGINEER INSTRUCTION, NON CONFORMANCE CERTIFICATE, RECOMMEND FOR CERTIFICATE OF PRACTICAL COMPLETION AND CERTIFICATE OF NON COMPLETION (CPC), EXTENSION AT TIME, TERMINATION OF CONSTRUCTION AND LAD (LIQUIDATED ASCERTAIN MANAGERS AND SIGN TO PROGRESS CLAIM.

A Structural Technical Manager will be able to:

1. Attend management meeting;
2. Approve progress claim;
3. Approve variation order;
4. Manage pre and cost contract administration;
5. Manage pre construction activities;
6. Manage structural engineering works;
7. Perform structural construction management;
8. Issue site instruction & engineer instruction;
9. Issue non conformance certificate;
10. Recommend for CPC (Certificate Of Practical Completion And Certificate Of Non Completion);
11. Recommend extension at time;

12. Recommend termination of construction;
13. Recommend LAD (liquidated ascertain managers; and
10. Sign to progress claim.

SUB SECTOR: ARCHITECTURAL



ARCHITECTURAL

LEVEL 1

ALUMINUM FRAME WORK INSTALLER

AN ALUMINUM FRAME WORK INSTALLER IS DESIGNATED TO ARRANGE, CUT AND PACKING ALUMINUM EXTRUSION, PERFORM DRILLING, NOTCHING AND EDGING ACTIVITIES, CARRY OUT FITTING AND ACCESSORIES INSTALLATION, ASSEMBLE OUTER AND INNER FRAME, UPKEEP MACHINERY BEFORE AND AFTER USE, SELECT TOOLS FOR FABRICATION WORKS, INTERPRET BASIC TECHNICAL DRAWING AND PERFORM MATERIAL HANDLING ACTIVITIES.

An Aluminum Frame Work Installer will be able to:

1. Arrange, cut and packing aluminum extrusion;
2. Perform drilling, notching and edging;
3. Carry out fitting and accessories installation eg: gasket, hinges, roller;
4. Assemble outer and inner frame;
5. Upkeep machinery before and after use;
6. Select tools for fabrication works;
7. Interpret basic technical drawing; and
8. Perform materials handling activities, adhere to work safety precaution while working and keep working area safe, clean and tidy.



ARCHITECTURAL

LEVEL 2

ALUMINUM FRAME WORK SENIOR INSTALLER

AN ALUMINUM FRAMEWORKS SENIOR INSTALLER IS DESIGNATED TO ADHERE TO WORK SAFETY PRECAUTION WHILE WORKING AND KEEP WORKING AREA, SAFE, CLEAN AND TIDY, SELECT, PREPARE AND MAINTAINS TOOLS AND EQUIPMENT FOR FABRICATIONS AND INSTALLATION WORKS, INTERPRET BASIC TECHNICAL DRAWING, PERFORM QUALITY CHECK ON FABRICATION AND INSTALLATION, CARRY OUT SITE SURVEY AND MATERIAL HANDLING, UPKEEP MACHINERY BEFORE AND AFTER USE, CARRY OUT STOCK INVENTORY ALUMINUM CLADDING ACTIVITIES LIKE WELDING, INSTALLATION OF RUNNERS, SEALANTS AND ETC.

An Aluminum Frameworks Senior Installer will be able to:

1. Adhere to work safety precaution while working area, safe, clean and tidy;
2. Select, prepare and maintains tools and equipment for fabrications and installation works;
3. Interpret basic technical drawing;
4. Perform quality check on fabrication and installation;
5. Carry out site survey and material handling;
6. Upkeep machinery before and after use;
7. Carry out stock inventory; and
8. Carry out aluminum cladding activities like welding, installation of runner, sealants etc.



**ARCHITECTURAL
LEVEL 3
ALUMINUM FRAME WORKS SUPERVISOR**

AN ALUMINUM FRAME WORK SUPERVISOR IS DESIGNATED TO REVIEW AND INTERPRET TECHNICAL DRAWING, SELECT MATERIALS FOR ALUMINUM FABRICATION AND INSTALLATION, MAINTAINS STOCK INVENTORY AND CONTROL, ENSURE TOOLS AND EQUIPMENT ARE MAINTAINED, SAFETY FIRE FIGHTING EQUIPMENT IS AVAILABLE AND IN OPERATING CONDITION, CARRY PUT LOGISTIC ACTIVITIES, DISTRIBUTE WORKS ASSIGNMENT, CONDUCT BRIEFING AND MEETING, MONITOR AND REVIEW STAFF ATTENDANCE AND WORK PERFORMANCE AND PREPARE WORK SCHEDULE AND TECHNICAL REPORT.

An Aluminum Frame Work Supervisor will be able to:

1. Review and interpret technical drawing;
2. Select materials for aluminum fabrication and installation;
3. Maintains stock inventory and control;
4. Ensure tools and equipment are maintained;
5. Ensure safety fire fighting equipment is available and in operating condition;
6. Carry put logistic activities, distribute works assignment;
7. Distribute works assignment, conduct briefing and meeting;
8. Monitor and review staff attendance and work performance; and
9. Prepare work schedule and technical report.



ARCHITECTURAL

LEVEL 1 GLASS CUTTER

A GLASS CUTTER IS DESIGNATED TO PERFORM CHECK, ARRANGE AND CUT STAINED GLASS, PERFORM CHECK, ARRANGE AND CUT ANNEALED GLASS, PERFORM DRILLING, NOTCHING AND EDGING ACTIVITIES, CARRY OUT FITTING AND GLASS ACCESSORIES, UPKEEP MACHINERY BEFORE AND AFTER USE, INTERPRET TECHNICAL DRAWING, PERFORM MATERIAL HANDLING AND ADHERE TO WORK SAFETY PRECAUTION WHILE WORKING AND KEEP WORKING AREA SAFE, CLEAN AND TIDY.

A Glass Cutter will be able to:

1. Perform check, arrange and cut stained glass;
2. Perform check, arrange and cut annealed glass;
3. Perform drilling, notching and edging activities;
4. Carry out fitting and glass accessories;
5. Upkeep machinery before and after use;
6. Select tools for cutting and grinding activities;
7. Interpret technical drawing;
8. Perform material handling; and
9. Adhere to work safety precaution while working and keep working area safe, clean and tidy.



ARCHITECTURAL

LEVEL 2 GLAZIER

A GLAZIER IS DESIGNATED TO ADHERE TO WORK SAFETY PRECAUTION WHILE WORKING AND KEEP WORKING AREA SAFE, CLEAN AND TIDY, SELECT, PREPARE AND MAINTAIN TOOLS AND EQUIPMENT FOR GLASS INSTALLATION WORK, INTERPRET BASIC TECHNICAL DRAWING, PERFORM QUALITY CHECK ON GLASS CUTTING INSTALLATION, UPKEEP MACHINERY BEFORE AND AFTER USE, CARRY OUT STOCK INVENTORY, CARRY OUT PLANAR BRACKET INSTALLATION, SYSTEM SUPPORT STABILITY AND SEALANT WORKS AND CARRY OUT STAINED GLASS ACTIVITIES.

A Glazier will be able to:

1. Adhere to work safety precaution while working and keep working area safe, clean and tidy;
2. Select, prepare and maintain tools and equipment for glass installation work;
3. Interpret basic technical drawing;
4. Perform quality check on glass cutting installation;
5. Upkeep machinery before and after use;
6. Carry out stock inventory;
7. Carry out planar bracket installation, system support stability and sealant works; and
8. Carry out stained glass activities.



ARCHITECTURAL

LEVEL 3

GLAZIER SUPERVISOR

A GLAZIER SUPERVISOR IS DESIGNATED TO ENSURE WORKING AREA SAFE, CLEAN AND TIDY, REVIEW AND INTERPRET TECHNICAL DRAWING, SELECT MATERIALS FOR GLASS CUTTING AND INSTALLATION, MAINTAIN STOCK INVENTORY AND CONTROL, ENSURE TOOLS AND EQUIPMENT ARE MAINTAINED, ENSURE FIRE FIGHTING EQUIPMENTS ARE AVAILABLE AND IN OPERATING CONDITION, CARRY OUT LOGISTIC ACTIVITIES, MATERIALS HANDLING AND DISTRIBUTION, DISTRIBUTE WORK ASSIGNMENT, CONDUCT WORKS BRIEFING AND MEETING, MONITOR AND REVIEW STAFF ATTENDANCE AND WORKS PERFORMANCE AND PREPARE WORK SCHEDULE AND TECHNICAL REPORT.

A Glazier Supervisor will be able to:

1. Ensure working area safe, clean and tidy;
2. Review and interpret technical drawing;
3. Select materials for glass cutting and installation;
4. Maintain stock inventory and control;
5. Ensure tools and equipment are maintained;
6. Ensure fire fighting equipments are available and in operating condition;
7. Carry out logistic activities, materials handling and distribution;
8. Distribute work assignment, conduct works briefing and meeting;
9. Monitor and review staff attendance and works performance; and
10. Prepare work schedule and technical report.



ARCHITECTURAL

LEVEL 1 TILER

A TILER IS DESIGNATED TO STORE TILING WORKS MATERIALS, MAINTAIN AND UPKEEP TILING HAND TOOLS, MACHINES AND EQUIPMENT, PREPARE ADHESIVE MATERIALS, PERFORM WALL, FLOOR AND COLUMN SURFACE SETTING OUT, FIXING WALL AND FLOOR TILES, TILES CUTTING, FIXING TILES CUTTING, TILES EDGING, MOSAIC MORTAR BED, MOSAIC VERTICAL BACKING SURFACE, FIXING FLOOR MOSAIC, MOSAIC JOINT FILLING, TILES JOINT FILLING AND HOUSEKEEPING.

A Tiler will be able to:

1. Store tiling works materials;
2. Maintain and upkeep tiling hand tools, machines and equipment;
3. Prepare adhesive materials;
4. Perform wall, floor and column surface setting out;
5. Perform fixing wall and floor tiles;
6. Perform tiles cutting;
7. Perform fixing tiles edging;
8. Perform mosaic mortar bed;
9. Perform mosaic vertical backing surface;
10. Perform fixing floor mosaic;
11. Perform mosaic joint filling;
12. Perform tiles joint filling; and
13. Perform housekeeping.



ARCHITECTURAL

LEVEL 2 SENIOR TILER

A SENIOR TILER IS DESIGNATED TO CHECK SUITABILITY OF TILING MATERIALS STORAGE AREA, ESTIMATE TILING WORK MATERIALS QUANTITY, PERFORM CURVE SURFACE AND TILE ACCESSORIES FIXING SETTING OUT, CHECK WALL, FLOOR AND COLUMN SURFACE TILES SETTING OUT WORK, PERFORM FIXING CURVE SURFACE TILES, PERFORM FIXING TILES ACCESSORIES, CHECK WALL, FLOOR AND EDGING TILES FIXING WORKS, CHECK TILES CUTTING WORK, PREPARATION OF MORTAR BED, FLOOR MOSAIC FIXING WORKS, FLOOR MOSAIC AND TILES JOINT FILING WORKS, PERFORM FIXING VERTICAL AND CURVE SURFACE MOSAIC, FIXING MARBLE AND TERRAZZO, GROUTING MARBLE AND TERRAZZO, GRINDING MARBLE AND TERRAZZO, POLISHING MARBLE AND TERRAZZO AND HOUSEKEEPING.

A Senior Tiller will be able to:

1. Check suitability of tiling materials storage area;
2. Estimate tiling work materials quantity;
3. Perform curve surface and tile accessories fixing setting out;
4. Check wall, floor and column surface tiles setting out work;
5. Perform fixing tiles accessories;
6. Check wall, floor and edging tiles fixing works;
7. Perform fixing vertical and curve surface mosaic;
8. Check preparation of mortar bed;
9. Check floor mosaic fixing works;

10. Check floor mosaic and tiles joint filing works;

11. Perform fixing marble and terrazzo;
12. Perform grouting marble and terrazzo;
13. Perform grinding marble and terrazzo;
14. Perform polishing marble and terrazzo; and
15. Perform housekeeping.



ARCHITECTURAL

LEVEL 3 TILER SUPERVISOR

A TILER SUPERVISOR IS DESIGNATED TO SUPERVISE SUITABILITY OF TILING MATERIALS STORAGE AREA, SUPERVISE TILING WORK MATERIALS QUANTITY, SUPERVISE CURVE SURFACE AND TILE ACCESSORIES FIXING SETTING OUT, CHECK WALL, FLOOR AND COLUMN SURFACE TILES SETTING OUT WORK, SUPERVISE FIXING CURVE SURFACE TILES, INSPECT FIXING TILES ACCESSORIES, CHECK WALL, FLOOR AND EDGING TILES FIXING WORKS, CHECK TILES CUTTING WORK, PREPARATION OF MORTAR BED, FLOOR MOSAIC FIXING WORKS, FLOOR MOSAIC AND TILES JOINT FILING WORKS, PERFORM FIXING VERTICAL AND CURVE SURFACE MOSAIC, FIXING MARBLE AND TERRAZZO, GROUTING MARBLE AND TERRAZZO, GRINDING MARBLE AND TERRAZZO, POLISHING MARBLE AND TERRAZZO AND HOUSEKEEPING.

A Tiler Supervisor will be able to:

1. Supervise suitability of tiling materials storage area;
2. Supervise tiling work materials quantity;
3. Supervise curve surface and tile accessories fixing setting out;
4. Supervise wall, floor and column surface tiles setting out work;
5. Inspect fixing tiles accessories;
6. Inspect wall, floor and edging tiles fixing works;
7. Supervise fixing vertical and curve surface mosaic;
8. Supervise preparation of mortar bed;
9. Supervise floor mosaic fixing works;

10. Inspect floor mosaic and tiles joint filing works;

11. Inspect fixing marble and terrazzo;
12. Supervise grouting marble and terrazzo;
13. Inspect grinding marble and terrazzo;
14. Supervise polishing marble and terrazzo; and
15. Supervise housekeeping.



ARCHITECTURAL

LEVEL 1 WINDOWS/ DOORS INSTALLER

A WINDOWS/ DOORS INSTALLER IS DESIGNATED TO ARRANGE, CUT AND PACKING WINDOWS/ DOORS INSTALLATION WORK, CARRY OUT FITTING AND WINDOWS/ DOORS INSTALLATION, UPKEEP MACHINERY BEFORE AND AFTER USE, SELECT TOOLS AND EQUIPMENT WINDOWS/ DOORS WORK, INTEPRET BASIC TECHNICAL DRAWING, ADHERE TO SAFETY AND SECURITY AND FOLLOW STANDARD OPERATING PROCEDURE.

A Windows/ Doors Installer will be able to:

1. Arrange, cut and packing Windows/ Doors installation work;
2. Carry out fitting and Windows/ Doors installation;
3. Upkeep machinery before and after use;
4. Select tools and equipment Windows/ Doors work;
5. Interpret basic technical drawing;
6. Adhere to safety and security; and
7. Follow standard operating procedure.



ARCHITECTURAL

LEVEL 2 WINDOWS/ DOORS SENIOR INSTALLER

A WINDOWS/ DOORS SENIOR INSTALLER IS DESIGNATED TO ADHERE TO WORK SAFETY PRECAUTION WHILE WORKING AND KEEP WORKING AREA SAFE, CLEAN AND TIDY, SELECT, PREPARE AND MAINTAIN TOOLS AND EQUIPMENT FOR WINDOWS/ DOORS INSTALLATION WORK, INTERPRET BASIC TECHNICAL DRAWING, PERFORM QUALITY CHECK ON WINDOWS/ DOORS CUTTING INSTALLATION, UPKEEP MACHINERY BEFORE AND AFTER USE, CARRY OUT STOCK INVENTORY, CARRY OUT PLANAR BRACKET INSTALLATION, SYSTEM SUPPORT STABILITY AND SEALANT WORKS AND CARRY OUT STAINED WINDOWS/ DOORS ACTIVITIES.

A Windows/ Doors Senior Installer will be able to:

1. Adhere to work safety precaution while working and keep working area safe, clean and tidy;
2. Select, prepare and maintain tools and equipment for windows/ doors installation work;
3. Interpret basic technical drawing;
4. Perform quality check on windows/ doors cutting installation;
5. Upkeep machinery before and after use;
6. Carry out stock inventory;
7. Carry out planar bracket installation, system support stability and sealant works; and
8. Carry out stained windows/ doors activities.



ARCHITECTURAL

LEVEL 3 WINDOWS/ DOORS SUPERVISOR

A WINDOWS/ DOORS SUPERVISOR IS DESIGNATED TO ENSURE WORKING AREA SAFE, CLEAN AND TIDY, REVIEW AND INTERPRET TECHNICAL DRAWING, SELECT MATERIALS FOR WINDOWS/ DOORS CUTTING AND INSTALLATION, MAINTAIN STOCK INVENTORY AND CONTROL, ENSURE TOOLS AND EQUIPMENT ARE MAINTAINED, ENSURE FIRE FIGHTING EQUIPMENTS ARE AVAILABLE AND IN OPERATING CONDITION, CARRY OUT LOGISTIC ACTIVITIES, MATERIALS HANDLING AND DISTRIBUTION, DISTRIBUTE WORK ASSIGNMENT, CONDUCT WORKS BRIEFING AND MEETING, MONITOR AND REVIEW STAFF ATTENDANCE AND WORKS PERFORMANCE AND PREPARE WORK SCHEDULE AND TECHNICAL REPORT.

A Windows/ Doors Supervisor will be able to:

1. Ensure working area safe, clean and tidy;
2. Review and interpret technical drawing;
3. Select materials for windows/ doors cutting and installation;
4. Maintain stock inventory and control;
5. Ensure tools and equipment are maintained;
6. Ensure fire fighting equipments are available and in operating condition;
7. Carry out logistic activities, materials handling and distribution;
8. Distribute work assignment, conduct works briefing and meeting;
9. Monitor and review staff attendance and works performance; and
10. Prepare work schedule and technical report.



ARCHITECTURAL

LEVEL 1 DRYWALL PARTITION INSTALLER

A DRYWALL PARTITION INSTALLER IS DESIGNATED TO CARRY OUT MATERIAL HANDLING SUCH AS LOADING, UNLOADING, STORAGE ETC, TOOLS AND MACHINERY MAINTENANCE AND UPKEEP, ASSIST IN INSTALLATION OF FRAME, BOARD, PANEL, CARRY OUT CLEANING ACTIVITIES AND FOLLOW STANDARD OPERATING PROCEDURE.

A Drywall Partition Installer will be able to:

1. Carry out materials such as loading , unloading, storage etc;
2. Carry out tools and machinery maintenance and upkeep;
3. Assist in installation of frame, board, panel etc;
4. Carry out cleaning activities;
5. Follow Standard Operating Procedure; and
6. Adhere to safety and security procedure.



ARCHITECTURAL

LEVEL 2

DRYWALL PARTITION SENIOR INSTALLER

A DRYWALL PARTITION SENIOR INSTALLER IS DESIGNATED TO MAINTAIN STOCK INVENTORY, PERFORM SITE SETTING OUT, INSTALL TOP AND BOTTOM TRACK/ FRAMING SYSTEM, INSTALL DRYWALL BOARD/ PANEL AND CARRY OUT PLASTERING OF JOINT AND PREPARE STRUCTURE FOR DOOR/ WINDOW OPENING.

A Drywall Partition Senior Installer will be able to:

1. Maintain stock inventory;
2. Perform site setting out;
3. Install top and bottom track/ framing system;
4. Install drywall board/ panel and carry out plastering of joint;
5. Prepare structure for door/ window opening;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 3 DRYWALL PARTITION SUPERVISOR

A DRYWALL PARTITION SUPERVISOR IS DESIGNATED TO PERFORM SITE ADMINISTRATION FUNCTION, ORGANISE SITE ACTIVITIES, SUPERVISE STRUCTURE INSTALLATION, DRYWALL BOARD INSTALLATION AND M&E OPENING INSTALLATION AND CARRY OUT PROPER REPORTING TO SUPERIOR AND ENSURE SAFETY PRACTICE.

A Drywall Partition Supervisor will be able to:

1. Perform site administration function;
2. Organize site activities;
3. Supervise structure installation, drywall board installation and M&E opening installation;
4. Carry out proper reporting to superior;
5. Ensure safety practice;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 1 DRYWALL CLEANROOM INSTALLER

A DRYWALL CLEANROOM INSTALLER IS DESIGNATED TO CARRY OUT TEMPORARY STRUCTURE ERECTION, PERFORM SITE CLEANING / CLEARING ACTIVITIES, PERFORM MATERIAL HANDLING ACTIVITIES, ASSIST FABRICATION WORKS SUCH AS CUTTING, DIMENSIONING AND OTHERS RELATED PROCESS AND CARRY OUT HAND TOOLS, POWER TOOLS, MACHINERY UPKEEP AND MAINTENANCE.

A Drywall Cleanroom Installer will be able to:

1. Carry out temporary structure erection;
2. Perform site cleaning / clearing activities;
3. Perform material handling activities;
4. Assist fabrication works such as cutting, dimensioning and others related process;
5. Carry out hand tools, power tools, machinery upkeep and maintenance;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 2 DRYWALL CLEANROOM SENIOR INSTALLER

A DRYWALL CLEANROOM SENIOR INSTALLER IS DESIGNATED TO PERFORM MATERIAL STOCK CONTROL, CARRY OUT SELECTION OF MATERIAL FOR FABRICATION AND INSTALLATION, PERFORM INSTALLATION OF PANEL AND RELATED WORK AND PREPARE SUB STATION FOR INSTALLATION.

A Drywall Cleanroom Senior Installer will be able to:

1. Perform material stock control;
2. Carry out selection of material for fabrication and installation;
3. Perform installation of panel and related work;
4. Prepare sub station for installation;
5. Prepare housekeeping;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 3 DRYWALL CLEANROOM SUPERVISOR

A DRYWALL CLEANROOM SUPERVISOR IS DESIGNATED TO ENSURE WORK SAFETY PRACTICES, PERFORM SITE ADMINISTRATION FUNCTIONS, ORGANIZE, PLAN AND CHECK SITE ACTIVITIES, ORGANIZE STRUCTURE INSTALLATION, PANEL INSTALLATION AND M&E OPENING INSTALLATION, PROVIDE TIMELY REPORT TO SUPERIOR AND SUPERVISE PERSONEL CLEANING ACTIVITIES.

A Drywall Cleanroom Supervisor will be able to:

1. Ensure work safety practices;
2. Perform site administration functions;
3. Organize, plan and check site activities;
4. Organize structure installation, panel installation and M&E opening installation;
5. Provide timely report to superior;
6. Supervise personnel cleaning activities;
7. Adhere to safety and security procedure; and
8. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 1 DEMOUNTABLE CEILING INSTALLER

A DEMOUNTABLE CEILING INSTALLER IS DESIGNATED TO ASSIST PRE-INSTALLATION ACTIVITIES, ASSIST MATERIAL CUTTING ACTIVITIES, CARRY OUT INSTALLATION ACTIVITIES AND ASSIST MATERIAL HANDLING ACTIVITIES.

A Demountable Ceiling Installer will be able to:

1. Assist pre-installation activities;
2. Assist material cutting activities;
3. Carry out installation activities;
4. Assist material handling activities;
5. Adhere to safety and security procedure; and
6. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 2 DEMOUNTABLE CEILING SENIOR INSTALLER

A DEMOUNTABLE CEILING SENIOR INSTALLER IS DESIGNATED TO CARRY OUT SUB STRUCTURE INSTALLATION, INSTALLATION OF CEILING PANEL AND ACCESSORIES, SITE INSPECTION, ORGANIZE MATERIAL HANDLING AND CARRY OUT QUALITY CONTROL ACTIVITIES.

A Demountable Ceiling Senior Installer will be able to:

1. Carry out sub structure installation;
2. Carry out installation of ceiling panel and accessories;
3. Carry out site inspection;
4. Organize material handling;
5. Carry out quality control activities;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 1 FIXED CEILING INSTALLER

A FIXED CEILING INSTALLER IS DESIGNATED TO ASSIST IN PRE-INSTALLATION ACTIVITIES, MATERIAL CUTTING ACTIVITIES, CARRY OUT INSTALLATION ACTIVITIES, ASSIST MATERIAL HANDLING ACTIVITIES AND PREPARE HOUSEKEEPING.

A Fixed Ceiling Installer will be able to:

1. Assist in pre-installation activities;
2. Assist material cutting activities;
3. Carry out installation activities;
4. Assist material handling activities;
5. Prepare housekeeping;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 2 FIXED CEILING SENIOR INSTALLER

A FIXED CEILING SENIOR INSTALLER IS DESIGNATED TO CARRY OUT STRUCTURE INSTALLATION, INSTALLATION OF FIXED CEILING PANEL AND ACCESSORIES, SITE INSPECTION, QUALITY CONTROL ACTIVITIES AND ORGANIZE MATERIAL HANDLING.

A Fixed Ceiling Senior Installer will be able to:

1. Carry out structure installation;
2. Carry out installation of fixed ceiling panel and accessories;
3. Carry out site inspection;
4. Carry out quality control activities;
5. Organize material handling;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 3 CEILING SUPERVISOR

A CEILING SUPERVISOR IS DESIGNATED TO PERFORM SITE ADMINISTRATION FUNCTION, ORGANIZE LOGISTIC ACTIVITIES, SUPERVISE STRUCTURE ACTIVITIES, MONITOR CEILING PANEL INSTALLATION AND ENSURE WORK SAFETY PRACTICES.

A Ceiling Supervisor will be able to:

1. Perform site administration function;
2. Organize logistic activities;
3. Supervise structure activities;
4. Monitor ceiling panel installation;
5. Ensure work safety practices;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 1 CURTAIN WALLING INSTALLER

A CURTAIN WALLING INSTALLER IS DESIGNATED TO ARRANGE, CUT AND PACKING CURTAIN WALLING EXTRUSION, PERFORM DRILLING, NOTCHING AND EDGING ACTIVITIES, CARRY OUT FITTING AND ACCESSORIES INSTALLATION, ASSEMBLE OUTER AND INNER FRAME, UPKEEP MACHINERY BEFORE AND AFTER USE, SELECT TOOLS FOR FABRICATION WORKS, INTERPRET BASIC TECHNICAL DRAWING AND PERFORM MATERIAL HANDLING ACTIVITIES.

A Curtain Walling Installer will be able to:

1. Arrange, cut and packing curtain walling extrusion;
2. Perform drilling, notching and edging;
3. Carry out fitting and accessories installation eg: gasket, hinges, roller;
4. Upkeep machinery before and after use;
5. Select tools for fabrication works;
6. Interpret basic technical drawing;
7. Perform materials handling activities, adhere to work safety precaution while working and keep working area safe, clean and tidy;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 2 CURTAIN WALLING SENIOR INSTALLER

A CURTAIN WALLING SENIOR INSTALLER IS DESIGNATED TO ADHERE TO WORK SAFETY PRECAUTION WHILE WORKING AND KEEP WORKING AREA, SAFE, CLEAN AND TIDY, SELECT, PREPARE AND MAINTAINS TOOLS AND EQUIPMENT FOR FABRICATIONS AND INSTALLATION WORKS, INTERPRET BASIC TECHNICAL DRAWING, PERFORM QUALITY CHECK ON FABRICATION AND INSTALLATION, CARRY OUT SITE SURVEY AND MATERIAL HANDLING, UPKEEP MACHINERY BEFORE AND AFTER USE, CARRY OUT STOCK INVENTORY CURTAIN WALLING CLADDING ACTIVITIES LIKE WELDING, INSTALLATION OF RUNNERS, SEALANTS AND ETC.

A Curtain Walling Senior Installer will be able to:

1. Adhere to work safety precaution while working area, safe, clean and tidy;
2. Select, prepare and maintains tools and equipment for fabrications and installation works;
3. Interpret basic technical drawing;
4. Perform quality check on fabrication and installation;
5. Carry out site survey and material handling;
6. Upkeep machinery before and after use;
7. Carry out stock inventory; and
8. Carry out curtain walling cladding activities like welding, installation of runner, sealants etc.



ARCHITECTURAL

LEVEL 2 CURTAIN WALLING SUPERVISOR

A CURTAIN WALLING SUPERVISOR IS DESIGNATED TO REVIEW AND INTERPRET TECHNICAL DRAWING, SELECT MATERIALS FOR CURTAIN WALLING FABRICATION AND INSTALLATION, MAINTAINS STOCK INVENTORY AND CONTROL, ENSURE TOOLS AND EQUIPMENT ARE MAINTAINED, CARRY PUT LOGISTIC ACTIVITIES, DISTRIBUTE WORKS ASSIGNMENT, CONDUCT BRIEFING AND MEETING, MONITOR AND REVIEW STAFF ATTENDANCE AND WORK PERFORMANCE AND PREPARE WORK SCHEDULE AND TECHNICAL REPORT.

A Curtain Walling Supervisor will be able to:

1. Review and interpret technical drawing;
2. Select materials for curtain walling fabrication and installation;
3. Maintains stock inventory and control;
4. Ensure tools and equipment are maintained;
5. Carry put logistic activities, distribute works assignment;
6. Distribute works assignment, conduct briefing and meeting;
7. Monitor and review staff attendance and work performance; and
8. Prepare work schedule and technical report.



ARCHITECTURAL

LEVEL 1 PLASTERER

A PLASTERER IS DESIGNATED TO STORE PLASTERWORKS MATERIALS, MAINTAIN AND UPKEEP PLASTERING AND RENDERING AND TOOLS AND EQUIPMENT, PREPARE CEMENT MORTAR, CEMENT PASTE AND SKIM COAT CEMENT, PERFORM WALL, FLOOR AND COLUMN SURFACE SETTING OUT, FLAT WALL, EDGE AND COLUMN PLASTERING, SAND FACE, TROWEL, SKIM COAT FINISHES WORKS, TROWEL FINISHED RENDERING AND HOUSEKEEPING.

A Plasterer will be able to:

1. Store plasterworks materials;
2. Maintain and upkeep plastering and rendering hnd tools and equipment;
3. Prepare cement mortar;
4. Perform wall, floor and column surface setting out;
5. Perform flat wall, edge and column plastering;
6. Perform sand face, trowel, skim coat finishes works;
7. Perform trowel finished rendering; and
8. Perform housekeeping.



ARCHITECTURAL

LEVEL 2 SENIOR PLASTERER

A SENIOR PLASTERER IS DESIGNATED TO CHECK PLASTERWORK STORAGE ACTIVITIES, MAINTENANCE AND UPKEEP PLASTERING HAND TOOLS, MACHINES AND EQUIPMENT ACTIVITIES, WALL, COLUMN AND FLOOR SURFACE SETTING OUT ACTIVITIES, PLASTER CEMENT MORTAR QUALITY, FLAT WALL AND COLUMN SURFACE PLASTERING WORKS, SAND FACE, TROWEL AND RENDERING FINISHED WORKS, PERFORM LATH, OVERHEAD AND CURVE SURFACE SETTING OUT, PREPARE DECORATIVE PLASTER MORTAR, PERFORM CURVE AND OVERHEAD PLASTERING, DECORATIVE FINISHES PLASTER AND HOUSEKEEPING.

A Senior Plasterer will be able to:

1. Check plasterwork storage activities;
2. Check maintenance and upkeep plastering hand tools, machines and equipment activities;
3. Check wall, column and floor surface setting out activities;
4. Check plaster cement mortar quality;
5. Check flat wall and column surface plastering works;
6. Check sand face, trowel and rendering finished works;
7. Perform lath, overhead and curve surface setting out;
8. Perform curve and overhead plastering;
9. Perform decorative finishes plaster; and
10. Perform housekeeping.



ARCHITECTURAL

LEVEL 3 PLASTERER SUPERVISOR

A PLASTERER SUPERVISOR IS DESIGNATED TO PERFORM SITE ADMINISTRATION FUNCTION, ORGANIZE LOGISTIC ACTIVITIES, SUPERVISE PLASTERING ACTIVITIES, INSPECT PLASTERING WORKS QUALITY AND ENSURE WORK SAFETY PRACTICES.

A Plasterer Supervisor will be able to:

1. Perform site administration function;
2. Organize logistic activities;
3. Supervise structure activities;
4. Inspect plastering works;
5. Ensure work safety practices;
6. Adhere to safety and security procedure; and
7. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 1 PAINTER

A PAINTER IS DESIGNATED TO CARRY OUT LOADING AND UNLOADING OF PAINTING MATERIALS, TOOLS AND EQUIPMENT, ASSISTS TO MOBILISE ALL PAINTING MATERIALS, TOOLS, AND EQUIPMENT, PERFORM SURFACE PREPARATION INCLUDING PROTECTION WORKS TO ADJACENT AREAS, MASKING, PATCHING AND RELATED WORKS, PERFORM BASE COAT, INTERMEDIATE COAT AND FINISHING COATS FOR INTERNAL WALL, MAINTAINS AND UPKEEP PAINTING TOOLS, PERFORM SITE CLEANING/ CLEARING ACTIVITIES AT WORK PLACE AND ASSISTS TEMPORARY STRUCTURE ERECTION.

A Painter will be able to:

1. Carry out loading and unloading of painting materials, tools and equipment;
2. Assists to mobilise all painting materials, tools, and equipment;
3. Perform surface preparation including protection works to adjacent areas, masking, patching and related works;
4. Perform base coat, intermediate coat and finishing coats for internal wall;
5. Maintains and upkeep painting tools;
6. Perform site cleaning/ clearing activities at work place;
7. Assists temporary structure erection;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



ARCHITECTURAL
LEVEL 2
DECORATIVE PAINTER

A DECORATIVE PAINTER IS DESIGNATED TO PERFORM PAINTING MATERIALS STOCK CONTROL, CARRY OUT SELECTION OF PAINTING MATERIALS FOR APPLICATION WORK, PERFORM SURFACE PREPARATION TO AFFECTED AREAS, PERFORM BASE COAT, INTERMEDIATE COAT, AND FINISHING COATS FOR EXTERNAL WALLS, METAL SURFACES AND WOOD SURFACES, ENSURE PAINTING TOOLS AND EQUIPMENT ARE PROPERLY KEPT AND MAINTAINED AND ENSURE ALL PAINTING MATERIALS, TOOLS AND EQUIPMENT ARE PROPERLY STORED.

A Decorative Painter will be able to:

1. Perform painting materials stock control;
2. Carry out selection of painting materials for application work;
3. Perform surface preparation to affected areas;
4. Perform base coat, intermediate coat, and finishing coats for external walls, metal surfaces and wood surfaces;
5. Ensure painting tools and equipment are properly kept and maintained;
6. Ensure all painting materials, tools and equipment are properly stored;
7. Adhere to safety and security procedure; and
8. Follow Standard Operating Procedure.



ARCHITECTURAL
LEVEL 3
PAINTING SUPERVISOR

A PAINTING SUPERVISOR IS DESIGNATED TO PERFORM SITE ADMINISTRATION FUNCTION, ORGANIZES LOGISTIC ACTIVITIES AND MONITOR PAINTING MATERIALS INVENTORY, ANALYSE SURFACE CONDITION PRIOR TO PAINTING APPLICATION, MONITOR PAINTING APPLICATION AND ARRANGE MOCK-UP UPON CONFIRMATION OF COLOUR SCHEME, ARRANGE MANPOWER TO WORK PLACE AND RECORD MANPOWER LOGBOOK, ENSURE SAFETY PRACTICES AND MONITOR HOUSEKEEPING AT WORK PLACE.

A Painting Supervisor will be able to:

1. Perform site administration function;
2. Organizes logistic activities and monitor painting materials inventory;
3. Analyse surface condition prior to painting application;
4. Monitor painting application and arrange mock-up upon confirmation of color scheme;
5. Arrange manpower to work place and record manpower logbook;
6. Ensure safety practices;
7. Monitor housekeeping at work place;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 2 ARCHITECTURAL DRAUGHTPERSON

AN ARCHITECTURAL DRAUGHTPERSON IS DESIGNATED TO PREPARE SUBMISSION DRAWINGS, PERFORM ALTERATION AND EXTENSION DRAWINGS, CONDUCT SITE STUDY, PERFORM SCALED DRAWINGS, PERFORM PLANS, ELEVATIONS AND SECTION DRAWINGS, MEASURE EXISTING BUILDING AND SITE AND FOLLOW STANDARD OPERATING PROCEDURE.

An Architectural Draughtperson will be able to:

1. Carry out basic geometrical drawings;
2. Perform re-draw, enlarge and re-dude drawings;
3. Perform wall and partition constructions drawing;
4. Perform roof and ceiling constructions drawing;
5. Organize file drawing system;
6. Adhere to safety and security procedure;
7. Prepare submission drawings;
8. Perform alteration and extension drawings;
9. Conduct site study;
10. Perform scaled drawings;
11. Perform plans, elevations and section drawings;
12. Measure existing building and site; and
13. Follow standard operating procedure.



ARCHITECTURAL

LEVEL 3 ARCHITECTURAL DRAUGHTING SUPERVISOR

AN ARCHITECTURAL DRAUGHTING SUPERVISOR IS DESIGNATED TO DRAW ARCHITECTURAL FOR MULTISTOREY BUILDING, PREPARE COORDINATING DRAWINGS, AMEND FLOOR PLANS, ELEVATIONS, SECTIONS AND SITE PLAN FOR BUILDING UNDER CONSTRUCTION, DRAW FLOOR PLANS, ELEVATIONS, SECTIONS AND SITE PLAN FOR COMPLETED BUILDING, CHECK DRAWING PRODUCED BY SUBORDINATES, EVALUATE PERFORMANCE OFF SUBARDINATE AND FOLLOW STANDARD OPERATING PROCEDURE.

An Architectural Draughting Supervisor will be able to:

1. Draw architectural for multistorey building;
2. Prepare coordinating drawings;
3. Amend floor plans, elevations, sections and site plan for building under construction;
4. Draw floor plans, elevations, sections and site plan for completed building;
5. Check drawing produced by subordinates;
6. Follow standard operating procedure;
7. Supervise the preparation of architectural and structural drawings for construction work;
8. Coordinate drawings with related specifications, bid documents, and drawings and specifications for plumbing, heating, and electrical work;
9. Prepare budgets;
10. Prepare preliminary cost estimates;
11. Keep progress records of drafting work;
12. Check construction and materials;
13. Supervise the checking of shop drawings and the preparation of full-size details;

14. Confer with administrative personnel concerning architectural work;
15. Handle correspondence; and
16. Perform other related duties as assigned.



ARCHITECTURAL

LEVEL 4

ARCHITECTURAL ASSISTANT TECHNICAL EXECUTIVE

AN ARCHITECTURAL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO COMPILE/ANALYSE/ VERIFY AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT TECHNICAL REPORT, PROGRESS REPORT, ISSUING TO SUPERVISOR, UNDERSTAND AND INTERPRET ANALYSIS ON APPROVE CONSTRUCTION DRAWING SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IDENTIFYING ANY ERRORS AND DISCREPANCIES ON CONSTRUCTION DRAWINGS, PREPARE PROGRESS CLAIM FOR ARCHITECTURAL WORK AND PREPARE VARIATION ORDER (VO) ON SITE.

An Architectural Assistant Technical Executive will be able to:

1. Compile/analyze/ verify as per submission by site supervisor;
2. Submit technical report, progress report, issuing to supervisor;
3. Understand and interpret analysis on approve construction drawing specification;
4. Identify variation order;
5. Assist identifying any errors and discrepancies on construction drawings;
6. Prepare progress claim for architectural work;
7. Prepare variation order (VO) on site;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 5 ARCHITECTURAL TECHNICAL EXECUTIVE

AN ARCHITECTURAL TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSE AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

An Architectural Technical Executive will be able to:

1. Analyse and interpret construction drawing;
2. Specification of workmanship, material, equipment and tools;
3. Attend site coordination management and technical coordination;
4. Liaise with authorities;
5. Prepare and submit progress report to superior;
6. Check the accuracy of progress claim;
7. Adhere to safety and security procedure; and
8. Follow Standard Operating Procedure.



ARCHITECTURAL

LEVEL 6 ARCHITECTURAL TECHNICAL MANAGER

AN ARCHITECTURAL TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, M&E ORGANIZATIONS, JOINTLY INSPECT WITH JABATAN BOMBA AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSE REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

An Architectural Technical Manager will be able to:

1. Acknowledge receive certified construction drawings and work progress;
2. Approve completed works;
3. Approve method of statement;
4. Approve material equipment samples;
5. Issue job order;
6. Issue job order factories;
7. Visit and approve manufacturers;
8. Coordinate with Civil Engineering, M&E organizations;
9. Jointly inspect with Jabatan Bomba and local authorities;
10. Certify installation, testing and commissioning;

11. Evaluate/ analyse reports consultation drawing;
12. Attend management meeting;
13. Attend site meeting;
14. Approve and submit Variation Order (VO);
15. Approve and submit progress claim;
16. Attend technical coordination meeting; and
17. Approve certificate of practical completion (CPC), RE and RA.

SUB SECTOR: MACHINERY AND PLANT



MACHINERY & PLANT

LEVEL 1 SELF LOADING CRANE OPERATOR

A SELF LOADING CRANE OPERATOR IS DESIGNATED TO PERFORM SELF LOADING CRANE OPERATION, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, PERFORM PRE-OPERATIONAL INSPECTION AND DAILY SERVICE AND FOLLOW STANDARD OPERATING PROCEDURE.

A Self Loading Crane Operator will be able to:

1. Perform self loading crane operation;
2. Adhere to company policies and procedures and multi-crane safety protocol;
3. Perform pre-operational inspection and daily service;
4. Comply with schedules maintenance requirement;
5. Adhere to safety and security procedure while operating in work area; and
6. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 TOWER CRANE ERECTOR

A TOWER CRANE ERECTOR IS DESIGNATED TO CARRY OUT ASSEMBLING AND ERECTING OF VARIOUS TYPES OF TOWER CRANES, ERECTION, TELESCOPING AND DISASSEMBLING ALONG WITH RIGGING PROCEDURES, INTERPRET CRANE ERECTING MANUAL AND ADHERE TO SAFETY AND SECURITY PROCEDURE.

A Tower Crane Erector will be able to:

1. Carry out assembling and erecting of various types of tower cranes;
2. Erection, telescoping and disassembling along with rigging procedures;
3. Interpret crane erecting manual;
4. Conduct periodical inspections on ropes, pulleys, structures and mounting wall ties
and general mechanical components;
5. Adhere to safety and security procedure; and
6. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 3 TOWER CRANE ERECTOR SUPERVISOR

A TOWER CRANE ERECTOR SUPERVISOR IS DESIGNATED TO PERFORM SUPERVISION ON HOISTING OPERATION, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, COORDINATE PRE-OPERATIONAL INSPECTION AND DAILY SERVICE, VERIFY COMPLIANCE WITH SCHEDULES MAINTENANCE REQUIREMENT AND PERFORM SUPERVISORY FUNCTIONS.

A Tower Crane Erector Supervisor will be able to:

1. Perform supervision on hoisting operation;
2. Adhere to company policies and procedures and multi-crane safety protocol;
3. Coordinate pre-operational inspection and daily service;
4. Verify compliance with schedules maintenance requirement;
5. Verify work procedures planning;
6. Inspect the maintenance and storage of rigging equipment;
7. Adhere to safety and security procedure while operating in work area;
8. Follow Standard Operating Procedure; and
9. Perform supervisory functions.



MACHINERY & PLANT

LEVEL 1 CRANE SIGNALMAN

A CRANE SIGNALMAN IS DESIGNATED TO COORDINATE CRANE OPERATING WORK, ENSURE THE LOAD HOOK IS CENTERED OVER THE CENTER OF BALANCE OF THE LOAD, AS THE WEIGHT IS BEING LIFTED BY THE CRANE, THE BOOM DEFLECTION DOES NOT EXCEED THE SAFE LOAD RADIUS, INSPECT ALL THE RIGGING GEAR IS STRAIGHT AND NOT CAUSING DAMAGE TO ITSELF OR THE LOAD AND FOLLOW STANDARD OPERATING PROCEDURE.

A Crane Signalman will be able to:

1. Coordinate crane operating work;
2. Ensure the load hook is centered over the center of balance of the load;
3. Ensure as the weight is being lifted by the crane;
4. Inspect all the rigging gear is straight and not causing damage to itself or the load;
5. Check the boom suspension system and boom hoist reeving to ensure proper operation during a lift with a lattice boom crane;
6. Check the hook block and boom tip sheaves reeving to ensure proper operation;
7. Check the stability of the outriggers especially when swinging from one quadrant of operation to another;
8. Adhere to safety and security procedure while operating in work area; and
9. Follow standard operating procedure.



MACHINERY & PLANT

LEVEL 2 TOWER CRANE OPERATOR

A TOWER CRANE OPERATOR IS DESIGNATED TO PERFORM HOISTING OPERATION, CARRY OUT COMMUNICATION USING SIGNALS, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, COMPLY WITH SCHEDULES MAINTENANCE REQUIREMENT AND FOLLOW STANDARD OPERATING PROCEDURE.

A Tower Crane Operator will be able to:

1. Perform hoisting operation;
2. Carry out communication using signals;
3. Adhere to company policies and procedures and multi-crane safety protocol;
4. Perform pre-operational inspection and daily service;
5. Comply with schedules maintenance requirement;
6. Plan work procedures;
7. Maintain and store rigging equipment;
8. Adhere to safety and security procedure while operating in work area; and
9. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 3 TOWER CRANE SUPERVISOR

A TOWER CRANE SUPERVISOR IS DESIGNATED TO PERFORM SUPERVISION ON HOISTING OPERATION, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, COORDINATE PRE-OPERATIONAL INSPECTION AND DAILY SERVICE, VERIFY COMPLIANCE WITH SCHEDULES MAINTENANCE REQUIREMENT AND PERFORM SUPERVISORY FUNCTIONS.

A Tower Crane Supervisor will be able to:

1. Perform supervision on hoisting operation;
2. Adhere to company policies and procedures and multi-crane safety protocol;
3. Coordinate pre-operational inspection and daily service;
4. Verify compliance with schedules maintenance requirement;
5. Verify work procedures planning;
6. Inspect the maintenance and storage of rigging equipment;
7. Adhere to safety and security procedure while operating in work area;
8. Follow Standard Operating Procedure; and
9. Perform supervisory functions.



MACHINERY & PLANT

LEVEL 2 MOBILE CRANE OPERATOR (WHEEL)

A MOBILE CRANE OPERATOR (WHEEL) IS DESIGNATED TO PERFORM LIFTING, MOVING AND PLACING OPERATION, LIFTING, MOVING AND PLACING OPERATION, PRE-OPERATIONAL INSPECTION AND DAILY SERVICE AND FOLLOW STANDARD OPERATING PROCEDURE.

A Mobile Crane Operator (Wheel) will be able to:

1. Adhere to company policies and procedures and multi-crane safety protocol;
2. Perform lifting, moving and placing operation;
3. Perform lifting, moving and placing operation;
4. Perform pre-operational inspection and daily service;
5. Comply with schedules maintenance requirement;
6. Plan work procedures;
7. Adhere to safety and security procedure while operating in work area; and
8. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2

MOBILE CRANE OPERATOR (CRAWLER)

A MOBILE CRANE OPERATOR (CRAWLER) IS DESIGNATED TO PERFORM LIFTING, MOVING AND PLACING OPERATION, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, PERFORM PRE-OPERATIONAL INSPECTION AND DAILY SERVICE, COMPLY WITH SCHEDULES MAINTENANCE REQUIREMENT AND FOLLOW STANDARD OPERATING PROCEDURE.

A Mobile Crane Operator (Crawler) will be able to:

1. Perform lifting, moving and placing operation;
2. Adhere to company policies and procedures and multi-crane safety protocol;
3. Perform pre-operational inspection and daily service;
4. Comply with schedules maintenance requirement;
5. Plan work procedures;
6. Adhere to safety and security procedure while operating in work area; and
7. Follow standard operating procedure.



MACHINERY & PLANT

LEVEL 3 MOBILE CRANE SUPERVISOR

A MOBILE CRANE SUPERVISOR IS DESIGNATED TO PERFORM SUPERVISION ON HOISTING OPERATION, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, COORDINATE PRE-OPERATIONAL INSPECTION AND DAILY SERVICE, VERIFY COMPLIANCE WITH SCHEDULES MAINTENANCE REQUIREMENT AND PERFORM SUPERVISORY FUNCTIONS.

A Mobile Crane Supervisor will be able to:

1. Perform supervision on hoisting operation;
2. Adhere to company policies and procedures and multi-crane safety protocol;
3. Coordinate pre-operational inspection and daily service;
4. Verify compliance with schedules maintenance requirement;
5. Verify work procedures planning;
6. Inspect the maintenance and storage of rigging equipment;
7. Adhere to safety and security procedure while operating in work area;
8. Follow Standard Operating Procedure; and
9. Perform supervisory functions.



MACHINERY & PLANT

LEVEL 4 CRANE SUPERINTENDENT

A CRANE SUPERINTENDENT IS DESIGNATED TO OBTAIN AND WORK ORDERS PLANNING UNIT AND ASSESSES/PLANS FOR TO BE ACCOMPLISHED, ASSIGNS WORK TO WORK CREWS, INCLUDING CRANE OPERATORS, PROVIDES TECHNICAL ADVICE/INSTRUCTIONS TO STAFF AS NECESSARY, ENSURE THAT STANDARDIZED AND SAFE CRANE OPERATION PROCEDURES ARE FOLLOWED BY SUBORDINATES INCLUDING THE PROPER POSITIONING OF CRANE AND JIB AND PERFORM ADMINISTRATIVE DUTIES.

A Crane Superintendent will be able to:

1. Obtain and work orders Planning Unit and assesses/plans for to be accomplished;
2. Assign work to work crews, including crane operators;
3. Provide technical advice/instructions to staff as necessary;
4. Ensure that standardized and safe crane operation procedures are followed by subordinates including the proper positioning of crane and jib;
5. Carry out observation of the lifting equipment and crane machine;
6. Ensure that day to day and scheduled preventive maintenance of cranes is carried out by crane operators and the workshop;
7. Perform administrative duties;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 1 RIGGER

A RIGGER IS DESIGNATED TO ERECT A TEMPORARY JIB OR DERRICK IF REQUIRED AND INSTALL CABLES, PULLEYS AND OTHER TACKLE, CRANES AND MOBILE CRANE BOOMS, INCREASE THE HEIGHT OF TOWER CRANES BY BOLTING COMPONENT PARTS IN PLACE AND RIGGING CABLES AND SPLICE ROPES AND CABLES TO MAKE SLINGS AND TACKLE.

A Rigger will be able to:

1. Erect a temporary jib or derrick if required, and install cables, pulleys and other tackle;
2. Erect cranes and mobile crane booms, increase the height of tower cranes by bolting component parts in place and rigging cables;
3. Splice ropes and cables to make slings and tackle;
4. Erect structural steel for buildings or plants under construction;
5. Erect precast-concrete panels used on facades of buildings;
6. Ensure the boom deflection does not exceed the safe load radius;
7. Adhere to safety and security procedure while operating in work area; and
8. Follow standard operating procedure.



MACHINERY & PLANT

LEVEL 2 SENIOR RIGGER

A SENIOR RIGGER IS DESIGNATED TO EXAMINE OBJECTS TO BE MOVED, ESTIMATE THEIR SIZE, SHAPE AND WEIGHT AND DECIDE ON THE TYPE OF EQUIPMENT NECESSARY, CHOOSE OR MAKE SLINGING EQUIPMENT AND ATTACH IT TO THE LOAD, SPLICE ROPES AND CABLES TO MAKE SLINGS AND TACKLE, INSPECT, MAINTAIN AND REPAIR EQUIPMENT AND ENSURE SURE THAT SAFETY REQUIREMENTS ARE MET AT ALL TIMES.

A Senior Rigger will be able to:

1. Examine objects to be moved, estimate their size, shape and weight and decide on the type of equipment necessary;
2. Choose or make slinging equipment and attach it to the load;
3. Splice ropes and cables to make slings and tackle;
4. Inspect, maintain and repair equipment;
5. Ensure sure that safety requirements are met at all times;
6. Adhere to safety and security procedure while operating in work area; and
7. Follow standard operating procedure.



MACHINERY & PLANT

LEVEL 3 RIGGER SUPERVISOR

A RIGGER SUPERVISOR IS DESIGNATED TO PERFORM SUPERVISION ON RIGGING OPERATION, ADHERE TO COMPANY POLICIES AND PROCEDURES AND MULTI-CRANE SAFETY PROTOCOL, COORDINATE PRE-OPERATIONAL INSPECTION AND DAILY SERVICE, VERIFY COMPLIANCE WITH SCHEDULES MAINTENANCE REQUIREMENT AND WORK PROCEDURES PLANNING.

A Rigger Supervisor will be able to:

1. Perform supervision on rigging operation;
2. Adhere to company policies and procedures and multi-crane safety protocol;
3. Coordinate pre-operational inspection and daily service;
4. Verify compliance with schedules maintenance requirement;
5. Verify work procedures planning;
6. Inspect the maintenance and storage of rigging equipment;
7. Adhere to safety and security procedure while operating in work area;
8. Follow Standard Operating Procedure; and
9. Perform supervisory functions.



MACHINERY & PLANT

LEVEL 4 RIGGING SUPERINTENDENT

A RIGGING SUPERINTENDENT IS DESIGNATED TO OBTAIN AND WORK ORDERS PLANNING UNIT AND ASSESSES/PLANS FOR TO BE ACCOMPLISHED, ASSIGNS WORK TO WORK CREWS, INCLUDING RIGGING OPERATORS AND CRANE OPERATORS, PROVIDES TECHNICAL ADVICE/INSTRUCTIONS TO STAFF AS NECESSARY, ENSURE THAT STANDARDIZED AND SAFE RIGGING AND ERECTION PROCEDURES ARE FOLLOWED BY SUBORDINATES INCLUDING THE PROPER POSITIONING OF CRANE AND JIB AND PERFORM ADMINISTRATIVE DUTIES.

A Rigging Superintendent will be able to:

1. Obtain and work orders Planning Unit and assesses/plans for to be accomplished;
2. Assigns work to work crews, including rigging operators and crane operators;
3. Provides technical advice/instructions to staff as necessary;
4. Ensure that standardized and safe rigging and erection procedures are followed by subordinates including the proper positioning of crane and jib;
5. Carry out observation of the, rigging gear, such as winches, blocks shackles, slings etc are suitable for lifts;
6. Carry out regular inspection on rigging equipment for bent, cut, kinked ropes and rust on metal pieces to ensure safe condition;
7. Ensure that day to day and scheduled preventive maintenance of cranes is carried out by crane operators and the workshop; and
8. Perform administrative duties.



MACHINERY & PLANT

LEVEL 5 CRANE TECHNICAL EXECUTIVE

A CRANE TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSE AND INTERPRET CONSTRUCTION DRAWING, COORDINATE LIFTING, MOVING AND PLACING OPERATION, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

A Crane Technical Executive will be able to:

1. Analyse and interpret construction drawing;
2. Coordinate lifting, moving and placing operation;
3. Specification of workmanship, material, equipment and tools;
4. Attend site coordination management and technical coordination;
5. Liaise with authorities;
6. Prepare and submit progress report to superior;
7. Check the accuracy of progress claim;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 6 CRANE OPERATION MANAGER

A CRANE OPERATION MANAGER IS DESIGNATED TO IDENTIFY SCOPE OF WORK, CRANE MUST BE CERTIFIED, DETERMINE SUITABILITY OF CRANE, ANALYSE CRANE ABILITY/ USAGE, FOUNDATION FOR CRANE, ECONOMICS OF CRANE, PUBLIC SAFETY/ WORKMEN, TRAFFIC SAFETY, SAFETY MANAGEMENT AND LIAISE APPROVAL FOR CERTIFICATION.

A Crane Operation Manager Will Be Able To:

1. Identify scope of work;
2. Identify crane must be certified job;
3. Determine suitability of crane;
4. Analyse crane ability/ usage;
5. Analyse foundation for crane;
6. Analyse economics of crane;
7. Analyse public safety/ workmen;
8. Analyse traffic safety;
9. Analyse safety management;
10. Analyse liaise approval for certification;
11. Adhere to safety and security procedure; and
12. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 1 PASSENGER HOISTING INSTALLER

A PASSENGER HOISTING INSTALLER IS DESIGNATED TO ASSIST IN THE INSTALLATION OF PASSENGER HOISTING INCLUDING ELECTRONICS, ELECTRICITY AND HYDRAULICS, THE MAJOR REPAIRS SUCH AS REPLACING CABLES, THE ASSEMBLY, INSTALLATION, REPAIRING AND MAINTENANCE OF PASSENGER HOISTING, THE INSTALLATION OF ASSOCIATED MOTORS AND ELECTRICAL WIRING AND HANDLE SERVICING EQUIPMENT SUCH AS CUTTING TORCHES OR RIGGING EQUIPMENT—TOOLS.

A Passenger Hoisting Installer will be able to:

1. Assist in the installation of passenger hoisting including electronics, electricity and hydraulics;
2. Assist in the major repairs such as replacing cables, lift doors or machine bearings;
3. Assist in the assembly, installation, repairing and maintenance of passenger hoisting;
4. Assist in the installation of associated motors and electrical wiring;
5. Assist in the installation of electrical components and related devices required at each floor and at the main control panel in the machine room;
6. Assist in the installation of geared or gearless machines with a traction drive wheel for cable passenger hoisting;
7. Handle servicing equipment such as cutting torches or rigging equipment—tools;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 PASSENGER HOISTING SENIOR INSTALLER

A PASSENGER HOISTING SENIOR INSTALLER IS DESIGNATED TO CARRY OUT INSTALLATION OF PASSENGER HOISTING SYSTEM INCLUDING ELECTRONICS, ELECTRICITY AND HYDRAULICS, ASSEMBLY, INSTALLATION, REPAIRING AND MAINTENANCE OF PASSENGER HOISTING, INSTALLATION OF ASSOCIATED MOTORS AND ELECTRICAL WIRING, INSTALLATION OF GEARED OR GEARLESS MACHINES WITH A TRACTION DRIVE WHEEL FOR PASSENGER HOISTING AND ADHERE TO SAFETY AND SECURITY PROCEDURE.

A Passenger Hoisting Senior Installer will be able to:

1. Carry out installation of passenger hoisting including electronics, electricity and Hydraulics;
2. Carry out major repairs such as replacing cables, lift doors or machine bearings.
3. Carry out assembly, installation, repairing and maintenance of passenger hoisting;
4. Carry out installation of associated motors and electrical wiring;
5. Carry out installation of electrical components and related devices required at each floor and at the main control panel in the machine room;
6. Carry out installation of geared or gearless machines with a traction drive wheel for passenger hoisting;
7. Handle servicing equipment such as cutting torches or rigging equipment—tools;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 3 PASSENGER HOISTING SUPERVISOR

A PASSENGER HOISTING SUPERVISOR IS DESIGNATED TO CARRY OUT MAJOR MODERNIZATION AND ALTERATION WORK, SUCH AS MOVING AND REPLACING ELECTRICAL MOTORS, HYDRAULIC PUMPS AND CONTROL PANELS, VERIFY INSTALLATION OF PASSENGER HOISTING INCLUDING ELECTRONICS, ELECTRICITY AND HYDRAULICS, ASSEMBLY, INSTALLATION, REPAIRING AND MAINTENANCE OF LIFT HYDRAULIC SYSTEM AND FOLLOW STANDARD OPERATING PROCEDURE.

A Passenger Hoisting Supervisor will be able to:

1. Carry out major modernization and alteration work, such as moving and replacing electrical motors, hydraulic pumps and control panels.
2. Study and interpret blueprints of passenger hoisting;
3. Verify installation of passenger hoisting including electronics, electricity and hydraulics;
4. Verify assembly, installation, repairing and maintenance of passenger hoisting
5. Verify installation of associated motors and electrical wiring;
6. Verify installation of electrical components and related devices required at each floor and at the main control panel in the machine room;
7. Verify installation of geared or gearless machines with a traction drive wheel for cable passenger hoisting;
8. Adhere to safety and security procedure;
9. Follow Standard Operating Procedure; and
10. Perform supervisory functions.



MACHINERY & PLANT

LEVEL 2 SKID STEER LOADER OPERATOR

A SKID STEER LOADER OPERATOR IS DESIGNATED TO OPERATE THE SKID LOADER OPERATOR FOR LOADING WORK, CARRY OUT ROUTINE MAINTENANCE IN ACCORDANCE WITH MAINTENANCE SCHEDULE & RECORDING OF LOADING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Skid Steer Loader Operator will be able to:

1. Operate the skid loader operator for loading work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of loading work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 FORK LIFT OPERATOR

A FORK LIFT OPERATOR IS DESIGNATED TO OPERATE THE FORK LIFT OPERATOR FOR LOADING WORK, CARRY OUT ROUTINE MAINTENANCE IN ACCORDANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF LOADING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Fork Lift Operator will be able to:

1. Operate the fork lift operator for loading work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of loading work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 COMPACTOR ROLLER OPERATOR

A COMPACTOR ROLLER OPERATOR IS DESIGNATED TO OPERATE COMPACTOR ROLLER TO BRING SOIL, AGGREGATES AND HOT MIX ASPHALT TO DENSITY SPECIFICATIONS, CARRY OUT ROUTINE MAINTENANCE IN ACCORDANCE WITH MAINTENANCE SCHEDULE AND COMPACTING WORK ACCORDING TO INSTRUCTION AND SPECIFICATION, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Compactor Roller Operator will be able to:

1. Operate compactor roller to bring soil, aggregates and hot mix asphalt to density specifications;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out compacting work according to instruction and specification;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 PNEUMATIC TYRE ROLLER OPERATOR

A PNEUMATIC TYRE ROLLER OPERATOR IS DESIGNATED TO OPERATE PNEUMATIC TYRE ROLLER FOR GROUND WORKS ESPECIALLY ON UNEVEN GROUND, CARRY OUT ROUTINE MAINTENANCE IN ACCORDANCE WITH MAINTENANCE SCHEDULE AND COMPACTING WORK ACCORDING TO INSTRUCTION AND SPECIFICATION, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Pneumatic Tyre Roller Operator will be able to:

1. Operate Pneumatic Tyre Roller for ground works especially on uneven ground;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out compacting work according to instruction and specification;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 COLD METAL OPERATOR

A COLD METAL OPERATOR IS DESIGNATED TO OPERATE THE COLD METAL EQUIPMENT, CARRY OUT ROUTINE MAINTENANCE IN ACCORDANCE WITH MAINTENANCE SCHEDULE, ENSURE HAIR, LOOSE CLOTHING, RAGS ETC IS KEPT CLEAR OF MOVING PARTS WHEN IN USE, THE APPROPRIATE GUARDING IS INSTALLED AND IN GOOD WORKING ORDER PRIOR TO OPERATION, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Cold Metal Operator will be able to:

1. Operate the cold metal equipment;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Ensure hair, loose clothing, rags etc is kept clear of moving parts when in use ;
4. Ensure that appropriate guarding is installed and in good working order prior to operation;
5. Adhere to safety and security procedure while operating in work area; and
6. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 PAVER OPERATOR

A PAVER OPERATOR IS DESIGNATED TO OPERATE THE PAVER MACHINE, CARRY OUT ROUTINE MAINTENANCE IN ACCORDANCE WITH MAINTENANCE SCHEDULE, ENSURING THE ASPHALT IS PLACED TO THE CORRECT LINE AND LEVEL AND IN ACCORDANCE WITH THE SPECIFICATION, ENSURE THE APPROPRIATE GUARDING IS INSTALLED AND IN GOOD WORKING ORDER PRIOR TO OPERATION, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Paver Operator will be able to:

1. Operate the paver machine;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Ensuring the asphalt is placed to the correct line and level and in accordance with the specification;
4. Ensure that appropriate guarding is installed and in good working order prior to operation;
5. Adhere to safety and security procedure while operating in work area; and
6. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 WHEEL LOADER OPERATOR

A WHEEL LOADER OPERATOR IS DESIGNATED TO OPERATE THE WHEEL LOADER FOR LOADING WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF LOADING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Wheel Loader Operator will be able to:

1. Operate the wheel loader for loading work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of loading work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 HYDRAULIC EXCAVATOR OPERATOR

A HYDRAULIC EXCAVATOR OPERATOR IS DESIGNATED TO OPERATE THE HYDRAULIC EXCAVATOR FOR EXCAVATING WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF EXCAVATING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Hydraulic Excavator Operator will be able to:

1. Operate the hydraulic excavator for excavating work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of excavating work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 BACKHOE LOADER OPERATOR

A BACKHOE LOADER OPERATOR IS DESIGNATED TO OPERATE THE BACKHOE LOADER FOR LOADING WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF LOADING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Backhoe Loader Operator will be able to:

1. Operate the backhoe loader for loading work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of loading work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 TRACK DOZER OPERATOR

A TRACK DOZER OPERATOR IS DESIGNATED TO OPERATE THE TRACK DOZER FOR LOADING WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF LOADING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Track Dozer Operator will be able to:

1. Operate the Track Dozer for loading work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of loading work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 MOTOR GRADER OPERATOR

A MOTOR GRADER OPERATOR IS DESIGNATED TO OPERATE THE MOTOR GRADE FOR GROUND WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF GRADING GROUND WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Motor Grader Operator will be able to:

1. Operate the Motor Grader for ground work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of grading ground work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 SCRAPPER OPERATOR

A SCRAPPER OPERATOR IS DESIGNATED TO OPERATE THE SCRAPPER FOR LOADING WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF LOADING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Scrapper Operator will be able to:

1. Operate the Scrapper for loading work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of loading work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 BACK PUSHER OPERATOR

A BACK PUSHER OPERATOR IS DESIGNATED TO OPERATE THE BACK PUSHER MACHINE FOR GROUND WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF GROUND WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Back Pusher Operator will be able to:

1. Operate the back pusher machine for ground work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of ground work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 TELESCOPIC MATERIAL HANDLER

A TELESCOPIC MATERIAL HANDLER IS DESIGNATED TO TELESCOPIC MATERIAL HANDLER, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF MATERIAL HANDLING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Telescopic Material Handler will be able to:

1. Operate the Telescopic Material Handler;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of material handling work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 2 CONCRETE PUMP OPERATOR

A CONCRETE PUMP OPERATOR IS DESIGNATED TO CONCRETE PUMP FOR CONCRETING WORK, CARRY OUT ROUTINE MAINTENANCE WITH MAINTENANCE SCHEDULE AND RECORDING OF CONCRETING WORK, ADHERE TO SAFETY AND SECURITY PROCEDURE WHILE OPERATING IN WORK AREA AND FOLLOW STANDARD OPERATING PROCEDURE.

A Concrete Pump Operator will be able to:

1. Operate the concrete pump for concreting work;
2. Carry out routine maintenance in accordance with maintenance schedule;
3. Carry out recording of concreting work;
4. Adhere to safety and security procedure while operating in work area; and
5. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 3

MACHINERY & PLANT OPERATION SUPERVISOR

A MACHINERY AND PLANT OPERATION SUPERVISOR IS DESIGNATED TO PREPARE PRE-COMMENCEMENT WORKS CHECKLIST, COORDINATE WITH RELEVANT AUTHORITIES, MONITOR SHORT TERM MANPOWER ON SITE, SUPERVISE FIRE PROTECTION WORKS, PREPARE DAILY WORK ACTIVITIES, PERFORM QUALITY CONTROL, PREPARE WORK METHOD STATEMENTS, SUBORDINATE APPRAISAL, ADHERE TO SAFETY AND SECURITY PROCEDURE AND FOLLOW STANDARD OPERATING PROCEDURE.

A Machinery and Plant Operation Supervisor will be able to:

1. Prepare pre-commencement works checklist;
2. Coordinate with relevant authorities;
3. Monitor short term manpower on site;
4. Supervise fire protection works;
5. Prepare daily work activities;
6. Perform quality control;
7. Prepare work method statements;
8. Prepare subordinate appraisal;
9. Adhere to safety and security procedure; and
10. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 4

MACHINERY & PLANT OPERATION ASSISTANT TECHNICAL EXECUTIVE

A MACHINERY AND PLANT OPERATION ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO PERFORM SITE VISIT, PREPARE MECHANICAL AND ELECTRICAL WORK METHOD STATEMENTS AND TENDER PROGRAMME, ADMINISTER MECHANICAL AND ELECTRICAL WORK DOCUMENTATION, MONITOR FIRE PROTECTION WORKS, MECHANICAL AND ELECTRICAL RESOURCES REQUIREMENTS, CONDUCT MECHANICAL AND ELECTRICAL WORK COORDINATION MEETINGS, ADHERE TO SAFETY AND SECURITY PROCEDURE AND FOLLOW STANDARD OPERATING PROCEDURE.

A Machinery and Plant Operation Assistant Technical Executive will be able to:

1. Perform site visit;
2. Prepare machinery and plant work method statements;
3. Prepare machinery and plant work tender programme;
4. Administer machinery and plant work documentation;
5. Monitor fire protection works;
6. Monitor machinery and plant resources requirements;
7. Conduct machinery and plant work coordination meetings;
8. Adhere to safety and security procedure; and
9. Follow Standard Operating Procedure.



MACHINERY & PLANT

LEVEL 5

MACHINERY & PLANT OPERATION TECHNICAL EXECUTIVE

A MACHINERY AND PLANT OPERATION TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSE AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

A Machinery and Plant Operation Technical Executive will be able to:

1. Analyse and interpret construction drawing;
2. Specification of workmanship, material, equipment and tools;
3. Attend site coordination management and technical coordination;
4. Liaise with authorities;
5. Prepare and submit progress report to superior; and
6. Check the accuracy of progress claim.



MACHINERY & PLANT

LEVEL 6

MACHINERY & PLANT OPERATION TECHNICAL MANAGER

A MACHINERY AND PLANT OPERATION TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH FIRE DEPARTMENT AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

A Machinery & Plant Operation Technical Manager will be able to:

1. Acknowledge receive certified construction drawings and work progress;
2. Approve completed works;
3. Approve method of statement;
4. Approve material equipment samples;
5. Issue job order;
6. Issue job order factories;
7. Visit and approve manufacturers;
8. Coordinate with civil engineering, management and organizations;
9. Jointly inspect with Fire Department and local authorities;
10. Certify installation, testing and commissioning;

11. Evaluate/ analyses reports consultation drawing;
12. Attend management meeting;
13. Attend site meeting;
14. Approve and submit Variation Order (VO);
15. Approve and submit progress claim;
16. Attend technical coordination meeting; and
17. Approve certificate of practical completion (CPC), RE and RA.

SUB SECTOR: IBS



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 1

PRECAST CONCRETE INSTALLER (BUILDING)

A PRECAST CONCRETE INSTALLER (BUILDING) IS DESIGNATED TO PREPARE PRECAST COMPONENT STORAGE AREA, CARRY OUT INSTALLATION WORKS AND TO ENSURE EFFECTIVE AND EFFICIENT PRECAST CONCRETE INSTALLATION ACTIVITIES.

A Precast Concrete Installer (Building) will be able to:

1. Follow work instruction and job requirement;
2. Prepare precast component storage area in his/ her area of responsibility during site mobilization;
3. Install levelling pad, leveling bolt, precast wall panel, temporary propping, lay backer rod, pack cement mortar, install precast column, precast staircase, precast slab, precast gutter, precast bathroom to maximum productivity achievement within quality requirement;
4. Carry out joint grouting, wet joint casting, concrete slab topping and apply joint sealant during installation works to maximum productivity achievement within quality requirement;
5. Perform site quality control within his/ her area of responsibility such as perform starter bar defect rectification and carry out precast component crack repair works to comply with precast component quality standard;
6. Able to carry out instruction by his/ her superior;
7. Able to abide by safety rules and regulations;
8. Perform operatives load the materials into a crushing machine, then operate the machine before discharging the crushed material into hoppers;
9. Operate computer-controlled machinery from a control room and mixing machines;
10. Perform operatives are involved in the operation of kilns in brick manufacture;

11. Perform operatives set up formwork (moulds), which, in the case of large precast items, may include steel reinforcement;
12. Check that bricks are of the right size, colour and quality;
13. Fill bags with finished products such as refractory material;
14. Operate a lift truck or crane to load their products such as bricks and precast concrete items and unload the goods also dealing with delivery paperwork; and
15. Keep work areas as clean as possible to reduce the risk of accidents.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 2 PRECAST CONCRETE SENIOR INSTALLER (BUILDING)

A PRECAST CONCRETE SENIOR INSTALLER (BUILDING) IS DESIGNATED TO PERFORM AND CHECK INSTALLATION OF PRECAST CONCRETE BUILDING COMPONENTS USING INSTALLATION TOOLS AT JOB SITE AS WELL AS TO ENSURE ACCURATE AND EFFICIENT PRECAST CONCRETE INSTALLATION ACTIVITIES.

A Precast Concrete Senior Installer (Building) will be able to:

1. Follow work instruction and job requirement;
2. Set out precast component accurately;
3. Co-ordinate utilities set up, precast component storage, precast component delivery and installation tools;
4. Arrange installation tools, lifting equipment, temporary propping and precast component stocking;
5. Check precast component stock, precast component quality, precast component marking, work schedule, floor level, precast component alignment, starter bar defect, precast component works defect;
6. Verify leveling bolt/ pad level, temporary propping in accordance with shop drawings;
7. Carry out instruction by his/ her supervisor;
8. Abide by safety rules and regulations; and
9. Perform all duties in Level 1.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 3

PRECAST SUPERVISOR (BUILDING)

A PRECAST SUPERVISOR IS DESIGNATED TO ARRANGE, PREPARE, CONDUCT, CHECK, SUPERVISE, COORDINATE, LIAISE, MONITOR AND VERIFY PRECAST CONCRETE INSTALLATION ACTIVITIES AND PERFORM THE ASSIGNED DUTIES UNDER SENIOR SUPERVISOR/ SITE AGENT.

A Precast Supervisor will be able to:

1. Supervise site utilities, lifting equipment arrangement, conduct installation method statement briefing during site mobilisation;
2. Supervise precast component delivery, precast component stocking, precast component installation sequence, precast component installations;
3. Supervise sub-contractors work with an attitude of achieving accuracy and quality control;
4. Supervise site appointment and office procurement, daily work schedule and daily site report, works discipline;
5. Arrange precast component lifting, welding works, precast component delivery;
6. Prepare job alignment, personnel appraisal, duty roaster and daily site report;
7. Check manpower requirement, precast component orientation, precast component verticality, welding works;
8. Verify installation tools and equipment, precast component setting out, starter bar rectification works, precast component joint gruting, precast component repair work;

9. Monitor work attendance;
10. Coordinate site meeting, section budgets, crane movement, archive site document; and
11. Liaise with other trades/ team leader in the coordination of works.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 1 FORMWORK SYSTEM INSTALLER

A FORMWORK SYSTEM INSTALLER IS DESIGNATED TO PREPARE PRECAST COMPONENT STORAGE AREA, CARRY OUT INSTALLATION WORKS AND TO ENSURE EFFECTIVE AND EFFICIENT FORMWORK SYSTEM INSTALLATION ACTIVITIES.

A Formwork System Installer will be able to:

1. Follow work instruction and job requirement;
2. Prepare Formwork System storage area in his/ her area of responsibility during site mobilization;
3. Install levelling pad, leveling bolt, formwork wall panel, temporary propping, lay backer rod, pack cement mortar, install , formwork column, , formwork staircase, formwork slab, formwork gutter, formwork bathroom to maximum productivity achievement within quality requirement;
4. Carry out joint grouting, wet joint casting, concrete slab topping and apply joint sealant during installation works to maximum productivity achievement within quality requirement;
5. Perform site quality control within his/ her area of responsibility such as perform starter bar defect rectification;
6. Carry out formwork system crack repair works to comply with, formwork system quality standard;
7. Able to carry out instruction by his/ her superior; and
8. Able to abide by safety rules regulations.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 2 FORMWORK SYSTEM SENIOR INSTALLER

A FORMWORK SYSTEM SENIOR INSTALLER IS DESIGNATED TO PERFORM AND CHECK INSTALLATION OF FORMWORK SYSTEM BUILDING COMPONENTS USING INSTALLATION TOOLS AT JOB SITE AS WELL AS TO ENSURE ACCURATE AND EFFICIENT PRECAST CONCRETE INSTALLATION ACTIVITIES.

A Formwork System Senior Installer will be able to:

1. Follow work instruction and job requirement;
2. Set out formwork system accurately;
3. Co-ordinate utilities set up, formwork system storage, formwork system delivery and installation tools;
4. Arrange installation tools, lifting equipment, temporary propping and formwork system stocking;
5. Check formwork system stock, formwork system quality, formwork system marking, work schedule, floor level, formwork system alignment, starter bar defect, formwork system works defect;
6. Verify leveling bolt/ pad level, temporary propping in accordance with shop drawings;
7. Carry out instruction by his/ her supervisor;
8. Abide by safety rules and regulations; and
9. Perform all duties in Level 1.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 3 FORMWORK SYSTEM SUPERVISOR

A FORMWORK SYSTEM SUPERVISOR IS DESIGNATED TO ARRANGE, PREPARE, CONDUCT, CHECK, SUPERVISE, COORDINATE, LIAISE, MONITOR AND VERIFY FORMWORK SYSTEM INSTALLATION ACTIVITIES AND PERFORM THE ASSIGNED DUTIES UNDER SENIOR SUPERVISOR/ SITE AGENT.

A Formwork System Supervisor will be able to:

1. Supervise site utilities, lifting equipment arrangement, conduct installation method statement briefing during site mobilisation;
2. Supervise formwork system delivery, formwork system stocking, formwork system installation sequence, formwork system installations;
3. Supervise sub-contractors work with an attitude of achieving accuracy and quality control;
4. Supervise site appointment and office procurement, daily work schedule and daily site report, works discipline;
5. Arrange formwork system lifting, welding works, formwork system delivery;
6. Prepare job alignment, personnel appraisal, duty roaster and daily site report;
7. Check manpower requirement, formwork system orientation, formwork system verticality, welding works;
8. Verify installation tools and equipment, formwork system setting out, starter bar rectification works, formwork system joint gruting, formwork system repair work;
9. Monitor work attendance;
10. Coordinate site meeting, section budgets, crane movement, archive site document; and
11. Liaise with other trades/ team leader in the coordination of works.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 1 BLOCKWALL SYSTEM INSTALLER

A BLOCKWALL SYSTEM INSTALLER IS DESIGNATED TO PREPARE BLOCKWALL SYSTEM STORAGE AREA, CARRY OUT INSTALLATION WORKS AND TO ENSURE EFFECTIVE AND EFFICIENT BLOCKWALL SYSTEM INSTALLATION ACTIVITIES.

A Blockwall System Installer will be able to:

1. Follow work instruction and job requirement;
2. Prepare blockwall system storage area in his/ her area of responsibility during site mobilization;
3. Install levelling pad, leveling bolt, blockwall wall panel, temporary propping, lay backer rod, pack cement mortar, install, blockwall column, blockwall staircase, blockwall slab, blockwall gutter, blockwall bathroom to maximum productivity achievement within quality requirement;
4. Carry out joint grouting, wet joint casting, concrete slab topping and apply joint sealant during installation works to maximum productivity achievement within quality requirement;
5. Perform site quality control within his/ her area of responsibility such as perform starter bar defect rectification;
6. Carry out blockwall system crack repair works to comply with, blockwall system quality standard;
7. Able to carry out instruction by his/ her superior; and
8. Able to abide by safety rules regulations.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 2 BLOCKWALL SYSTEM SENIOR INSTALLER

A BLOCKWALL SYSTEM SENIOR INSTALLER IS DESIGNATED TO PERFORM AND CHECK INSTALLATION OF BLOCKWALL SYSTEM BUILDING COMPONENTS USING INSTALLATION TOOLS AT JOB SITE AS WELL AS TO ENSURE ACCURATE AND EFFICIENT BLOCKWALL SYSTEM INSTALLATION ACTIVITIES.

A Blockwall System Senior Installer will be able to:

1. Follow work instruction and job requirement;
2. Set out formwork system accurately;
3. Co-ordinate utilities set up, formwork system storage, formwork system delivery and installation tools;
4. Arrange installation tools, lifting equipment, temporary propping and formwork system stocking;
5. Check formwork system stock, formwork system quality, formwork system marking, work schedule, floor level, formwork system alignment, starter bar defect, formwork system works defect;
6. Verify leveling bolt/ pad level, temporary propping in accordance with shop drawings;
7. Carry out instruction by his/ her supervisor;
8. Abide by safety rules and regulations; and
9. Perform all duties in Level 1.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 3 BLOCKWALL SYSTEM SUPERVISOR

A BLOCKWALL SYSTEM SUPERVISOR IS DESIGNATED TO ARRANGE, PREPARE, CONDUCT, CHECK, SUPERVISE, COORDINATE, LIAISE, MONITOR AND VERIFY BLOCKWALL SYSTEM INSTALLATION ACTIVITIES AND PERFORM THE ASSIGNED DUTIES UNDER SENIOR SUPERVISOR/ SITE AGENT.

A Blockwall System Supervisor will be able to:

1. Supervise site utilities, lifting equipment arrangement, conduct installation method statement briefing during site mobilisation;
2. Supervise blockwall system delivery, blockwall system stocking, blockwall system installation sequence, blockwall system installations;
3. Supervise sub-contractors work with an attitude of achieving accuracy and quality control;
4. Supervise site appointment and office procurement, daily work schedule and daily site report, works discipline;
5. Arrange blockwall system lifting, welding works, blockwall system delivery;
6. Prepare job alignment, personnel appraisal, duty roaster and daily site report;
7. Check manpower requirement, blockwall system orientation, blockwall system verticality, welding works;
8. Verify installation tools and equipment, blockwall system setting out, starter bar rectification works, blockwall system joint gruting, blockwall system repair work;
9. Monitor work attendance;
10. Coordinate site meeting, section budgets, crane movement, archive site document; and
11. Liaise with other trades/ team leader in the coordination of works.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 1 TIMBER SYSTEM INSTALLER

A TIMBER FRAME SYSTEM INSTALLER IS DESIGNATED TO PREPARE TIMBER FRAME SYSTEM STORAGE AREA, CARRY OUT INSTALLATION WORKS AND TO ENSURE EFFECTIVE AND EFFICIENT TIMBER FRAME SYSTEM INSTALLATION ACTIVITIES.

A Timber Frame System Installer will be able to:

1. Follow work instruction and job requirement;
2. Prepare timber frame system storage area in his/ her area of responsibility during site mobilization;
3. Install levelling pad, leveling bolt, timber frame wall panel, temporary propping, lay backer rod, pack cement mortar, install, timber frame column, timber frame staircase, timber frame slab, timber frame gutter, timber frame bathroom to maximum productivity achievement within quality requirement;
4. Carry out joint grouting, wet joint casting, concrete slab topping and apply joint sealant during installation works to maximum productivity achievement within quality requirement;
5. Perform site quality control within his/ her area of responsibility such as perform starter bar defect rectification;
6. Carry out timber frame system crack repair works to comply with, timber frame system quality standard;
7. Able to carry out instruction by his/ her superior; and
8. Able to abide by safety rules regulations.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 2 TIMBER SYSTEM SENIOR INSTALLER

A TIMBER FRAME SYSTEM SENIOR INSTALLER IS DESIGNATED TO PERFORM AND CHECK INSTALLATION OF TIMBER FRAME SYSTEM BUILDING COMPONENTS USING INSTALLATION TOOLS AT JOB SITE AS WELL AS TO ENSURE ACCURATE AND EFFICIENT TIMBER FRAME SYSTEM INSTALLATION ACTIVITIES.

A Timber Frame System Senior Installer will be able to:

1. Follow work instruction and job requirement;
2. Set out timber frame system accurately;
3. Co-ordinate utilities set up, timber frame system storage, timber frame system delivery and installation tools;
4. Arrange installation tools, lifting equipment, temporary propping and timber frame system stocking;
5. Check timber frame system stock, timber frame system quality, timber frame system marking, work schedule, floor level, timber frame system alignment, starter bar defect, timber frame system works defect;
6. Verify leveling bolt/ pad level, temporary propping in accordance with shop drawings;
7. Carry out instruction by his/ her supervisor;
8. Abide by safety rules and regulations; and
9. Perform all duties in Level 1.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 3 TIMBER SYSTEM SUPERVISOR

A TIMBER FRAME SYSTEM SUPERVISOR IS DESIGNATED TO ARRANGE, PREPARE, CONDUCT, CHECK, SUPERVISE, COORDINATE, LIAISE, MONITOR AND VERIFY TIMBER FRAME SYSTEM INSTALLATION ACTIVITIES AND PERFORM THE ASSIGNED DUTIES UNDER SENIOR SUPERVISOR/ SITE AGENT.

A Timber Frame System Supervisor will be able to:

1. Supervise site utilities, lifting equipment arrangement, conduct installation method statement briefing during site mobilisation;
2. Supervise timber frame system delivery, timber frame system stocking, timber frame system installation sequence, timber frame system installations;
3. Supervise sub-contractors work with an attitude of achieving accuracy and quality control;
4. Supervise site appointment and office procurement, daily work schedule and daily site report, works discipline;
5. Arrange timber frame system lifting, welding works, timber frame system delivery;
6. Prepare job alignment, personnel appraisal, duty roster and daily site report;
7. Check manpower requirement, timber frame system orientation timber frame system verticality, welding works;
8. Verify installation tools and equipment, timber frame system setting out, starter bar rectification works, timber frame system joint gruting, timber frame system repair work;
9. Monitor work attendance;
10. Coordinate site meeting, section budgets, crane movement, archive site document; and
11. Liaise with other trades/ team leader in the coordination of works



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 1

STEEL FRAMEWORK SYSTEM INSTALLER

A STEEL FRAMEWORK SYSTEM INSTALLER IS DESIGNATED TO PREPARE STEEL FRAMEWORK SYSTEM STORAGE AREA, CARRY OUT INSTALLATION WORKS AND TO ENSURE EFFECTIVE AND EFFICIENT STEEL FRAMEWORK SYSTEM INSTALLATION ACTIVITIES.

A Steel Framework System Installer will be able to:

1. Follow work instruction and job requirement;
2. Prepare steel framework system storage area in his/ her area of responsibility during site mobilization;
3. Install levelling pad, leveling bolt, steel framework wall panel, temporary propping, lay backer rod, pack cement mortar, install, steel framework column, steel framework staircase, steel framework slab, steel framework gutter, steel framework bathroom to maximum productivity achievement within quality requirement;
4. Carry out joint grouting, wet joint casting, concrete slab topping and apply joint sealant during installation works to maximum productivity achievement within quality requirement;
5. Perform site quality control within his/ her area of responsibility such as perform starter bar defect rectification;
6. Carry out steel framework system crack repair works to comply with, steel framework system quality standard;
7. Able to carry out instruction by his/ her superior; and
8. Able to abide by safety rules regulations.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 2

STEEL FRAMEWORK SYSTEM SENIOR INSTALLER

A STEEL FRAMEWORK SYSTEM SENIOR INSTALLER IS DESIGNATED TO PERFORM AND CHECK INSTALLATION OF STEEL FRAMEWORK SYSTEM BUILDING COMPONENTS USING INSTALLATION TOOLS AT JOB SITE AS WELL AS TO ENSURE ACCURATE AND EFFICIENT STEEL FRAMEWORK SYSTEM INSTALLATION ACTIVITIES.

A Steel Framework System Senior Installer will be able to:

1. Follow work instruction and job requirement;
2. Set out steel framework system accurately;
3. Co-ordinate utilities set up, steel framework system storage, steel framework system delivery and installation tools;
4. Arrange installation tools, lifting equipment, temporary propping and steel framework system stocking;
5. Check steel framework system stock, steel framework system quality, steel framework system marking, work schedule, floor level, steel framework system alignment, starter bar defect, steel framework system works defect;
6. Verify leveling bolt/ pad level, temporary propping in accordance with shop drawings;
7. Carry out instruction by his/ her supervisor;
8. Abide by safety rules and regulations; and
9. Perform all duties in Level 1.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 3 STEEL FRAMEWORK SYSTEM SUPERVISOR

A STEEL FRAMEWORK SYSTEM SUPERVISOR IS DESIGNATED TO ARRANGE, PREPARE, CONDUCT, CHECK, SUPERVISE, COORDINATE, LIAISE, MONITOR AND VERIFY STEEL FRAMEWORK SYSTEM INSTALLATION ACTIVITIES AND PERFORM THE ASSIGNED DUTIES UNDER SENIOR SUPERVISOR/ SITE AGENT.

A Steel Framework System Supervisor will be able to:

1. Supervise site utilities, lifting equipment arrangement, conduct installation method statement briefing during site mobilisation;
2. Supervise steel framework system delivery, steel framework system stocking, steel framework system installation sequence, steel framework system installations;
3. Supervise sub-contractors work with an attitude of achieving accuracy and quality control;
4. Supervise site appointment and office procurement, daily work schedule and daily site report, works discipline;
5. Arrange steel framework system lifting, welding works, steel framework system delivery;
6. Prepare job alignment, personnel appraisal, duty roster and daily site report;
7. Check manpower requirement, steel framework system orientation steel framework system verticality, welding works;
8. Verify installation tools and equipment, steel framework system setting out, starter bar rectification works, steel framework system joint gruting, steel framework system repair work;
9. Monitor work attendance;
10. Coordinate site meeting, section budgets, crane movement, archive site document; and
11. Liaise with other trades/ team leader in the coordination of works.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 4 IBS ASSISTANT TECHNICAL EXECUTIVE

AN IBS ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO COMPILE AND ANALYSE AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT TECHNICAL REPORT, PROGRESS REPORT AND ISSUE TO SUPERIOR, UNDERSTAND AND INTERPRET ON APPROVED CONSTRUCTION DRAWING (MODULAR) SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IN IDENTIFYING ANY ERRORS AND DISCREPANCIES ON CONSTRUCTION DRAWING, PREPARE PROGRESS CLAIM FOR CONSTRUCTION WORK, VARIATION ORDER ON SITE AND COORDINATE AND INSPECT SHOP DRAWING PRODUCTION AND COMPETENCIES.

An IBS Assistant Technical Executive Will Be Able To:

1. Compile and analyse as per submission by site supervisor;
2. Submit technical report and progress report and issue to superior;
3. Understand and interpret on approved construction drawing (modular) specification;
4. Identify variation order;
5. Assist in identifying any errors for discrepancies on construction drawing;
6. Prepare progress claim for construction work;
7. Prepare variation order on site; and
8. Coordinate and inspect shop drawing production and competencies.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 5 IBS TECHNICAL EXECUTIVE

AN IBS TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSE AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION MEETING, LIAISE WITH AUTHORITIES AND MANUFACTURER REPORT, CHECK THE ACCURACY OF PROGRESS CLAIM AND EDIT SHOP DRAWING FOR MANUFACTURER.

An IBS Technical Executive Will Be Able To:

1. Analyse and interpret construction drawing;
2. Analyse and interpret specification of workmanship;
3. Analyse and interpret material, equipment and tools;
4. Attend site coordination management;
5. Attend technical coordination meeting;
6. Liaise with authorities and manufacturer report;
7. Check the accuracy of progress claim; and
8. Edit shop drawing for manufacturer.



INDUSTRIAL BUILDING SYSTEM (IBS)

LEVEL 6 IBS TECHNICAL MANAGER

AN IBS TECHNICAL MANAGER IS DESIGNATED TO APPROVE SHOP DRAWING, SHOP DRAWING FROM MANUFACTURER AND IBS PROTOTYPE.

An IBS Technical Manager will be able to:

1. Approve shop drawing;
2. Approve shop drawing from manufacturer;
3. Approve IBS prototype;
4. Provides technical direction for the construction, design and systems integration for client engagement from definition phase through implementation;
5. Review work of construction;
6. Manages technical resources within budgets and project schedule;
7. Lead team of designer for the product application in projects;
8. Lead team of designer for the product application in haze with clients, consultants and fabrication and manufacturing team;
9. Design roofing system, insulated wall system, rated wall and applications; and
10. Monitor progress of implementation.

**SUB SECTOR: CONSTRUCTION
SUPERVISOR SITE
AND MANAGEMENT**



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 CONTRACT ADMINISTRATION SUPERVISOR

A CONTRACT ADMINISTRATION SUPERVISOR IS DESIGNATED TO CHECK INCOMING MATERIAL THROUGH BUYER INVOICE SPECIFICATION, ENSURE MATERIAL IN ACCORDANCE WITH SPECIFICATION, COLLECT SAMPLE AS PER SUBMISSION, CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY, ATTEND SITE ME CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY BUDGETING, RECORD DAILY IN SITE DIARY, VERIFY ALL JOB DONE DAILY, JOINTLY TAKE PHOTOGRAPH OF WORK PROGRESS, RECORD DAILY RAINFALL/WEATHER CONDITION, AND IMPLEMENT JOINTLY SUPERVISOR ACTIVITY.

A Contract Administration Supervisor will be able to:

8. Check incoming material through buyer invoice specification;
9. Ensure material in accordance with specification;
10. Collect sample as per submission;
11. Conduct joint measurement with other relevant party;
12. Attend site me conduct joint measurement with other relevant party budgeting;
13. Record daily in site diary;
14. Verify all job done daily;
15. Jointly take photograph of work progress;
16. Record daily rainfall/ weather condition;
17. Carry out joint inspection with all authorities personal; and
18. Inspect daily work in accordance with work programmed.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 4

CONTRACT ADMINISTRATION ASSISTANT EXECUTIVE

A CONTRACT ADMINISTRATION ASSISTANT EXECUTIVE IS DESIGNATED TO VERIFY AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT CONSTRUCTION REPORT, PROGRESS REPORT, ISSUING TO SUPERVISOR, UNDERSTAND AND INTERPRET ANALYSIS ON APPROVE CONSTRUCTION DRAWING SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IDENTIFYING ANY ERRORS AND DISCREPANCIES ON TECHNICAL DRAWINGS, PREPARE PROGRESS CLAIM FOR ADMINISTRATION WORK AND PREPARE VARIATION ORDER (VO) ON SITE.

A Contract Administration Assistant Executive will be able to:

1. Verify as per submission by site supervisor;
2. Submit technical report, progress report, issuing to supervisor;
3. Understand analysis on approve construction drawing specification;
4. Interpret analysis on approve construction drawing specification;
5. Identify variation order;
6. Assist identifying any errors and discrepancies on construction drawings;
7. Prepare progress claim for administration work; and
8. Prepare Variation Order (VO) on site.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 5 CONTRACT EXECUTIVE (FINANCE)

A CONTRACT EXECUTIVE (FINANCE) IS DESIGNATED TO PREPARE PROGRESS CLAIM, RESOLVE TECHNICAL AND FINANCE DISPUTE, ENSURE CLAIM WITHIN CONTRACT REQUIREMENT, SUBMIT TO CLIENT FOR VARIATION ORDER APPROVAL AND LIAISE WITH OTHER RELEVANT DISCIPLINE, ANALYSE AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORTS TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

A Contract Executive (Finance) will be able to:

7. Prepare progress claim, resolve technical and finance dispute;
8. Ensure claim within contract requirement;
9. Submit to client for variation order approval;
10. Liaise with other relevant discipline;
11. Analyses and interpret construction drawing;
12. Analyses specification of workmanship, material, equipment and tools;
13. Attend site coordination management and technical coordination;
14. Liaise with authorities;
15. Prepare and submit progress report to superior; and
16. Check the accuracy of progress claim.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 5 CONTRACT EXECUTIVE (ADMINISTRATION)

A CONTRACT EXECUTIVE (ADMINISTRATION) IS DESIGNATED TO VERIFY AND CERTIFY OF DOCUMENT FROM SITE, RESOLVE TECHNICAL AND FINANCE DISPUTE, ENSURE CLAIM WITHIN CONTRACT REQUIREMENT, IDENTIFY VARIATION ORDER AND SUBMIT TO CLIENT FOR VARIATION ORDER APPROVAL, LIAISE WITH OTHER RELEVANT DISCIPLINE, SPECIFY OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORTS TO SUPERIOR AND CHECK THE ACCURACY OF PRAGRESS CLAIM.

A Contract Executive (Admin) will be able to:

1. Verify and certify of document from site;
2. Resolve technical and finance dispute;
3. Ensure claim within contract requirement;
4. Identify variation order;
5. Submit to client for variation order approval;
6. Liaise with other relevant discipline.
7. Specify of workmanship, material, equipment and tools;
8. Attend site coordination management and technical coordination;
9. Liaise with authorities;
10. Prepare and submit progress report to superior; and
11. Check the accuracy of progress claim.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 6 CONTRACT ADMINISTRATION MANAGER (QS)

A CONTRACT ADMINISTRATION MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH FIRE DEPARTMENT AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

A Contract Administration Manager (QS) will be able to:

18. Acknowledge receive certified construction drawings and work progress;
19. Approve completed works;
20. Approve method of statement;
21. Approve material equipment samples;
22. Issue job order;
23. Issue job order factories;
24. Visit and approve manufacturers;
25. Coordinate with civil engineering, management and organizations;
26. Jointly inspect with Fire Department and local authorities;
27. Certify installation, testing and commissioning;

28. Evaluate/ analyses reports consultation drawing;
29. Attend management meeting;
30. Attend site meeting;
31. Approve and submit Variation Order (VO);
32. Approve and submit progress claim;
33. Attend technical coordination meeting; and
34. Approve certificate of practical completion (CPC), RE and RA.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 CIVIL SITE SUPERVISOR

A CIVIL SITE SUPERVISOR IS DESIGNATED TO CHECK INCOMING MATERIAL THROUGH BUYER INVOICE SPECIFICATION, ENSURE MATERIAL IN ACCORDANCE WITH SPECIFICATION, COLLECT SAMPLE AS PER SUBMISSION, CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY, ATTEND SITE ME CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY BUDGETING, RECORD DAILY IN SITE DIARY, VERIFY ALL JOB DONE DAILY, JOINTLY TAKE PHOTOGRAPH OF WORK PROGRESS, RECORD DAILY RAINFALL/WEATHER CONDITION, AND IMPLEMENT JOINTLY SUPERVISOR ACTIVITY.

A Civil Site Supervisor will be able to:

1. Check incoming material through buyer invoice specification;
2. Ensure material in accordance with specification;
3. Collect sample as per submission;
4. Conduct joint measurement with other relevant party;
5. Attend site me conduct joint measurement with other relevant party budgeting;
6. Record daily in site diary;
7. Verify all job done daily;
8. Jointly take photograph of work progress;
9. Record daily rainfall/ weather condition;
10. Carry out joint inspection with all authorities personal; and
11. Inspect daily work in accordance with work programmed.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 4

CIVIL ASSISTANT TECHNICAL EXECUTIVE

A CIVIL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO VERIFY AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT CONSTRUCTION REPORT, PROGRESS REPORT, ISSUING TO SUPERVISOR, UNDERSTAND AND INTERPRET ANALYSIS ON APPROVE CONSTRUCTION DRAWING SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IDENTIFYING ANY ERRORS AND DISCREPANCIES ON TECHNICAL DRAWINGS, PREPARE PROGRESS CLAIM FOR ADMINISTRATION WORK AND PREPARE VARIATION ORDER (VO) ON SITE.

A Civil Assistant Technical Executive will be able to:

1. Verify as per submission by site supervisor;
2. Submit technical report, progress report, issuing to supervisor;
3. Understand and interpret analysis on approve construction drawing specification;
4. Identify variation order;
5. Assist identifying any errors and discrepancies on construction drawings;
6. Prepare progress claim for administration work;
7. Prepare Variation Order (VO) on site;
8. Adhere to safety and security procedure; and
9. Follow standard operating procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 5 CIVIL TECHNICAL EXECUTIVE

A CIVIL TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSES AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

A Civil Technical Executive will be able to:

1. Analyses and interpret construction drawing;
2. Specification of workmanship, material, equipment and tools;
3. Attend site coordination management and technical coordination;
4. Liaise with authorities;
5. Liaise with manufacturer/ fabricator;
6. Prepare and submit progress report to superior;
7. Check the accuracy of progress claim;
8. Understand and interpret engineering calculation;
9. Adhere to safety and security procedure; and
10. Follow standard operating procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 6 CIVIL TECHNICAL MANAGER

A CIVIL TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH FIRE DEPARTMENT AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

A Civil Technical Manager will be able to:

18. Acknowledge receive certified construction drawings and work progress;
19. Approve completed works;
20. Approve method of statement;
21. Approve material equipment samples;
22. Issue job order;
23. Issue job order factories;
24. Visit and approve manufacturers;
25. Coordinate with civil engineering, management and organizations;
26. Jointly inspect with Fire Department and local authorities;
27. Certify installation, testing and commissioning;

28. Evaluate/ analyses reports consultation drawing;
29. Attend management meeting;
30. Attend site meeting;
31. Approve and submit variation order (VO);
32. Approve and submit progress claim;
33. Attend technical coordination meeting; and
34. Approve certificate of practical completion (CPC), RE and RA.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 STRUCTURAL SITE SUPERVISOR

A STRUCTURAL SITE SUPERVISOR IS DESIGNATED TO CHECK INCOMING MATERIAL THROUGH BUYER INVOICE SPECIFICATION, ENSURE MATERIAL IN ACCORDANCE WITH SPECIFICATION, COLLECT SAMPLE AS PER SUBMISSION, CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY, ATTEND SITE ME CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY BUDGETING, RECORD DAILY IN SITE DIARY, VERIFY ALL JOB DONE DAILY, JOINTLY TAKE PHOTOGRAPH OF WORK PROGRESS, RECORD DAILY RAINFALL/WEATHER CONDITION, AND IMPLEMENT JOINTLY SUPERVISOR ACTIVITY.

A Structural Site Supervisor will be able to:

1. Check incoming material through buyer invoice specification;
2. Ensure material in accordance with specification;
3. Collect sample as per submission;
4. Conduct joint measurement with other relevant party;
5. Attend site me conduct joint measurement with other relevant party budgeting;
6. Record daily in site diary;
7. Verify all job done daily;
8. Jointly take photograph of work progress;
9. Record daily rainfall/ weather condition;
10. Carry out joint inspection with all authorities personal; and
11. Inspect daily work in accordance with work programmed.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 4

STRUCTURAL ASSISTANT TECHNICAL EXECUTIVE

A STRUCTURAL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO VERIFY AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT CONSTRUCTION REPORT, PROGRESS REPORT, ISSUING TO SUPERVISOR, UNDERSTAND AND INTERPRET ANALYSIS ON APPROVE CONSTRUCTION DRAWING SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IDENTIFYING ANY ERRORS AND DISCREPANCIES ON TECHNICAL DRAWINGS, PREPARE PROGRESS CLAIM FOR STRUCTURAL WORK AND PREPARE VARIATION ORDER (VO) ON SITE.

A Structural Assistant Technical Executive will be able to:

1. Verify as per submission by site supervisor;
2. Submit technical report, progress report, issuing to supervisor;
3. Understand and interpret analysis on approve construction drawing specification;
4. Understanding and interpret simple engineering calculation;
5. Identify variation order;
6. Assist identifying any errors and discrepancies on construction drawings;
7. Prepare progress claim for structural work;
8. Prepare variation order (VO) on site;
9. Edit and endorse construction drawings;
10. Perform supervisory function;
11. Adhere to safety and security procedure while operating in work area; and
12. Follow Standard Operating Procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 5 STRUCTURAL TECHNICAL EXECUTIVE

A STRUCTURAL TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSES AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

A Structural Technical Executive will be able to:

1. Analyses and interpret construction drawing;
2. Specification of workmanship, material, equipment and tools;
3. Attend site coordination management and technical coordination;
4. Liaise with authorities;
5. Prepare and submit progress report to superior;
6. Check the accuracy of progress claim;
7. Check and endorse construction drawings;
8. Interpret construction drawing;
9. Understand and interpret engineering calculation;
10. Adhere to safety and security procedure while operating in work area; and
11. Follow Standard Operating Procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 6 STRUCTURAL TECHNICAL MANAGER

A STRUCTURAL TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH FIRE DEPARTMENT AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

A Structural Technical Manager will be able to:

1. Acknowledge receive certified construction drawings and work progress;
2. Approve completed works;
3. Approve method of statement;
4. Approve material equipment samples;
5. Issue job order;
6. Issue job order factories;
7. Visit and approve manufacturers;
8. Coordinate with civil engineering, management and organizations;
9. Jointly inspect with Fire Department and local authorities;
10. Certify installation, testing and commissioning;

11. Evaluate/ analyses reports consultation drawing;
12. Attend management meeting;
13. Attend site meeting;
14. Approve and submit Variation Order (VO);
15. Approve and submit progress claim;
16. Attend technical coordination meeting; and
17. Approve Certificate Of Practical Completion (CPC), RE and RA.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 ARCHITECTURAL SITE SUPERVISOR

AN ARCHITECTURAL SITE SUPERVISOR IS DESIGNATED TO CHECK INCOMING MATERIAL THROUGH BUYER INVOICE SPECIFICATION, ENSURE MATERIAL IN ACCORDANCE WITH SPECIFICATION, COLLECT SAMPLE AS PER SUBMISSION, CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY, ATTEND SITE ME CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY BUDGETING, RECORD DAILY IN SITE DIARY, VERIFY ALL JOB DONE DAILY, JOINTLY TAKE PHOTOGRAPH OF WORK PROGRESS, RECORD DAILY RAINFALL/WEATHER CONDITION, AND IMPLEMENT JOINTLY SUPERVISOR ACTIVITY.

An Architectural Site Supervisor will be able to:

1. Check incoming material through buyer invoice specification;
2. Ensure material in accordance with specification;
3. Collect sample as per submission;
4. Conduct joint measurement with other relevant party;
5. Attend site me conduct joint measurement with other relevant party budgeting;
6. Record daily in site diary;
7. Verify all job done daily;
8. Jointly take photograph of work progress;
9. Record daily rainfall/ weather condition;
10. Carry out joint inspection with all authorities personal; and
11. Inspect daily work in accordance with work programmed.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 4

ARCHITECTURAL ASSISTANT TECHNICAL EXECUTIVE

AN ARCHITECTURAL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO VERIFY AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT CONSTRUCTION REPORT, PROGRESS REPORT, ISSUING TO SUPERVISOR, UNDERSTAND AND INTERPRET ANALYSIS ON APPROVE CONSTRUCTION DRAWING SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IDENTIFYING ANY ERRORS AND DISCREPANCIES ON TECHNICAL DRAWINGS, PREPARE PROGRESS CLAIM FOR ADMINISTRATION WORK AND PREPARE VARIATION ORDER (VO) ON SITE.

An Architectural Assistant Technical Executive will be able to:

1. Verify as per submission by site supervisor;
2. Submit technical report, progress report, issuing to supervisor;
3. Understand and interpret analysis on approve construction drawing specification;
4. Identify variation order;
5. Assist identifying any errors and discrepancies on construction drawings;
6. Prepare progress claim for architectural work;
7. Prepare Variation Order (VO) on site;
8. Compile/analyze/ verify as per submission by site supervisor; and
9. Submit technical report, progress report, issuing to supervisor.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 5

ARCHITECTURAL TECHNICAL EXECUTIVE

AN ARCHITECTURAL TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSES AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

An Architectural Technical Executive will be able to:

1. Analyses and interpret construction drawing;
2. Identify specification of workmanship;
3. Identify specification material, equipment and tools;
4. Attend site coordination management;
5. Attend technical coordination;
6. Liaise with authorities;
7. Prepare and submit progress report to superior; and
8. Check the accuracy of progress claim.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 6 ARCHITECTURAL TECHNICAL MANAGER

AN ARCHITECTURAL TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH FIRE DEPARTMENT AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

An Architectural Technical Manager will be able to:

1. Acknowledge receive certified construction drawings and work progress;
2. Approve completed works;
3. Approve method of statement;
4. Approve material equipment samples;
5. Issue job order;
6. Issue job order factories;
7. Visit and approve manufacturers;
8. Coordinate with civil engineering, management and organizations;
9. Jointly inspect with Fire Department and local authorities;
10. Certify installation, testing and commissioning;

11. Evaluate/ analyses reports consultation drawing;
12. Attend management meeting;
13. Attend site meeting;
14. Approve and submit Variation Order (VO);
15. Approve and submit progress claim;
16. Attend technical coordination meeting; and
17. Approve Certificate Of Practical Completion (CPC), RE and RA.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 MECHANICAL AND ELECTRICAL SITE SUPERVISOR

A MECHANICAL AND ELECTRICAL SITE SUPERVISOR IS DESIGNATED TO CHECK INCOMING MATERIAL THROUGH BUYER INVOICE SPECIFICATION, ENSURE MATERIAL IN ACCORDANCE WITH SPECIFICATION, COLLECT SAMPLE AS PER SUBMISSION, CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY, ATTEND SITE ME CONDUCT JOINT MEASUREMENT WITH OTHER RELEVANT PARTY BUDGETING, RECORD DAILY IN SITE DIARY, VERIFY ALL JOB DONE DAILY, JOINTLY TAKE PHOTOGRAPH OF WORK PROGRESS, RECORD DAILY RAINFALL/WEATHER CONDITION AND IMPLEMENT JOINTLY SUPERVISOR ACTIVITY.

A Mechanical and Electrical Site Supervisor will be able to:

1. Check incoming material through buyer invoice specification;
2. Ensure material in accordance with specification;
3. Collect sample as per submission;
4. Conduct joint measurement with other relevant party;
5. Attend site me conduct joint measurement with other relevant party budgeting;
6. Record daily in site diary;
7. Verify all job done daily;
8. Jointly take photograph of work progress;
9. Record daily rainfall/ weather condition;
10. Carry out joint inspection with all authorities personal; and
11. Inspect daily work in accordance with work programmed.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 4

MECHANICAL AND ELECTRICAL ASSISTANT TECHNICAL EXECUTIVE

A MECHANICAL AND ELECTRICAL ASSISTANT TECHNICAL EXECUTIVE IS DESIGNATED TO VERIFY AS PER SUBMISSION BY SITE SUPERVISOR, SUBMIT CONSTRUCTION REPORT, PROGRESS REPORT, ISSUING TO SUPERVISOR, UNDERSTAND AND INTERPRET ANALYSIS ON APPROVE CONSTRUCTION DRAWING SPECIFICATION, IDENTIFY VARIATION ORDER, ASSIST IDENTIFYING ANY ERRORS AND DISCREPANCIES ON TECHNICAL DRAWINGS, PREPARE PROGRESS CLAIM FOR ADMINISTRATION WORK AND PREPARE VARIATION ORDER (VO) ON SITE.

A Mechanical and Electrical Assistant Technical Executive will be able to:

1. Verify as per submission by site supervisor;
2. Submit technical report, progress report, issuing to supervisor;
3. Understand and interpret analysis on approve construction drawing specification;
4. Identify variation order;
5. Assist identifying any errors and discrepancies on construction drawings;
6. Prepare progress claim for administration work; and
7. Prepare Variation Order (VO) on site;
8. Perform site visit;
9. Prepare mechanical & electrical work method statements;
10. Prepare mechanical & electrical work tender programme;
11. Administer mechanical & electrical work documentation;
12. Monitor fire protection works;
13. Monitor mechanical & electrical resources requirements;

14. Conduct mechanical & electrical work coordination meetings;
15. Adhere to safety & security procedure; and
16. Follow Standard Operating Procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 5

MECHANICAL AND ELECTRICAL TECHNICAL EXECUTIVE

A MECHANICAL AND ELECTRICAL TECHNICAL EXECUTIVE IS DESIGNATED TO ANALYSE AND INTERPRET CONSTRUCTION DRAWING, SPECIFICATION OF WORKMANSHIP, MATERIAL, EQUIPMENT AND TOOLS, ATTEND SITE COORDINATION MANAGEMENT AND TECHNICAL COORDINATION, LIAISE WITH AUTHORITIES, PREPARE AND SUBMIT PROGRESS REPORT TO SUPERIOR AND CHECK THE ACCURACY OF PROGRESS CLAIM.

A Mechanical and Electrical Technical Executive will be able to:

9. Analyse and interpret construction drawing;
10. Identify specification of workmanship;
11. Identify specification of material, equipment and tools;
12. Attend site coordination management;
13. Attend technical coordination;
14. Liaise with authorities;
15. Prepare and submit progress report to superior; and
16. Check the accuracy of progress claim.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 6 MECHANICAL AND ELECTRICAL TECHNICAL MANAGER

A MECHANICAL AND ELECTRICAL TECHNICAL MANAGER IS DESIGNATED TO ACKNOWLEDGE RECEIVE CERTIFIED CONSTRUCTION DRAWINGS AND WORK PROGRESS, APPROVE COMPLETED WORKS, METHOD OF STATEMENT, MATERIAL EQUIPMENT SAMPLES, ISSUE JOB ORDER, JOB ORDER FACTORIES, VISIT AND APPROVE MANUFACTURERS, COORDINATE WITH CIVIL ENGINEERING, MANAGEMENT AND ORGANIZATIONS, JOINTLY INSPECT WITH FIRE DEPARTMENT AND LOCAL AUTHORITIES, CERTIFY INSTALLATION, TESTING AND COMMISSIONING, EVALUATE/ ANALYSES REPORTS CONSULTATION DRAWING, ATTEND MANAGEMENT MEETING, ATTEND SITE MEETING, APPROVE AND SUBMIT VARIATION ORDER (VO), APPROVE AND SUBMIT PROGRESS CLAIM, ATTEND TECHNICAL COORDINATION MEETING AND APPROVE CERTIFICATE OF PRACTICAL COMPLETION (CPC), RE AND RA.

A Mechanical and Electrical Technical Manager will be able to:

18. Acknowledge receive certified construction drawings and work progress;
19. Approve completed works;
20. Approve method of statement;
21. Approve material equipment samples;
22. Issue job order;
23. Issue job order factories;
24. Visit and approve manufacturers;
25. Coordinate with civil engineering, management and organizations;
26. Jointly inspect with Fire Department and local authorities;
27. Certify installation, testing and commissioning;

28. Evaluate/ analyses reports consultation drawing;
29. Attend management meeting;
30. Attend site meeting;
31. Approve and submit variation order (VO);
32. Approve and submit progress claim;
33. Attend technical coordination meeting; and
34. Approve certificate of practical completion (CPC), RE and RA.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 CONSTRUCTION SITE SAFETY AND HEALTH SUPERVISOR

A CONSTRUCTION SITE SAFETY AND HEALTH SUPERVISOR IS DESIGNATED TO PERFORM SUPERVISORY FUNCTION, ORGANISE SAFETY AND HEALTH PROGRAMME, BRIEFING ON CHEMICAL HAZARDS, BRIEFING ON PHYSICAL HAZARDS, BRIEFING ON ERGONOMIC HAZARD AND COORDINATE EMERGENCY RESPONSE PLAN.

A Construction Site Safety And Health Supervisor will be able to:

1. Perform supervisory function;
2. Organise safety and health programme;
3. Organise briefing on chemical hazards;
4. Organise briefing on physical hazards;
5. Organise briefing on ergonomic hazard;
6. Coordinate emergency response plan;
7. Adhere to safety and security procedure; and
8. Follow Standard Operating Procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 1 BUILDING CONSTRUCTOR

A BUILDING CONSTRUCTOR IS DESIGNATED TO USE SAFETY ATTIRE AND GEARS WHILE PERFORMING VARIOUS JOB, INTERPRET TECHNICAL DRAWING, PERFORM PILING WORKS, ERECT AND DISMANTLE FORMWORK, FABRICATE AND PLACE REINFORCEMENT ACCORDING TO SPECIFICATION, MIX CONCRETE ACCORDING TO PROPORTIONS, PERFORM BRICK LAYING, SELECT FRAMES AND FIX FASTENERS ON FRAMES, PERFORM PLASTERING AND RENDERING WORKS AND SET OUT AND LAY TILE ON FLOOR, AND PERFORM PAINTING WORKS AND INSTALL FENCES.

A Building Constructor will be able to:

1. Use safety attires and gears while performing various job;
2. Interpret technical drawing;
3. Perform piling works, erect and dismantle formwork;
4. Fabricate and place reinforcement according to specification;
5. Mix concrete according to proportions;
6. Perform brick laying;
7. Select frames and fix fasteners on frames;
8. Perform plastering and rendering works;
9. Set out and lay tile on floor;
10. Perform painting works;
11. Install fences;
12. Adhere to safety and security procedure ; and
13. Follow Standard Operating Procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 2 BUILDING CONSTRUCTOR

A BUILDING CONSTRUCTOR IS DESIGNATED TO CONSTRUCT TIMBERING AND SHORING, PERFORM CONCRETE TEST, PERFORM COMPLEX BRICK LAYING, PERFORM INSTALLATION OF SANITATION SYSTEM, PREPARE AND FIX FRAMES, INSTALL DRAINAGE AND SEWERAGE SYSTEM, ADHERE TO SAFETY AND SECURITY PROCEDURE AND FOLLOW STANDARD OPERATING PROCEDURE.

A Building Constructor will be able to:

1. Construct timbering and shoring;
2. Perform concrete test;
3. Perform complex brick laying;
4. Perform installation of sanitation system;
5. Prepare and fix frames;
6. Install drainage and sewerage system;
7. Adhere to safety and security procedure; and
8. Follow standard operating procedure.



CONSTRUCTION SITE SUPERVISORY AND MANAGEMENT

LEVEL 3 BUILDING CONSTRUCTION SUPERVISOR

A BUILDING CONSTRUCTION SUPERVISOR IS DESIGNATED TO PREPARE ESTIMATIONS REQUIRED FOR PROJECTS, PREPARE WORKING SITE, SELECT AND PREPARE MATERIALS FOR ROOF STRUCTURES, FIX ROOF COVERING COMPLETE WITH FOIL AND INSULATION MATERIALS, PERFORM SUPERVISORY FUNCTION AND FOLLOW STANDARD OPERATING PROCEDURE.

A Building Construction Supervisor will be able to:

1. Prepare estimations required for projects;
2. Prepare working site;
3. Select and prepare materials for roof structures;
4. Fix roof covering complete with foil and insulation materials;
5. Perform supervisory function;
6. Adhere to safety and security procedure; and
7. Follow standard operating procedure.



BUILDING CONSTRUCTION INDUSTRY

LEVEL 7 CONSTRUCTION MANAGER

A CONSTRUCTION MANAGER IS DESIGNATED TO ORGANISE, PLAN, CONTROL, COORDINATE OVERALL PROJECT FROM INCEPTION TO COMPLETION AIMED AT MEETING CLIENT'S REQUIREMENTS AND ENSURING PROJECT COMPLETION WITHIN TIME, COST AND TO THE REQUIRED QUALITY STANDARDS.

A Construction Manager will be able to:

1. Organise project initiation by preparing charter/ memorandum, project brief and project strategy, conducting project feasibility study, establish project organizational strategy, formulating procurement strategy and compiling project initiation document;
2. Develop project plan by establishing organization structure, project monitoring and control system, project budget, information and communication system, preparing risk management plan, procuring project funding and administering master schedule;
3. Manage human resources function by planning human resources requirements, organizing project team, administering interpersonal conflict, appraising project team and reassigning project team members;
4. Manage project quality, health, safety and environment by establishing, implementing, monitoring and reviewing the quality plan and health, safety and environmental plan;
5. Manage design development and contract administration by administering design process and design approval, tendering process, monitoring tender documentations and establishing dispute resolution mechanism;

6. Manage project monitoring and controlling system by monitoring work progress, project cost, project quality and administering progress reporting system, project changes and dispute resolution; and
7. Administer project closed-out, post-contract evaluation and post mortem review.