

PREAMBLES

SECTION 1 - GENERAL ITEMS

1.1 CONTRACTUAL REQUIREMENTS

1.1.1.1 Performance Bond

Unit

The unit of measurement shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made as follows:

- (a) In the first interim payment, the Contractor shall be paid either the actual premium paid by him upon submission of the receipts or the tendered lump sum for the item whichever is the lesser. The receipts of premium paid must be from the company (Bank/Insurance/Finance Company) issuing the guarantees;
- (b) The remaining sum (if any) shall be paid in each subsequent interim payment in proportion to the total period lapsed to the Contract Period (excluding Defects Liability Period).

1.1.1.2 Design Guarantee Bond

Unit

The unit of measurement shall be in Lump Sum (sum).

Measurement

The measurement for payment for standalone design shall be made as follows:

- (a) The Contractor shall be paid either the actual premium paid by him upon submission of the receipts or the tendered lump sum for the item whichever is the lesser. The receipts of premium paid must be from the company (Bank/Insurance/Finance Company) issuing the guarantees;
- (b) The remaining sum (if any) shall be paid in the final payment.

1.1.2 Insurances

Unit

The unit of measurement for the following Insurances shall be in Lump Sum (sum).

1.1.2.1 Insurance of Works against Personal Injuries and Damage to Properties

1.1.2.2 Public Liability Insurance against Personal Injuries and Damage to Properties

1.1.2.3 SOCSO /Workmen Compensation Insurance

Measurement

The measurement for payment shall be made as follows:

- (a) In the first interim payment, the Contractor shall be paid either the actual premium paid by him upon submission of the receipts or the tendered lump sum for the item whichever is the lesser. The receipts of premium paid must be from the insurance company issuing the policies or the authorized underwriter;
- (b) The remaining sum (if any) shall be paid in each subsequent interim payment in proportion to the total period lapsed to the Contract Period (excluding Defects Liability Period).

1.1.3 **Statutory Obligation**

Unit

The unit of measurement for Statutory Obligation shall be in Lump Sum (sum).

Measurement

Payment of Statutory Obligation in compliance with law regulation or by laws or any order or directive issued by public authorities requirement shall be made upon production of official receipt issued by the relevant authorities to indicate evidence of payment.

Item Coverage

The item for provision of Statutory Obligation shall include:

- (a) CIDB Levy
- (b) Permits and fees to local authorities
- (c) Deposit to local authorities
- (d) Government Service Tax

1.2 **SO'S REQUIREMENTS**

1.2.1 **Facilities for the SO / SO's Representative**

ESTABLISHMENT AND REMOVAL

Unit

The unit of measurement for the establishment and removal of the following accommodation shall be in Lump Sum (sum).

1.2.1.1

Office

Measurement

The measurement for payment shall be made as follows:

- (a) 80% on completion of the facilities as specified;
- (b) 20% on removal.

Item Coverage

The item for establishment and removal of accommodation shall be deemed to include the S.O requirements, as per General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision and preparation of site;
- (b) Foundations and bases;
- (c) Fences, notice and direction boards;
- (d) Vehicle access, hard standing, parking area and foot paths;
- (e) Office furnishing, fittings, supplies and initial consumable stores as specified in **Appendix '1F'**;
- (f) Provision of telephones and extension as specified (where applicable);
- (g) Water, sanitation, power, air conditioning and lighting services
- (h) Compliance with local building by-laws;
- (i) Depreciation of buildings, furnishings and fittings;
- (j) Receiving back from the SO and removing buildings, furniture, fittings and supplies off site;
- (k) Disconnecting and removing services and sealing off disused services;
- (l) Demolishing and removing off site temporary accommodation, vehicle access, hard standing, parking areas, footpath, fences, notices and direction boards;
- (m) Disposal of surplus materials;
- (n) Reinstatement of the site;
- (o) Removal and disconnecting of telephone (where applicable).

1.2.1.2

Laboratories

Measurement

The measurement for payment shall be made as follows:

- (b) 80% on completion of the facilities as specified;
- (b) 20% on removal.

Item Coverage

The item for establishment and removal of accommodation shall be deemed to include the S.O requirements, as per General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision and preparation of site;
- (b) Foundations and bases;
- (c) Fences, notice and direction boards;
- (d) Vehicle access, hard standing, parking area and foot paths;
- (e) Office furnishing, fittings, supplies and initial consumable stores as specified in **Appendix '1F'**;
- (f) Provision of telephones and extension as specified (where applicable);
- (g) Water, sanitation, power, air conditioning and lighting services
- (h) Compliance with local building by-laws;
- (i) Depreciation of buildings, furnishings and fittings;
- (j) Receiving back from the SO and removing buildings, furniture, fittings and supplies off site;
- (k) Disconnecting and removing services and sealing off disused services;
- (l) Demolishing and removing off site temporary accommodation, vehicle access, hard standing, parking areas, footpath, fences, notices and direction boards;
- (m) Disposal of surplus materials;
- (n) Reinstatement of the site;
- (o) Removal and disconnecting of telephone (where applicable).

MAINTENANCE

Unit

The unit of measurement for the maintenance of the following accommodation shall be on Month (mth).

1.2.1.1

Office

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the S.O facilities is made available:-

Item Coverage

The item for maintenance of accommodation shall be deemed to include S.O requirements in General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Rental charges including telephone rental (and charges on telephone calls);
- (b) Fees and charges levied by the respective authorities and maintenance of power, lighting, water, sanitation, air conditioning and sewerage disposal;
- (c) Maintenance of buildings, services, fences, notice and direction boards, vehicle access, parking areas, hard standing and footpaths;
- (d) Maintenance of furnishings and fittings and supplies;
- (e) Maintenance of telephone (where applicable);
- (f) Cleaning accommodation including pest control;
- (g) Moving and re-establishing portable office accommodation as required up to a maximum of 3 moves;
- (h) Replenishment of consumable stores;
- (i) Maintenance of all access for use under all weather conditions.

1.2.1.2

Laboratories

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the S.O facilities is made available:-

Item Coverage

The item for maintenance of accommodation shall be deemed to include S.O requirements in General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Rental charges including telephone rental (and charges on telephone calls);
- (b) Fees and charges levied by the respective authorities and maintenance of power, lighting, water, sanitation, air conditioning and sewerage disposal;
- (c) Maintenance of buildings, services, fences, notice and direction boards, vehicle access, parking areas, hard standing and footpaths;
- (d) Maintenance of furnishings and fittings and supplies;
- (e) Maintenance of telephone (where applicable);
- (f) Cleaning accommodation including pest control;
- (g) Moving and re-establishing portable office accommodation as required up to a maximum of 3 moves;
- (h) Replenishment of consumable stores;
- (i) Maintenance of all access for use under all weather conditions.

1.2.2 **Services for the SO's Representative**

1.2.2.1 **Transport Services**

ESTABLISHMENT

Unit

The unit of measurement for the provision of suitable transport service shall be on Lump Sum (sum).

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the transport service is made available.

Item Coverage

The item shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision of the vehicle type as specified in **Appendix `1C`** together with comprehensive insurance and road tax for every vehicle;
- (b) Vehicle/s is/are accident free;
- (c) Certification from Puspakom at every six months;
- (d) Transport is readily available for the use of S.O./ S.O's staff;
- (e) Depreciation

1.2.2.2

Maintenance

Unit

The unit of measurement for maintenance of vehicles shall be on Month (mth).

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the transport service is made available.

Item Coverage

The item shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Taxing for use on public highway and for carriage of goods and samples;
- (b) Comprehensive insurance to cover all drivers and passengers and the carriage of goods and sample throughout the Contract Period (excluding Defects Liability Period);
- (c) Provision of suitable replacement including equipment when regular vehicle is not available or unserviceable for more than 24 hours;
- (d) Maintenance in a roadworthy condition and in conformity with the vehicle manufacturer's recommendations;
- (e) Toll charges, fuel, oil and lubricant;
- (f) Validity of road tax throughout Contract Period (excluding Defects Liability Period);
- (g) Keeping the vehicles clean inside and out.

1.2.3

Equipments for use by the S.O/S.O's Representative

1.2.3.1

Laboratory Equipments

ESTABLISHMENT AND REMOVAL

Unit

The unit of measurement for the establishment and removal of laboratory equipments shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made as follows:

- (a) 80% on receipt and approval of all the equipments supplied and installed;
- (b) 20% on removal

Item Coverage

The item for provision of laboratory equipment shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision of all equipments as listed in **Appendix `1D`** of the Specification;
- (b) Depreciation;
- (c) Installation and calibration of the equipments;
- (d) Receiving back from SO and removing equipments off site;

1.2.3.2

MAINTENANCE

Unit

The unit of measurement for the maintenance of laboratory equipment shall be on Month (month).

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the laboratory equipment is made available.

Item Coverage

The item for maintenance of laboratory equipment shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Maintenance of the equipments to a working order condition;
- (b) Provision of suitable replacement when the regular equipment is not available for more than 24 hours;
- (c) Replenishment of consumable items;

1.2.3.3

Office Equipments

ESTABLISHMENT AND REMOVAL

Unit

The unit of measurement for the establishment and removal of the following office equipments (where applicable) shall be in Lump Sum (sum).

- (a) Computer
- (b) Photocopy machine
- (c) Digital/Video camera
- (d) Facsimile machine
- (e) Printer
- (f) Scanner
- (g) LCD projector & screen

- (h) Any other equipments not listed above

Measurement

The measurement for payment shall be made as follows:

- (a) 80% upon the complete delivery and commissioning of the equipments;
- (b) 20% on removal.

Item Coverage

The item for provision of office equipments shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision, delivery to S.O.'s office and commissioning of equipments and accessories/peripherals as listed in **Appendix `1E`** of the Specification;
- (b) In the case of computers, the original and legal copies of software as specified;
- (c) In the case of facsimile machine, the provision of telephone line and connection;
- (d) Depreciation;
- (e) Removal from the S.O.'s office and revert back to the Contractor upon issuance of the certificate of practical Completion.

1.2.3.3.8

MAINTENANCE

Unit

The unit of measurement for the maintenance of office equipment shall be on Month (month).

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the office equipment is made available.

Item Coverage

The item for maintenance of office equipments shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Maintenance of all equipment and accessories;
- (b) Rental charges (where applicable);
- (c) Payment for telephone charges for faxes is included;
- (d) Repair cost and cost of replacement in case of breakdown;

- (e) Regular servicing of all equipment, with suitable replacement when the regular equipment is not available for more than 24 hours;
- (f) Provision and replenishment of consumable items;

1.2.3.4 **Survey Equipments**

ESTABLISHMENT AND REMOVAL

Unit

The unit of measurement for the provision and maintenance of survey equipments shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made as follows:

- (a) 80% on receipt and approval of all the equipments supplied and installed;
- (b) 20% on removal.

Item Coverage

The item for provision of survey equipment shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision of all equipments as listed in Appendix '1 J' of the Specification;
- (b) Depreciation;
- (c) Installation and calibration of the equipments;
- (d) Receiving back from SO and removing equipments off site;

1.2.3.5 **MAINTENANCE**

Unit

The unit of measurement for the maintenance of survey equipment shall be on Month (mth).

Measurement

The measurement for payment shall be made in each interim payment in commencing upon when the survey equipment is made available.

Item Coverage

The item for maintenance of survey equipments shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Maintenance of the equipments to a working order condition;
- (b) Provision of suitable replacement when the regular equipment is not available for more than 24 hours;
- (c) Replenishment of consumable items;

1.2.4 **Attendance for the SO's Representative**

Workmen to be provided to the S.O

Unit

The unit of measurement for the following attendance for the S.O.'s Representative shall be on Man month (man-mth).

1.2.4.1 Laboratory Assistants/technicians.

1.2.4.2 General Labours.

1.2.4.3 **Survey Assistant**

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the attendance is made available.

Item Coverage

The item shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) The wages and other emoluments paid to the operative including payment for overtime;
- (b) Working outside the Contractor's normal working hours if so required by the SO;
- (c) Cost and expenses incurred consequent upon the employment or hiring of the operative including payment of Employee Provident Fund, insurance, medical and hospitalization;
- (d) Replacement of unsuitable personnel.

1.2.5 **Miscellaneous**

1.2.5.1 **Project Signboard**

Unit

The unit of measurement for project signboard shall be in Number (nr).

Measurement

The measurement for payment shall be made as follows:

- (a) 60% on completion of installation;
- (b) 20% on maintenance
- (c) 20% on removal.

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Excavation in any material including rock and reinforced concrete and loading into transport, upholding the sides and keep the earthworks free of water;
- (b) Backfilling and compaction;
- (c) Support;
- (d) Formwork;
- (e) In-situ concrete;
- (f) Disposal of surplus material;
- (g) Painting, high intensity reflectorise aluminum sheeting and illumination;
- (h) Cleaning, maintaining and repairing;
- (i) Erection, dismantling and removing from site;
- (j) Reinstatement of surfaces;
- (k) Payment of all charges including obtaining permission, licenses and fees etc;

1.2.5.2 **Performance Report**

1.2.5.2.1 **Progress Photograph**

Unit

The unit of measurement for progress photographic record of work shall be determined by the number of set on Month (mth).

Measurement

Each set shall comprise of softcopy and hardcopy as required, taken on each visit to the site.

Each set of softcopy and hardcopy shall comprise of all the selected progress photographs for the month.

The measurement for payment for the progress photographs, progress slides and photographs in compact disk (CD) format shall be made of the sets furnished and accepted by the SO paid in each interim payment. Commencing upon when the attendance is made available.

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Digital, softcopy and hardcopy, prints, proofs, slides and documenting in suitable album;
- (b) Delivery and supply to the S.O.'s office;
- (c) Identification marking on the prints and slides;
- (d) Mounting for display record purposes as directed by the S.O.;
- (e) Quality photograph;

1.2.5.2.2

Progress Report, Project Report And Quality Control Report

Unit

The unit of measurement shall be in Month determined by the number of set on Month (mth).

Measurement

The measurement for payment for of progress report and Quality Control reports comprising progress report, project report and quality control report shall be made in each interim payment. Commencing upon when the attendance is made available.

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Taking measures and computation;
- (b) Keeping of records;
- (c) Compilation;
- (d) Processing and writing of report;
- (e) Printing and binding;
- (f) Dispatching;
- (g) Submission of monthly performance reports (12 copies per set).

1.2.5.3

Works Programme

Unit

The unit of measurement for implementing the Works Programme using the Critical Path Method (CPM) programme for planning, monitoring and control of resources and progress of works shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made in each interim payment in proportion of the total period lapsed to the Contract Period (excluding Defects Liability Period).

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Item on implementing the CPM programme for planning of resources and progress of work as specified in **Appendix '1G'** of the Specification and should include:
 - (i) Trained and qualified personnel to maintain and update the programme;
 - (ii) Planning using the CPM programme;
 - (iii) Providing softwares for JKR, which is to be retained by JKR after the completion of the project. The softwares to be utilized is
 - the latest version of Microsoft Project or equivalent for projects costing less than RM50 million;
 - the latest version of Primavera Project Planning or equivalent for projects costing more than RM50 million or projects which incorporate a lot of scopes and milestones.
- (b) Carry out regular check of progress including updating all information and maintain the planned programme periodically or as and when instructed by the S.O.;
- (c) Submission of the reports to JKR on computer medium and printed hard copies periodically or as and when instructed by the S.O.;
- (d) Identification of critical path for the timely execution of the work to completion;
- (e) A detailed programme which would identify the requirements of every possible resources for the successful implementation of at least six (6) months of work for assisting everyone concern in planning their associated activities.

1.2.5.4

As-built Drawings

Unit

The unit of measurement for as-built drawings shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made upon submission and approval by the S.O..

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Preparation and submission of as-built drawings for approval by the S.O. and final ROW surveyed drawing by an approved licensed Land Surveyor in tracing, print, CAD in digital format as detailed in **Appendix '1H'** of the Specification;
- (b) Providing labour, tools and equipment necessary to take measurement and obtaining such information on site as are required by the S.O. for the preparation of as-built drawings;
- (c) Confirming correctness of as-built drawings;
- (d) Preparation of monthly periodic updating as work progress for inspection by S.O.;
- (e) Preparation and submission of road asset inventory comprising culvert and bridges, slope protection and road furniture in the number of set specified.

1.2.5.5

Clearing Up Of Site

Unit

The unit of measurement for clearing up of site on completion of the Works shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made in the last interim payment upon clearing up of Site to the satisfaction of the S.O..

Item Coverage

The item for clearing up of site on completion shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Reinstatement of damaged area due to any work and temporary work carried by the Contractor to its original condition;
- (b) Disposal of surplus material, waste etc;

- (c) Clearing of the drainage system.

1.2.5.6 **Video Recording**

Unit

The unit of measurement for video recording shall be in Lump Sum (sum).

Measurement

The video shall comprise of softcopy required, taken on each visit to the site.

The video shall comprise of all the selected progress video for the month.

The measurement for payment for the progress video in compact disk (CD) format shall be made of the sets furnished and accepted by the SO paid in each interim payment. Commencing upon when the attendance is made available.

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Digital, softcopy, proofs, and documenting;
- (b) Delivery and supply to the S.O.'s office;
- (c) Record purposes as directed by the S.O.;
- (d) Quality video;

1.2.5.7 **License Security Guards**

Unit

The unit of measurement for provision of license security services shall be on Man month (man-mth).

Measurement

The measurement for payment for Contractor's superintendence shall be made in each interim payment in proportion of the total period lapsed to the Contract Period (excluding Defects Liability Period).

Item Coverage

The item shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Costs and expenses incurred consequent upon the employment or hiring of the license security service;
- (b) Costs of working 24 hours with 12 hours shift.

- (c) Replacement of unsuitable personnel;

1.3 **PROJECT REQUIREMENT**

1.3.1 **Survey and Setting Out By Licensed Surveyor**

Unit

The unit of measurement for survey and setting out shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made as follows:

- a) 50% on completion of setting out and approval of survey drawing submitted;
- b) 50% in each interim payment in proportion to the value of completed permanent Works to the Contract Sum.

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Survey instruments and equipment required by the survey;
- (b) Installation and calibration and maintenance of instrument and equipment;
- (c) Depreciation;
- (d) Provide suitable replacement when the regular instrument is not available for more than 24 hours;
- (e) Replenishment of consumable stores;
- (f) Maintenance of instrument and equipment to a working order condition;
- (g) Surveyors, chainmen and attendance;
- (h) All materials required for establishing and maintaining survey stations, benchmarks and the like (eg. installation of precast concrete reference beacons including safeguarding by fencing and concreting-in where necessary and replacement of damaged beacons);
- (i) All attendance required and setting-out records and data required for the Works;
- (j) Maintain all survey and setting-out records and data required for the Works;
- (k) Demarcate on site limit of R.O.W.;
- (l) Verify existing benchmarks and reference markers;

- (m) All detailed survey and setting out required for the Works;
- (n) Submission of Drawings;
- (o) Topographical survey of new roads leading to new housing and industrial development areas which are not included in the Contract Drawings;

1.3.2 **Quality Assurance/Quality Control Plan**

Unit

The unit of measurement for provision of QA/QC plan for design and construction shall be in Lump Sum (sum).

Measurement

The measurement for payment for QA/QC plan shall be made upon submission and approval by the S.O.

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Costs and expenses incurred consequent upon the employment or hiring of the trained and qualified personnel including payment of Employee Provident Fund, insurance, medical and hospitalization;
- (b) Preparation and submission to the SO properly documented QA/QC plan according to work procedures set in the current JKR ISO 9001 and in accordance to JKR Guidelines for Inspection & Testing.
- (c) Submission of monthly reports incorporating all test results, test certificates, photographs and lab report for testing of material (incoming inspecton).

1.3.3 **SUBMISSION OF DOCUMENT**

1.3.3.1 **Project Execution Plan**

Unit

The unit of measurement for project execution plan shall be in Lump Sum (sum).

Measurement

The measurement for payment for the project execution plan shall be made upon submission and approval by the S.O.

Item Coverage

The item for project execution plan shall be in accordance with the General Preambles and Preambles to the Bill of Quantities and shall include:-

- (a) The costs of literatures, references and consultation in production of the project execution plan;

1.3.3.2 **Shop Drawings / Working Drawing**

Unit

The unit of measurement for provision of shop drawings / working drawing shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made upon submission and approval by the S.O..

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Preparation and submission of shop drawings or working drawings to amplify the detail requirement of the work;
- (b) The cost of literatures, references and consultation on/in production of the shop drawing or working drawing;

1.3.3.3 **Work Method Statement**

Unit

The unit of measurement for work method statement shall be in Lump Sum (sum).

Measurement

The measurement for payment for the work method statement shall be made upon submission and approval by the S.O..

Item Coverage

The item for work method statement shall be in accordance with the General Preambles and Preambles to the Bill of Quantities and shall include:-

- (a) The cost of literatures, references and consultation in the production of the work method statement.

1.4 **AUTHORITIES' REQUIREMENTS**

1.4.1 **Occupational Safety and Health Requirements**

1.4.1.1 **Health and Safety Plan**

Unit

The unit of measurement for provision of health and safety plan for design and construction shall be in Lump Sum (sum).

Measurement

The measurement for payment for health and safety plan shall be made upon submission and approval by the S.O..

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Costs and expenses incurred consequent upon the employment or hiring of the trained and qualified personnel including payment of Employee Provident Fund, insurance, medical and hospitalization;
- (b) Preparation and submission to the SO properly documented health and safety plan according to work procedures set in the current JKR ISO 9001.
- (c) Submission of monthly reports incorporating all test results, test certificates, photographs and lab report for testing of the works (in process testing).
- (d) Submission of factory acceptance test report.
- (e) Preparation of quality report in form of CD and hardcopy.

1.4.1.2.1 **Health And Safety Report**

Unit

The unit of measurement for health and safety report shall be on Month (mth).

Measurement

The measurement for payment for the health and safety report shall be the acceptance of the health and safety report in accordance to the format and copies as stipulated in the guideline / specification and bill of quantities.

Item Coverage

The item for health and safety report shall be in accordance with the General Preambles and Preambles to the Bill of Quantities and shall include:-

- (a) The costs of literatures, references and consultation in the production of the health and safety report.

1.4.1.2.2

Health And Safety Trainings

Unit

The unit of measurement for the health and safety trainings shall be in Lump sum (sum).

Measurement

The measurement for payment shall be made in each interim payment in proportion of the total period lapsed to the Contract Period (excluding Defects Liability Period).

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Training Staff
- (b) Training Workers
- (c) Training Visitors

1.4.2.1

Resource for Site Safety

Unit

The unit of measurement for provision occupational site safety & health supervisor shall be on Man Month (**man-mth**).

Measurement

The measurement for payment for the occupational site safety & health supervisor shall be man-month basis supplied throughout the construction period.

Item Coverage

The rates for the occupational site safety & health supervisor shall be for the duration of the Contract and shall include:-

- (a) The wages and other enumerations paid to the site staff inclusive of overtime payments.
- (b) Cost and expenses incurred consequent upon the employment for hiring of the site staff including payment of employee provident fund, insurance, medical and hospitalization.
- (c) Replacement of incompetent site staff.
- (d) Substitution of site staff when the appointed traffic management staff is absent or on leave.

1.4.3.1

Protective Equipment

Unit

The unit of measurement for the provision and maintenance of personnel protective equipment shall be in No.

Measurement

The measurement for payment shall be made as follows:

- (a) 60% on receipt and approval of all the equipments supplied and installed;
- (b) 40% for maintenance of the personnel protective equipments which shall be made in each interim payment in proportion of the total period lapsed to the Contract Period (excluding Defects Liability Period).

Item Coverage

The item for provision of personnel protective equipment shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision of all equipments as listed in **Appendix `1D`** of the Specification;
- (b) Depreciation;
- (c) Installation and calibration of the equipments;
- (d) Receiving back from SO and removing equipments off site;

The item for maintenance of personnel protective equipment shall in accordance with the General Preambles and Preambles to Bill of Quantities include:

- (a) Maintenance of the equipments to a working order condition;
- (b) Provision of suitable replacement when the regular equipment is not available for more than 24 hours;
- (c) Replenishment of consumable items;

1.4.4

Safe Working Area

Unit

The unit of measurement for the provision and maintenance of safety signages shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made as follows:

- (a) 60% on receipt and approval of all the equipments supplied and installed;

- (b) 40% for maintenance of the personnel protective equipments which shall be made in each interim payment in proportion of the total period lapsed to the Contract Period (excluding Defects Liability Period).

Item Coverage

The item for provision of safety signages shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision of all equipments as listed in **Appendix `1D`** of the Specification;
- (b) Depreciation;
- (c) Installation and calibration of the equipments;
- (d) Receiving back from SO and removing equipments off site;

The item for maintenance of safety signages equipment shall in accordance with the General Preambles and Preambles to Bill of Quantities include:

- (a) Maintenance of the equipments to a working order condition;
- (b) Provision of suitable replacement when the regular equipment is not available for more than 24 hours;
- (c) Replenishment of consumable items;

1.5

CONTRACTOR'S REQUIREMENT

1.5.1.1

Contractor's Accommodation and Buildings

1.5.1.5

1.5.1.7

ESTABLISHMENT AND REMOVAL

1.5.1.9

Unit

The unit of measurement for establishment and removal of the following Contractor's accommodation and buildings shall be in Lump Sum (**sum**).

- (a) Office
- (b) Stores
- (c) Workshops
- (d) Workman's accommodations

Measurement

The measurement for payment for establishment and removal shall be made as follows:

- (a) 80% on completion of the facilities as specified;
- (b) 20% on removal

Item Coverage

The item for establishment and removal of Contractor's accommodation and buildings inclusive of utilities shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Preparation of site, foundations, bases, hard standings;
- (b) Water, sanitation, power, lighting and communication systems;
- (c) Fences, notices and direction boards, vehicle access, parking areas and footpaths;
- (d) Buildings and accommodation including payment of fees and other charges;
- (e) Office equipments, furniture and fittings, supplies and consumable stores, workshop tools and equipment;
- (f) Depreciation of buildings and accommodation, office equipments, furniture and fittings;
- (g) Medical and first aid facilities;
- (h) Safety equipments and clothing;
- (i) Telephone extension and switchboard, radio communication and the like;
- (j) Layout drawings for the approval of the S.O;
- (k) Getting approval from the relevant statutory authority;

- (l) Dismantling and removal of all buildings, fences, notices and direction boards, office equipment, etc.;
- (m) Disconnection and removal of services and sealing-off disused services;
- (n) Disposal of surplus materials and reinstatement of site to its original condition.

1.5.1.2
1.5.1.6
1.5.1.8
1.5.1.10

MAINTENANCE

Unit

The unit of measurement for the maintenance of the following Contractor's accommodation and buildings shall be in Lump Sum (**sum**).

- (a) Office
- (b) Stores
- (c) Workshops
- (d) Workman's accommodations

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the contractor's accommodation and building is made available:-

Item Coverage

The item for maintenance of Contractor's accommodation and buildings inclusive of utilities shall in accordance with the General Preambles and Preambles to Bill of Quantities include:

- (a) Any costs incurred in the use of the land;
- (b) Rental charges (where applicable);
- (c) Fees and charges for water, power, sewage disposal and communication systems;
- (d) Maintenance of all buildings, vehicle access, parking areas, hard standings and footpaths;
- (e) Maintenance of all office equipment, furniture, fittings and communication systems, workshop tools and equipment;
- (f) Cleaning;
- (g) Replenishment of consumables stores.

1.5.1.3

Office Equipments

ESTABLISHMENT AND REMOVAL

Unit

The unit of measurement for the establishment and removal of the following office equipments (where applicable) shall be in Lump Sum (sum).

- (a) Computer
- (b) Photocopy machine
- (c) Facsimile machine
- (d) Printer
- (e) Digital camera
- (f) Scanner
- (g) LCD projector & screen
- (h) Video Recording

Measurement

The measurement for payment shall be made as follows:

- (a) 80% upon the complete delivery and commissioning of the equipments as specified;
- (b) 20% on removal.

Item Coverage

The item for provision of office equipments shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Provision, delivery to Contractor's office and commissioning of equipments and accessories/peripherals as listed in **Appendix `1E`** of the Specification;
- (b) In the case of computers, the original and legal copies of software as specified;
- (c) In the case of facsimile machine, the provision of telephone line and connection;
- (d) Depreciation;
- (e) Removal from the Contractor's office and revert back to the Contractor upon issuance of the certificate of practical Completion.

1.5.1.4

MAINTENANCE

Unit

The unit of measurement for the maintenance of office equipment shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the office equipment is made available.

Item Coverage

The item for maintenance of office equipments shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Maintenance of all equipment and accessories;
- (b) Rental charges (where applicable);
- (c) Payment for telephone charges for faxes is included;
- (d) Repair cost and cost of replacement in case of breakdown;
- (e) Regular servicing of all equipment, with suitable replacement when the regular equipment is not available for more than 24 hours;
- (f) Provision and replenishment of consumable items;

1.5.2

Access and Temporary Roads

ESTABLISHMENT AND REMOVAL

Unit

The unit of measurement for the design, construction and removal of temporary works as follows shall be in Lump Sum (sum).

- (a) Temporary access roads
- (b) Temporary drainage
- (c) Temporary crossings

Measurement

The measurement for payment shall be made as follows:-

- (a) 80% on completion of the design and construction of the temporary works;
- (b) 20% on removal

Item Coverage

The item for all access temporary works shall in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:-

- (a) Obtaining license, permission from owners of road and relevant authorities and complying with conditions imposed thereto;

- (b) Making arrangements with owners and occupiers of land temporarily acquired and costs arising therefrom;
- (c) Preparing design, amending and submitting to the S.O. and other interested bodies, two (2) copies of all working or shop drawings produced by him including all drawings made by his approved subcontractors for all temporary works;
- (d) Construction;
- (e) Removal;
- (f) Reinstatement of site to its original condition.

Maintenance

Unit

The unit of measurement for the maintenance of the contractor's accommodation and building shall be in Lump Sum (sum)

Measurement

The measurement for payment shall be made in each interim payment commencing upon when the contractor's accommodation and building is made available:-

Item Coverage

The item for maintenance of Contractor's accommodation and buildings inclusive of utilities shall in accordance with the General Preambles and Preambles to Bill of Quantities include:

- (a) Any costs incurred in the use of the land;
- (b) Rental charges (where applicable);
- (c) Cleaning.

1.5.3 **Site Management**

1.5.3.1 **Site Agent**

Unit

The unit of measurement for Site Agent shall be in on Man month (man-mth).

Measurement

The measurement for payment shall be made in each interim payment in proportion of the total period lapsed to the Contract Period (excluding Defects Liability Period).

Item Coverage

The item shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) The wages and other emoluments paid to the site agent and other personnel necessary for the Works;
- (b) Working outside the Contractor's normal working hours if so required by the S.O.;
- (c) Costs and expenses incurred consequent upon the employment or hiring of the site agent and all other personnel including payment of Employee Provident Fund, insurance, medical and hospitalization;
- (d) Replacement of unsuitable site agent and other personnel;
- (e) Substitution of superintendent when the appointed site agent is absent or on leave for more than three (3) consecutive days.

1.5.3.2 **QA/QC Officer**

Unit

The units of measurement for provision QA/QC officer shall be on Man month (man-mth).

Measurement

The measurement for payment for the QA/QC officer shall be on man-month basis supplied throughout the construction period.

Item Coverage

The rates for the QA/QC officer shall be for the duration of the Contract and shall include:-

- (a) The wages and other enumerations paid to the site staff inclusive of overtime payments.
- (b) Cost and expenses incurred consequent upon the employment for hiring of the site staff including payment of employee provident fund, insurance, medical and hospitalization.
- (c) Replacement of incompetent site staff.
- (d) Substitution of site staff when the appointed traffic management staff is absent or on leave.

1.5.4.1

Mobilisation and Demobilisation of Construction Plant and Equipments

Unit

The unit for measurement for mobilization and demobilization of construction plant and equipments shall be in Lump Sum (sum).

Measurement

The measurement for payment shall be made as follows:

- (a) 60% on completion of mobilisation;
- (b) 40% on completion of demobilisation

Item Coverage

The item for mobilisation of construction plant and equipments shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Transport to site including loading and unloading at ports and site, places of assembly in Malaysia or other sites to the sites where they are to be used on the works;
- (b) Obtaining any import licenses/permits;
- (c) All taxes, import duties and other fees;
- (d) Assembling, erection and installation.

The item for demobilisation of construction plant and equipments shall be in accordance with the General Preambles and Preambles to Bill of Quantities and shall include:

- (a) Dismantling;
- (b) Transport from site including loading and unloading at ports and site;
- (c) Obtaining any export licenses/permits.