



(12)dlm. PPS. UB 10/6/6 Jld. 2

27 Mei 2011

Semua Pengarah Bahagian,
Semua Pengarah JPS Negeri,
Semua Jurutera Projek

Y. Bhg. Dato'/Tuan/Puan,

Perkara: Spesifikasi Piawai Kerja-kerja Permulaan

Dengan hormatnya perkara di atas adalah dirujuk.

2. Bersama-sama ini disertakan satu salinan Spesifikasi Piawai Kerja-kerja Permulaan (Standard Specification for Preliminaries) untuk simpanan dan kegunaan Y. Bhg. Dato'/Tuan/Puan semasa menyediakan Dokumen Tender.

3. Buat pengetahuan Y. Bhg. Dato'/Tuan/Puan, spesifikasi piawai ini hanyalah sebagai satu panduan kepada Jabatan bagi menyeragamkan Dokumen Tender. Y. Bhg. Dato'/Tuan/Puan masih boleh membuat pindaan minima kepada spesifikasi piawai ini mengikut kesesuaian projek yang hendak ditender.

4. Sebarang kemusykilan dan pertanyaan berkenaan penggunaan spesifikasi piawai ini bolehlah dikemukakan kepada Bahagian Ukur Bahan dan Kontrak.

Sekian. Terima kasih.

"BERKHIDMAT UNTUK NEGARA"
"CINTAILAH SUNGAI KITA"

Ratne

(Sr RATNA BINTI HJ MAHYUDDIN)

Pengarah Ukur Bahan dan Pengurusan Kontrak,
b/p Ketua Pengarah,
Jabatan Pengairan dan Saliran Malaysia,
Kuala Lumpur.

- s.k. - Ketua Pengarah JPS Malaysia
- Timbalan Ketua Pengarah I (Sektor Bisnes) JPS Malaysia
- Timbalan Ketua Pengarah II (Sektor Pakar) JPS Malaysia
- Pengarah Kanan (Sektor Pengurusan) JPS Malaysia
- Juruukur Bahan BUBPK dan BPK

STANDARD SPECIFICATION FOR PRELIMINARIES

1.0 GENERAL DESCRIPTION OF THE PROJECT

1.1 The general description of the project is as Appendix 1A

1.2 The Site is located

2.0 SCOPE OF WORKS

2.1 The Works covered in this Contract comprise the provision by the Contractor at his own risk and cost of all materials, scaffolding, tools, plant, labour, transport, water, light and everything else necessary for the construction and completion of all to the entire approval of the Superintending Officer hereinafter referred to as the S.O.

2.2 The Conditions of Contract for the Works which is embodied in the Form of Contract (Form PWD 203/ Form PWD 203A) shall be read in conjunction with this Specification. If the tenderer considers that any of the clauses of the Contract involves expenses, he shall allow for the money value of such clauses in his Tender.

3.0 DOCUMENTS MUTUALLY EXPLANATORY

3.1 The Contract Documents shall consist of:

3.1.1 Form of Contract (Form PWD 203 Rev.2007);

3.1.2 Form of Tender;

3.1.3 Letter of Acceptance ;

3.1.4 Special Provisions to the Conditions of Contract as listed in the PWD Form of Contract;

3.1.5 Contract Drawings;

3.1.6 Specifications;

3.1.7 Bill of Quantities/Schedule of Rates/Summary of Tender

3.1.8 Any other relevant documents included therein.

3.2 The documents shall be taken as mutually explanatory of each other and in case of any discrepancy or inconsistency, the following rules shall apply :

3.2.1 The Conditions of Contract (Form PWD 203/ Form PWD 203A) shall take preference over all other documents.

3.2.2 Special Provisions to Conditions of Contract shall take preference over Conditions of Contract.

3.2.3 In Drawings, large scale details are to take preference over small scale Drawings.

3.2.4 The Addendum Specification shall take preference over the Standard Specifications and Drawings.

3.2.5 Drawings shall take preference over Standard Specifications.

3.3 Any discrepancies shall be referred as soon as possible to the S.O. who shall decide which shall be followed.

4.0 NOTES, ABBREVIATIONS AND UNITS OF MEASUREMENT

4.1 Notes: Any clause in this Specification which relates to work or materials not included in the Works shall be deemed not applicable.

4.1.1 Unless stated to the contrary, any dimension of material described means the finished or fully compacted dimension.

4.1.2 All Standards and Codes of Practice referred to in this Specification shall be deemed to be the editions current at the time of Tender. If the Malaysian Standard exists, which the S.O. deems to be equivalent to the British or other Standard specified, then the Malaysian Standard shall be followed. In the event of any discrepancy between the provision of this Specification and the provision within the relevant Standards or Codes of Practice as mentioned in this Specification, then the provision of this Specification shall take precedence.

4.1.3 The terms "Engineer" and "Superintending Officer" shall be synonymous.

4.1.4 Any clause in this Specification which relates to work or materials not included in the Works shall be deemed not applicable.

4.1.5 Unless stated to the contrary, any dimension of material described means the finished or fully compacted dimension.

4.2 Abbreviations

4.2.1 M.S. means Malaysian Standards published by the Scientific and Industrial Research Institute of Malaysia (SIRIM).

4.2.2 B.S. means British Standards published by the British Standard Institution.

4.2.3 A.A.S.H.T.O. means The American Association of State Highway and Transportation Officials.

4.2.4 A.S.T.M. means The American Society for Testing and Materials.

4.2.5 M.D.D. means Maximum Dry Density.

4.2.6 O.M.C. means Optimum Moisture Content.

4.2.7 C.B.R. means California Bearing Ratio.

4.2.8 S.O. means Superintending Officer.

4.2.9 B.Q. means Bill of Quantities.

4.3 Units of Measurement

4.3.1 All units of measurement used in this Specification and in the Bill of Quantities shall be in accordance with the metric system unless otherwise stated.

4.3.2 Where British Imperial units are shown or stated the following conversions shall apply :-

4.3.2.1 1 inch = 25.40 millimetres

4.3.2.2 1 foot = 0.3048 metres

4.3.2.3 1 lb = 0.4536 kilograms

4.3.2.4 1 gallon = 4.5461 litres

4.3.2.5 1 lb/sq.in = 6.895×10^{-3} N/sq.mm

5.0 SCHEDULE OF RATES/BILLS OF QUANTITIES

5.1 Schedule of Rates

- 5.1.1 The tenderer is required to check all the rates given in the Standard Schedule of Rates. The tenderer may propose to vary any rate in the Schedule and his proposed rate/rates subject to agreement by the S.O. as to their reasonableness and shall be used as a basis for calculating the cost of any variations which may be ordered in accordance with the terms of the Contract.
- 5.1.2 The rates in the Schedule of Rates may also be varied by percentage increase or decrease according to the trades or sections of work as listed therein. These percentages shall also be subjected to the agreement of the S.O. The percentage increase or decrease shall not be applicable to the rates which had been varied.
- 5.1.3 Any proposed changes or amendments to the rates in the Standard Schedule of Rates shall be submitted together as part of the Tender Document at the time of submission of the tender.

5.2 Bills of Quantities

- 5.2.1 The Bills of Quantities are to be priced in Malaysian currency i.e. Ringgit Malaysia and Sen. Pricing shall be in INK throughout. The sum of the amounts of all items of the Bills of Quantities priced by the tenderer shall truly represent the amount shown in his tender. The rates set down by the tenderer against each item in the Bills of Quantities shall be the full inclusive rates and prices for the finished work (unless expressly provided to the contrary) and shall be held to include providing and delivering all materials, unloading, cutting and waste on materials, storage, packing, carriage and cartage, hoisting, all labour, setting, fitting and fixing in position, use of plant, providing of suspension, establishment charges, profit and all other labour and everything else necessary for the due and proper completion of each item.
- 5.2.2 Where the tenderer leaves any item blank in the Preliminaries or insert only a dash against any item in this Bills of Quantities the value thereof shall be deemed to be included in the prices or rates of other items therein.

- 5.2.3 No unauthorized alteration, addition or note entered in these Bills of Quantities shall modify the printed text.
- 5.2.4 Headings and notes appearing shall not by itself be deemed to be comprehensive and do not modify the meaning of the items in the Bills of Quantities.
- 5.2.5 Any rates found to be overpriced, inconsistently priced, underpriced or erroneously priced shall be subjected to adjustment and rectification before the signing of the Contract and the authority to fix the reasonable rates/ amount shall be with the S.O. The amended rates shall be used for computing the progress payments and the measuring of variations.
- 5.2.6 Any rates found to be overpriced, inconsistently priced, underpriced or erroneously priced shall be subjected to adjustment and rectification before the signing of the Contract and the authority to fix the reasonable rates/ amount shall be with the S.O. The amended rates shall be used for computing the progress payments and the measuring of variations.
- 5.2.7 Where quantities in the Bills of Quantities are marked provisional, the works shall be re measured on completion basing on Drawings certified as true and correct representation of the completed works by the S.O.

6.0 RESERVE FOR SITE WORKS

- 6.1 The reserve for the construction of the Works shall be as shown in the Contract Drawings or as determined by the S.O. prior to construction. The area available at the site may be limited in size and the Contractor shall ensure that his plant, materials, temporary stores, offices, etc; shall be kept within the area allocated to him.
- 6.2 Where construction of temporary facilities and access thereto requires the cutting and clearance of vegetation, such clearance shall be restricted to the minimum required for the construction of such temporary facilities and shall be to the approval of the S.O. No mangrove or trees shall be cleared unless prior approval of the S.O. has been obtained.

7.0 CONDITIONS FOR USE OF WORKING AREAS

7.1 The Contractor shall at all times comply with the following conditions for the use of the working areas:

- 7.1.1 They shall be kept clean and no commercial or other illegal activities shall be allowed.
- 7.1.2 Proper site drainage shall be installed and properly maintained so as to ensure that no sediments, oil, debris or other pollutants are discharged into the existing waterways.
- 7.1.3 Dumping or burning of refuse in any part of the Site or the surrounding areas is strictly prohibited.
- 7.1.4 Refuse shall be placed in receptacles approved by the S.O. and relevant authority.
- 7.1.5 Adequate measures shall be taken to prevent air pollution. Such measures shall conform to the requirements of the local authority.
- 7.1.6 Upon completion of the Works, the working areas shall be restored to the satisfaction of the S.O.
- 7.1.7 Requirements of the health authority regarding anti dengue, malaria and other vector born disease precautions shall be strictly complied.

8.0 SURVEY AND SETTING OUT

- 8.1 The Contractor shall carry out all necessary survey and setting out including plotting in connection with the Works. The Contractor shall provide qualified personnel (to be approved by the S.O.) to carry out these survey and setting out. Grid references, salient features (such as bunds, waterways, roads, tracks, structures etc.), bearings and reduced levels of the survey stations and bench marks shall be clearly shown on the survey plans.
- 8.2 The Contractor shall confirm the correctness of the Site and the locations of the various relevant structures with the S.O. before proceeding with the setting out and construction of the works.
- 8.3 Notwithstanding whatever assistance or checks on the surveys / setting out by the S.O. or his representatives, the Contractor

shall not be relieved of his responsibility for the accuracy and correctness of the setting out and levelling.

- 8.4 The following surveys shall be carried out:
- 8.4.1 Survey of the Site before commencement of the Works (Primary Survey)
 - 8.4.2 Survey of the Site on completion of the Works (Final Survey)
 - 8.4.3 Interim survey as and when required in connection with interim payments
- 8.5 Primary and final survey shall be carried out by a Licensed Surveyor (subject to the approval of the S.O.) engaged by the Contractor, while Interim Surveys shall be carried out jointly by the S.O. or his Representative and Contractor's competent surveyor.
- 8.6 The setting out work shall include the position, levels, dimensions and alignment of the Works and establish their levels in relation to acceptable and undisturbed Survey Department bench marks. If at any time during the progress of the Works, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor on being instructed by the S.O. shall at his own expense rectify such error to the satisfaction of the S.O.
- 8.7 All survey stations, bench marks and control points shall be made as stable as possible and protected against displacement and painted with such distinguishing colours as agreed by the S.O. or his Representatives. Sufficient survey stations located off the limits of construction area, to which reference may be made for checking, shall be established. Any reference survey stations and setting out pegs disturbed during the course of the Works shall be re-established by the Contractor, at no additional cost to the Government.
- 8.8 All surveys to be used as basis for measurement shall be carried out jointly between the Contractor's surveyors and the S.O. or his Representative. The Contractor shall obtain the S.O. or his Representative's approval of the proposed method and equipment prior to carrying out the surveys. The Contractor shall give a minimum of one week's notice to the S.O. or his Representative for carrying out the joint survey. All reading shall be mutually verified by the Contractor and the S.O. or his Representative to the agreement by both parties.

- 8.9 Notwithstanding sub-paragraph (v) above, the S.O. or his Representative may when he requires the joint survey to be carried out, give notice to the Contractor or his authorized agent/representative, who shall forthwith deploy his surveyor to carry out the survey jointly with the S.O. or his Representative.
- 8.10 Should the Contractor fail to attend, or neglect/omit to deploy, the survey conducted by the S.O. or his Representative shall be taken to be correct and be used for measurement. The cost of such survey shall be borne by the Contractor and a deduction of such amount shall be made from the Contract Sum for payment of the appointed surveyor.
- 8.11 The contractor shall carry out all necessary extra surveys to resolve any doubt as to the accuracy of any survey or record and the S.O. decision shall be final regarding what shall be recorded as the correct survey.
- 8.12 All survey results shall be properly booked, computed and plotted to the same scale as the contract Drawings or such other suitable scale as directed and submitted to the S.O. or his Representative in a suitable digital format and hard copy. The primary survey plans and final survey plans shall be duly certified by the Contractor's licensed surveyor and submitted in both the digital format and the hard copy.
- 8.13 Interim Survey record and drawings shall be prepared by the Contractor and signed by the Contractor and the S.O. or his representative. These drawing shall form the basis of measurement of the appropriate work.

9.0 TEMPORARY WORKS

- 9.1 Unless otherwise specified elsewhere in the Contract, the Contractor shall provide all temporary works necessary for the completion of the Works. The Contractor shall submit to the S.O. for approval all detail design calculation ,drawings and the proposed method statement for all temporary works he intends to construct at least 14 days before commencing construction. Notwithstanding the approval by the S.O., the Contractor shall be solely responsible for the adequacy and safety of his work and for any modification or additional works wherever found necessary by the S.O.
- 9.2 The Contractor shall maintain and remove on completion of the Works, all temporary works including diversions to waterways, roads, staging,

cofferdams and such other measures; and the area reinstated to the approval of the S.O. and/or relevant Authorities.

10.0 PREPARATION OF SITE

- 10.1 The Contractor shall carry out a general clearance of areas within the working reserve as demarcated on Drawings or as directed by the S.O. so as to permit proper execution of the Works. This general clearance shall consist of removal of brushwood, bushes, vegetation, trees, demolition of buildings, concrete floor of buildings and any other superficial obstruction on site in the way of or otherwise affected the Works. The general clearance should be limited only to the minimum space sufficient for working.
- 10.2 Any materials arising from site clearance, which are surplus to or unsuitable for use in the Works, shall be deposited where directed by the S.O. at Contractor's own cost.
- 10.3 Trees in the way of or affected by the Works or where directed by the S.O. shall be uprooted or cut down as near to the ground as possible. All felled timber shall be removed from the site upon necessary clearance by Forestry Department. Roots of trees where directed by the S.O. shall be removed or otherwise disposed of to the approval of the S.O.

11.0 ACCESS TO SITE

- 11.1 The Contractor shall examine the means of access to the site of the Works and shall allow in his tender for the construction and/or improvement of access roads, culverts, tracks, bridges, crossings etc. as necessary for the execution of the Works to the satisfaction of the S.O. and shall allow for and make all the necessary arrangements and obtain all approvals and permissions required to transport materials, plants and equipment to site.

12.0 CONTRACTOR'S PLANT

- 12.1 All mechanical plant used by the Contractor shall be of such type, size and method of working suitable to the type and nature of the Works and site conditions where the Works are to be executed.

13.0 REMOVAL OF IMPROPER PLANTS, MATERIALS AND WORKS

- 13.1 The S.O. shall during the progress of the Works have the power to order in writing from time to time:
- 13.1.1 To remove from site within such time as may be specified in the order of any plant and equipment that in the opinion of the S.O. are not in accordance with the Contract.
 - 13.1.2 To prohibit the Contractor in the use of any plants or equipments or part thereof which in the opinion of the S.O. are not in accordance with the Contract
 - 13.1.3 To substitute with proper and suitable plant and equipment.
 - 13.1.4 To remove and properly re-execute (notwithstanding any test or interim payment made thereof) of any work which in respect of materials or workmanship is not in the opinion of the S.O. in accordance with the Contract.
- 13.2 In case of default on the part of the Contractor in carrying out such order, the Government shall be entitled to employ and pay any others to carry out the same and all the expenses consequent thereon or incidental thereto shall be borne by and be recoverable from the Contractor.

14.0 GOODS, MATERIALS AND WORKMANSHIP

- 14.1 All works shall be executed in accordance with and in conformance to the relevant Specifications incorporated in this Contract. All works not otherwise specified shall be in accordance with the relevant Malaysian Standards, British Standards and Codes of Practice and to the satisfaction of the S.O.
- 14.2 Materials and workmanship throughout the Works shall be in accordance with the Drawings and Specifications and to the approval of the S.O.
- 14.3 Where goods, materials and workmanship are referred to, the abbreviations BS, CP or MS, reference is respectively made to the British Standard, Codes of Practice and Malaysian Standard and they are to conform thereto unless otherwise stated. The current edition at the date of closing tender shall be referred to in each case.

- 14.4 Wherever, in this Specifications any proprietary goods or materials are specified, goods or materials of alternative manufacture may be considered for acceptance provided they comply in all respect as regards to appearance and quality, and are approved by the S.O.
- 14.5 If, however, the Contractor has shown beyond reasonable doubt that the specified goods or materials cannot be obtained and the S.O. is satisfied with regard to the nonavailability of the goods and materials, the benefit of cost savings, if any, resulting from the Contractor's proposal or substitution of goods or materials approved by the S.O., shall be deducted from the Contract Sum.

15.0 PROTECTION OF THE WORKS

- 15.1 From the commencement of the Works to the date the Works are taken over by the Government, the Contractor shall take full responsibility for the care thereof together with all temporary works and in case any damages, loss or injury shall happen to the Works or to any part thereof or to any temporary works from any cause whatsoever, he shall at his own cost repair and make good the same to the satisfaction of S.O. The Contractor shall also be liable for any damage to the Works occasioned by him in the course of any operations carried during the Defects Liability Period.

16.0 SITE TO BE KEPT TIDY

- 16.1 The Contractor shall make every effort to keep the Site in a reasonably clean and tidy condition throughout the progress of the Works. The Contractor shall in addition, from time to time on the completion of any area of the Works or where directed by the S.O., remove rubbish, surplus materials, or any other construction debris from such areas as may be attributable to his work under this Contract and generally leave them in a satisfactory condition, to the approval of the S.O.
- 16.2 Any temporary works, construction plant, materials or other things within the Site that are not required for the time being for use by the Contractor shall be properly kept and securely stored.

17.0 USE OF PUBLIC ROADS

- 17.1 The Contractor shall comply with all requirements of the relevant authorities in respect of the use of the public roads. He shall make proper provision to prevent the excavated materials, sand and aggregates from being deposited on the roads from his vehicles and shall remove any materials which are so deposited promptly and at his own expenses.
- 17.2 The Contractor shall at his own expenses make good any damage to public roads caused by the Contractor's vehicles. Such making good shall be to the satisfaction of the S.O.

18.0 DISTURBANCE

- 18.1 All works shall be carried out without unreasonable obstruction or disturbance to inhabitants in the neighbourhood of the Works. The Contractor shall indemnify the Government from and against any liability for damages on account of obstruction or other disturbances created while or in carrying out work. The Contractor shall indemnify the Government from any liability in respect of all kinds of claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters caused by him.

19.0 INTERFERENCE WITH TRAFFIC AND ADJOINING PROPERTY

- 19.1 All the operation for the execution of the Works and for the construction of any Temporary Works shall be carried out so as not to interfere unnecessarily or improperly with the convenience of the public or the access to use and occupation of public or private roads and footpaths, or properties whether in the possession of the Government or any person.
- 19.2 The Contractor shall indemnify the Government from any liability in respect of all kinds of claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters caused by him.

20.0 DAMAGE TO OVERHEAD AND UNDERGROUND MAIN AND SERVICES

- 20.1 The Contractor shall take particular care to avoid damages to overhead electrical mains and telecommunication lines and all brackets, posts and fittings in connection therewith, and to underground electrical, telecommunication and water mains, drains and other underground services during the progress of the Works.
- 20.2 The Contractor shall make good, at his own expense, any damage caused by him to the existing services to the approval of and in accordance with the instruction of the appropriate authority or owner concern, and shall keep the Government indemnified at all times from all claims, costs and expense which may arise on account of any damage (whether permanent, temporary or recurring) to the said services.

21.0 MAINTENANCE OF TRAFFIC

- 21.1 The Contractor shall be responsible for providing , maintaining and removing, at his own cost adequate diversions to roads, access tracks and waterways interfered with during the execution of the Works.
- 21.2 The Contractor shall at all times take full and sufficient precautions to ensure the safety of all traffic through and around the work site and of traffic diverted due to the works.
- 21.3 The Contractor shall provide, erect and maintain on the Site and at such positions on the approaches to the site as may be required by the S.O. or by relevant Authorities all temporary traffic/warning signs and traffic control signals necessary for the signals necessary for the direction and control traffic. The sizes of all such signs and the lettering and wording thereon shall be as shown on the drawings and approved by the S.O. before erection. Construction and excavation shall be sign posted and, during periods of darkness, shall be lit to the satisfaction of the S.O.
- 21.4 The Contractor shall re-position, cover or remove these signs that be directed by S.O.

22.0 PROTECTION TO ADJOINING PROPERTIES

- 22.1 The Contractor shall exercise the greatest care in carrying out the excavation and piling works and shall allow to in his tender rates to cover all contingencies in connection with the protection works and shall be responsible for any damage due to the Contractor's negligence.

23.0 CONTRACTOR'S AGENT OR REPRESENTATIVES

- 23.1 The Contractor shall appoint a competent Site Agent who shall be in attendance full time on the Contract. The Site Agent shall be authorized to receive and carry out the directions and instructions of the S.O. The Site Agent shall be a qualified engineer or a suitably qualified and experience representatives and had suitable experience in Civil Engineering Works. The Contractor shall submit the name and particulars of his Site Agent for the approval of the S.O. within seven (7) days of the acceptance of his Tender. The named Site Agent shall not be replaced without a written consent by the S.O.

24.0 CONTRACTOR'S OFFICE AND ACCOMODATION

- 24.1 The Contractor shall provide and maintain a suitable office for himself and his staff to the approval of the S.O. In addition, The Contractor shall provide and maintain temporary accomodation and living facilities, stores, workshops, etc., including all necessary services for water supply, drainage and lighting for his staff. Before any work can commence the Contractor shall submit to the S.O. details of the proposed buildings and services and shall obtain the S.O.'s approval together with any necessary approval in writing from the relevant statutory authority.
- 24.2 The Contractor shall be responsible for all fees and other charges or expenses incurred in connection with such office and housing and shall keep the whole area in a clean, tidy and well drained condition. When instructed by the S.O., the Contractor shall remove all such buildings and appurtenant works from the Site, clean up the area and restore it to its original condition.
- 24.3 The Contractor shall provide adequate first aid facilities appropriate to the size and composition of his staff and labour force. The Contractor shall allow the S.O.'s site staff full use of the services and facilities as and when required.

25.0 VEHICLE FOR THE S.O.'S STAFF

- 25.1 The Contractor shall provide transportation service for the S.O. and his staff. Where indicated in the Bills of Quantities or the Summary of Tender that the Contractor shall provide saloon car, the vehicle to be provided shall be a Proton with engine capacity of not less than 1,500 c.c. Where indicated that the vehicle provided shall be a four wheel drive, the Contractor shall provide an air-conditioned 5-door vehicle with engine capacity of not less than 2,000 c.c. complete with all standard accessories and tools.
- 25.2 The Contractor shall ensure that the vehicle(s) are accident free and in a well maintained condition subject to certification from Puspakom at every six (6) months. The vehicle shall be used by the S.O. and his staff exclusively for the project. The vehicle shall be in the custody of the Contractor at all times. JPS logo and the name of the project shall be printed on the left and right front doors of the vehicle.
- 25.3 All necessary fuel, oil and lubricants, general maintenance, comprehensive insurances and road tax shall be provided by the Contractor together with a licensed and competent driver for each vehicle throughout the contract period including any approved extended period unless otherwise instructed by the S.O. Replacement vehicle shall be provided when the normal vehicle is not available such as during periods of servicing, maintenance or repair.
- 25.4 If the Contractor fails to provide or maintain the vehicle the Government shall have the right to procure or maintain the vehicle including employing driver for the vehicle and all expenses arising shall be borne by the Contractor.
- 25.5 The vehicle shall be reverted to the Contractor at the completion of the Contract.

26.0 CONTRACTOR'S OFFICE AND ACCOMODATION

- 26.1 The Contractor shall provide and maintain a suitable office for himself and his staff in a position or positions to be approved by the S.O. In addition, The Contractor shall provide and maintain temporary accommodation and living facilities, stores, workshops, etc., including all necessary services for water supply, drainage and lighting for his staff. Before any work can commence the Contractor shall submit to the S.O. details of the proposed buildings and services and shall obtain the S.O.'s approval together with any

necessary approval in writing from the relevant statutory authority.

- 26.2 The Contractor shall be responsible for all fees and other charges Or expenses incurred in connection with such office and housing and well drained condition. When instructed by the S.O., the Contractor shall remove all such buildings and appurtenant works from the Site, clean up the area and restore it to its original condition.
- 26.3 The Contractor shall provide adequate first aid facilities appropriate to the size and composition of his staff and labour force. The Contractor shall afford the S.O.'s site full use of the services and facilities as and when required.

27.0 S.O'S SITE OFFICE AND GENERAL EQUIPMENT

- 27.1 The Contractor shall provide and maintain a site office for the use of the S.O and his supervisory staff, all in accordance with the relevant Drawings inclusive of all furniture and fittings as shown on the Drawings. The site office shall be provided within four (4) weeks from the date of possession of Site.
- 27.2 The Contractor is permitted to provide relocatable site office or rented premises of equivalent standard an alternative. The quality of such office shall be equivalent standard in terms of fittings and furniture.
- 27.3 The site office details such as the floor area, layout, list of fittings and furniture shall be submitted to the S.O. for approval before supply and erection.
- 27.4 Where electricity and piped water are available from public utility authorities, the Contractors shall arrange for the site office to be connected to the electricity and water supplies. Otherwise, the Contractor shall supply the site office with electric power from generators and shall provide an adequate supply of water for washing and potable filtered water for drinking purposes.
- 27.5 The Contractor shall be fully responsible for the necessary cleaning and maintenance of the site office.
- 27.6 The Contractor shall provide the telephone for the use of the S.O. and his representatives in connection with the supervision and administration of the Contract.

- 27.7 The Contractor shall make arrangement and pay for all necessary connections, installation, rental and charges.
- 27.8 On completion of the Works, unless otherwise stated, the site office with all fittings and furniture shall become the property of the Contractor and shall be removed from the Site forthwith.
- 27.9 The contractor shall provide protection clothing such as rubber knee boots, umbrellas, raincoats, approved safety helmets, safety boots etc for the exclusive use of the S.O. Representatives, staff and visitors. They shall be replaced as and when necessary.

28.0 WATER AND ELECTRICITY SUPPLY

- 28.1 The Contractor shall provide at his own risk and cost all water, lighting and electric power where required for use in the Works and shall pay all costs, fees and charges and comply with all safety regulations and statutes in connection therewith.
- 28.2 The Contractor shall also provide and maintain temporary water storage together with any distribution piping which may be necessary.

29.0 SANITATION

- 29.1 Sanitary conveniences for the use of persons engaged on the Works shall be provided and maintained by the Contractor to the extent and in such manner and at such places as shall be approved by S.O, any competent authority concerned, and all persons connected with the Works shall be obliged to use them.
- 29.2 The Contractor shall make all temporary arrangements for the proper discharge of sewage and drainage in connection with the Works so as to convey and discharge wastewater into the public sewerage system without causing a nuisance or danger to health arising from leakage, blockage or surcharge.
- 29.3 All waste water must be treated such that its effluent meets the requirements of all existing regulations and legislations.

30.0 SAFETY PROVISIONS

- 30.1 The Contractor shall be responsible for compliance to all requirements of the Department of Occupational Safety And Health (DOSH) including the safety of all workmen and other

authorised persons entering the Works and shall take all necessary measures to ensure their safety. Such measures shall include:

30.1.1 Providing and displaying safety and emergency regulations.

30.1.2 Providing and displaying warning signs where necessary.

30.1.3 Providing apparatus to deal with casualties due to fire, gas or electric shock and drowning.

30.1.4 Providing a fully equipped first-aid box. At least one member of the Contractor's workforce should be available at all times, conversant with first-aid.

30.1.5 Safe support of all excavations.

30.1.6 Providing necessary Personnel Protective Equipment (PPE) for all personnel including authorised visitors to the Works and the S.O's staff.

30.1.7 Providing safe and reliable plant and equipment, properly maintained and regularly checked.

30.2 The Contractor shall ensure that all national, local and trade safety regulation are complied with and shall submit for the S.O.'s approval the regulations which he proposes to distribute and/or display to workmen. Such regulations shall be displayed or distributed in Malay, English and Chinese (as appropriate) to all employees and to the S.O's staff.

30.3 The Contractor shall ensure that all his employees are fully conversant with the safety regulations, emergency and rescue procedures and shall dismiss any employee committing a serious breach of such regulations.

30.4 In compliance to the requirement of Occupational Of Safety And Health Act 1994 (OSHA), the Contractor is required to engage a full time qualified Safety Officer and set up a Safety Committee and submit the Safety Plan and Safety Audit Plan for S.O.'s approval.

31.0 FIRE PRECAUTIONS

31.1 The Contractor shall conform to the regulations of the relevant authority at the Site of the Works with respect to the precautions to be taken against fire hazards.

31.2 The Contractor is required to carry out a fire risk assessment of his workplace and shall identify all potential fire hazards and any associated risk. Thereafter he shall take necessary action to minimise or eliminate any such hazards and risk and provide a safe workplace.

32.0 PROJECT SIGNBOARD

32.1 The Contractor shall provide, erect, paint and maintain a project signboard in Bahasa Melayu as shown in the relevant drawing or as directed by the S.O. The signboard shall be erected at a prominent position at the site as approved by the S.O.

33.0 SITE MEETINGS

33.1 The Contractor and/or his authorised representative shall attend progress site meetings and other meetings as requested by the S.O.

34.0 SURVEY INSTRUMENTS, EQUIPMENTS AND CHAINMEN

34.1 The Contractor shall provide for the sole use of the S.O. and his staff all such instruments, equipment and chainmen as the S.O. may require to enable him to check the accuracy of the Contractor's setting out and any measurements taken. The chainmen shall have knowledge of Bahasa Melayu or English and as far as possible the same men shall be provided throughout the Contract period.

34.2 The instruments and equipment to be provided are as listed in Appendix ...

34.3 The Contractor shall be responsible throughout the Contract period for all such instruments, equipment and chainmen and shall ensure that the instruments and equipment are at all times in good working condition and adjustment. All instruments and equipment shall remain the property of the Contractor on completion of the Works

35.0 DETAILS OF CONTRACT NOT TO BE PUBLISHED

35.1 The Contractor shall treat the details of the Contract as confidential and shall not publish or disclose them in any trade or technical paper or elsewhere without the prior consent of the S.O.

36.0 EXISTING GRAVES, BURIAL GROUNDS, ETC

36.1 The Contractor is not to interfere in any way with existing burial grounds, graves and the like. Where these are likely to be affected by the Works, the Government will arrange for the opening up of graves and removal of human remains. Wherever suspected human remains and the like are encountered during the course of the excavation works, they shall be left undisturbed and the Contractor shall immediately report the matter to the S.O. No work shall be carried out in the vicinity until the S.O. issues his instructions to proceed.

37.0 KEEPING WORKS FREE OF WATER

37.1 Except where otherwise specified, the Contractor shall keep the site of the Works free from water so that the work may be carried out in the dry. The contractor shall construct any cofferdams, temporary bulkheads, watercourses and supply such as pumping plant as may be necessary for this purpose.

37.2 Notwithstanding any approval by the S.O. of the arrangements made for the exclusion of water from the Works, the Contractor shall be responsible for the sufficiency thereof and liable for keeping the Works safe during floods and make good any damage to the Works that may be attributable to them at his own expenses. Losses of production, additional overheads or additional costs of any kind that may result from floods are at the Contractor's risk.

38.0 PARTICULARS OF EMPLOYEES

38.1 The Contractor shall on each working day furnish to the S.O., maintain and update a full list of all his workers including all workers employed by his Sub-contractors or Nominated Sub-contractors on the work site in the site diary.

39.0 QUALITY ASSURANCE PLAN

39.1 The Contractor shall propose, for the S.O.'s approval, a system for effective quality control (Quality and Inspection Plan) to be applied throughout the Works. This system should include the Contractor's proposals for:-

39.1.1 Submitting samples for approval.

- 39.1.2 Recording approval of materials and storing of approved samples.
- 39.1.3 Recording orders placed.
- 39.1.4 Recording deliveries to Site.
- 39.1.5 Recording tests carried out off Site.
- 39.1.6 Recording tests carried out on Site.
- 39.2 The purpose of this shall be to avoid disputes on Site as to approvals of materials, to facilitate the supply and delivery of materials as and when required and to ensure that the quality of the Works is effectively controlled throughout the Works.
- 39.3 All materials shall be new and shall be of the type and quality specified and equal to approved samples.
- 39.4 The Contractor shall ensure that materials are transported, handled and stored in such a way that they are not damaged or contaminated and do not deteriorate.

40.0 SAMPLING AND TESTING MATERIALS

- 40.1 The Contractor shall in accordance with the Conditions of Contract, submit samples of materials and carry out tests on Site, in supplier's premises or at any approved laboratory as and when required by the S.O.
- 40.2 The Contractor shall be responsible for submitting samples and carrying out tests sufficiently early to avoid delaying the Works in the event of materials or tests proving unsatisfactory.
- 40.3 The Contractor shall inform the S.O. in writing of the date and location where materials will be ready for inspection or testing, at least seven (7) days in advance. Should the S.O. not be present at the place of testing on the appointed date, testing may proceed without him. However, the Contractor shall submit one copy, of all test results to the S.O. within seven (7) days after testing.
- 40.4 The Contractor shall make due allowance for such sampling and testing of materials as may be required in pricing the tender.

40.5 Approval by the S.O. of any samples or tests shall not prejudice his powers under the Contract, particularly with regard to Clause 5 of Conditions of Contract.

40.6 This clause shall also apply to any materials supplied by sub-contractors.

41.0 STORAGE OF MATERIALS

41.1 All construction materials shall be stored in such a manner as to prevent deterioration or contamination. Any materials, which have deteriorated or have been damaged, shall be immediately removed from the site.

42.0 PROPRIETARY GOODS OR MATERIALS

42.1 The Contractor shall submit all the necessary proof that all the proprietary goods or materials comply with the specifications.

42.2 Wherever in the Specifications, any proprietary goods or materials that are specified for the use in the Works, goods or materials of alternative manufacture will be accepted provided that in the sole opinion of the S.O. they comply in all respects with those specified.

42.3 If the alternative proposals result in cost savings, such cost savings shall be deducted from the Contract Sum.

43.0 WORKS PROGRAMME

43.1 Except where the works programme is furnished by the Government in the tender document, the Contractor shall within 14 days after the receipt of the Letter of Acceptance of Tender, submit to the S.O for his approval, a programme using the Critical Path Method (CPM) including copies of all data on computer medium and printed hard copies. The programme shall be presented in bar chart and network diagrams indicating the critical activities and interface dates critical to complete the work on time. The Contractor shall be required to update all information and maintain the planned programme using the CPM weekly/monthly by trained and qualified personnel or as when instructed by the S.O.

43.2 Where the works programme is furnished by the Government in the tender documents, the Contractor shall comply with such works

programme and provide all the necessary resources required as specified in the programme. Alternatively the Contractor may subject to the S.O's approval, propose an improved works programme which shall not exceed the contract period stipulated, also using CPM to denote all the critical milestones for the successful implementation and completion of the project.

- 43.3 The Contractor shall also furnish in writing to the S.O or S.O's representative particulars of the Contractor's method statements for carrying out such works and of the construction plant and temporary works, if any, which the Contractor intends to supply, use or construct as the case may be. The submission to and approval by the S.O or the S.O's representative of such programme or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.
- 43.4 If at any time it should appear to the S.O that the actual progress of the Works does not conform to the approved works programme, the Contractor shall submit for approval, a revised programme showing the modifications to the previously approved programme and additional resources necessary to ensure the completion of the whole Works within the time set for completion.

44.0 SUPPLY OF MATERIALS

- 44.1 The Contractor shall place orders for the specified materials at such times as will enable him to execute the works in accordance with his approved programme.
- 44.2 If the Contractor fails for any reason to supply any materials which he has contracted to supply or if he fails to supply any such materials in sufficient time to enable the Contract to be completed by the agreed date for completion, the Government may supply any portion, or all of such materials.
- 44.3 If the Government supplies such material, the cost in respect thereof to be borne by the Contractor shall be either the current market rates or the actual cost to the Government, whichever is greater, plus 5% on cost charges.
- 44.4 The cost to be borne by the Contractor, as detailed above, shall be deducted from any money due or to become due to the Contractor under this Contract and the Contract Sum shall be adjusted accordingly.

- 44.5 No action by the S.O. under this clause shall be deemed in any way to affect or modify the right of the Government to claim for damages in the event of the Contractor's failure to complete the Works by the agreed date of completion.

45.0 LIABILITY OF CONTRACTOR UPON S.O's APPROVAL

- 45.1 Wherever the S.O's approval is given to any portion or stage of the Works before the succeeding portion or stage of the Works is allowed to be carried out such approval shall not absolve the Contractor from his liability to make good any defects which may be discovered or occur subsequently during the construction of the Works or during Defect Liability Period.

46.0 PROVISION AND MAINTENANCE OF TEMPORARY DRAINAGE

- 46.1 The Contractor shall make proper provision for the drainage of the project site and surrounding areas which drain on to the site. If necessary temporary detention pond shall be built by the contractor including other structures as per requirement in Urban Stormwater Management Manual (MSMA) guideline or other prevalent guidelines.
- 46.2 The Contractor shall at his own cost, provide, form, fix and maintain such pumps, chutes, walls, drains, bunds and other temporary works necessary for the proper drainage of the Site so that no flooding or other damage or disturbance is caused to areas surrounding the Works or to the Works throughout the duration of the Contract.
- 46.3 The Contractor at any time is prohibited from diverting, damaging and disturbing the on-site and off-site drainage system without written approval from the relevant authorities whichever relevant.

47.0 CLEANING UP ON COMPLETION OF THE WORKS

- 47.1 Upon completion of the Works the Contractor shall clear away and remove from site at their own cost all rubbish, surplus materials, temporary works, grass, weeds etc. of every kind to ensure unimpeded use/operation of all new works such as culverts, drains,

gates, crossing, etc to the entire satisfaction of the S.O. and to leave the site and Works in a tidy and satisfactory condition.

48.0 PROGRESS PHOTOGRAPHS

48.1 The Contractor shall provide all labour and materials as necessary for taking and developing mounted colour photographs in film and in digital format as directed by the S.O. to show the progress and completion of the Works. The photographs shall be in the sequence of event and proper documentation to the satisfaction of the S.O.

49.0 ENVIRONMENTAL PROTECTION AND ENHANCEMENT

49.1 The Contractor shall at all times adhere to all existing statutes regarding protection of the environment.

49.2 The Contractor shall be aware of the following legislation and take all measures to ensure the compliance of:

49.2.1 Environmental Quality Act, 1974 (Act 127) and subsidiary legislation made thereunder;

49.2.2 Environmental Quality (Sewage and Industrial Effluents) Regulations 1979

49.2.3 Environmental Quality (Clean Air) Regulations 1978

49.2.4 Environmental Quality (Scheduled Wastes) Regulations 1989

49.2.5 Sewerage Services Act 1993 - Act 580;

49.2.6 Street, Drainage and Building Act, 1974: Act 133 and amendment, 1978

49.2.7 Protection of Wildlife Act, 1972 (Act 1976)

49.2.8 Land Conservation Act, 1960

49.2.9 Drainage Work Ordinance 1954

49.2.10 Water Enactment - Chapter 146:Water (1935)

49.2.11 Explosives Act 1957 (Act 207 Revised 1978)

49.2.12 Any other prevalent act whichever applicable.

49.3 The Contractor shall be liable for and shall indemnify the Government, S.O. and the S.O.'s Representatives against any damages, expenses, liabilities, losses, claims, prosecutions, proceedings, fines and penalties caused by noncompliance or contravention of the above legislation.

50.0 USE OF LOCAL MATERIALS AND GOODS

50.1 The Contractor shall use locally manufactured materials and goods as listed in the 'Senarai Bahan/ Barangan Binaan Buatan Tempatan' issued by IKRAM QA Services Sdn. Bhd. and/ or 'Senarai Bahan/ Barangan Buatan Tempatan' issued by SIRIM QA Services Sdn.Bhd., whichever is relevant. If the Contractor fails to comply with this requirement, a penalty shall be imposed and/ or the materials supplied shall be rejected. The locally manufactured materials and goods which are not listed aforesaid, may be permitted if the materials have been tested and certified by IKRAM QA Services Sdn.Bhd. or SIRIM QA Services Sdn. Bhd, the Contractor may whichever is relevant. If the testing cannot be carried out by IKRAM QA Services Sdn.Bhd. or SIRIM QA Services Sdn.Bhd., the Contractor may apply and, subject to the approval of the S.O, carry out the testing by other agencies.

50.2 Under no circumstances will the Contractor be permitted to incorporate or supply imported materials, plant, equipment, or other goods into the Works or forming part of the scope of the Works except those approved by the Government, prior to the execution of the Contract. The Contractor shall substitute any materials, plant, equipments, or other goods proposed to be imported but not approved by the Government, with suitable local materials, plant, equipment, or other goods, including making any necessary subsequential changes or adjustments to the design of the Works to accommodate such substitution, all to the concurrence of the S.O.

50.3 The Contractor shall ensure that the procurement of approved imported materials, plant, equipment, or other goods are obtained directly from the country of origin based on Free On Board (F.O.B) or other similar basis. The transportation and insurance of such imported materials, plant, equipment, or other goods from the country of origin to the Site shall be arranged by the Contractor

through approved Government's Multi Modal Transport Operators (MTO). The Contractor shall allow in his tender all costs and time required in complying with the requirements of this clause including the cost required for the services provided by the MTO.

- 50.4 The Contractor shall submit documentary evidence of compliance with this clause to the S.O within one (1) month from the date of each delivery to the Site of such materials, plant, equipment, vehicles or other goods.

51.0 AS-BUILT DRAWINGS

- 51.1 Drawings for recording as-built construction details of the Works shall be prepared by the Contractor and shall be certified by the relevant Professionals and endorsed by the S.O. or his representative. The originals, in good quality transparencies shall be A1 size unless otherwise approved by the S.O., and two (2) printed copies each A1 size, A3 size, Autocad and PDF of all as-built drawings shall be supplied by the Contractor to the S.O. progressively as sections of the Works become completed. All drawings shall be completed within one month after completion of the respective section.

52.0 SITE SECURITY

- 52.1 The Contractor shall provide and maintain all necessary watching and lighting at all times for the whole construction period of the Works.
- 52.2 The Contractor shall supply, erect and maintain adequate fencing, hoarding, warning lamps and such other measures necessary as required by the S.O. or the relevant Authority to ensure security on or within the vicinity of the Site and to provide protection of the Works, materials and plant.

53.0 EROSION SEDIMENT CONTROL PLAN

- 53.1 The contractor shall prepare an ESCP. This document which is to be prepared and certified by a Professional Engineer shall be submitted to the S.O., 30 days prior to commencement of any earthwork activity at project site.
- 53.2 The following items apply to an ESCP documents:

- 53.2.1 The document shall be prepared in accordance with the Storm Water Management Manual (MSMA) and Submission Checklist For Stormwater Management in Malaysia by Jabatan Pengairan dan Saliran Malaysia.
- 53.2.2 It must be amended whenever a change in the design, construction, operation or maintenance at the construction site has a significant effect on the discharge of pollutants to the waters at the project site.
- 53.2.3 It must be amended if discharges are causing water-quality "exceedances" or the Best Management Practise (BMP) are ineffective in minimising pollutants in stormwater discharging from the construction site.
- 53.2.4 All silt traps, sedimentation basins, erosion control measures and drainage system as shown in drawings must be constructed in stages and maintained by the contractor. The location of these mitigating measures shall be detailed and shown on plan in the ESCP Plan.