



GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF TOURISM & LAND

**SRI LANKA TOURISM DEVELOPMENT AUTHORITY
(SLTDA)**

REFURBISHMENT OF THE EXISTING TIC IN PALAVIYA , KALPITIYA

Contract No: SLTDA/TP&D/W/NCB/SITE OFFICE -KALPITIYA/2024/14

National Competitive Bidding (NCB)

SRILANKA TOURISM DEVELOPMENT AUTHORITY

No.80, Galle Road, Colombo 03

May 2024

DOCUMENT ISSUANCE CERTIFICATE
(To be filled at the time of issue by the officer authorized to issue)

1. CONTRACT NUMBER : SLTDA/TP&D/W/NCB/SITE OFFICE/KALPITIYA/2024/14

2. a) ISSUED TO :
.....

b) ADDRESS :
.....
.....

3. TELEPHONE NUMBER :

4. FACSIMILE NUMBER :

5. TENDER FEE : LKR : 7,500.00

6. RECEIPT NUMBER :

7. NUMBER OF COPIES ISSUED:

RECEIVED IN CASH / BANK DRAFT

9. a) ISSUING OFFICER :

b) DESIGNATION :

c) SIGNATURE :

10. PLACE OF ISSUE :

11. DATE : TIME

REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTRE, ATKARAMBA, PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT AUTHORITY

BIDDING DOCUMENT

CONTRACT NO –SLTDA/TP&D/W/NCB/SITE OFFICE- KALPITIYA/2024/14

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AGREEMENT

This AGREEMENT, made the..... day of,2024..... between **Sri Lanka Tourism Development Authority, No 80, Galle Road, Colombo 03** (hereinafter called “**the**

Employer”) of the one part and.....

.....
[Name and address of the contractor) (Hereinafter called “**the Contractor**”) of the other part.

WHEREAS the Employer is desires that the Contractor execute REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTRE, AT KARAMBA, PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT (Hereinafter called “**the Works**”) and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein the Initial Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year aforementioned in accordance with the laws of Sri Lanka.

.....
.....
Authorized signature of Contractor

.....
.....
Authorized Signature of Employer

COMMON SEAL

COMMON SEAL

In the presence of:
Witnesses:

1. Name and NIC No.....
Signature
Address
2. Name and NIC No.....
Signature
Address

Volume I

Section – 1

INSTRUCTIONS TO BIDDERS

Instructions to Bidders Shall be Read in Conjunction with Bidding Data

INSTRUCTIONS TO BIDDERS

Instruction to Bidders applicable to this Contract is those given in Section I of the Standard Bidding document for Procurement of works, CIDA Publication No. ICTAD/ SBD/01, 2nd Edition, January 2007, addendum 01 issued in October 2009 and addendum 02 issued in February 2011 Published by **Construction Industry Development Authority (CIDA)** “Savsiripaya”, 123, Wijerama Mawatha, Colombo 07.

This publication will not be issued with the Bidding document and the Bidder is advised to purchase it from CIDA.

Instructions to Bidders shall be read in conjunction with Bidding Data under section 05.

Invitation for Bids (IFB)

REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTRE, AT KARAMBA, PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT AUTHORITY

The **Chairmen, Procurement Committee** on behalf of the **Sri Lanka Tourism Development Authority, No 80, Galle Road, Colombo 03**, has been selected you as one of the prospective Bidder invites sealed bids from you and other selected bidders for the work that has to be carried out for **construction of site office building at Palaviya**.

1. The construction period is 60 days.
2. Bidding will be conducted through Selective Competitive Bidding Procedure.
3. To be eligible for contract award, successful bidder shall not have been blacklisted and shall meet the following requirements.

The bidder shall be registered in the Construction Industry Development Authority (CIDA) for Grade **C4 or above** for Building works.

4. Qualification requirements to qualify for Contract award include:
 - (a) Average annual volume of Construction Work performed in last five years shall be at least **Rs. 25M**.
 - (b) Experiences in at least one Contract of Renovation / Conservation of similar nature work and complexity equivalent to the works during the last 05 years as the main Contractor.
 - (c) The **minimum** amount of credit facilities, after setting apart for the other contractual commitments and exclusive of any Advance Payments which may be made under the Contract, shall be not less than **Rs. 10M. This should be exclusive for the Project**.
 - (d) Technical staff at Site to be
 1. Site Engineer – NDT 5+yrs Exp Part Time (Should be on site when required)
 2. One Technical Officer - HNDE, NDES or equivalent with 3 year experience
 3. One Work Supervisor - NCT or equivalent with 1 year experience
5. Interested selective bidders may obtain further information from Sagarika Wijerathna, Actg.Assistant Director (procurement), No.80, Galle road, colombo 3. Tel No 011-2426800 and inspect the bidding documents at the above address from 09.00 hrs to 15.00 hrs on working days up to **31st May 2024 -28th June 2024 (BID closing date 2.00 pm on 28th June 2024)**
6. A complete set of Bidding Documents in English language may be downloaded from the SLTDA Website (<https://sltda.gov.lk/tender>) or can be purchased. By interested bidders on the submission of a written application to the Assistant Director (procurement), No.80, Galle road,

Colombo 3. 011-2426800 (from 31st May 2024 to 28th June 2024 from **09.00 hrs to 15.00 hrs.** (**BID closing date 2.00 pm on 28th June'2024**) Upon Payment of a non-refundable fee of **Rs. 7,500.00** plus applicable taxes

7. Bids shall be delivered to procurement division (4th floor), Sri Lanka Tourism Development Authority, no.80, Galle road, Colombo 3 on or before **28th June 2024**. Late Bids will be rejected. Bids will be opened soon after closing in the presence of the bidders' representatives who choose to attend.
8. All Bids shall be accompanied by a Bid Security of **Rupees Three Hundred Thousand Only (Rs.300,000.00)**. The Bid Security shall be valid up to 119 days from the closing date of the Bid.
9. **Pre Bid Meeting** is scheduled to be **held on 12th June 2024 at 10.30 a.m** at Meeting Room 4th Floor Development Division of SLTDA. (Bidders can visit the site -Kalpitiya with authorised SLTDA officers)

**Director Procurement,
Sri Lanka Tourism Development Authority,
No 80, Galle Road,
Colombo 03**

Volume I

Section – 3

CONDITIONS OF CONTRACT

3.0 The Engineer

3.1 Engineer's Duties and Authority

The Employer shall appoint the Engineer who shall carry out the duties and assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.

The Engineer shall have no authority to amend the Contract.

The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Contract Data. The Employer undertakes not to impose further constraints on the Engineer's authority, except as agreed with the Contractor.

However, whenever the Engineer exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Employer shall be deemed to have given approval.

Except as otherwise stated in these Conditions:

- (a) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract: and
- (b) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances.

3.2 Delegation by the Engineer

The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.4 (*Determinations*).

Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:

- (a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials;

-
- (b) if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

3.3 Instructions of the Engineer

The Engineer may issue to the Contractor (at any time) instructions, which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, Clause 13.0 (*Variations and Adjustments*) shall apply.

The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. These instructions shall be given in writing.

3.4 Determinations

Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.4 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars. Each Party shall give effect to each agreement or determination unless and until revised under Clause 19.0 (*Claims, Disputes and Arbitration*).

3.5 Engineer's Impartiality

Wherever, under the Contract, the Engineer is required to exercise his discretion by:

- (a) giving his decision, opinion or consent,
- (b) expressing his satisfaction or approval,
- (c) determining value, or
- (d) otherwise taking action which may affect the rights and obligations of the Employer or the Contractor

He shall exercise such discretion impartially within the terms of the Contract and having regard to all the circumstances. Any such decision, opinion, consent, expression of satisfaction, or approval, determination of value or action may be opened up, reviewed or revised as provided in Clause 19.0 (*Claims, Disputes and Arbitration*).

4.0 The Contractor

4.1 Contractor's General Obligations

The Contractor shall design (to the extent specified in the Contract) execute and complete the Works in accordance with the Contract and with the Engineer's instructions, and shall remedy any defects in the Works.

The Contractor shall provide the Plant, all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for execution, completion and remedying of defects.

The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods, which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Contract Data:

- (a) the Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
- (b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 (*Law and Language*), and shall include additional information required by the Engineer to add to the Drawings for co-ordination of each Party's designs;
- (c) the Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and
- (d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered as completed for the purposes of taking-over under Sub-Clause 10.1 (*Taking Over of the Works and Sections*) until these documents and manuals have been submitted to the Engineer.

4.2 Performance Security

The Contractor shall obtain (at his cost) a Performance Security for his proper performance of the Contract, in the amount stated in the Contract Data. The Contractor shall deliver the Performance Security to the Employer within 14 Days after the receipt of the Letter of Acceptance. The performance Security shall be in the form acceptable to the Employer as stipulated in Contract Data.

Without limitation to the provision of the preceding paragraph and subject to Section 13.0 whenever the Engineer determines an addition to the Contract Price as a result of a change in cost and/or Change in Law and/or as a result of a variation amounting to more than 25 (twenty five) percent of the Initial Contract Price, the Contractor, at the Engineer's written request, shall promptly increase the value of the Performance Security by an equal percentage and thereafter in thresholds of fifteen percent of the Initial Contract Price. The Performance Security of a joint venture shall be in the name of the joint venture.

The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 Days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.

The Employer shall return the Performance Security to the Contractor within 21 Days after receiving a copy of the Performance Certificate.

4.3 Contractor's Representative

The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract.

Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 (*Instructions of the Engineer*).

4.4 Subcontractors

The Contractor shall not subcontract the whole of the Works.

The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor.

Unless otherwise stated in the Contract Data:

- (a) the Contractor shall not be required to obtain consent to suppliers of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
- (b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors; and

**4.5
Assignment of
Benefit of
Subcontract**

- (c) the Contractor shall give the Engineer not less than 28 Days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site.

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Employer, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Employer for the work carried out by the Subcontractor after the assignment takes effect.

**4.6
Co-operation**

The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- (a) the Employer's Personnel;
- (b) any other contractors employed by the Employer; and
- (c) the personnel of any legally constituted public authorities.

who may be employed in the execution on or near the Site of any work not included in the Contract.

Any such instruction shall constitute a Variation, if and to the extent that it causes the Contractor to incur Unforeseeable cost by the date of submission of Bid. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements, which are the responsibility of the Contractor.

The Contractor shall be responsible for his construction activities on the Site, and shall co-ordinate his own activities with those of other contractors to the extent (if any) specified in the Contract.

**4.7
Setting Out**

The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.

The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced Contractor could not reasonably have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine: (i) whether and (if so) to what extent the error could not reasonably have been discovered; and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

4.8 Safety Procedures

The Contractor shall:

- (a) comply with all applicable safety regulations;
- (b) take care for the safety of all persons entitled to be on the Site;
- (c) use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons;
- (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10.0 (Employer's Taking Over); and
- (e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

4.9 Site Data

The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Employer shall similarly make available to the Contractor all such data which come into the Employer's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

To the extent, which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Bid or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- (a) the form and nature of the Site, including sub-surface conditions;
- (b) the hydrological and climatic conditions;
- (c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects;
- (c) the Laws, procedures and labour practices of the Country; and
- (e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

**4.10
Sufficiency of
the Initial
Contract Price**

The Contractor shall be deemed to:

- (a) have satisfied himself as to the correctness and sufficiency of the bid price; and
- (b) have based the bid price on the data, interpretations necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.9 (*Site Data*).

Unless otherwise stated in the Contract, the bid price covers entire Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

**4.11
Unforeseeable
Physical Conditions**

In this Sub-Clause, "physical conditions" means natural physical conditions and man made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

If the Contractor encounters adverse physical conditions, which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.

This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions, which the Engineer may give, if an instruction constitutes a Variation, Clause 13.0 (Variations and Adjustments) shall apply.

If and to the extent that the Contractor encounters physical conditions, which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine (i) whether and (if so) to what extent these conditions were Unforeseeable; and (ii) the matters described in subparagraphs (a) and (b) above related to this extent.

However, before additional Cost is finally agreed or determined under subparagraph (ii), the Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Bid.

If and to the extent that these more favourable conditions were encountered, the Engineer may proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates.

The Engineer may take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which may be made available by the Contractor, but shall not be bound by any such evidence.

**4.12
Contractor's
Equipment**

The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

Contractor's Equipment which is owned by the Contractor (either directly or indirectly) shall be deemed to be the property of the Employer with effect from its arrival on the Site. This vesting of property shall not:

- (a) affect the responsibility or liability of the Employer;
- (b) prejudice the right of the Contractor to the sole use of the vested Contractor's Equipment for the purpose of the Works; or
- (c) affect the Contractor's responsibility to operate and maintain Contractor's Equipment.

The property in each item shall be deemed to revert in the Contractor when he is entitled either to remove it from the Site or to receive the Taking-Over Certificate for the Works, whichever occurs first.

**4.13
Protection of the
Environment**

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from Pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values indicated in the Specification, and shall not exceed the values prescribed by applicable Laws.

**4.14
Progress Reports**

Unless otherwise stated in the Contract Data monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in two copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 Days after the last day of the period to which it relates.

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

Each report shall include:

-
- (a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5.0 (*Nominated Subcontractors*));
 - (b) photographs showing the status of manufacture and of progress on the Site;
 - (c) where applicable, for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
 - (i) commencement of manufacture;
 - (ii) Contractor's inspections;
 - (iii) tests; and
 - (iv) shipment and arrival at the Site;
 - (d) the details described in Sub-Clause 6.9 (*Records of Contractor's Personnel and Equipment*);
 - (e) copies of quality assurance documents, test results and certificates of Materials;
 - (f) list of notices given under Sub-Clause 2.4 (*Employer's Claims*) and notices given under Sub-Clause 19.1 (*Contractor's Claims*);
 - (g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
 - (h) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.15 Contractor's Operations on Site

The Contractor shall confine his operations to the Site, and to any additional areas, which may be obtained by the Contractor and agreed by the Engineer as working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

During the execution of the Works, the Contractor shall keep the Site free from any unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works, which are no longer, required.

Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage,

rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

**4.16
Fossils**

All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub Clause 3.4 (*Determinations*) to agree to determine these matters.

**4.17
Quality Assurance**

The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Engineer shall be entitled to audit any aspect of the system.

Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor himself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

**4.18
Rights of Way
and Facilities**

The Contractor shall bear all costs and charges for special and/or temporary rights-of-way which he may require, including those for access to the Site. The Contractor shall also obtain, at his risk and cost, any additional facilities outside the Site which he may require for the purposes of the Works.

**4.19
Avoidance of
Interference**

The Contractor shall not interfere unnecessarily or improperly with:

- (a) the convenience of the public, or

-
- (b) the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others.

The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

**4.20
Access Route**

The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

Except as otherwise stated in these Conditions:

- (a) the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes:
- (b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions:
- (c) the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route.
- (d) the Employer does not guarantee the suitability or availability of particular access routes, and
- (e) costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

**4.21
Transport of Goods**

- (a) the Contractor shall give the Engineer not less than 7 Days notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- (b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and
- (c) the Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods, and shall negotiate and pay all claims arising from their transport.

**4.22
Security of the Site**

- (a) the Contractor shall be responsible for keeping unauthorized persons off the Site, and

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- (b) authorized persons shall be limited to the Contractor's Personnel and the Employer's Personnel; and to any other personnel notified to the Contractor by the Employer or the Engineer, as authorized personnel of the Employer's other contractors on the Site.

5.0 Nominated Subcontractors

5.1 Definition of "nominated Subcontractor"

In the Contract, "nominated Subcontractor" means a Subcontractor:

- (a) who is stated in the Contract as being a nominated Subcontractor; or
- (b) whom the Engineer, under Clause 13.0 (*Variations and Adjustments*), instructs the Contractor to employ as a Subcontractor.

5.2 Objection to Nomination

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Engineer as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Employer agrees to indemnify the Contractor against and from the consequences of the matter:

- (a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;
- (b) the subcontract does not specify that the nominated Subcontractor shall indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or
- (c) the subcontract does not specify that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:
 - (i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract; and
 - (ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities.

5.3 Payments to nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts, which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with subparagraph (b) of Sub-Clause 13.4 (*Provisional Sums*), except as stated in Sub- Clause 5.4 (*Evidence of Payments*).

**5.4
Evidence of
Payment**

Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- (a) submits this reasonable evidence to the Engineer; or
- (b) (i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts; and
- (ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement, then the Employer may (at his sole discretion) pay, direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.

6.0 Staff and Labour

**6.1
Rates of Wages
and Conditions of
Labour**

The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions, which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.

**6.2
Persons in the
Service of
Employer**

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.

**6.3
Labour Laws**

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

**6.4
Working Hours**

No work shall be carried out on the Site on locally recognised Days of rest, or outside the normal working hours, unless:

- (a) otherwise stated in the Contract;
- (b) the Engineer gives consent; or

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- (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer.

**6.5
Facilities for Staff
and Labour**

The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

**6.6
Health and Safety**

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that first aid facilities are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

The Contractor shall designate a separate person to deal with safety and protection against accidents. The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

**6.7
Contractor's
Superintendence**

Throughout the execution of the Works and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.

Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language or communications {defined in Sub-Clause 1.4 (*Law and Language*)} and of the operations to be carried out (including the methods techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

**6.8
Contractor's
Personnel**

The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the, Contractor's Representative if applicable, who:

- (a) persists in any misconduct or lack of care;
- (b) carries out duties incompetently or negligently;
- (c) fails to conform with any provisions of the Contract; or
- (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.

If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

**6.9
Records of
Contractor's
Personnel and
Equipment**

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site

Details shall be submitted each calendar month in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

**6.10
Disorderly Conduct**

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

7.0 Plant, Materials and Workmanship

**7.1
Samples**

The Contractor shall submit the following samples of Materials, and relevant information, to the Engineer for consent prior to using the Materials in or for the Works:

- (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost; and
- (b) additional samples instructed by the Engineer as a Variation.

Each sample shall be labelled as to origin and intended use in the Works.

**7.2
Inspection**

The Employer's Personnel shall at all reasonable times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained; and
- (b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.

7.3 Testing

This Sub-Clause shall apply to all tests specified in the Contract, other than the Tests after Completion (if any).

The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

The Engineer may, under Clause 13.0 (*Variations and Adjustments*), vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.

The Engineer shall give the Contractor not less than 24 hours notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.

If the Contractor suffers delay and or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*)

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.4 Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

If the Engineer requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay these costs to the Employer.

**7.5
Remedial Work**

Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:

- (a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract;
- (b) remove and re-execute any other work which is not in accordance with the Contract; and
- (c) execute any work which is urgently required for the safety of the Works, whether because of an accident, Unforeseeable event or otherwise.

The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).

If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay to the Employer all costs arising from this failure.

**7.6
Ownership of Plant
and Materials**

Each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:

- (a) when it is delivered to the Site;
- (b) when the Contractor is entitled to payment of the value of the Plant and Materials under Sub-Clause 8.10 (*Payment for Plant and Materials in Event of Suspension*).

**7.7
Royalties**

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:

- (a) natural Materials obtained from outside the Site; and
- (b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site are specified in the Contract.

8.0 Commencement, Delays and Suspension

- 8.1 Commencement of Works** The Engineer shall give the Contractor not less than 7 Days' notice of the Commencement Date. Unless otherwise stated in the Contract Data, the Commencement Date shall be within 14 Days after the Contractor receives the Letter of Acceptance.
- The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.
- 8.2 Time for Completion** The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:
- (a) achieving the passing of the Tests on Completion; and
 - (b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 (*Taking Over of the Works and Sections*)
- 8.3 Programme** The Contractor shall submit a detailed time programme to the Engineer within 14 Days after receiving the notice under Sub-Clause 8.1 (*Commencement of Works*). The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:
- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing;
 - (b) each of these stages for work by each nominated Subcontractor as defined in Clause 5.0 (*Nominated Subcontractors*);
 - (c) the sequence and timing of inspections and tests specified in the Contract; and
 - (d) a supporting report which includes:
 - (i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works; and
 - (ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

Unless the Engineer, within 14 Days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.

The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances, which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances and/or a proposal under Sub-Clause 13.3 (*Variation Procedure*).

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.

8.4 Extension of Time for Completion

The Contractor shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10. 1 (*Taking Over of the Works and Sections*) is or will be delayed by any of the following causes:

- (a) a Variation {(unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 (*Variation Procedure*))} or other substantial change in the quantity of an item of work included in the Contract;
- (b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions;
- (c) exceptionally adverse climatic conditions;
- (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions; or
- (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.

If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 19.1 (*Contractor's Claims*). When determining each extension of time under Sub-Clause 19.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

- (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country;
- (b) these authorities delay or disrupt the Contractor's work; and

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- (c) the delay or disruption was Unforeseeable.

Then this delay or disruption will be considered as a cause of delay under sub paragraph (b) of Sub-Clause 8.4 (*Extension of Time for Completion*).

8.6 Rate of Progress

If, at any time:

- (a) actual progress is too slow to complete within the Time for Completion; and/or
- (b) progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 (*Programme*).

other than as a result of a cause listed in Sub-Clause 8.4 (*Extension of Time for Completion*) then the Engineer may instruct the Contractor submit under Sub-Clause 8.3 (*Programme*), a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay these costs to the Employer, in addition to liquidated damages (if any) under Sub-Clause 8.7 below.

8.7 Liquidated Damages

If the Contractor fails to comply with Sub-Clause 8.2 (*Time for Completion*), the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay liquidated damages to the Employer for this default. These liquidated damages shall be the sum stated in the Contract Data, which shall be paid for every day, which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of liquidated damages (if any) stated in the Contract Data.

These liquidated damages shall be the only damages due from the Contractor for such default, other than in the event of termination on under Sub-Clause 15.2 (*Termination by Employer*) prior to completion of the works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

8.8 Suspension of Work

The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

**8.9
Consequences of
Suspension**

If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under Sub-Clause 8.8 (*Suspension of Work*) and/or from resuming the Suspension work, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 (*Suspension of Work*).

**8.10
Payment for Plant
and Materials in
Event of Suspension**

The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/or Materials which have not been delivered to Site, if

- (a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 Days; and
- (b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Engineer's instructions.

**8.11
Prolonged
Suspension**

If the suspension under Sub-Clause 8.8 (*Suspension of Work*) has continued for more than 84 Days, the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 Days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13.0 (*Variations and Adjustments*) of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 (*Termination by Contractor*).

**8.12
Resumption of
Work**

After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension.

**8.13
Management
Meetings**

The Engineer or the Contractor's Representative may require the other to attend a management meeting in order to review the arrangements for future work. The Engineer shall record the business of such meetings and supply copies of the record to those attending the meeting and to the Employer.

9.0 Tests on Completion

9.1 Contractor's Obligations

The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.3 (*Testing*), after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 (*Contractor's General Obligations*).

The Contractor shall give to the Engineer not less than 21 Days notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 Days after this date, on such day or Days as the Engineer shall instruct.

In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works.

As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2 Delayed Tests

If the Tests on Completion are being unduly delayed by the Employer, Sub-Clause 7.3 (*Testing*) (fifth paragraph) and/or Sub-Clause 10.3 (*Interference with Tests on Completion*), shall be applicable.

If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 Days after receiving the notice. The Contractor shall carry out the Tests on such day or Days within that period as the Contractor may fix and which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within the period of 21 Days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

9.3 Retesting

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.4 (*Rejection*) shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

9.4 Failure to Pass Tests on Completion

If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub Clause 9.3 (*Retesting*) the Engineer shall be entitled to:

- (a) order further repetition of Tests on Completion under Sub-Clause 9.3(*Retesting*);
- (b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Employer shall have the same remedies as are provided in sub paragraph (c) of Sub-Clause 11.4 (*Failure to Remedy Defects*); or
- (c) issue a Taking-Over Certificate, if the Employer so requests.

In the event of sub-paragraph (c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or (ii) determined and paid under Sub-Clause 2.4 (*Employer's Claims*) and Sub-Clause 3.4 (*Determinations*).

10.0 Employer's Taking Over

10.1 Taking Over of the Works and Sections

Except as stated in Sub-Clause 9.4 (*Failure to Pass Tests on Completion*) the Works and Sections shall be taken over by the Employer when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 (*Time for Completion*) and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 Days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

The Engineer shall, within 28 Days after receiving the Contractor's application:

- (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
- (b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.

If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 Days, and if the Works or Section (as the case may be) are substantially completed in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

10.2 Taking Over of Parts of the Works

The Engineer may, at the sole discretion of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works

The Employer shall not use any part of the Works other than as a temporary measure, which is either specified in the Contract or agreed by both Parties unless and until the Engineer has issued a Taking-Over Certificate for this

part. However, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:

- (a) the part which is used shall be deemed to have been taken over as from the date on which it is used;
- (b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer; and
- (c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part.

After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

If the Contractor incurs Cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine this Cost and profit.

If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the liquidated damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the liquidated damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these liquidated damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of liquidated damages under Sub-Clause 8.7 (*Liquidated Damages*) and shall not affect the maximum amount of these damages.

10.3 Interference with Tests on Completion

If the Contractor is prevented, for more than 14 Days, from carrying out the Tests on Completion by a cause for which the Employer is responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 Days' notice and in accordance with the relevant provisions of the Contract.

If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the

Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

11.0 Defects Liability

11.1 Completion of Outstanding Work and Remedying Defects

In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:

- (a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
- (b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.

11.2 Cost of Remedying Defects

All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [*Completion of Outstanding Work and Remedying Defects*] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

- (a) any design for which the Contractor is responsible,
- (b) plant, Materials or workmanship not being in accordance with the contract; or
- (c) failure by the Contractor to comply with any other obligation.

If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and Sub-Clause 13.3 [*Variation Procedure*] shall apply.

11.3 Extension of Defects Notification Period

The Employer shall be entitled subject to Sub-Clause 2.5 [Employer's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or damage. However, a Defects Notification Period shall not be extended by more than two years.

If delivery and/or erection of Plant and/or Materials was suspended under Sub Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/or Materials would otherwise have expired.

**11.4
Failure to Remedy
Defects**

If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub Clause 11.2 [Cost of Remedying Defects], the Employer may (at his option):

- (a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work, and the Contractor shall subject to Sub-Clause 2.4 [Employer's Claims] pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage.
- (b) require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.4 [Determinations], or
- (c) if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

**11.5
Removal of
Defective Works**

If the defect or damage cannot be remedied expeditiously on the Site and the Employer gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

**11.6
Further Tests**

If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 28 days after the defect or damage is remedied.

These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

**11.7
Contractor to**

The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be

Search remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search plus reasonable profit shall be agreed or determined by the Engineer in accordance with Sub-Clause 3.4 [Determinations] and shall be included in the Contract Price.

11.8 Performance Certificate Performance of the Contractor's obligations shall not be considered to have been completed until the Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.

The Engineer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued to the Employer.

Only the Performance Certificate shall be deemed to constitute acceptance of the Works.

11.9 Unfulfilled Obligations After the Performance Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.10 Clearance of Site Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.

If all these items have not been removed within 28 days after the Employer receives a copy of the Performance Certificate, the Employer may sell or otherwise dispose of any remaining items. Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer's costs, the Contractor shall pay the outstanding balance to the Employer.

12.0 Measurement and Evaluation

12.1 Works to be Measured The Works shall be measured, and valued for payment, in accordance with this Clause Whenever the Engineer requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:

- (a) promptly either attend or send another qualified representative to assist the Engineer in making the measurement, and
- (b) supply any particulars requested by the Engineer.

If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) the Engineer shall be accepted as accurate.

Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree the records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

If the Contractor examines and disagrees the records, and/or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer shall review the records and either confirm or vary them. If the Contractor does not so give notice to the Engineer within 14 days after being requested to examine the records, they shall be accepted as accurate.

**12.2
Method of
Measurement**

Except as otherwise stated in the Contract :

- (a) measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- (b) the method of measurement shall be the Standard Method of Measurement stated in the Contract Data according to which the Bills of Quantities and other applicable schedules have been prepared.

**12.3
Evaluation**

Except as otherwise stated in the Contract, the Engineer shall proceed in accordance with Sub-Clause 3.4 [Determinations] to agree or determine the Contract Price by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.

For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contract or, if there is no such item, the rate or price specified for similar work. However, a new rate or price shall be appropriate for an item of work if:

- (a)
 - (i) the measured quantity of the item is changed by more than 25% from the quantity of this item in the Bill of Quantities or other Schedule, and
 - (ii) this change in quantity multiplied by such specified rate for this item exceeds 1% of the Initial Contract Price; or
- (b)
 - (i) the work is instructed under Clause 13.0 [Variations and Adjustments],
 - (ii) no rate or price is specified in the Contract for this item, and
 - (iii) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.

Each new rate or price shall be derived from any relevant rates or prices in the Contract, with reasonable adjustments to take account of the matters described in sub-paragraph (a) and/or (b), as applicable. If no rates or prices are relevant for the derivation of a new rate or price, it shall be derived from the reasonable

Cost of executing the work, together with reasonable profit, taking account of any other relevant matters.

Until such time as an appropriate rate or price is agreed or determined, the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates.

**12.4
Omissions**

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed if:

- (a) the Contractor will incur (or has incurred) costs which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Initial Contract Price;
- (b) the omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and
- (c) this cost is not deemed to be included in the evaluation of any substituted work;

then the Contractor shall give notice to the Engineer accordingly, with supporting particulars. Upon receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

13.0 Variations and Adjustments

**13.1
Right to Vary**

Variations may be initiated by the Engineer at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal.

The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that the Contractor cannot readily obtain the Goods required for the Variation. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.

Each Variation may include:

- (a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
- (b) changes to the quality and other characteristics of any item of work,
- (c) changes to the levels, positions and/or dimensions of any part of the Works,
- (d) omission of any work unless it is to be carried out by others,
- (e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory works, or
- (f) changes to the sequence or timing of the execution of the Works.

The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs or approves a Variation.

**13.2
Value Engineering**

The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.

The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].

If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:

- (a) the Contractor shall design this part,
- (b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply and,
- (c) if this change results in a reduction in the contract value of this part, the Engineer shall proceed in accordance with Sub-Clause 3.4 [Determinations] to agree to determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
 - (i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.6 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost] and
 - (ii) the reduction (if any) in the value to the Employer of the varied works, taking account of any reductions in quality, anticipated life or operational efficiencies.

However, if amount (i) is less than amount (ii), there shall not be a fee.

**13.3
Variation
Procedure**

If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

- (a) a description of the proposed work to be performed and a programme for its execution,
- (b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [Programme] and to the Time for Completion, and
- (c) the Contractor's proposal for evaluation of the Variation.

The Engineer shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Engineering] or otherwise), respond with approval,

disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.

Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.

Each Variation shall be evaluated in accordance with Clause 12.0 [Measurement and Evaluation], unless the Engineer instructs or approves otherwise in accordance with this Clause.

13.4 Provisional Sums

Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:

- (a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or
- (b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise, and for which there shall be included in the Contract Price:
 - (i) the actual amounts paid (or due to be paid) by the Contractor, and
 - (ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in the Data shall be applied.

The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.5 Dayworks

For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a day works Schedule included in the contract, and the following procedure shall apply. If a Day work Schedule is not included in the Contract this Sub-Clause shall not apply. Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the Day works Schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

- (a) the names, occupations and time of Contractor's Personnel;

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- (b) the identification, type and time of Contractor's Equipment and Temporary Works; and
 - (c) the quantities and types of Plant and Materials used.

One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 (*Application for Interim Payment Certificates*).

13.6 Adjustments for Changes in Legislation

The Contract Price shall be adjusted taking in to account any increase or decrease in Cost resulting from change in the Law in Sri Lanka, during the period commencing 28 Days prior to the closing date of Bids and ending on the date of issuance of the Certification of Completion or termination pursuant to clause 15 and 16 and which affect the Contractor's performance of contractual obligations.

For purposes of this sub clause, Change in Law means the enactment of any new Law or a change to existing legislation and the repeal of , or modification of existing laws of the country , including any regulations made, and/or directives issued hereunder, or a change in the judicial interpretation and the application of any Law by a competent Court as compared to such interpretation or application by a Court prior to the date of this Agreement, and which relates to taxation or imposes rationing proscribing any activity or relates to duties and other import/export levies which in each case is beyond the control of the Contractor and materially affects the performance of the Contractor's responsibilities under the Contract.

If the Contractor suffers delay and/or incurs additional Cost attributable to a Change in Law during the period commencing 28 Days prior to the Closing date of Bids and ending on the date of issuance of the Certificate of Completion or termination pursuant to Section 15 and 15, the Contractor shall give notice to the Engineer and shall be entitled subject to sub clause 19.1(Contractor's Claims) to;

- (a) an extension of time for any such delay, if completion is or will be delayed under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) Payment of any such Cost, which shall be included in the Contract Price. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same shall already have been taken into account in the indexing of any inputs to the Price Adjustment Formula in accordance with the provisions of Clause 13.7

After receiving this notice, the Engineer shall proceed in accordance with Sub Clause 4.3 [Determinations] to agree or determine these matters.

13.7 Adjustments for changes in Cost

The amounts computed from the formula given under this sub-clause in respect of the rise or fall in the cost of labour, Materials, Plant and other inputs to the Works, shall be added to or deducted from the payment to the Contractor if the Contract Price is subjected to adjustment due to fluctuation of prices and stated in Contract Data.

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- (a) The adjustment to the Contract Price in respect of Changes in Cost and Legislation shall be determined from following formula:

$$F = \frac{0.966(V - Vna)}{100} \sum_{\text{All inputs}} P_x \frac{(I_{xc} - I_{xb})}{I_{xb}}$$

Where:

- F = Price adjustment for the period concerned
V = Current valuation of work done for the period.
Vna = Value of non adjustable element. or value of work not considered for price variation.
Px = Input percentage of input named X.
Ixc = Current indices of input X
Ixb = Base indices of input X.

No other adjustment of the Contract Price on account of fluctuations of inputs shall be made, notwithstanding the fact that the Contractor has to pay additional amount under special circumstances.

- (b) The “Input Percentage” means the percentage proportionate contribution of any input in terms of cost of the construction based on the prices prevailing for the Month, one Month prior to the Month on which the last date for submission of the Bid falls and listed under Clause numbered 13.7 in Contract Data.
- (c) The “Non adjustable elements” means,
- (i) The work done under the BOQ items that shall not be considered for valuation of price adjustment which are listed under Clause 13.7 in Contract Data.
 - (ii) Variations carried out by the Contractor on instructions of the Engineer under Clause 13.3 and are valued under Clause 12, based on new rates.
 - (iii) Works done under Daywork rates and Provisional Sum items.
 - (d) The “Current Valuation” means the certified gross value of work executed during the current valuation period and will include the 80% of the invoiced value of materials the Contractor has delivered to site but were not consumed for the physical work done.
 - (e) The “Indices” means the monthly indices published by Institute for Construction Training and Development for different Inputs.
 - (f) For the purpose of determining the applicable indices the Month is defined as the time period between the first and the last day of any month in the Gregorian calendar inclusive of the first and the last day.

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- (g) “Base Indices” means the indices for the inputs, prevailing for the Month, one Month prior to the Month on which the last date for submission of Bids falls.
 - (h) In the case of first monthly statement the current indices shall be taken as the indices prevailing on the Month where the Commencement Date falls. For any other monthly statement or for the statement at completion the current indices shall be taken as the indices prevailing for the Month where the first date of the current valuation period falls.
 - (i) If the Contractor fails to complete the Works within the time for completion prescribed under Sub- Clause 8.2 (Time for Completion) or 8.4 (Extension of Time for Completion) the price adjustment for the work performed after the due date of completion as described above shall be made using the current indices prevailed at the due date for completion.
 - (j) The weightings for each of the Inputs of cost given in this Clause shall be adjusted if, in the opinion of the Engineer, they have been rendered unreasonable, unbalanced or inapplicable as a result of varied or additional work already executed or instructed under Sub – Clause 3.3 (Instructions of the Engineer) or for any other reason.

14.0 Contract Price and Payment

14.1 The Contract Price

Unless otherwise stated in the Contract Date:

- (a) the Contract Price shall be agreed or determined under Sub-Clause 12.3 (*Evaluation*) and be subject to adjustments in accordance with the Contract,
- (b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.6 (*Adjustments for Changes in Legislation*);
- (c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:
 - (i) of the Works which the Contractor is required to execute; or
 - (ii) for the purposes of Clause 12.0 (*Measurement and Evaluation*); and
- (d) the Contractor shall submit to the Engineer, within 28 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Engineer may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it.

**14.2
Advance Payment**

The Employer shall make an advance payment excluding provisional sums and contingencies, as an interest-free loan for mobilization, when the Contractor submits a guarantee in accordance with this Sub-Clause. The total advance payment, the number and timing of instalments (if more than one), shall be as stated in the Contract Data.

The Engineer shall issue an Interim Payment Certificate for the first instalment after receiving a Statement {under Sub-Clause 14.3 (*Application for Interim Payment Certificates*)} and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 (*Performance Security*); and (ii) a guarantee in amounts equal to the advance payment. This guarantee shall be issued by an entity approved by the Employer.

The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

The advance payment shall be repaid through percentage deductions in Payment Certificates as follows;

- (a) deductions shall commence from the interim Payment Certificate issued after the payment of the advance payment.
- (b) advance payment shall be repaid by deducting proportionate amounts from the Interim Certificates. Advance payment shall be repaid in full when the total certified value of Work reaches 90% of the Initial Contract Price less provisional sums.

If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15.0 (*Termination by Employer*), Clause 16.0 (*Suspension and Termination by Contractor*) or Clause 20.0 (*Force Majeure*) (as the case may be), the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Employer.

**14.3
Application for
Interim Payment
Certificate**

The Contractor shall submit a Statement in three copies to the Engineer after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the progress during this month in accordance with Sub-Clause 4.14 (*Progress Reports*).

The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- (a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month [including Variations but excluding items described in sub-paragraphs (b) to (g) below];

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- (b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.6 (*Adjustments for Changes in Legislation*) and Sub-Clause 13.7(*Adjustments for Changes in Cost*);
 - (c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Contract data to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Contract data;
 - (d) any amount to be added and deducted for the advance payment and repayments in accordance with Sub-Clause 14.2 (*Advance Payment*);
 - (e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.4 (*Plant and Materials intended for the Works*);
 - (f) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 19.0 (*Claims, Disputes and Arbitration*), and
 - (g) the deduction of amounts certified in all previous Payment Certificates.

**14.4
Plant and Materials
Intended for the
Works**

Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3 (*Application for Interim Payment Certificate*), an amount equivalent to 80% of the invoiced value of Plant and Materials which have been delivered to the Site for incorporation in the Permanent Works.

**14.5
Issue of Interim
Payment
Certificate**

No amount will be certified or paid until the Employer has received and Approved the performance Security. Thereafter, the Engineer shall, within 21 Days after receiving a Statement and supporting documents, issue to the Employer an Interim Payment Certificate, which shall state the amount which the Engineer fairly determines to be due, with supporting particulars.

However, prior to issuing the Taking- Over Certificate for the Works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in the Contract Data. In this event, the Engineer shall give notice to the Contractor accordingly.

An Interim Payment Certificate shall not be withheld for any other reason, although:

- (a) if any thing supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- (b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate.

A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction.

**14.6
Payment**

The Employer shall pay to the Contractor:

- (a) the first instalment of the advance payment within 14 days after issuing the Letter of Acceptance and after receiving the documents in accordance with Sub-Clause 4.2 (*Performance Security*) and Sub-Clause 14.2 (*Advance Payment*),
- (b) the amount certified in each Interim Payment Certificate within 14 days after the Employer receives the Interim Certificate from the Engineer: and
- (c) the amount certified in the Final Payment Certificate within 56 days after Employer receives this Payment Certificate.

**14.7
Delayed Payment**

If the Contractor does not receive payment in accordance with Sub-Clause 14.6 (*Payment*), the Contractor shall be entitled to receive financing charges compounded monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.6 (*Payment*), irrespective (in the case of its sub-paragraph (b)) of the date on which any Interim Payment Certificate is issued.

Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest of 1% over the lending rate of the Central Bank to Commercial Banks.

**14.8
Payment of
Retention**

When the Taking-Over Certificate has been issued for the Works, one half of the total amount retained shall be repaid to the Contractor and the second half when the Defects Notification Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

However, if any work remains to be executed under Clause 11.0 (*Defects Liability*), the Engineer shall be entitled to withhold certificate of the estimated cost of this work until it has been executed.

When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.6 [Adjustments for Changes in Legislation] and Sub Clause 13.7 (*Adjustments for Changes in Cost*).

**14.9
Statement at
Completion**

Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer three copies of a Statement at completion with supporting documents, in accordance with Sub - Clause 14.3 (*Application for Interim Payment Certificates*), showing:

- (a) the value of work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,

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- (b) any further sums which the Contractor considers to be due, and
 - (c) any estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.

The Engineer shall then certify in accordance with Sub - Clause 14.5 (*Issue of Interim Payment Certificates*).

**14.10
Application for
Final Payment
Certificate**

Within 56 days after receiving the Performance Certificate, the Contractor shall submit to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:

- (a) the value of work done in accordance with the Contract, and
- (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

However if, following discussions between the Engineer and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate or the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub - Clause 19.3 (*Procedure for Adjudication*) or Sub - Clause 19.5 (*Arbitration*) the Contractor shall then prepare and submit to the Employer (with a copy to the Engineer) a Final Statement.

**14.11
Discharge**

When submitting the Final Statement, the Contractor shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

**14.12
Issue of Final
Payment
Certificate**

Within 28 days after receiving the Final Statement and written discharge in accordance with Sub - Clause 14.10 (*Application for Final Payment Certificate*) and Sub - Clause 14.11 (*Discharge*), the Engineer shall issue, to the Employer, the Final Payment Certificate, which shall state:

- (a) the amount which is finally due, and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with Sub - Clause 14.10 (*Application for Final Payment Certificate*) and Sub - Clause 14.11 (*Discharge*), the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

**14.13
Cessation of
Employer's
Liability**

The Employer shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

- (a) In the Final Statement and also
- (b) (except for matters or things arising after the issue of the Taking-Over Certificates for the Works) in the Statement of completion described in Sub-Clause 14.9 (*Statement at Completion*).

However, this Sub-Clause shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.

15.0 Termination by Employer

**15.1
Notice to Correct**

If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

**15.2
Termination by
Employer**

The Employer shall be entitled to terminate the Contract if the Contractor:

- (a) fails to comply with Sub-Clause 4.2 (*Performance Security*) or with a notice under Sub-Clause 15.1 (*Notice to Correct*);
- (b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract;
- (c) without reasonable excuse fails:
 - (i) to proceed with the Works in accordance with Clause 8.0 (*Commencement, Delays and Suspension*); or
 - (ii) to comply with a notice issued under Sub-Clause 7.4 (*Rejection*) or Sub-Clause 7.5 (*Remedial Work*), within 28 Days after receiving it;
- (d) subcontracts the whole of the Works or part of the works without prior consent of the Engineer or assigns the Contract without the required agreement;
- (e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs

which (under applicable Laws) has a similar effect to any of these acts or events; or

- (f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:
 - (i) for doing or forbearing to do any action in relation to the Contract; or
 - (ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract,

or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph. However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination.

- (g) The Contractor has engaged in corrupt or fraudulent practices, in competing for or in executing the Contract,

For the purpose of this Sub-Clause:

“corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in Contract execution;

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract to the detriment of the Employer, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

In any of these events or circumstances, the Employer may, upon giving 14 Days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract; and (ii) for the protection of life or property or for the safety of the Works.

After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

The Employer shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

**15.3
Valuation at
Date of
Termination**

As soon as practicable after a notice of termination under Sub-Clause of Termination by Employer has taken effect the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

**15.4
Payment after
Termination**

After a notice of termination under Sub-Clause 15.2 (*Termination by Employer*) has taken effect, the Employer may:

- (a) proceed in accordance with Sub-Clause 2.4 (*Employer's Claims*);
- (b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established; and/or
- (c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, as determined by the Engineer after allowing for any sum due to the Contractor under Sub-Clause 15.3 (*Valuation at Date of Termination*) After recovering any such losses, damages and extra costs, the Employer shall pay, any balance to the Contractor.

**15.5
Employer's
Entitlement to
Termination**

The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 Days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor.

After this termination, the Contractor shall proceed in accordance with Sub Clause 16.3 (*Cessation of Work and Removal of Contractor's Equipment*) and shall be paid in accordance with Sub-Clause 20.6 (*Optional Termination, Payment and Release*).

Provided however, the Employer shall not be precluded from executing the Contract himself or by another Contractor, after a period of one year has lapsed from the date on which the termination has taken effect pursuant to this Section and subject to the satisfaction of the Employer's payment obligations to the Contractor under the Contract.

16.0 Suspension and Termination by Contractor

**16.1
Contractor's
Entitlement to
Suspend Work**

If the Engineer fails to certify in accordance with Sub-Clause 14.5 (*Issue of Interim Payment Certificates*) or the Employer fails to comply with Sub-Clause 14.6 (*Payment*) the Contractor may, after giving not less than 56 Days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.7 (*Delayed Payment*) and to termination under Sub-Clause 16.2 (*Termination by Contractor*).

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

**16.2
Termination by
Contractor**

The Contractor shall be entitled to terminate the Contract if:

- (a) the Engineer fails, within 56 Days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate;
- (b) the Contractor does not receive the amount due under an Interim Payment Certificate within 56 Days after the expiry of the time stated in Sub-Clause 14.6 (*Payment*) within which payment is to be made (except for deductions in accordance with Sub-Clause 2.4 (*Employer's Claims*));
- (c) the Employer substantially fails to perform his obligations under the Contract;
- (d) the Employer fails to comply with Sub-Clause 1.6 (*Contract Agreement*) or Sub-Clause 1.7 (*Assignment*);
- (e) a prolonged suspension affects the whole of the Works as described in Sub Clause 8.11 (*Prolonged Suspension*); or

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- (f) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.

In any of these events or circumstances, the Contractor may, upon giving 14 Days notice to the Employer, terminate the Contract. However, in the case of subparagraph (e) or (f), the Contractor may by notice terminate the Contract immediately.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.

16.3 Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 (*Employer's Entitlement to Termination*) Sub-Clause 16.2 (*Termination by Contractor*) or Sub-Clause 20.6 (*Optional Termination, Payment and Release*) has taken effect, the Contractor shall promptly:

- (a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works;
- (b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment; and
- (c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

16.4 Payment on Termination

After a notice of termination under Sub-Clause 16.2 (*Termination by Contractor*) has taken effect, the Employer shall promptly:

- (a) return the Performance Security to the Contractor;
- (b) pay the Contractor in accordance with Sub-Clause 20.6 (*Optional Termination, Payment and Release*); and
- (c) pay to the Contractor the amount of any, loss of profit or other loss or damage sustained by the Contractor as a result of this termination.

17.0 Risk and Responsibility

17.1 Indemnities

The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents; and

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- (b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss:
 - (i) arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects; and
 - (ii) is attributable to any negligence, wilful act or breach of the Contract by the Contractor, the Contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

**17.2
Contractor's
Care of the
Works**

The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued {or is deemed to be issued under Sub-Clause 10.1 (*Taking Over of the Works and Sections*)} for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.

After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 (*Employer's Risks*) the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

**17.3
Employer's Risks**

The risks referred to in Sub-Clause 17.4 below are:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (b) rebellion, terrorism, revolution, insurrection, military or usurped power or civil war, within the Country;
- (c) riot, commotion or disorder within the Country by persons other than the Contractor's Personnel and other employees of the Contractor and Subcontractors;
- (d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, within the Country, except as may be

attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity;

- (e) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds;
- (f) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract;
- (g) design of any part of the Works by the Employer's Personnel or by others for whom the Employer is responsible; and
- (h) any operation of the forces of nature which is Unforeseeable or against which an experienced Contractor could not reasonably have been expected to have taken adequate preventative precautions.

17.4 Consequences of Employer's Risks

If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.

If the Contractor suffers delay and/or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such data, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included in the Contract Price in the case of sub-paragraphs (f) and (g) of Sub-Clause 17.3 (*Employer's Risks*) reasonable profit on the Cost shall also be included.

After receiving this further notice, the Engineer shall proceed in accordance with Sub Clause 3.4 (*Determinations*) agree or determine these matters.

18.0 Insurance

18.1 Insurance for Works and Contractor's Equipment

Without limiting his obligations and responsibilities under the Contract, the Contractor within 14 Days from the Letter of Acceptance, shall insure up to the amounts given below, in the joint names of the Employer and the Contractor against all loss or damage from whatever cause arising, other than employer's risks, for which he is responsible under the terms of the Contract and in such manner that the Employer and Contractor are covered for the period stipulated in Sub-Clause 17.2 and are also covered during the period of Defects Notification for loss or damage arising from a cause, occurring prior to the commencement of the Defects Notification Period, and for any loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 11.0:

- (a) Works for an amount not less than 115% of Initial Contract Price; and
- (b) The Contractor's Equipment for the replacement value.

**18.2
Third Party
Insurance
(including
Employer's
Property)**

The Contractor within 14 Days from the Letter of Acceptance, shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property {except things insured under Sub-Clause 18.1 (*Insurance for Works and Contractor's Equipment*)} or to any person, which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

This insurance shall be for a limit per occurrence of not less than the amount stated in Contract Data, with no limit on the number of occurrences.

The insurances specified in this Sub-Clause:

- (a) shall be in the joint names of the Parties; and
- (b) shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under Sub-Clause 18.1 arising out of the Contractor's performance of the Contract);

**18.3
Insurance for
Contractor's
Personnel**

The Contractor within 14 Days from the Letter of Acceptance, shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer and the Engineer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, whether the insurance has been effected by the Subcontractor or not, the Contractor shall be responsible for compliance with this Clause.

**18.4
Remedy on
Contractor's
Failure to
Insurance**

If the Contractor shall fail to effect and keep in force the insurances referred to in Clause 18.1, 18.2 and 18.3 hereof, or any other insurance which he may be required to effect under the terms of the Contract, then and in any such case the Employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount together with the service charge of 5% of the amount so paid by the Employer as aforesaid from any monies due or which may become due to the Contractor, or recover the same as a debt due from the Contractor.

19.0 Claims, Disputes and Arbitration

**19.1
Contractor's
Claims**

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract. the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 Days after the Contractor became aware, or should have become aware, of the event or circumstance.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employers liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 84 Days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim may be considered as interim;
- (b) the Contractor may send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 28 Days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

Within 42 Days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 (*Extension of Time for Completion*) and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim, If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to

which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

**19.2
Dispute Resolution**

Any dispute of whatever nature arising out of or in relation to this agreement shall in the first instance be attempted to be resolved by way of adjudication in accordance with the adjudication procedure set forth in Clause 19.3.

**19.3
Procedure for
Adjudication**

Either party may initiate the reference of a dispute to the Adjudicator by giving 07 Days notice to the other Party.

The Adjudicator shall be appointed by agreement between the Parties. In the event the Parties are unable to reach agreement on the appointment of the Adjudicator within fourteen (14) Days from the date of such request, either Party may make an application to the Institute for Construction Training and Development (ICTAD) to appoint an Adjudicator.

The Adjudicator shall be a professional with experience relevant to the Works and in the interpretation of contractual documents. Such Adjudicator shall have no interest financial or otherwise in the Employer, the Contractor or the Engineer nor any financial interest in the Contract, except in respect of his professional fees.

The Adjudicator's fee shall be agreed by both Parties and shall be borne by both Parties in equal amounts.

The Adjudicator shall give the determination in writing within 28 Days or such other period of receipt of a notification of a dispute. The Adjudicator shall determine procedures as he sees fit ensuring that each Party is given a reasonable opportunity to make representations including written submissions and/or hearing of witnesses in person.

With the prior concurrence of both Parties the Adjudicator may take advice and assistance from independent professional advisor/s or other person/s to enable him to reach a determination on the dispute. Such costs shall be borne by both Parties in equal amounts.

Each of the Parties shall upon and in accordance with a request by the Adjudicator supply him free of charge such information and documents as he shall require for the purposes of the reference to him. That information and those documents shall be kept confidential by him and by the Parties.

The Adjudicator shall not act as an Arbitrator. The decision of the Adjudicator shall be deemed final and binding on the Parties if neither Party refers the dispute to arbitration in accordance with Sub-Clause 19.5 within twenty eight (28) Days of the Adjudicator's determination.

**19.4
Replacement of
Adjudicator**

Should the Adjudicator resign or die or is removed by agreement of the Parties on the basis of his unsatisfactory performance, the Parties may jointly appoint another Adjudicator and such an appointment shall be made within fourteen (14) Days after the resignation or death or removal of the Adjudicator. If the Parties are unable to reach agreement on the appointment of a new Adjudicator then the Adjudicator shall be appointed by the Institute

for Construction Training and Development (ICTAD) at the request of either Party within fourteen (14) Days of receipt of such request.

**19.5
Arbitration**

- (a) Any dispute of whatever nature arising from, out of or in connection with this agreement, on the interpretation thereof, or the rights, duties, obligations or liabilities of any Party, or the operation, breach, termination, abandonment, foreclosure or invalidity thereof, shall be referred to by either Party to arbitration for final settlement, in accordance with the Arbitration Act No.11 of 1995, or any amendment thereof,
- (b) Pending the award in any arbitration proceedings hereunder,
 - (i) this Contract and the rights and obligations of the Parties shall remain in full force and effect and
 - (ii) each of the Parties shall continue to perform their respective obligations under this Contract. The termination of this Contract shall not result in the termination of any arbitration proceedings pending at the time of such termination nor otherwise affect the rights and obligations of the Parties under or with respect to such pending arbitration.
- (c) Any award rendered by the arbitral tribunal shall determine the extent to which the cost of arbitration is to be borne by each Party. The arbitration centre charges (if any) and the compensation to the arbitrator shall be equally shared by the Parties initially.

Composition of the Arbitral Tribunal :

The arbitral tribunal shall consist of a sole arbitrator who shall be appointed in the manner provided in the Selection Procedure as given below.

Selection Procedure :

The Party desiring arbitration shall nominate three arbitrators out of which one to be selected by the other Party within 21 Days of the receipt of such nomination. If the other Party does not select one to serve as Arbitrator within the stipulated period then the Arbitrator shall be appointed in accordance with the Arbitration Act No.11 of 1995, or any amendments thereof.

Venue & Language :

The venue of arbitration shall be in Sri Lanka.

Unless otherwise agreed to by the Parties the proceedings shall be conducted and the award shall be rendered in the English language.

20.0 Force Majeure

**20.1
Definition of
Force Majeure**

In this Clause, "Force Majeure means an exceptional event or circumstance

- (a) which is beyond a Party's control;

-
- (b) which such Party could not reasonably have provided against before entering in to the Contract;
 - (c) which, having arisen, such Party could not reasonably have avoided or overcome, and
 - (d) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies.
- (ii) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war;
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel and other employees of the Contractor and Sub-Contractors,
- (iv) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- (v) natural catastrophes such as earthquake hurricane, typhoon or volcanic activity.

**20.2
Notice of Force
Majeure**

If a Party is or will be prevented from performing any of its obligations under the Contract by Force Majeure. Then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 Days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Party shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them.

Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

**20.3
Duty to Minimise
Delay**

Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure.

A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

**20.4
Consequence of
Force Majeure**

If the Contractor is prevented from performing any of his obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 20.2 (*Notice of Force Majeure*) and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled to such Costs subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 20.1 (*Definition of Force Majeure*) and, in the case of sub-paragraphs (ii) to (iv), occurs in the Country, payment of any such Cost.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

**20.5
Force Majeure
Affecting
Sub-Contractor**

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

**20.6
Optional
Termination,
Payment and
Release**

If the execution of substantially all the Works in progress is prevented for a continuous period of 84 Days by reason of Force Majeure of which notice has been given under Sub-Clause 20.2 (*Notice of Force Majeure*) or for multiple periods which total more than 140 Days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 Days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 (*Cessation of Work and Removal of Contractor's Equipment*).

Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:

- (a) the amounts payable for any work carried out for which a price is stated in the Contract;
- (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
- (c) any other Cost or liability which in the circumstances was reasonably incurred by the Contractor in the expectation of completing the Works;
- (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and

-
- (e) the Cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

**20.7
Release from
Performance
under the Law**

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract; and
- (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under Sub-Clause 20.6 (*Optional Termination. Payment and Release*) if the Contract had been terminated under Sub-Clause 20.6

Volume I

Section - 5

Standard Forms (Contracts)

- 1. Letter of Acceptance**
- 2. Agreement**
- 3. Performance Security**
- 4. Advance Payment Security**
- 5. Retention Money Guarantee**
- 6. Power of Attorney**
- 7. Bid Submission Form**
- 8. Bid Security**

FORM OF AGREEMENT

This AGREEMENT, made the..... [day] day of
{month} 20.....

[year] between..... [name and
 address of Employer] (hereinafter called "the Employer") of the one part, and

..... [name and address of
 Contractor] "hereinafter called "the Contractor") of the other part.

WHEREAS the Employer desires that the Contractor execute
 [Name
 and identification number of Contract] (Hereinafter called "the Works") and the Employer has
 accepted the Bid by the Contractor for the execution and completion of such Works and the
 remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meanings as are
 respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall
 be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as
 hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and
 complete the Works and remedy any defects therein in conformity in all respects with the
 provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the
 execution and completion of the Works and the remedying of defects wherein the Initial
 Contract Price or such other sum as may become payable under the provisions of the Contract at
 the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and
 year aforementioned in accordance with laws of Sri Lanka.

.....
 Authorized signature of Contractor
 Employer
 Common Seal

.....
 Authorized signature of
 Common Seal

In the presence of:

Witnesses:

1. Name and NIC No.....
 No.....
 Signature.....
 Address.....
2. Name and NIC No.....
 No.....
 Signature.....
 Address.....

- 1.Name and NIC
 Signature.....
 Address.....
- 2.Name and NIC
 Signature
 Address.....

FORM OF LETTER OF ACCEPTANCE

[Letter heading paper of the procuring entity]

..... *[Date]*

To:

[Name and address of the Contractor]

This is to notify you that your bid dated..... *(Insert date)* for the construction and

remedying defects of the

[name of

the Contract and identification number,] for the Contract price of Rupees

.....

[name of currency]*[amount in figures and words]*

as corrected in accordance with Instructions to Bidders and / or modified by a Memorandum of Understanding, is hereby accepted.

The adjudicator shall be *[name and address of*

the adjudicator, if agreed] / shall be appointed by the Construction Industry Development Authority (CIDA).

You are hereby instructed to proceed with the execution of the said works in accordance with the Contract documents.

The start date shall be :.....(fill the dates as per conditions of contract).

The amount of performance security is :.....(fill the date as per conditions of contract).

The performance security shall be submitted on or before (Fill the date as

per conditions of contract).

Authorized Signature:

Name and title of Signatory:

Name of Agency:

**FORM OF PERFORMANCE SECURITY
(Unconditional)**

..... *[Issuing agency's name and address of issuing branch or office]*

Beneficiary: *[Name and address of employer]*

Date:

PERFORMANCE GUARANTEE NO:

We have been informed that *[Name of contractor]* (hereinafter called "the contractor") has entered into Contract No. *[reference number of the contract]* dated with you, for the *[insert "construction"]* of

..... *[name of contract and brief description of works]* (hereinafter called "the contract").

Furthermore, we understand that, according to the conditions of the contract, a performance guarantee is required.

At the request of the contractor, we *[name of agency]*

hereby irrevocably undertake to pay you any sum or sums not exceeding in total amount of *[amount in figures]* (.....

.....) *[amount in words]*, upon receipt by us of your first demand in writing accompanied by a written statement stating that the contractor is in breach of its obligation(s) under the contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the day of 20..... *[insert date, 28 days beyond the intended completion date]* and any demand for payment under it must be received by us at this office on or before that date.

FORM OF ADVANCE PAYMENT SECURITY -----

----- [Name and address of Agency, and Address of Issuing Branch or Office] Beneficiary: Director General Sri Lanka Tourism Development Authority No. 80, Galle Road, Colombo 03 Date: ----- ADVANCE PAYMENT GUARANTEE No.: ----- We have been informed that ----- [name of Contractor] (hereinafter called "the Contractor") has entered into Contract No. ----- [reference number of the contract] dated ----- with you, for the ----- construction of ----- [name of contract and brief description] (hereinafter called "the Contract"). Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum - [amount in figures] (-----) [amount in words] is to be made against an advance payment guarantee. At the request of the Contractor, we ----- [name of issuing agency] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ----- [amount in figures] (-----) [amount in words] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation in repayment of the advance payment under the Contract. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor. This guarantee shall expire on ----- [Insert the date, 28 days beyond the expected expiration date of the Contract] Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

----- [signature(s)] Section 2 – Standard Forms(Contract)

FORM OF RETENTION MONEY GUARANTEE -----
-----[Issuing Agency's Name, and Address of Issuing Branch
or Office] Beneficiary: Director General Sri Lanka Tourism Development Authority No. 80, Galle
Road, Colombo 03 Date: ----- RETENTION MONEY GUARANTEE No.: -----
----- We have been informed that ----- [name of
Contractor] (hereinafter called "the Contractor") has entered into Contract No. -----
[reference number of the contract] dated ----- with you, for the execution of -----
[name of contract and brief description of Works] (hereinafter called "the Contract"). Furthermore, we
understand that, according to the conditions of the Contract, when the works have being taken over
and the first half of the Retention Money has been certified for payment, payment of the second half
of the Retention Money may be made against a Retention Money guarantee. At the request of the
Contractor, we ----- [name of agency] hereby irrevocably
undertake to pay you any sum or sums not exceeding in total an amount of --- -----[amount in figures]
(-----) [amount in words] upon receipt by us of
your first demand in writing accompanied by a written statement stating that the Contractor is in
breach of its obligation under the Contract because the Contractor has not attended to the defects in
accordance with the Contract.. This guarantee shall expire, at the latest, -----
[insert 28 days after the end of the defects liability period]. Consequently, any demand for payment
under this guarantee must be received by us at this office on or before that date.
_____ [signature(s)]

Bid Submission Form

[Note: the purchaser is required to fill the information marked as “” and delete this note prior to selling of the bidding document]*

[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Bid Submission]*
No.: *[insert number of bidding process]*

To: *[* insert complete name of Purchaser]*

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda No.: *[insert the number and issuing date of each Addenda]*;
- (b) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services *[* insert a brief description of the Goods and Related Services]*;
- (c) The total price of our Bid without VAT, including any discounts offered is: *[insert the total bid price in words and figures]*;
- (d) The total price of our Bid including VAT, and any discounts offered is: *[insert the total bid price in words and figures]*;
- (e) Our bid shall be valid for the period of time specified in ITB Sub-Clause 18.1, from the date fixed for the bid submission deadline in accordance with ITB Sub-Clause 23.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 43 and CC Clause 17 for the due performance of the Contract;
- (g) We have no conflict of interest in accordance with ITB Sub-Clause 4.3;
- (h) Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the contract—has not been declared blacklisted by the National Procurement Agency;
- (k) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (l) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed: *[insert signature of person whose name and capacity are shown]*
In the capacity of *[insert legal capacity of person signing the Bid Submission Form]*

Name: *[insert complete name of person signing the Bid Submission Form]*

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

FORM OF BID SECURITY

[this Guarantee form shall be filled in accordance with the instructions indicated in brackets]

.....*[insert issuing agency’s name, and address of issuing branch or office]*

Beneficiary:

Date----- *[insert (by issuing agency) date]*

BID GUARANTEE NO.: -----*[insert (by issuing agency) number]* we have been informed that.....*[insert (by issuing agency) name of the Bidder]* (hereinafter called "the Bidder") has submitted to you its bid dated ----- *[insert (by issuing agency) date]* (hereinafter called "the Bid") for the execution of *[insert name of Contract]* under Invitation for Bids No ----- *[insert IFB number]* ("the IFB").

Furthermore, we understand that, according to your conditions, Bids must be supported by a Bid

**Guarantee. At the request of the Bidder, we ----- *[insert name of issuing agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of.....*[insert amount in figures]*
--- *[insert amount in words]* upon receipt by us of your first demand in writing accompanied by a written statementstating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:**

- (a) has withdrawn its Bid during the period of bid validity specified; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter “the ITB”);or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) failsor refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

**This Guarantee shall expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the Contract signedby the Bidder and of the Performance Security issued to you by the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) the successful bidder furnishing the performance security, otherwise it will remain in force up to -----
*(insert date)***

Consequently, any demand for payment under this Guarantee must be received by us at the office on or before that date.

.....
[signature(s) of authorized representative(s)]

Volume II

Section – 2

BIDDING DATA

BIDDING DATA

Instructions to Bidders Clause Reference

(1.1)

Employer's Name and Address

Name : **Sri Lanka Tourism Development Authority**
Address : **No 80, Galle Road, Colombo 03**

(1.2)

Time for Completion

Completion date shall be 90 Days from the commencement date.

(1.3)

The office for collection of bid form is

Sagarika Wijerathna,
Actg. Assistant Director (procurement),
No.80, Galle road,
colombo 3.
011-2426800

The non-refundable Bid fee is **Rupees 7,500.00 Exclude Tax**

The Bid forms will be issued **until 28th June 2024 (Bid will close at 2.00p.m on 28th June'2024)**

(4.1)

Qualification Information

The following information and documents shall be provided in Section 4-Schedules according to the tabulated formats therein;

CIDA Registration

Registration number:.....
Grade
Specialty
Expiry Date

- * VAT Registration number
- * Construction Program
- * Legal Status (Sole proprietor, Partnership, Company etc.)
- * Total monetary value of construction work performed for each of the last five years;
- * Experience in works of a similar nature and size for each of last ten years;
- * Major items of construction equipment proposed to carry out the Contract; (if specified equipment be needed)

- * Qualifications and experience of key site management and technical personnel proposed for the Contract ;
- * Detail of Credit facilities
- * Details of work in hand
- * Documentary proof showing that the total value of work in hand is not exceeding the limit established by CIDA for the registered Grade
- * Method statement and all technical information
- * Proposed Subcontractors' details by the bidder.

4.2

The registration

Specialty : Building Construction

Grade : C4

Expiry Date: Registration should not be expired before the date of closing of bid.

Up dated details on CIDA registration shall be submitted

- * Experience in the Construction of at least one contract of a nature and complexity equivalent to the works over the last 5 years (to comply with this requirement, works cited should be at least 100 % completed); Attach as Annex.
- * Following technical and managerial staff:
 1. Project Manager (Part time)
 2. Site Engineer-full time
 3. Technical Officer 2nos (Site) - full time
 4. Work Supervisor 2nos (Site) - full time

The minimum of credit facilities net of other contractual commitments and exclusive of any advance payments which may be made under the Contract shall not be less than Rs. 30M This should be exclusive for the project.

(8.1)

Content of Bidding Document

Content of the bidding document changed as follows to fulfil bidder's requirement in submission of Bid.

The bidding document consists of three volumes (Volume 1, Volume 2 & Volume 3) and comprises the documents listed below.

Volume 1 (To be retained with the Bidder) – one bound document consist of one copy of following sections

Section 1 - Instruction to Bidders

Section 5 - Standard Forms (Contract)

Section 3 - Condition of Contract

Volume 2 (To be submitted as Original of Document) – one bound document consist of one copy of following sections

Invitation for Bids

Section 2 - Bidding Data

Section 4 - Contract Data

Section 6 - Specifications

Section 7 - form of Bids and Qualification Information

Section 8 - Bills of Quantities and Technical Schedules

Section 9 - Schedules

Section 10- Drawings

Section 11- Standard Forms(Bid)

Volume 3 (To be submitted as Copy of Document) – one bound document consist of one copy of following sections

Invitation for Bids

Section 7 - Form of Bid and Qualification Information

Section 8 - Bills of Quantities and Technical Schedules

(9.1) Employer’s address for the purpose of clarification

Director General,
Sri Lanka Tourism Development Authority,
No.80, Galle road,
Colombo 3.
011-2426800

(11.1) Language of Bid

The language of the bidding document shall be English.

(12.1) Documents Comprising the Bid

The Bid submitted by the Bidder shall comprise the following:

(A) enclosed in the envelope marked as “ORIGINAL”;

(a) Volume 2

(b) Bid security or Bid-Securing Declaration as specified

- (c) If alternative offers are invited, such offers shall contain adequate information for evaluation. However the main offer of the Contractor must conform to the bidding documents.
- (d) any other information required to be completed and submitted by bidders, as specified in the Bidding Data.
- (e) any other information required to be completed and submitted by bidders,
as specified in the Bidding Data.

(B)enclosed in the envelop marked as “COPY”

- (a) Volume 3
- (b) If alternative offers are invited, such offers shall contain adequate information for evaluation; and
- (c) any other information required to be completed and submitted by bidders, as specified in the Bidding Data.

(13.3)

Bid price

VAT component shall not be included in the rates. The amount written in the Form of Bid shall be without VAT. However, VAT component shall be shown separately at the end of the BOQ.

(13.4)

Contract Price

The Contract is not subjected to price adjustment.

(15.1)

Bid Validity

The Bid Security shall be valid up to 119 days from the closing date of the Bid.

(16.1)& (16.2)

Bid Security

Bid shall include a Bid Security using the form included in Section 9.

Bid Security shall be;

- ***For an amount Rs. 300,000.00***
- ***Valid until 119 days from bid closing.***

The bid securities issued by the following agencies are acceptable strictly in accordance to the standard format.

- A bank operating in Sri Lanka
- Bank based in another country but the guarantee “confirmed” by a bank operating in Sri Lanka
- Non Refundable cash deposit to Employer

No interests will be paid on cash deposits.

(17.0)

Pre-Bid Meeting

(e) Pre Bid Meeting will be held on 12th June 2024, at 10.30 a:m Meeting Room 4th Floor Development Division *(Bidders can visit the site with authorised SLTDA officers)

(19.2) a

Employer’s Address

The Employer’s address for the purpose of Bid submission is: Sagarika Wijerathna, Actg. Assistant director (procurement), No.80, Galle road, Colombo 3. 011-2426800

(19.2) b

Contract Name: Renovation of proposed Tourism Information Centre at Karamba, Palaviya for Sri Lanka Tourism Development Authority

(20.1)

Deadline for Submission of Bids

The deadline for submission of Bids shall be 2.00 p.m on 28th June’ 2024

(34.0)

Performance Security

The amount of Performance Security is **5%** of the Initial Contract Price.

The Performance Security shall be valid until 28 days beyond the end of the Defects Liability Period.

The form acceptable is sample format which is in Volume 1 – Section 2, Standard Forms.

The Performance securities issued by the following agencies are acceptable strictly in accordance to the standard format.

- A bank operating in Sri Lanka
- Bank based in another country but the guarantee “confirmed” by a bank operating in Sri Lanka
- Refundable cash deposit to Employer

No interests will be paid on cash deposits.

Advance Payment & Security

(35.0)

The Advance Payment is 20% of the Initial Contract Price without Provisional Sum.

The forms acceptable are sample format which is in Volume I – Section 2, Standard Forms.

The Advance securities issued by the following agencies are acceptable strictly in accordance to the standard format.

- A bank operating in Sri Lanka
- Bank based in another country but the guarantee “confirmed” by a bank operating in Sri Lanka
- Refundable cash deposit to Employer

No interests will be paid on cash deposits.

36.0

The Adjudicator proposed by Employer is

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

Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case to case basis and shall be shared by the Contractor and the Employer.

Volume II

Section – 4

CONTRACT DATA

CONTRACT DATA

(Please note that the Clause nos. given hereunder is that of Conditions of Contract)

(1.1) The Employer

Name & Address : Sri Lanka Tourism Development Authority, No 80, Galle Road, Colombo 03

Name of Authorized Representative: Director General, Sri Lanka Tourism Development Authority, No.80, Galle road, Colombo 03.

The Engineer Name : Wijayaratne Associates,
No. 69,
Charles place,
Rawathawatta,
Sri Lanka

(1.1) The Works Consists

Please refer the Bill of Quantities.

Start Date

(1.1) The Start Date shall be **fourteen (14) Days** from the Letter of Acceptance.

(2.3) Priority of Document

The following Document also form a part of the Contract:

- (a) Agreement
- (b) Letter of Acceptance
- (c) Memorandum of understanding(if any)
- (d) Contractor's Bid
- (e) Contract Data
- (f) Conditions of Contract,
- (g) Specifications
- (h) Drawings,
- (i) Bills of Quantities
- (j) Any other document listed in the Contract Data as forming part of the Contract.

(7.1) Sub-Contractor

Add following Below

No subcontracting of full building is accepted at all. Subcontracting of specialized works for specialized Contractors registered at CIDA for the subject under the limitation of registration is considered, subject to the approval of Engineer. All the works should be executed under direct management of management and technical stall of Contractor.

Specialized works shall be carried out by well qualified, trained and experienced personals for the purpose.

Relevant certificate to carry out the works is required where special certificate issued by the respective authorities is a mandatory requirement (for example Anti-termite treatment should be carried out by certificate holder issued by pesticide registrar)

The manufacturer's or his authorized agent's warranty / certificate may be required where appropriate.

If any of sub-Contractors or specialized worker proved fraud in the opinion of the Engineer, Engineer is entitled to remove him from the site.

Any sub-contractors which the Contractor proposes to use for the works are subject to the approval of the Engineer and Employer. If the Contractor is refused permission to use any of his proposed sub-contractors then the work shall be sub-let at no extra cost to an approved sub-contractor. Any sub-contractor who has not been approved by the Engineer shall not be used in connection with the carrying out the works.

(13.1) & (13.2) Insurance

- (a) The minimum insurance cover shall be:
- The minimum cover for insurance of the Works and Plant and Material is **110% of the Initial Contract Price.**
 - The maximum deductible for insurance of Works and of Plant and Material is **5% of initial Contract Price.**
- (b)
- The minimum cover for loss or damage to Equipment is **Replacement value of the Equipment.**
 - The maximum deductible for insurance of Equipment is **5% of the minimum cover for equipments**
- (c)
- The minimum cover for insurance of other property (other than the Site) is **Rupees One Million.**
- The minimum cover for personal injury or death:
- (d)
- For third party and employees of the Employer and other persons engaged by per event.
- (a) he Employer in the Works is **Rupees One Million** The minimum cover for personnel injury or death,
- For the Contractor's workmen is Rs. **500,000.00** per event.
 - Contractor's employees other than workmen is Rs. **500,000.00** per event.

(17.1) Intended Completion Date

The Intended Completion Date for the whole of Works shall be **90 Days from the Date of Commencement of Works.**

(21.1) Possession of the site

The Site Possession Date shall be **Fourteen (14) Days** from Letter of Acceptance.

(27.1),(27.3) Programme

&(27.4) The Contractor shall submit a programme for the Works within **Seven Days** of delivery of the Letter of Acceptance.

Contractor must prepare construction programme and execute construction works to be completed within 9 months period considering following expected guidelines.

The Programme will be updated **Monthly**.

The amount to be withheld for late submission of an updated Programme is **2% of the Initial Contract Price**.

Guideline to Prepare Construction Programme

No	Work description	Duration (Months)								
		1	2	3	4	5	6	7	8	9
1	Repair of roof at 2 nd floor	■	■	■						
2	Demolishing work at 2 nd floor	■								
3	Repairing timber deck at 2 nd floor		■	■	■					
4	Demolishing work at 1 st floor	■								
5	Repairing timber deck at 1st floor			■	■	■				
6	Repairing walls at 1 st ,2 nd floor		■	■	■	■				
7	Demolishing work at ground floor					■			■	
8	Repairing doors & windows	■	■	■	■	■	■	■	■	■
9	Repairing walls at ground floor						■	■	■	■
10	Demolishing existing toilets area						■	■	■	■
11	Painting Work			■	■	■	■	■	■	■
12	Ac work		■			■			■	■
13	Fire work		■			■			■	■
14	Repairing rear side area			■	■	■	■			
15	Construction of toilets & part of the kitchen						■	■	■	■
16	Construction of sump						■	■	■	■
17	Construction of Soakage pit & septic tank							■	■	■
18	External work						■	■	■	■
19	Electrical work			■	■	■	■	■	■	■
Note :	This is only a Guideline for preparing Construction Programme and Contractor can change the Programme negotiating with the client.									

(35.1) Correction of Defects

The Defects Liability Period is **180 Days**.

- (39.2) Variations**
Engineer may order variations up to a total cumulative bill value including variation not exceeding 110% of Initial Contract Price
- (47.1) Price Adjustment**
The **Contract price is not subjected** to price adjustment
- (48.1) Retention**
The retention from each payment shall be **Ten percent** of the certified work done.
The limit of maximum retention shall be **Five percent** of the Initial Contract Price.
- (49.1) Liquidated damages**
The liquidated damages for the whole of the Works shall be **Rs. 9,000.00 per Day**.

The maximum amount of liquidated damages for the whole of the Works shall be **Ten percent** of the Initial Contract Price.
- (52.1) Performance Security**
The Performance Security shall be **Five percent** of the Initial Contract Price.
- (58.1)** Schedule of operating and maintenance manuals
- (60.1)** The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is **Twenty Five percent** of Initial Contract Price.
- (63.7) Attendance Fee for Nominated Sub Contractor**
The attendance fee for payable to the Contractor on nominated sub contract work shall not exceed 5%.

Volume II

Section – 6

SPECIFICATIONS

SPECIFICATIONS

The Works under this Contract shall be executed in accordance with the Specifications given in the following documents issued by the Institute for Construction Industrial Development Authority (CIDA), “Savsiripaya”, Wijerama Mawatha, Colombo 07.

<u>Publication No.:</u>	<u>Description:</u>
* SCA/4(Vol. I)	Specifications for Building Works, Vol. (I), Sri Lanka. 3 rd Edition (revised) – July 2004.
* SCA/4(Vol. II)	Specifications for Building Works Vol.(II), Sri Lanka. 2 nd Edition (revised) – October 2001.
* SCA/3/2	Specifications for Water Supply Sewerage and Storm Water Drainage Works, Sri Lanka. 2 nd Edition (revised) – April 2002.
* SCA/8	Specifications for Electrical & Mechanical works associated With Building and Civil Engineering, Sri Lanka. 2 nd Edition (revised) – August 2000.

It is implied that the eligible Bidders are fully acquainted with the above documents and therefore, those will not be issued to the Bidders in this Bid.

However, the Bidders may purchase the same if necessary from CIDA. “Savsiripaya”, Wijerama Mawatha, Colombo 07.

6.1.1 General

- This specification shall be read in conjunction with the other documents which form the Contract Agreement for the Works. Notwithstanding the subdivision of the specification under different headings each and every part of it shall be deemed supplementary to and complementary every other part thereof.
- All materials and workmanship shall be in accordance with the appropriate current Sri Lankan Standards or where such standards are not available the relevant British Standards shall be applicable. Where such standards are in conflict with this specification the interpretation in accordance to this specification shall prevail.
- SLS certified products are allowed and no restriction for SLS certified products in any specifications unless otherwise specifically mentioned that it is restricted.

- All the materials shall be most suitable type or kind approved by the Engineer. The manufacturer's or his authorized agent's warranty / certificate may be required where appropriate. Approval certificate of materials by respective authorities is required where special approval for such kind material is required as a mandatory requirement. (for example chemical for Anti-termite treatment should be approved by pesticide registrar)
- The special attention is paid for works for which warranty goes outside the defect liability period and approval of material is done jointly by Engineer & Employer (Examples:- Bathroom fittings & accessories, Electrical Items,)
- If any of suppliers proved fraud or duplicate materials have been supplied, in the opinion of the Engineer, Engineer is entitled to blacklist the supplier with respect to the site.
- If there is any clause of special specifications, pricing permeable or item work description means directly or indirectly that work shall be carried out by Sub contractor, the same shall be substituted with following
- "Specialized works shall be carried out by well qualified, trained and experienced personals for the purpose. Relevant certificate to carry out the works is required where special certificate issued by the respective authorities is a mandatory requirement (for example Anti-termite treatment should be carried out by certificate holder issued by pesticide registrar) The manufacturer's or his authorized agent's warranty / certificate may be required where appropriate. If any of sub-contractors of specialized worker proved fraud in the opinion of the Engineer, Engineer is entitled to remove him from the site."

6.1.2 Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Engineer's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Engineer at least 14 days prior to the date when the Contractor desires the Engineer's consent. In the event the Engineer determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

6.1.3 Definitions

In this specification the terms ‘approved’, ‘approval’ and ‘required’ mean ‘approved by the Engineer’, ‘approval of the Engineer’ and ‘required by the Engineer’ respectively.

6.1.4 Scope of Work

The works to be executed under this Contract comprise the following.

- (a) The provision at site of all necessary labour, materials plant & equipment, tools instruments etc. together with personnel of all types of skills for the mobilization execution with supervision demobilization and removal of plant tools etc. and other resources provided by the Contractor there from.
- (b) The execution of all necessary surveys for the setting out of building and for required completion of works.
- (c) The maintenance of proper site records, preparation and submission of calculations. Drawings progress reports etc. to the Engineer as required under this Contract Agreement.
- (d) Complete the construction works including all temporary works in accordance to the requirements under this Contract Agreement and as required by the Engineer.
- (e) The testing of required tests in accordance to the specifications therein and as directed by the Engineer.
- (f) All other works associated with the above for the completion of the Works as specified in contract.

6.1.5 Site Security

The Contractor shall provide all necessary fencing, security huts, hoardings, watching and lighting for the security of site and safeguarding the Works. All costs in connection with this shall be borne by the Contractor.

6.1.6 Advertisement

The Contractor shall allow no advertisement to be placed on any hoarding, scaffolding or fencing erected in connection with the Works without the permission of the Engineer.

6.1.7 Temporary Works

The Contractor shall submit to the Engineer details, particulars, drawings etc., of all temporary works necessary for the Works for latter’s information. The Engineer reserves the right to call for technical justification of the Contractor’s proposals and to order any necessary modifications. But the Contractor shall be solely responsible for the stability and safety of all temporary works and for the quality of the permanent works resulting from the Temporary Works eventually adopted.

6.1.8 Temporary Services

The Contractor shall provide and maintain temporary services necessary for the execution of the Works under the Contract shall make applications and install such services in accordance with the regulations and requirements of the relevant authorities.

The Contractor shall be responsible for all costs and charges in connection with the installation, alteration, shifting, adopting use and maintenance of such services. On completion of the Works, the Contractor shall disconnect such service, which are no longer required by him and or the Employer and clear away all traces.

(a) Power

The Contractor shall apply and pay for the required power and install temporary electrical installation for the Works, Site Office, Engineers and Consultants Offices, Stores, Site lighting and testing for mechanical and electrical services done by others.

A stand-by generator, with adequate capacity should be made available by the Contractor at the site for use in an emergency, if any intention to work during night time and or during power failures. The cost of supplying, installing, running and maintaining of the stand-by generator shall be borne by the Contractor.

(b) Water

The Contractor shall apply and pay for the continuation of temporary water supply connection to the site and construct storage tanks with adequate capacity, together with the necessary internal temporary PVC distribution system including an overhead tank at an adequate elevation, water pumps as may be required and providing taps, valves, etc. in order to provide water for the Works, for drinking purposes, and also for washing, bathing and sanitary facilities required by the Contractor's workmen, the Employer, the Engineer's staff.

Water Browsers with adequate capacity should be made available in order to bring water to the site from outside and to pump into the storage tanks in an emergency and/or during water cuts and all costs in connection therewith shall be borne by the Contractor.

6.1.9 Equipment's

If Engineer needs to set the Telephone calls, Photocopies & Printing of Documents related to contract. The contractor shall provide such services cost should be borne by the contractor.

6.1.10 Flammable Stores

All petroleum, explosives and flammable materials shall be stored in fireproof buildings and such precautions taken with regard to sitting and fire risks as the Engineer may direct. The Contractor shall make all arrangements with the licensing authority for the necessary license.

6.1.11 Safety on Site

Safety precautions throughout the construction operations shall comply with all relevant state statute, ordinance, decree, or other law or decree or any regulation or bye law of any local or duly constituted authority applicable within the country at that time.

The Contractor shall provide and maintain the following safety measures in accordance with the regulations and requirements stipulated by the relevant Statutory Authorities.

- a) Safe working conditions
- b) Safe means of access and exit
- c) Safety systems for Plant, Machinery and Equipment
- d) Appropriate safety equipment required at the site and yards such as Helmets, Gum Boots, Masks, Welding Masks, Safety Belts, Eye goggles, ear plugs etc. to the workmen and others engaged in the Works.
- e) Safety nets, safety canopies, safety signs, handrails, guardrails, platforms and other measures ensuring safety of workmen and others engaged in the Works.
- f) Training, instructions, information and supervision as may be required to enable employees to avoid any potential dangers and hazards.
- g) All measures ensuring the health and workmen including satisfactory welfare facilities, working conditions and environment.
- h) Safety signs should be in the Sinhala, Tamil and English languages.

6.1.12 Sources of Supply

The Contractor shall have obtained from the Engineer approval of sources of supply of his materials and shall not change his sources without prior approval.

All material that shall be rejected shall be promptly removed from site.

6.1.13 Records

The Contractor shall keep records, in a format approved by the Engineer giving such information that is required by the Engineer. For placing of concrete and shall submit two copies of these records to the Engineer not later than by noon of the next working day after the concreting for placing of borrow material.

6.1.14 Nuisance and Damage

Noise and Disturbance

The Contractor shall carry out the work in such a manner and at such times as to minimize noise and disturbance to adjacent owners tenants, the public, etc.

Damage to Adjacent Structures and Roadways

If during the execution of the work damage is, or is likely to be, caused to existing roadways, mains, services or adjacent structures due to the Contractors operation they shall be made good to the approval of the Engineer or the authorities concerned. All costs in connection therewith shall be borne by the Contractor

SPECIFICATION FOR DEMOLITIONS

1. All temporary propping and all other temporary works and plant necessary to carry out the Work and protection of structural to be remained.
2. Making good to suit existing of all disturbed works.
3. Inspection of the existing premises.
4. Read the Bills of Quantities in conjunction with the drawings and specifications of the Work. In addition to site visit, the bidder shall be responsible for identifying from the supplied tender documents all the aspect that are reasonably required for successful completion of the Works and shall allow for the rates and prices.
5. Any other work which are not specified as items in Bills of quantities but are required for proper completion.
6. Ascertain the contractor’s design responsibilities specified in these tender document and make allowance for in the rates and prices.
7. Taking precautions to protect the public and the occupants within the existing buildings and outside and all equipment therein from damage due to falling debris.
8. Removing all debris from the Site as work proceeds and upon completion.
9. Careful removal of all items/materials specified under Demolitions.
10. All materials derived from the demolition works shall remain the property of the Contractor and without prior approval or authority from the Engineer such materials should not be used in the proposed work.
11. The following terms shall have the meaning assigned thereto.
 - i. “Removal” includes;

Dismantling pulling down/taking down/taking out/taking up/stripping etc by whatever means is necessary at the Site.

Transport from the by whatever means is necessary to a dumping yard of the Contractor.
 - ii. “Disposal”

Handing on Site to store or to pick up point for loading.

Loading into trucks, Lorries etc.

Transporting away from Site to yard, store or tip
 - iii. “Making good” includes;

Infill to voids, opening ,gaps and the like and matching materials and construction to existing consequent on the carrying out of other work.

SPECIFICATION FOR EARTH FILLING

The fill material shall be placed in layers not exceeding 225 mm thickness in loose state. The fill shall be compacted at each lift to not less than 100% of the Standard Proctor Density.

1. The method of compaction shall be approved by the Engineer.
2. The Engineer shall have complete control over the excavation, moving, filling and disposition of all material and shall determine the suitability of material to be placed in fill area. All material determined unsuitable shall be placed in spoil area and /or removed from site as directed by the Engineer.
3. Where the existing ground surface is covered with vegetation, top soil or other unsuitable material, it shall be removed together with roots, rubbish or objectionable materials etc. Vegetable or other unsuitable so removed shall be disposed within 5.0 km of the site.

SPECIFICATION FOR CONCRETE WORK

Unless otherwise stated all concrete shall be:

1. In appropriate Grade as specified in the relevant BOQ.
2. All concrete shall be so cast as to receive finishing on its exposed faces as specified.
3. All concrete shall be made dense with a vibrator and finished to receive respective finishes. The type and stability, of formworks shall be agreed with the Engineer prior to commencement of concreting of each item.
4. Plant for mixing, admixtures, handling, hoisting, depositing, compacting, vibrating, keeping provisions for MEP works, curing, making good after removal of form work and tests when necessary.

Form work

1. Form work shall include for setting up strutting and supporting at any height together with any necessary strutting and supporting through lower floors, coating with shutter oil, easing, striking and removing, cleaning, preparing for re-use and removal when no longer required, including all props, stays struts, wedges. Tapes, stop boards, ties and bolts, all overlaps and labours at intersections, raking and circular cutting and notching around all obstructions.
2. Formwork to narrow widths, reveals, edges and the like shall be included in the rates and prices of general surfaces and the areas of such narrow widths reveals, edges and the like will be added to the measured quantity.

Reinforcements

1. Standard length of reinforcing bar for the purpose of measurements shall be 6m. Payment for bar reinforcement shall be to nearest Kilogramme as stated below.

Dia.	Weight per metre length (kg)
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6	0.222
10	0.617
12	0.888
16	1.578
20	2.446

2. Reinforcement shall include for preparation of bar bending schedules, wastage, laps, rolling margin, straightening as necessary, cleaning and removing mill scales etc. cutting to length, bending as required, fixing in position, and supporting in position during concreting, including all necessary supports, chair, cover blocks and space bars, steel binding wire and approved distance pieces, Stirrups and links are measured and added to the quantity of reinforcement.
3. In addition to the relevant requirements of the last clause. Fabric reinforcement shall include for all straight, raking and circular cutting and notching around all obstruction, overlaps at intersections and the like.

SPECIFICATION FOR MASONRY WORK

Brick work and Block Work

1. Plumbing angles, straight cutting, forming rebates, reveals and raking out joints for plastering.
2. Splay cutting, rough cutting, fair cutting, forming chases or grooves for slabs, partitions, staircases, roofs and the like, bonding ends of walls, building in or cutting and pinning in and making goods on lintels, timber and steel works.
3. Building at any level or height of slabs or beams, additional labour in kerbs, isolated and attached piers, all cutting ,bonding at angles and intersections, building into or against adjacent work, wedging and pinning up to soffits,
4. Supplying and fixing metal clamps, Galvanized, steel boundary ties, and brick reinforcement etc,
5. Necessary cutting required in walls which are not multiples of brick size.
6. Preparing existing walls for raising and pinning new brickwork,
7. Bonding new walls to concrete faces and old walls where necessary, and materials to be used for such bonding.
8. Builder's work in connection with electrical installation, plumbing and drainage work, fire protection, mechanical ventilation and air conditioning work and other services.
9. All goggles, cramps, dowels, ties, templates, plumbing, settings, jointing, pointing, and fixing in position including hoisting, protecting and cleaning down,
10. Preparations of surface to receive any finish and shall be to the Engineer's approval.
11. Preparation of existing surfaces for proper bonding,

12. Scaffolding whether specified separately or not,
13. Extra material and labour for curved work.
14. Form joints between brick/block work and existing surfaces of any material, approved filler between joint and approved sealant, Anchoring, flexible fillers, back-rods etc, as required.
15. Providing special arrangement to prevent cracks at joints of different materials as per the details shown in the Drawings or as instructed and
16. Filling and any other measures to maintain specified thickness of walls.

Random rubble work

Random rubble work shall include for:

1. All joggles, cramps, dowels, ties, templates,
2. Making angles, fair returns, setting, jointing, eaves filling ,pointing and fixing in position, hoisting to any given height or depth,
3. Bonding ends of walls, rough cutting and fair cutting,
4. Leveling up in walling for Damp Proof Courses, sills, thresholds, string courses, copping and the like,
5. Forming straight vertical joints next to dressing, panels, brickwork etc,
6. Forming openings and dressed margins forming openings and dressed margins,
7. Forming chases, throats, rebates, margin flutes, sinking, chamfered and rounded edges, and all labour connected therewith and
8. Wheep holes unless otherwise measured separately.

SPECIFICATION FOR WATER PROOFING

1. Rates shall include for temporary screed, grounds, rules, internal angles, filet, arises, external angles, and exposed circular chases for tucking in etc.
2. The Contractor shall be responsible for the water proofing system and shall provide a 10 years warranty in favour of the Employer from their specialized Sub Contractor for materials and application.
3. The waterproofing shall be carried out as per manufacturer's instructions.
4. The finish of the concrete slab shall be acceptable to the Engineer's prior to carrying out the water proofing system.
5. The type of water proofing system shall be such that it should be capable of coping out the movement of the concrete slab below.
6. All construction, contraction and expansion joints shall be made water tight including all joints around and outlets.

7. Rates shall include cutting top line, notching bending and extra material for lapping.
8. Rates shall also include working into recessed duct covers, shaped inserts, outlet pipes and the line. Rates shall include for work to falls and any protective screeds.
9. Rates for tanking and damp proofing shall include internal and external angles, angle fillets and edges, and intersections on work to cross falls.
10. Collars around pipes, standards arise and internal angles filets and the like are deemed to include.
11. Lining to gutters, channels, valleys, covering to kerbs shall deemed to include edges, arise, internal angle fillets, turning ribs into grooves, ends angles intersections, Outlets and extra materials for turning into grooves.

SPECIFICATION FOR ROOF WORK

All timber roof work shall be Hard Wood Kempus or equivalent approved by Engineer.

All the dimensions which are showing in drawings are finish sizes. However a tolerance is accepted all imported timber as follows.

- (a) 10mm for all roof timber

Rates for roof covering and roof plumbing shall include for

1. Hoisting, placing and fixing in position
2. Straight cutting, raking cutting, circuit cutting, notching, and working around obstructions and waste
3. Filling to ridges, hips, valleys, ends and the like.
4. Nails screws and the like
5. Drilling and making holes or opening and the like
6. All new timber shall be treated and well-seasoned approved quality in specified class timber with 10 years warranty certificate for treatment.
7. Rates shall include all necessary structural items and sheet covering materials to complete whole work as per the drawings.
8. All sizes specified are finished sizes.
9. Sealing, jointing, fixing, cutting, angles, mitres, raking, bracket, screws, staples and all associated works shall be included in the rates and prices
10. Ridges, hips, valleys and the like shall be include in rates and prices and unless otherwise measured separately.

SPECIFICATION FOR STRUCTURAL STEEL WORK

1. Type and quality of steel to be used for structural steel work as per Engineer's and relevant specification clause.
2. Where steel given by weight, it shall be noted that weight given are based on nominal weight per meter length and no allowances are to be made for rolling margins. The weight of welding materials is not included in the weights.
3. Rates for Structural Steel Works shall include for ;
 - i. Testing as directed by the Engineer submitting test reports preparing samples etc. & trial shop assembling as required by the Engineer.
 - ii. All shop fabrication work, making delivery ,unloading, hoisting, erecting, and fixing at any given height ;
 - iii. Cutting to dead lengths and machining ends ;
 - iv. Temporary bracing if any, and removal ;
 - v. Rolling margin ;
 - vi. Providing members of any length, cutting to size and shape, joints in the running length, connection as required ;
 - vii. Notches, holes, slots, mitered angles, ends, drilling holes and splay cuts ;
 - viii. Base plates, caps, splices, plates, cleats, bracket stiffeners etc.;
 - ix. Bearings, nuts bolts and washers/rivets and riveting in formed construction and or welding, weld metals and welding materials in welded construction as the case may be ;
 - x. Preparing surfaces to receive paint ;
 - xi. Removing rust, preparing surface and touching up with 2 coats of primer and apply two finishing coats as per specification;
 - xii. Preparing and submitting shop drawings as required by the Engineer.

SPECIFICATION FOR CARPENTRY WORK AND JOINERY

1. Timber for all doors and windows shall be treated, well-seasoned, approved best quality specified timber to be used for all door and window frames and sashes with 10 years warranty for treatment.
2. All the dimensions which are showing in drawings are finish sizes. However a tolerance is accepted all imported timber as follows.
 - (b) 6mm for all door/window frame
3. Timber in contact with concrete or masonry shall be treated with an approved preservative against dampness and insect attack.
4. Glass panel to windows, where indicated in drawings shall be 5mm thick clear float glass unless specified otherwise in Drawings and Specifications fixed to rebated opening of window with timber beading and brass panel pins.

SPECIFICATION FOR FLOOR, WALL AND CEILING FINISHES

1. Floor, wall and ceiling finishes shall include for all temporary rules, screeds, grounds etc., for raking out joints of new brick work or hacking new concrete for key. Internal and coved angles, joints between different surfaces and between new and old plastering, arises, quirks, inter section between curved or irregular surfaces etc., and all making good around pipes, sanitary fittings and similar fixtures.
2. Plasterwork shall include for expanded metal laths or the like in areas of different modes of construction (eg. Block work/Brick work and concrete work) and forming and finishing to reveals, jambs, sills, narrow widths and the like. Quantities of the above will be measured and added to general surfaces quantity.
3. Leaving soffit of slab of even finish to receive ceiling finishes.
4. Making adequate space for drawing of all conduit on and partitions.
5. Fair joints, outlets, working over and around obstructions, pipes and the like into recesses and shaped inserts, forming shallow channels, bonding agents where included with the work, dividing strips where applicable, all extra work necessary for patterned work, are deemed to include where applicable with the items.
6. Treads and rises are deemed to include fair edges, nosings internal and external angles. Strings and aprons are deemed to include ends, angles, ramped and wreathed covers. Skirtings, kerbs and edges of floor are deemed to include fair edges rounded edges, curved junctions, angles and the like.
7. All tile/marble/granite grout shall be stained and dirt resistant and should be able to be cleaned easily with water. Tile grout should be colourfast, efflorescence and crack resistant with anti-fungus properties.
8. All tile/marble/granite adhesive and backing materials shall be proof of any chemical reaction with the properties of tile/marble /granite work.
9. All finishing's shall be cleaned in regular manner and protected.

SPECIFICATION FOR PAINTING

1. Painting shall include for preparation of surfaces cleaning down. Smoothing knotting. Stopping etc.,
2. Protection of floors and fittings. Removing and replacing door and window fittings if required and cleaning upon completion and the like.
3. Painting to existing surfaces shall also include for cleaning, Scraping nails, Repairing cracks and filling holes/cracks.
4. Protecting floor finish, fittings, ironmongery and cleaning upon completion.
5. Preparation of surfaces and application as per manufacture's instruction.
6. Painting in metal work is deemed to include work to attached holder bats, fastenings and the like.
7. Work to services is deemed to include work to saddles, pipe hooks, holder bars, conduit box and the like.

8. Painting work shall include for painting door, windows and other reveals and narrow widths unless otherwise measured separately.

SPECIFICATION FOR SANITARY FITTING & ACCESSORIES

General

- Minimum 15 years guarantee for the product (Water Closets, urinals, Wash Basins) 2 year warrantee for cistern mechanism & 2 years warrantee for bathroom accessories (Taps, bidet spray, urinal flush valves, angle valves, and cistern mechanism).
- There has to be a local agent with minimum 5 year work experience in selling the product, information on locations where the fittings have been used to be obtained.
- Water saving features to be available for the public toilets. Dwell flushing, water capacity to be minimum (3-4.5 liters of water)

Low Level Water Closet and Cistern

Imported good quality white colour, fire clay ceramic closed couples, wash down, dual flush, chrome plated, top push button cistern (3 to 5 liters flush option) 'S or P' trap water closet pan Twyford or equivalent to engineer's approval complete with all necessary fittings and fixtures for flushing, securely fixed to wall.

Pedestal Type Wash Basin

Imported good quality white color, fire clay ceramic central top-hole pedestal wash basin, Twyford or equivalent to engineer's approval complete with heavy quality brass chromium plated pillar tap, pop up waste, angle valve with chromium plated type bottle trap and all other necessary accessories.

Vanity Type Wash Basin

Imported good quality white color, fire clay ceramic central tap hole counter top wash basin, , Twyford or equivalent to engineer's approval complete with heavy quality brass chromium plated pillar tap, angle valve, pop up waste, with chromium plated type bottle trap and all other necessary accessories.

Urinals

Imported good quality white color, fire clay exposed chrome plated Twyford or equivalent to engineer's approval complete with chromium plated type bottle trap and all other necessary accessories.

Bidet

Imported good quality white color, fire clay ceramic floor standing, and central tap-hole, pop up waste bidets Chromium plated or equivalent to engineer's approval complete with all other necessary accessories.

Stainless Steel Kitchen Sink

Imported good quality single bowl, single drainer, (approx. size) 120cm x 60cm, tap-hole polished stainless steel (s/s) 304 type kitchen sink to engineer's approval complete with chain waste with plug, un-slotted tail screw stay, chromium plated bottle trap and all other necessary accessories. (Mill Certificate should be submitted)

Soap Holders, Towel Rail, Paper-Holder

Imported good quality chromium plated/ stainless steel to approval.

Hand Spray Unit, Shower Roses & Taps

Hand spray units, shower roses taps shall be imported heavy quality brass chromium plated to approval.

Valves, Cocks Etc.

Valves, cocks etc. shall be imported heavy brass chromium plated to engineer's approval.

Soap Dispensers

Imported good quality soap dispensers with hand push mechanisms, (approx) 800ml. capacity to engineer's approval.

SPECIFICATION FOR PLUMBING WORK

Generally

Unless otherwise specified in the BOQ the rates for the following shall include PVC piping for water service/waste water etc. Such plastic piping and fittings shall comply with the latest B.S.S. viz. B.S.S. 3505 for PVC Pipes and BSS 1972 for polythene pipes.

All work shall conform to the general specifications for drainage and water service and to the requirements of the local authorities and other controlling bodies.

All pipes shall be of U.P.V.C. and the type as specified in drawings.

The diameter of piping shall be the nominal internal bore of the pipe.

Quality of sanitary fittings shall be as provided in the specifications or equivalent quality. It is Contractor's responsibility to obtain approval of the fittings prior to fixing.

DRAINAGE WORK

The provision of other preambles shall equally apply to relevant items of drainage work.

Rates for trench excavation for pipes shall include for deepening and widening the trench as necessary to enable the barrels of pipes to rest firm and to facilitate jointing.

Rates for rock excavation in trench excavations shall include for importing selected materials to replace any excavated materials which are unsuitable for back filling and for all additional rock excavation and appropriate filling beyond the maximum measurable in accordance with the specification.

Rates for concrete beds and surround to pipes shall include for flexible joints and any necessary form work where required by the Specification.

SPECIFICATION FOR ELECTRICAL WORK

Technical Specifications

General

Power Supply

Main incoming power supply for the Bank Building will be fed through two 60A, 3 Phase supply meters by Ceylon Electricity Board (CEB).

Power distribution within the building after the CEB meters up to the floor distribution boards and all the panel boards (Main Distribution Board, Floor Distribution Boards, Consumer Units, etc.) comes under this contract of Low Voltage Electrical Distribution System and Main Distribution Board up to the respective floors.

Stand-by (emergency) power supply for the Bank will be provided by a diesel generator.

Site Conditions

All equipment shall be tropicalized and suitable for prolonged operation in tropical site environmental conditions.

Altitude of site above sea level	:	not exceeding 10m
Ambient temperature	:	32 °C
Average relative humidity	:	Between 80 % and 90%

Electrical System

Nominal system voltage		
Between phases	:	400 V
Between phases & neutral	:	230V
Wiring system	:	Three phase, four wire
Earthing system	:	Solid Earthing, TT system
System short-circuit RMS current	:	30kA (maximum)

Scope of Work

The Contractor shall carry out the supply, delivery, erection. Connection, testing and commissioning of all the equipment and material for completely new Low Voltage Electrical Distribution Systems for the Bank building. The installation shall include, but not necessarily be limited to, the following major components:

- (a) Main distribution board
- (b) Distribution Boards
- (c) Lighting system
- (d) Power Outlet system
- (e) Power cabling
- (f) Cable support system

- (g) Earthing system
- (h) Direct lightning protection system

Low voltage Electrical Distribution contractor shall cooperate and coordinate with Construction Party within the building.

Electrical work shall cooperate and coordinate with other MCPI (Mechanical, Civil, plumbing and IT) works within the Building.

Electrical distribution System shall comply with BS 7671: 2008 - Requirements for Electrical Installations. (IEE Wiring Regulation, 17th Edition)

STANDARDS

Unless otherwise specified herein, electrical equipment, materials and workmanship shall conform to the regulations issued by the Institution of Electrical Engineers (IEE) with the relevant codes of practice issued by the Chartered Institution of Building Service Engineers and International Electrical Committee Standards or such other regulation that may be in force in Sri Lanka.

Specifically, following standards apply:

BS7671	: Design
BS EN 60947-2, BS EN 60898	: Circuit Breakers
BS EN 60670, BS EN 60529	: General rules of panel boards
BS 6004, BS 6346, BS 6724	: Cabling
IEC 62305	: Lightning Protection System

Submission for Approval

General

The Contractor shall make for approval by the Engineer of the following. But not be limited to those

- Detail and/or Shop Drawings
- Samples of Material, Component and Fixed and Equipment
- Schematic & Interconnection Diagrams
- Certificate of Compliance /Test Reports.

Shop Drawings

Shop drawings of all electrical circuit and wiring diagram and any other drawings necessary for fabrication and installation of the system shall be supplied in triplicate to the Engineer to determine the adequacy and suitability of the layouts of the proposed low voltage electrical system.

Samples

Samples of all materials to be supplied under the contract such as light fitting, Lamp, socket outlets, cables and insulating materials shall be supplied to the Engineer for approval. Such samples shall be kept with the Engineer until completion of the Works and same will be released to the Contractor on completion of work. The items of supplies used for the project shall be equal to the approved sample.

As – Built Drawings

On completion of the installation, the Contractor shall prepare a set of As-built Drawings incorporating all changes made to the original design and drawings, which shall represent an accurate description of the installed system.

Handing Over Documents

The final handing Over documents to be submitted by the Contractor on completion of the installation shall comprise the following.

- a) Commissioning Sheets (3 copies)
- b) Test Report (3 copies)
- c) As Built Drawings (3 copies)

These documents in required number of copies specified should be supplied to the Engineer within 30 days on issue of taking over certificate. All documents submitted shall be of hard bound cover

Site Testing and Commissioning

The Contractor should process a complete testing commissioning before handing over.

Low Voltage Switch gear**Scope**

The contractor shall carry out manufacture, test and deliver from factory and installation of all distribution boards and consumer units. Contractor shall carry out free maintenance for a period of 12 month from the date of the commission test approved by Engineer including replacement of any defecting components.

Main Distribution Board /Distribution Boards

The distribution boards shall be of the rigid metal cubicle type, totally enclosed, dust and vermin protected and factory fabricated in compliance with BS 5486 (IEC 60439) and this specification where applicable. Finished panels shall be without sharp edges and all exposed screws, bolts and similar fastenings shall be smooth surfaced and protectively plated to prevent rusting.

Enclosure protection class, including cable connection chamber, shall be IP 54 as a minimum.

The distribution board shall comprise the equipment indicated in the schedule together with all current transformers, auxiliary fuses, protection relays, small wiring and interconnections.

The distribution board shall be flush fronted with front and rear access, suitable for indoor use. Access doors and covers shall incorporate sealing gaskets.

Bus bars shall be of H D H C tinned copper. Phase and neutral bars shall have the same cross-sectional area, with a current carrying capacity as indicated in the schedule.

A tinned copper earthing bar complying with BS 1432 sized to withstand the short time current of the distribution board shall be securing fixed to and extend the full length of the distribution board and be connected to an earthing terminal at each end. All metal work (other than current carrying parts) shall be

bonded to the earthing bar and provision shall be made for bonding the armoring and metal sheath of incoming and outgoing cables.

All internal wiring shall be carried out neatly and shall wherever possible be housed in wiring trunking forming an integral part of the distribution board.

Connection facilities for outgoing circuits shall be provided at the top and bottom of the distribution board as appropriate for the feeder. Incoming connections shall be from the bottom.

All live terminals and components within any panel shall be shielded in such a manner as to prevent inadvertent contact with them. All live terminals and components mounted on panel doors shall be shrouded such that contact can only be made after removal of the shroud.

A high standard of finish is required for the distribution board. The finish shall be a powder coating applied electrostatically. Before painting the Contractor shall submit to the Engineer for approval, detail painting scheme.

Before manufacture, the Contractor shall submit to the Engineer for approval, detail drawings showing the layout, construction and connection of the main distribution board.

LV Moulded Case Circuit Breakers

Moulded Case Circuit Breakers (MCCB's) shall comply with IEC 60947-2. The operating mechanism shall be of the quick-made, quick-break, trip-free type with the speed of operation independent of the operator. The mechanism shall be designed to operate all poles simultaneously during opening, closing and tripping conditions.

The breakers shall be operated by a toggle unless otherwise specified in the schedules, drawings or bill of quantities.

The breakers shall be provided with thermal bi-metallic elements for an inverse time-current trip characteristic to protect against sustained overloads and instantaneous magnetic trip elements for short circuits protection.

Thermal trips shall be adjustable. A single adjustment shall ensure the setting of all poles in a multi-pole breaker simultaneously.

Miniature Circuit Breakers

The miniature circuit breakers (MCB) shall comply with BS 3871 Part I and shall have a Type 2 Classification.

The frame size of all MCBs shall be the same so that they can be easily interchanged.

Circuit breaker dollies shall be of the trip-free pattern to prevent closing the breaker on a faulty circuit and they shall be engraved to indicate the ON/OFF position.

Residual Current Devices

Residual current device (RCD) shall provide accident protection by interrupting dangerous contact voltages, which may be present in faulty electrical appliances as a result of frame faults, insufficient insulation or misuse. They shall provide a high degree of protection against earth faults, fires and electric shock.

RCD shall conform to BS 4293 and shall be sensitive to pulsating DC fault current.

Each RCD shall consist of a current transformer, a tripping coil with contact assembly, main supply contacts, ON/OFF switch, a test button and a trip-free mechanism, all mounted on robust body of all insulated material.

RCD shall be suitable for operation on a 230V, 1-ph, 50 Hz supply and shall give trouble-free service in the locally prevailing climatic conditions.

Power Analyzers

The following measurements shall be possible with the Power Analyzers.

Instantaneous RMS values

- Active power (kW) and reactive power (kVAR) - total and per phase
- Current (A) – 3 phases and neutral
- Voltage (V) – phase to phase and phase to neutral
- Frequency (Hz)
- Apparent power (kVA)
- Power factor

Energy values

- Active energy (kWh)
- Reactive energy (kVAR)

Demand values

Maximum active power demand (kW)

Accuracy of multi-function power meter shall be not less than the following.

- Energy and power accuracy : 2%
- Current and voltage accuracy : 0.5%

All Current Transformers, potential Transformers required for Power Analysers shall be provided.

SURGE ARRESTERS / diverters

General

Surge arresters shall comply with IEC 61643-1. SPDs installed in MDB shall be Class I type. It shall be the responsibility of the manufacturer to ensure adequacy of the design and good engineering practice in

the manufacture of the surge arresters. The manufacturer shall submit information which confirms satisfactory service experience with products which fall within the scope of this specification.

Scope

This specification is for metal-oxide surge arresters without gaps for a.c. system operated at 400V 50Hz. The specification covers the following:

Type 1+2: 30kA surge arresters for use along power lines and main distribution panels within the establishment

Testing

Testing of main distribution board shall be carried out at the manufacturer's workshops witnessed by the Engineer/Consultant. All the costs including travelling, lodging etc of the Engineer/Consultant in connection with witness testing shall be borne by the Contractor.

Cables, Cable Trays and Conduits

General

The cables shall be sized to comply with the regulations for Electrical Installations published by BS 7671:2008-17th Edition, except where specified sizes of cables are shown on the drawings or detailed elsewhere in the Specifications or Schedules.

Preferred color coding shall be as follows.

<u>Function</u>	<u>Colour</u>
Phase L1	Brown
Phase L2	Black
Phase L3	Grey
Neutral N	Blue
Earthing	Yellow/green

Feeder Cables

Feeder cables from the Main Distribution Board and Distribution boards shall be of XLPE insulated, PVC sheathed unarmored copper conductor multi-core cables and shall be of 600/1000 volt grade complying with BS 5467 or IEC 60502.

Cable sizes shall be as indicated in the drawings and /or bill of quantities.

Wiring Cables

Cables of final sub-circuits, from distribution boards to lighting points, socket outlets, fan points etc., shall be of PVC insulated PVC sheathed copper conductor cables complying with BS 6346 or BS 6004 as applicable.

Underground Cables

Cables installed outdoors such as outdoor lighting circuit cables shall be of XLPE-insulated PVC sheathed steel wire armoured copper conductor multi-core cables and shall be of 600/1000 volt grade complying with BS 5467.

Armoured cables can be installed directly buried underground and covered with concrete tiles. The cable route shall be approved by Engineer. All cables buried underground shall be laid 600 mm below ground level.

Cables - Installation

Cable routes are indicated on the drawings for tender purposes but exact final routing shall be agreed with the Engineering Consultant.

All work shall be carried out by the Contractor who is to include for the supply and installation of all jointing materials, cable, supports, steel work racks and making all necessary terminations. The cables shall be installed and tested in accordance with the appropriate Clauses of the IEE Regulations (BS 7671).

Cables shall at all times be handled with care and every effort made to avoid damage. Unloading, rolling to position and mounting of cable drums shall be carried out efficiently and carefully in the recognized manner and cable shall be pulled from the top of the drum and twisting shall at all times be avoided.

The Contractor shall take particular care to avoid damage to other services which may run adjacent to or across the route of the cables being installed.

.All cables shall be firmly and adequately supported from cable hangers for the whole of their length except where they run through pipe ducts, cable trays or buried direct in the ground.

Except for terminations at a factory made switchboard, distribution board or item of switchgear, no joints shall be made between lengths of cable.

Cable Trays

Cable trays shall be return flange perforated type of mild steel, hot-dip galvanized after manufacture. For trays up to 300mm wide, thickness shall be not less than 16SWG and for widths above 300mm thickness shall be not less than 14SWG. The cable tray shall be of sufficient width to take all cables without crowding. Each length of tray shall be securely bolted to an adjacent length with sufficient overlap to prevent sagging and twisting.

The cable tray shall be fixed to purpose made steel brackets which shall in turn be fixed to the structure. The brackets shall be hot-dip galvanized after manufacture and all holes are made and finish painted in the same color as the tray.

Certain length of the cable tray system may be fixed to a wall. The balance length is to be suspended, from the upper floor slab. For this purpose steel fixing rods of required lengths shall be provided. All fixing rods associated steel work and nuts shall be galvanized.

Metal Conduits

Metal conduit shall be heavy gauge, galvanized steel tube, and screwed jointed type conforming to BS 4568.

Conduit fittings shall be finished to the same classification of production as the conduits.

The conduits throughout shall be of sufficiently large section and so arranged with draw-in boxes to allow either an easy draw-in or out of any or all of the cables which must not exceed the number set out in the appropriate table of the IEE Wiring Regulations. Conduit of less than 20 mm diameter shall not be used.

The conduit shall be laid as far as possible in straight lines. The conduit is in no part to be under mechanical stress.

PVC Conduits

Conduits which are concealed in building wall plaster and used for internal lighting and power installation shall be rigid, round PVC tubing conforming to BS 4607 (Metric).

The conduit shall be of sufficiently large section and so arranged with draw-in boxes to allow either an easy draw-in or out of any or all of the cables which must not exceed the number set out in the appropriate table of the I.E.E. Wiring Regulations.

The conduit system shall be a continuous and effective means of protection for the wiring. The conduit shall be laid as far as possible in straight lines.

Outgoings & incoming cable openings of UPVC conduits should be properly sealed suitable for vermin proof & weatherproof.

Exposed, Flexible PVC conduits will not be allowed.

PVC Conduit Boxes

All boxes and fittings shall conform to BS 4607 and shall be made of rigid PVC Boxes for switches, sockets, outlets, etc., shall be of rigid PVC and dimensions shall be suitable for fixing switches, sockets and other accessories as applicable.

All boxes shall be provided with tapped brass inserts for fixing the screws and where necessary to comply with the appropriate clauses of the IEE Wiring Regulations, with brass earthing terminals.

All adaptable boxes and lids of the same size shall be interchangeable.

Installation

Mounting Height and Position

Mounting height is indicated elsewhere, otherwise as indicated by the Project Architect.

Where difficulty in locating accessories occurs the Project Manager shall be informed. Particular attention shall be paid to the positioning of light points in relation to the ceiling, position of switches in relationship to the hanging of door and accessories in relation to fixed furniture, sinks and equipment. Switches shall be installed adjacent to the closing style of the doors. The Contractor shall carefully co-ordinate with equipment/furniture supplier and the Project Manager regarding the final position of the equipment.

Wiring of Lighting and Small Power

The wiring system shall consist of XLPE/PVC insulated PVC sheathed copper cable and PVC insulated protective conductor (earth wire) drawn through concealed PVC conduits or exposed galvanized steel conduits. Conduit system and trunking system shall be installed before drawing the cables.

Wiring may be carried out by using looping method but joint shall not be permitted in runs of cable.

Testing

Testing of entire electrical installation of the building complex shall be carried out by the Contractor. Test report/certificate as required per IEE building wiring regulation and certified by a Chartered Electrical Engineer shall be submitted.

Lighting System

General

Luminaires shall be of the types as shown in the drawings & BOQ and approved by the Engineer and Project Architect. All the luminaires shall be supplied and installed under the contract.

LED fittings

LED luminaires and fittings shall be high quality. Life time of luminaire shall be not less than 25,000 burning hours.

Each individual component of luminaire such as LED, Driver, optics and heat sinks shall be properly selected and placed with in the system.

Lighting Switches

These switches shall be of the flush mounting type complying with BS 3676. The rocker and cover plate shall be constructed of “all insulated” white rigid plastic. The switch mechanism shall be rated at 10A and shall be capable of being used on fluorescent or inductive loads without de-rating.

The cover plates shall overlap the boxes.

Socket Outlets

Socket Outlets – Flush Type

Socket outlets shall be switched, 3-pin (phase, neutral & earth), shuttered, flush mounted type rated for 250V complying with relevant BS, as follows.

- 13A socket outlets to BS 1363,
- 15A socket outlets to BS 546

The finish and thickness of the front plate shall be similar to the lighting switches.

Fans

Ceiling Fans

1400mm ceiling fans shall be 3-blade type, complete with choke type regulator with 5 speed positions conforming to BS 5060 or equivalent. In addition to the regulator there shall be a 10 amp switch to control the fan. Fan hook shall be made with 12mm MS bars, where necessary rate shall include extending the fan rod and painting. Connection to the fan shall be through a ceiling rose or connection bar. No ceiling fan should be installed at a height of less than 2.7m from floor level.

SOLAR POWER SYSTEM

This work is carried out by Bank separately and not covered under the scope of this contract.

However the contractor shall coordinate with solar system supplier for successful completion of this work.

LIGHTNING PROTECTION SYSTEM

Scope

The Contractor shall supply and install a lightning protection system conforming to the requirements of IEC 62305 for the building.

The system shall include, but not be limited to, an air termination network including finials, joints and bonds, test joints, earth termination network, earthing pits and earth electrodes.

Installation of the down conductors and an exothermic welded Copper tape out of the down conductor for the purpose of measuring and connection to external earthing shall be done by constructing party. Installation of test joint, earthing and making the earth pits covers under this contract.

Air Termination Network

General

The air termination network shall comprise of 25mm x 2.5mm (min) copper tape (solid tape to IEC 62305-3) fixed on to the concrete roof slab and metallic roof. Air termination network shall be supplemented by taper pointed air terminals (finials) fixed vertically on the roof at the highest level at locations marked in drawings.

All metal components shall be connected to the air termination network.

Air Terminals (Finials)

Air terminal shall be of taper pointed copper rod with multiple points, complete with base for mounting on the roof. The rod shall be 12 mm diameter and 1 m length, threaded at one end and secured with a lock-nut after being screwed into the base.

Earth Termination System

General

'Type A Earth Termination Arrangement' of IEC 62305-3 shall be provided. A copper tape shall be taken out from each of the down conductors at about 1000mm above Ground Level by the Constructing Party. The contractor shall connect the copper tape to a test joint and earth the system. The earth resistance of the earth termination network shall not exceed 10 (ten) ohms. All the exposed down conductors shall be securely covered by suitable PVC trunking up to 2m from ground level to prevent contact with personnel.

Earth Electrodes

Each earth electrode shall consist of 16mm diameter copper bonded steel earth rods. Earth rod shall be made by molecularly bonding 99.9% pure electrolytic copper onto a low carbon steel core. Each earth rod shall be 1.2m long.

The Contractor shall measure the resistance of each earth electrode immediately after it is driven. If the earth resistance is more than the permitted value, the Contractor shall install additional rods which shall be coupled to the rod already installed to obtain acceptable value of resistance.

Each earth electrode shall have a factory made, concrete inspection pit and cover provided.

Accessories

Lightning protection system shall be provided with all required test joints for down conductors, fixing clips and clamps for copper tapes and round conductors, earth rod clamps, bonds to metallic items/parts and other accessories.

Equipotential Bonding

All structural metal parts, metal installations and external conductive parts and lines connected to the structure shall be bonded to Lightning Protection System, using bonds and clamps appropriate to the location.

Tests

During the construction of the building structure, tests shall be made to check the continuity of the welded joints in the mild steel down conductors before and after each pour of concrete is completed. (by the constructing party)

On completion of the installation, the following tests shall be made:-

- (i) Resistance to earth of the complete installation
- (ii) Resistance to earth of each electrode
- (iii) Electrical continuity of all bends and joints.

In addition, a visual inspection shall be made of the entire installation with particular attention being paid to fixings, joints and bends.

Handing Over

After completion of the project the contractor shall handover three sets A3 size hard copies & 1 set of soft copies in a CD of as Built drawings to cover the entire installation. Manuals and relevant technical catalogues of equipment used in the system also to be handed over.

EXTERNAL WORKS

The preceding clauses of all trades shall apply equally to items of external works where relevant

1.00 GENERAL SPECIFICATIONS

1.01 MATERIALS, FIXTURES AND EQUIPMENT

All items shall be new and conform to respective publications and all specified requirements, as indicated on the drawings and specifications and shall be the products of manufacturers Local or Foreign, but reputed in Sri Lanka, regularly and currently engaged in the manufacture of such products.

The Tenderer must submit with each copy of his tender, descriptive literature for the items tendered. Tenderers are advised that descriptive literature should not contain any statements, qualifying prices, delivery terms, specifications etc, which would in any manner render the tender unresponsive to the terms and conditions of this Tender Notice. However, if the descriptive literature contains technical specifications which are in conflict with these technical specifications the tender may be deemed unresponsive. In case of any conflict between tenderer's specifications and technical specifications contained in these Tender Specifications, the latter will control.

1.02 SELECTION OF EQUIPMENT AND MATERIALS

The Contractor shall ensure that the equipment selected by him shall have capacities not less than those specified and satisfies the design performance criteria in all respects as given elsewhere in the Tender Documents.

1.03 APPROVAL OF EQUIPMENT AND MATERIAL

Successful Tenderer, upon the receipt of the letter of Award shall submit, in duplicate, all details of equipment and materials selected, along with the Material/Equipment Approval sheet duly filled-in with necessary details along with the relevant catalogues with the selections highlighted. Blank sheet of Material/Equipment Approval Sheet is attached in the end of this specification.

Selection data shall consist of Engineering selection tables, charts, etc, provided by the manufacture.

1.04 SHOP DRAWINGS

The Contractor shall prepare three sets of Shop Drawings and submit to the Engineer for approval, these drawings shall be submitted in sufficient time for approvals to be granted prior to any work commencing on site.

All the details shall be properly coordinated with the other services drawings, architectural and structural drawings.

Drawings returned to the Contractor for any alteration or amendments shall be resubmitted to the Engineer for his final approval.

The Contractor shall be responsible for accuracy of these drawings and other particulars supplied by him whether such drawings have been approved by the Engineer or not.

1.05 DESIGN CONSIDERATION

When designing the layout unless otherwise indicated, equipment from reputed manufacturers has been considered. The contractor shall ensure that the equipment selected for the tender shall have capacities not less than those specified and satisfies the design performance criteria in all respects as given elsewhere in the specifications. He shall make sure that the spaces provided for equipment are adequate for the installation and also for the future service and maintenance works.

1.06**SELECTION DATA**

After receipt of Notice to Proceed, and before starting installation of any materials or equipment, the Contractor shall submit selection data along with the Material/Equipment Approval Sheet to the Engineer.

Selection data shall be submitted in duplicate and shall consist of Engineering selection tables, charts, etc., provided by the manufacturer. The Contractor shall very clearly indicate in these documents the items selected, the selection criteria and their designation.

The successful tenderer is advised that no any material or item of equipment (both locally purchased or imported) should be ordered prior to the Engineer's approval.

1.07**CO-ORDINATION**

The Contractor shall co-ordinate all mechanical and related electrical works and installations with the work and installation of all the other trades involved in the project. The co-ordination shall be done prior to commencement of civil work and actual installation in order to avoid interference and conflict with the work of other trades. Cost of additional work, due to lack of coordination shall be born by the Contractor. If a problem of interference or conflict arises, the contractor shall immediately notify the Engineer who will propose a suitable solution. If any relocation work has to be performed in order to achieve this solution, the Contractor shall submit revised drawings which shall accommodate these relocations. All non-mechanical work involved in the above mentioned modifications shall be performed by persons skilled in those particular trades.

1.08**CHASING AND BORING**

All such chasing and boring etc as required for the installation shall be made by the Contractor and make good afterwards. Ceiling and floor surfaces shall be restored to their original condition by the civil Contractor who shall be paid for all such works by the Contractor.

1.09**PROTECTION OF EQUIPMENT, MATERIALS, FIXTURES, ETC.**

The Contractor shall adequately and properly protect all equipment, material, fixtures, particularly fragile or sensitive equipment, during transport to site, unloading, stacking, and from activities of other trades, before, during and after the installation. If any item on tender to be transported to site is dismantled, all parts shall be numbered and indexed. This numbering and indexing shall remain legible until the installation is over. (Where there are parts of identical manufacture, they shall be completely interchangeable.) Any of the above items that are damaged as a result of improper or inadequate protection shall not be acceptable for installation in the project. All items shall be covered and protected against the weather, damp, dirt, water, chemicals, and other such injury. Pipe openings shall be closed with caps or plugs during the installation. The contractor shall also maintain absolute cleanliness of the above and ensure their protection against mal-operation during testing (and balancing).

1.10**RIGGING & BORING**

All expenses in rigging, hoisting, carnage, road access and other facilities required for the movement of equipment and for the erection of the installation shall be borne by the Contractor.

1.11**AS BUILT DRAWINGS**

The Contractor shall on or before the date of Commissioning furnish the following:-

- (a) Three sets of reproducible drawings. One set shall clearly show the exact locations of the items of installed machinery and equipment and as-installed piping equipment. The other set shall clearly show the items of as-installed control equipment and as-installed control

wiring.

- (b) As-installed piping system drawings shall indicate direction of flow in the piping system and shall show all the valves, items of installed equipment, controls, adjustments, strainers, gauges, meters and related accessories and components as applicable to the system. The piping layout shall be drawn to suitable scale.

1.12 SAMPLES FOR APPROVAL

The Contractor shall submit sample of materials and other items where required to be submitted. All costs involved in the submittal and return of these samples shall be at the Contractor's expense, unless specially allowed for by separate items in the Bill of Quantities.

2.00 PARTICULAR SPECIFICATION

2.01 SCOPE OF WORK

The Contractor shall furnish all labour, materials, equipment, tools, services, temporary works and storage, install, test and hand over in good working condition and maintain during the Defects Liability Period the Water Supply, Sewer and Drainage systems as detailed on the drawings and described in the specifications.

A brief description of the work can be given as follows.

- 1) Water supply system in the building, which includes both Potable water supply system & Non-potable water supply system , comprising of supplying and laying of **uPVC** piping, pipe fittings, and accessories valves...etc. and pressure testing and commissioning.
- 2) Complete Sewerage and Drainage system including the installation of sanitary fixtures and accessories floor gullies, traps, uPVC piping and fittings as shown on drawings.
- 3) Complete testing and commissioning of all the systems

2.02 GENERAL CONDITIONS AND REGULATIONS

All the work related to water supply and sewer disposal systems shall be carried out in a neat, efficient workman like manner to fulfil the true meaning and intent of the drawings and specifications.

All the materials, equipment and the installation shall be in accordance with the latest issue of the relevant British Standards and Codes of Practice and the 'Plumbing Engineering Services Design Guide' published by the Institute of Plumbing and Heating Engineering, UK, in 2002.

The Contractor's work shall also comply with the Local Government Acts, regulations and by-laws which may be applicable to the Contracts of this nature unless otherwise specified herein or indicated on the drawings.

2.03 PIPING

All pipes and fittings supplied and installed under this Contract shall be new, without defects and in every respect suitable for storage, installation, use and operation in the extreme conditions of temperature and humidity that may prevail in Sri Lanka at times.

Drainage pipes and fittings shall be suitable for average working pressures of 6 bar or above depending on the application. Pipes, bends, couplers and similar fittings shall comply with British Standards 4514 or Sri Lanka Standards SLS 147. together with additional clauses set out in this specification or any other National Standard or specification acceptable to the Consultant as providing equivalent or better quality of materials and workmanship.

2.03.1 WATER SUPPLY PIPING

All the pipes used for cold water supply must comply with British standard or Sri Lanka standard SLS 147 standard and suitable for average working pressure 10 bar.

All the water supply piping concealed in the walls, laid over the ceilings or taken through ducts shall be pressure tested to a minimum of 1.5 times the working pressure, after fixing of taps, valves and stopcocks.

2.03.2 SEWER, DRAINAGE AND STORM WATER PIPING

All the sewer, drainage and storm water piping, unless otherwise specified shall be of uPVC manufactured in accordance with the British Standard BS 4514 or Sri Lanka standard SLS 147

The storm water piping of pipe diameter above 225mm, laid underground shall be of reinforced concrete pipe.

Reinforced concrete pipes shall conform to BSS 911 or any other National Standard or Specification, acceptable to the Engineer as providing equivalent or better quality of materials or workmanship together with the additional clauses set in this Specification.

2.03.3 PIPE HANGERS AND SUPPORTS

The Contractor shall provide GI hangers and supports painted with primer and finishing coat to all the piping work including clips, additional structural steel angles, channels or other members, wall bracings, masonry piers...etc.

Pipe lines clipped to the walls and soffit of floor slabs or vertical risers shall be rigid in construction with hangers and clips being provided at regular intervals.

The following may be used as a guide line in providing the supports for piping.

PIPE SIZES (mm)	HANGER ROD DIAMETER (mm)
20 - 63	08
75 - 90	10
100 - 140	12
160	16
PIPE SIZES (mm)	HANGER ROD INTERVALS (mm)
20, 25	0900
40, 50, 63	1000
75, 90	1500
110 and over	2000

The hanger rods shall be thoroughly wire brushed and applied over with two coats of primer and one coat of finishing paint or hot dipped galvanized.

2.03.4 PIPE LAYING

3.03.4.1 uPVC pipe jointing

All pipes and fittings supplied and installed under this Contract shall be new, without defects and in every respect suitable for storage, installation, use and operation in the extreme conditions of temperature and humidity that may prevail in Sri Lanka at times.

Drainage pipes and fittings shall be suitable for average working pressures of 600kPa or above depending on the application. Pipes, bends, couplers and similar fittings shall comply with British Standards 4514 or Sri Lanka Standards SLS 147. together with additional clauses set out in this specification or any other National Standard or specification acceptable to the Consultant as providing equivalent or better quality of materials and workmanship.

2.03.4.2 Pipes through concrete walls and beams

The passing of uPVC pipes through concrete walls and beams shall be done with steel protection tubes having rubber seal rings for water proofing.

2.03.4.3 Testing of piping

After each section of the pipe line has been laid, the ends shall be fixed with blank flanges, caps or plugs. Then this section shall be filled with water free of air and pressurised by means of a hand pump or any other approved device to 50% above the highest working pressure or 6 bar whichever is greater.

The leakage from the pipe line shall be ascertained from the net volume of water that has been pumped in during the test period. The leakage so ascertained shall not exceed the volume described in the relevant British Standard

2.04 VALVES

Valves shall be supplied and installed by the Contractor at the locations shown on drawings.

- a. All valves, strainers, flexible couplings etc., shall be of Pegler, Crane, Kitz or similar type approved by the Engineer.
- b. Full descriptive details of all items shall be submitted in the Schedule of Particulars supported by dimensioned drawings with the Tender.
- c. The Contractor shall provide protection to the flanges and crate all the items to the approval of the Engineer prior to the items leaving the Contractor's works in order to guard effectively against damage in transit and storage and ingress of foreign matter inside the items. Details of the proposed method of providing such protection and crating shall be given in the Schedule of Particulars.
- d. All bolts, nuts and gaskets for making flange joints shall be quoted separately.
- e. Valves to generally conform to BS 5154, BS1400 LG2 and BS21 or equivalent unless otherwise specified different
- f. Unless otherwise stated all the items specified under this section to be tested to 1 1/2 items working pressure specified.

2.05 TAPS AND STOP COCKS

Every tap when fully assembled shall be capable of resisting a pressure of at least 250psi. Every valve, spindle and other internal parts of the taps shall be made of a corrosion resisting alloy and shall have an efficient screw down valve.

The body shall be made in one piece true all over and machine on the face on which the washer will be seated. The top of the valve plate shall be clear of the bottom of the cover when the tap is fully opened.

The valve stem shall be of such a diameter that it can slide and turn easily in the bore of the spindle and shall be of such a length that it cannot come out of the spindle when the valve without any washer is resting on the seating and the tap is fully opened.

Taps and all visible metal fittings shall be chromium plated and be of good quality.

2.06 MANHOLES

Manholes shall be generally in accordance with BS 8301 or an equivalent Standard acceptable to the Consultant. Channels and haunches to be formed inside manhole in 1:3:6 (25) concrete and smooth cement rendered 1:2 at all internal faces of manhole.

2.07 MANHOLE COVERS

Manhole covers shall comply with BS 497 or an equivalent Standard acceptable to the Consultant. Facilities shall be made available for easy removal of these covers for maintenance. They shall also rest perfectly on the top of supporting walls to avoid nuisance of odours. Every sewer and waste manhole covers shall be of cast iron double seal type and storm water covers shall be of cast iron single seal type.

2.08 SANITARY FITTINGS

Water Closets shall be white vitreous of approved imported make, conforming to BS 3402 , 5503 & 7357 and provided with a seat and cover as per BS 1254 and fitted with a 'P' trap or 'S' trap and having a close coupled cistern and flushing arrangement .

The wash basins/vanity basin shall be white vitreous of approved imported make, conforming to BS 1188 and 3402, complete with electroplated single lever basin tap of make “Grohe” or equivalent with chain waste , and waste water outlet with brass chromium plated bottle trap.

The showers to be of approved imported make and provided with adjustable electroplated fixed shower rose and electroplated concealed valves conforming to BS 1010 with screwed tail for couplings, and secure valves with necessary back plate, nuts, washer etc.

The gate valves/angle valves/stop cocks to be provided conforming to BS 1010 to shower supply lines, low level cisterns and to main supply line, to isolate individual fittings or group units. Gate Valves/Stop cocks laid below ground level shall be encased in brick cement and sand 1:5 chamber 300 mm x 300 mm with 225 mm thick walls and R.C cover.

The floor gully of approved size with Stainless Steel grating cover and 50mm water seal traps shall be installed on the floor to receive waste water.

PUMPING SYSTEMS

SPECIFICATIONS FOR THE SUPPLY AND INSTALLATION OF CENTRIFUGAL WATER PRESSURE PUMP SET AND ACCESSORIES FOR PUMPING OF COLD WATER FROM WATER SUMP TO BATH ROOMS AND OR OTHER GIVEN LOCATIONS

constant pressure centrifugal pressure pump set (Stand by/Duty) complete with pressure manager device and parallel operation when water demand high at peak time and all mechanical & electrical accessories mounted on common G.I. base frame shall be supplied and installed in Pump House in Ground Level for the pumping of cold water from water sump to bath rooms and given locations as indicated in the drawings. (Pump equipment literature should be forwarded for approval by Engineer before supply & installation of pumps)

PUMPING UNITS

Pumping sets shall be to the following requirements.

Pumps Capacity

Delivery Head	Capacity (L/sec)
20 m	1.5

(Make of Pump – Grundfos or equivalent)

2. **Speed**
Maximum speed 2900 rpm.

Materials of Construction and Features

- a) The pumps shall be centrifugal pump with coupled directly to a motor and with pressure manager.
- b) The impeller shall be Cast Iron precision machined for maximum hydraulic efficiency and dynamically balanced for minimum vibration.
- c) Pump housing should be of cast iron of ample thickness smoothed on inside and other surfaces.
- d) The pump shaft, shaft sleeve, nuts & bolts and screws and washers shall be of stainless steel.
- e) The mechanical shaft seal shall be of the heavy duty type to have a long trouble free life.
- f) The bearing shall be adequately sized and self-lubricating to ensure continuous smooth and vibration free operation.
- g) The pumps shall be fitted on an G.I. steel base frame with adjustable vibration dampers.

2.09.1.1.3 **MOTOR**

The motor shall be suitable for the pumps and shall be of the totally enclosed, fan cooled standard type with main dimensions according to IEC and DIN standard and operating on 400V 50Hz, single ph, AC supply.

The motor should be directly coupled to the pump and motor shall be enclosed in a rugged quality cast iron housing. The surface of the housing shall be primed with PVC epoxy and painted with a rubber paint.

The speed of the motor shall not exceed 2900rpm and the winding shall be of class 'F' insulation, Enclosure Class IP54 or IP44 with a maximum ambient temperature of 40⁰ C.

The starter shall be capable of withstanding voltage variations up to 10% of the nominal voltage (400V) without overheating the windings.

The motor windings shall also be protected against overheating by suitable thermal motor protection.

Control cabinet to be fitted on the base frame with at least the following

- 1) Main Switch
- 2) Fuses and Motor Protection
- 3) Indicator Lamps on the front cover
- 4) Manual - Auto Switch
- 4) Pressure Gauges and mechanism for relay activated auto start/stop for water levels at sump
- 7) Dry-Running Protection Indicator

Accessories

The pumping sets to contain the following accessories

1. Isolating & Non Return valves & flexible couplings
2. Foot Valves
3. Dry-Running Protection
4. Fully equipped Control Panel with switches, duty lamps and pressure gauges
5. Pressure switches

TESTING AND COMMISSIONING

When all installation work is satisfactorily completed, the Contractor shall inform the Consultant in writing that the equipment are ready for handing over and the Consultant shall then fix a date for taking over.

At the taking over all equipment shall be tested for a period of 6 hrs or as decided by the Consultant to determine the following.

- that pumping sets are capable of delivering specified quantity against specified head.
- that equipment are in satisfactory mechanical condition.
- the efficiency and other specified characteristics

Supply and installation of IP CCTV system

SPECIFICATIONS

CCTV/IP Surveillance System

1) 2MP IP Bullet Camera (outdoor) Day/ Night

Minimum Specification

Image Sensor 1/2.7"	2Megapixel progressive CMOS
Effective Pixels	1920(H) x1080(V)
RAM/ROM	256MB/128MB
Scanning System	Progressive
Electronic Shutter Speed	Auto/Manual, 1/3~1/100000s
Minimum Illumination	0.08Lux/F2.0(Color,1/3s,30IRE) 0.3Lux/F2.0(Color,1/30s,30IRE) 0Lux/F2.0(IR on)
S/N Ratio	More than 50dB
IR Distance	Distance up to 30m(98ft)
IR On/Off	Control Auto/ Manual
Lens	Fixed 2.8 mm
Angle of View	H:104°/92°,V:55°/50°
Intelligence	IVS Tripwire, Intrusion
Video Compression	H.265+/H.265/H.264+/H.264
Streaming Capability	2 Streams
Resolution	1080P(1920x1080)/720P(1280x720)/ D1(704x576/704x480)/CIF(352x288/352x240)
Frame Rate	1 ~ 25/30fps
Day/Night	Auto(IR-Cut) / Color / B/W
BLC Mode	BLC / HLC /DWDR
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off / On (4 Zone, Rectangle)
Electronic Image Support	
Smart IR Support	
Digital Zoom 16x	
Flip 0°/90°/180°/270°	
Mirror Off / On	
Privacy Masking Off / On (4 Area, Rectangle)	
Network	Ethernet RJ-45 (10/100Base-T)
Protocol	HTTP;TCP;ARP;RTSP;RTP;UDP;RTCP;SMTP;FTP;DHCP ;DNS;DDNS;PPPOE;IPv4/v6;SNMP;QoS;UPnP;NTP
Interoperability	ONVIF, PSIA, CGI
Max. User Access	20 Users
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	
Smart Phone IOS, Android	
Certifications	CE (EN 60950:2000), UL:UL60950-1, FCC: FCC Part 15 Subpart B
Bracket for mounting	
2 years comprehensive warranty	

2) 8 Channels NVR with Software

Minimum Specification

Main Processor	Dual-core embedded processor
Operating System	Embedded LINUX

IP Camera Input	8 Channel
Display Interface	1 HDMI, 1 VGA
Resolution	HDMI: 3840×2160, 1920×1080, 1280×1024, 1280×720 VGA: 1920×1080, 1280×1024, 1280×720
Multi-screen Display	8CH: 1/4/8/9
OSD Camera	title, Time, Camera lock, Motion detection,
Recording Compression	H.265/H.264
Resolution	8MP/6MP/5MP/4MP/3MP/1080P/ 720P/ D1&etc.
Record Rate	80Mbps
Record Mode	Manual, Schedule(Regular(Continuous), MD, Stop
Trigger	Events Recording, PTZ, Tour, Video Push, Snapshot, and
Screen Tips	Video Detection Motion Detection, MD Zones: 396 (22 × 18), and Tampering
Search Mode	Time /Date, MD and Exact Search (accurate to second)
Playback Function	Play, Pause, Stop, Rewind, Fast play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Shuffle, Backup Selection, Digital Zoom
Backup Mode	USB Device/Network
Network Interface	1 RJ-45 port (10/100Mbps)
Network Function	HTTP/HTTPS, TCP/IP, IPv4/IPv6, RTSP, UDP, NTP, DHCP, DNS, IP Filter, DDNS, IP Search
Max. User Access	128 users
Smart Phone	iPhone, iPad, Android
Interoperability	ONVIF 2.4, SDK, CGI
Storage	Internal HDD 1 SATA III Port, up to 6TB capacity for each
HDD	
USB 2 ports	1 Rear USB2.0, 1 Front USB2.0
Certifications	CE EN55032, EN55024, EN50130-4, EN60950-1, FCC Part 15 Subpart B, ANSI C63.4-2014, UL UL60950-1
2 Years comprehensive warranty	

3) CCTV camera points wiring using CAT 6 cable

Minimum Specification

4pair, 8 conductors, solid stranding, 22-24 AWG bare copper, insulated wires

Should support IEEE 802.3, 10BASE-T, IEEE 802.3u, 100BASE-T, IEEE 802.3ab, 1000BASE-T

Minimum operating frequency should be 250 MHz

Meet the requirements of ANSI/TIA/EIA-568-B.2-1a and ISO/IEC 11801 Class E

25 Years comprehensive warranty

4) 12 port 10/100 - Layer 2 Ethernet, POE switch

Minimum Specification

Unmanaged Layer 2 Switch with 12 x 10/100 Mbps Ports

Should support IEEE 802.3: 10BASE-T, IEEE 802.3u: 100BASE-T

19" rack-mountable

230V AC 50±5Hz power supply

3 years comprehensive warranty

5) 8 port, RJ 45, CAT6, 19-inch rack mountable modular Patch Panel

Minimum Specification

8 Ports

1U rack height

Provision for labelling
Satisfy or exceed Category 6 standards
19" rack mountable
Bandwidth of 250 MHz or higher for each port
Each port must accept 4 pairs of solid 24 AWG conductors
25 years comprehensive warranty

6) 1 U Management Panel

Minimum Specification
19" Rack mountable
Colour black "
Metal with lid
2 Years comprehensive warranty

7) 13A 2 way PDUs

Minimum specification
Shall be rack mountable
Shall be with 2 x universal type power sockets
2 Years comprehensive warranty

8) 650 VA Line interactive UPS

Minimum specification
Backup time minimum 15 min
Line Interactive
Input/ output Voltage 230V
Frequency 50-60MHz
1 Year comprehensive warranty

9) CAT 6 Factory Terminated Patch Cable 1 Meter each

Minimum Specification
Length 1 m
Satisfy or exceed Category 6 standards.
Bandwidth of 250 MHz or higher
Must accept 4 pairs of solid 24 AWG conductors
25 Years comprehensive warranty

10) 19" standard wall mounted rack

Minimum Specification
Shall be wall mountable
Shall have cooling fan
Front lockable glass door
Shall be able to mount all accessories of CCTV system
2 Years comprehensive warranty

11) 32" LED Monitors

Minimum Specification
Size 32 inch HD color display
Video input HDMI
Shall be mount with wall mount bracket
3 years comprehensive warranty

Volume II

Section - 7

QUALIFICATION INFORMATION AND FORM OF BID

CIDA Registration	
Registration Number	<i>(attach certified copies of relevant pages from the registration book, as annex)</i>
Grade	
Specialty	
Expiry date	
Back listed Contractors	
Have you been declared as a defaulted contractor by NPA or any other agency? (Yes/No)	
If yes provide details	
VAT Registration Number	
Construction Program	<i>(attach as annex)</i>
Legal Status	<i>(Attach certified copies of Memorandum of Article / Association and details of Company Registration / Incorporation of the company / Business registration for sole proprietor or partnership. Authorized to Sign / Commit the bid – Attach the Power of Attorney or Board Resolutions)</i>
Value of Construction works performed in last 5 years*	<i>(attach copies of Certificate of Completion etc., and other documents such as profit-loss and income expenditure statement)</i>
Year	
Year	
Year	
Year	
Year.....	
Value of similar works completed in last 5 years (indicated only for the three largest projects)*	1. Value..... Year..... 2. Value..... Year..... 3. Value..... Year.....

FORM OF BID**REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTRE, AT KARAMBA,
PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT AUTHORITY**

To: **Sri Lanka Tourism Development Authority, No 80, Galle Road, Colombo 03**

1. Having examined the Standard Bidding Document - Procurement of Works [(ICTAD/ SBD/ 01-second Edition, January 2007), Specifications, Drawings and Bills of Quantities and Addenda for the execution of the above-named Works, we the undersigned, offer to execute and complete such works and remedy any defect therein conformity with the aforesaid Conditions of Contract, Specifications, Drawings, Bills of Quantities and Addenda for the sum of Sri Lankan Rupees

.....(LKR.)

or such other sums as may be ascertained in accordance with the said conditions.

2. We acknowledge that the contract data forms part of our Bid.

3. We undertake, if our Bid is accepted, to commence the Work as stipulated in the Contract Data, and to complete the whole of the Works comprised in the Contract within the time stated in the Contract data.

4. We agree to abide by this Bid for the period of 120 days from the date fixed for receiving or any extended period and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

5. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.

6. We accept the Adjudicator

7. We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this..... day of 20..... in the capacity ofduly authorized to sign tenders for and on behalf of (IN

BLOCK CAPITALS)

Signature :

Name :

Designation :

Address :

Witness

Signature : Signature :

Name : Name :

NIC No. : NIC No. :

Address : Address :

Volume II

Section - 8

BILLS OF QUANTITIES

**REFURBISHMENT OF EXISTING
TOURISM INFORMATION CENTRE,
AT KARAMBA, PALAVIYA FOR SRI
LANKA TOURISM DEVELOPMENT
AUTHORITY**

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
B	<p>PRELIMINARIES</p> <p>Project Particulars</p> <p>Name of the Project REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTRE, AT KARAMBA, PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT AUTHORITY</p> <p>Nature of work The proposed work comprises the renovating single storied building.</p> <p>The Bills of Quantities comprises the following Section</p> <p>B PRELIMINARIES C DEMOLITION/ ALTERATION/ REPAIR AND MAINTENANCE D EXCAVATION AND EARTH WORK F CONCRETE WORK G MASONRY WORK H WATER PROOFING L JOINERY & METAL WORK P ROOF WORK T FLOOR AND WALL FINISHES Q PLUMBING/ INSTALATION WORK V PAINTING WORK</p> <p style="text-align: right;">C/F</p>				

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
	<p style="text-align: right;">B/F</p> <p>The cost of any other items that are necessary for the work , but not listed below or elsewhere in the " Bills of Quantities " shall be deemed to be included in the rates.</p> <p>All temporary works erected should be dismantled and removed from site on completion of the work.</p> <p>Rate for all items shall include for insurance of work, Machinery & Equipment, Plant, Materials, third party person & property and Employer's personnel & property at site as per the Contract.</p> <p>Rate for all items shall include for workers compensation insurance against accidents and injury to contractor's personnel as per the Contract.</p> <p>B PRELIMINARIES</p> <p>B.1 Contractor's Facilities</p> <p>B.1/1 Constructing, maintaining, dismantling and removal on completion of the works, a temporary site office of adequate size and other facilities for the contractor's site management staff in accordance with the plans prepared by the contractor and concurred by the Architect.</p> <p>B.1/2 Constructing, maintaining, dismantling and removal on completion of the works, buildings to be used as workshop and stores for perishable materials. Building shall be constructed in accordance with the drawings prepared by the contractor and concurred by the Architect. The lump sum shall also include for altering, modifying, or dismantling and re erecting within the site all temporary building / structures if required.</p> <p style="text-align: right;">C/F</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			<p style="text-align: center;">-</p> <p style="text-align: center;">-</p>

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
	B/F				-
B.1/3	Constructing, maintaining, dismantling and removal on completion of the works, temporary buildings in accordance with the plans prepared by the Contractor and concurred by the Architect to accommodate the following: Worker's rest room and kitchen Toilet and wash area Accommodation for Contractor's staff and workmen including sanitary facilities on site. Facilities to workmen shall conform to the latest public health and industrial regulations.	Item			
B.1/4	Setting out of works in accordance with drawing.	Item	1.00	-	-
	Quality, Standards and Progress Electricity and water to be supplied by client only for the construction work.	Note		-	-
	Rate for all items shall include for providing any other work that the bidder deems necessary for the proper execution and completion of the works ,but not listed below. Bidder shall insert below the details of such work with costs. (If space provided is insufficient attach separate list)	Note		-	-
	All works should be coordinate with consultant and other contractors.	Note			-
B.1/5	Cost in connection with preparing samples for testing, making arrangements for testing of materials, goods etc., as stipulated in the specification, obtaining test reports and submitting the same to the Architect.	Item	1.00	-	-
B.1/6	Shop drawings (Except Electrical), bar schedules etc. for Architect's approval.				
	C/F				

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
B.1/7	Maintenance manual report withing two weeks from completion ,should include provision of 2 sets of (hard copies and soft copies) as-built drawings of all services (Except Electrical), specifications,test reports,warranty certificates etc. (Report should submit to Architect's for approval.)	B/F			
B.1/8	Providing all necessary safety measures to workmen at site conforming to the latest industrial safety regulation and as directed by the Architect.				
B.1/9	Making adequate provision against air and noise pollution of surrounding areas. Hoarding and dust screens shall be provided to control dust escaping to surrounding areas.	Item	1.00	-	-
B.1/10	Maintaining the site in a clean and orderly manner at all times and during the entire contract period.	Item	1.00	-	-
B.1/11	Providing and maintaining necessary fencing, hoarding and gate for safeguarding the works, materials and plant, as directed by the Architect.	Item	1.00	-	-
B.1/12	Allow for performance bond	Item	1.00	-	-
B.1/13	Allow for advance bond	Item	1.00	-	-
Total Carried to Summary					

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
C	DEMOLITION AND EARTH WORK				
C1	DEMOLITIONS				
	The Contractor is specifically requested to visit the site and ascertain for himself the items of DEMOLITIONS and rate shall include for shoring and scaffolding incidental to demolition and for making good all other works so disturbed.	Note			
	All removed and demolished materials and elements which can not be use again should be cart away from the site and disposed.	Note			
	All reusable removed elements should be protect to reuse.	Note			
	Floor				
C1/1	Demolish and remove existing floor deck and cartaway debries from the site	Item	1.00	-	-
	Roof				
C1/2	Removal of damaged roof frame work carefully and protect all usable materials for reuse.	Item	1.00	-	-
C2	EARTH WORK				
C1/3	Well compacted earth fill with approved material with Spreading, watering and well ramming in 6" thk.layers with imported soil.Rate includes making embankment and slopping as per the drawing	Cu	75.00	-	-
C1/4	Common Excavation for column, lift, staircase foundations in any material except rock blasting, part return fill in and ram and surplus deposited within site as directed.Rate includes and dewatering and shoring work	Cu	4.00	-	-
	Total Carried to Summary				

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
F	CONCRETE WORK				
	Rate shall include for depositing, handling, hoisting into position, vibrating etc. and making good after removal of formwork etc.	Note			
	Reinforcement & Form work paid for separately unless otherwise specified in the item.	Note			
F1	INSITU CONCRETE				
F1/1	Place 2" thk. Screed concrete in G15	Sqr	1.25	-	-
F1/2	Reinforced concrete grade 25 in column foundation and shaft.	Cube	1.20	-	-
F1/3	- Ditto - in slab and beam.	Cube	5.33	-	-
F1/4	- Ditto - in slab pieces.Rate includes fixing the pieces into beam	Cube	10.25	-	-
F2	FORM WORK				
	Rate for form work to be included for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, wetting and any surface treatment before and after placing of concrete.	Note		-	
	Second floor to roof level				
F2/1	Plywood formwork to sides of column shaft	Sqr	2.75	-	-
F2/2	- Ditto - in slab, slab pieces and beam.	Sqr	34.25	-	-
F3	REINFORCEMENT				
	High yeild reinforcement (to BS 4449 and characteristic strength of tor steel $f_y = 460 \text{ N/mm}^2$ & characteristic strength of mild steel $f_y = 250 \text{ N/mm}^2$)	Note			
	Ground floor to first floor level				
F3/1	Reinforcement in column shaft slabs and beams	Ton	3.89	-	-
F3/2	Chemical Anchoring work	item	1.00	-	-
	Total Carried to Summary				-

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
L	ALUMINIUM WORK Rate shall include for all necessary class 1 fixings, fittings, stainless steel ironmongeries	Note			
	Fix glass				
L/1	Supply and fix 8mm thk. tempered glass pannels as per the drawing .	ft2	1,130.00	-	-
L/2	Type "D4" size 3'-0" x 7'-0" Timber framed glazed single sash swing panel door.Frame finish size 3"x4" and sash finish size 1 1/2".Rate include all iron mongeries in good quality with door stoper , door closer etc. and waterbase work as per architects requirement.Timber should be "Class 01 Teak"	Nr	3.00	-	-
L/3	Supply and fix 8mm thk. Tempered glass double door with all class 01 iron mongeries include door stoper and door closer	Nr	2.00	-	-
Total Carried to Summary					

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
P P/1	ROOF WORK Repairing existing roof frame work according to engineers specification	item	1.00	-	-
	Total Carried to Summary				

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
T	FLOOR AND WALL FINISHES				
T1	FLOOR FINISHES				
T1/1	Cutting newly concreted floor to make even surface finish. Sample should be done at site and approved from the Architect.	Sqr	5.50	-	-
	Total Carried to Summary				

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
V	PAINTING WORK Rate shall include for preparation of surface cleaning down, smoothing, knotting, stepping etc. protection of floors and fitting, removing & replacing door and window, furniture, and cleaning windows etc.upon completion.	Note			
	Painting for second floor				
V/1	Prepare and apply one coat of filler or approved equilent with two coats of weather shield paint with approved colour and quality to external faces of walls, reveals & columns in the followings.	Sqr	14.22	-	-
V/2	Prepare and apply two coats of weather shield paint with approved colour and quality to external faces of walls, reveals & columns in the followings.	Sqr	5.85	-	-
V/3	Prepare and apply one coat of approved primer and two coats of emulsion paint with approved colour and quality to internal faces of walls, reveals, columns, beams, soffits of slabs & ceiling area in the followings	Sqr	38.25	-	-
V/4	Prepare and apply enamel paint to existing door windows	item	1.00	-	-
V/5	Painting of existing ceiling with enamel paint after cleaning with apply putty and repairing	Item	1.00	-	-
Total Carried to Summary					
W	SUNDRY WORKS				
W/1	Repairing existing roof gutters by replace new.Rate shall include demolish and cart away existing items apply silicons and make surface good.	Item	1.00	-	-
W/2	Supply and fix 40N/mm2 interlock paving as per the drawing.Rate shall include compacting quarry dust and lay paving with curbs.	Sqr	6.00	-	-
Total Carried to Summary					

Item no	Description	Unit	Qty	Rate (SLR)	Amount (SLR)
X	PROVISIONAL SUM				
X/1	Allow for repair existing hand rail	PS	1.00	200,000.00	200,000.00
X/2	Allow for landscape work and cleaning	PS	1.00	200,000.00	200,000.00
X/3	Allow for bathroom and sewer line repairs	PS	1.00	450,000.00	450,000.00
X/4	Allow for replace damaged iron mongaries	PS	1.00	200,000.00	200,000.00
X/5	Allow for pannal board	PS	1.00	150,000.00	150,000.00
X/6	Allow for name board	PS	1.00	125,000.00	125,000.00
	Total Carried to Summary				1,325,000.00

REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTRE, AT KARAMBA, PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT AUTHORITY

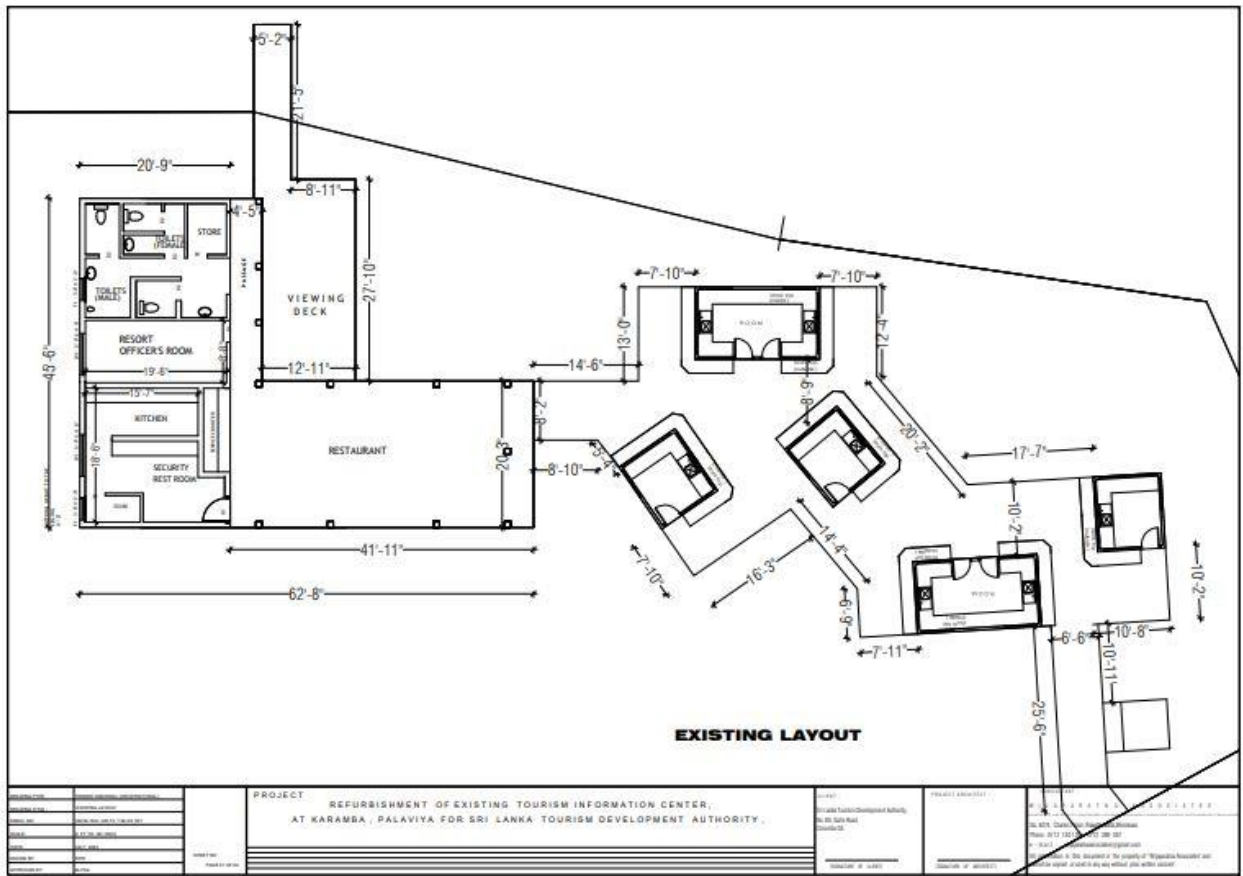
BILL OF QUANTITIES

BILL NO	DESCRIPTION		AMOUNT (SLR)
B	PRELIMINARIES	Rs.	-
C	DEMOLITION AND EARTH WORK	Rs.	-
F	CONCRETE WORK	Rs.	-
L	ALUMINIUM WORK	Rs.	-
P	ROOF WORK	Rs.	-
T	FLOOR AND WALL FINISHES	Rs.	-
V	PAINTING WORK	Rs.	-
W	SUNDRY WORKS	Rs.	-
	SUB TOTAL I	Rs.	
	DISCOUNT (.....%)	Rs.	
	SUB TOTAL II	Rs.	
X	PROVISIONAL SUMS	Rs.	1,325,000.00
	CONTINGENCIES 10%	Rs.	
	GRAND TOTAL (Excluding VAT) C/F TO FORM OF TENDER	Rs.	
	ADD : 18% VAT	Rs.	
	GRAND TOTAL (Including VAT)	Rs.	

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Section - 10

DRAWINGS



<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="font-size: 8px;">DRAWING NO.</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">DRAWING DATE</td><td>2019/05/01</td></tr> <tr><td style="font-size: 8px;">DRAWING BY</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">CHECKED BY</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">SCALE</td><td>AS SHOWN</td></tr> <tr><td style="font-size: 8px;">SHEET NO.</td><td>01</td></tr> <tr><td style="font-size: 8px;">SHEET TOTAL</td><td>01</td></tr> <tr><td style="font-size: 8px;">PROJECT NO.</td><td>1000/000000000000000000</td></tr> </table>	DRAWING NO.	1000/000000000000000000	DRAWING DATE	2019/05/01	DRAWING BY	1000/000000000000000000	CHECKED BY	1000/000000000000000000	SCALE	AS SHOWN	SHEET NO.	01	SHEET TOTAL	01	PROJECT NO.	1000/000000000000000000	<p>PROJECT</p> <p>REFURBISHMENT OF EXISTING TOURISM INFORMATION CENTER, AT KARAMBA, PALAVIYA FOR SRI LANKA TOURISM DEVELOPMENT AUTHORITY.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="font-size: 8px;">CLIENT</td><td>Sri Lanka Tourism Development Authority, No. 85, Saha Road, Colombo 03.</td></tr> <tr><td style="font-size: 8px;">DESIGNER</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">DRAWING NO.</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">SHEET NO.</td><td>01</td></tr> <tr><td style="font-size: 8px;">SHEET TOTAL</td><td>01</td></tr> <tr><td style="font-size: 8px;">PROJECT NO.</td><td>1000/000000000000000000</td></tr> </table>	CLIENT	Sri Lanka Tourism Development Authority, No. 85, Saha Road, Colombo 03.	DESIGNER	1000/000000000000000000	DRAWING NO.	1000/000000000000000000	SHEET NO.	01	SHEET TOTAL	01	PROJECT NO.	1000/000000000000000000	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="font-size: 8px;">PROJECT MANAGER</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">ARCHITECT</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">ENGINEER</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">DRAWING DATE</td><td>2019/05/01</td></tr> <tr><td style="font-size: 8px;">DRAWING BY</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">CHECKED BY</td><td>1000/000000000000000000</td></tr> <tr><td style="font-size: 8px;">SCALE</td><td>AS SHOWN</td></tr> <tr><td style="font-size: 8px;">SHEET NO.</td><td>01</td></tr> <tr><td style="font-size: 8px;">SHEET TOTAL</td><td>01</td></tr> <tr><td style="font-size: 8px;">PROJECT NO.</td><td>1000/000000000000000000</td></tr> </table>	PROJECT MANAGER	1000/000000000000000000	ARCHITECT	1000/000000000000000000	ENGINEER	1000/000000000000000000	DRAWING DATE	2019/05/01	DRAWING BY	1000/000000000000000000	CHECKED BY	1000/000000000000000000	SCALE	AS SHOWN	SHEET NO.	01	SHEET TOTAL	01	PROJECT NO.	1000/000000000000000000
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ENGINEER	1000/000000000000000000																																																		
DRAWING DATE	2019/05/01																																																		
DRAWING BY	1000/000000000000000000																																																		
CHECKED BY	1000/000000000000000000																																																		
SCALE	AS SHOWN																																																		
SHEET NO.	01																																																		
SHEET TOTAL	01																																																		
PROJECT NO.	1000/000000000000000000																																																		

