

THE GOVERNMENT OF MAURITIUS  
MINISTRY OF ENERGY, WATER RESOURCES AND PORTAL SERVICES  
GENERAL WATER AUTHORITY

THE DETAILED DESIGN  
ON  
THE PORT LOUIS WATER SUPPLY PROJECT  
IN MAURITIUS

FINAL REPORT (2)

TENDER DOCUMENTS

FOR

LOT III : RAW WATER TRANSMISSION PIPELINE AND  
TREATMENT FACILITIES

VOLUME III

FORM OF TENDER  
BILL OF QUANTITIES  
SCHEDULE OF PARTICULARS

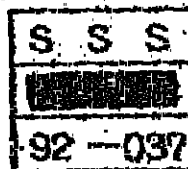
JICA LIBRARY



1172444(0)

MARCH 1992

JAPAN INTERNATIONAL COOPERATION AGENCY



THE DETAILED DESIGN ON  
THE PORT LOUIS WATER SUPPLY PROJECT IN MAURITIUS  
FINAL REPORT (2)  
TENDER DOCUMENTS  
FOR LOT III VOLUME III  
MARCH 1992

410  
518  
SSS

**THE GOVERNMENT OF MAURITIUS  
MINISTRY OF ENERGY, WATER RESOURCES AND POSTAL SERVICES  
CENTRAL WATER AUTHORITY**

**THE DETAILED DESIGN  
ON  
THE PORT LOUIS WATER SUPPLY PROJECT  
IN MAURITIUS**

**FINAL REPORT (2)**

**TENDER DOCUMENTS**

**FOR**

**LOT III : RAW WATER TRANSMISSION PIPELINE AND  
TREATMENT FACILITIES**

**VOLUME III**

---

**FORM OF TENDER  
BILL OF QUANTITIES  
SCHEDULE OF PARTICULARS**

---

**MARCH 1992**

**JAPAN INTERNATIONAL COOPERATION AGENCY**



1172444【0】

---

**CENTRAL WATER AUTHORITY**  
**PHOENIX - MAURITIUS**

**THE PORT LOUIS WATER SUPPLY PROJECT**

**TENDER DOCUMENTS**

**FOR**

**LOT III : CONSTRUCTION OF WATER SUPPLY FACILITIES**  
**(RAW WATER TRANSMISSION PIPELINE AND**  
**TREATMENT FACILITIES)**

**VOLUME III**

**Table of Contents**

|                               | <i>Page</i>      |
|-------------------------------|------------------|
| FORM OF TENDER .....          | FT-1 to<br>FT-4  |
| BILL OF QUANTITIES .....      | BQ-1 to<br>BQ-80 |
| SCHEDULE OF PARTICULARS ..... | SP-1 to<br>SP-26 |

## **FORM OF TENDER**

To: Central Water Authority (CWA)  
Phoenix, Mauritius  
Attention: Committee for the Port Louis Water Supply Project  
Director of \_\_\_\_\_

Gentlemen,

1. Having examined the Instructions to Tenderers, Conditions of Contract, Specifications, Bill of Quantities, Drawings, and Conditions of the Site, with regards to the Raw Water Transmission Pipeline and Treatment Facilities (Lot III) of the Port Louis Water Supply Project, we, the undersigned, offer to construct, complete and maintain the whole of the Works in conformity with the said Tender Documents for the sum of U.S. Dollars (in words) \_\_\_\_\_ (U.S.\$\_\_\_\_\_) and Mauritian Rupees (in words) \_\_\_\_\_ (Rs.\_\_\_\_\_).
2. We acknowledge receipt of the following Addenda to the Tender Documents and have taken into consideration these Addenda in our Tender Price.

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

3. We undertake if our Tender is accepted to commence the works within thirty (30) days of receipt of the PMO/Engineer's Order to Commence, and to complete and deliver the whole of the Works comprised in the Contract within twenty four (24) months calculated from the date when the PMO/Engineer's Order to Commence is issued and various Sections of the Works comprised in the Contract in accordance with the requirements stated in the Appendix attached hereto.
4. If our Tender is accepted we will obtain the guarantee of an Insurance Company or Bank or other sureties (to be approved by you) to be jointly and severally bound with us in the sum not less than twenty (20) per cent of the above-named price for the due performance per cent of the above-named price for the due performance of the

Contract within fifteen (15) days from the receipt of the Letter of Acceptance under the terms of a Bond to be approved by you.

5. We agree to be bound by this Tender for the period of one hundred and eighty (180) calendar days from the date set for the delivery of the Tender and it shall remain binding upon us and may be accepted by you at any time before the expiration of such period or such extended period.
6. We further agree that upon our failure or refusal either to provide the Performance Bond or to execute the Agreement within thirty (30) calendar days from the receipt of the Letter of Acceptance, the Tender bond accompanying our Tender can be encashed by you.
7. Unless and until a formal Agreement is prepared and executed, this Tender, together with your written acceptance thereof, shall constitute a binding Contract between us.
8. We understand that you are not bound to accept the lowest or any Tender you may receive.
9. We understand that all Schedules as attached hereto form a part of this Tender.
10. We submit herewith a Tender Bond in the amount of Mauritian Rupees \_\_\_\_\_ only (Rs. \_\_\_\_\_) drawn in your favour or made payable to you and valid for one hundred and eighty (180) calendar days or such extended days from the date fixed for the delivery of Tenders.

(IN BLOCK CAPITALS)

Witness \_\_\_\_\_  
Address \_\_\_\_\_  
Occupation \_\_\_\_\_

## APPENDIX TO THE TENDER

### Clause No. of Conditions of Contract

|  |          |   |
|--|----------|---|
| Amount of Performance Bond                                     | 10       | Not less than twenty (20) per cent of the price named in the Tender   |
| Minimum Amount of Third Party Insurance                        | 23(2)    | Mauritius Rupees _____ (Rs._____) (any one incident but number of incidents unlimited)  |
| Amount of Insurance of Works Defects Liability Period          | 21       | One hundred (100) per cent during of the Contract Price   |
| Period for the commencement, from Engineer's Order to Commence | 41       | Within thirty (30) days   |
| Period from Completion of Separable Portion of the Works       | 43       | Twenty four (24) months   |
| Amount of Liquidated Damages                                   | 47(1)    | US\$15,000 per day  |
| Limit of Liquidated Damages                                    | 47(4)    | Ten (10) per cent of the Contract Price   |
| Defects Liability Period                                       | 49(1)    | Half (0.5) year after the date of Certificate of Completion   |
| Percentage for Adjustment of Provisional Sums                  | 59(4)(c) | <p>To be filled in by Tenderer</p> <p>– per cent for works by nominated Sub-contractor (Ref. Clause 58(2)(b) of Conditions of Contract</p> <p>– per cent for supply of goods and materials by the Contractor (Ref. Clause 58(2)(c) of Conditions of Contract)</p> |
| Percentage of Advance Payment                                  | 60(2)    | As detailed in Clause 60 of the Conditions of Contract  |



|  |        |  |
|--|--------|--|
| Percentage of Retention                                | 60(4)  | Max. five (5) per cent of Contract Price, accumulated with holding an amount of 10 per cent for monthly progress payment |
| Percentage of Minimum amount of Interim Certificate    | 60(3)  | One and a half (1.5) per cent the Contract Price   |
| Time within which payment to be made after certificate | 60(13) | Sixty (60) days, unless otherwise specially described  |

## **BILL OF QUANTITIES**

BILL OF QUANTITIES  
PREAMBLE AND NOTES TO BILLS OF QUANTITIES

1. These bills of quantities form part of the Contract Documents and shall be read in conjunction with the Conditions of Contract, the General and Technical Specifications, the Instruction to Tenderers and Drawings.
2. All payments to the Contractor shall be made in accordance with the rates and prices entered into this Bill of Quantities, provided always as follows:
  - (1) The quantities given in the Bill of Quantities are approximate and provisional and are given to provide a common basis for Tendering. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the PMO/Engineer and valued at the rates and prices quoted in the Bill of Quantities where applicable, and otherwise at such rates and prices as the PMO/Engineer may fix within the terms of the Contract.
  - (2) Wherever classification of work has to be based on judgement, decision of PMO/Engineer shall be final and finding.
  - (3) Work actually executed by the Contractor shall be measured, and shall form the basis of payment, except where otherwise specifically described in the Specifications or instructions or shown on the Drawings as payline.
  - (4) The work, either whole or partly, which is not executed, in the PMO/Engineer's judgement, in accordance with the provisions of the Contract is not subject to measurement or payment unless such work is reinstated by the Contractor according to the PMO/Engineer's instructions.
3. For the purpose of payment by Interim Certificate of "Lump Sum" items the PMO/Engineer may assess the portion of the work completed on the "Lump Sum" item and allow for payment the portion of the "Lump Sum" he deems fair and reasonable. The total of all portions allowed shall not exceed the "Lump Sum". All interim payment shall be subject to the retention stipulated in the Contract Documents.
4. The unit and lump sum prices and amounts in the Bill of Quantities shall consist of two portions, one for foreign currency portion expressed in U.S. Dollar (U.S.\$) and

the other for local currency portion expressed in Mauritian Rupees (Rs.), and shall include, except insofar as it is otherwise provided under the Contract, all labour, Construction Plant, materials, erection, maintenance, supervision, insurance, profit, duties together with all general risks, if any liabilities and obligations set forth or implied in the Contract. These are also deemed to include all allowances for waste or surplus of any kind, which are not subject to the measurement. Each portion shall be divided into four (4) parts namely, "labour", "materials", "equipment" and "overhead", the sum of which shall be added to give the Contract Value in U.S. Dollar and Mauritian Rupees.

5. The prices and rates inserted in the Bills of Quantities will be used for valuing the work executed and the PMO/Engineer will measure the whole of the works executed in accordance with the Contract.
6. The prices and rates inserted in the Bill of quantities are to be the full inclusive costs of the works described under the items, complete in place and in accordance with the Specifications and Drawings including costs and expenses which may be required in and for the construction of the works described, together with any temporary works and installations which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the contract is based.
7. The brief description of the items given in the Bill of Quantities are purely for the purpose of identification and in no way modify or supersede the detailed description given in the Conditions of Contract, Specifications or Drawings. When pricing items, reference is to be made to the Conditions of Contract, General and Technical Specifications, and Drawings for the full directions and description of work and materials.
8. A price or rate is to be inserted, in ink, against each item in the Bills of Quantities, whether quantities are stated or not, and if the Tenderer includes the cost of a particular item elsewhere in his rates or prices, he shall insert the word "nil" against both the rate and extension of the particular item. Should the Tenderer omit to price an item, then it will be assumed that he has included the cost of the item elsewhere in his rates or prices.
9. No alteration shall be made to the Bill of Quantities and no extra item shall be inserted. The Tenderer shall satisfy himself that the Contact Sum arrived at by pricing

the quantities and items given is sufficient compensation for contracting and maintaining the whole of the works in accordance with the Contract Documents.

10. During construction the unit rate established for an item in one Bill of quantities may be used as a basis for establishing a unit rate for similar work in another Bill of Quantities which contains no unit rate for the said item.
11. Unless otherwise specified the method of measurement shall be in accordance with the Civil Engineering Standard Method of Measurement, second Edition, 1985 published by the Institution of Civil Engineers, London.
12. The Tenderer is reminded that all quantities have been measured in Metric units.
13. Quantities for site clearance, stripping and spreading shall be based on the horizontal projection of the area cleared or stripped.

*The site clearance and stripping shall include the clearance of all bush and shrubs, and removal and disposal of roots before excavation in the site and, also include disposal of all waste materials at the site in manner approved by the PMO/Engineer.*

14. The rates for excavation items shall include interalia for stock-piling aside for reuse in the works including transportation and also include dewatering, trimming, cleaning trench bottoms, ramming for structures etc. The depths are given to levels required to place bedding materials as shown on the Drawings.

The depth of excavation in pipe trench will be measured from ground level to the invert of the pipe. Measurement for other excavations will be to the size which is required to accommodate the permanent work. The Tenderer shall accordingly allow in his prices for any amount of extra excavation which may be necessary for working space to complete the work to the satisfaction of the PMO/Engineer.

Items are included for "Extra for Rock" on a volume basis. The rates shall include for breaking out and any other additional costs, and the items shall apply to work encountered within measured excavation. Rock shall be measured as a volume calculated from the thickness encountered within the plan area of a mass excavation, within the plan dimensions of a structure, or within the notional width of a trench.

15. When the site of any particular item of the works has been sufficiently cleared of trees, undergrowth etc. and before any excavation or filling has been carried out, the Contractor shall carry out survey under the supervision of PMO/Engineer's Representative to take record and agree adequate ground levels. The data so obtained shall be used as a basis for the computation of excavation and filling.
16. The volume of fill and embankment will be measured with net to the finished level as shown on the Drawings or as amended by the Engineer.

The rates of earth fill and embankment shall include transportation of selected materials from the piling-yard or the borrowing pit, compacting and tamping as shown on the Drawing or Specifications.

17. Surplus soil brought by the pipelaying in a trench is to be disposed at the site so that the cost shall be included in the excavation cost. Surplus soil and rock by a protection of pipeline and cutting the slope for widening pipeline route in the raw water transmission pipelaying works are also disposed at the site. Accordingly the cost for the soil disposal shall not be separately estimated in the Bill of Quantities.

Surplus soil for the structures and cutting of levelling the site in the treatment works shall be disposed by dump-trucks elsewhere directed or approved by the PMO/Engineer.

The rates for surplus soil disposal shall include loading, transporting and unloading the surplus soil from the excavation site or the temporary yard of piling and levelling and compacting the unloaded soil by a bulldozer as shown in the Technical Specifications.

18. The rates for concrete shall include the costs for making and testing preliminary test cubes, for making works test cubes and forwarding them to the Testing Engineer, forming the concrete to the slopes and falls shown on the drawings and any additional concrete used in excess of the net requirements. The rates shall also include for forming construction joints, for protection, for curing, for rubbing down of exposed surfaces of concrete after removal of formwork and for floating or brushing of other exposed surfaces where this is required.
19. The rates of formwork shall include fillets and chamfers up to 50 mm wide on the

splay, coating to prevent adherence of concrete and the provision of temporary opening to facilitate inspection and cleaning. The rates shall also be included of all necessary box-outs and cut-outs for holes up to 1 sq.m.

Deductions from formwork quantities will be made for openings more than 1 sq.m in area.

20. All reinforcing bar will be paid for on the basis of its computed weight except for fabric reinforcement which will be paid for on the basis of the net area placed. The unit rates inserted in the Bills of Quantities shall include for all necessary cutting, bending and fixing all additional bars which may be required as spacer supports and lacing and also for all soft iron tying wires, fixing clips of approved pattern and manufacture and chairs. The cost of all temporary works including clips, chairs etc. shall be included in the rated for the reinforcing bar.

The weights for reinforcing bars shall include for all hooked or bent ends as per the bending schedule. The rates for fabric reinforcement or other reinforcement shall include for all laps, cuttings to size, bending and waste.

21. The rates for precast concrete blocks, edging and kerbs, and paving shall include for all cutting, bedding jointing and laying.
22. The rates for providing and fixing PVC water-stop shall be inclusive of all joints, overlaps, junctions, welding, formwork and supports. The costs of all items necessitated by construction joints not shown on the Drawings shall be deemed to be included in the unit rates for concrete work.
23. The rates for straight pipes and fittings shall include jointing materials such as sleeve couplings for steel pipes, unless otherwise specified, rubber rings for ductile iron pipe of push-in type joint and uPVC pipes, and rubber gaskets and bolts and nuts for flanged joints, and transportation cost from the sea or airport to temporary stockyards and the stockyards to the site.

The length of straight pipes has been calculated on the basis of using standard dimension for fittings like bends, tees, valves etc. In the event the Tenderer is proposing to use fittings from a particular suppliers, then the straight pipe lengths calculated and priced will be the Tenderer's responsibility. All cut pipes and wastage

will be deemed to be covered in his rates in the Bill of Quantities.

24. The rates for sluice and butterfly valves shall be inclusive of headstocks as shown on the Drawings or Specifications.
25. The rates of pipe laying works for ductile iron pipes shall include transportation within the construction site, setting into trench and push-in and flange joints assembly, and washing out, pressure testing and disinfecting, where needed.
26. The rates for pipe laying works for steel pipes shall include transportation of pipes and fittings from the port to the treatment works setting of pipes, jointing of flanges and couplings, and coating and painting as specified, and washing out, pressure testing and disinfecting, where needed.
27. The rates for fixing valves and headstocks shall include the costs for transporting from the sea or airport to temporary stockyards and the stockyards to the site, bedding and grouting, testing for watertightness, greasing all working parts and leaving in good working order; where the item includes supply, the rates shall also include submitting shop-drawings for approval before manufacturing.
28. The rates of sluice valve chambers, air-valve chambers, flow meter chambers and valve boxes shall include the costs for excavation, backfilling, concrete, formwork, reinforcing bar, manhole covers, cast iron steps precast concrete pipe, and access cover as shown on the Drawings.
29. The rates for metal work shall include the costs for bolts, nuts, washers and ragbolts, fixing as specified or in accordance with the manufacturer's instructions and rectifying as specified any parts of the painted, coated or galvanised surface that may be damaged either before or after erection.
30. Drains, Sewers and Pipelines
  - (1) The rates for pipes, pipelayingwork and specials shall include the costs for furnishing all materials, setting of concrete blocks and hardwood wedges where specified, providing any temporary support that may be necessary, preparing ends of pipes for jointing and all labour in jointing, cleaning and testing pipelines. The rates shall also include for all cutting of pipes consequent upon structures.



- (2) The rates for concrete surround, bed and haunching to pipes, concrete in thrust blocks to pipes, and to gully pots shall include for all formwork required. This shall also apply for any additional concrete, which the Contractor may place for his own convenience or by reason of the method of carrying out the work.
31. The rates for fencing shall include provision of precast concrete posts and struts and chain link fence on concrete posts and all as per detailed on the Drawings, including concrete bed of posts and straining posts.
32. The rates of mechanical and electrical equipment shall include the costs for preparing the shop-drawings, furnishing the equipment, transporting from the port to the treatment works, fabricating and installing, setting up and testing.

*The rates of piping and wiring works shall also include the costs for preparing the shop-drawings, furnishing the materials of pipes, conduits and wires, piping and wiring works, testing and other works required to complete the installation works.*

33. The rates for the supply of any materials and equipment shall include for storage and security during construction period and witnessed works tests.
34. Foreign currency portion (F/C) indicated in the Bills of Quantities shall be stated in US Dollars (US\$) for CIF prices of imported goods and for purchased prices in the local market for the following pipe materials, equipment and construction materials.
- (1) Pipes fittings, valves and gates for piping works.
- (2) Mechanical and electrical equipment inclusive of the cost of dispatching the engineer/(s) from the manufacture/(s) for installing, setting up and testing the equipment and a period of the test running.
- (3) Construction materials such as cement, reinforcing steel bars, structural steel, steel pipes, plastic pipes, fuel and others to be procured in the local market.
- (4) Depreciation, transportation and insurance costs for the construction machinery to be imported.

*Local currency portion (L/C) shall be quoted inclusive of customs clearance, handling*

and bonded warehouse charges etc, transportation cost from the sea or air port to stockyards in the site for pipe materials, valves, gates, and mechanical and electrical equipment to be imported. Furthermore, L/C shall also be quoted including the following works :

- (1) Labour costs and construction materials other than quoted in F/C to be procured in the local market in civil engineering and building works.
- (2) Installation of equipment, piping works of the chemical dosing and wiring works for the power supply.

### 35. Definitions of Terms used in Bill of Quantities

- (1) 'Provide' – shall mean all costs to cover purchase of materials in good condition, services for transaction with the supplier, supervision, transport to site of works, all charges for rental, consumptions, overheads and profits throughout the Contract. It shall also include for all maintenance, insurance and handling and storage costs whenever applicable.
- (2) 'Excavate for' – shall mean handling of any material from its incumbent position intended for specified work shown in the drawings or as directed by the PMO/Engineer. The cost for this work shall include all survey, supervision, labour, tools, machinery, protection of work, pumping, insurances and overheads and profits.
- (3) 'Laying' – shall cover all work necessary for placing an object or material to true line and level specified in a drawing or as directed by the PMO/Engineer,
- (4) 'Jointing' – shall mean process of fixing specified material, pipes, fittings and specials together using appropriate tools, material, labour and machinery. It should cover for all work necessary to provide matching of opposite parts in size, shape and position indicated and clamps, seatings and holders to hold firmly.
- (5) 'Testing' – shall mean provision of all materials, apparatus, labour, machinery, charges for the media or chemical to be used and their transport, repair of object to be tested if required, re-testing, excavation of any part for visual inspection, erection of any type all until the object has been certified as having passed the required test satisfactorily.

(6) 'Install' – shall include the costs for all work requirements stipulated for "laying and jointing".

(7) 'Removal' shall include the costs for all work requirement and transportation the equipment or materials to the stockyard as directed by the PMO/Engineer.

36. The following abbreviations have been used in the Bill of quantities:

- m3 ..... Cubic meter
- m2 ..... Square meter
- m ..... Linear meter
- kg ..... Kilogram
- nr. .... Number
- pcs. .... Pieces
- sum ..... Lump Sum

SUMMARY OF BILL OF QUANTITY

| Division<br>No.                           | Description                             | Foreign<br>Currency<br>Portion<br>(US\$) | Local<br>Currency<br>Portion<br>(Rs.) | Total<br>Equivalent<br>Price<br>(Rs.) |
|---|---|--|---------------------------------------|---------------------------------------|
| <b>A. GENERAL AND PRELIMINARY ITEMS</b>   |   |  |                                       |                                       |
|   | A1. Preliminary Item                    |  |                                       |                                       |
|   | A2. General Item                        |  |                                       |                                       |
|   |   | <b>TOTAL OF DIVISION A</b>               |                                       |                                       |
| <b>B. RAW WATER TRANSMISSION PIPELINE</b> |   |  |                                       |                                       |
|   | B1. Intake                              |  |                                       |                                       |
|   | B2. Raw Water Transmission Pipeline     |  |                                       |                                       |
|   | B3. River Crossing                      |  |                                       |                                       |
|   | B4. Wash-out Pipe                       |  |                                       |                                       |
|   | B5. Tunnel Crossing                     |  |                                       |                                       |
|   |   | <b>TOTAL OF DIVISION B</b>               |                                       |                                       |
| <b>C. TREATMENT FACILITIES</b>            |   |  |                                       |                                       |
|   | C1. Receiving Tank                      |  |                                       |                                       |
|   | C2. Rapid Mixing Tank                   |  |                                       |                                       |
|   | C3. Flocculation and Sedimentation Tank |  |                                       |                                       |
|   | C4. Filter                              |  |                                       |                                       |
|   | C5. Wastewater and Sludge Ponds         |  |                                       |                                       |
|   | C6. Yard Piping                         |  |                                       |                                       |
|   | C7. Sitework                            |  |                                       |                                       |
|   | C8. Chemical Building                   |  |                                       |                                       |
|   | C9. Operation Building                  |  |                                       |                                       |
|   | C10. Chlorination Building              |  |                                       |                                       |
|   | C11. Workshop                           |  |                                       |                                       |
|   | C12. Mechanical Facilities              |  |                                       |                                       |
|   | C13. Electrical Facilities              |  |                                       |                                       |
|   |   | <b>TOTAL OF DIVISION C</b>               |                                       |                                       |
| <b>TOTAL</b>                              |   |  |                                       |                                       |

| Item No                                 | Description  | Unit | Quantity   |        | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total | Ref. Clause |
|---|--|------|------------|--------|-------------------------|--------|---------------------|--------|-------|-------------|
|   |  |      | Unit Price | Amount | Unit Price              | Amount | Unit Price          | Amount |       |             |
| <b>A. GENERAL AND PRELIMINARY ITEMS</b> |  |      |            |        |                         |        |                     |        |       |             |
| <b>A1</b>                               | <b>PRELIMINARY ITEM</b>  |      |            |        |                         |        |                     |        |       |             |
|   | Note: Preliminary items are to provide for compliance with the Condition of Contract and Specifications, the total amount permitted in respect of these items is limited to a max. of ten (10) per cent of the Tender Price. |      |            |        |                         |        |                     |        |       |             |
| /01                                     | Allow for provision of Performance Bond in accordance with Clause 10 of Part II of the Conditions of Contract  | sum  |            |        |                         |        |                     |        |       |             |
| /02                                     | Allow for provision of Insurance of Work in accordance with Clause 21 of Part I of the Conditions of Contract  | sum  |            |        |                         |        |                     |        |       |             |
| /03                                     | Allow for provision of Third Party Insurance in accordance with Clause 23 of Part I of the Conditions of Contract  | sum  |            |        |                         |        |                     |        |       |             |
| /04                                     | Allow for provision of Insurance in accordance with Clause 24 of Part I of the Conditions of Contract  | sum  |            |        |                         |        |                     |        |       |             |
| /05                                     | Allow for provision of Advance Payment Bond in accordance with Clause 10 of Part II of the Conditions of Contract  | sum  |            |        |                         |        |                     |        |       |             |

| Item No                    | Description   | Unit            | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|----------------------------|---|-----------------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                            |   |                 |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /06                        | Allow for the erection of Contractor's camps, office and other facilities and other demobilization and movement off the work site on completion, including all temporary access and land required during the construction | sum             |          |                         |        |                     |        |                       | 801 to 809<br>901 to 908  |
| /07                        | Provide and erect two signboards at the site directed by PMO/Engineer   | sum             |          |                         |        |                     |        |                       | 604                       |
| <b>Subtotal of Item A1</b> |   |                 |          |                         |        |                     |        |                       |                           |
| <b>A2 GENERAL ITEM</b>     |   |                 |          |                         |        |                     |        |                       |                           |
| /01                        | Allow for provision of office furnished, water supply, electrical supply, telephone and other facilities for PMO/Engineer's Representative, all as specified  | Provisional sum |          |                         |        |                     |        |                       | 1001 to 1005              |
| /02                        | Provide and maintain all attendance as specified in the General Specification for the above office  | month           | 26       |                         |        |                     |        |                       | 1001                      |
| /03                        | Allow for provision of supply, installation, operation and subsequent removal of temporary water supply facility  | sum             |          |                         |        |                     |        |                       | 803                       |
| /04                        | Allow for provision of supply, installation, operation and subsequent removal of temporary electrical supply  | sum             |          |                         |        |                     |        |                       | 804                       |
| /05                        | Allow for provision of all water, chemical, equipment, labour, etc. for conducting disinfection of filter and filtered water pipelines as per specifications  | sum             |          |                         |        |                     |        |                       | 10600                     |

| Item No. | Description | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------|-------------|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|          |             |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |

/06 Allocation fee for power receiving  
provisional sum

/07 The Contractor is to describe hereunder in detail and price other works, obligations or things which may be referred to in the Conditions of Contract or Specification or which he may consider have been omitted from the Bills of Quantities and for which he desires to enter a separate charge (the charge to be carried direct to the amount column). If no separate charge is made hereunder, the rates in the Bills of Quantities shall be held as covering all expenses for such works, obligations or things.

Subtotal of Item A2 \_\_\_\_\_

**TOTAL OF ITEM A** \_\_\_\_\_

| Item No.                                  | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|---|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|   |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>B. RAW WATER TRANSMISSION PIPELINE</b> |   |      |          |                         |        |                     |        |                       |                           |
| <b>B.1</b>                                | <b>INTAKE</b>   |      |          |                         |        |                     |        |                       |                           |
| <b>B1.1</b>                               | <b>Temporary Work</b>   |      |          |                         |        |                     |        |                       |                           |
|   | /01 Temporary cofferdam   | sum  |          |                         |        |                     |        |                       | 10508                     |
|   | /02 Temporary raw water intake pipelaying works for existing pipes, DN 450 x 18.1 m and DN 600 x 9.8 m as per DWG No. P-044                                     | sum  |          |                         |        |                     |        |                       | 10507                     |
|   | <u>Subtotal of Item B1.1</u>  |      |          |                         |        |                     |        |                       |                           |
| <b>B1.2</b>                               | <b>Earthwork</b>  |      |          |                         |        |                     |        |                       |                           |
|   | /01 Open-cut excavation, rock   | m3   | 137      |                         |        |                     |        |                       | 10202.2                   |
|   | <u>Subtotal of Item B1.2</u>  |      |          |                         |        |                     |        |                       |                           |
| <b>B1.3</b>                               | <b>Concrete Work</b>  |      |          |                         |        |                     |        |                       |                           |
|   | The concrete work comprises partial demolition of existing structure and restoration and modification of the existing structure as per DWG. Nos. P-041 to P-043 |      |          |                         |        |                     |        |                       |                           |
|   | /01 Demolition of concrete  | m3   | 54       |                         |        |                     |        |                       | 10301                     |
|   | /02 Blinding concrete, Class D  | m3   | 28       |                         |        |                     |        |                       | 10301                     |
|   | /03 Concrete, Class B   | m3   | 42       |                         |        |                     |        |                       | 10301                     |



| Item No                      | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|------------------------------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                              |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /04                          | Concrete filling, Class C   | m3   | 14       |                         |        |                     |        |                       | 10301                     |
| /05                          | Formwork, Type F1   | m2   | 93       |                         |        |                     |        |                       | 10303                     |
| /06                          | Reinforcing bars  | ton  | 3        |                         |        |                     |        |                       | 10304                     |
| <u>Subtotal of Item B1.3</u> |   |      |          |                         |        |                     |        |                       |                           |
| <b>B1.4 Pipe Work</b>        |   |      |          |                         |        |                     |        |                       |                           |
| /01                          | Sluice gate with head stock, type C and bellmouth, DN 800 including installation work | sum  |          |                         |        |                     |        |                       | 10503.3 & 10503.5         |
| <u>Subtotal of Item B1.4</u> |   |      |          |                         |        |                     |        |                       |                           |
| <b>B1.5 Metal Work</b>       |   |      |          |                         |        |                     |        |                       |                           |
| /01                          | Bar screen, ss400   | nr   | 1        |                         |        |                     |        |                       | 10702                     |
| /02                          | Step iron   | nr   | 20       |                         |        |                     |        |                       | 10514.5                   |
| /03                          | Manhole cover, checkered plate 950 x 950 x t = 4.5 mm with tar-epoxy resin painting   | nr   | 1        |                         |        |                     |        |                       | 10706                     |
| <u>Subtotal of Item B1.5</u> |   |      |          |                         |        |                     |        |                       |                           |
| <b>Total of Item B1</b>      |   |      |          |                         |        |                     |        |                       |                           |

| Item No.                                   | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause |
|--|---|------|----------|-------------------------|--------|---------------------|--------|-------------|
|  |   |      |          | Unit Price              | Amount | Unit Price          | Amount |             |
| <b>B.2 RAW WATER TRANSMISSION PIPELINE</b> |   |      |          |                         |        |                     |        |             |
| <b>B2.1 Earthwork</b>                      |   |      |          |                         |        |                     |        |             |
| /01  | Slope cutting, common soil  | m3   | 997      |                         |        |                     |        | 10202.2     |
| /02  | Slope cutting, rock (shown as provisional quantity)                 | m3   | 499      |                         |        |                     |        | 10202.2     |
| /03  | Trench excavation, common soil                                      | m3   | 6,573    |                         |        |                     |        | 10202.3     |
| /04  | Trench excavation, rock (as shown provisional quantity)             | m3   | 3,944    |                         |        |                     |        | 10202.3     |
| /05  | Backfilling, crusher run with grain size of 5 mm                    | m3   | 1,510    |                         |        |                     |        | 10205.2     |
| /06  | Backfilling, selected material                                      | m3   | 4,122    |                         |        |                     |        | 10205.2     |
| /07  | Protection fence for falling rocks, fence area of 1500 m2           | sum  |          |                         |        |                     |        | 10509       |
| /08  | Slope protection (shotcrete)  | m2   | 890      |                         |        |                     |        | 10510       |
|  | <b>Subtotal of Item B2.1</b>  |      |          |                         |        |                     |        |             |
| <b>B2.2 Concrete Work</b>                  |   |      |          |                         |        |                     |        |             |
| /01  | Protection concrete, Class B for straight pipe and bend protections | m3   | 879      |                         |        |                     |        | 10301       |
| /02  | Formwork, type F1   | m2   | 1,956    |                         |        |                     |        | 10303       |
| /03  | Reinforcing bars  | ton  | 31       |                         |        |                     |        | 10304       |
|  | <b>Subtotal of Item B2.2</b>  |      |          |                         |        |                     |        |             |

| Item No.    | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>B2.3</b> | <b>Pipe Work</b>   |      |          |                         |        |                     |        |                       |                           |
| /01         | Raw water pipelaying works, DN 800 DIP including pipes, fittings, joints, laying works, pressure testing and washing out | m    | 2,131    |                         |        |                     |        |                       | 10500                     |
| /02         | Air valve installation DN 80 quick exhaust type  | nr   | 5        |                         |        |                     |        |                       | 10503.4                   |
| /03         | Air valve box  | nr   | 5        |                         |        |                     |        |                       | 10505.2                   |
| /04         | Leakage repair work of existing pipelines provisionally for thirty (30) visible leakage spots                            | sum  |          |                         |        |                     |        |                       | 10511                     |

**Subtotal of Item B2.3**

**Total of Item B2**

| Item No.    | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>B.3</b>  | <b>RIVER CROSSING (2 - Places)</b><br>(As per DWG. Nos. P-045 and P-046) |      |          |                         |        |                     |        |                       |                           |
| <b>B3.1</b> | <b>Temporary Work</b>  |      |          |                         |        |                     |        |                       |                           |
|             | /01 Temporary coffering  | sum  |          |                         |        |                     |        |                       | 10508                     |
|             | <b><u>Subtotal of Item B3.1</u></b>                                      |      |          |                         |        |                     |        |                       |                           |
| <b>B3.2</b> | <b>Earthwork</b>   |      |          |                         |        |                     |        |                       |                           |
|             | /01 Trench excavation, rock  | m3   | 669      |                         |        |                     |        |                       | 10202.3                   |
|             | /02 Backfilling, excavated rock (Manpower)                               | m3   | 305      |                         |        |                     |        |                       | 10205.2                   |
|             | <b><u>Subtotal of Item B3.2</u></b>                                      |      |          |                         |        |                     |        |                       |                           |
| <b>B3.3</b> | <b>Concrete Work</b>   |      |          |                         |        |                     |        |                       |                           |
|             | /01 Portection concrete, Class B   | m3   | 252      |                         |        |                     |        |                       | 10301                     |
|             | /02 Formwork, type F1  | m2   | 553      |                         |        |                     |        |                       | 10303                     |
|             | /03 Reinforcing bars   | ton  | 12       |                         |        |                     |        |                       | 10304                     |
|             | <b><u>Subtotal of Item B3.3</u></b>                                      |      |          |                         |        |                     |        |                       |                           |
|             | <b><u>Total of Item B3</u></b>   |      |          |                         |        |                     |        |                       |                           |

| Item No.    | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>B.4</b>  | <b>WASH-OUT PIPE</b>  |      |          |                         |        |                     |        |                       |                           |
|             | (As per DWG. No. P-047)   |      |          |                         |        |                     |        |                       |                           |
| <b>B4.1</b> | <b>Earthwork</b>  |      |          |                         |        |                     |        |                       |                           |
| /01         | Trench excavation, rock (manpower)  | m3   | 9        |                         |        |                     |        |                       | 10202.3                   |
| /02         | Backfilling, excavated material   | m3   | 6        |                         |        |                     |        |                       | 10205.2                   |
|             | <b><u>Subtotal of Item B4.1</u></b>   |      |          |                         |        |                     |        |                       |                           |
| <b>B4.2</b> | <b>Concrete Work</b>  |      |          |                         |        |                     |        |                       |                           |
| /01         | Reinforced concrete, Class B  | m3   | 7        |                         |        |                     |        |                       | 10301                     |
| /02         | Formwork, type F1   | m2   | 28       |                         |        |                     |        |                       | 10303                     |
| /03         | Reinforcing bars  | ton  | 0.4      |                         |        |                     |        |                       | 10304                     |
| /04         | Drain-pit including grating cover   | nr   | 1        |                         |        |                     |        |                       | 10705                     |
|             | <b><u>Subtotal of Item B4.2</u></b>   |      |          |                         |        |                     |        |                       |                           |
| <b>B4.3</b> | <b>Pipe Work</b>  |      |          |                         |        |                     |        |                       |                           |
| /01         | Pipelaying work, DN 150 DIP including pipes, fittings, joints, laying works, pressure testing and washing out | m    | 29       |                         |        |                     |        |                       | 10500                     |
| /02         | Wash-out valve installation, sluice valve with handwheel DN 150 including valve box                           | nr   | 1        |                         |        |                     |        |                       | 10503.1 & 10505.2         |
|             | <b><u>Subtotal of Item B4.3</u></b>   |      |          |                         |        |                     |        |                       |                           |
|             | <b><u>Total of Item B4</u></b>  |      |          |                         |        |                     |        |                       |                           |

| Item No.    | Description                          | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|--------------------------------------|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |                                      |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>B.5</b>  | <b>TUNNEL CROSSING</b>               |      |          |                         |        |                     |        |                       |                           |
|             | (As per DWG. Nos. P-031 and P-048)   |      |          |                         |        |                     |        |                       |                           |
| <b>B5.1</b> | <b>Earthwork</b>                     |      |          |                         |        |                     |        |                       |                           |
|             | /01 Open-cut excavation, common soil | m3   | 278      |                         |        |                     |        |                       | 10202.2                   |
|             | /02 Backfilling, selected material   | m3   | 239      |                         |        |                     |        |                       | 10205                     |
|             | <b>Subtotal of Item B5.1</b>         |      |          |                         |        |                     |        |                       |                           |
| <b>B5.2</b> | <b>Concrete Work</b>                 |      |          |                         |        |                     |        |                       |                           |
|             | /01 Concrete, Class B                | m3   | 32       |                         |        |                     |        |                       | 10301                     |
|             | /02 Formwork type F1                 | m2   | 49       |                         |        |                     |        |                       | 10303                     |
|             | /03 Reinforcing bars                 | ton  | 1.6      |                         |        |                     |        |                       | 10304                     |
|             | <b>Subtotal of Item B5.2</b>         |      |          |                         |        |                     |        |                       |                           |
|             | <b>Total of Item B5</b>              |      |          |                         |        |                     |        |                       |                           |
|             | <b>TOTAL OF ITEM B</b>               |      |          |                         |        |                     |        |                       |                           |

| Item No.                       | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|--------------------------------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                                |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>C. TREATMENT FACILITIES</b> |   |      |          |                         |        |                     |        |                       |                           |
| <b>C1</b>                      | <b>RECEIVING TANK</b>                                     |      |          |                         |        |                     |        |                       |                           |
| <b>C1.1</b>                    | <b>Earth Work</b>   |      |          |                         |        |                     |        |                       |                           |
|                                | /01 Open-cut excavation, residual soil with rock fragment | m3   | 308      |                         |        |                     |        |                       | 10202                     |
|                                | /02 Backfilling, backhoe                                  | m3   | 212      |                         |        |                     |        |                       | 10205.1                   |
|                                | /03 Surplus soil disposal                                 | m3   | 96       |                         |        |                     |        |                       | 10206                     |
|                                | <b><u>Subtotal of Item C1.1</u></b>                       |      |          |                         |        |                     |        |                       |                           |
| <b>C1.2</b>                    | <b>Concrete Work</b>                                      |      |          |                         |        |                     |        |                       |                           |
|                                | /01 Concrete, Class A, C25/20                             | m3   | 80       |                         |        |                     |        |                       | 10301                     |
|                                | /02 Concrete, Class B, C20/20                             | m3   | 2        |                         |        |                     |        |                       | 10301                     |
|                                | /03 Concrete, Class D, C15/40                             | m3   | 6        |                         |        |                     |        |                       | 10301                     |
|                                | /04 Concrete, Class E, C15/20                             | m3   | 22       |                         |        |                     |        |                       | 10301                     |
|                                | /05 Formwork, Type F1                                     | m2   | 220      |                         |        |                     |        |                       | 10303                     |
|                                | /06 Formwork, Type F3                                     | m2   | 137      |                         |        |                     |        |                       | 10303                     |
|                                | /07 Reinforcing bars                                      | ton  | 5.8      |                         |        |                     |        |                       | 10304                     |
|                                | <b><u>Subtotal of Item C1.2</u></b>                       |      |          |                         |        |                     |        |                       |                           |
| <b>C1.3</b>                    | <b>Equipment and Materials</b>                            |      |          |                         |        |                     |        |                       |                           |
|                                | /01 Precast concrete cover<br>300B x 1,690L x 100T        | nr   | 4        |                         |        |                     |        |                       | 10403                     |
|                                | <b><u>Subtotal of Item C1.3</u></b>                       |      |          |                         |        |                     |        |                       |                           |

| Item No.                               | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause or Sub-clause |
|--|--|------|----------|-------------------------|--------|---------------------|--------|---------------------------|
|  |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                           |
| <b>C1.4 Pipe Work (DWG. No. C-008)</b> |  |      |          |                         |        |                     |        |                           |
| /01                                    | DN 800 mm DIP<br>Raw water transmission pipe                                     | m    | 9        |                         |        |                     |        | 10502.1                   |
| /02                                    | DN 700 mm DIP<br>Raw water pipe to existing system                               | m    | 8        |                         |        |                     |        | 10502.1                   |
| /03                                    | DN 150 mm DIP<br>Drain pipe  | m    | 1        |                         |        |                     |        | 10502.1                   |
| /04                                    | DN 800 mm Butterfly valves for flow control and shut-off with headstocks, type B | nr   | 2        |                         |        |                     |        | 10503.2                   |
| /05                                    | DN 700 mm Butterfly valve for flow control with headstock, type B                | nr   | 1        |                         |        |                     |        | 10503.2                   |
| /06                                    | DN 150 mm Sluice valve for drain valve with headstock, type A                    | nr   | 1        |                         |        |                     |        | 10503.1                   |
| <b>Subtotal of Item C1.4</b>           |  |      |          |                         |        |                     |        |                           |
| <b>C1.5 Metal Work</b>                 |  |      |          |                         |        |                     |        |                           |
| /01                                    | Ladder, L=2,500 mm x 1 nr<br>as per DWG. No. C-019                               | kg   | 60       |                         |        |                     |        | 10704                     |
| /02                                    | Ladder, L=2,900 mm x 1 nr  | kg   | 69       |                         |        |                     |        | 10704                     |
| /03                                    | Ladder, L=3,200 mm x 3 nrs   | kg   | 228      |                         |        |                     |        | 10704                     |
| /04                                    | Grating, 700A x 700B<br>as per DWG. No. C-019                                    | m2   | 1.47     |                         |        |                     |        | 10705                     |
| /05                                    | Grey iron manhole cover, 600 mm dia.   | nr   | 2        |                         |        |                     |        | 10706                     |
| <b>Subtotal of Item C1.5</b>           |  |      |          |                         |        |                     |        |                           |
| <b>Total of Item C1</b>                |  |      |          |                         |        |                     |        |                           |



| Item No.    | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>C2</b>   | <b>RAPID MIXING TANK</b>                                       |      |          |                         |        |                     |        |                       |                           |
| <b>C2.1</b> | <b>Earth Work</b>  |      |          |                         |        |                     |        |                       |                           |
| /01         | Open-cut excavation, residual soil with rock fragment, backhoe | m3   | 196      |                         |        |                     |        |                       | 10202                     |
| /02         | Backfilling  | m3   | 41       |                         |        |                     |        |                       | 10205.1                   |
| /03         | Surplus soil disposal  | m3   | 155      |                         |        |                     |        |                       | 10206                     |
|             | <b><u>Subtotal of Item C2.1</u></b>                            |      |          |                         |        |                     |        |                       |                           |
| <b>C2.2</b> | <b>Concrete Work</b>   |      |          |                         |        |                     |        |                       |                           |
| /01         | Concrete, Class A, C25/20                                      | m3   | 73       |                         |        |                     |        |                       | 10301                     |
| /02         | Concrete, Class B, C20/20                                      | m3   | 2        |                         |        |                     |        |                       | 10301                     |
| /03         | Concrete, Class D, C15/40                                      | m3   | 46       |                         |        |                     |        |                       | 10301                     |
| /04         | Formwork, Type F1  | m2   | 157      |                         |        |                     |        |                       | 10303                     |
| /05         | Formwork, Type F3  | m2   | 196      |                         |        |                     |        |                       | 10303                     |
| /06         | Reinforcing bars   | ton  | 6.1      |                         |        |                     |        |                       | 10304                     |
|             | <b><u>Subtotal of Item C2.2</u></b>                            |      |          |                         |        |                     |        |                       |                           |
| <b>C2.3</b> | <b>Equipment and Materials</b>                                 |      |          |                         |        |                     |        |                       |                           |
| /01         | Precast concrete cover 300B x 1,690L x 100T                    | nr   | 5        |                         |        |                     |        |                       | 10403                     |
|             | <b><u>Subtotal of Item C2.3</u></b>                            |      |          |                         |        |                     |        |                       |                           |
| <b>C2.4</b> | <b>Pipe Work</b>   |      |          |                         |        |                     |        |                       |                           |
| /01         | DN 800 mm DIP Inlet pipe                                       | m    | 5        |                         |        |                     |        |                       | 10502.1                   |

| Item No.                            | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                                     |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /02                                 | DN 150 mm DIP<br>Drain pipe  | m    | 1        |                         |        |                     |        |                       | 10502.1                   |
| /03                                 | DN 800 mm Butterfly valve for inlet flow<br>control with headstock, type B | nr   | 1        |                         |        |                     |        |                       | 10503.2                   |
| /04                                 | DN 150 mm Sluice valve for drain pipe<br>with headstock, type A            | nr   | 1        |                         |        |                     |        |                       | 10503.1                   |
| <b><u>Subtotal of Item C2.4</u></b> |  |      |          |                         |        |                     |        |                       |                           |
| <b>C2.5 Metal Work</b>              |  |      |          |                         |        |                     |        |                       |                           |
| /01                                 | Ladder, L=2.75 m x 1 nr  | kg   | 65       |                         |        |                     |        |                       | 10704                     |
| /02                                 | Ladder, L= 5.05 m x 2 nrs  | kg   | 240      |                         |        |                     |        |                       | 10704                     |
| /03                                 | Grating, 700Ax 400B x 2 nrs  | m2   | 0.56     |                         |        |                     |        |                       | 10705                     |
| /04                                 | Grey iron manhole cover, 600 mm dia.                                       | nr   | 1        |                         |        |                     |        |                       | 10706                     |
| /05                                 | Handrail   | m    | 24.3     |                         |        |                     |        |                       | 10703                     |
| <b><u>Subtotal of Item C2.5</u></b> |  |      |          |                         |        |                     |        |                       |                           |
| <b><u>Total of Item C2</u></b>      |  |      |          |                         |        |                     |        |                       |                           |

| Item No.                                      | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause |
|---|--|------|----------|-------------------------|--------|---------------------|--------|-------------|
|   |  |      |          | Unit Price              | Amount | Unit Price          | Amount |             |
| <b>C3 FLOCCULATION AND SEDIMENTATION TANK</b> |  |      |          |                         |        |                     |        |             |
| <b>C3.1 Earth Work</b>                        |  |      |          |                         |        |                     |        |             |
| /01   | Open-cut excavation, residual soil with rock fragment, backhoe | m3   | 3,095    |                         |        |                     |        | 10202       |
| /02   | Backfilling  | m3   | 245      |                         |        |                     |        | 10205.1     |
| /03   | Surplus soil disposal  | m3   | 2,850    |                         |        |                     |        | 10206       |
|   | <b><u>Subtotal of Item C3.1</u></b>                            |      |          |                         |        |                     |        |             |
| <b>C3.2 Concrete Work</b>                     |  |      |          |                         |        |                     |        |             |
| /01   | Concrete, Class A, C25/20                                      | m3   | 1,595    |                         |        |                     |        | 10301       |
| /02   | Concrete, Class B, C20/20                                      | m3   | 1        |                         |        |                     |        | 10301       |
| /03   | Concrete, Class D, C15/40                                      | m3   | 126      |                         |        |                     |        | 10301       |
| /04   | Concrete, Class E, C15/20                                      | m3   | 176      |                         |        |                     |        | 10301       |
| /05   | Formwork, Type F1  | m2   | 1,639    |                         |        |                     |        | 10303       |
| /06   | Formwork, Type F3  | m2   | 4,900    |                         |        |                     |        | 10303       |
| /07   | Reinforcing bars   | ton  | 171.0    |                         |        |                     |        | 10304       |
| /08   | Expansion joint, t = 20 mm with water stop                     | m    | 117      |                         |        |                     |        | 10305       |
| /09   | Water stop with protective cover                               | m    | 20       |                         |        |                     |        | 10305       |
| /10   | Expansion joint, t= 10 mm without water stop                   | m    | 77       |                         |        |                     |        | 10305       |
|   | <b><u>Subtotal of Item C3.2</u></b>                            |      |          |                         |        |                     |        |             |
| <b>C3.3 Equipment and Materials</b>           |  |      |          |                         |        |                     |        |             |
| /01   | Clarified water effluent trough<br>250 W x 350 H x 3,230 L     | nr   | 18       |                         |        |                     |        | 10404       |

| Item No.    | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /02         | Baffle plate and stop log  |      |          |                         |        |                     |        |                       | 10402                     |
| -           | Baffle plate, t = 20 mm  | m3   | 0.114    |                         |        |                     |        |                       |                           |
| -           | Stop log, t = 50 mm  | m3   | 0.057    |                         |        |                     |        |                       |                           |
|             | <b>Subtotal of Item C3.3</b>   |      |          |                         |        |                     |        |                       |                           |
| <b>C3.4</b> | <b>Pipe Work</b>   |      |          |                         |        |                     |        |                       |                           |
|             | Pipe work includes installation of pipes and valves necessary for cleaning the tank and also includes inlet gates and pipes in perforated walls. |      |          |                         |        |                     |        |                       |                           |
| /01         | Desludging pipe, DN 300 DIP  | m    | 4.2      |                         |        |                     |        |                       | 10502.1                   |
| /02         | Scouring pipe, DN 200 DIP as per DWG. No. C-015  | m    | 35.4     |                         |        |                     |        |                       | 10502.1                   |
| /03         | Flush pipe, DN 100 GSP and 65 GSP as per DWG. No. C-017  | sum  |          |                         |        |                     |        |                       | 10502.2                   |
| /04         | DN 300 mm Sluice valve with headstock, Type A  | nr   | 4        |                         |        |                     |        |                       | 10503.1                   |
| /05         | DN 200 mm Sluice valve with headstock, Type A  | nr   | 3        |                         |        |                     |        |                       | 10503.1                   |
| /06         | Inlet gate 500 x 500 with headstock, Type C  | nr   | 3        |                         |        |                     |        |                       | 10503.3                   |
| /07         | DN 110 uPVC pipe for perforated wall, l = 250 as per DWG. No. C-015  | nr   | 1,377    |                         |        |                     |        |                       | 10502.3                   |
|             | <b>Subtotal of Item C3.4</b>   |      |          |                         |        |                     |        |                       |                           |

| Item No.                            | Description                   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------------------------------|-------------------------------|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                                     |                               |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>C3.5 Metal Work</b>              |                               |      |          |                         |        |                     |        |                       |                           |
| /01                                 | Ladder, L= 5.94 m x 2 nrs     | kg   | 283      |                         |        |                     |        |                       | 10704                     |
| /02                                 | Ladder, L= 4.79 m x 6 nrs     | kg   | 684      |                         |        |                     |        |                       | 10704                     |
| /03                                 | Ladder, L= 3.85 m x 6 nrs     | kg   | 550      |                         |        |                     |        |                       | 10704                     |
| /04                                 | Ladder, L= 3.75 m x 6 nrs     | kg   | 536      |                         |        |                     |        |                       | 10704                     |
| /05                                 | Ladder, L= 3.60 m x 3 nrs     | kg   | 257      |                         |        |                     |        |                       | 10704                     |
| /06                                 | Ladder, L= 2.00 m x 2 nrs     | kg   | 95       |                         |        |                     |        |                       | 10704                     |
| /07                                 | Grating, 800A x 800B x 3 nrs  | m2   | 1.92     |                         |        |                     |        |                       | 10705                     |
| /08                                 | Grating, 700A x 600B x 8 nrs  | m2   | 3.36     |                         |        |                     |        |                       | 10705                     |
| /09                                 | Grating, 700A x 450B x 12 nrs | m2   | 3.78     |                         |        |                     |        |                       | 10705                     |
| /10                                 | Grating, 400A x 600B x 4 nrs  | m2   | 0.96     |                         |        |                     |        |                       | 10705                     |
| /11                                 | Grating, 400A x 400B x 18 nrs | m2   | 2.88     |                         |        |                     |        |                       | 10705                     |
| /12                                 | Grating, 400A x 450B x 2 nrs  | m2   | 0.36     |                         |        |                     |        |                       | 10705                     |
| /13                                 | Handrail                      | m    | 317      |                         |        |                     |        |                       | 10703                     |
| <b><u>Subtotal of Item C3.5</u></b> |                               |      |          |                         |        |                     |        |                       |                           |
| <b>C3.6 Concrete Block Wall</b>     |                               |      |          |                         |        |                     |        |                       |                           |
| /01                                 | Concrete block masonry work   | m2   | 1.6      |                         |        |                     |        |                       | 20401                     |
| DWG. No. C-014, SECTION B-B         |                               |      |          |                         |        |                     |        |                       |                           |
| <b><u>Subtotal of Item C3.6</u></b> |                               |      |          |                         |        |                     |        |                       |                           |
| <b><u>Total of Item C3</u></b>      |                               |      |          |                         |        |                     |        |                       |                           |

| Item No.    | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause |
|-------------|---|------|----------|-------------------------|--------|---------------------|--------|-------------|
|             |   |      |          | Unit Price              | Amount | Unit Price          | Amount |             |
| <b>C4</b>   | <b>FILTER</b>   |      |          |                         |        |                     |        |             |
| <b>C4.1</b> | <b>Earth Work</b>   |      |          |                         |        |                     |        |             |
| /01         | Open-cut excavation with backhoe, residual soil with rock fragment  | m3   | 1,518    |                         |        |                     |        | 10202.1     |
| /02         | Backfilling   | m3   | 185      |                         |        |                     |        | 10205.1     |
| /03         | Surplus soil disposal   | m3   | 1,333    |                         |        |                     |        | 10206       |
|             | <b>Subtotal of Item C4.1</b>  |      |          |                         |        |                     |        |             |
| <b>C4.2</b> | <b>Concrete Work</b>  |      |          |                         |        |                     |        |             |
| /01         | Concrete, Class A, C25/20   | m3   | 1,094    |                         |        |                     |        | 10301       |
| /02         | Concrete, Class B, C20/20   | m3   | 2        |                         |        |                     |        | 10301       |
| /03         | Concrete, Class D, C15/40   | m3   | 47       |                         |        |                     |        | 10301       |
| /04         | Concrete, Class E, C15/20   | m3   | 10       |                         |        |                     |        | 10301       |
| /05         | Formwork, Type F1   | m2   | 599      |                         |        |                     |        | 10303       |
| /06         | Formwork, Type F3   | m2   | 3,665    |                         |        |                     |        | 10303       |
| /07         | Reinforcing bars  | ton  | 104.9    |                         |        |                     |        | 10304       |
| /08         | Water stop with protective cover  | m    | 44       |                         |        |                     |        | 10305.2     |
| /09         | Expansion joint, t = 20 mm without water stop   | m2   | 142      |                         |        |                     |        | 10305       |
|             | <b>Subtotal of Item C4.2</b>  |      |          |                         |        |                     |        |             |
| <b>C4.3</b> | <b>Equipment and Materials</b>  |      |          |                         |        |                     |        |             |
| /01         | Filter underdrain system, complete with nozzles, k-floor, form work panels, accessories and all necessary work for installation | m2   | 225      |                         |        |                     |        | 10405       |

| Item No.    | Description   | Unit           | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|---|----------------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |   |                |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /02         | Filter sand, effective size of 1.0 mm, max uniformity coefficient of 1.5  | m3             | 247.1    |                         |        |                     |        |                       | 10406                     |
| /03         | Supporting gravel, particle size of 2.38 mm to 4.76 mm  | m3             | 22.5     |                         |        |                     |        |                       | 10406                     |
| /04         | Precast concrete cover 300B x 1,690L x 100T   | m <sup>2</sup> | 5        |                         |        |                     |        |                       | 10403                     |
| /05         | Roof light with frame   | set            | 11       |                         |        |                     |        |                       | 10708                     |
| /06         | Ventilation louver (steel)  |                |          |                         |        |                     |        |                       |                           |
|             | W400 x H400 mm  | set            | 1        |                         |        |                     |        | 21401, 21402          |                           |
|             | W700 x H400 mm  | set            | 8        |                         |        |                     |        |                       |                           |
| /07         | Steel flush door with wired glass   | set            | 2        |                         |        |                     |        | 21301, 21302          |                           |
|             | W800 x H2,100 mm  |                |          |                         |        |                     |        |                       | 21303                     |
|             | <b>Subtotal of Item C4.3</b>  |                |          |                         |        |                     |        |                       |                           |
| <b>C4.4</b> | <b>Pipe Work</b>  |                |          |                         |        |                     |        |                       |                           |
|             | Pipe work in filter includes gates for filter inlet, pipes, valves for air scouring and backwash, pipes, gates and valves for wash drain. |                |          |                         |        |                     |        |                       |                           |
| /01         | Filter outlet/backwash pipe DN 350 SP   | m              | 97.0     |                         |        |                     |        |                       | 10502.2                   |
| /02         | Air inlet pipe DN 200 SP  | m              | 78.4     |                         |        |                     |        |                       | 10502.2                   |
| /03         | Drain pipe DN 150 SP  | m              | 47.1     |                         |        |                     |        |                       | 10502.2                   |
| /04         | Plant water pipe DN 100, 125 SP   | m              | 10.4     |                         |        |                     |        |                       | 10501                     |
| /05         | Filter inlet pipe DN 350 stainless steel<br>l = 0.675 m   | m              | 6        |                         |        |                     |        |                       | -                         |

| Item No.                     | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause |
|------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|-------------|
|                              |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |             |
| /06                          | Filter inlet gate 350 x 350 with headstock, Type C                     | nr   | 6        |                         |        |                     |        |                       | 10503.3     |
| /07                          | Wash drain gate 400 x 400 with headstock, Type C                       | nr   | 6        |                         |        |                     |        |                       | 10503.3     |
| /08                          | DN 350 butterfly valve with headstock, Type B, for filter outlet       | nr   | 6        |                         |        |                     |        |                       | 10503.2     |
| /09                          | DN 350 butterfly valve with headstock, Type B, for backwash pipe       | nr   | 6        |                         |        |                     |        |                       | 10503.2     |
| /10                          | DN 350 butterfly valve with handwheel for backwash main                | nr   | 1        |                         |        |                     |        |                       | 10503.2     |
| /11                          | DN 200 sluice valve with headstock, Type A, for air inlet              | nr   | 7        |                         |        |                     |        |                       | 10503.1     |
| /12                          | DN 200 sluice valve with handwheel for air release                     | nr   | 1        |                         |        |                     |        |                       | 10503.1     |
| /13                          | DN 150 sluice valve with handwheel for drain                           | nr   | 6        |                         |        |                     |        |                       | 10503.1     |
| /14                          | DN 150 sluice valve with headstock, Type A, for drain                  | nr   | 1        |                         |        |                     |        |                       | 10503.1     |
| /15                          | Single orifice air valve dia. 25 mm                                    | nr   | 1        |                         |        |                     |        |                       | 10503.4     |
| <b>Subtotal of Item C4.4</b> |  |      |          |                         |        |                     |        |                       |             |
| <b>C4.5 Metal Work</b>       |  |      |          |                         |        |                     |        |                       |             |
| /01                          | Steel pipe support   | ton  | 1.48     |                         |        |                     |        |                       | -           |
| /02                          | Ductile iron manhole cover, 600 mm dia., water tight type              | nr   | 6        |                         |        |                     |        |                       | 10706       |
| /03                          | Ductile iron manhole cover, 600 mm dia., resisting water pressure type | nr   | 7        |                         |        |                     |        |                       | 10706       |



| Item No.                                       | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|--|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|  |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /04  | Ladder, L= 5.10 m x 1 nr   | kg   | 121      |                         |        |                     |        |                       | 10704                     |
| /05  | Ladder, L= 4.20 m x 3 nrs  | kg   | 300      |                         |        |                     |        |                       | 10704                     |
| /06  | Ladder, L= 3.80 m x 6 nrs  | kg   | 543      |                         |        |                     |        |                       | 10704                     |
| /07  | Ladder, L= 3.10 m x 1 nr   | kg   | 74       |                         |        |                     |        |                       | 10704                     |
| /08  | Ladder, L= 2.80 m x 1 nr   | kg   | 67       |                         |        |                     |        |                       | 10704                     |
| /09  | Ladder, L= 2.40 m x 1 nr   | kg   | 57       |                         |        |                     |        |                       | 10704                     |
| /10  | Ladder, L= 1.50 m x 1 nr   | kg   | 36       |                         |        |                     |        |                       | 10704                     |
| /11  | Grating, 700A x 1,200B x 6 nrs   | m2   | 5.04     |                         |        |                     |        |                       | 10705                     |
| /12  | Grating, 700A x 500B x 6 nrs   | m2   | 2.10     |                         |        |                     |        |                       | 10705                     |
| /13  | Handrail   | m    | 309      |                         |        |                     |        |                       | 10703                     |
| <b><u>Subtotal of Item C4.5</u></b>            |  |      |          |                         |        |                     |        |                       |                           |
| <b>C4.6 Concrete Block Wall</b>                |  |      |          |                         |        |                     |        |                       |                           |
| /01  | Concrete wall masonry work for ventilation shaft as per DWG. No. C-022 | m2   | 6.1      |                         |        |                     |        |                       | 20401                     |
| <b><u>Subtotal of Item C4.6</u></b>            |  |      |          |                         |        |                     |        |                       |                           |
| <b>C4.7 Concrete Mortar for Water Proofing</b> |  |      |          |                         |        |                     |        |                       |                           |
| /01  | Roof of staircase room as per DWG. No. C-023                           | m2   | 21.1     |                         |        |                     |        |                       | 20802                     |
| <b><u>Subtotal of Item C4.7</u></b>            |  |      |          |                         |        |                     |        |                       |                           |
| <b><u>Total of Item C4</u></b>                 |  |      |          |                         |        |                     |        |                       |                           |

| Item No.    | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause |
|-------------|---|------|----------|-------------------------|--------|---------------------|--------|-------------|
|             |   |      |          | Unit Price              | Amount | Unit Price          | Amount |             |
| <b>C5</b>   | <b>WASTEWATER AND SLUDGE PONDS</b>  |      |          |                         |        |                     |        |             |
| <b>C5.1</b> | <b>Earth Work</b>   |      |          |                         |        |                     |        |             |
| /01         | Open-cut excavation with backhoe, residual soil with rock fragment  | m3   | 4,804    |                         |        |                     |        | 10202.1     |
| /02         | Backfilling   | m3   | 673      |                         |        |                     |        | 10205.1     |
| /03         | Surplus soil disposal   | m3   | 4,131    |                         |        |                     |        | 10206       |
|             | <b><u>Subtotal of Item C3.1</u></b>   |      |          |                         |        |                     |        |             |
| <b>C5.2</b> | <b>Concrete Work</b>  |      |          |                         |        |                     |        |             |
| /01         | Concrete, Class A, C25/20   | m3   | 1,200    |                         |        |                     |        | 10301       |
| /02         | Concrete, Class D, C15/40   | m3   | 76       |                         |        |                     |        | 10301       |
| /03         | Concrete, Class E, C15/20   | m3   | 91       |                         |        |                     |        | 10301       |
| /04         | Formwork, Type F1   | m2   | 801      |                         |        |                     |        | 10303       |
| /05         | Formwork, Type F3   | m2   | 1,314    |                         |        |                     |        | 10303       |
| /06         | Reinforcing bars  | ton  | 87.2     |                         |        |                     |        | 10304       |
|             | <b><u>Subtotal of Item C5.2</u></b>   |      |          |                         |        |                     |        |             |
| <b>C5.3</b> | <b>Equipment and Materials</b>  |      |          |                         |        |                     |        |             |
| /01         | Stop log for inlet complete with R.C. stop logs, guide frame, and chain block with support as per DWG. No. C-033  | set  | 4        |                         |        |                     |        | 10707       |
| /02         | Stop log for outlet complete with R.C. stop logs, guide frame, and chain block with support as per DWG. No. C-033 | set  | 4        |                         |        |                     |        | 10707       |
|             | <b><u>Subtotal of Item C5.3</u></b>   |      |          |                         |        |                     |        |             |

| Item No.                            | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|-------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                                     |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C5.4 Pipe Work</b>               |  |      |          |                         |        |                     |        |                                     |             |
| /01                                 | Outlet gate 300 x 300<br>with headstock, Type C<br>as per DWG. No. C-032 | nr   | 4        |                         |        |                     |        |                                     | 10503.3     |
| <b><u>Subtotal of Item C5.4</u></b> |  |      |          |                         |        |                     |        |                                     |             |
| <b>C5.5 Metal Work</b>              |  |      |          |                         |        |                     |        |                                     |             |
| /01                                 | Ladder, L= 4.45 m x 2 mrs  | kg   | 212      |                         |        |                     |        |                                     | 10704       |
| /02                                 | Ladder, L= 3.85 m x 8 mrs  | kg   | 733      |                         |        |                     |        |                                     | 10704       |
| /03                                 | Ladder, L= 1.80 m x 2 mrs  | kg   | 86       |                         |        |                     |        |                                     | 10704       |
| /04                                 | Handrail   | m    | 116      |                         |        |                     |        |                                     | 10703       |
| <b><u>Subtotal of Item C5.5</u></b> |  |      |          |                         |        |                     |        |                                     |             |
| <b><u>Total of Item C5</u></b>      |  |      |          |                         |        |                     |        |                                     |             |

| Item No.    | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause       |
|-------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------------|
|             |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |                   |
| <b>C6</b>   | <b>YARD PIPING</b>   |      |          |                         |        |                     |        |                                     |                   |
| <b>C6.1</b> | <b>Raw Water Pipe</b>  |      |          |                         |        |                     |        |                                     |                   |
|             | /01 Pipe laying work, DN 800mmDIP from receiving tank to rapid mixing tank as per DWG. No. C-035               | m    | 133      |                         |        |                     |        |                                     | 10502.1           |
|             | /02 Pipe laying work, DN 700mm DIP from receiving tank to existing chamber No. 1 as per DWG. No. C-035         | m    | 19       |                         |        |                     |        |                                     | 10502.1           |
|             | /03 Pipe laying work, DN 200mm DIP for scouring  | m    | 72       |                         |        |                     |        |                                     | 10502.1           |
|             | /04 Pipe laying work, DN 40mm PE pipe for sampling   | m    | 75       |                         |        |                     |        |                                     | 10502.3           |
|             | <b>Subtotal of Item C6.1</b>   |      |          |                         |        |                     |        |                                     |                   |
| <b>C6.2</b> | <b>Filtered Water Pipe</b>   |      |          |                         |        |                     |        |                                     |                   |
|             | /01 Pipe laying work, DN 900mm DIP for connection to existing filtered water pipe as per DWG. No. C-035        | m    | 5        |                         |        |                     |        |                                     | 10502.1           |
|             | /02 Pipe laying work, DN 800mm DIP for connection to existing filtered water pipe as per DWG. No. C-035        | m    | 73       |                         |        |                     |        |                                     | 10502.1           |
|             | /03 Pipe laying work, DN 600mm DIP for replaced filtered water pipe from existing filter as per DWG. No. C-037 | m    | 93       |                         |        |                     |        |                                     | 10502.1,<br>10512 |

| Item No.                            | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|-------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                                     |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /04                                 | Removal of existing filtered water pipe, DN 600 mm DIP   | m    | 111      |                         |        |                     |        |                                     | 10512       |
| /05                                 | Flowmeter and valve chamber as per DWG. No. C-038  | sum  |          |                         |        |                     |        |                                     | 10505.1     |
| /06                                 | Valve chamber as per DWG. No. C-038  | sum  |          |                         |        |                     |        |                                     | 10505.1     |
| /07                                 | DN 800mm Butterfly valve with handwheel  | nr   | 1        |                         |        |                     |        |                                     | 10503.2     |
| /08                                 | DN 600mm Butterfly valve with handwheel  | nr   | 1        |                         |        |                     |        |                                     | 10503.2     |
| /09                                 | Flowmeter replacement, DN 900mm DIP including removal of existing orifice plate and pipe, installation of pipe w/ annubar flowmeter and demolition of part of the chamber and restoration of the chamber as per DWG. No. C-038 | sum  |          |                         |        |                     |        |                                     | 10505.1     |
| <b><u>Subtotal of Item C6.2</u></b> |  |      |          |                         |        |                     |        |                                     |             |
| <b>C6.3</b>                         | <b>Associated Pipe Work</b>  |      |          |                         |        |                     |        |                                     |             |
| /01                                 | Pipe laying work, DN 350mm DIP for backwash main as per DWG. No. C-039   | m    | 77       |                         |        |                     |        |                                     | 10502.2     |
| /02                                 | Pipe laying work, DN 125mm DIP for plant water inlet as per DWG. No. C-  | m    | 64       |                         |        |                     |        |                                     | 10502.1     |
| /03                                 | Pipe laying work, DN 150mm DIP for water supply as per DWG. No. C-040  | m    | 15       |                         |        |                     |        |                                     | 10502.1     |

| Item No.                            | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause       |
|-------------------------------------|---|------|----------|-------------------------|--------|---------------------|--------|-------------------|
|                                     |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                   |
| /04                                 | Pipe laying work, DN 110mm PE pipe<br>for water supply<br>as per DWG. No. C-040   | m    | 131      |                         |        |                     |        | 10502.3           |
| /05                                 | Pipe laying work, DN 63mm PE pipe<br>for water supply<br>as per DWG.No. C-040     | m    | 139      |                         |        |                     |        | 10502.3           |
| /06                                 | Hydrant with box<br>as per DWG. No. C-040   | set  | 6        |                         |        |                     |        | -                 |
| /07                                 | Flexible hose and coupling for hydrant  | lot  | 1        |                         |        |                     |        |                   |
| <b><u>Subtotal of Item C6.3</u></b> |   |      |          |                         |        |                     |        |                   |
| <b>C6.4 Drain Pipe</b>              |   |      |          |                         |        |                     |        |                   |
| /01                                 | Pipe laying work, DN 600mm RCP<br>as per DWG No. C-041                            | m    | 243      |                         |        |                     |        | 10514             |
| /02                                 | Pipe laying work, DN 450mm RCP<br>as per DWG No. C-041                            | m    | 284      |                         |        |                     |        | 10514             |
| /03                                 | Pipe laying work, DN 300mm RCP<br>as per DWG No. C-041                            | m    | 208      |                         |        |                     |        | 10514             |
| /04                                 | Pipe laying work, DN 200mm DIP<br>Washout pipe<br>as per DWG. No. C-036 and C-037 | m    | 5        |                         |        |                     |        | 10514,<br>10502.1 |
| /05                                 | Pipe laying work, DN 225mm uPVC<br>as per DWG. No. C-040                          | m    | 18       |                         |        |                     |        | 10514,<br>10514.4 |
| /06                                 | Pipe laying work, DN 160mm uPVC<br>as per DWG. No. C-040                          | m    | 43       |                         |        |                     |        | 10514,<br>10502.4 |

| Item No. | Description   | Unit | Quantity | Foreign Currency (US\$)      |        | Local Currency (Rs) |        | Ref. Clause       |
|----------|---|------|----------|------------------------------|--------|---------------------|--------|-------------------|
|          |   |      |          | Unit Price                   | Amount | Unit Price          | Amount |                   |
| /07      | Pipe laying work, DN 90mm uPVC<br>as per DWG. No. C-040                     | m    | 22       |                              |        |                     |        | 10514,<br>10502.4 |
| /08      | Pipe laying work, DN 63mm uPVC<br>as per DWG. No. C-040                     | m    | 8        |                              |        |                     |        | 10514,<br>10514.4 |
| /09      | DN 200 sluice valve with box<br>for washout pipe                            | nr   | 2        |                              |        |                     |        | 10503.2           |
| /10      | Removal of existing drain pipe, DN 450mm<br>as per DWG. No. C-036 and C-037 | m    | 78       |                              |        |                     |        | -                 |
| /11      | Manholes, total of 24 manholes<br>as per DWG. No. C-044                     | sum  |          |                              |        |                     |        | 10514.5           |
| /12      | Drain pit<br>as per DWG. No. C-041 and C-042                                | nr   | 4        |                              |        |                     |        | -                 |
|          |   |      |          | <b>Subtotal of Item C6.4</b> |        |                     |        |                   |
|          |   |      |          | <b>Total of Item C6</b>      |        |                     |        |                   |

| Item No.    | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|             |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| <b>C7</b>   | <b>SITEWORK</b>   |      |          |                         |        |                     |        |                       |                           |
| <b>C7.1</b> | <b>Earth Work</b>   |      |          |                         |        |                     |        |                       |                           |
| /01         | Open-cut excavation, residual soil<br>wit rock fragment   | m3   | 7,979    |                         |        |                     |        |                       | 10202.2                   |
| /02         | Embankment  | m3   | 4,684    |                         |        |                     |        |                       | 10205                     |
| /03         | Surplus soil disposal                                     | m3   | 3,295    |                         |        |                     |        |                       | 10206                     |
|             | <b><u>Subtotal of Item C7.1</u></b>                       |      |          |                         |        |                     |        |                       |                           |
| <b>C7.2</b> | <b>Road</b>   |      |          |                         |        |                     |        |                       |                           |
|             | Asphalt pavement including<br>subbase, prime coat etc.    | m2   | 1,024    |                         |        |                     |        |                       | 10803                     |
| <b>C7.3</b> | <b>Footpaths (W = 1.20m)</b>                              | m2   | 21       |                         |        |                     |        |                       | 10804                     |
| <b>C7.4</b> | <b>R.C. L-type Retaining Wall</b><br>including guardrails | sum  |          |                         |        |                     |        |                       | 10803.6                   |
| <b>C7.5</b> | <b>Stone Masonry Retaining Wall</b>                       | sum  |          |                         |        |                     |        |                       | 10805                     |
| <b>C7.6</b> | <b>Removal of Existing Fences</b>                         | m    | 193      |                         |        |                     |        |                       | 10806                     |
| <b>C7.7</b> | <b>Restoration of Fence</b>                               | m    | 121      |                         |        |                     |        |                       | 10806                     |
| <b>C7.8</b> | <b>Indicated Posts</b><br>for air valves and drain valves | nr   | 8        |                         |        |                     |        |                       | 10807                     |



| Item No.                | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                         |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| C7.9                    | Marker Posts<br>for pipeline centres for raw water transmission<br>pipeline and in the treatment works | nr   | 15       |                         |        |                     |        |                       | 10807                     |
| <b>Total of Item C7</b> |  |      |          |                         |        |                     |        |                       |                           |

| Item No.    | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause |
|-------------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|-------------|
|             |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |             |
| <b>C8</b>   | <b><u>CHEMICAL BUILDING</u></b>   |      |          |                         |        |                     |        |                       |             |
| <b>C8.1</b> | <b>Earth Work</b>   |      |          |                         |        |                     |        |                       |             |
| /01         | Excavation, backhoe, common soil  | m3   | 110.0    |                         |        |                     |        |                       | 10202       |
| /02         | Backfill, manpower  | m3   | 63.0     |                         |        |                     |        |                       | 10205.1     |
| /03         | Disposal  | m3   | 47.0     |                         |        |                     |        |                       | 10206       |
| /04         | Gravel bedding  | m3   | 29.5     |                         |        |                     |        |                       | 10208       |
|             | <b><u>Subtotal of Item C8.1</u></b>   |      |          |                         |        |                     |        |                       |             |
| <b>C8.2</b> | <b>Concrete Work</b>  |      |          |                         |        |                     |        |                       |             |
| /01         | Concrete Class A for structure  | m3   | 383.0    |                         |        |                     |        |                       | 10301       |
| /02         | Concrete Class D  | m3   | 19.5     |                         |        |                     |        |                       | 10301       |
| /03         | Form for plastering surface and natural   | m2   | 1,140.0  |                         |        |                     |        |                       | 10303       |
| /04         | Form for exposed surface  | m2   | 870.0    |                         |        |                     |        |                       | 10303       |
| /05         | Reinforcing bars  | kg   | 46,800.0 |                         |        |                     |        |                       | 10304       |
|             | <b><u>Subtotal of Item C8.2</u></b>   |      |          |                         |        |                     |        |                       |             |
| <b>C8.3</b> | <b>Masonry Work</b>   |      |          |                         |        |                     |        |                       |             |
| /01         | Concrete block wall, 100mm thick including filling cement mortar and with wire lath | m2   | 37.0     |                         |        |                     |        |                       | 20400       |
| /02         | Concrete block wall, 200mm thick including filling cement mortar and with wire lath | m2   | 209.0    |                         |        |                     |        |                       | 20400       |
|             | <b><u>Subtotal of Item C8.3</u></b>   |      |          |                         |        |                     |        |                       |             |

| Item No.                                  | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|   |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C8.4 Bituminous Waterproofing Work</b> |  |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Epoxy waterproofing  | m2   | 297.0    |                         |        |                     |        |                                     | 20502       |
|   | <u>Subtotal of Item C8.4</u>                                 |      |          |                         |        |                     |        |                                     |             |
| <b>C8.5 Tile Work</b>                     |  |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Porcelain tile to exterior wall including base cement mortar | m2   | 249.0    |                         |        |                     |        |                                     | 20700       |
|   | <u>Subtotal of Item C8.5</u>                                 |      |          |                         |        |                     |        |                                     |             |
| <b>C8.6 Plastering Work</b>               |  |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Cement mortar plaster on floor                               | m2   | 278.0    |                         |        |                     |        |                                     | 20801       |
| /02                                       | Cement mortar plaster to interior skirting, H=100mm          | m    | 135.0    |                         |        |                     |        |                                     | 20801       |
| /03                                       | Cement mortar plaster to interior wall                       | m2   | 490.0    |                         |        |                     |        |                                     | 20801       |
| /04                                       | Cement mortar plaster to exterior wall                       | m2   | 48.2     |                         |        |                     |        |                                     | 20801       |
| /05                                       | Cement mortar plaster to interior ceiling                    | m2   | 22.4     |                         |        |                     |        |                                     | 20801       |
| /06                                       | Waterproof cement mortar plaster to roof gutter              | m2   | 258.0    |                         |        |                     |        |                                     | 20802       |
| /07                                       | Waterproof cement mortar plaster to eaves                    | m2   | 120.0    |                         |        |                     |        |                                     | 20802       |
|   | <u>Subtotal of Item C8.6</u>                                 |      |          |                         |        |                     |        |                                     |             |
| <b>C8.7 Painting Work</b>                 |  |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Oil paint to metal surface                                   | m2   | 227.0    |                         |        |                     |        |                                     | 20900       |
| /02                                       | Vinyl emulsion paint on cement mortar                        | m2   | 682.0    |                         |        |                     |        |                                     | 20900       |
|   | <u>Subtotal of Item C8.7</u>                                 |      |          |                         |        |                     |        |                                     |             |

| Item No                               | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause |
|---------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------|
|                                       |  |      |          | Unit Price              | Amount | Unit Price          | Amount |             |
| <b>C8.8 Doors and Windows</b>         |  |      |          |                         |        |                     |        |             |
| /01                                   | Steel door leaves and frames including hardware, accessories and calking to outside perimeter    | m2   | 6.8      |                         |        |                     |        | 21300       |
| /02                                   | Steel windows and frames including hardware, accessories and calking to outside perimeter        | m2   | 31.2     |                         |        |                     |        | 21300       |
| /03                                   | Steel louver windows and frames including hardware, accessories and calking to outside perimeter | m2   | 5.6      |                         |        |                     |        | 21400       |
| /04                                   | Steel rolling doors including operation devices, accessories and calking to outside perimeter    | m2   | 8.7      |                         |        |                     |        | 21300       |
| <u>Subtotal of Item C8.8</u>          |  |      |          |                         |        |                     |        |             |
| <b>C8.9 Glazing Work</b>              |  |      |          |                         |        |                     |        |             |
| /01                                   | Plate wire glass 6.8mm thick including glazing bead  | m2   | 32.9     |                         |        |                     |        | 21500       |
| <u>Subtotal of Item C8.9</u>          |  |      |          |                         |        |                     |        |             |
| <b>C8.10 Miscellaneous Metal Work</b> |  |      |          |                         |        |                     |        |             |
| /01                                   | Roof drain, cast iron made, 100 mm dia.  | nr   | 16       |                         |        |                     |        | 21600       |
| /02                                   | Steel pipe handrail, 50mm dia. including balusters   | m    | 22.7     |                         |        |                     |        | 21600       |
| /03                                   | Stainless steel nosing w/non-slip rubber   | m    | 43.2     |                         |        |                     |        | 21600       |

| Item No.   | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|--|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|  |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| /04  | Steel hoist beam including base plate, anchor bolt and base cement plaster              | kg   | 1230     |                         |        |                     |        | 21600                               | 21600        |
| /05  | Cornep protection curb  | kg   | 370      |                         |        |                     |        | 21600                               | 21600        |
| /06  | Ladder stainless steel  | nr   | 16       |                         |        |                     |        | 21600                               | 21600        |
| /07  | Unloading hatch cover 1,000, 1,000  | nr   | 1        |                         |        |                     |        |                                     |              |
| /08  | PVC downspout, 100mm dia. including accessories   | m    | 92.8     |                         |        |                     |        | 21700                               | 21700        |
| /09  | Wire mesh   | m2   | 32.5     |                         |        |                     |        | -                                   | -            |
| /10  | Steel ladder (iron step) ø19mm  | nr   | 24       |                         |        |                     |        | 21600                               | 21600        |
| <b><u>Subtotal of Item C8.10</u></b>               |   |      |          |                         |        |                     |        |                                     |              |
| <b>C8.11 Miscellaneous Work</b>                    |   |      |          |                         |        |                     |        |                                     |              |
| /01  | Lavatory sink, wall hung w/faucet, stop valve, mirror and supply and drain water piping | set  | 1        |                         |        |                     |        | 21800, 22100                        | 21800, 22100 |
| <b><u>Subtotal of Item C8.11</u></b>               |   |      |          |                         |        |                     |        |                                     |              |
| <b>C8.12 Indoor lighting and Auxiliary Service</b> |   |      |          |                         |        |                     |        |                                     |              |
| /01  | Lighting panel (LP-CHE)   | set  | 1        |                         |        |                     |        | 22207                               | 22207        |
| /02  | Circuit breaker panel (ELCB3P-50A)  | set  | 1        |                         |        |                     |        | 22207                               | 22207        |
| /03  | Exhaust fan, wall mounted type 1,680 m3/h (2) motor 230V - 0.05kW                       | set  | 6        |                         |        |                     |        | 22207                               | 22207        |
| /04  | Lighting fixture including lamp, ballast and fittings FL40Wx1 (B401)                    | set  | 2        |                         |        |                     |        | 22207                               | 22207        |

| Item No. | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|          |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /05      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (D401)  | set  | 4        |                         |        |                     |        |                                     | 22207       |
| /06      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx2 (D402)  | set  | 13       |                         |        |                     |        |                                     | 22207       |
| /07      | Lighting fixture including lamp, ballast and fittings<br>FL20Wx1 (F201)  | set  | 2        |                         |        |                     |        |                                     | 22207       |
| /08      | Tumbler switch with outlet box<br>1P-15A-300Vx1                          | ea   | 3        |                         |        |                     |        |                                     | 22207       |
| /09      | Tumbler switch with outlet box<br>1P-15A-300Vx2                          | ea   | 1        |                         |        |                     |        |                                     | 22207       |
| /10      | Tumbler switch with outlet box<br>1P-15A-300Vx3                          | ea   | 2        |                         |        |                     |        |                                     | 22207       |
| /11      | Tumbler switch with outlet box<br>1P-15A-300Vx1 (3 way)                  | ea   | 1        |                         |        |                     |        |                                     | 22207       |
| /12      | Tumbler switch with outlet box<br>1P-15A-300Vx1 (3 way water proof type) | ea   | 1        |                         |        |                     |        |                                     | 22207       |
| /13      | Tumbler switch with outlet box<br>1P-15A-300Vx1 (4 way)                  | ea   | 2        |                         |        |                     |        |                                     | 22207       |
| /14      | Tumbler switch with outlet box<br>1P-15A-300Vx1 (water proof type)       | ea   | 1        |                         |        |                     |        |                                     | 22207       |
| /15      | Receptacle with outlet box<br>3P-15A-250Vx1                              | ea   | 3        |                         |        |                     |        |                                     | 22207       |

| Item No. | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|----------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|          |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /16      | Receptacle with outlet box<br>3P-15A-250V (water proof type)                                    | ea   | 6        |                         |        |                     |        |                       | 22207                     |
| /17      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 16mm dia. | m    | 192      |                         |        |                     |        |                       | 22207                     |
| /18      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 22mm dia. | m    | 35       |                         |        |                     |        |                       | 22207                     |
| /19      | Electric wire, PVC insulated,<br>600V, with terminals, 1.6mm                                    | m    | 303      |                         |        |                     |        |                       | 22204                     |
| /20      | Electric wire, PVC insulated,<br>600V, with terminals, 2.0mm                                    | m    | 300      |                         |        |                     |        |                       | 22204                     |
| /21      | Electric wire, PVC insulated,<br>600V, with terminals, 5.5mm2                                   | m    | 26       |                         |        |                     |        |                       | 22204                     |

**Subtotal of Item C8.12**

**Total of Item C8**

| Item No.    | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|-------------|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|             |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C9</b>   | <b>OPERATION BUILDING</b>   |      |          |                         |        |                     |        |                                     |             |
| <b>C9.1</b> | <b>Earthwork</b>  |      |          |                         |        |                     |        |                                     |             |
| /01         | Excavation  | m3   | 74.0     |                         |        |                     |        |                                     | 10202       |
| /02         | Backfill  | m3   | 36.0     |                         |        |                     |        |                                     | 10205       |
| /03         | Disposal  | m3   | 38.0     |                         |        |                     |        |                                     | 10206       |
| /04         | Gravel bedding  | m3   | 41.2     |                         |        |                     |        |                                     | 10208       |
|             | <b>Subtotal of Item C9.1</b>  |      |          |                         |        |                     |        |                                     |             |
| <b>C9.2</b> | <b>Concrete Work</b>  |      |          |                         |        |                     |        |                                     |             |
| /01         | Concrete Class A for structure  | m3   | 215.0    |                         |        |                     |        |                                     | 10301       |
| /02         | Concrete Class D  | m3   | 4.9      |                         |        |                     |        |                                     | 10301       |
| /03         | Form for plastering surface and natural   | m2   | 1,080.0  |                         |        |                     |        |                                     | 10302       |
| /04         | Form for exposed surface  | m2   | 259.0    |                         |        |                     |        |                                     | 10302       |
| /05         | Reinforcing bars  | kg   | 28,200.0 |                         |        |                     |        |                                     | 10304       |
|             | <b>Subtotal of Item C9.2</b>  |      |          |                         |        |                     |        |                                     |             |
| <b>C9.3</b> | <b>Masonry Work</b>   |      |          |                         |        |                     |        |                                     |             |
| /01         | Concrete block wall, 100mm thick including filling cement mortar and with wire lath | m2   | 481.0    |                         |        |                     |        |                                     | 20401       |
| /02         | Concrete block wall, 200mm thick including filling cement mortar and with wire lath | m2   | 206.0    |                         |        |                     |        |                                     | 20401       |
|             | <b>Subtotal of Item C9.3</b>  |      |          |                         |        |                     |        |                                     |             |



| Item No.                                  | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|   |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C9.4 Bituminous Waterproofing Work</b> |   |      |          |                         |        |                     |        |                                     |             |
| /01                                       | 3-ply built-up asphalt roofing                                | m2   | 373.0    |                         |        |                     |        |                                     | 20501       |
| /02                                       | 2-ply built-up asphalt roofing                                | m2   | 30.6     |                         |        |                     |        |                                     | 20501       |
|   | <b><u>Subtotal of Item C9.4</u></b>                           |      |          |                         |        |                     |        |                                     |             |
| <b>C9.5 Terrazzo Work</b>                 |   |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Terrazzo block on floor including base cement mortar          | m2   | 126.0    |                         |        |                     |        |                                     | 20600       |
| /02                                       | Terrazzo block door sill, including base cement mortar        | m    | 4.0      |                         |        |                     |        |                                     | 20600       |
| /03                                       | Terrazzo block shelf, W=150mm including base cement mortar    | m    | 10.4     |                         |        |                     |        |                                     | 20600       |
|   | <b><u>Subtotal of Item C9.5</u></b>                           |      |          |                         |        |                     |        |                                     |             |
| <b>C9.6 Tile Work</b>                     |   |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Porcelain tile to interior floor including base cement mortar | m2   | 41.9     |                         |        |                     |        |                                     | 20700       |
| /02                                       | Ceramic tile to interior wall including base cement mortar    | m2   | 156.0    |                         |        |                     |        |                                     | 20700       |
| /03                                       | Porcelain tile to exterior wall including base cement mortar  | m2   | 231.0    |                         |        |                     |        |                                     | 20700       |
|   | <b><u>Subtotal of Item C9.6</u></b>                           |      |          |                         |        |                     |        |                                     |             |
| <b>C9.7 Plastering Work</b>               |   |      |          |                         |        |                     |        |                                     |             |
| /01                                       | Cement mortar plaster on floor                                | m2   | 81.7     |                         |        |                     |        |                                     | 20800       |

| Item No.                               | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|  |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /02                                    | Base cement mortar plaster 20mm thick for bituminous waterproofing       | m2   | 373.0    |                         |        |                     |        | 20800                               | 20800       |
| /03                                    | Cement mortar plaster to interior skirting, H=100mm                      | m    | 179.0    |                         |        |                     |        | 20800                               | 20800       |
| /04                                    | Cement mortar plaster to interior wall                                   | m2   | 843.0    |                         |        |                     |        | 20800                               | 20800       |
| /05                                    | Cement mortar plaster to exterior wall                                   | m2   | 414.0    |                         |        |                     |        | 20800                               | 20800       |
| /06                                    | Cement mortar plaster to interior ceiling                                | m2   | 18.3     |                         |        |                     |        | 20800                               | 20800       |
| /07                                    | Waterproof cement mortar plaster to roof gutter                          | m2   | 41.5     |                         |        |                     |        | 20800                               | 20800       |
| /08                                    | Waterproof cement mortar plaster to eaves                                | m2   | 57.8     |                         |        |                     |        | 20800                               | 20800       |
|  | <b><u>Subtotal of Item C9.7</u></b>                                      |      |          |                         |        |                     |        |                                     |             |
| <b>C9.8 Painting Work</b>              |  |      |          |                         |        |                     |        |                                     |             |
| /01                                    | Oil paint to metal surface   | m2   | 71.3     |                         |        |                     |        | 20900                               | 20900       |
| /02                                    | Oil paint to wooden surface  | m2   | 223.0    |                         |        |                     |        | 20900                               | 20900       |
| /03                                    | Vinyl emulsion paint on cement mortar                                    | m2   | 1,550.0  |                         |        |                     |        | 20900                               | 20900       |
| /04                                    | Vinyl emulsion paint on asbestos cement sheet surface                    | m2   | 110.0    |                         |        |                     |        | 20900                               | 20900       |
|  | <b><u>Subtotal of Item C9.8</u></b>                                      |      |          |                         |        |                     |        |                                     |             |
| <b>C9.9 Carpentry and Joinery Work</b> |  |      |          |                         |        |                     |        |                                     |             |
| /01                                    | Wooden blind box, W200mm x H150mm x T25mm including required accessories | m    | 24.4     |                         |        |                     |        | 21000                               | 21000       |
|  | <b><u>Subtotal of Item C9.9</u></b>                                      |      |          |                         |        |                     |        |                                     |             |

| Item No.  | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|   |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C9.10 Finishing Work</b>                                   |   |      |          |                         |        |                     |        |                                     |             |
| /01   | Rockwool tile including suspension system and accessories                                     | m2   | 220.0    |                         |        |                     |        |                                     | 21000       |
| /02   | Asbestos cement sheet including suspension system and accessories                             | m2   | 110.0    |                         |        |                     |        |                                     | 21000       |
| /03   | Vinyl floor tile including base cement mortar   | m2   | 196.0    |                         |        |                     |        |                                     | 21000       |
| /04   | Vinyl strip base, H=100mm including base cement mortar  | m    | 201.0    |                         |        |                     |        |                                     | 21000       |
| <b><u>Subtotal of Item C9.10</u></b>                          |   |      |          |                         |        |                     |        |                                     |             |
| <b>C9.11 Doors and Windows</b>                                |   |      |          |                         |        |                     |        |                                     |             |
| /01   | Wooden door leaves and frames including louvers, hardware and accessories                     | m2   | 30.8     |                         |        |                     |        |                                     | 21200       |
| /02   | Steel door leaves and frames including hardware, accessories and calking to outside perimeter | m2   | 30.3     |                         |        |                     |        |                                     | 21300       |
| /03   | Aluminium doors and frames including hardware, accessories and calking to outside perimeter   | m2   | 10.5     |                         |        |                     |        |                                     | 21400       |
| /04   | Aluminium windows and frames including hardware, accessories and calking to outside perimeter | m2   | 142.0    |                         |        |                     |        |                                     | 21400       |
| /05   | Jalousie windows and frames including hardware, accessories and calking to outside perimeter  | m2   | 7.7      |                         |        |                     |        |                                     | 21400       |
| <b><u>Subtotal of Item C9.11</u></b><br>as per DWG. No. C-012 |   |      |          |                         |        |                     |        |                                     |             |

| Item No.                              | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                                       |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C9.12 Glazing Work</b>             |  |      |          |                         |        |                     |        |                                     |             |
| /01                                   | Plate glass 3mm thick including glazing bead                         | m2   | 76.8     |                         |        |                     |        |                                     | 21500       |
| /02                                   | Plate glass 5mm thick including glazing bead                         | m2   | 77.4     |                         |        |                     |        |                                     | 21500       |
| /03                                   | Plate wire glass 6.8mm thick including glazing bead                  | m2   | 8.2      |                         |        |                     |        |                                     | 21500       |
| /04                                   | Figured glass 4mm thick including glazing bead                       | m2   | 1.8      |                         |        |                     |        |                                     | 21500       |
| <b><u>Subtotal of Item C9.12</u></b>  |  |      |          |                         |        |                     |        |                                     |             |
| <b>C9.13 Miscellaneous Metal Work</b> |  |      |          |                         |        |                     |        |                                     |             |
| /01                                   | Roof drain, cast iron made, 100 mm dia.                              | nr   | 14       |                         |        |                     |        |                                     | 21600       |
| /02                                   | Steel pipe handrail, 50mm dia. including balusters                   | m    | 31.2     |                         |        |                     |        |                                     | 21600       |
| /03                                   | Steel pipe handrail, 50 mm dia. including balusters (removable type) | m    | 1.2      |                         |        |                     |        |                                     | 21600       |
| /04                                   | Stainless steel nosing w/non-slip rubber                             | m    | 44.0     |                         |        |                     |        |                                     | 21600       |
| /05                                   | Metal coping   | m    | 104.0    |                         |        |                     |        |                                     | 21600       |
| /06                                   | Steel pipe handrail, 50mm dia. including balusters                   | m    | 40.3     |                         |        |                     |        |                                     | 21600       |
| /07                                   | Cable trench cover   | m2   | 22.3     |                         |        |                     |        |                                     | 21600       |
| /08                                   | Steel ladder (iron step), ø19mm                                      | nr   | 21       |                         |        |                     |        |                                     | 21600       |
| /09                                   | Manhole ø600mm   | nr   | 1        |                         |        |                     |        |                                     | 21600       |
| <b><u>Subtotal of Item C9.13</u></b>  |  |      |          |                         |        |                     |        |                                     |             |

| Item No.  | Description  | Unit           | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---|--|----------------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|   |  |                |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C9.14 Miscellaneous Work</b>                           |  |                |          |                         |        |                     |        |                                     |             |
| /01   | PVC downspout, 100mm dia. including accessories                      | m              | 60.8     |                         |        |                     |        |                                     | 21700       |
| /02   | Laboratory table with two sinks and two drawer cabinets              | m              | 9.6      |                         |        |                     |        |                                     | 21700       |
| /03   | Laboratory cabinet   | m              | 1.2      |                         |        |                     |        |                                     | 21700       |
| /04   | Prefabricated glazed partition                                       | m <sup>2</sup> | 5.1      |                         |        |                     |        |                                     | 21700       |
| /05   | Vinyl curtain for lavatory including accessories                     | m              | 3        |                         |        |                     |        |                                     | 21700       |
| /06   | Fire extinguishers   | nr             | 20       |                         |        |                     |        |                                     | 22000       |
| /07   | Desk(1) H740 x W1460 x D730  | set            | 1        |                         |        |                     |        |                                     | -           |
| /08   | Desk(2) H740 x W915 x D635   | set            | 6        |                         |        |                     |        |                                     | -           |
| /09   | Chair for desk (1)   | set            | 1        |                         |        |                     |        |                                     | -           |
| /10   | Chairs for desk (2)  | set            | 6        |                         |        |                     |        |                                     | -           |
| /11   | Cabinets   | set            | 5        |                         |        |                     |        |                                     | -           |
| /12   | Meeting table  | set            | 4        |                         |        |                     |        |                                     | -           |
| /13   | Chairs for meeting table   | set            | 8        |                         |        |                     |        |                                     | -           |
| <b>Subtotal of Item C9.14</b>                             |  |                |          |                         |        |                     |        |                                     |             |
| <b>C9.15 Indoor lighting and Auxiliary Service System</b> |  |                |          |                         |        |                     |        |                                     |             |
| /01   | Lighting panel (LP-OB1)  | set            | 1        |                         |        |                     |        |                                     | 22200       |
| /02   | Lighting panel (LP-OB2)  | set            | 1        |                         |        |                     |        |                                     | 22200       |
| /03   | Circuit breaker, water proof type (ELCB3P-50A)                       | set            | 4        |                         |        |                     |        |                                     | 22200       |
| /04   | Circuit breaker, water proof type (ELCB2P-50A)                       | set            | 7        |                         |        |                     |        |                                     | 22200       |
| /05   | Lighting fixture including lamp, ballast and fittings FL40Wx2 (B402) | set            | 4        |                         |        |                     |        |                                     | 22200       |

| Item No. | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|          |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /06      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (B401)                   | set  | 33       |                         |        |                     |        | 22200                               |             |
| /07      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (B401, water proof type) | set  | 2        |                         |        |                     |        | 22200                               |             |
| /08      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (D401)                   | set  | 9        |                         |        |                     |        | 22200                               |             |
| /09      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (D402)                   | set  | 3        |                         |        |                     |        | 22200                               |             |
| /10      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx2 (E402)                   | set  | 8        |                         |        |                     |        | 22200                               |             |
| /11      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (E401)                   | set  | 4        |                         |        |                     |        |                                     |             |
| /12      | Lighting fixture including lamp, ballast and fittings<br>B401WP                           | set  | 1        |                         |        |                     |        |                                     |             |
| /13      | Lighting fixture including lamp, ballast and fittings<br>FL20Wx1 (F201)                   | set  | 1        |                         |        |                     |        | 22200                               |             |
| /14      | Lighting fixture including lamp, ballast and fittings<br>IL40Wx1 (G401)                   | set  | 6        |                         |        |                     |        | 22200                               |             |
| /15      | Tumbler switch with outlet box<br>1P-15A-300Vx1   | nr   | 19       |                         |        |                     |        | 22200                               |             |

| Item No. | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|----------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|          |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /16      | Tumbler switch with outlet box<br>1P-15A-300Vx2   | nr   | 4        |                         |        |                     |        | 22200                 | 22200                     |
| /17      | Tumbler switch with outlet box<br>1P-15A-300Vx3   | nr   | 4        |                         |        |                     |        | 22200                 | 22200                     |
| /18      | Tumbler switch with outlet box<br>1P-15A-300Vx1 (3 way)   | nr   | 6        |                         |        |                     |        | 22200                 | 22200                     |
| /19      | Receptacle with outlet box<br>3P-15A-250Vx1   | nr   | 6        |                         |        |                     |        | 22200                 | 22200                     |
| /20      | Receptacle with outlet box<br>3P-15A-250Vx2   | nr   | 33       |                         |        |                     |        | 22200                 | 22200                     |
| /21      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 16mm dia. | m    | 516      |                         |        |                     |        | 22200                 | 22200                     |
| /22      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 22mm dia. | m    | 88       |                         |        |                     |        | 22200                 | 22200                     |
| /23      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 36mm dia. | m    | 3        |                         |        |                     |        | 22200                 | 22200                     |
| /24      | Circuit breaker (ELCB50/20)   | set  | 5.0      |                         |        |                     |        | 22200                 | 22200                     |
| /25      | Electric wire, PVC insulated,<br>600V, with terminals, 1.6mm                                    | m    | 808      |                         |        |                     |        | 22200                 | 22200                     |
| /26      | Electric wire, PVC insulated,<br>600V, with terminals, 2.0mm                                    | m    | 726      |                         |        |                     |        | 22200                 | 22200                     |
| /27      | Electric wire, PVC insulated,<br>600V, with terminals, 22mm <sup>2</sup>                        | m    | 14       |                         |        |                     |        | 22200                 | 22200                     |

**Subtotal of Item C9.15**

| Item No.                           | Description                        | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|------------------------------------|------------------------------------|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                                    |                                    |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C9.16 Building Service Work</b> |                                    |      |          |                         |        |                     |        |                                     |             |
| 1) Plumbing works                  |                                    |      |          |                         |        |                     |        |                                     |             |
| <u>Water Supply</u>                |                                    |      |          |                         |        |                     |        |                                     |             |
| /01                                | Galvanized steel pipe DN50mm       | m    | 4        |                         |        |                     |        | 21800, 22100                        |             |
| /02                                | Galvanized steel pipe DN40mm       | m    | 7        |                         |        |                     |        | 21800, 22100                        |             |
| /03                                | Galvanized steel pipe DN32mm       | m    | 5        |                         |        |                     |        | 21800, 22100                        |             |
| /04                                | Galvanized steel pipe DN25mm       | m    | 6        |                         |        |                     |        | 21800, 22100                        |             |
| /05                                | Galvanized steel pipe DN20mm       | m    | 67       |                         |        |                     |        | 21800, 22100                        |             |
| /06                                | Gate valve DN50mm                  | m    | 1        |                         |        |                     |        | 21800, 22100                        |             |
| /07                                | Gate valve DN40mm                  | m    | 1        |                         |        |                     |        | 21800, 22100                        |             |
| /08                                | Valve casing                       | m    | 1        |                         |        |                     |        | 21800, 22100                        |             |
| /09                                | Insulation for pipe DN40mm         | m    | 6        |                         |        |                     |        | 21800, 22100                        |             |
| /10                                | Insulation for pipe DN32mm         | m    | 2        |                         |        |                     |        | 21800, 22100                        |             |
| /11                                | Insulation for pipe DN25mm         | m    | 3        |                         |        |                     |        | 21800, 22100                        |             |
| /12                                | Insulation for pipe DN20mm         | m    | 16       |                         |        |                     |        | 21800, 22100                        |             |
| /13                                | Anticorrosive tape for pipe DN50mm | m    | 4        |                         |        |                     |        | 21800, 22100                        |             |
| /14                                | Anticorrosive tape for pipe DN40mm | m    | 1        |                         |        |                     |        | 21800, 22100                        |             |
| /15                                | Anticorrosive tape for pipe DN32mm | m    | 4        |                         |        |                     |        | 21800, 22100                        |             |
| /16                                | Anticorrosive tape for pipe DN25mm | m    | 4        |                         |        |                     |        | 21800, 22100                        |             |
| /17                                | Anticorrosive tape for pipe DN20mm | m    | 49       |                         |        |                     |        | 21800, 22100                        |             |
| /18                                | Painting to exposed pipe DN40mm    | m    | 4        |                         |        |                     |        | 21800, 22100                        |             |
| <u>Drainage and sewage</u>         |                                    |      |          |                         |        |                     |        |                                     |             |
| /01                                | P.V.C pipe DN140mm                 | m    | 3        |                         |        |                     |        | 21800                               |             |
| /02                                | P.V.C pipe DN110mm                 | m    | 40       |                         |        |                     |        | 21800                               |             |
| /03                                | P.V.C pipe DN90mm                  | m    | 44       |                         |        |                     |        | 21800                               |             |
| /04                                | P.V.C pipe DN75mm                  | m    | 11       |                         |        |                     |        | 21800                               |             |



| Item No.                | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|-------------------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                         |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /05                     | P.V.C pipe<br>DN63mm   | m    | 29       |                         |        |                     |        | 21800                               |             |
| /06                     | P.V.C pipe<br>DN50mm   | m    | 16       |                         |        |                     |        | 21800                               |             |
| /07                     | P.V.C pipe<br>DN25mm   | m    | 5        |                         |        |                     |        | 21800                               |             |
| /08                     | Floor drain<br>ø50mm   | nr   | 6        |                         |        |                     |        | 21800                               |             |
| /09                     | Pipe cleanout<br>ø100mm  | nr   | 1        |                         |        |                     |        | 21800                               |             |
| /10                     | Vent cap<br>ø100mm   | nr   | 1        |                         |        |                     |        | 21800                               |             |
| /11                     | Vent cap<br>ø80mm  | nr   | 1        |                         |        |                     |        | 21800                               |             |
| /12                     | Vent cap<br>ø65mm  | nr   | 1        |                         |        |                     |        | 21800                               |             |
| /13                     | Vent cap<br>ø50mm  | nr   | 1        |                         |        |                     |        | 21800                               |             |
| /14                     | Catch basin<br>450x450<br>w/concrete cover                                   | set  | 2        |                         |        |                     |        | 21800                               |             |
| /15                     | Cesspool<br>450x450<br>w/cast iron cover                                     | set  | 2        |                         |        |                     |        |                                     |             |
| <b>Plumbing fixture</b> |  |      |          |                         |        |                     |        |                                     |             |
| /01                     | Water closet w/cistern tank  | set  | 5        |                         |        |                     |        | 21800, 22100                        |             |
| /02                     | Urinal, wall hung w/flush valve  | set  | 4        |                         |        |                     |        | 21800, 22100                        |             |
| /03                     | Lavatory sink, wall hung w/faucet, stop valve                                | set  | 1        |                         |        |                     |        | 21800, 22100                        |             |
| /04                     | Lavatory sink, wall hung w/faucet,<br>stop valve and mirror                  | set  | 6        |                         |        |                     |        | 21800, 22100                        |             |
| /05                     | Service sink, floor mounted w/ faucet  | set  | 1        |                         |        |                     |        | 21800, 22100                        |             |
| /06                     | Shower set w/wall mounted head and stop valve                                | set  | 3        |                         |        |                     |        | 21800, 22100                        |             |
| /07                     | Swing faucet   | nr   | 4        |                         |        |                     |        | 21800, 22100                        |             |
| <b>Septic tank</b>      |  |      |          |                         |        |                     |        |                                     |             |
| /01                     | Factory fabricated septic tank,<br>complete, capacity 16 persons<br>w/blower | set  | 1        |                         |        |                     |        | 21800, 22100                        |             |

| Item No.                                   | Description   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|  |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /02  | Submerged drain pump 50 l/min., w/controls  | set  | 2        |                         |        |                     |        | 21800, 22100                        |             |
| /03  | Drain pump pit  | m    | 1        |                         |        |                     |        |                                     |             |
| 2) Airconditioning and ventilation systems |   |      |          |                         |        |                     |        |                                     |             |
| /01  | Airconditioner, cassette type room unit, 5,690 kcal/h x 1,080 m <sup>3</sup> /h w/condensing unit | set  | 4        |                         |        |                     |        | 21902, 22100                        |             |
| /02  | Airconditioner, cassette type room unit, 3,040 kcal/h x 900 m <sup>3</sup> /h w/condensing unit   | set  | 4        |                         |        |                     |        | 21902, 22100                        |             |
| /03  | Exhaust propeller fan, ø250mm wall mounted, 900 m <sup>3</sup> /h                                 | set  | 5        |                         |        |                     |        | 21903, 22100                        |             |
| /04  | Exhaust propeller fan, ø 250 mm wall mounted, 900 m <sup>3</sup> /h, motor ø1, 230v 0.025 kw      | set  | 2        |                         |        |                     |        |                                     |             |
| /05  | Refrigerant copper tube, ø15.9mm  | m    | 50       |                         |        |                     |        |                                     | 21902       |
| /06  | Refrigerant copper tube, ø12.7mm  | m    | 41       |                         |        |                     |        |                                     | 21902       |
| /07  | Refrigerant copper tube, ø6.4mm   | m    | 91       |                         |        |                     |        |                                     | 21902       |
| /08  | Condensed water pipe, PVC DN50mm  | m    | 20       |                         |        |                     |        |                                     |             |
| /09  | Condensed water pipe, PVC DN32mm  | m    | 52       |                         |        |                     |        |                                     |             |
| <b><u>Subtotal of Item C9.16</u></b>       |   |      |          |                         |        |                     |        |                                     |             |
| <b>C9.17 Laboratory Equipment</b>          |   |      |          |                         |        |                     |        |                                     |             |
| /01  | Turbidimeter complete with sample cells and standard solutions                                    | set  | 1        |                         |        |                     |        |                                     | 22300       |
| /02  | pHmeter   | set  | 1        |                         |        |                     |        |                                     | 22300       |

| Item No. | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|          |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /03      | Electric conductivity meter  | set  | 1        |                         |        |                     |        | 22300                               | 22300       |
| /04      | Laboratory flocculator (jar tester)  | set  | 2        |                         |        |                     |        | 22300                               | 22300       |
| /05      | Disc type comparator for colour, residual chlorine and ammonia complete with chemicals, sample cells, discs and attachment | set  | 1        |                         |        |                     |        | 22300                               | 22300       |
| /06      | Disc type comparator for residual chlorine complete with chemicals, sample cells and discs                                 | set  | 1        |                         |        |                     |        | 22300                               | 22300       |
| /07      | Water sampler  | set  | 1        |                         |        |                     |        | 22300                               | 22300       |
| /08      | DO meter   | set  | 1        |                         |        |                     |        | 22300                               | 22300       |
| /09      | Glassware and miscellaneous  | sum  |          |                         |        |                     |        | 22300                               | 22300       |

**Subtotal of Item C9.17**

**Total of Item C9**

| Item No.     | Description  | Unit | Quantity | Foreign Currency (\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--------------|--|------|----------|-----------------------|--------|---------------------|--------|-------------------------------------|-------------|
|              |  |      |          | Unit Price            | Amount | Unit Price          | Amount |                                     |             |
| <b>C10</b>   | <b>CHLORINATION BUILDING</b>   |      |          |                       |        |                     |        |                                     |             |
| <b>C10.1</b> | <b>Demolition works</b>  | sum  |          |                       |        |                     |        |                                     |             |
|              | Demolition of existing structures, and removal of existing equipment and fixtures in preparation for expansion works as per DWG. No. B-018 & B-019 |      |          |                       |        |                     |        |                                     |             |
|              | <b><u>Subtotal of Item C10.1</u></b>   |      |          |                       |        |                     |        |                                     |             |
| <b>C10.2</b> | <b>Earthwork</b>   |      |          |                       |        |                     |        |                                     |             |
| /01          | Excavation   | m3   | 55.0     |                       |        |                     |        | 10202                               |             |
| /02          | Backfill   | m3   | 24.0     |                       |        |                     |        | 10205                               |             |
| /03          | Disposal   | m3   | 31.0     |                       |        |                     |        | 10206                               |             |
| /04          | Gravel bedding   | m3   | 3.4      |                       |        |                     |        | 10208                               |             |
|              | <b><u>Subtotal of Item C10.2</u></b>   |      |          |                       |        |                     |        |                                     |             |
| <b>C10.3</b> | <b>Concrete Work</b>   |      |          |                       |        |                     |        |                                     |             |
| /01          | Concrete Class A for structure   | m3   | 37.1     |                       |        |                     |        | 10301                               |             |
| /02          | Concrete Class D   | m3   | 1.2      |                       |        |                     |        | 10301                               |             |
| /03          | Form for plastering surface and natural  | m2   | 159.0    |                       |        |                     |        | 10303                               |             |
| /04          | Form for exposed surface   | m2   | 79.0     |                       |        |                     |        | 10303                               |             |
| /05          | Reinforcing bars   | kg   | 4700     |                       |        |                     |        | 10304                               |             |
|              | <b><u>Subtotal of Item C10.3</u></b>   |      |          |                       |        |                     |        |                                     |             |

| Item No.   | Description   | Unit | Quantity | Foreign Currency (\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--|---|------|----------|-----------------------|--------|---------------------|--------|-------------------------------------|-------------|
|  |   |      |          | Unit Price            | Amount | Unit Price          | Amount |                                     |             |
| <b>C10.4 Masonry Work</b>                          |   |      |          |                       |        |                     |        |                                     |             |
| /01  | Concrete block wall, 200mm thick including filling cement mortar and with wire lath | m2   | 53.0     |                       |        |                     |        |                                     | 20400       |
| <b><u>Subtotal of Item C10.4</u></b>               |   |      |          |                       |        |                     |        |                                     |             |
| <b>C10.5 Finishing Work</b>                        |   |      |          |                       |        |                     |        |                                     |             |
| /01  | Finishing work as per DWG. No. B-018 & B-019  | sum  |          |                       |        |                     |        |                                     | 21100       |
| <b><u>Subtotal of Item C10.5</u></b>               |   |      |          |                       |        |                     |        |                                     |             |
| <b>C10.6 Indoor lighting and Auxiliary Service</b> |   |      |          |                       |        |                     |        |                                     |             |
| /01  | Lighting panel (LP-CHL)   | set  | 1        |                       |        |                     |        |                                     | 22200       |
| /02  | Lighting fixture including lamp, ballast and fittings FL40Wx2 (A402)                | set  | 12       |                       |        |                     |        |                                     | 22200       |
| /03  | Lighting fixture including lamp, ballast and fittings FL40Wx1 (A401)                | set  | 4        |                       |        |                     |        |                                     | 22200       |
| /04  | Circuit breaker, water proof type (ELCB 3P-50A)                                     | set  | 2        |                       |        |                     |        |                                     | 22200       |
| /05  | Tumbler switch with outlet box 1P-15A-300Vx1  | nr   | 4        |                       |        |                     |        |                                     | 22200       |
| /06  | Tumbler switch with outlet box 1P-15A-300Vx1 (water proof type)                     | nr   | 4        |                       |        |                     |        |                                     | 22200       |
| /07  | Receptacle with outlet box 2P-15A-250Vx1, water proof type                          | nr   | 10       |                       |        |                     |        |                                     | 22200       |

| Item No. | Description  | Unit | Quantity | Foreign Currency (\$)         |        | Local Currency (Rs) |        | Ref. Clause  |
|----------|--|------|----------|-------------------------------|--------|---------------------|--------|--------------|
|          |  |      |          | Unit Price                    | Amount | Unit Price          | Amount |              |
| /08      | Exhaust fan, wall mounted type<br>1,500 m <sup>3</sup> /h (1)<br>motor 230v - 0.05kW           | set  | 2        |                               |        |                     |        | 21900, 22100 |
| /09      | Exhaust fan, wall mounted type<br>1,140 m <sup>3</sup> /h (3)<br>motor 230V - 0.025 kW         | set  | 2        |                               |        |                     |        | 21900, 22100 |
| /10      | Electric wire, PVC insulated,<br>600V, with terminals, 1.6mm                                   | m    | 150      |                               |        |                     |        | 22200        |
| /11      | Electric wire, PVC insulated,<br>600V, with terminals, 2.0mm                                   | m    | 203      |                               |        |                     |        | 22200        |
| /12      | Electric conduit, including couplings<br>bushing, junction boxes and<br>accessories, 16mm dia. | m    | 164      |                               |        |                     |        | 22200        |
|          |  |      |          | <b>Subtotal of Item C10.6</b> |        |                     |        |              |
|          |  |      |          | <b>Total of Item C10</b>      |        |                     |        |              |

| Item No.                   | Work  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------------------------|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                            |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>CII WORKSHOP</b>        |   |      |          |                         |        |                     |        |                                     |             |
| <b>CII.1 Earthwork</b>     |   |      |          |                         |        |                     |        |                                     |             |
| /01                        | Excavation  | m3   | 80.0     |                         |        |                     |        |                                     | 10202       |
| /02                        | Backfill  | m3   | 44.0     |                         |        |                     |        |                                     | 10205       |
| /03                        | Disposal  | m3   | 36.0     |                         |        |                     |        |                                     | 10206       |
| /04                        | Gravel bedding  | m3   | 70.4     |                         |        |                     |        |                                     | 10208       |
|                            | <b><u>Subtotal of Item CII.1</u></b>  |      |          |                         |        |                     |        |                                     |             |
| <b>CII.2 Concrete Work</b> |   |      |          |                         |        |                     |        |                                     |             |
| /01                        | Concrete Class A for structure  | m3   | 214.0    |                         |        |                     |        |                                     | 10301       |
| /02                        | Concrete Class D  | m3   | 3.7      |                         |        |                     |        |                                     | 10301       |
| /03                        | Form for plastering surface and natural   | m2   | 569.0    |                         |        |                     |        |                                     | 10303       |
| /04                        | Form for exposed surface  | m2   | 576.0    |                         |        |                     |        |                                     | 10303       |
| /05                        | Reinforcing bars  | kg   | 27,100.0 |                         |        |                     |        |                                     | 10304       |
|                            | <b><u>Subtotal of Item CII.2</u></b>  |      |          |                         |        |                     |        |                                     |             |
| <b>CII.3 Masonry Work</b>  |   |      |          |                         |        |                     |        |                                     |             |
| /01                        | Concrete block wall, 100mm thick including filling cement mortar and with wire lath | m2   | 172.0    |                         |        |                     |        |                                     | 20400       |
| /02                        | Concrete block wall, 200mm thick including filling cement mortar and with wire lath | m2   | 229.0    |                         |        |                     |        |                                     | 20400       |
|                            | <b><u>Subtotal of Item CII.3</u></b>  |      |          |                         |        |                     |        |                                     |             |

| Item No.     | Work   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|              |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C11.4</b> | <b>Bituminous Waterproofing Work</b>                               |      |          |                         |        |                     |        |                                     |             |
| /01          | 3-ply built-up asphalt roofing                                     | m2   | 505.0    |                         |        |                     |        |                                     | 20501       |
|              | <b><u>Subtotal of Item C11.4</u></b>                               |      |          |                         |        |                     |        |                                     |             |
| <b>C11.5</b> | <b>Terrazzo Work</b>   |      |          |                         |        |                     |        |                                     |             |
| /01          | Terrazzo block door sill, W= including base cement mortar          | m    | 0.7      |                         |        |                     |        |                                     | 20600       |
|              | <b><u>Subtotal of Item C11.5</u></b>                               |      |          |                         |        |                     |        |                                     |             |
| <b>C11.6</b> | <b>Tile Work</b>   |      |          |                         |        |                     |        |                                     |             |
| /01          | Ceramic tile to interior wall including base cement mortar         | m2   | 42.3     |                         |        |                     |        |                                     | 20700       |
|              | <b><u>Subtotal of Item C11.6</u></b>                               |      |          |                         |        |                     |        |                                     |             |
| <b>C11.7</b> | <b>Plastering Work</b>   |      |          |                         |        |                     |        |                                     |             |
| /01          | Cement mortar plaster on floor                                     | m2   | 476.0    |                         |        |                     |        |                                     | 20800       |
| /02          | Base cement mortar plaster 20mm thick for bituminous waterproofing | m2   | 505.0    |                         |        |                     |        |                                     |             |
| /03          | Cement mortar plaster to interior skirting, H=100mm                | m    | 233.0    |                         |        |                     |        |                                     |             |
| /04          | Cement mortar plaster to interior wall                             | m2   | 721.0    |                         |        |                     |        |                                     |             |
| /05          | Cement mortar plaster to exterior wall                             | m2   | 426.0    |                         |        |                     |        |                                     |             |
|              | <b><u>Subtotal of Item C11.7</u></b>                               |      |          |                         |        |                     |        |                                     |             |



| Item No.                       | Work  | Unit | Quantity | Foregin Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--------------------------------|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                                |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C11.8 Painting Work</b>     |   |      |          |                         |        |                     |        |                                     |             |
| /01                            | Oil paint to metal surface  | m2   | 260.0    |                         |        |                     |        |                                     | 20900       |
| /02                            | Oil paint to wooden surface   | m2   | 23.0     |                         |        |                     |        |                                     | 20900       |
| /03                            | Vinyl emulsion paint on cement mortar   | m2   | 1,746.0  |                         |        |                     |        |                                     | 20900       |
| <b>Subtotal of Item C11.8</b>  |   |      |          |                         |        |                     |        |                                     |             |
| <b>C11.9 Doors and Windows</b> |   |      |          |                         |        |                     |        |                                     |             |
| /01                            | Wooden door leaves and frames including louvers, hardware and accessories                     | m2   | 9.2      |                         |        |                     |        |                                     | 21200       |
| /02                            | Steel door leaves and frames including hardware, accessories and calking to outside perimeter | m2   | 16.1     |                         |        |                     |        |                                     | 21300       |
| /03                            | Steel windows and frames including hardware, accessories and calking to outside perimeter     | m2   | 76.8     |                         |        |                     |        |                                     | 21300       |
| /04                            | Jalousie windows and frames including hardware, accessories and calking to outside perimeter  | m2   | 1.1      |                         |        |                     |        |                                     | 21300       |
| /05                            | Steel rolling doors including operation devices, accessories and calking to outside perimeter | m2   | 23.6     |                         |        |                     |        |                                     |             |
| <b>Subtotal of Item C11.9</b>  |   |      |          |                         |        |                     |        |                                     |             |
| <b>C11.10 Glazing Work</b>     |   |      |          |                         |        |                     |        |                                     |             |
| /01                            | Plate glass 3mm thick including glazing bead  | m2   | 80.3     |                         |        |                     |        |                                     | 21500       |
| /02                            | Plate wire glass 6.8mm thick including glazing bead   | m2   | 1.1      |                         |        |                     |        |                                     | 21500       |

| Item No.  | Work   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|   |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /03   | Figured glass 4mm thick including glazing bead                             | m2   | 2.1      |                         |        |                     |        | 21500                               |             |
| <b><u>Subtotal of Item C11.10</u></b>               |  |      |          |                         |        |                     |        |                                     |             |
| <b>C11.11 Miscellaneous Metal Work</b>              |  |      |          |                         |        |                     |        |                                     |             |
| /01   | Roof drain, cast iron made, 100mm dia.                                     | nr   | 14       |                         |        |                     |        | 21600                               |             |
| /02   | Steel hoist beam including base plate, anchor bolt and base cement plaster | kg   | 1,100.0  |                         |        |                     |        | 21600                               |             |
| /03   | Metal coping   | m    | 122.0    |                         |        |                     |        | 21600                               |             |
| <b><u>Subtotal of Item C11.11</u></b>               |  |      |          |                         |        |                     |        |                                     |             |
| <b>C11.12 Miscellaneous Work</b>                    |  |      |          |                         |        |                     |        |                                     |             |
| /01   | PVC downspout, 100mm dia. including accessories                            | m    | 60.0     |                         |        |                     |        | 21700                               |             |
| /02   | Kitchen sink unit in kitchen   | nr   | 1        |                         |        |                     |        | 21700                               |             |
| /03   | Cupboard unit in kitchen   | nr   | 1        |                         |        |                     |        | 21700                               |             |
| /04   | Vinyl curtain for lavatory including accessories                           | nr   | 1        |                         |        |                     |        | 21700                               |             |
| /05   | Work bench with four chairs  | m    | 14.0     |                         |        |                     |        | 21700                               |             |
| <b><u>Subtotal of Item C11.12</u></b>               |  |      |          |                         |        |                     |        |                                     |             |
| <b>C11.13 Indoor lighting and Auxiliary Service</b> |  |      |          |                         |        |                     |        |                                     |             |
| /01   | Lighting panel (LP-WS)   | set  | 1        |                         |        |                     |        | 22200                               |             |
| /02   | Lighting fixture including lamp, ballast and fittings FL40Wx2 (B402)       | set  | 12       |                         |        |                     |        | 22200                               |             |

| Item No. | Work  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|          |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /03      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (B401) | set  | 5        |                         |        |                     |        | 22200                               |             |
| /04      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx2 (D402) | set  | 22       |                         |        |                     |        | 22200                               |             |
| /05      | Lighting fixture including lamp, ballast and fittings<br>FL40Wx1 (D401) | set  | 6        |                         |        |                     |        | 22200                               |             |
| /06      | Lighting fixture including lamp, ballast and fittings<br>FL20Wx1 (F201) | set  | 1        |                         |        |                     |        | 22200                               |             |
| /07      | Lighting fixture including lamp, ballast and fittings<br>IL40Wx1 (G401) | set  | 2        |                         |        |                     |        | 22200                               |             |
| /08      | Circuit breaker (ELCB 3P-50A)   | set  | 7        |                         |        |                     |        | 22200                               |             |
| /09      | Circuit breaker (ELCB 3P-100A)  | set  | 1        |                         |        |                     |        | 22200                               |             |
| /10      | Circuit breaker (ELCB 3P-225A)  | set  | 2        |                         |        |                     |        | 22200                               |             |
| /11      | Circuit breaker, water proof type (ELCB 3P-50A)                         | set  | 6        |                         |        |                     |        | 22200                               |             |
| /12      | Tumbler switch with outlet box<br>1P-15A-300Vx1                         | nr   | 7        |                         |        |                     |        | 22200                               |             |
| /13      | Tumbler switch with outlet box<br>1P-15A-300Vx2                         | nr   | 3        |                         |        |                     |        | 22200                               |             |
| /14      | Tumbler switch with outlet box<br>1P-15A-300Vx3                         | nr   | 2        |                         |        |                     |        | 22200                               |             |
| /15      | Tumbler switch with outlet box<br>1P-15A-300Vx1 (3 way)                 | nr   | 2        |                         |        |                     |        | 22200                               |             |

| Item No. | Work  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|----------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|          |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /16      | Receptacle with outlet box<br>3P-15A-250Vx1   | nr   | 2        |                         |        |                     |        |                       | 22200                     |
| /17      | Receptacle with outlet box<br>3P-15A-250Vx2   | nr   | 23       |                         |        |                     |        |                       | 22200                     |
| /18      | Electric wire, PVC insulated,<br>600V, with terminals, 1.6mm                                    | m    | 571      |                         |        |                     |        |                       | 22200                     |
| /19      | Electric wire, PVC insulated,<br>600V, with terminals, 2.0mm                                    | m    | 907      |                         |        |                     |        |                       | 22200                     |
| /20      | Electric wire, PVC insulated,<br>600V, with terminals, 14mm2                                    | m    | 149      |                         |        |                     |        |                       | 22200                     |
| /21      | Electric wire, PVC insulated,<br>600V, with terminals, 22mm2                                    | m    | 77       |                         |        |                     |        |                       | 22200                     |
| /22      | Electric wire, PVC insulated,<br>600V, with terminals, 38mm2                                    | m    | 77       |                         |        |                     |        |                       | 22200                     |
| /23      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 16mm dia. | m    | 403      |                         |        |                     |        |                       | 22200                     |
| /24      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 22mm dia. | m    | 136      |                         |        |                     |        |                       | 22200                     |
| /25      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 28mm dia. | m    | 36       |                         |        |                     |        |                       | 22200                     |
| /26      | Electric conduit, including<br>couplings, bushings, junction<br>boxes and accessories 36mm dia. | m    | 18       |                         |        |                     |        |                       | 22200                     |

| Item No.                            | Work  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) | Ref. Clause or Sub-clause |
|-------------------------------------|---|------|----------|-------------------------|--------|---------------------|--------|-----------------------|---------------------------|
|                                     |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                       |                           |
| /27                                 | Electric conduit, including couplings, bushings, junction boxes and accessories 54mm dia. | m    | 18       |                         |        |                     |        |                       | 22200                     |
| <b>Subtotal of Item C11.13</b>      |   |      |          |                         |        |                     |        |                       |                           |
| <b>C11.14 Building Service Work</b> |   |      |          |                         |        |                     |        |                       |                           |
| 1) Plumbing works                   |   |      |          |                         |        |                     |        |                       |                           |
| <u>Water Supply</u>                 |   |      |          |                         |        |                     |        |                       |                           |
| /01                                 | Galvanized steel pipe DN25mm  | m    | 6        |                         |        |                     |        |                       | 21800                     |
| /02                                 | Galvanized steel pipe DN20mm  | m    | 21       |                         |        |                     |        |                       | 21800                     |
| /03                                 | Gate valve DN25mm   | nr   | 1        |                         |        |                     |        |                       | 21800                     |
| /04                                 | Valve casing  | nr   | 1        |                         |        |                     |        |                       | 21800                     |
| /05                                 | Anticorrosive tape for pipe DN25mm  | m    | 6        |                         |        |                     |        |                       | 21800                     |
| /06                                 | Anticorrosive tape for pipe DN20  | m    | 21       |                         |        |                     |        |                       | 21800                     |
| <u>Drainage and sewage</u>          |   |      |          |                         |        |                     |        |                       |                           |
| /01                                 | P.V.C pipe DN110mm  | m    | 7        |                         |        |                     |        |                       | 21800                     |
| /02                                 | P.V.C pipe DN90mm   | m    | 11       |                         |        |                     |        |                       | 21800                     |
| /03                                 | P.V.C pipe DN63mm   | m    | 11       |                         |        |                     |        |                       | 21800                     |
| /04                                 | P.V.C pipe DN50mm   | m    | 6        |                         |        |                     |        |                       | 21800                     |
| /05                                 | P.V.C pipe DN26mm   | m    | 3        |                         |        |                     |        |                       | 21800                     |
| /06                                 | Floor drain ø50mm   | nr   | 1        |                         |        |                     |        |                       | 21800                     |
| /07                                 | Pipe cleanout ø100mm  | nr   | 1        |                         |        |                     |        |                       | 21800                     |
| /08                                 | Pipe cleanout ø80mm   | nr   | 1        |                         |        |                     |        |                       | 21800                     |

| Item No.                                   | Work   | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|--|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|  |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| /09  | Pipe cleanout ø50mm  | nr   | 1        |                         |        |                     |        | 21800                               | 21800        |
| /10  | Cesspool 450x450 w/cast iron cover   | nr   | 1        |                         |        |                     |        | 21800                               | 21800        |
| <u>Plumbing fixture</u>                    |  |      |          |                         |        |                     |        |                                     |              |
| /01  | Water closet w/cistern tank  | set  | 2        |                         |        |                     |        | 21800                               | 21800        |
| /02  | Lavatory sink, wall hung w/faucet, stop valve and mirror                             | set  | 3        |                         |        |                     |        | 21800                               | 21800        |
| /03  | Shower set w/wall mounted head and stop valve  | set  | 1        |                         |        |                     |        | 21800                               | 21800        |
| /04  | Swing faucet   | nr   | 2        |                         |        |                     |        | 21800                               | 21800        |
| <u>Septic tank</u>                         |  |      |          |                         |        |                     |        |                                     |              |
| /01  | Factory fabricated septic tank, complete, capacity 10 persons w/ blower              | set  | 1        |                         |        |                     |        | 21800                               | 21800        |
| /02  | Submerged drain pump 50 l/min., w/controls   | set  | 2        |                         |        |                     |        | 21800                               | 21800        |
| /03  | Drain pump pit   | nr   | 1        |                         |        |                     |        | 21800                               | 21800        |
| 2) Airconditioning and ventilation systems |  |      |          |                         |        |                     |        |                                     |              |
| /01  | Airconditioner, suspended type room unit, 5690 kcal/h x 1,080 m3/h w/condensing unit | set  | 3        |                         |        |                     |        | 21900, 22100                        | 21900, 22100 |
| /02  | Exhaust propeller fan, ø250mm wall mounted, 900 m3/h                                 | set  | 3        |                         |        |                     |        | 21900, 22100                        | 21900, 22100 |

| Item No.                       | Work                             | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause or Sub-clause |
|--------------------------------|----------------------------------|------|----------|-------------------------|--------|---------------------|--------|---------------------------|
|                                |                                  |      |          | Unit Price              | Amount | Unit Price          | Amount |                           |
| /03                            | Refrigerant copper tube, ø15.9mm | m    | 30       |                         |        |                     |        | 21900, 22100              |
| /04                            | Refrigerant copper tube, ø9.5mm  | m    | 30       |                         |        |                     |        | 21900, 22100              |
| /05                            | Condensed water pipe, PVC DN50mm | m    | 13       |                         |        |                     |        | 21900, 22100              |
| /06                            | Condensed water pipe, PVC DN32mm | m    | 6        |                         |        |                     |        | 21900, 22100              |
| <b>Subtotal of Item C11.14</b> |                                  |      |          |                         |        |                     |        |                           |
| <b>Total of Item C11</b>       |                                  |      |          |                         |        |                     |        |                           |

| Item No.     | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|--------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|              |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| <b>C12</b>   | <b>MECHANICAL FACILITIES</b>   |      |          |                         |        |                     |        |                                     |              |
| <b>C12.1</b> | <b>Plant water pumps</b>   |      |          |                         |        |                     |        |                                     |              |
| /01          | Plant water pump (P-PW1,2) w/ accessories  | set  | 2        |                         |        |                     |        |                                     | 30200        |
| /02          | Valves, and flexible joints  | lot  | 1        |                         |        |                     |        |                                     | 30207        |
| /03          | Spare parts  | lot  | 1        |                         |        |                     |        |                                     | 30209        |
|              | <b><u>Subtotal of Item C12.1</u></b>   |      |          |                         |        |                     |        |                                     |              |
| <b>C12.2</b> | <b>Air-scouring Blower</b>   |      |          |                         |        |                     |        |                                     |              |
| /01          | Air-scouring blowers (B-AS1,2) with appurtenance and accessories   | set  | 2        |                         |        |                     |        |                                     | 30300        |
| /02          | Spare parts  | lot  | 1        |                         |        |                     |        |                                     | 30308        |
|              | <b><u>Subtotal of Item C12.2</u></b>   |      |          |                         |        |                     |        |                                     |              |
| <b>C12.3</b> | <b>Alum Dosing System</b>  |      |          |                         |        |                     |        |                                     |              |
| /01          | Alum solution mixers (MX-AL1,2)  | set  | 2        |                         |        |                     |        |                                     | 30400, 30405 |
| /02          | Alum dosing pumps (P-AL1 to 3) w/ accessories  | set  | 3        |                         |        |                     |        |                                     | 30400, 30406 |
| /03          | Alum solution baskets  | set  | 2        |                         |        |                     |        |                                     | 30400        |
| /04          | Wheelbarrow for solid alum package   | set  | 1        |                         |        |                     |        |                                     | 30400        |
| /05          | Wooden floor stepped for solid alum packages   | lot  | 1        |                         |        |                     |        |                                     | 30400        |
| /06          | Spare parts  | lot  | 1        |                         |        |                     |        |                                     | 30411        |
| /07          | Bridge walkway and mixer drive platform  | sum  |          |                         |        |                     |        |                                     | 30407        |
| /08          | All piping and valve installation works in the chemical building and from the chemical building to the dosing points | sum  |          |                         |        |                     |        |                                     | 30400, 30408 |
|              | <b><u>Subtotal of Item C12.3</u></b>   |      |          |                         |        |                     |        |                                     |              |



| Item No.                             | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause  |
|--------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|--------------|
|                                      |  |      |          | Unit Price              | Amount | Unit Price          | Amount |              |
| <b>C12.4 Lime Dosing System</b>      |  |      |          |                         |        |                     |        |              |
| /01                                  | Lime solution mixers (MX-LM 1,2)   | set  | 2        |                         |        |                     |        | 30500, 30505 |
| /02                                  | Lime dosing pumps (P-LM 1,2) with accessories  | set  | 2        |                         |        |                     |        | 30500, 30506 |
| /03                                  | Lime injection pumps (P-LMB 1,2) with accessories  | set  | 2        |                         |        |                     |        | 30500, 30507 |
| /04                                  | Lime dosing injectors (IJ-LMB1,2)  | set  | 2        |                         |        |                     |        | 30500, 30508 |
| /05                                  | Wheelbarrow for solid lime package   | set  | 1        |                         |        |                     |        | 30500        |
| /06                                  | Spare parts  | lot  | 1        |                         |        |                     |        | 30513        |
| /07                                  | Bridge walkway and mixer drive platform  | sum  |          |                         |        |                     |        | 30500, 30509 |
| /08                                  | Wooden floor stepped for solid lime packages   | lot  | 1        |                         |        |                     |        | 30500        |
| /09                                  | All piping and valve installation works in the chemical building and from the chemical building to the dosing points | sum  |          |                         |        |                     |        | 30500, 30510 |
| <b><u>Subtotal of Item C12.4</u></b> |  |      |          |                         |        |                     |        |              |
| <b>C12.5 Chlorination System</b>     |  |      |          |                         |        |                     |        |              |
| /01                                  | Chlorinators (CH-CHL1,2)   | set  | 2        |                         |        |                     |        | 30600, 30607 |
| /02                                  | Chlorinator (CH-CHL 3)   | set  | 1        |                         |        |                     |        | 30600, 30607 |
| /03                                  | Booster pumps (P-CHL 1,2) w/ accessories   | set  | 2        |                         |        |                     |        | 30600, 30609 |
| /04                                  | Booster pump (P-CHL 3) w/ accessories  | set  | 1        |                         |        |                     |        | 30600, 30609 |
| /05                                  | Weighing scales (WS-CHL 1,2)   | set  | 2        |                         |        |                     |        | 30600, 30608 |
| /06                                  | Chlorine containers  | set  | 10       |                         |        |                     |        | 30600, 30610 |
| /07                                  | Chlorine container grabs   | set  | 3        |                         |        |                     |        | 30600, 30611 |
| /08                                  | Accessories and spare parts  | lot  | 1        |                         |        |                     |        | 30615        |

| Item No.  | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|---|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|   |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| /09   | All piping and valve installation works in the chlorination building and from the chlorination building to the dosing points | sum  |          |                         |        |                     |        | 30600, 30612                        |              |
| /10   | Existing system translocation works and reinstallation works   | sum  |          |                         |        |                     |        | 30600, 30606                        |              |
| <b><u>Subtotal of Item C12.5</u></b>                  |  |      |          |                         |        |                     |        |                                     |              |
| <b>C12.6 Flush Water Pumps and Portable Sump Pump</b> |  |      |          |                         |        |                     |        |                                     |              |
| /01   | Flush water pumps (P-FW 1,2) w/ accessories  | set  | 2        |                         |        |                     |        | 30700                               | 30700        |
| /02   | Valves and flexible joints   | lot  | 1        |                         |        |                     |        | 30700, 30707                        | 30700, 30707 |
| /03   | Portable sump pump (P-SP 1,2) Complete with accessories, flexible drain pipe, etc. as shown on the Specifications            | set  | 2        |                         |        |                     |        | 30800                               | 30800        |
| /04   | Accessories and spare parts  | lot  | 1        |                         |        |                     |        | 30711                               | 30711        |
| <b><u>Subtotal of Item C12.6</u></b>                  |  |      |          |                         |        |                     |        |                                     |              |
| <b>C12.7 Ventilation Fans</b>                         |  |      |          |                         |        |                     |        |                                     |              |
| /01   | Ventilation fans (EF-FIL 1,2)  | set  | 2        |                         |        |                     |        | 30900                               | 30900        |
| /02   | Accessories  | lot  | 1        |                         |        |                     |        | 30900                               | 30900        |
| <b><u>Subtotal of Item C12.7</u></b>                  |  |      |          |                         |        |                     |        |                                     |              |
| <b>C12.8 Chain Hoists</b>                             |  |      |          |                         |        |                     |        |                                     |              |
| /01   | Hand operated chain hoist (C-CHE1)   | set  | 1        |                         |        |                     |        | 31000                               | 31000        |
| /02   | Hand operated chain hoist (C-CHE2)   | set  | 2        |                         |        |                     |        | 31000                               | 31000        |
| /03   | Hand operated chain hoist (C-CHE3)   | set  | 1        |                         |        |                     |        | 31000                               | 31000        |
| /04   | Hand operated chain hoist (C-CHL1)   | set  | 1        |                         |        |                     |        | 31000                               | 31000        |

| Item No.                                 | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|  |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| /05                                      | Hand operated chain hoist (C-WS1)  | set  | 2        |                         |        |                     |        | 31000                               |             |
| /06                                      | Hand operated chain hoist (G-CHL1)   | set  | 1        |                         |        |                     |        | 31000                               |             |
|  | <b><u>Subtotal of Item C12.8</u></b>   |      |          |                         |        |                     |        |                                     |             |
| <b>C12.9 Pipe work for Elevated Tank</b> |  |      |          |                         |        |                     |        |                                     |             |
| /01                                      | All piping and valves for elevated tank inlet, outlets, overflow, and drain in the chemical building | sum  |          |                         |        |                     |        | 31100                               |             |
|  | <b><u>Subtotal of Item C12.9</u></b>   |      |          |                         |        |                     |        |                                     |             |
|  | <b><u>Total of Item C12</u></b>  |      |          |                         |        |                     |        |                                     |             |

| Item No.     | Description                                      | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|--------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|              |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>C13</b>   | <b>ELECTRICAL FACILITIES</b>                     |      |          |                         |        |                     |        |                                     |             |
| <b>C13.1</b> | <b>Low-Voltage Switchgear</b>                    |      |          |                         |        |                     |        |                                     |             |
| /01          | Low-voltage switchgear (LVS-MAIN)                | set  | 1        |                         |        |                     |        | 40300                               | 40300       |
| /02          | Low-voltage switchgear (LVS-P)                   | set  | 1        |                         |        |                     |        | 40300                               | 40300       |
| /03          | Low-voltage switchgear (LVS-L)                   | set  | 1        |                         |        |                     |        | 40300                               | 40300       |
| /04          | Existing power distribution system removal works | sum  |          |                         |        |                     |        | 40300                               | 40300       |
| /05          | Accessories and spare parts                      | lot  | 1        |                         |        |                     |        | 40300                               | 40300       |
|              | <b><u>Subtotal of Item C13.1</u></b>             |      |          |                         |        |                     |        |                                     |             |
| <b>C13.2</b> | <b>Emergency Generator System</b>                |      |          |                         |        |                     |        |                                     |             |
| /01          | Generator (G-OB)                                 | set  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /02          | Diesel engine (DE-OB)                            | set  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /03          | Generator control panel (GCP-OB)                 | set  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /04          | Battery and charger (B-OB, BC-OB)                | set  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /05          | Fuel system                                      | lot  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /06          | Engine cooling water system                      | lot  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /07          | Silencer and exhaust system                      | lot  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /08          | Existing generator sets removal works            | lot  | 1        |                         |        |                     |        | 40400                               | 40400       |
| /09          | Accessories and spare parts                      | lot  | 1        |                         |        |                     |        | 40400                               | 40400       |
|              | <b><u>Subtotal of Item C13.2</u></b>             |      |          |                         |        |                     |        |                                     |             |

| Item No.                              | Description                     | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|---------------------------------------|---------------------------------|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|                                       |                                 |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |             |
| <b>CI13.3 Motor Control Centres</b>   |                                 |      |          |                         |        |                     |        |                                     |             |
| /01                                   | Motor control centre (MCC-FIL)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /02                                   | Motor control centre (MCC-CHE)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /03                                   | Motor control centre (MCC-CHL)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /04                                   | Motor control centre (MCC-TRP)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /05                                   | Auxiliary relay panel (AUX-FIL) | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /06                                   | Auxiliary relay panel (AUX-CH)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /07                                   | Existing panels removal works   | sum  |          |                         |        |                     |        |                                     | 40500       |
| /08                                   | Spare Parts                     | lot  | 1        |                         |        |                     |        |                                     | 40500       |
| <b><u>Subtotal of Item CI13.3</u></b> |                                 |      |          |                         |        |                     |        |                                     |             |
| <b>CI13.4 Local Control Panels</b>    |                                 |      |          |                         |        |                     |        |                                     |             |
| /01                                   | Local control panel (LCP-RW1)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /02                                   | Local control panel (LCP-RW2)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /03                                   | Local control panel (LCP-FIL1)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /04                                   | Local control panel (LCP-FIL2)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /05                                   | Local control panel (LCP-FIL3)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /06                                   | Local control panel (LCP-FIL4)  | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /07                                   | Local control panel (LCP-AL1)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /08                                   | Local control panel (LCP-AL2)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /09                                   | Local control panel (LCP-LM1)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /10                                   | Local control panel (LCP-LM2)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /11                                   | Local control panel (LCP-LM3)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /12                                   | Local control panel (LCP-LM4)   | set  | 1        |                         |        |                     |        |                                     | 40500       |
| /13                                   | Local control panel (LCP-CHL1)  | set  | 1        |                         |        |                     |        |                                     | 40500       |

| Item No.                               | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|--|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|  |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| /14                                    | Local control panel (LCP-CHL2)                     | set  | 1        |                         |        |                     |        | 40500                               | 40500        |
| /15                                    | Local control panel (LCP-CHL3)                     | set  | 1        |                         |        |                     |        | 40500                               | 40500        |
| /16                                    | Local control panel (LCP-CHL4)                     | set  | 1        |                         |        |                     |        | 40500                               | 40500        |
| /17                                    | Local control panel (LCP-TRP1)                     | set  | 1        |                         |        |                     |        | 40500                               | 40500        |
| /18                                    | Local control panel (LCP-TRP2)                     | set  | 1        |                         |        |                     |        | 40500                               | 40500        |
| /19                                    | Accessories and spare parts                        | lot  | 1        |                         |        |                     |        | 40500                               | 40500        |
| <b><u>Subtotal of Item C13.4</u></b>   |  |      |          |                         |        |                     |        |                                     |              |
| <b>C13.5 Flowmeters</b>                |  |      |          |                         |        |                     |        |                                     |              |
| /01                                    | Raw water flowmeter (Fa-2, Ft, Fm)                 | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /02                                    | Raw water flowmeter (Fa-5, Ft, Fm)                 | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /03                                    | Filtered water flowmeter - 1(Fo-6, Ft, Fm)         | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /04                                    | Filtered water flowmeter - 2(Fa-7, Ft, Fm)         | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /05                                    | Filtered water flowmeter - 3(Fa-8, Ft, Fm)         | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /06                                    | Air scouring flowmeter (Fa-15, Fm FI-15)           | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /07                                    | Backwash water flowmeter (Fo-16, Fm FI-16)         | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /08                                    | Plant water outlet flowmeter (Fq-17)               | set  | 1        |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| /09                                    | Existing equipment removal works                   | sum  |          |                         |        |                     |        | 40600                               | 40600        |
| /10                                    | Spare parts  | lot  |          |                         |        |                     |        | 40600, 40605                        | 40600, 40605 |
| <b><u>Subtotal of Item C13.5</u></b>   |  |      |          |                         |        |                     |        |                                     |              |
| <b>C13.6 Level Meters and Switches</b> |  |      |          |                         |        |                     |        |                                     |              |
| /01                                    | Clear water tank level meters (LTfg-1,2, valves)   | set  | 2        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |
| /02                                    | Lime solution tank level meters (LTfg-3,4, valves) | set  | 2        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |

| Item No.     | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|--------------|--|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|              |  |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| /03          | Alum solution tank level meters (LTtg-5,6, valves)                               | set  | 2        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |
| /04          | Receiving tank level switch (ER-RM)  | set  | 1        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |
| /05          | Filter unit level switches (ER-F1 to 6)  | set  | 6        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |
| /06          | Elevated tank level switches (ER-ELT 1,2)  | set  | 2        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |
| /07          | Filtered water effluent pit level switch (ER-FEP)                                | set  | 1        |                         |        |                     |        | 40600, 40606                        | 40600, 40606 |
| /08          | Spare parts  | lot  | 1        |                         |        |                     |        | 40600, 40611                        | 40600, 40611 |
|              | <b><u>Subtotal of Item C13.6</u></b>   |      |          |                         |        |                     |        |                                     |              |
| <b>C13.7</b> | <b>Chlorine Gas Leakage Meters</b>   |      |          |                         |        |                     |        |                                     |              |
| /01          | Chlorine container room meter (CGD-1,2,C12IA)                                    | set  | 2        |                         |        |                     |        | 40600, 40607                        | 40600, 40607 |
| /02          | Chlorinator room meter (CGD-3, C12IA)  | set  | 1        |                         |        |                     |        | 40600, 40607                        | 40600, 40607 |
| /03          | Spare parts  | lot  | 1        |                         |        |                     |        | 40600, 40607                        | 40600, 40607 |
|              | <b><u>Subtotal of Item C13.7</u></b>   |      |          |                         |        |                     |        |                                     |              |
| <b>C13.8</b> | <b>Panel Mounted Instrumentation Equipment</b>                                   |      |          |                         |        |                     |        |                                     |              |
| /01          | Local control panel mounted equipment  | lot  | 1        |                         |        |                     |        | 40600, 40608                        | 40600, 40608 |
| /02          | Monitor and control panel mounted equipment                                      | lot  | 1        |                         |        |                     |        | 40600, 40608                        | 40600, 40608 |
| /03          | Accessories for all instrumentation and spare parts for panel mounted instrument | lot  | 1        |                         |        |                     |        | 40600, 40608                        | 40600, 40608 |
|              | <b><u>Subtotal of Item C13.8</u></b>   |      |          |                         |        |                     |        |                                     |              |

| Item No.                                  | Description                                 | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause  |
|---|---|------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|--------------|
|   |   |      |          | Unit Price              | Amount | Unit Price          | Amount |                                     |              |
| <b>C13.9 Monitor and Control Panels</b>   |   |      |          |                         |        |                     |        |                                     |              |
| /01                                       | Monitor and control panels (MCP-OB)         | set  | 1        |                         |        |                     |        |                                     | 40700        |
| /02                                       | Spare parts                                 | lot  | 1        |                         |        |                     |        |                                     | 40707        |
| <b><u>Subtotal of Item C13.9</u></b>      |   |      |          |                         |        |                     |        |                                     |              |
| <b>C13.10 Lighting Fixtures (Indoor)</b>  |   |      |          |                         |        |                     |        |                                     |              |
| /01                                       | Lighting panel board (LP-FIL)               | set  | 1        |                         |        |                     |        |                                     | 40800, 40804 |
| /02                                       | Lighting fixture with auxiliary devices     | sum  |          |                         |        |                     |        |                                     | 40800, 40804 |
| /03                                       | Accessory and spare parts                   | lot  | 1        |                         |        |                     |        |                                     | 40800, 40804 |
| <b><u>Subtotal of Item C13.10</u></b>     |   |      |          |                         |        |                     |        |                                     |              |
| <b>C13.11 Lighting Fixtures (Outdoor)</b> |   |      |          |                         |        |                     |        |                                     |              |
| /01                                       | Street lighting fixture (A)                 | set  | 1        |                         |        |                     |        |                                     | 40800, 40804 |
| /02                                       | Street lighting fixture (B)                 | set  | 3        |                         |        |                     |        |                                     | 40800, 40804 |
| /03                                       | Street lighting fixture (C)                 | set  | 4        |                         |        |                     |        |                                     | 40800, 40804 |
| /04                                       | Street lighting fixture (D)                 | set  | 2        |                         |        |                     |        |                                     | 40800, 40804 |
| /05                                       | Poto-switch                                 | nr   | 1        |                         |        |                     |        |                                     | 40800, 40804 |
| /05                                       | Accessories and spare parts                 | lot  | 1        |                         |        |                     |        |                                     | 40800, 40804 |
| <b><u>Subtotal of Item C13.11</u></b>     |   |      |          |                         |        |                     |        |                                     |              |
| <b>C13.12 Intercom System</b>             |   |      |          |                         |        |                     |        |                                     |              |
| /01                                       | Exchange with terminal board and power unit | set  | 1        |                         |        |                     |        |                                     | 40800, 40805 |
| /02                                       | Hand set (G)                                | set  | 8        |                         |        |                     |        |                                     | 40800, 40805 |
| /03                                       | Hand set (H)                                | set  | 15       |                         |        |                     |        |                                     | 40800, 40805 |
| /04                                       | Telephone                                   | set  | 3        |                         |        |                     |        |                                     | 40800, 40805 |



| Item No.                              | Description  | Unit | Quantity | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Ref. Clause  |
|---------------------------------------|--|------|----------|-------------------------|--------|---------------------|--------|--------------|
|                                       |  |      |          | Unit Price              | Amount | Unit Price          | Amount |              |
| /05                                   | Terminal boards TB-CHE, CHL, WS1, CWR<br>OW,DH, WS2, SH, FIL, PS | set  | 10       |                         |        |                     |        | 40800, 40806 |
| /06                                   | Existing radio telephony system<br>re-installation works         | sum  |          |                         |        |                     |        | 40800        |
| /07                                   | Spare parts  | lot  | 1        |                         |        |                     |        | 40800, 40809 |
| <b><u>Subtotal of Item C13.12</u></b> |  |      |          |                         |        |                     |        |              |
| <b>C13.13 Public Address System</b>   |  |      |          |                         |        |                     |        |              |
| /01                                   | Power amplifier  | set  | 1        |                         |        |                     |        | 40800, 40806 |
| /02                                   | Paging microphone  | set  | 1        |                         |        |                     |        | 40800, 40806 |
| /03                                   | Speaker (3W)   | set  | 11       |                         |        |                     |        | 40800, 40806 |
| /04                                   | Speaker (10W)  | set  | 3        |                         |        |                     |        | 40800, 40806 |
| /05                                   | Spare parts  | lot  | 1        |                         |        |                     |        | 40800, 40806 |
| <b><u>Subtotal of Item C13.13</u></b> |  |      |          |                         |        |                     |        |              |
| <b>C13.14 Wiring System</b>           |  |      |          |                         |        |                     |        |              |
| /01                                   | Power receiving system   | sum  |          |                         |        |                     |        | 40900        |
| /02                                   | Cable wiring system  | sum  |          |                         |        |                     |        | 40900        |
| /03                                   | Conduit system   | sum  |          |                         |        |                     |        | 40900        |
| /04                                   | Electrical flexible conduit, manhole and<br>handhole system      | sum  |          |                         |        |                     |        | 40900        |
| /05                                   | Cable racks, duct and pit system                                 | sum  |          |                         |        |                     |        | 40900        |
| /06                                   | Spare materials  | lot  | 1        |                         |        |                     |        | 40900, 40906 |
| <b><u>Subtotal of Item C13.14</u></b> |  |      |          |                         |        |                     |        |              |

| Item No. | Description | Unit Quantity |          | Foreign Currency (US\$) |        | Local Currency (Rs) |        | Total Equivalent (Rs) or Sub-clause | Ref. Clause |
|----------|-------------|---------------|----------|-------------------------|--------|---------------------|--------|-------------------------------------|-------------|
|          |             | Unit          | Quantity | Unit Price              | Amount | Unit Price          | Amount |                                     |             |

Total of Item C13

TOTAL OF ITEM C

## **SCHEDULE OF PARTICULARS**

## SCHEDULE OF PARTICULARS

|             |   |
|-------------|---|
| SCHEDULE 1  | CASH FLOW TABULATION  |
| SCHEDULE 2  | LABOUR FLOW TABULATION, INCLUDING ESTIMATE OF MAURITIAN LABOUR EMPLOYMENT |
| SCHEDULE 3  | MATERIALS FLOW TABULATION   |
| SCHEDULE 4  | FIELD PERSONNEL   |
| SCHEDULE 5  | LIST OF SUB-CONTRACTOR(S)   |
| SCHEDULE 6  | DAYWORK   |
| SCHEDULE 7  | BREAKDOWN OF PRICES   |
| SCHEDULE 8  | CONSTRUCTION TIME SCHEDULE  |
| SCHEDULE 9  | DRAWINGS AND DOCUMENTS SUBMITTED WITH TENDER                              |
| SCHEDULE 10 | INFORMATION ON QUALIFICATION FOR SUPPLY OF PIPES AND EQUIPMENT            |

**SCHEDULE OF PARTICULARS**  
**SCHEDULE I - CASH FLOW TABULATION**

Tenderer shall break up Tender Price based on his Construction Time Schedule attached to the Tender (Schedule 9) and fill up his estimated monthly cash flow in this form in accordance with Clause 60 of the Conditions of Contract. Month herein stated shall be so calculated that the first month is the month after the month in which the PMO/Engineer's Order to Commence is issued.

| Month             | (1) Progress Payment       |                            | (2) Advance Payment        |                            | (3) Retention Money<br>(1)+(2)+(3) |                            | (4) Payment to be Made     |                            | (5) Accumulative Payment   |                            |
|-------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
|                   | Foreign<br>Currency<br>( ) | Local<br>Currency<br>(Rs.) | Foreign<br>Currency<br>( ) | Local<br>Currency<br>(Rs.) | Foreign<br>Currency<br>( )         | Local<br>Currency<br>(Rs.) | Foreign<br>Currency<br>( ) | Local<br>Currency<br>(Rs.) | Foreign<br>Currency<br>( ) | Local<br>Currency<br>(Rs.) |
| Order to Commence |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| 1st               |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| 2nd               |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| 3rd               |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| .                 |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| .                 |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| * 24th            |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| .                 |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| .                 |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| ** 30th           |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |
| Total             |                            |                            |                            |                            |                                    |                            |                            |                            |                            |                            |

Remarks: \* Scheduled time for completion of the Construction  
 \*\* Scheduled time for expiration of the Defects Liability Period

SCHEDULE OF PARTICULARS

SCHEDULE 2 - LABOUR FLOW TABULATION, INCLUDING ESTIMATE OF MAURITIAN LABOUR EMPLOYMENT

Tenderer shall fill up his monthly estimated labour by trades and separately for foreign and local labours, based on the Construction Time Schedule attached to the Tender (Schedule 9) in this form. Month herein stated shall be so calculated that the first month is the month after the month in which the PMO/Engineer's Order to Commence is issued.

| Month             | Foremen | Heavy Equipment Operators | Concrete Workers | Mechanics, Electricians & Fitters | Carpenters | Unskilled Labours & Helpers | Others | Total |
|-------------------|---------|---------------------------|------------------|-----------------------------------|------------|-----------------------------|--------|-------|
| Order to Commence |         |                           |                  |                                   |            |                             |        |       |
| 1st               |         |                           |                  |                                   |            |                             |        |       |
| 2nd               |         |                           |                  |                                   |            |                             |        |       |
| 3rd               |         |                           |                  |                                   |            |                             |        |       |
| 4th               |         |                           |                  |                                   |            |                             |        |       |
| 5th               |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| * 24th            |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| .                 |         |                           |                  |                                   |            |                             |        |       |
| ** 30th           |         |                           |                  |                                   |            |                             |        |       |
| Total             |         |                           |                  |                                   |            |                             |        |       |

Note: Each column shall contain figures indicating Mauritian labour + foreign labour = total labour (Ex: 3+1 = 4)  
 \* Scheduled time for completion of the Construction  
 \*\* Scheduled time for expiration of the Defects Liability

**SCHEDULES OF PARTICULARS**

**SCHEDULE 3 – MATERIALS FLOW TABULATION**

Tenderer shall fill up in this form the estimated unit price, country of origin and monthly estimated quantity of the construction materials required for the Works based on the Construction Time Schedule to the Tender (Schedule 9). Month herein stated shall be so calculated that the first month is the month after the month in which the PMO/Engineer's Order to Commence is issued.

| Month             | Cement | Reinforcing bars | Structural steel | Timber | Plywood | Diesel oil | Aggregates |
|-------------------|--------|------------------|------------------|--------|---------|------------|------------|
| Commencement      |        |                  |                  |        |         |            |            |
| 1                 |        |                  |                  |        |         |            |            |
| 2                 |        |                  |                  |        |         |            |            |
| 3                 |        |                  |                  |        |         |            |            |
| 4                 |        |                  |                  |        |         |            |            |
| 5                 |        |                  |                  |        |         |            |            |
| 6                 |        |                  |                  |        |         |            |            |
| .                 |        |                  |                  |        |         |            |            |
| .                 |        |                  |                  |        |         |            |            |
| .                 |        |                  |                  |        |         |            |            |
| Completion        |        |                  |                  |        |         |            |            |
| Total Q'ty        |        |                  |                  |        |         |            |            |
| Unit              |        |                  |                  |        |         |            |            |
| Unit Price        |        |                  |                  |        |         |            |            |
| Amount            |        |                  |                  |        |         |            |            |
| Country of Origin |        |                  |                  |        |         |            |            |

SCHEDULE OF PARTICULARS

SCHEDULE 4 - FIELD PERSONNEL

1. We undertake to provide and employ for the duration of the Contract a project manager, an assistant project manager (if any) and \_\_\_\_\_ (number of persons) senior site staff whose professional experience is more than 15 years. In addition to such senior staff, we also undertake to provide and employ \_\_\_\_\_ (number of persons) civil engineer(s), \_\_\_\_\_ (number of persons) electrical/mechanical engineer(s), \_\_\_\_\_ (number of persons) treatment plant engineer(s), \_\_\_\_\_ (number of persons) hydrochemist(s), \_\_\_\_\_ (number of persons) architectural engineer(s) and \_\_\_\_\_ (number of persons) engineer(s) qualified for other engineering work as required by the Construction Time Schedule (SCHEDULE 9). Professional records of our site staff to be engaged in the works are attached.
  
2. \_\_\_\_\_ (name of project manager) has a broad experience in the field of treatment works and pipeline projects similar to or larger than this Project and is capable of managing the Works in all respects to meet the requirements of the Contract. He will stay at the site full time throughout the period of the Contract, being supported by at least Mr. \_\_\_\_\_, Mr. \_\_\_\_\_, Mr. \_\_\_\_\_, Mr. \_\_\_\_\_, Mr. \_\_\_\_\_, Mr. \_\_\_\_\_, (name of senior site staff).



PROFESSIONAL RECORDS OF FIELD PERSONNEL

(Separately for each person mentioned in Para 1)

1. Name : .....
2. Date of birth : .....
3. Nationality : .....
4. Education and degrees : .....
5. Specialty : .....
6. Registration : .....
7. Position on construction: .....
8. Length of service with Tenderer : ....Years: from.....(Month)  
: ...(Year) to.....(Month)....(Year)
9. Years of experience : .....
10. If he has worked in other firms than the Tenderer, give names and length of service with previous employers:

| Name of Employer | Length of Service             |
|------------------|-------------------------------|
| .....            | ..... Years from .... to .... |
| .....            | ..... Years from .... to .... |

11. Construction experience:  
(This should cover the past 15-year experience. Use as many pages as necessary.)
  - (1) Name of project : .....
  - (2) Name and address of owner : .....

SCHEDULE 4

- (3) Name and address of the Engineer (Consultant) for supervision : .....
  
- (4) Indicate features : .....  
of project .....  
(Capacity treat- .....  
ment works, .....  
pipelines and any .....  
other particular .....  
interest connected .....  
with the project)
  
- (5) Contract amount (equivalent in U.S.\$) : .....
  
- (6) Position : .....
  
- (7) Facilities for which the person was responsible : .....
  
- (8) Assignment period : from .....(Month).....(Year)  
: to .....(Month).....(Year)

SCHEDULES OF PARTICULARS  
SCHEDULE 5 – LIST OF SUB-CONTRACTOR(S)

1. We understand that the Contract or any part thereof, or any benefit or interest therein or thereunder, shall not be assigned without the prior written consent of the Employer, and the whole of the Works shall not be sub-let except the parts for which the written consent of the PMO/Engineer was obtained in accordance with Clauses 3 and 4 of the Conditions of Contract.
2. We also understand that such consent if given by the PMO/Engineer shall not relieve us from any liability or obligation under the Contract and we shall be fully responsible for the acts, defaults or neglect of any Sub-Contractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglect of ours, our agents, servants or workmen. Upon receipt of the written notice from the PMO/Engineer requiring to terminate any sub-contract for the reasons stated therein, we undertake to dismiss the said Sub-Contractor immediately from the Site and to execute the said part of the works by our own force.
3. With the above understanding, we undertake to employ the Sub-Contractor(s) listed hereto and for the work item(s) proposed therein, and confirm that our prices tendered remain the same whether the Employer/the PMO/Engineer gives a consent or not to their employment. We understand that the Employer/the PMO/Engineer may not give consent to the employment of Sub-Contractor(s) if no intention therefor is declared herein or if the Sub-Contractor(s) listed herein is changed on our account.

LIST OF SUB-CONTRACTOR(S)

1. Name of Sub-Contractor \_\_\_\_\_

2. Postal Address \_\_\_\_\_

\_\_\_\_\_

3. Country of registration \_\_\_\_\_

4. Construction experience

(a) Area of Specialization(s) \_\_\_\_\_

(b) Experience on similar works previously executed (use format shown below and attach hereto:

| Description of Works | Value of Work<br>(Equivalent in U.S.\$10 <sup>3</sup> ) | Period of Time | Name & Address of Employer | Type of Contract |
|----------------------|---|----------------|----------------------------|------------------|
|                      |   |                |                            |                  |
|                      |   |                |                            |                  |
|                      |   |                |                            |                  |
|                      |   |                |                            |                  |
|                      |   |                |                            |                  |

5. Proposed work to be executed by the Sub-Contractor under the Contract.

B/Q Item No.    Works    Estimated Value (Equivalent in U.S.\$)

\_\_\_\_\_

6. Documentary evidence of intent on Sub-Contract(s) exchanged between us and Sub-Contractor is attached hereto.

SCHEDULE OF PARTICULARS  
SCHEDULE 6 - DAYWORK

## 1. General

This Schedule is provided for the valuation of work which may be executed on Daywork basis pursuant to Clause 52(4) of the Conditions of Contract. No work shall be carried out as Daywork except on the written order of the PMO/Engineer.

For the purpose of evaluating the Tenders, the rates and prices together with the percentages quoted by the Tenderer in this Schedule of Rates and Prices shall be applied. The rates and prices shall be the same as shown in the breakdown analysis of unit prices and lump sum prices in the Bill of Quantities. Unless the PMO/Engineer shall specifically agree to the contrary, the Contractor shall not be entitled to any payment in respect of any items of labour and materials/fuel employed or used on Daywork, for which rates or prices are not included in this Schedule of Rates and Prices.

If the PMO/Engineer deems it is necessary to use a certain item of labour, material/fuel for Daywork which has not been specified in the attached Schedules, the price for such item shall be negotiated between the PMO/Engineer and the Contractor, however, in the event of a disagreement, the PMO/Engineer shall fix a price that shall in his opinion be reasonable and proper in accordance with Clause 52 of the Conditions of Contract.

## 2. Labour

The Contractor shall be entitled to the following payments in respect of labour employed on Daywork.

- (1) The aggregate amount of wages for such labour calculated on the actual hours and at the wage rates set out for the Daywork Rates for Labour attached hereto.
- (2) (in words) \_\_\_\_\_ percent of the aggregate amount of wages calculated as set out in sub-clause 2 (1) above, to cover the Contractor's overhead charges and profit.

The Daywork Rates for Labour set out herein shall be deemed to be based on eight (8) hours of normal working hour per day. The Contractor shall carry out all works ordered

by the PMO/Engineer as the Daywork within normal working hours, unless the PMO/Engineer has given written approval for overtime work to be carried out under the Daywork basis. If the PMO/Engineer shall have given such written approval, the Contractor shall be paid for such overtime in the same proportion as it is properly paid to the labour. Wage rates for overtime hours shall be increased in proportion to the quoted in "Daywork Rates for Labour" attached hereto.

The percentage addition provided for in sub-clause 2(2) above shall cover: the Contractor's profit, overhead charges in the Site and the Contractor's head office superintendence and insurances; all allowances to labour for time keeping and other clerical and office work; the use, repair and sharpening of tools; the use of consumables, stores and electrical power; the use and repair of stagings; the use of non-mechanical plant and scaffolding; the use of water, lighting and appliances of all descriptions; supervision by the Contractor's staff, foremen and walking gangers (other than gangers or charge hands working with the gang); and all other incidental charges whatsoever.

Since the percentage addition for overhead and profit is provided, no Daywork payment shall be made for the Contractor's and his Sub-Contractor's supervisory and support staff. Supervisory and support staff are considered to consist of the following type of personnel:

- (1) Management.
- (2) All types of office personnel including accounting, secretarial, safety, medical, security, etc.
- (3) Supervisors through and including the Foreman level as mentioned above.
- (4) General support such as engineering, supply, maintenance, car/bus drivers, etc.

### 3. Materials

The Contractor shall be entitled to the following payments in respect of specified materials and fuel listed in the Daywork Rates for Materials hereof which are used for the Daywork provided they are actually incorporated in the Works:

- (1) The net cost of such materials and fuel delivered to warehouse or stockpile at the Site. Such cost means the invoice price and freight,

insurance less discount plus delivery charges to warehouse or stockpile at the Site.

- (2) (in words) \_\_\_\_\_ per cent of such net material and fuel cost to cover the Contractor's overhead charges on and off the Site, and profit.

The prices quoted in the Daywork Rates for Materials hereof shall include the transportation cost of materials and fuel to the Site. The cost of hauling any material or fuel used for the Daywork from a warehouse or storage area to the place where it is to be used will be paid for at the appropriate Daywork rates for labour (handling).

4. All the Daywork rates for the local currency portion inserted by the Tenderer shall be subject to adjustment in accordance with the provisions of Clause 70 of the Conditions of Contract.

## DAYWORK RATES FOR LABOUR

(1 of 3)

---

| Class of Labour                      | Daily Wages Rate<br>(per 8-hour day)<br>(Rs.) |
|--------------------------------------|---|
| Mechanics (upto 10 years experience) |   |
| Mechanics (over 10 years experience) |   |
| Electricians (wire men)              |   |
| Electricians (skilled)               |   |
| Fitters                              |   |
| Masons                               |   |
| Brick layers                         |   |
| Carpenters                           |   |
| Plasterers                           |   |
| Welders                              |   |
| Pipe-fitters                         |   |
| Blacksmiths                          |   |
| Steel benders                        |   |
| Fixers                               |   |
| Plumber                              |   |
| Painters                             |   |
| Concrete finisher                    |   |
| Greasers                             |   |
| Oilers                               |   |
| Trackmen                             |   |
| Concrete worker                      |   |
| Helpers for all class of labour      |   |
| Unskilled labourers                  |   |

---



SCHEDULE 6

(2 of 3)

| Class of Labour  | Daily Wages Rate<br>(per 8-hour day)<br>(Rs.) |
|--|---|
| Operator of crane, excavator, backhoe bulldozers<br>vehicles<br>concrete<br>overhead loader, air compressors,<br>powerwinches and other equipment* |   |
| Operator of cranes larger than 5-ton<br>capacity, excavators larger than<br>0.3 m <sup>3</sup> and similar equipment                               |   |
| Foremen and Gangers including labour gangers,<br>carpenters or masons leading hands  |   |
| For Night shift  | Rate x (1 + ___)                              |
| For Holiday shift  | Rate x (1 + ___)                              |
| For Night shift of Holiday   | Rate x (1 + ___)                              |

Remark: \* Tenderers shall state the rates by type and capacity of each equipment which Tenderers proposes to use for execution of the works in SCHEDULE 9, whether the equipment is included in the Temporary Works.

SCHEDULE 6

(3 of 3)

---

| Class of Labour | Daily Wages Rate<br>(per 8-hour day)<br>(Rs.) |
|-----------------|---|
|-----------------|---|

---

Insert additional categories of  
labour to be provided for Daywork:

## DAYWORK RATES FOR MATERIALS

(1 of 3)

| Item of Material   | Unit           | Rate Delivered<br>to Store at Site |                               |
|--|----------------|------------------------------------|-------------------------------|
|  |                | Local<br>Currency<br>(Rs.)         | Foreign<br>Currency<br>(US\$) |
| Cement, ordinary Portland                                    | ton            |                                    |                               |
| Fine aggregate for concrete<br>(river sand less than 5 mm)   | m <sup>3</sup> |                                    |                               |
| Fine aggregate for concrete<br>(crushed sand less than 5 mm) | m <sup>3</sup> |                                    |                               |
| 40 to 80 mm screened aggregate<br>for concrete and road work | m <sup>3</sup> |                                    |                               |
| 20 to 40 mm screened aggregate<br>for concrete and road work | m <sup>3</sup> |                                    |                               |
| 10 to 20 mm screened aggregate<br>for concrete and road work | m <sup>3</sup> |                                    |                               |
| 5 to 10 mm screened aggregate<br>for concrete and road work  | m <sup>3</sup> |                                    |                               |
| Unprocessed river sand and gravel                            | m <sup>3</sup> |                                    |                               |
| Cobble stone   | m <sup>3</sup> |                                    |                               |
| Rubble stone for masonry                                     | m <sup>3</sup> |                                    |                               |
| Reinforcing bar (deformed)<br>-28 mm and below               | ton            |                                    |                               |
| Structural steel   | ton            |                                    |                               |

## SCHEDULE 6

(2 of 3)

| Item of Material            | Unit           | Rate Delivered<br>to Store at Site |                               |
|-----------------------------|----------------|------------------------------------|-------------------------------|
|                             |                | Local<br>Currency<br>(Rs.)         | Foreign<br>Currency<br>(US\$) |
| Timber—primary hardwood     | m <sup>3</sup> |                                    |                               |
| Timber—secondary hardwood   | m <sup>3</sup> |                                    |                               |
| Plywood – 120 x 240 x 6 mm  | panel          |                                    |                               |
| Plywood – 120 x 240 x 13 mm | panel          |                                    |                               |
| Plywood – 120 x 240 x 19 mm | panel          |                                    |                               |
| Diesel oil                  | liter          |                                    |                               |
| Gasoline                    | liter          |                                    |                               |
| Engine oil                  | liter          |                                    |                               |
| Lubricants                  | kg             |                                    |                               |

SCHEDULE 6

(3 of 3)

---

| Item of Material | Unit | Rate Delivered<br>to Store at Site |                               |
|------------------|------|------------------------------------|-------------------------------|
|                  |      | Local<br>Currency<br>(Rs.)         | Foreign<br>Currency<br>(US\$) |

---

Insert below additional materials  
to be included for Daywork:

SCHEDULE OF PARTICULARS

SCHEDULE 7 – BREAKDOWN OF PRICES

- Breakdown of Unit and Lump Sum Prices of  
Major Civil works

SCHEDULE OF PARTICULARS

SCHEDULE 7 – BREAKDOWN OF UNIT AND LUMP SUM PRICES OF

MAJOR CIVIL WORKS

1. Tenderer shall submit the breakdown of unit and lump sum prices for the following items to show a representative composition of prices for each type of works.

| Type of Work | Item No. in Bill of Quantities |
|--------------|--------------------------------|
|--------------|--------------------------------|

(1) General items

(2) Raw water transmission pipeline

- Intake chamber
- Pipe laying work
- River crossing

(3) Treatment works

- Earthwork
- Concrete works
- Retaining walls works

Tenderer may be required by the PMO/Engineer to submit to him the breakdown of other unit and lump sum prices than the above. In such case the Tenderer shall submit to the PMO/Engineer the same without delay which shall also become a part of the Contract.

BREAKDOWN OF UNIT AND LUMP SUM PRICES OF MAJOR CIVIL WORKS

Item No. \_\_\_\_\_ (in the Bill of Quantities)

Work: \_\_\_\_\_  
 \_\_\_\_\_

Unit Price                      Foreign Currency                      Local Currency  
 or  
 Lump Sum (US\$ or Rs.) \_\_\_\_\_ / \_\_\_\_\_                      Rs \_\_\_\_\_ / \_\_\_\_\_

| Descriptions | Unit | Q'ty | Foreign Currency  | Local Currency    |
|--------------|------|------|-------------------|-------------------|
|              |      |      | Unit Price Amount | Unit Price Amount |

I. Direct Cost

- For unit prices, show breakdowns by
  - (1) labour (by grade),
  - (2) Material (by item)
  - and (3) Equipment (by type)
- For lump sum prices, the Tenderer shall show breakdowns under appropriate items selected by him.

II. Indirect Cost

---

TOTAL

---



SCHEDULE OF PARTICULARS

SCHEDULE 8 - CONSTRUCTION TIME SCHEDULE

Tenderer shall establish the Construction Time Schedule for Lot III Works as to meet the requirements specified in Clause 301 the General Specifications using the attached sheet. The Construction Time Schedule so established shall comply with his construction method and sequence of Works proposed in SCHEDULE 9 in all respects and show the key dates when the Works are to be commenced and completed therein.

| WORK ITEM  | 2      | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 |
|--|--------|---|---|---|----|----|----|----|----|----|----|----|----|
|  | MONTHS |   |   |   |    |    |    |    |    |    |    |    |    |
| <b>1. PREPARATORY WORKS</b>  |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (1) Mobilization   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (2) Construction facilities  |        |   |   |   |    |    |    |    |    |    |    |    |    |
| <b>2. RAW WATER PIPELINE</b>   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (1) Manufacturing and delivering pipes and fittings  |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (2) Intake chamber   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (3) Pipelaying works   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| <b>3. TREATMENT FACILITIES</b>   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (1) Manufacturing and delivering pipes, fittings, valves and mechanical/electrical equipment |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (2) Receiving tank   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (3) Rapid mixing, sedimentation tanks and filter   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (4) Wastewater and sludge ponds  |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (5) Yard piping and wastewater drain pipeline  |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (6) Sitework   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (7) Building works   |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (8) Mechanical and Electrical works  |        |   |   |   |    |    |    |    |    |    |    |    |    |
| (9) Test operation   |        |   |   |   |    |    |    |    |    |    |    |    |    |

SCHEDULE OF PARTICULARS

SCHEDULE 9 - DRAWINGS AND DOCUMENTS SUBMITTED WITH TENDER

Tenderers shall submit with his Tender the following information,

9.1 Construction Method and Sequence of Works

- (1) Transmission pipelaying work
- (2) Illustrations and/or descriptions of typical works for excavation works including plan of spoil banks and concrete works in major structures.
- (3) Cycle time of excavation work and concrete works of major structures.
- (4) Major equipment to be used for each major work.
- (5) Detailed construction time schedule of major structures.

9.2 Organization Chart

- (1) Diagram of organization divided into such sections as control, administration, engineering, construction, etc.
- (2) Name of supervisory staff and their grades together with data sheets showing their nationalities, qualifications, experience, proficiency in English language and proposed positions in the Works.
- (3) A bar-chart schedule showing assignment period of key staff.

9.3 Layout Plans of Temporary Works

- (1) Layout of office, quarters, workshops, warehouse, motor pool and other necessary facilities in the Construction Facilities Area.
  - Plan of temporary buildings including location, names, quantities, type of construction, floor areas, accommodation capacity, etc.
  - Approximate area of land for each facility.
- (2) Layout of water supply system.
  - Plan of water supply system including purposes, supply capacity, source of water, etc.
- (3) Layout of electric power supply system.
  - Plan of electric power supply system including schematic diagrams, branch distribution lines, step-down facilities, emergency generating units, etc.
  - Monthly consumption schedule of electric power.
- (4) Layout of telecommunication system.
  - Plan of telecommunication system including schematic diagrams, telephone system lines, specifications of radio system and emergency units, etc.

## SCHEDULE 9

- (5) Plan of medical services.
  - Plan of first aid clinic excluding location and type of building, floor area, equipments, etc.
  - Proposed qualifications for the doctor, including years of service, specialty, etc.
- (6) Layout of other temporary facilities.
  - Descriptions, drawings, specifications, conditions, schedule or other items necessary to clarify the other temporary facilities proposed shall be covered.
- (7) Construction time schedule of the Temporary Works.

SCHEDULES OF PARTICULARS

SCHEDULE 10—INFORMATION ON QUALIFICATION FOR SUPPLY  
OF PIPES AND EQUIPMENT

(Ref. to Clause IT. 19 of Instruction to Tenderers)

Tenderers shall submit with his tender the following information :

**10.1 Schedule of Suppliers**

Ductile Iron Pipes and Fittings, Steel Pipes and Fittings, Sluice and Butterfly Valves and Gates, Pumps for Plant Water, Flush water and Boosting, Air-Blowers, Alum and Lime Solution Mixers, Alum and Lime Dosing Pumps, Chlorinators and Chlorine Gas Containers, Weighing Scales, Emergency Generator, Laboratory Equipment etc. Attach all technical literature for the Engineer to assess that the proposed equipment/materials conform to the Specifications.

---

| Name of Supplier *1) | Equipment/Material to be supplied | Remarks |
|----------------------|-----------------------------------|---------|
|----------------------|-----------------------------------|---------|

---

| Name of Supplier *1) | Equipment/Material to be Supplied | Remarks |
|----------------------|-----------------------------------|---------|
|----------------------|-----------------------------------|---------|

Note : \*1) is required to attach the Brochure of Manufacturer.

We hereby certify that the information above is correct and to the best of our knowledge. We understand that the Sub-Contractor(s) listed is (are) experienced in the sub-contract works concerned.

**FOR AND ON BEHALF OF**  
(Tenderer's Name)

.....

.....

(The Representative)

.....

(Position)



JICA