

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 II : CIVIL WORKS (DAM AND APPURTENANT STRUCTURES
INCLUDING CLOSURES OF DIVERSION TUNNEL)

VOLUME III

FORM OF TENDER
BILL OF QUANTITIES
SCHEDULE OF PARTICULARS

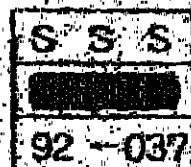
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MARCH 1992

JAPAN INTERNATIONAL COOPERATION AGENCY



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THE PORT LOUIS WATER SUPPLY PROJECT IN MAURITIUS

FINAL REPORT (2)

TENDER DOCUMENTS
FOR LOT II VOLUME III

MARCH 92

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FORM OF TENDER
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SCHEDULE OF PARTICULARS

MARCH 1992

JAPAN INTERNATIONAL COOPERATION AGENCY



1172440[8]

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 Civil Engineering Construction Works of Dam and Appurtenant Structures including Closure of Diversion Tunnel (Lot II) 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 Japanese Yen or U.S. Dollars (in words) _____ (J.¥ or 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 thirty four (34) months calculated from the date when the PMO/Engineer's Order to Commerce 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 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

Address

Occupation

APPENDIX TO THE TENDER

	<u>Clause No. of Conditions of Contract</u>	
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 Thirty five million (Rs.35,000,000) (any one incident but number of incidents unlimited)
Amount of Insurance of Works during Period of Maintenance	21	One hundred (100) per cent of the Contract Price
Period for the commencement, from the Engineer's Order to Commence	41	Within thirty (30) days
Period for Completion of Separable Portions of the Works	43	As detailed in Clause G3.1 of the General Specifications. In addition, provision in Clause 8 of the Conditions of Contract shall be applied separately.
Amount of Liquidated Damages	47 (1)	As detailed in Clause G3.2 of the General Specifications
Limit of Liquidated Damages	47 (4)	Ten (10) per cent of the Contract Price
Period of Maintenance	49 (1)	Half (0.5) year after the date of Certificate of Completion
Percentage for Adjustment of Provisional Sums	59 (4) (c)	To be filled in by Tenderer: - per cent for works by nominated Sub-contractor (Ref. Clause 58 (2) (b) of Conditions of Contract) - per cent for supply of goods and materials by the Contractor (Ref. Clause 58 (2) (c) of Conditions of Contract)
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
Percentage of Minimum amount of Interim Certificate	60 (3)	One and a half (1.5) per cent of the Contract Price
Time within which payment to be made after certificate	60 (6)	Sixty (60) days, unless otherwise specially described

BILL OF QUANTITIES

SUMMARY OF BILL OF QUANTITIES

Division No.	Description	Foreign Currency Portion ()	Local Currency Portion (Rs.)	Total Equivalent Price ()
A.	GENERAL			
B.	COFFERDAMS			
C.	MAIN DAM			
D.	SPILLWAY			
E.	INTAKE			
F.	RIVER OUTLET WORKS			
G.	HYDRO-MECHANICAL WORKS			
H.	ELECTRICAL WORKS			
I.	BUILDING WORKS			
J.	REPAIR FOR EXISTING MUNICIPAL DIKE			
TOTAL				

Signature of Tenderer : _____

For and on behalf of : _____

Date : _____

BILL OF QUANTITIES

PREAMBLE

1. The Bill of Quantities shall be read in conjunction with such Contract Documents, but not limited to, as the Conditions of Contract, the General Specifications, the Technical Specifications, the Instructions to Tenderers and the Drawings. The Tenderer shall be deemed to have acquainted himself with the detailed description of the Works to be done and the way in which the Works shall be carried out and the requirements and standards of the finished works.

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:
 - (a) 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.

 - (b) Wherever classification of work has to be based on judgement, decision of the PMO/Engineer shall be final and finding.

 - (c) 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.

 - (d) 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. Payment against all lump sum items will be made periodically, except where otherwise specified, to the extent that, in the opinion of the PMO/Engineer's Representative, the relevant services have been provided during the period.

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 either in Japanese Yen (J.¥.) or 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 Japanese Yen or U.S. Dollar and Mauritian Rupees.

For the purpose of comparing the Tenders, the Amount in equivalent Japanese Yen (J.¥.) or U.S. Dollar (U.S.\$) will be valued by the Employer based on selling exchange rates which will be published by the Bank of Mauritius, for conversion from Japanese Yen or U.S. Dollars to Mauritian Rupees on the date as specified in Clause IT.22 of the Instructions to Tenderers.

5. If there is any discrepancy between the Unit Price and the Amount entered for any pay item in the Bill of Quantities, the Unit Price will be taken as correct.
6. Each item of the Bill of Quantities shall be presumed to have corresponding price quoted thereto. In case the Contractor has failed to enter a price or rate, it shall be deemed to be covered by price or rate quoted for other Pay Items and no Payment made for such omitted items. For cost items to which no specific Pay Items are provided in the Bill of Quantities, the cost thereof shall be deemed to be distributed among the rates and prices for the related Pay Items of the Works.
7. The expression of each item of work in this Bill of Quantities shall be deemed to convey only an abstract idea of the work, which consists many kinds of acts as detailed in the relevant Sections and Clauses of the Conditions of Contract, Specifications and Drawings.
8. The application of all of rates entered into the Bill of Quantities is not obligatory for the Employer who has a right to omit any work or rate which, in his judgement, is not necessary to complete the Works.
9. Any additional labour, transport or material required to make good faulty work or which is used in repair or maintenance shall be at the expense of the Contractor and will not be taken into account when determining the sum to be paid for each item or Section of the Works.

10. If during the execution of the Works any item of the Construction Plant is in the opinion of the PMO/Engineer found to be unsuitable or to be out of repair, thus failing to perform the services required in the execution of the Works, the Contractor shall replace such Construction Plant with a suitable one at his own cost and until the replacement has been satisfactorily made the Employer may withhold from subsequent payment a sum representing such portion of the monies as the PMO/Engineer shall certify to be reasonable. No claims will be entertained in such cases.

11. The amount allowed under Provisional Sums shall be expended in whole or in part or not at all as the PMO/Engineer may direct. Where work to which a Provisional Sum relates has been ordered by the PMO/Engineer and has been executed by the Contractor the work as executed will be valued in accordance with Clause 58 of the Conditions of Contract.

In the Bill of Quantities, the amounts of Provisional Sum are tentatively indicated in U.S.\$ and Rs. Tender evaluation would however be based on a corrected exchange rate according to Article 4 hereof.

12. All payments made through progress payment certificate are deemed as provisional payments, and the Employer has the power to reduce paid amount in proceeding payment certificates whensoever any defect is found in or on the said work or any overpayment is found to have been made or to replace the payment from one item to another item if such rearrangement is judged as necessary.

The final payment certificate which is provided after the issuance of Certificate of Completion is solely deemed as correct and definitive certificate in quantities and amounts to each item of work and whole of the Works.

13. Further details of the unit and lump sum prices in the Bill of Quantities shall be submitted upon request of the PMO/Engineer. Such details shall comply with the Form attached to SCHEDULE 8 in the Tender.

14. Numbers of the Pay Items of the Bill of Quantities do not always correspond to numbers of Sections or Clauses of the Specifications. The Pay Items in each Section of the Bill of Quantities shall be read in conjunction with the Measurement and Payment Clauses in the relevant Sections of the Specifications.

15. The following abbreviations have been used in the Bill of Quantities:

m³ Cubic meter

m ²	.....	Square meter
m	.....	Linear meter
kg	.....	Kilogram
no.	.....	Number
pcs.	.....	Pieces
ea	.....	Each
L.S.	.....	Lump Sum

16. The Tenderer is not required to fill in column of "Total Equivalent Price" and appeared in the form of the Bill of Quantities.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
A GENERAL									
/01	Cost for Insurance of Works	L.S.							G6.2
/02	Cost for Third Party Insurance	L.S.							G6.2
/03	Supply, installation, operation and subsequent removal of temporary water supply facility	L.S.							G5.3
/04	Supply, installation, operation and subsequent removal of temporary electric power supply	L.S.							G5.3
/05	Supply, installation, operation and subsequent removal of temporary telecommunication system	L.S.							G5.3
/06	Waste water treatment and sewerage system	L.S.							G5.3
/07	Boreholes and exploratory excavations	Provisional sum							G6.4
/08	Supply, installation, operation and subsequent removal of soil testing equipment	L.S.							G5.4
/09	Operation and maintenance of medical facilities	month	34						G5.2
TOTAL OF ITEMS									

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foregin Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
B COFFERDAMS									
B1	Maintenance and River Diversion								
/01	Maintenance and closure of the diversion tunnel gate	LS.							T1.4.2
<u>Subtotal of item B1</u>									

Note: The Tenderer shall fill in J₹ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
B2 Earthwork									
/01	Open-cut excavation, common	m3	38,300						T2.4.6
/02	Open-cut excavation, weathered rock	m3	7,700						T2.4.6
/03	Open-cut excavation, rock	m3	2,000						T2.4.6
/04	Excavation of sand and gravel	m3	750						T2.4.6
/05	Main cofferdam embankment, Zone 1 (core)	m3	21,500						T2.6.2
/06	Main cofferdam embankment, Zone 3 (coarse filter)	m3	9,700						T2.6.3
/07	Main cofferdam embankment, Zone 4 (rock)	m3	128,300						T2.6.4
/08	Main cofferdam embankment, Zone 5 (rock riprap)	m3	6,800						T2.6.5
/09	Surface course for main cofferdam crest (zone 6)	m2	1,520						T5.2.5
/10	Reinforcing bar	ton	116.4						T4.1.18
/11	Primary cofferdam, upstream	LS.							T1.3.3
/12	Downstream cofferdam	LS.							T1.3.3
				<u>Subtotal of item B2</u>					
				<u>TOTAL OF ITEM B</u>					

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause		
C MAIN DAM									
C1 Earthwork									
/01	Clearing and stripping at main dam site, borrow area and quarry site								
	a) Main dam	m2	66,700						T2.2.3
	b) Quarry site	m2	53,000						T2.2.3
	c) Borrow area	m2	200,000						T2.2.3
	d) Reservoir area	m2	332,000						T2.2.3
/02	Excavation common, for foundation of main dam and in open-cut for core wall and drain channel	m3	191,000						T2.4.6
/03	Excavation sand and gravel, for foundation of main dam	m3	9,000						T2.4.6
/04	Excavation weathered rock, for								
	a) Main dam	m3	46,000						T2.4.6
	b) Right abutment	m3	48,200						T2.4.6
	c) Inspection tunnel	m3	2,200						T2.4.6
/05	Excavation rock, for								
	a) Main dam	m3	10,700						T2.4.6
	b) Right abutment	m3	95,800						T2.4.6
	c) Inspection tunnel	m3	1,500						T2.4.6
/06	Underground excavation, for								
	a) Inspection tunnel	m3	2,410						T2.5.6
	b) Grout tunnel No.1	m3	600						T2.5.6
	c) Grout tunnel No.2	m3	5,100						T2.5.6
/07	Trench excavation, all classes, for								
	a) Main dam	m3	11,300						T2.4.6
	b) Inspection tunnel	m3	60						T2.4.6

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause		
/08	Main dam embankment, Zone 1 (core), including hauling, placing and compaction	m3	242,900						T2.6.2
/09	Main dam embankment, Zone 2 (fine filter), including crushing, processing, hauling, placing and compaction	m3	68,800						T2.6.3
/10	Main dam embankment, Zone 3 (coarse filter), including hauling, placing and compaction	m3	63,200						T2.6.3
/11	Main dam embankment, Zone 4 (rock), including hauling, placing and compaction	m3	985,200						T2.6.4
/12	Main dam embankment, Zone 5 (riprap), including hauling, placing and compaction	m3	21,300						T2.6.5
/13	Surface course for main dam crest	m2	1,800						T5.2.5
/14	Compacted sand and gravel fill as base course for main dam crest	m3	300						T5.2.5
/15	Compacted gravel and cobble fill as subbase course for main dam crest	m3	530						T5.2.5
/16	Placing selected material for shoulder protection at dam crest	m3	2,230						T2.7.6
/17	Sod facing on cutting slope on right abutments	m2	2,300						T2.10.5

BQ-10

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/18	Backfill with free drainage materials at portal portion of inspection tunnel	m3	30						T2.7.6
/19	Backfill with randam material for drain ditch and pit of inspection tunnel	m3	10						T2.7.6
/20	Gravel bedding for foundation of cable duct	m3	20						T2.7.6
/21	Excavation for plug concrete for core foundation	m3	7,220						T2.5.6

Subtotal of item C1

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
C2	Drilling and Grouting for Foundation Treatment of Main Dam and Spillway, and Dam Rims								
/01	Drilling curtain grout-holes without core sampling								
	(a) Vertical hole	m	13,770						T3.12.1
	(i) Section from 0 to 30m in length	m	13,770						T3.12.1
	(ii) Section from 30m to 70m in length	m	7,280						T3.12.1
	(b) Inclined hole								
	(i) Section from 0 to 30m in length	m	1,570						T3.12.1
	(ii) Section from 30m to 70m in length	m	930						T3.12.1
/02	Drilling consolidation and blanket grout holes without sampling	m	5,050						T3.12.1
/03	Core drilling								
	(a) Vertical hole	m	450						T3.12.2
	(i) Section from 0 to 30m in length	m	450						T3.12.2
	(ii) Section more than 30m in length	m	420						T3.12.2
	(b) Inclined hole								
	(i) Section from 0 to 30m in length	m	1,290						T3.12.2
	(ii) Section more than 30m in length	m	1,840						T3.12.2
/04	Water pressure test in borehole								
	(a) Under a single pressure	time	5,520						T3.12.3
	(b) Under varied pressure	time	800						T3.12.3

Note: The Tenderer shall fill in J₹ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause		
/05	Packer setting								
	(a) Depth not more than 9 m	time	1,830						T3.12.4
	(b) Depth 10 m to 30 m	time	2,380						T3.12.4
	(c) Depth more than 30 m	time	2,120						T3.12.4
/06	Grouting	ton	1,300						T3.12.5
/07	Material								
	(a) Cement	ton	1,300						T3.12.6
	(b) Sand	ton	10						T3.12.6
	(c) Bentonite	ton	10						T3.12.6
/08	Backfill grouting								
	(a) Inspection tunnel	m3	20						T3.12.8
	(b) Grout tunnel No.1 (right abutment)	m3	10						T3.12.8
	(c) Grout tunnel No.2 (left abutment)	m3	120						T3.12.8

Subtotal of item C2

Note: The Tenderer shall fill in ¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
C3	Concrete Work								
/01	Concrete, Class A, in blockout	m3	10						T4.1.18
/02	Concrete, Class B for drain ditch	m3	110						T4.1.18
/03	Concrete, Class C, in inspection gallery	m3	8,910						T4.1.18
/04	Concrete, Class C, in tunnel lining	m3	3,610						T4.1.18
/05	Concrete, Class C for gravity wall	m3	-						T4.1.18
/06	Backfill concrete, Class E, in dam foundation	m3	-						T4.1.18
/07	Concrete, Class E, plug concrete for core foundation	m3	7,220						T4.1.18
/08	Concrete, Class F for levelling concrete	m3	20						T4.1.18
/09	Form, F1 for items/01, /03, /04 and /05	m2	1,420						T4.1.18
/10	Form, F2 for items/01, /03, /05 and /06	m2	7,860						T4.1.18
/11	Reinforcing bar	ton	315						T4.1.18
/12	Shotcrete on cutting slope on right abutment	m2	4,910						T4.2.7
/13	Waterstop								
	a) Type "A"	m	700						T4.1.18
	b) Type "B"	m	470						T4.1.18
<u>Subtotal of item C3</u>									

BQ-14

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause		
C4	Measuring Apparatus								
/01	Provision, installation, test operation of strain gage type pore pressure meter, including preservation during construction	no.	79						T10.8.1
/02	Provision, installation, test operation of strain gage type earth pressure meter, including preservation during construction	set	4						T10.8.1
/03	Provision, installation, test operation of multi-layer settlement meter, including preservation during construction								
	1) No.1 (Sta. No. 16)	set	1						T10.8.1
	2) No.2 (Sta. No. 10)	set	1						T10.8.1
	Sub-total (/03)								
/04	Provision of surface displacement survey points including installation, testing and maintenance								
	1) Crest	pcs	8						T10.8.2
	2) Slope	pcs	24						T10.8.2
	Sub-total (/04)								
/05	Provision, installation and test operation and maintenance of leakage measuring facility (not including a triangular weir at the outlet of inspection tunnel)	LS.	-						T10.8.3

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foregin Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent		
/06	Provision of water level detector and indicator with gauging staff made of metal plate for reservoir including installation, testing and maintenance	LS.	-						T10.8.4
/07	Provision, installation and test operation and maintenance of relay terminal box and cable								
	1) Relay terminal box	no.	5						T10.8.5
	2) Cable (Chloroprene cabtyre)	m	6,150						T10.8.5
	3) Cable (Chloroprene cabiyre-heavy dut	m	7,390						T10.8.5
	4) Cable (Multi core)	m	950						T10.8.5
	5) Converter	no.	1						T10.8.5
	Sub-total (/07)								
/08	Provision, installation and test operation and maintenance of recording and data processing system								
	1) Data acquisition controller	LS.							T10.9.3
	2) Data processing system with periphei	LS.							T10.9.3
	Sub-total (/08)								
/09	Installation of reference point for sediment monitoring	no.	8						T10.8.2
	Subtotal of item C4								

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
C5	Drainage								
/01	Concrete pipe, 600mm dia.	m	20						T2.9.3
/02	P.V.C. pipe, 75mm dia.	m	110						T2.9.3

Subtotal of item C5

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause		
C6	Miscellaneous Metalwork								
/01	V-notched narrow crested weir	m2	0.9						T9.6.8
/02	Steel handrail, 35 mm dia. steel pipe of inspection gallery	m	280						T9.6.4
/03	Permanent steel support, H-150x150, for inspection tunnel and grout tunnel	ton	125						T2.5.6
/04	Grating for sump pit in inspection gallery	kg	220						T9.6.2
/05	Grating for drain ditch cover at entrance of inspection and grout tunnels	kg	180						T9.6.2
/06	Non-embedded metalwork for entrance c inspection and grout tunnels	kg	400						T9.6.2
/07	Dowel bars in inspection gallery	ton	10						T4.1.18

Subtotal of item C6

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foregin Currency ()		Local Currency (Rs)		Total	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
C7	Other Miscellaneous								
/01	Construction of concrete guard blocks on crest of dam including gravel bedding	no.	170						T5.2.7
/02	Bituminus coating for contraction joint for inspection tunnel, grout tunnels No.1 & No.2	m2	2,500						T4.1.18
/03	Gravel bedding (around portal of inspection tunnel)	m3	10						T2.7.6
/04	Gravel metaling (around portal of inspection tunnel)	m3	5						T2.7.6
/05	Base course (around portal of inspection tunnel)	m3	10						T5.2.5
/06	Sub-base course (around portal of inspection tunnel)	m3	20						T5.2.5
/07	Construction of lighting pole base	no.	20						T5.2.7

Subtotal of item C7

TOTAL OF ITEMS

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
D SPILLWAY									
D1 Earthwork									
/01	Clearing and stripping	m2	44,410						T2.2.3
/02	Excavation, common, in open-cut	m3	153,800						T2.4.6
/03	Excavation, weathered rock, in open-cut	m3	592,500						T2.4.6
/04	Excavation, rock in open-cut	m3	77,900						T2.4.6
/05	Trench excavation, all classes, for underdrain beneath slab	m3	290						T2.4.6
/06	Free draining backfill with selected gravel, for underdrain beneath slab	m3	230						T2.7.6
/07	Free draining backfilling behind wall	m3	14,120						T2.7.6
/08	25mm dia. anchor bar	m	4,810						T2.10.4
/09	29mm dia. anchor bar	m	21,600						T2.10.4
/10	32mm dia. anchor bar	m	11,900						T2.10.4

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
/11	Stone pitching	m2	670						T2.10.5
/12	Sod facing	m2	4,600						T2.10.5
/13	Riprap at slope of spoil bank	m3	710						T2.6.5
/14	Gravel metalling	m3	250						T2.7.6
<u>Subtotal of item D1</u>									

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
D2	Concrete Work								
/01	Concrete, class B, in drain ditch type B	m3	150						T4.1.18
/02	Concrete, class B, in concrete facing	m3	590						T4.1.18
/03	Concrete, class C, in weir	m3	4,140						T4.1.18
/04	Concrete, class C, in chuteway	m3	5,030						T4.1.18
/05	Concrete, class C, in dam abutment and guide wall	m3	7,220						T4.1.18
/06	Concrete, class C, in stilling basin	m3	15,840						T4.1.18
/07	Concrete, class C, in side-channel	m3	13,190						T4.1.18

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/08	Waterstop, type "A"	m	3,320						T4.1.18
/09	Form F1 for item/01 to /07	m2	9,340						T4.1.18
/10	Form F2 for item/01 to /07	m2	6,030						T4.1.18
/11	Form F4 for item/02 to /06	m2	17,050						T4.1.18
/12	Reinforcing bar	ton	930						T4.1.18
/13	Bituminous joint filler in contraction joints	m2	5,800						T4.1.18
/14	Shotcrete on cutting slope on abutment mountain	m2	15,700						T4.2.7
/15	P.V.C. pipe for weep hole, 75 mm dia.	m	90						T2.9.3
Subtotal of item D2									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
D3	Drainage and Aeration								
/01	P.V.C. perforated drain pipe, 250 mm dia.	m	1,100						T2.9.3
/02	Steel drain pipe, 150 mm dia.	m	50						T2.9.3
/03	Steel drain pipe, 250 mm dia.	m	60						T2.9.3
/04	Geo-textile-made drain	m	2,710						T2.9.3

Subtotal of item D3

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
D4	Road Work								
/01	Asphalt pavement	m2	2,210						T5.2.5
/02	Base course	m3	330						T5.2.5
/03	Subbase course	m3	660						T5.2.5

Subtotal of item D4

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
D5	Miscellaneous Metalwork								
/01	Embedded metalwork	kg	5						T9.6.2
/02	Steel trap	kg	5						T9.6.2
Subtotal of item D5									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
D6	Steel Bridge								
/01	Fabrication, transportation and painting								
	- Steel grider	kg	24,100						T11.11.4
	- Painting (shop)	m2	510						T11.11.4
	- Painting (splice)	m2	20						T11.11.4
	- Painting (field)	m2	520						T11.11.4
<u>Subtotal of item D6 /01</u>									
/02	Incidental facilities for bridge								
	- Bearing shoe, 50 ton (Fix)	ea	3						T11.11.4
	- Bearing shoe, 50 ton (Mov.)	ea	3						T11.11.4
	- Expansion joint	kg	3,100						T11.11.4
	- Drainage hole including pipe and catch basin	ea	6						T11.11.4
	- Joint filler	m2	31						T4.1.18
<u>Subtotal of item D6 /02</u>									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/03	Concrete work for superstructure								
	- Concrete class-C for parapet wall and its base for guardrail	m3	21						T4.1.18
	- Concrete class-G for slab	m3	45						T4.1.18
	- Reinforcement bar	ton	11						T4.1.18
	- Form F1	m2	210						T4.1.18
	- Form F3	m2	130						T4.1.18
	<u>Subtotal of item D6 /03</u>								
/04	Surface treatment								
	- Surface treatment	m2	180						T5.2.5
	<u>Subtotal of item D6 /04</u>								
	<u>Subtotal of item D6</u>								
<u>TOTAL OF ITEM D</u>									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
E INTAKE									
E1 Earthwork									
/01	Excavation, weathered rock, in open-cut	m3	290						T2.4.6
/02	Excavation, rock, in open-cut	m3	610						T2.4.6
/03	Anchor bar, 25 mm dia. for sliding	m	630						T2.10.5
/04	Chipping of existing concrete	m3	70						T2.11

Subtotal of item E1

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
E2	Concrete Work								
/01	Concrete, class A, in blockout	m3	20						T4.1.18
/02	Concrete, class B, facing concrete	m3	220						T4.1.18
/03	Concrete, class C, intake structure	m3	3,190						T4.1.18
/04	Concrete, class D, inclined step	m3	80						T4.1.18
/05	Form, F1 for item /01 and /02	m2	160						T4.1.18
/06	Form, F2 for item /02 and /03	m2	3,710						T4.1.18
/07	Reinforcing bar	ton	160						T4.1.18
/08	Waterstop, type "A"	m	70						T4.1.18
/09	Joint filler	m2	340						T4.1.18

Subtotal of item E2

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
E3	Miscellaneous Metalwork								
/01	Embedded metalwork	kg	920						T9.6.2
/02	200ø steel air vent pipe	m	150						T9.6.4

Subtotal of item E3

TOTAL OF ITEMS

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
F RIVER OUTLET WORKS									
F1	Earthwork								
/01	Excavation, underground in valve chamber access shaft	m3	420						T2.4.6
/02	Demolishing concrete lining of diversion tunnel	m3	10						T2.11
/03	Permanent steel support	ton	1						T2.5.6
<u>Subtotal of item F1</u>									
F2	Grouting								
/01	Contact grouting between lining and plug concrete	L.S.	-						T3.12.7
/02	Backfill grouting	m3	3						T3.12.8
<u>Subtotal of item F2</u>									

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs)	
F3 Concrete Work								
/01	Concrete, class C, for lining of access shaft and valve chamber	m3	260					T4.1.18
/02	Concrete, class D, for plug concrete around steel pipe	m3	3,400					T4.1.18
/03	Form, F1 for item /01 and /02	m2	900					T4.1.18
/04	Form, F2 for item /01 and /02	m2	190					T4.1.18
/05	Reinforcing bar	ton	27					T4.1.18
/06	Cooling system and cooling operation for plug concrete including 40 mm ø thermometer, 200 ø drain pipe and drilling ø46mm x 250mm depth hole (6 pieces)	L.S.						T4.3.3
<u>Subtotal of item F3</u>								
F4 Miscellaneous Metalwork								
/01	Embedded metalwork	kg	790					T9.6.2
/02	Stairway and handrail	kg	9,740					T9.6.2
<u>Subtotal of item F4</u>								

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
F5 Miscellaneous Work									
/01	Steel door for valve chamber (1,000 x 1,800)	m2	1.8						T6.13.5
/02	Steel door for valve chamber (1,800 x 800)	m2	1.5						T6.13.5
/03	Drain holes with perforated P.V.C. pipes downstream of plug portion in the diversion tunnel								
	- Drilling (hole diameter; 60 mm)	m	510						T3.13.2
	- Perforated P.V.C. pipe (48mm dia., length 4m)	m	510						T2.9.3

Subtotal of item F5

TOTAL OF ITEM F

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
G HYDRO-MECHANICAL WORKS									
G1 Intake Gates and Hoists									
/01	Gate leaves	LS.							T7.14.4
/02	Guide frames	LS.							T7.14.5
/03	Hoists and controls	LS.							T7.14.6
/04	Spare parts	LS.							T7.8
<u>Subtotal of item G1</u>									
G2 Intake Trash Racks									
/01	Front trash racks	LS.							T7.15.4
/02	Top trash racks	LS.							T7.15.4
<u>Subtotal of item G2</u>									
G3 Water Supply Facilities									
/01	Steel conduit	LS.							T7.16.4
/02	Discharge valve	LS.							T7.16.6
/03	Guard valve	LS.							T7.16.7
/04	Spare parts	LS.							T7.8
<u>Subtotal of item G3</u>									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foregin Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
G4 Operation and Controls									
/01	Control cabinets	LS.							T7.17.2
/02	Oil pressure unit	LS.							T7.17.3
/04	Spare parts	LS.							T7.8
<u>Subtotal of item G4</u>									
G5 Inlet Bulkhead Gate									
/01	Gate leaf	LS.							T7.18.4
/02	Guide frames	LS.							T7.18.5
/03	Spare parts	LS.							T7.8
<u>Subtotal of item G5</u>									
G6 River Outlet Trash Racks									
/01	Trash racks	LS.							T7.19.4
<u>Subtotal of item G6</u>									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
G7 River Outlet Facilities									
/01	Steel conduit	L.S.							T7.20.4
/02	Discharge valve	L.S.							T7.20.6
/03	Guard valve	L.S.							T7.20.7
/04	Spare parts	L.S.							T7.8
	<u>Subtotal of item G7</u>								
G8 Maintenance Equipment and Tools									
/01	Maintenance equipment and tools	L.S.							T7.9
	<u>Subtotal of item G8</u>								
G9 Instructions to Project Staff									
/01	Instructions to project staff	L.S.							T7.1.3
	<u>Subtotal of item G9</u>								
	TOTAL OF ITEM G								

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
H ELECTRICAL WORKS									
H1 Dam Control House									
(1) Lighting and receptacles									
/01	Lighting fixture type A FL-40Wx2	set	5						T8.11
/02	- do - type A FL-40Wx1	set	3						T8.11
/03	- do - type A FL-40Wx1 WP	set	1						T8.11
/04	- do - type B FL-40Wx1	set	1						T8.11
/05	- do - type C FL-40Wx2	set	5						T8.11
/06	- do - type C FL-40Wx1	set	2						T8.11
/07	- do - type D FL-40Wx2	set	12						T8.11
/08	- do - type E IL-20Wx1	set	1						T8.11
/09	- do - type E IL-40Wx1	set	6						T8.11
/10	Electric wire, PVC 600V, 2 sq.mm	m	3,000						T8.11
/11	- do - 3.5 sq.mm	m	1,000						T8.11
/12	Cable, 600V XLPE, 4c - 22 sq.mm	m	100						T8.11
/13	Cable, 600V XLPE, 4c - 38 sq.mm	m	100						T8.11
/14	Conduit, rigid galvanized steel ø16	m	500						T8.11
/15	Conduit, rigid galvanized steel ø22	m	200						T8.11
/16	Conduit, rigid galvanized steel ø36	m	100						T8.11
/17	Conduit, rigid galvanized steel ø54	m	100						T8.11

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Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/18	Tumbler switch, 1P, 15A 300V, simplex	set	15						T8.11
/19	- do - , duplex	set	2						T8.11
/20	Receptacle, ø1,2P,15A 250V, simplex	set	3						T8.11
/21	Receptacle, ø1,2P,15A 250V, duplex	set	13						T8.11
/22	Receptacle, ø3,4P,20A 600V, simplex	set	3						T8.11
/23	Outlet box, 100x100x50mm	set	36						T8.11
/24	Pull box, 100mm x100mm x100 mm	set	10						T8.11
/25	Pull box, 150mm x150mm x100 mm	set	5						T8.11
/26	Pull box, 200mm x200mm x100 mm	set	2						T8.11
/27	Panelboard for lighting and receptacles, type L-A	set	1						T8.11
/28	Panelboard for lighting and receptacles, type L-B	set	1						T8.11
/29	Telephone cable, indoor use	m	100						T8.11
/30	Miscellaneous materials	L.S.							T8.11

Subtotal of item H1

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
H2	Inspection Gallery								
	(1) Electrical installation								
/01	Cable, XLPE 600V, 2c-8 sq.mm	m	500						T8.11
/02	Cable, XLPE 600V, 2c-14 sq.mm	m	1,200						T8.11
/03	Conduit, exposed, ø28mm	m	1,700						T8.11
/04	Lighting fixture FL-40Wx1 water proof type	set	80						T8.11
/05	Distribution panel including MCCBs	set	1						T8.11
/06	Receptacle, ø1,2P,15A 250V, duplex	set	5						T8.11
/07	Outlet box, exposed	set	10						T8.11
/08	Miscellaneous materials	L.S.							T8.11

Subtotal of item H2

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
H3	Gate Control House								
	(1) Lighting and receptacles								
/01	Lighting fixture type A FL-40Wx2	set	2						T8.11
/02	- do - type A FL-40Wx1	set	0						T8.11
/03	- do - type A FL-40Wx1 WP	set	0						T8.11
/04	- do - type B FL-40Wx1	set	0						T8.11
/05	- do - type C FL-40Wx2	set	0						T8.11
/06	- do - type C FL-40Wx1	set	0						T8.11
/07	- do - type D FL-40Wx2	set	0						T8.11
/08	- do - type E IL-20Wx1	set	0						T8.11
/09	- do - type E IL-40Wx1	set	0						T8.11
/10	Electric wire, PVC 600V, 2 sq.mm	m	200						T8.11
/11	- do - 3.5 sq.mm	m	50						T8.11
/12	Cable, 600V XLPE, 4c - 22 sq.mm	m	200						T8.11
/13	Cable, 600V XLPE, 4c - 38 sq.mm	m	0						T8.11
/14	Conduit, rigid galvanized steel ø16	m	50						T8.11
/15	Conduit, rigid galvanized steel ø22	m	20						T8.11
/16	Conduit, rigid galvanized steel ø36	m	200						T8.11
/17	Conduit, rigid galvanized steel ø54	m	0						T8.11

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Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/18	Tumbler switch, 1P, 15A 300V, simplex	set	1						T8.11
/19	- do - , duplex	set	0						T8.11
/20	Receptacle, ø1,2P,15A 250V, simplex	set	0						T8.11
/21	Receptacle, ø1,2P,15A 250V, duplex	set	2						T8.11
/22	Receptacle, ø3,4P,20A 600V, simplex	set	0						T8.11
/23	Outlet box, 100x100x50mm	set	3						T8.11
/24	Pull box, 100mm x100mm x100 mm	set	2						T8.11
/25	Pull box, 150mm x150mm x100 mm	set	0						T8.11
/26	Pull box, 200mm x200mm x100 mm	set	0						T8.11
/27	Panelboard for lighting and receptacles, type L-A	set	1						T8.11
/28	Panelboard for lighting and receptacles, type L-B	set	0						T8.11
/29	Telephone cable, indoor use	m	50						T8.11
/30	Miscellaneous materials	L.S.							T8.11

Subtotal of item H3

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency (____)		Local Currency (Rs)		Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause	
H4	Valve Chamber including Access Shaft							
(1)	Power supply lighting and receptacle outlet facilities							
/01	Panel type, A	set	1					T8.11
/02	Lighting fixture, water proofed type, FL-40W x 1	set	10					T8.11
/03	Lighting fixture, water proofed type, FL-20W x 1	set	10					T8.11
/04	Wire, PVC 600V, 2 sq.mm	m	150					T8.11
/05	Wire, PVC 600V, 3.5 sq.mm	m	150					T8.11
/06	Cable, 600V XLPE, 2c-14 sq.mm	m	50					T8.11
/07	Conduit rigid galvanized steel, ø 16 mm	m	50					T8.11
/08	Conduit rigid galvanized steel, ø 28 mm	m	50					T8.11
/09	Pull box, galvanized metal sheet, 150 mm x 150 mm x 100 mm	set	10					T8.11
/10	Tumbler switch w/ plate, 1P-15A-300V x 1	set	2					T8.11

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/11	Grounding clamp, ø 16	set	20						T8.11
/12	Grounding clamp, ø 28	set	20						T8.11
/13	Miscellaneous materials	L.S.							T8.11

Subtotal of item H4

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
			Unit Price	Amount	Unit Price	Amount		
H5	Grouting Tunnel							
(1)	Lighting and receptacle outlet facilities							
/01	Distribution panel type B including MCCB	set	1				T8.11	
/02	Lighting fixture, FL-40W x 1, water-proofed type	set	20				T8.11	
/03	Cable, 600V XLPE, 2c-22 sq.mm	m	500				T8.11	
/04	Conduit, rigid galvanized steel, exposed, ø 36 mm	m	500				T8.11	
/05	Pull box, galvanized metal sheet, 150 mm x 150 mm x 100 mm	no.	10				T8.11	
/06	Miscellaneous materials	L.S.					T8.11	

Subtotal of item H5

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause	
H6	Outdoor Lighting (dam, spillway, access road including surrounding of gate control house)							
/01	Lighting fixture, NH-220W x 1 waterproof type with steel pole	set	20					T8.11
/02	Lighting fixture, FL-20W x 1 waterproof type	set	23					T8.11
/03	Cable, 600V XLPE, 2c-22 sq.mm	m	600					T8.11
/04	Cable, 600V XLPE, 2c-14 sq.mm	m	60					T8.11
/05	Wire, 600V OW, 14 sq.mm	m	1,200					T8.11
/06	Conduit, rigid galvanized steel, ø 28 mm	m	200					T8.11
/07	Conduit, rigid galvanized steel, ø 36 mm	m	200					T8.11
/08	Steel tubler pole, 7.8 m hight	no.	25					T8.11
/09	Handhole, 900 mm x 900 mm x 1, 300 mm	set	2					T8.11
/10	Distribution panel A including MCCB, MGS & photo switch	set	1					T8.11
/11	Lighting pole foundation for dam crest	LS.						T8.11
/12	Lighting pole foundation for access road	LS.						T8.11

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
/13	Pull box, galvanized metal sheet 150 mm x 150 mm x 100 mm	no.	50						T8.11
/14	Miscellaneous materials	L.S.							T8.11

Subtotal of item H6

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
H7	Grounding System (intake, dam and spillway)								
/01	Grounding conductor, 100 mm ²	m	500						T8.11
/02	Grounding conductor, 38 mm ²	m	100						T8.11
/03	Grounding rod, ø 25 mm x 2 m	no.	200						T8.11
/04	Compression type connector	no.	1,000						T8.11
/05	Grounding plate, 1m x 1m	no.	2						T8.11
/06	Miscellaneous materials	L.S.	-						T8.11

Subtotal of item H7

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
H8	Power Receiving and Distribution System								
(1)	20 kV distribution line materials								
/01	Conductor, ACSR, 58 mm ² , including midspan joint for each drum	km	1						T8.11
/02	Connector, ACSR, 95 mm ² - 58 mm ²	no.	6						T8.11
/03	Ditto, 58 mm ² - 58 mm ²	no.	12						T8.11
/04	22 kV line post insulator, complete with fittings	no.	30						T8.11
/05	22 kV tension insulator string, complete with fittings	set	12						T8.11
/06	Low-voltage spool type insulator, complete with fittings	no.	12						T8.11
/07	Cross arms, with complete set of fittings for 20 kV, Type-A pole use	set	3						T8.11
/08	Ditto, Type-B pole	set	1						T8.11
/09	Ditto, Type-C pole	set	1						T8.11
/10	Ditto, Type-D pole	set	1						T8.11

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
/11	Cross arms, with complete set of fittings for 22 kV, Type-H poles	set	1						T8.11
/12	Ditto, for low-voltage, Type-A pole	set	1						T8.11
/13	Ditto, Type-C pole	set	1						T8.11
/14	Ditto, Type-D pole	set	1						T8.11
/15	Stay guy assembly, complete with anchor	set	12						T8.11
/16	Grounding rod with lead wire	set	10						T8.11
/17	22 kV power cable, XLPE, 3c (triplex), 60 sq.mm(Al)	m	300						T8.11
/18	22 kV cable head and accessories	L.S.							T8.11
/19	Miscellaneous materials	L.S.							T8.11
			Subtotal of item H8/(1)						

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
	(2) Power receiving station facilities								
/01	22 kV incoming cubicles and accessories for dam control house	set	1						T8.11
/02	22 kV transformer (75 kVA) cubicle including switchgear and accessories for dam control house	set	1						T8.11
/03	22 kV lightning arresters with accessories	set	3						T8.11
/04	Cables, wires, grounding materials and other materials to complete cubicle type receiving station	L.S.							T8.11
/05	Transformer, three-phase, 50 kVA, 22 kV/400-230V with accessories for gate control house	no.	1						T8.11
/06	22 kV outdoor switchgear including complete with fittings	L.S.							T8.11
/07	Low-voltage switchgear including complete with fittings	L.S.							T8.11

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/08	Cables, wires, grounding materials and other materials to complete pole assembly type receiving station	L.S.							T8.11
	Subtotal of item H8/(2)								
	Subtotal of item H8								

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
H9	Emergency Power Supply System								
/01	Diesel engine generator set, 75 kVA (60 kW) 3ø 400/230V, 1,500 rpm with accessories	set	1						T8.11
/02	DC power panel including battery and charger and accessories	set	1						T8.11
/03	Automatic starting panel including transfer switch and accessories	set	1						T8.11
/04	Cable, 600V XLPE, 1c-100 sq.mm	m	60						T8.11
/05	Cable, 600V XLPE, 1c-50 sq.mm	m	20						T8.11
/06	Cable, 600V XLPE, 3c-38 sq.mm	m	200						T8.11
/07	Cable, 600V XLPE, 1c-14 sq.mm	m	200						T8.11
/08	Cable, 600V XLPE, 3c-22 sq.mm	m	50						T8.11
/09	Conduit rigid galvanized steel, ø36mm	m	50						T8.11
/10	Conduit rigid galvanized steel, ø70mm	m	200						T8.11

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/11	Pull box, galvanized metal sheet, 300 mm x 300 mm x 250 mm	set	10						T8.11
/12	Grounding clamp, 70ø	set	80						T8.11
/13	Grounding clamp, 36ø	set	50						T8.11
/14	Spare parts	L.S.							T8.11
/15	Miscellaneous materials	L.S.							T8.11
<u>Subtotal of item H9</u>									

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, 300 mm x 300 mm x 250 mm

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
H10	Dam Leakage Water Drainage System								
/01	Submersible type drainage pumps	set	4						T8.11
/02	Pump discharge pipework and valves with support	m	310						T8.11
/03	Pump handling equipment	set	1						T8.11
/04	Submersible mixer	set	1						T8.11
/05	Control panel	set	1						T8.11
/06	Power and control cables	m	500						T8.11
	<u>Subtotal of item H10</u>								

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause or Sub-clause
				Unit Price	Amount	Unit Price	Amount		
H11	Inspection Shaft Entrance House								
(1)	Indoor lighting								
/01	Lighting panel (A)	set	1						T.8.11
/02	Lighting fixture including lamp ballast and fitting FL-40W x 1 (B401WP) waterproof type	set	4						T.8.11
/03	Tumbler switch with outlet box IP-15A-300V x 1 (3 way) water proof type	set	2						T.8.11
/04	Electric conduit including couplings, bushings, junction boxes and accessories 16 mm dia.	m	8						T.8.11
/05	- do -	m	17						T.8.11
/06	Electric wire, P.V.C. insulated, 600 V with terminals, 2.0 mm	m	72						T.8.11
<u>Subtotal of item H11</u>									
TOTAL OF ITEM H									

Note: The Tenderer shall fill in J₹ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs)	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
I BUILDING WORKS									
I1	Dam Control House								
/01	Building works								
1)	Earthwork								
	- Excavation	m3	63						T6.2
	- Backfill	m3	40						T6.2
	- Disposal	m3	23						T6.2
	- Gravel bedding	m3	23						T6.2
2)	Concrete work								
	- Concrete, Class A for structure	m3	113						T6.3
	- Concrete, Class F	m3	3						T6.3
	- Form F1	m2	601						T6.3
	- Form F3	m2	158						T6.3
	- Reinforcing bar	kg	14,800						T6.3
3)	Masonry work								
	- Concrete block wall, 100 mm thick including filling cement mortar and with wire lath	m2	167						T6.4.2
	- Concrete block wall, 200 mm thick including filling cement mortar and with wire lath	m2	172						T6.4.2

Note: The Tenderer shall fill in J₪ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
4)	Bituminous waterproofing work								
	- 3 ply built-up asphalt roofing	m2	194						T6.5.5
	- 2 ply built-up asphalt roofing	m2	24						T6.5.5
5)	Terrazzo work								
	- Terrazzo block on floor including base cement mortar	m2	123						T6.6.3
	- Terrazzo block door sill, W=100mm including base cement mortar	m	1						T6.6.3
	- Terrazzo block shelf, W=150mm including base cement mortar	m	2						T6.6.3
6)	Tile work								
	- Porcelain tile to interior floor including base cement mortar	m2	11						T6.7.3
	- Ceramic tile to interior wall including base cement mortar	m2	48						T6.7.3
	- Porcelain tile to exterior wall including base cement mortar	m2	159						T6.7.3
7)	Plastering work								
	- Cement mortar plaster on floor	m2	94						T6.8.5
	- Base cement mortar plaster 20mm thick for bituminous waterproofing	m2	194						T6.8.5
	- Cement mortar plaster to interior skirting, H=100mm	m	138						T6.8.5
	- Cement mortar plaster to interior wall	m2	516						T6.8.5

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
	- Cement mortar plaster to exterior wall	m2	372						T6.8.5
	- Waterproof cement mortar plaster to roof gutter	m2	16						T6.8.5
	- Concrete trowell finish	m2	33						T6.8.5
8)	Painting work								
	- Oil paint to metal surface	m2	50						T6.9.3
	- Oil paint to wooden surface	m2	39						T6.9.3
	- Vinyl emulsion paint on cement mortar	m2	953						T6.9.3
	- Vinyl emulsion paint on asbestos cement sheet surface	m2	75						T6.9.3
9)	Carpentry and joinery work								
	- Wooden blind box, W200mm x H150mm x T25mm including required accessories	m	10						T6.10.2
10)	Finishing work								
	- Rockwool tile including suspension system and accessories	m2	111						T6.11.3
	- Asbestos cement sheet including suspension system and accessories	m2	75						T6.11.3
	- Vinyl floor tile including base cement mortar	m2	54						T6.11.3
	- Vinyl strip base, H=100mm including base cement mortar	m2	28						T6.11.3

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Ref. Clause
				Unit Price	Amount	Unit Price	Amount Equivalent (Rs) or Sub-clause	
11)	Doors and windows							
	- Wooden door leaves and frames including louvers, hardware and accessories	m2	15					T6.12.2
	- Steel door leaves and frames including hardware, accessories and caiking to outside perimeter	m2	16					T6.13.5
	- Aluminium doors and frames including hardware, accessories and caiking to outside perimeter	m2	4					T6.14.3
	- Aluminium windows and frames including hardware, accessories and caiking to outside perimeter	m2	35					T6.14.3
	- Jalousie windows and frames including hardware, accessories and caiking to outside perimeter	m2	12					T6.14.3
	- Steel window and frames including hardware, accessories	m2	5					T6.13.5
12)	Glazing work							
	- Plate glass 3mm thick including glazing bead	m2	41					T6.15.3
	- Plate glass 5mm thick including glazing bead	m2	5					T6.15.3
	- Plate wire glass 6.8mm thick including glazing bead	m2	9					T6.15.3
	- Figured glass 4mm thick including glazing bead	m2	4					T6.15.3

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
13)	Miscellaneous metal work								
	- Roof drain, cast iron made, 100mm dia.	no	8						T6.16.3
	- Steel pipe handrail, 50mm dia. including balusters	m	8						T6.16.3
	- Stainless steel nosing w/non-slip rubber	m	14						T6.16.3
	- Metal coping	m	59						T6.16.3
14)	Miscellaneous work								
	- PVC downspout, 100mm dia. including accessories	m	30						T6.17.3
	- Kitchen sink unit in kitchen	no	1						T6.17.3
	- Cupboard unit in kitchen	no	1						T6.17.3
	- Vinyl curtain for lavatory including accessories	no	1						T6.17.3
	- Wood bench	no	1						T6.17.3
Subtotal of item /01									

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
/02	Building service works								
1)	Plumbing works								
	i) Water supply								
	- Galvanized steel pipe ø50	m	700						T6.21.2
	- Galvanized steel pipe ø25	m	13						T6.21.2
	- Galvanized steel pipe ø20	m	52						T6.21.2
	- Gate valve ø50	ea	1						T6.21.2
	- Gate valve ø25	ea	1						T6.21.2
	- Gate valve ø20	ea	1						T6.21.2
	- Valve casing	ea	2						T6.21.2
	- Insulation for pipe ø25	m	8						T6.21.2
	- Insulation for pipe ø20	m	26						T6.21.2
	- Anticorrosive tape for pipe ø50	m	700						T6.21.2
	- Anticorrosive tape for pipe ø25	m	5						T6.21.2
	- Anticorrosive tape for pipe ø20	m	28						T6.21.2
	- Painting to exposed pipe ø25	m	8						T6.21.2
	- Painting to exposed pipe ø20	m	26						T6.21.2
	ii) Drainage and sewerage								
	- P.V.C. pipe ø100	m	31						T6.21.2
	- P.V.C. pipe ø75	m	25						T6.21.2
	- P.V.C. pipe ø65	m	23						T6.21.2
	- P.V.C. pipe ø50	m	18						T6.21.2
	- P.V.C. pipe ø40	m	4						T6.21.2
	- P.V.C. pipe ø20	m	3						T6.21.2
	- Floor drain ø50	ea	2						T6.21.2
	- Pipe cleanout ø100	ea	1						T6.21.2
	- Pipe cleanout ø80	ea	1						T6.21.2

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
	- Pipe cleanout ø65	ea	1						T6.21.2
	- Vent cap. ø50	ea	1						T6.21.2
	- Catch basin 450 x 450 w/concrete cover	set	4						T6.21.2
	- Cesspool 450 x 450 w/iron cover	set	2						T6.21.2
iii)	Plumbing fixture								
	- Water closet w/cistern tank	set	1						T6.21.2
	- Urinal, wall hung w/flush valve	set	1						T6.21.2
	- Lavatory sink, wall hung w/faucet stop valve and mirror	set	1						T6.21.2
	- Service sink, floor mounted w/faucet	set	1						T6.21.2
	- shower set w/wall mounted head and stop valve	set	1						T6.21.2
	- Swing faucet	ea	1						T6.21.2
iv)	Septic tank								
	- Factory fabricated septic tank, complete, capacity 16 persons w/blower	set	1						T6.21.2
	- Submerged drain pump 50 l/min., w/controls	set	2						T6.21.2
	- Drain pump pit	ea	1						T6.21.2

Note: The Tenderer shall fill in J₹ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
2)	Airconditioning and ventilation systems								
-	Airconditioner, cassette type room unit, 5,690 kcal/hour x 1,080 m3/hour w/condensing unit	set	2						T6.21.2
-	Airconditioner, cassette type room unit, 4,460 kcal/hour x 960 m3/hour w/condensing unit	set	1						T6.21.2
-	Airconditioner, cassette type room unit, 3,040 kcal/hour x 900 m3/hour w/condensing unit	set	1						T6.21.2
-	Exhaust propeller fan, ø250 wall mounted, 900 m3/h	set	2						T6.21.2
-	Refrigerant copper tube, ø15.9	m	35						T6.21.2
-	Refrigerant copper tube, ø12.7	m	12						T6.21.2
-	Refrigerant copper tube, ø6.4	m	47						T6.21.2
-	Condensed water pipe, P.V.C. ø40	m	14						T6.21.2
-	Condensed water pipe, P.V.C. ø25	m	20						T6.21.2
Subtotal of item /02									
Total of item I1									

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
12	Gate Control House								
	/01 Building works								
1)	Earthwork								
	- Excavation	m3	31						T6.2
	- Backfill	m3	21						T6.2
	- Disposal	m3	10						T6.2
	- Gravel bedding	m3	10						T6.2
2)	Concrete work								
	- Concrete Class A for structure	m3	71						T6.3
	- Concrete Class F	m3	1						T6.3
	- Form F1	m2	212						T6.3
	- Form F3	m2	371						T6.3
	- Reinforcing bar	kg	8,520						T6.3
3)	Bituminous waterproofing work								
	- 3 ply built-up asphalt roofing	m2	105						T6.5.5
4)	Plastering work								
	- Cement mortar plaster on floor	m2	109						T6.8.5
	- Base cement mortar plaster 20mm thick for bituminous waterproofing	m2	105						T6.8.5
	- Cement mortar plaster to interior wall	m2	196						T6.8.5

Note: The Tenderer shall fill in JY or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foregin Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
5)	Painting work								
	- Oil paint to metal surface	m2	10						T6.9.3
	- Vinyl emulsion paint on cement mortar	m2	563						T6.9.3
6)	Doors and windows								
	- Aluminium windows and frames including hardware, accessories and caulking to outside perimeter	m2	9						T6.14.3
	- Steel windows and frames including hardware, accessories and caulking to outside perimeter	m2	2						T6.13.5
7)	Glazing work								
	- Plate glass 3mm thick including glazing bead	m2	10						T6.15.3
8)	Miscellaneous metal work								
	- Roof drain, cast iron made, 100mm dia.	no	2						T6.16.3
	- Metal coping	m	43						T6.16.3
	- Suspension hook ø16	no	3						T6.16.3

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foregin Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		

9)	Miscellaneous work - P.V.C. downspout, 100mm dia. including accessories	m	11						T6.17.3
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Subtotal of item /01

Total of item I2

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
13	Inspection Shaft Entrance House								
	/01 Building work								
	1) Concrete work								
	- Concrete, Class A for structure	m3	7						T6.3
	- Form F1	m2	47						T6.3
	- Form F3	m2	20						T6.3
	- Reinforcing bar	kg	950						T6.3
	2) Masonry work								
	- Concrete block wall, 200 mm thick including filling cement mortar and with wire lath	m2	35						T6.4.2
	3) Plastering work								
	- Cement mortar plaster to interior wall	m2	43						T6.8.5
	- Waterproof cement plaster on roof	m2	24						T6.8.5
	- Cement mortar plaster to exterior wall	m2	63						T6.8.5
	- Waterproof cement plaster to roof parapet	m2	10						T6.8.5
	4) Painting work								
	- Oil paint to metal surface	m2	274						T6.9.3
	- Vinyl emulsion paint on cement mortar	m2	63						T6.9.3

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
5)	Doors and windows								
	- Steel door leaves and frames including hardware, accessories and calking to outside perimeter	m2	4						T6.13.5
	- Jalousie windows and frames including hardware, accessories and calking to outside perimeter	m2	3						T6.13.5
6)	Glazing work								
	- Plate wire glass 6.8 mm thick including glazing bead	m2	3						T6.13.5
7)	Miscellaneous metal work								
	- Steel ladder including steel checkered plate 6 mm thick, base plate, anchor bolt, base mortar and accessories	kg	4,900						T6.16.3
8)	Miscellaneous work								
	- Steel pipe handrail, 40 mm dia. including balusters	m	28						T6.17.3
	- Suspension hook ø16	no	1						T6.17.3
	- P.V.C. downspout, 75 mm dia., L=250 mm	no	2						T6.17.3
				<u>Subtotal of item 101</u>					
				<u>Total of item 13</u>					

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
14	Inspection Gallery including Inspection Tunnel								
/01	Ventilation works								
	- O.A. intake fan, axial flow fan ø700 x 9,720 m3/hour x 45mm Aq x 2.2 kW with concrete base	set	1						T6.21.2
	- Exhaust fan, axial flow fan ø700 x 9,720 m3/hour x 45mm Aq x 2.2 kW	set	1						T6.21.2
	- Air chamber 1,200 x 1,000 x 600 (galvanized steel sheet)	ea	2						T6.21.2
	- O.A. intake louver 1,200 x 1,000	ea	2						T6.21.2
	- Painting of air chamber	m2	8						T6.9.3
				<u>Subtotal of item /01</u>					
				<u>Total of item 14</u>					

Note: The Tenderer shall fill in J\$ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
15	Grout Tunnel								
/01	Ventilation works (No.1 grout tunnel)								
	- O.A. intake fan, axial flow fan ø400 x 2,900m3/hour x 20mm Aq x 0.35 kW	set	1						T6.21.2
	- Spiral duct ø400 (Galvanized steel sheet)	m	85						T6.21.2
	- O.A. intake louver 500 x 600	ea	2						T6.21.2
	- Painting to duct	m2	120						T6.9.3
	<u>Subtotal of item /01</u>								
/02	Ventilation works (No.2 grout tunnel)								
	- O.A. intake fan, axial flow fan ø700 x 8,200m3/hour x 50mm Aq x 2.2 kW w/concrete base	set	1						T6.21.2
	- Spiral duct ø700 (Galvanized steel sheet)	m	425						T6.21.2
	- O.A. intake louver 800 x 1,000	ea	2						T6.21.2
	- Painting to duct	m2	950						T6.9.3
	<u>Subtotal of item /02</u>								
	<u>Total of item 15</u>								
	TOTAL OF ITEM 1								

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

Item No.	Work	Unit	Quantity	Foreign Currency ()		Local Currency (Rs)		Total Equivalent (Rs) or Sub-clause	Ref. Clause
				Unit Price	Amount	Unit Price	Amount		
J REPAIR FOR EXISTING MUNICIPAL DIKE									
/01	Boulder backfilling	m3	570						T2.7.6
/02	Providing of concrete blocks	m3	1,400						T4.1.18
/03	Cement grouting	m	960						T3.12.9

Note: The Tenderer shall fill in J¥ or US\$ in brackets adjacent to "Foreign Currency" described above, which the Tenderer proposes to apply as the foreign currency in the Contract.

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	LIST OF CONSTRUCTION PLANT AND MATERIALS, INCLUDING THEIR SOURCES
SCHEDULE 5	FIELD PERSONNEL
SCHEDULE 6	LIST OF SUB-CONTRACTOR(S)
SCHEDULE 7	DAYWORK
SCHEDULE 8	BREAKDOWN OF PRICES
SCHEDULE 9	CONSTRUCTION TIME SCHEDULE
SCHEDULE 10	DRAWINGS AND DOCUMENTS SUBMITTED WITH TENDER
SCHEDULE 11	INFORMATION ON QUALIFICATION FOR THE WORKS

SCHEDULES OF PARTICULARS
SCHEDULE 1 - 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 Engineer's Order to Commence is issued.

Month	(1) Progress Payment		(2) Advance Payment		(3) Retention Money		(4) Payment to be Made (1) ± (2) ± (3)		(5) Accumulative Payment	
	Foreign Currency ()	Local Currency (Rs.)	Foreign Currency ()	Local Currency (Rs.)	Foreign Currency ()	Local Currency (Rs.)	Foreign Currency ()	Local Currency (Rs.)	Foreign Currency ()	Local Currency (Rs.)
Order to Commence										
1st										
2nd										
3rd										
•										
•										
•										
•										
* 34th										
•										
•										
•										
** 40th										
Total										

Remarks: * Scheduled time for completion of the Construction
 ** Scheduled time for expiration of the Maintenance Period

SCHEDULES 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 Engineer's Order to Commence is issued.

Month	Foremen	Heavy equipment operators	Concrete workers	Mechanics, electricians & fitters	Carpenters	Tunnel workers & drillers	Unskilled labours & helpers	Others	Total
Order to Commence									
1st									
2nd									
3rd									
4th									
5th									
.									
.									
.									
.									
.									
* 34th									
.									
.									
.									
.									
** 40th									
Total									

Note : Each column shall contain figures indicating Mauritian labour + foreign labour = total labour (Ex : 3+1= 4)

Remarks : * Scheduled time for completion of the Construction

** Scheduled time for expiration of the Maintenance Period

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 Engineer's Order to Commence is issued.

Month	Cement	Reinforcement bars	Structural steel	Timber	Plywood	Dynamite	Diesel oil	Aggregates
Commencement								
1								
2								
3								
4								
5								
6								
•								
•								
•								
Completion								
Total Qty								
Unit								
Unit Price								
Amount								
Country of Origin								

SCHEDULE OF PARTICULARSSCHEDULE 4 - LIST OF CONSTRUCTION PLANT AND MATERIALS, INCLUDING THEIR
SOURCES

1. If our Tender is accepted by the Employer we undertake to deploy the Construction Plant and materials listed herein for executing the Works as per the Construction Time Schedule attached to the Tender (SCHEDULE 9).
2. We undertake to initiate delivery of the Construction Plant and materials listed herein to the Site so as to enable to commence the major parts of the Works as early as possible after the Contract becomes effective.
3. The quantities and type of the Construction Plant and materials listed herein are estimated based on our construction method and sequence of the Works (SCHEDULE 10-1) and Construction Time Schedule (SCHEDULE 9). If the quantities and/or type of such Construction Plant and materials are inevitably changed as a result of detailed study on the CPM Network defined in Clause 14 of the Conditions of Contract, we undertake to get the PMO/Engineer informed thereof immediately.

LIST OF MATERIALS AND FUEL

Tenderers shall provide the procurement schedule of the materials (including fuel) which are to be used in the Works in accordance with the following format:

Type of Materials & Fuel	Unit	Quantity	Country of Origin	Estimated C.I.F. or Local Value (Equivalent in J.¥. or U.S.\$)
Cement, ordinary Portland	ton			
Reinforcement Bars	ton			
Structural Steel	ton			
Metal frames (Specify)	ton			
Explosives-gelatine	kg			
Explosives-ammonium nitrate	kg			
Timber (Specify)	m ³			
Diesel fuel	liter			
Gasoline	liter			
Engine oil	liter			
Lubricants	kg			
(Tenderer is to insert other main items of materials and fuel)				

LIST OF CONSTRUCTION PLANT

Tenderers shall provide details of the Construction Plant, whether they are included in the Preparatory Works or the Temporary Works, necessary for the execution of the Works, in accordance with the following format as detailed as possible.

Item of Construction Plant	Quantity	Country of Origin	Year of Make	Capacity of Output	Type, Model and Manufacturer	Present Location	Period to be used for the works	Ownership	Condition	Estimated Present C.I.F. Value (Equivalent in ¥ or US\$)
(Earth-moving equipment)										
(Transporting equipment)										
(Tunneling equipment)										
(Aggregate processing plant)										
(Concrete plant)										
(Drilling and grouting equipment)										
(Compaction equipment)										
(Generators/motors)										
(Tenderer is to list all other items of equipment)										

1: In this column, Tenderers shall indicate whether the Construction Plant is owned by the Tenderer or his proposed Sub-Contractors, or is intended to be newly purchased, or is intended to be hired. If an option to rent has been made, submit certified true copy of the agreement or an affidavit of the owner of the equipment to that effect.

2: New, or if used the date of last major overhaul and hours of operation since overhaul.

SCHEDULE OF PARTICULARS

SCHEDULE 5 - 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) grouting engineer(s), _____ (number of persons) engineering geologist(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 underground works and dam 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. _____, (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. Speciality :
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 :
- (3) Name and address of the Engineer (Consultant) for supervision :
- (4) Indicate features of project (size of structures, work volume and any other particular interest connected with the project) :
.....
.....

- (5) Contract amount (equivalent in U.S.\$.) :
- (6) Position :
- (7) Structures for which the person was responsible:
- (8) Assignment period : from.....(Month)(Year)
: to(Month)(Year)

SCHEDULES OF PARTICULARSSCHEDULE 6 - LIST OF SUB-CONTRACTORS(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-Contract or (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	Period of Time	Name & Address of Employer	Type of Contract
(Equivalent in U.S.\$ 10 ³)				

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

B/Q Item No. Works Estimated Value (Equivalent in J.¥ or US\$)

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

SCHEDULE OF PARTICULARSSCHEDULE 7 - 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, materials/fuel and Construction Plant 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 or Construction Plant 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) and the Construction Plant (equipment used for hauling).

4. Construction Plant

The Contractor shall be entitled to payments for the Construction Plant employed on the Daywork as determined on the basis of actual working hours at the rates quoted in the Daywork Rates for Construction Plant hereof. The rate shall not include the cost of mobilization and demobilization of the Construction Plant, as this shall be deemed to be included in the unit prices for the various items in the Bill of Quantities.

The hourly rates quoted in the Daywork Rates for Construction Plant shall include the Contractor's profit, overhead on and off the Site; insurances if not included in other relevant items and general supervision for such Construction Plant; costs of depreciation, maintenance, spareparts and repairs of such Construction Plant; costs of all fuels, lubricants, expendable supplies and accessories required for the operation of such Construction Plant; and all other incidental charges whatsoever.

In case the Daywork requires the use of Construction Plant not listed in "Daywork Rates for Construction Plant", hourly rates based on rates for similar equipment shall be agreed upon.

5. 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

Class of Labour	(1 of 3) Daily Wages Rate (per 8-hour day) (Rs.)
Mechanics (upto 10 years experience)	
Mechanics (over 10 years experience)	
Electricians (wire men)	
Electricians (skilled)	
Fitters	
Masons	
Brick layers	
Carpenters	
Plasterers	
Welders	
Drillers	
Powdermen	
Pipe-fitters	
Blacksmiths	
Steel benders	
Fixers	
Riggers	
Plumber	
Painters	
Concrete finisher	
Greasers	
Oilers	
Trackmen	
Concrete worker	
Helpers for all class of labour	
Unskilled labourers	

(2 of 3)

Class of Labour	Daily Wages Rate (per 8-hour day) (Rs.)
-----------------	---

Operator of crane, excavator, backhoe bulldozers
vehicles
concrete
overhead loader, graders, air compressors,
powerwinches and other equipment*

Operator of cranes larger than 5-ton
capacity, excavators larger than
0.3 m³ and similar equipment

Operators of crushing and screening plant,
batching and mixing plant and
similar plant*

Foremen and Gangers including labour gangers,
carpenters or masons leading hands

Tunnel workers, skilled

Tunnel workers, unskilled

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 or the Preparatory Works.

(3 of 3)

Class of Labour	Daily Wages Rate (per 8-hour day) (Rs.)
-----------------	---

Insert additional categories of
labour to be provided for Daywork:

DAYWORK RATES FOR MATERIALS

Item of Material	Unit	(1 of 3)	
		Rate Delivered to Store at Site	
		Local Currency (Rs.)	Foreign Currency
Cement, ordinary Portland	ton		
Fine aggregate for concrete (river sand less than 5 mm)	m ³		
Fine aggregate for concrete (crushed sand less than 5 mm)	m ³		
Over 80 mm screened aggregate for road work	m ³		
40 to 80 mm screened aggregate for concrete and road work	m ³		
20 to 40 mm screened aggregate for concrete and road work	m ³		
10 to 20 mm screened aggregate for concrete and road work	m ³		
5 to 10 mm screened aggregate for concrete and road work	m ³		
Unprocessed river sand and gravel	m ³		
Cobble stone	m ³		
Rubble stone for masonry	m ³		
Reinforcement bar (deformed)			
- 28 mm and below	ton		
- 32 mm and over	ton		
Structural steel	ton		
Explosive - gelatine	kg		
Explosives - ammonium nitrate	kg		

(2 of 3)

	Unit	Rate Delivered	
		Local Currency (Rs.)	Foreign Currency ()
Timber - primary hardwood	m ³		
Timber - secondary hardwood	m ³		
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		

(3 of 3)

Rate Delivered	
Local Currency (Rs.)	Foreign Currency ()

Insert below additional materials
to be included for Daywork:

DAYWORK RATES FOR CONSTRUCTION PLANT

Item of Construction Plant	Hourly Rate	
	Local Currency (Rs.)	Foreign Currency ()

Insert below all items of the Construction Plant which Tenderers propose to use for execution of the works in SCHEDULE 9. Also insert the rate per ton per km, applicable for transporting unsuitable excavated materials from the top of gorge to the disposal area with its breakdown. (See Clause T2.4.6)

Note:

(For all the items of the Construction Plant, details such as name of maker, model No., maker's specifications, etc. should be given.)

SCHEDULE OF PARTICULARS

SCHEDULE 8 - BREAKDOWN OF PRICES

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

- Breakdown of Prices for Item No. G,
Hydro-mechanical Works

- Breakdown of Prices for Spare Parts
of Hydro-mechanical Works

SCHEDULE OF PARTICULARSSCHEDULE 8 - BREAKDOWN OF UNIT AND LUMP SUM PRICES OFMAJOR 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
(A) General items	
(B) Cofferdams	
(C) Main Dam	
(D) Spillway	
(E) Intake	
(F) River Outlet Works	
(G) Hydro-mechanical Works	
(H) Electrical Works	
(I) Building Work	
(J) Repair for Existing Municipal Dike	

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 or Lump Sum (J.¥.or US\$) _____ Foreign Currency / _____ Local Currency Rp. _____ / _____

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

BREAKDOWN OF UNIT AND LUMP SUM PRICES OF MAJOR CIVIL WORKS

Item No. C01/08 (in the Bill of Quantities)

Work: Compaction portion only in unit price of main dam embankment (core) for adjustment
due to increase of roller passes if any

Unit Price or Lump Sum (J.¥.or US\$) _____ / _____ Foreign Currency
 Rp. _____ / _____ Local Currency

Descriptions	Unit	Q'ty *	Foreign Currency Unit Price Amount	Local Currency Unit Price Amount
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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

BREAKDOWN OF UNIT AND LUMP SUM PRICES OF MAJOR CIVIL WORKS

Item No. C01/09 (in the Bill of Quantities)

Work: Compaction portion only in unit price of main dam embankment (fine filter) for adjustment due to increase of roller passes if any

Unit Price or Lump Sum (J.¥.or US\$) _____ / _____ Foreign Currency / _____ Local Currency Rp. _____ / _____

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

BREAKDOWN OF UNIT AND LUMP SUM PRICES OF MAJOR CIVIL WORKS

Item No. C01/10 (in the Bill of Quantities)

Work: Compaction portion only in unit price of main dam embankment (coarse filter) for
adjustment due to increase of roller passes if any

Unit Price Foreign Currency Local Currency
 or
 Lump Sum (J.¥.or US\$) _____ / _____ Rp. _____ / _____

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

BREAKDOWN OF UNIT AND LUMP SUM PRICES OF MAJOR CIVIL WORKS

Item No. C01/11 (in the Bill of Quantities)

Work: Compaction portion only in unit price of main dam embankment (rock) for adjustment due to increase of roller passes if any

Unit Price or Lump Sum (J.¥.or US\$) _____ / _____ Foreign Currency
 Rp. _____ / _____ Local Currency

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 8 - BREAKDOWN OF PRICES FOR ITEM NO. G, HYDRO-MECHANICAL WORKS

Item No.	Particulars	Qty (Set)	F.O.B. (F.C.)	Ocean Freight to Port of Port Louis and Insurance (F.C.)	C.I.F. Port Louis (F.C.)	Inland Transportation & Insurance (F.C.) (Rs.)	Erection (F.C.) (Rs.)	F.C.: Foreign Currency in	
								¥.	U.S.\$.
								(1 of 3)	
G1	Intake Gates and Hoists	1 set							
	A01 Gate leaves								
	A02 Guide frames								
	A03 Hoists and controls								
	A04 Spare parts								
	Sub-total (G1)								
G2	Intake Trash Racks	1 set							
	A01 Front trash racks								
	A02 Top trash racks								
	Sub-total (G2)								
G3	Water Supply Facilities								
	A01 Steel conduit								
	A02 Discharge valve								
	A03 Guard valve								
	A04 Spare parts								
	Sub-total (G3)								

SCHEDULE 8 - BREAKDOWN OF PRICES FOR ITEM NO. G, HYDRO-MECHANICAL WORKS

Item No.	Particulars	Q'ty (Set)	F.O.B. (F.C.)	Ocean Freight to Port of Port Louis and Insurance (F.C.)	C.I.F. Port Louis	Inland Transportation & Insurance (F.C.) (Rs.)	Erection (F.C.) (Rs.)	F.C.: Foreign Currency in	
								Y₹.	U.S.\$.
(2 of 3)									
G4	Operation and Controls	1 set							
	A01 Control cabinets								
	A02 Oil pressure unit								
	A03 Spare parts								
	Sub-total (G4)								
G5	Inlet Bulkhead Gate	1 set							
	A01 Gate leaf								
	A02 Guide frames								
	A03 Spare parts								
	Sub-total (G5)								
G6	River Outlet Trash Racks	1 set							
	A01 Trash racks								
	Sub-total (G6)								

SCHEDULE 8 - BREAKDOWN OF PRICES FOR ITEM NO. G, HYDRO-MECHANICAL WORKS

Item No.	Particulars	Q'ty (Set)	F.O.B. (F.C.)	Ocean Freight to Port of Port Louis and Insurance (F.C.)	C.I.F. Port Louis (F.C.)	Inland Transportation & Insurance (F.C.) (Rs.)	Erection (F.C.) (Rs.)	F.C.: Foreign Currency in	
								₪. or U.S.\$.	(3 of 3)
G7	River Outlet Facilities	1 set							
	/01 Steel conduit								
	/02 Discharge valve								
	/03 Guard valve								
	/04 Spare parts								
	Sub-total (G7)								
G8	Closure of Diversion Tunnel Gate	1 set							
	/01 Closure of diversion tunnel gate								
	Sub-total (G8)								
G9	Maintenance Equipment and Tools	1 sets							
	/01 Maintenance equipment and tool								
	Sub-total (G9)								

SCHEDULES OF PARTICULARS

SCHEDULE 10 - DRAWINGS AND DOCUMENTS SUBMITTED WITH TENDER

Tenderer shall submit with his Tender the following information;

10-1. Construction Method and Sequence of Works

- (1) Work quantities of major structures.
- (2) Illustrations and/or descriptions of typical works for temporary cofferdams, diversion and care of water, excavation works including plan of spoil banks, concrete works and drilling and grouting works in major structures.
- (3) Cycle time of excavation work, concrete works and drilling and grouting works of major structures.
- (4) Major equipment to be used for each major work.
- (5) Detailed construction time schedule of major structures.

10-2. 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.

10-3. Schedule of Construction Plant and Equipment

- (1) Utilization schedule of the different items of Construction Plant and equipment (for major items listed from Schedule 4).

10-4. Layout Plans of Construction Plant and Temporary Works

- (1) A layout plan showing the general arrangement of all Construction Plant and Temporary Works, with identification of the required land area.
- (2) Layout of temporary roads.
 - Plan of temporary roads to be constructed including length, width, maximum grade, surface finishing, etc.
- (3) Layout of concrete batching and mixing plant(s) in the Construction Facilities Area.
 - Plan of concrete batching and mixing plant(s) to be provided including location, specifications of plant(s), aggregate stock yard/bins with capacities, etc.
 - Layout of plant(s)
 - Aggregate procurement schedule
 - Production schedule of concrete.
- (4) 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.
- (5) Layout of water supply system.
 - Plan of water supply system including purposes, supply capacity, source of water, etc.
- (6) 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.
- (7) Layout of telecommunication system.
- Plan of telecommunication system including schematic diagrams, telephone system lines, specifications of radio system and emergency units, etc.
- (8) Layout of air supply and ventilation system.
- Plan of air supply and ventilation system including schematic diagram, specifications of equipments, supply lines, etc.
- (9) 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, speciality, etc.
- (10) Layout of other temporary facilities.
- Descriptions, drawings, specifications, conditions, schedule or other items necessary to clarify the other temporary facilities proposed shall be covered.

10-5. Assembly Drawings of Hydromechanical Work

As stipulated in the Technical Specifications.

10-6. Technical Particulars of Hydromechanical Work

The following schedule of Technical Particulars for Hydromechanical Work shall be filled in by the Tenderer. The Particulars will be binding on the Contractor and must not be changed without the written permission of PMO/Engineer:

(1) Intake Gates and Hoists

- a. Total weight of one complete set of intake gate _____ tons
- b. Steel material to be used for gate leaf JIS G _____
- c. Name of manufacturer of gate and guide frames _____
- d. Name of hoist manufacturer _____
- e. Model No. of hoist _____

(2) Intake Trash Racks

- a. Total weight of one complete set of intake trash rack _____ tons
- b. Steel material to be used for intake trash rack JIS G _____
- c. Size of flat bar for trash rack _____ x _____ mm
- d. Name of manufacturer of trash rack _____

(3) Water Supply Facilities

- a. Total weight of steel conduit _____ tons
- b. Steel material to be used for steel conduit JIS G _____
- c. Thickness of shell plate for steel conduit _____ mm
- d. Efficiency of discharge valve _____ %
- e. Stroke of discharge valve _____ mm
- f. Operation speed of discharge valve _____ mm/min.
- g. Operation speed of guard valve _____ mm/min.
- h. Name of manufacturer of steel conduits _____
- i. Name of manufacturer of discharge valve _____
- j. Name of manufacturer of guard valve _____

(4) Operation and Control

- a. Pressure of hydraulic oil _____ kgf/sq.cm
- b. Capacity of oil pump motor _____ kW

- c. Voltage of pump motor _____ V
 - d. Control voltage _____ V
 - e. Material of hydraulic piping JIS G _____
 - f. Name of manufacturer of pressure oil unit _____
- (5) River Outlet Inlet Bulkhead Gate
- a. Total weight of one complete set of bulkhead gate _____ tons
 - b. Steel material to be used for gate leaf JIS G _____
 - c. Name of manufacturer of gate and guide frames _____
- (6) River Outlet Trash Racks
- a. Total weight of one complete set of river outlet trash rack _____ tons
 - b. Steel material to be used for river outlet trash rack JIS G _____
 - c. Size of flat bar for trash rack _____ x _____ mm
 - d. Name of manufacturer of trash rack _____
- (7) River Outlet Facilities
- a. Total weight of steel conduit _____ tons
 - b. Steel material to be used for steel conduit JIS G _____
 - c. Thickness of shell plate for steel conduit _____ mm
 - d. Efficiency of discharge valve _____ %
 - e. Stroke of discharge valve _____ mm
 - f. Operation speed of discharge valve _____ mm/min.
 - g. Operation speed of guard valve _____ mm/min.
 - h. Name of manufacturer of steel conduits _____
 - i. Name of manufacturer of discharge valve _____
 - j. Name of manufacturer of guard valve _____

10-7. Any other information, which, in the opinion of the Tenderer, is important.

10-7 Proposed Departure from Specifications of Hydromechanical Equipment

Chapter, Clause and Paragraph Number of the Specifications applicable	Detail of Departure	Reason for Departure	Increase in Tender Price		Decrease in Tender Price	
			Foreign Currency ()	Local Currency (Rs.)	Foreign Currency ()	Local Currency (Rs.)

SCHEDULES OF PARTICULARSSCHEDULE 11 - INFORMATION ON QUALIFICATION FOR THE WORKS

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

1. Name (s) and address (es) of the Tenderer himself or Sub-Contractor or manufacturer who will undertake the Works.

If he (or they) is Sub-Contractor or manufacturer, the power of attorney to the Tenderer shall be attached.

2. Types and scope of work undertaken by him.

3. Documents stating his qualification:

- (1) Reference and experience on designing, manufacturing and installing or supervising to install similar Plant and/or work required under this Tender Documents. Descriptions should cover;

- Name and address of client.
- Name and location of project.
- Outlines of works, such as size, weight and number of gates, diameter, length and design water head of steel conduit, etc.
- Contract amount.
- Year of completion.

- (2) Financial statement of the firm.

- (3) Description of the manufacturing facilities, their location and their degree of availability for the Works.

- (4) Major item of erection and testing equipment, their present ownership and location, and the dates of their unrestricted availability.

- (5) Proposed site organization in particular relation with the Tenderer, availability of staff and typical resumes for key personnel.

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